

CASE 2387: Appli. of CONTINENTAL
for permission to dispose of salt
water from Anderson Ranch Wolfcamp.

-asa / / o.

2387

plication, Transcript,
and Exhibits, Etc.

OIL CONSERVATION COMMISSION

P. O. BOX 871

SANTA FE, NEW MEXICO

September 5, 1962

C
Continental Oil Company
P. O. Box 1377
Roswell, New Mexico

O
Attention: Mr. W. A. Mead

Gentlemen:

P
Reference is made to your letter of August 27, 1962, wherein you point out the difficulty of disposing of salt water in the previously authorized 9776-9816' zone in your Anderson Ranch Unit Well No. 8 and request administrative approval to selectively perforate additional zones from 9970' to 10,335'.

Y
Inasmuch as the additional sections to be opened to salt water disposal are well below the productive Wolfcamp interval in this area and are in fact considerably lower even than the previously authorized zone, the Commission has no objection to your proposal.

Continental Oil Company is, therefore, hereby authorized to dispose of produced salt water in the intervals 9970-9975', 10,015-10,025', 10,050-10,060', 10,090-10,100', and 10,325-10,335', in addition to the interval 9776-9816' heretofore authorized by the Commission by Order No. R-2078, Case 2387.

Very truly yours,

A. L. PORTER, Jr.
Secretary-Director

ALP/ir

cc: Oil Conservation Commission - Hobbs, New Mexico
Case File 2387



CONTINENTAL OIL COMPANY

P. O. BOX 1377
ROSWELL, NEW MEXICO

August 27, 1962

PRODUCTION DEPARTMENT
NEW MEXICO DIVISION

WM. A. MEAD
DIVISION SUPERINTENDENT
A. B. SLAYBAUGH
ASSISTANT DIVISION SUPERINTENDENT

825 PETROLEUM BUILDING
TELEPHONE: MAIN 2-4202

Mr. A. L. Porter, Jr.
Secretary-Director
New Mexico Oil Conservation Commission
Post Office Box 871
Santa Fe, New Mexico

Dear Mr. Porter:

Re: Case No. 2387, Order No. R-2078
APPLICATION OF CONTINENTAL OIL
COMPANY FOR PERMISSION TO DISPOSE
OF SALT WATER INTO THE WOLFCAMP
FORMATION, LEA COUNTY, NEW MEXICO

The referenced order, approved October 9, 1961, granted authority for the disposal of salt water as outlined therein. It is requested that this order be amended by administrative approval to include additional perforations, within the Wolfcamp formation. The need for additional perforations and the proposed workover procedure is set out below. The proposed work does not alter any of the relative facts, with respect to the initial order, other than to increase the authorized interval for water disposal.

Our effort to dispose of salt water in the Anderson Ranch Unit well No. 8 through perforations at 9776-9816' in the Wolfcamp formation failed. The formation was perforated at 9826' (with four jet shots) and squeezed to insure isolation prior to perforation for water disposal. The perforations at 9776-9816' were acidized with 5,000 gallons of 15 percent acid prior to water injection. When the well was put on water disposal, the injection pressure increased to 2850 psi within ten minutes after injection started. In order to continue salt

Mr. A. L. Porter, Jr.
Page 2

water disposal into the Wolfcamp formation in Anderson Ranch Unit No. 8, it will be necessary to install higher pressure injection equipment or perforate additional section.

It is proposed to: (1) Drill out a bridge plug at 9996', (2) set a bridge plug at 10,400', below the Wolfcamp formation, (3) selectively perforate and acidize the Wolfcamp intervals 9970-9975', 10,015-10,025', 10,050-10,060', 10,090-10,100', 10,325-10,335' for salt water disposal.

The Wolfcamp interval from 9954-10,156' in the Anderson Ranch Unit No. 8 correlates to the Wolfcamp interval from 9914-10,116' in the Gulf Lea State CR NCT-A No. 3 located approximately 1-1/2 miles northwest. Gulf is currently disposing salt water at a rate of approximately 1750 barrels water per day at zero surface pressure in this open hole interval.

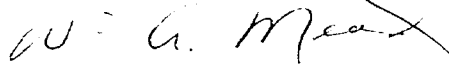
It is anticipated that the proposed work will permit disposal of approximately one-half of the current salt water production from the Anderson Ranch Unit.

The following exhibits are attached in support of this request:

1. Lease plat
2. Log of the injection well
3. Description of the injection well casing program.

Your consideration and approval of this request will be greatly appreciated. We shall be happy to forward any additional information that you require.

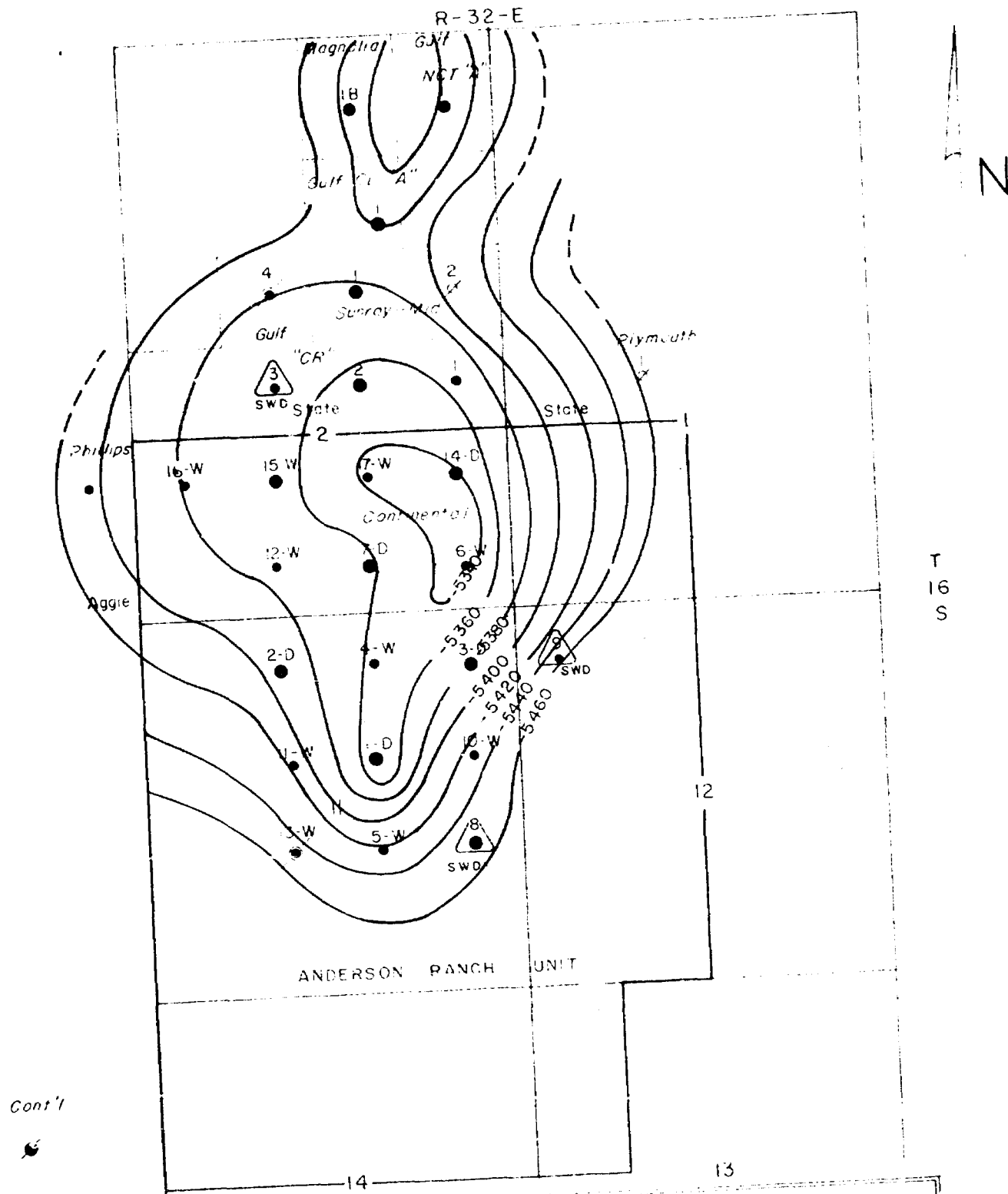
Yours very truly,



Wm. A. Mead

JPB-sg

cc: VGM



Cont'l

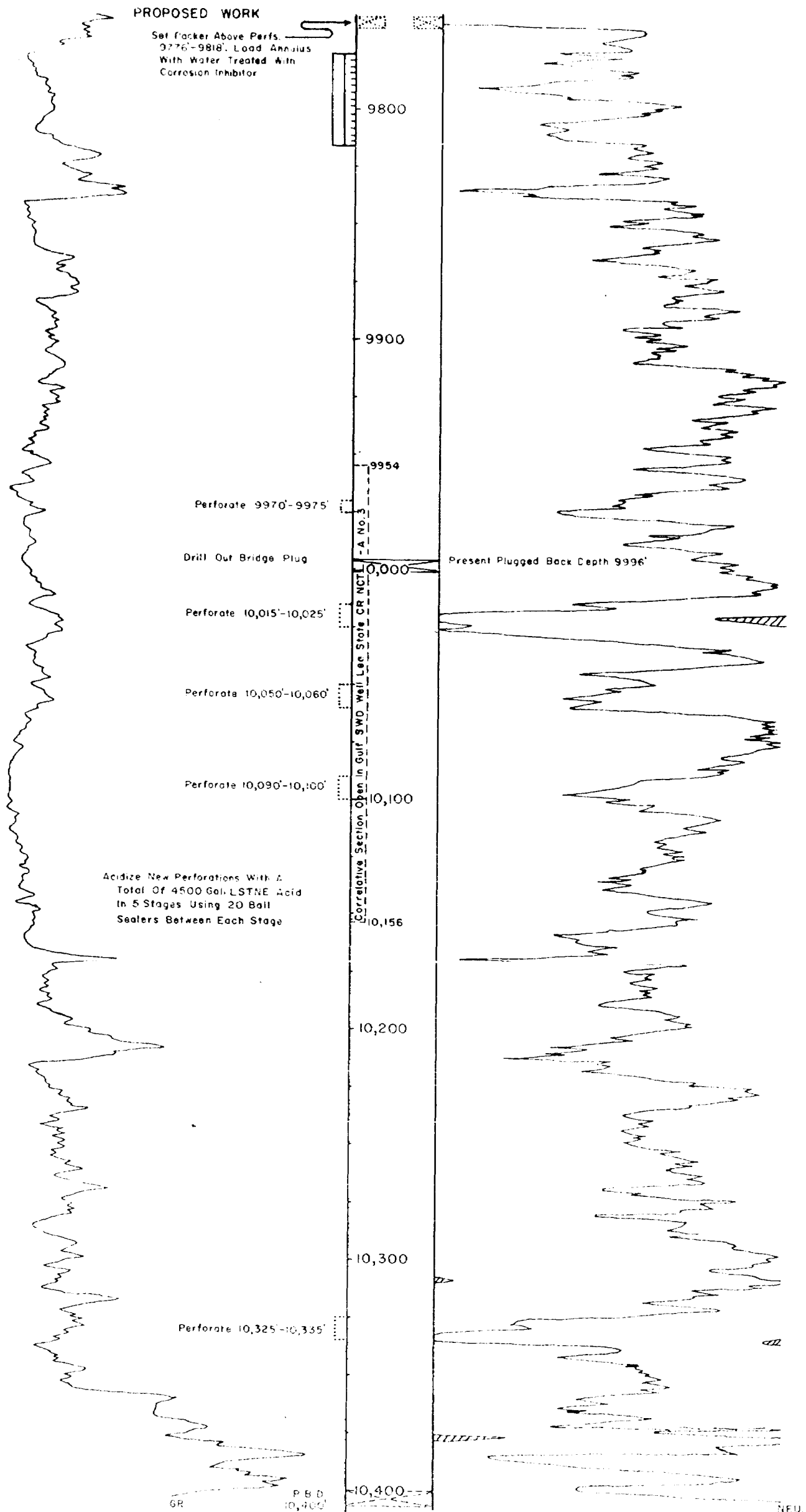
State "Q"

CONTINENTAL OIL COMPANY
PRODUCTION DEPARTMENT
ANDERSON RANCH UNIT
 SCALE 0 1000 2000
 STRUCTURE MAP
 LEGEND TOP OF SAUNDERS LIME
 WOLF CAMP FORMATION
 ● Deviated well
 ● Wolfcamp well
 --- Temp. Aband. well
 CONTOUR INTERVAL 20'
 7-16-62
 IRJD:REC

WELL NO. 8

PROPOSED WORK

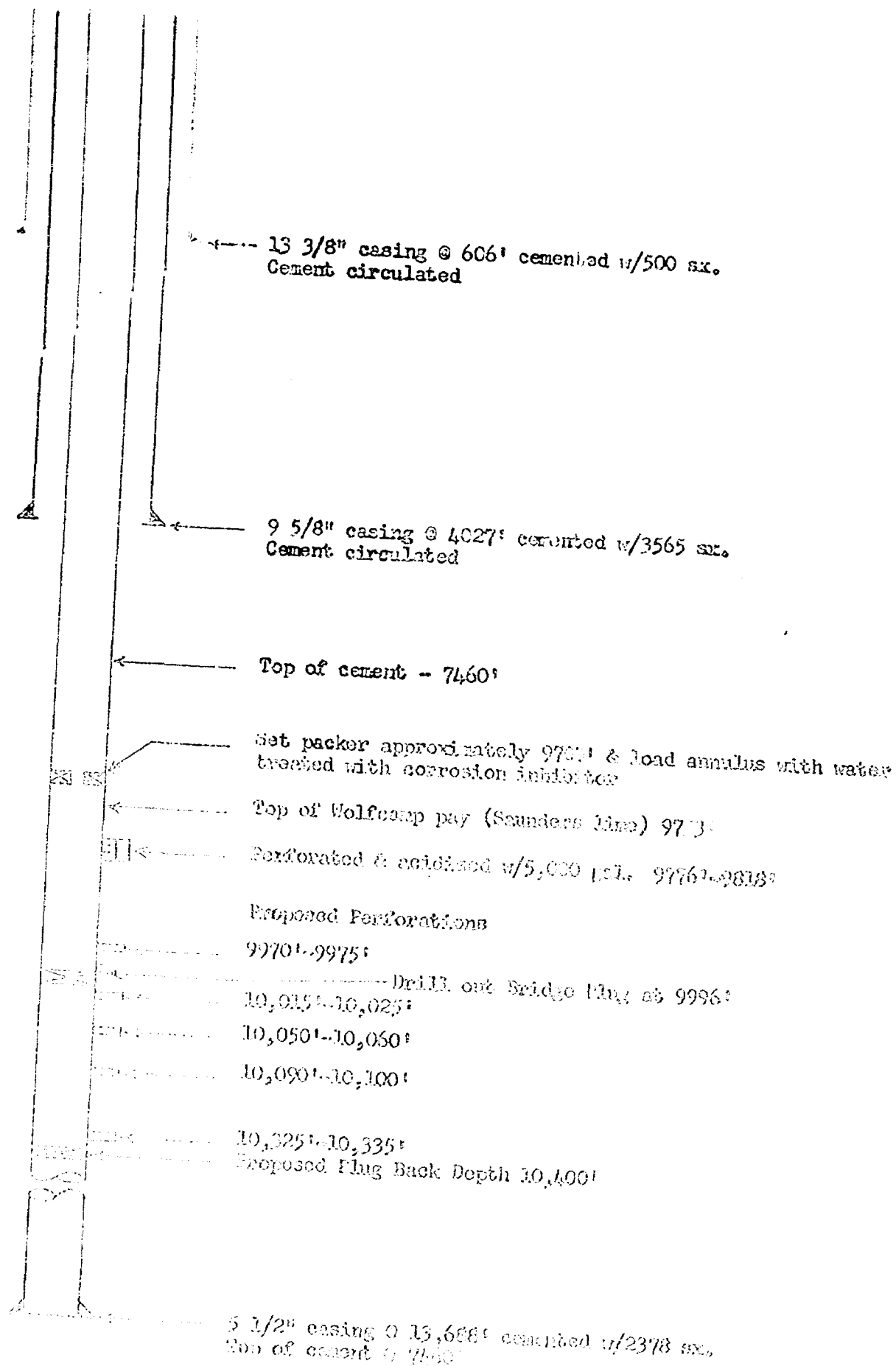
Set Facker Above Perfs.
9776'-9818'. Load Annulus
With Water Treated With
Corrosion Inhibitor



Casing Program

Anderson Ranch Unit

Well No. 8



State of New Mexico
Oil Conservation Commission



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

October 9, 1961

Re: Case No. 2386 & 2387
Order No. R-2077 & R-2078
Applicant:
Continental Oil Company

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

A. L. Porter, Jr

Carbon copy of order also sent to:

OTHER _____

BEFORE THE OIL CONSERVATION COMMISSION
OF THE STATE OF NEW MEXICO

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

CASE No. 2387
Order No. R-2078

APPLICATION OF CONTINENTAL OIL
COMPANY FOR PERMISSION TO DISPOSE
OF SALT WATER INTO THE WOLFCAMP
FORMATION, LEA COUNTY, NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 o'clock a.m. on September 20, 1961, at Santa Fe, New Mexico, before Daniel S. Futter, Examiner duly appointed by the Oil Conservation Commission of New Mexico, hereinafter referred to as the "Commission," in accordance with Rule 1214 of the Commission Rules and Regulations.

NOW, on this 9th day of October, 1961, the Commission, a quorum being present, having considered the application, the evidence adduced, and the recommendations of the Examiner, Daniel S. Futter, 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, Continental Oil Company, is the owner and operator of the Anderson Ranch Unit Well No. 8, located 1980 feet from the South line and 660 feet from the East line of Section 11, Township 16 South, Range 32 East, NMPM, Lea County, New Mexico.

(3) That the applicant proposes to dispose of salt water produced from the Anderson Ranch-Wolfcamp and Anderson Ranch-Devonian Pools into the Wolfcamp formation, utilizing its Anderson Ranch Unit Well No. 8 as an injection well with an injection interval from 9776 feet to 9816 feet.

(4) That injection should be accomplished through tubing, and that the casing-tubing annulus should be filled with a non-corrosive fluid.

(5) That the water being disposed of is not suitable for either domestic or agricultural usage, and that the disposal will

-2-
CASE No. 2387
Order No. R-2078

not impair the production of oil and gas, will not contaminate fresh water sources, and will not impair correlative rights.

(6) That the injection of salt water into the Wolfcamp formation will not cause damage to the reservoir and the injection may, in fact, aid in achieving maximum recovery.

IT IS THEREFORE ORDERED:

(1) That the applicant, Continental Oil Company, is hereby authorized to dispose of produced salt water into the Wolfcamp formation through its Anderson Ranch Unit Well No. 8, located 1980 feet from the South line and 660 feet from the East line of Section 11, Township 16 South, Range 32 East, NMPM, Lea County, New Mexico, with the injection interval from 9776 feet to 9616 feet.

PROVIDED HOWEVER, That injection shall be accomplished through tubing, and that the casing-tubing annulus shall be filled with a non-corrosive fluid.

(2) That the applicant shall submit monthly reports of its disposal operations in accordance with Rules 704 and 1119 of the Commission Rules and Regulations.

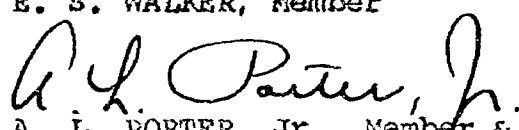
(3) That jurisdiction of this cause is retained for the entry of such further orders as the Commission may deem necessary.

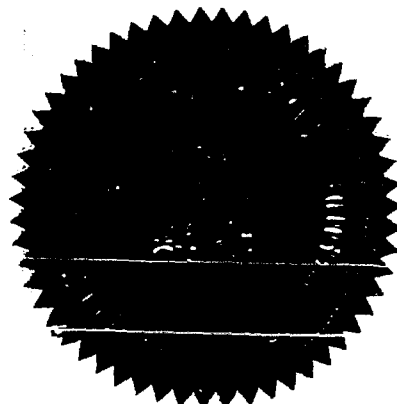
DONE at Santa Fe, New Mexico, on the day and year hereinabove designated.

STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION


EDWIN L. MECHEM, Chairman


E. S. WALKER, Member


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



esr/

OIL CONSERVATION COMMISSION
SANTA FE, NEW MEXICO

Date 9/21

CASE 2387

Hearing Date 9 am 9/20

My recommendations for an order in the above numbered cases are as follows:

Enter an order approving disposal
of salt water into Wolfcamp from
by Pentt Oil Co thru its Anderson
Punch fluid No 8 in NE/4 SE/4 Sec 11
T16S, R 32E.

Provide that disposal shall be
down tubing and that the csg. by
annulus shall be filled with
a non-corrosive fluid.

Injection interval in the WC
shall be from 9776' to 9816'.

Anderson
SANTA FE, N.M.

No 26-61

DOCKET: EXAMINER HEARING - WEDNESDAY - SEPTEMBER 20, 1961

9:00 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 Elvis A. Utz, as alternate examiner:

- CASE 2376: Application of the Oil Conservation Commission on its own motion to abolish certain portions of the San Simon and Wilson Pools in Lea County, New Mexico; to create a new pool for oil production in Township 21 South, Range 35 East, to be designated the North San Simon-Yates Pool; and to establish a limiting gas-oil ratio for said North San Simon-Yates Pool.
- CASE 2377: Application of N. R. Williamson for a waterflood project in the Seven Lakes Pool, McKinley County, New Mexico. Applicant, in the above-styled cause, seeks permission to institute a waterflood project in the Seven Lakes Pool in Sections 18 and 19, Township 18 North, Range 10 West, McKinley County, New Mexico. Applicant further seeks the establishment of procedures for obtaining administrative approval of extensions to the proposed waterflood project.
- CASE 2378: Application of The Atlantic Refining Company for a triple completion, Lea County, New Mexico. Applicant, in the above-styled cause, seeks permission to complete its Carlson Federal "A" Well No. 2, located in Unit J, Section 23, Township 25 South Range 37 East, Lea County, New Mexico, as a triple completion (conventional) in the Paddock, Blinebry and Tubb-Drinkard Pools, the production of oil from each pool to be through parallel strings of 2-inch tubing.
- CASE 2379: Application of The Atlantic Refining Company for a triple completion, Lea County, New Mexico. Applicant, in the above-styled cause, seeks permission to complete its Langlie Federal Well No. 2, located in the NW/4 SE/4 of Section 14, Township 25 South, Range 37 East, Lea County, New Mexico, as an oil-oil-oil triple completion in an undesignated Paddock Pool and in the Justis-Blinebry and Justis Tubb-Drinkard Pools.

- CASE 2380: Application of Consolidated Oil & Gas, Inc. for a non-standard gas proration unit, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks the establishment of a 320-acre non-standard gas proration unit in the Blanco Mesaverde and Basin Dakota Gas Pools comprising the NE/4 of Section 9, and the NW/4 of Section 10, all in Township 31 North, Range 13 West, San Juan County, New Mexico. Said unit is to be dedicated to applicant's Segal Well No. 1-9, located in the NE/4 NE/4 of said Section 9.
- CASE 2381: Application of Southwest Production Company for an order pooling all mineral interests in the Basin-Dakota Gas Pool in the E/2 of Section 22, Township 30 North, Range 12 West, San Juan County, New Mexico.
- CASE 2382: Application of Morris R. Antweil for a non-standard gas proration unit, Lea County, New Mexico. Applicant, in the above-styled cause, seeks the establishment of a 230.95-acre non-standard gas proration unit in the Eumont Gas Pool, consisting of Lot 4 in Section 1, and Lots 1, 2, 3, 7 and 8 in Section 2, all in Township 21 South, Range 35 East, Lea County, New Mexico. Said unit is to be dedicated to applicant's L. W. White Well No. 1, located in the NE/4 NE/4 of said Section 2.
- CASE 2383: Application of C. H. Sweet Oil Company for an exception to Rule 309-A, Lea County, New Mexico. Applicant, in the above-styled cause, seeks an exception to Rule 309-A to permit the oil produced from applicant's McKinley "B" lease, located in the SE/4 NE/4 of Section 20, Township 18 South, Range 38 East, Lea County, New Mexico, to be transported, prior to measurement on said McKinley "B" lease, to applicant's Grimes lease located in the NE/4 SE/4 of said Section 20.
- CASE 2384: Application of General American Oil Company of Texas, for an exception to Rule 309-A, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks an exception to Rule 309-A to permit the Loco Hills oil production from applicant's State Lease B-1778, located in Section 36, Township 17 South, Range 29 East, NMPM, Eddy County, New Mexico, to be transported, prior to measurement on said State Lease B-1778, to applicant's Federal Lease LC 060520, located in Section 31, Township 17 South, Range 30 East.

CASE 2385:

Application of Texaco Inc. for a unit agreement and for a waterflood project, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval of the West Lovington Unit Agreement, covering 2,472 acres, more or less, in Townships 16 and 17 South, Range 36 East, Lea County, New Mexico. Applicant further seeks authority to institute a pool-wide waterflood in the West Lovington Pool by the injection of water into the San Andres formation through 18 wells in Sections 3, 4, 5, 6, 7, 8, and 9, Township 17 South, Range 36 East.

CASE 2386:

Application of Continental Oil Company for the establishment of two non-standard oil proration units in the Empire-Abo Pool, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks the establishment of two non-standard oil proration units in the Empire-Abo Pool described as follows:

(1) Lot 2 and the Southernmost 12.06 acres in Lot 1, Section 30, Township 17 South, Range 29 East, Eddy County, New Mexico, comprising 40 acres. Applicant proposes to dedicate said unit to its State S-30 Well No. 1, 2310 feet from the North line and 330 feet from the West line of said Section 30.

(2) Lot 3 and the Northernmost 11.83 acres of Lot 4, all in said Section 30, comprising 40 acres. Applicant proposes to dedicate said unit to its State S-30 Well No. 3, to be drilled at a standard location in said unit.

CASE 2387:

Application of Continental Oil Company for permission to dispose of salt water, Lea County, New Mexico. Applicant, in the above-styled cause, seeks permission to dispose of produced salt water from the Anderson Ranch Wolfcamp Pool into the Wolfcamp formation through its Anderson Ranch Unit Well No. 8, located 1980 feet from the South line and 660 feet from the East line of Section 11, Township 16 South, Range 32 East, Lea County, New Mexico.

BEFORE THE OIL CONSERVATION COMMISSION
OF THE
STATE OF NEW MEXICO

387

IN THE MATTER OF THE APPLICATION OF
CONTINENTAL OIL COMPANY FOR AUTHORITY
TO DISPOSE OF SALT WATER PRODUCED FROM
THE ANDERSON RANCH WOLFCAMP AND
ANDERSON RANCH DEVONIAN POOLS INTO THE
WOLFCAMP FORMATION IN THE ANDERSON
RANCH UNIT WELL NO. 8, LOCATED 1980
FEET FROM THE SOUTH LINE AND 660 FEET
FROM THE EAST LINE, SECTION 11,
T-16-S, R-32-E, NMPM, LEA COUNTY,
NEW MEXICO

A P P L I C A T I O N

Comes now applicant, Continental Oil Company, and respectfully requests authority under Statewide Rule No. 701(A) to dispose of produced salt water from the Anderson Ranch Wolfcamp formation in the Anderson Ranch Unit well No. 8, located 1980 feet from the south line and 660 feet from the east line, Section 11, T-16-S, R-32-E, NMPM, Lea County, New Mexico, and in support thereof would show:

1. That the applicant is the operator of the Anderson Ranch Unit, located in Sections 1, 2, 11, 12, 13, and 14, T-16-S, R-32-E, Lea County, New Mexico, as approved by Commission Order No. R-154 dated May 1, 1952.
 2. That mineral rights on the above described acreage are held by the State of New Mexico.
 3. That the subject well penetrated all known producing horizons structurally too low to be productive, therefore, injection of water into the Wolfcamp will not cause waste of oil and/or gas in the reservoir.
 4. That the Commission did authorize disposal of salt water into the San Andres formation in the Anderson Ranch Unit well No. 9 by Order No. SWD-16 on May 5, 1958.
 5. That salt water volumes have increased and the pressure has correspondingly increased to the extent that the water cannot efficiently be disposed of in the present disposal
- Handwritten signature/initials in bottom left corner.*

well, Anderson Ranch Unit No. 9. Presently, the Devonian produces 1,200 barrels of salt water per day and the Wolfcamp produces 800 barrels of salt water per day.

6. That the nearest Wolfcamp production outside of the Anderson Ranch Unit is approximately 6,500 feet away from the proposed injection well.

7. That the casing program in the Anderson Ranch Unit well No. 8 is adequate to protect all fresh water resources from salt water contamination.

Wherefore, the applicant prays that this matter be set for hearing before the Commission's duly qualified examiner and that, upon hearing, an order be entered granting applicant permission to dispose of salt water from the Anderson Ranch Unit as described hereinabove.

Respectfully submitted,
CONTINENTAL OIL COMPANY

W. A. Mead
Wm. A. Mead
Division Superintendent
of Production
New Mexico Division

WAM-EL



CONTINENTAL OIL COMPANY

P. O. BOX 1377
ROSWELL NEW MEXICO
August 30, 1961

WM. A. MEAD
DIVISION SUPERINTENDENT
OF PRODUCTION
NEW MEXICO DIVISION

825 PETROLEUM BUILDING
TELEPHONE: MAIN 2-4202

New Mexico Oil Conservation Commission
P. O. Box 871
Santa Fe, New Mexico

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

Gentlemen:

Re: CONTINENTAL OIL COMPANY
APPLICATION FOR AUTHORITY TO
DISPOSE SALT WATER PRODUCED
FROM THE ANDERSON RANCH WOLF--
CAMP AND THE ANDERSON RANCH
DEVONIAN POOLS INTO THE WOLF-
CAMP FORMATION IN THE ANDERSON
RANCH UNIT WELL NO. 8 (R-701
(A))

Attached herewith are three copies of the application
with exhibits by Continental Oil Company to dispose of salt water
produced from the Anderson Ranch Wolfcamp and Devonian Pools into
the Wolfcamp formation in the Anderson Ranch Unit Well No. 8,
located in Section 11, T16S, R32E, NMPM, Lea County, New Mexico.

It is respectfully requested that this application be
set for hearing at your earliest convenience.

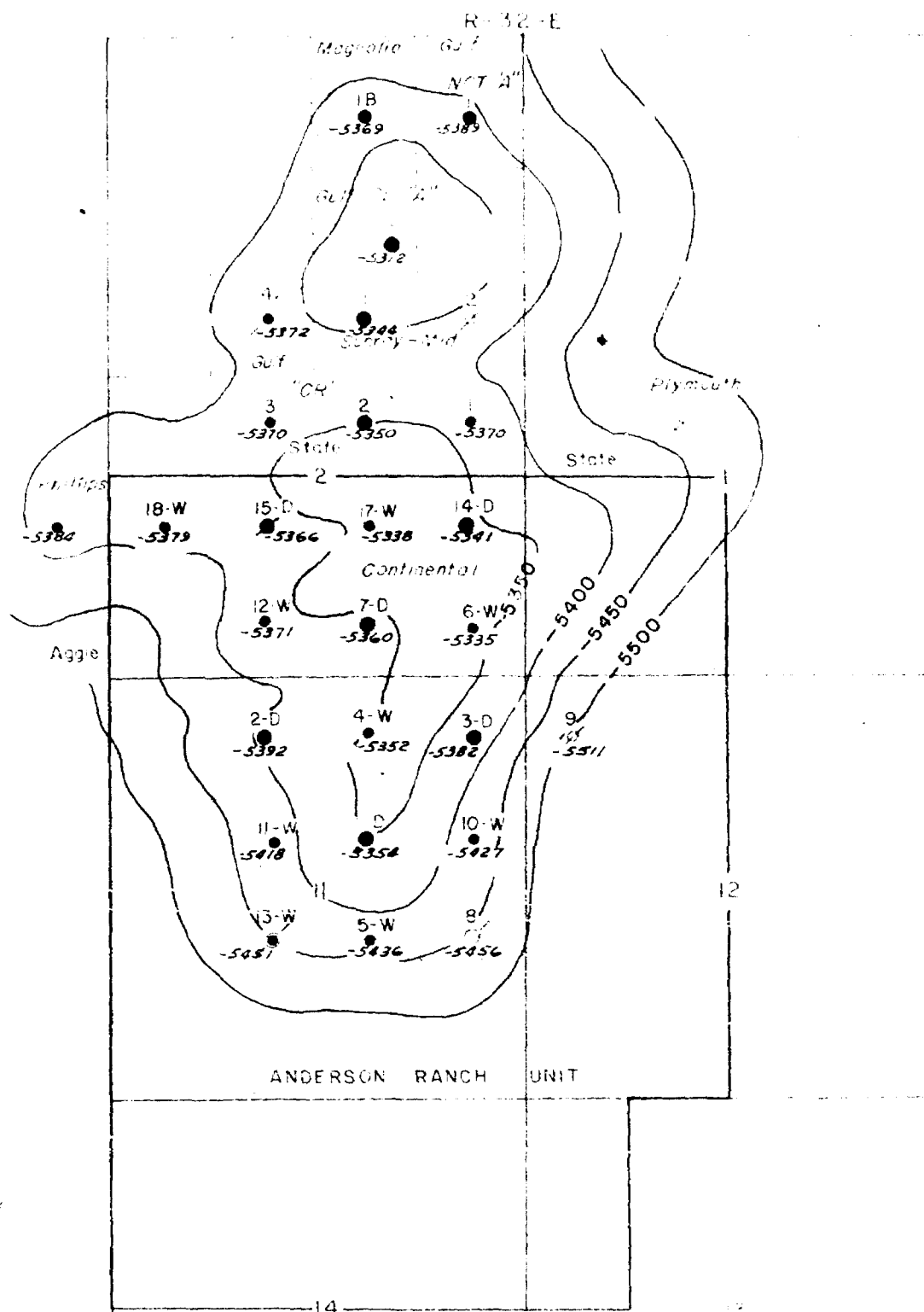
Yours very truly,

W. A. Mead

WAM-sk
Attachment

W. A. Mead
9/8/61

P I O N E E R I N G I N P E T R O L E U M P R O G R E S S S I N C E 1 8 7 5



Cont'd

State of

CONTINENTAL OIL COMPANY PRODUCTION DEPARTMENT

ANDERSON RANCH UNIT

SCALE

STRUCTURE TOP OF SAUNDERS LIME

LEGEND

C.I. 50'

- PRODUCTION WELL
- ABANDONED WELL

Top of Saunders Lime

DATE RECORDED

RECORDED

15
13

BEFORE THE
OIL CONSERVATION COMMISSION
Santa Fe, New Mexico
September 20, 1961

EXAMINER HEARING

CASE 2387

TRANSCRIPT OF HEARING

DEARNLEY-MEIER REPORTING SERVICE, Inc.

PHONE CM 3-6691

ALBUQUERQUE, NEW MEXICO



DEARNLEY-MEIER REPORTING SERVICE, Inc.

PHONE CN 3-6691

ALBUQUERQUE, NEW MEXICO

BEFORE THE
OIL CONSERVATION COMMISSION
Santa Fe, New Mexico
September 20, 1961

EXAMINER HEARING

IN THE MATTER OF:

Application of Continental Oil Company for permission)
to dispose of salt water, Lea County, New Mexico.)
Applicant, in the above-styled cause, seeks permission) Case
to dispose of produced salt water from the Anderson) 2387
Ranch Wolfcamp Pool in to the Wolfcamp formation)
through its Anderson Ranch Unit Well No. 8, located)
1980 feet from the South line and 660 feet from the)
East line of Section 11, Township 16 South, Range 32)
East, Lea County, New Mexico.)

BEFORE:

Daniel S. Nutter, Examiner

TRANSCRIPT OF HEARING

MR. NUTTER: Call case 2387.

MR. MORRIS: Application of Continental Oil Company for
permission to dispose of salt water.

MR. KELLAHIN: May I have the record show the same
appearances, and that Mr. Coltharp, the witness, has been sworn.

E. D. COLTHARP,

called as a witness, having been previously duly sworn, testified
as follows:

DIRECT EXAMINATION

BY MR. KELLAHIN:

Q Would you state your name, please?



DEARNLEY-MEIER REPORTING SERVICE, Inc.

PHONE CH 3-6691

ALBUQUERQUE, NEW MEXICO

A E. D. Coltharp.

Q Are you the same Mr. Coltharp who testified in the preceding case?

A Yes, sir.

Q Mr. Coltharp, are you familiar with the application of Continental Oil Company in Case 2387?

A Yes, sir, I am.

Q Would you state briefly what is proposed in this application?

A Case No. 2387 is the application of Continental Oil Company for authority to dispose of produced salt water from the Anderson Ranch Unit, Wolfcamp and Devonian Pools, into the Wolfcamp formation, Anderson Ranch Unit Well No. 8.

Q I call your attention to the docket where it says the salt water from the Anderson Ranch Wolfcamp Pool. The application actually covers more than that, does it not?

A Yes, sir, it covers also the Devonian Pool, salt water produced from the Devonian Pool also.

Q Do you have a plat showing the area involved in this application? Referring to what has been marked as Exhibit No. 1, will you discuss the information shown on that exhibit?

A Exhibit 1 is the lease plat which shows the area boundaries of the Anderson Ranch Unit as approved by the Commission on May 1, 1952 by Order No. R-154, also the Anderson Ranch Unit boundary embraces portions of Section 1, 2, 12, 13 and 14, and all of



DEARNLEY-MEIER REPORTING SERVICE, Inc.
PHONE CH 3-6691
ALBUQUERQUE, NEW MEXICO

Section 11, Township 16 South, Range 32 East, Lea County, New Mexico.

Q Is Continental Oil Company the unit operator?

A Yes, sir, Continental is the unit operator.

Q In addition to the information you have just stated, what else is shown on Exhibit No. 1?

A Exhibit 1 also indicates those wells which are producing from the Wolfcamp formation, and those wells which are producing from the Devonian formation. The wells circled in red are Wolfcamp; those circled in blue are Devonian, and those that have both blue and red are dual-completed wells in the Wolfcamp and Devonian formations.

Q Does the exhibit likewise show the producing horizon for wells within two miles of the proposed salt water disposal well?

A Yes, sir, it does.

Q And that is all the producing wells within that area, is that correct?

A Yes, sir.

Q Within a radius of two miles?

A Yes, sir.

Q Then, I take it, all of the production in this area is either Devonian or Wolfcamp, is that correct?

A Yes, sir.

Q The salt water disposal will be in the Wolfcamp formation, is that correct?



DEARNLEY-MEIER REPORTING SERVICE, Inc.

PHONE CH 3-6691

ALBUQUERQUE, NEW MEXICO

A Yes, sir.

Q Has disposal of salt water heretofore been approved by the Commission in the Wolfcamp formation?

A Yes, sir, it was approved under application by Gulf Oil Company in Case No. 2008, Order No. R-1719 dated July 15, 1960. The application called for the disposal of water into the Wolfcamp formation in the Gulf Oil Lea State 3-R No. "B" Well, 330 feet from the South line and 980 from the East line, Section 2, Township 16, Range 32.

Q Is that the well that is presently shown on the plat as the No. 3 well, as a wolfcamp producing well?

A Yes, sir, as a Wolfcamp well.

Q What volumes of water will be disposed of in the salt water disposal well?

A We are currently producing approximately 1200 barrels of water from the Devonian formation.

Q Has the Commission authorized disposal of water in any other formation in this area?

A Yes, sir, the Commission authorized the disposal of salt water from the Anderson Ranch Unit into the Saunders formation in the Anderson Ranch Unit Well No. 9 on May the 5th, 1958, by Order No. 342-16.

Q Are you presently disposing of water in that well?

A Yes, sir, we are disposing of 2,000 barrels per day at 2600 pounds pressure and, therefore, we are having great difficulty from this high injection pressure in maintaining pumps and keeping



DEARNLEY-MEIER REPORTING SERVICE, Inc.

PHONE CH 3-6691

ALBUQUERQUE, NEW MEXICO

the operation going twenty-four hours of the day, which is necessary for the unit operations.

Q Is that the reason of the operator seeking a new disposal well?

A Yes, sir, it is.

Q Do you have a log of the proposed disposal well?

A Yes, sir, I do.

Q Referring to what has been marked as Exhibit No. 2, would you discuss the information shown on that exhibit?

A This is a portion of the simultaneous radiation log run on the Anderson Ranch Unit, and the portion includes all of the Wolfcamp formation of interest, and approximately four or five feet above and below this zone of interest. The No. 1, which is marked on the exhibit at approximately ⁹⁷⁵⁰ 9,715, is the top of the ~~San Andres~~ ^{San Andres} lime or the Wolfcamp formation. The No. 2 interval is the interval which was drillstem tested on initial attempted completion of the well, and that drillstem test recovered 1,500 feet of salt water. The No. 3 on the exhibit is the proposed location of a cement retainer plug which we would like to set and squeeze off all perforations that are presently open below this interval.

Q Does this section, as shown on the exhibit, correspond with the Wolfcamp formation found in the other wells in the unit?

A Yes, sir, it does.

Q Is there any oil production from the interval in which you propose to dispose of salt water?



DEARNLEY-MEIER REPORTING SERVICE, Inc.

PHONE CH 3-6691

ALBUQUERQUE, NEW MEXICO

A Based upon the drillstem tests there is no oil production from this interval.

Q What is the structural position of the well in regard to the Saunders lime, do you have an exhibit showing that?

A Yes, sir.

Q Referring to what has been marked as Exhibit No. 3, will you discuss the information shown on that exhibit?

A Exhibit 3 is a structure map, contoured on top of the Saunders lime.

Q How does this exhibit show the structural position of the proposed salt water disposal well?

A The structure is actually 20 feet lower than the two producing wells, Anderson Ranch 5 "W" direct west offset to Anderson Ranch Unit 8, and it is approximately 30 feet lower than the Anderson Ranch 10 "W" direct north offset to the proposed well.

Q Have you prepared an exhibit showing the casing program on this well?

A Yes, I have.

Q Referring to what has been marked as Exhibit No. 4, would you discuss the information on that exhibit?

A Exhibit No. 4 is a schematic of the casing and cementing program in the Anderson Ranch Unit No. 8, also the relative positions of the Saunders lime, proposed perforations in the Wolfcamp, proposed plug-back depths are shown, on the schematic.

Q From the information shown on the exhibit, your surface



DEARNLEY-MEIER REPORTING SERVICE, Inc.

PHONE CH 3-6691

ALBUQUERQUE, NEW MEXICO

string was cemented from 606 feet to the surface, is that correct?

A Yes, sir, it was.

Q Cement was circulated?

A Yes, sir.

Q Your 9-5/8 inch casing from 4,707 feet, was that circulated?

A No -- It is 4,207.

Q 4,207 on the 9-5/8 inch casing, is that correct?

A Yes, sir.

Q And as to the production string which was set, where is the top of the cement on that?

A Top of the cement is indicated by temperature surveys at 7,460.

Q And the temperature survey was run on the well?

A Yes, sir.

Q In your opinion, will this casing program and the cementing program followed fully protect any fresh water zones that may have been encountered in this well?

A Yes, sir, it will.

Q Will it fully protect any producing formations encountered in this well bore?

A Yes, sir, it will.

Q Will disposal of salt water in the Wolfcamp pay as proposed in this application cause any damage to any producing formation?



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A No, sir, it won't.

Q Is your present Anderson Ranch Unit No. 9 Well adequate for salt water disposal?

A No, sir, because of high pressures encountered in trying to inject the water.

Q Is the proposed installation in the interest of conservation and the prevention of waste?

A Yes, sir, it is.

Q Were Exhibits 1 through 4 prepared by you or under your supervision?

A Yes, sir.

MR. KELLAHIN: I would like at this time to offer Exhibits 1 through 4 inclusive.

MR. NUTTER: The exhibits will be admitted in evidence.

MR. KELLAHIN: That is all the questions I have.

MR. NUTTER: Does anyone have any questions of Mr. Coltharp?

CROSS EXAMINATION

BY MR. NUTTER:

Q Mr. Coltharp, when this No. 8 Well was originally completed, casing was run and perforated, but no production at all was obtained, is that correct?

A Sir, that was a Devonian test, and on the way down they did try to drillstem test in the Wolfcamp formation and only recovered water. Then we attempted to complete it in the Pennsyl-



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vanian, and never attempted to complete it in the Wolfcamp because of the water on the drillstem test.

Q What was the interval that was tested on that drillstem test?

A It is shown on the Exhibit 2; it was the No. 2 listed on the log; that was the drillstem test interval.

Q Is it the area marked by the little vertical lines there?

A Yes, sir.

Q Which corresponds with your proposed perforated interval, 8,776 to 9,716?

A That is correct.

Q If you obtained salt water on the drillstem test, evidently that interval from 8,776 to 9,816 is below the oil-water contact?

A That is our assumption; from our information, that is.

Q Is the No. 5 Wolfcamp and the No. 10 Wolfcamp producing water at the present time?

A They are producing some water at the present time.

Q What is their perforated interval, do you know?

A They are -- I don't have it listed right here, but they were right at the very top, approximately eight foot open at the very top of the formation, and from a subsea depth. No. 5 is 5,436 to minus 54, approximately 44.

Q That is the perforated interval.

A Yes, sir.



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Q And the perforated interval, 5,427 to about eight feet below that one?

A Yes, sir, top eight feet.

Q So you don't anticipate the injection of water into the interval here in the No. 8 will flood out the Nos. 5 and 10, then?

A No, sir, we don't.

MR. NUTTER: Any further questions of Mr. Coltharp?

Q (By Mr. Nutter) Are you going to be injecting down the casing or down the tubing?

A We plan on down the tubing.

Q What size of tubing will you have to have to get 2,000 barrels a day?

A We are going to use three-inch.

Q Will that be on a packer?

A No, we are going to keep it open so we can observe all pressures directly and also check the pressure build-up, using the same methods as in the past.

Q Will the annulus between the tubing and casing be filled with any medium?

A Yes, it will be filled with fresh water inhibited.

MR. NUTTER: Any further questions of Mr. Coltharp? Do you have anything further, Mr. Kellahein?

MR. KELLAHEIN: No, that is all, Mr. Nutter.

MR. NUTTER: Does anyone have anything they wish to offer in Case 2387? Take the case under advisement.



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STATE OF NEW MEXICO)
) ss
COUNTY OF BERNALILLO)

I, JUNE PAIGE, Court Reporter, do hereby certify that the foregoing and attached transcript of proceedings before the New Mexico Oil Conservation Commission at Santa Fe, New Mexico, is a true and correct record to the best of my knowledge, skill and ability.

IN WITNESS WHEREOF I have affixed my hand and notarial seal this 2nd day of October, 1961.

June Paige
Notary Public - Court Reporter

My commission expires:

May 11, 1964.

I do hereby certify that the foregoing is a complete record of the proceedings in the Examiner hearing of Case No. 2397, heard by me on 9/20, 1961.

William, Examiner
New Mexico Oil Conservation Commission



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