

CASE 5480: CONTINENTAL OIL COMPANY FOR
SALT WATER DISPOSAL, LEA COUNTY,
NEW MEXICO.

CASE No.

5480

Application,

Transcripts,

Small Exhibits

ETC.

BEFORE THE
NEW MEXICO OIL CONSERVATION COMMISSION
Santa Fe, New Mexico
14 May 1975

EXAMINER HEARING

IN THE MATTER OF:)

Application of Continental Oil Company)
for salt water disposal, Lea County,)
New Mexico. Applicant, in the above-)
styled cause, seeks authority to dispose)
of produced salt water into the Pennsyl-)
vanian formation through the perforated)
interval 7648 to 7690 feet in its SEMU)
Well No. 7 located in Unit F of Section)
23, Township 20 South, Range 37 East,)
Cass-Pennsylvanian Gas Pool, Lea County,)
New Mexico.)

NO. 5480

BEFORE: Daniel S. Nutter, Examiner.

For the New Mexico Oil
Conservation Commission:

William F. Carr, Esq.
Legal Counsel for the Com-
mission
State Land Office Building
Santa Fe, New Mexico 87501

For the Applicant,
Continental Oil Company:

Tom Kellahin, Esq.
KELLAHIN & FOX
500 Don Gaspar
Santa Fe, New Mexico 87501

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

MR. NUTTER: Case 5480.

MR. CARR: Case 5480. Application of Continental Oil Company for salt water disposal, Lea County, New Mexico.

MR. KELLAHIN: If the Examiner please, I'd like to let the record reflect the same appearance, the same witness; that he's previously been qualified and that he's still under oath.

MR. NUTTER: Same appearance; same witness; still sworn.

VICTOR T. LYON,

being called as a witness and being duly sworn upon his oath, testified as follows, to-wit:

DIRECT EXAMINATION

BY MR. KELLAHIN:

Q Please refer to what's been marked as Exhibit Number One, identify it, and state what Continental is seeking.

A Case Number 5480 is the application of Continental Oil Company for authority to inject produced water from the Cass-Penn pool back into the Pennsylvanian formation in its Southeast Monument Unit Well Number 7, located in Unit F of Section 23, Township 20 South, Range 37 East, Lea County, New Mexico. Exhibit Number One is a plat

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which shows this well circled in red and an area two miles in radius around the well. The dashed line is the boundary of the Southeast Monument Unit which is operated by Continental Oil Company and we have shown to the best of our knowledge and belief the location and ownership and the formations which are producing or have produced in the wells within this area. The -- I think that girl has mis-spotted that well. Well Number 95 is shown on this plat as being in Unit J but according to my records the well is actually located in Unit K as shown on the plat which was attached to the application. Anyway, Well Number 95 was recently drilled and completed as an oil well in the Cass-Pennsylvanian Pool. It makes considerable quantities of water and it is proposed to inject this water back into the producing formation through Well Number 7, which is an abandoned producer in the Cass-Penn Pool.

Q Are there any other salt water disposal wells in the unit?

A Not to my knowledge.

Q Please refer to Exhibit Two and identify it.

A Exhibit Number Two is a schematic diagram showing the manner in which the well is proposed to be equipped

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for injection. Three and one-half inch internally plastic coated tubing will be set at 7600 feet on a Baker plastic coated tubing packer. The seven inch tubing is set at 7648 and the top of the cement is at 2875. We propose to inject the water in the open hole interval 7648 to TD 7690. The annular space above the packer between tubing and casing will be filled with an inner fluid and the surface connections will be equipped so that any change in pressure will be readily detectable.

Q What kind of surface equipment will you use?

A The Division has worked up a system whereby a needle valve is installed up there and will be periodically tested to see whether there is any vacuum or pressure. This has been cleared with Mr. Ramey.

Q Please refer to Exhibit Three and identify it.

A Exhibit Number Three is a copy of a portion of the electric log which was run on this well and it shows the casing seat, the open hole interval marked with a bracket, and the notation "Injection Interval".

Q Please refer to Exhibit Number Four and identify it.

A Exhibit Number Four is a form showing the water analyses on several samples which were taken from the Cass-

Pennsylvanian Pool in years past. They are not terribly consistent but the chloride content is fairly moderate; the core samples average about 32,000 parts per million chloride. The water does contain heavy concentrations of hydrogen sulfide, and therefore the water is quite corrosive and we are therefore equipping this disposal well to protect metals as well as we possibly can. We do not expect to encounter pressure injecting this water, at least in the near future. We do have under consideration plans for drilling additional wells which we expect to be water productive also, and it is possible that we could be injecting as much as 5000 barrels per day should this development program progress to several wells.

Q Are there any fresh water wells in the area that would be subject to contamination?

A I really hadn't checked that. I would suspect that there are.

Q Would you anticipate that this method of disposal would insure protection of all fresh water sources?

A Yes. I think this is the safest manner that we can find to dispose of this water.

Q Were Exhibits One through Four either prepared by you directly or under your direction and supervision?

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A Yes, they were.

Q In your opinion, Mr. Lyon, will granting this application be in the best interests of conservation, prevention of waste, and the protection of correlative rights?

A Yes.

MR. KELLAHIN: We move the introduction of Exhibits One, Two, Three and Four.

MR. NUTTER: Exhibits One through Four will be admitted.

QUESTIONS BY MR. NUTTER:

Q Mr. Lyon, referring to your Exhibit Number One, I guess it is, the plat, yes, which wells on here are the wells producing from the Pennsylvanian formation?

A There's only one well producing from the Pennsylvanian at this time and that is Number 95.

Q The new well?

A Yes.

Q Now there are a couple of others that have the "C" symbol on them, which according to your legend would be Cass-Penn.

A Yes.

Q Are they abandoned, then, or temporarily aban-

done in the Pennsylvanian?

A They are temporarily abandoned.

Q Is it anticipated that those wells would be re-opened or put back on production?

A I understand that, let's see, Number 4, I believe it is, is being surveyed to see whether it might be feasible to return that well to production.

Q But in any event, you do have plans for drilling additional Pennsylvanian wells in here?

A Yes.

Q So you don't know what your ultimate water production will be?

A Right, and we expect that the water production in Number 95 will increase. This pool has in the past produced large quantities of water. We had previously disposed of it in our Skaggs Waterflood but this is very undesirable water for waterflood operations.

Q Well now, is this injection interval, this open hole interval, in this well the equivalent interval that's producing from the other wells and from the Number 95 well?

A Yes, it is.

Q Is any damage to those wells going to result from injecting this water into the formation?

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A We don't expect there to be any effect at all from this. The water that's being returned is infinitesimal compared to the water influx.

Q There is a very active water drive in this?

A Very active water drive.

Q Now, let's see. You mentioned that it had a high concentration of hydrogen sulfide and yet the lab analysis doesn't even address itself to hydrogen sulfide.

A That's true, and I was a little concerned about this. I didn't want to mislead the Examiner. My personal knowledge, I know that it has large quantities of hydrogen sulfide. They just did not test for it in this sample.

MR. NUTTER: Are there any other questions of this witness?

MR. KELLAHIN: No, sir.

MR. NUTTER: He may be excused. Anything further?

MR. KELLAHIN: No, sir.

MR. NUTTER: Is there anything further in this case?

(No response.)

MR. NUTTER: We'll take the case under advisement.

(Hearing concluded.)

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. 5480
Order No. R-5026

APPLICATION OF CONTINENTAL OIL
COMPANY FOR SALT WATER DISPOSAL,
LEA COUNTY, NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on May 14, 1975,
at Santa Fe, New Mexico, before Examiner, Daniel S. Nutter.

NOW, on this 22nd day of May, 1975, 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, Continental Oil Company, is the
owner and operator of the SEMU Well No. 7, located in Unit F
of Section 23, Township 20 South, Range 37 East, NMPM, Cass-
Pennsylvanian Gas Pool, Lea County, New Mexico.

(3) That the applicant proposes to utilize said well to
dispose of produced salt water into the Pennsylvanian formation,
with injection into the open-hole interval from approximately
7648 feet to 7690 feet.

(4) That the injection should be accomplished through
3 1/2-inch plastic lined tubing installed in a packer set at
approximately 7600 feet; that the casing-tubing annulus should
be filled with an inert fluid; and that a pressure gauge or
approved leak detection device should be attached to the annu-
lus in order to determine leakage in the casing, tubing, or
packer.

(5) That the operator should notify the supervisor of the
Hobbs district office of the Commission of the date and time of
the installation of disposal equipment so that the same may be
inspected.

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Case No. 5480
Order No. R-5026

(6) That the operator should take all steps necessary to ensure that the injected water enters only the proposed injection interval and is not permitted to escape to other formations or onto the surface.

(7) That approval of the subject application will prevent the drilling of unnecessary wells and otherwise prevent waste and protect correlative rights.

IT IS THEREFORE ORDERED:

(1) That the applicant, Continental Oil Company, is hereby authorized to utilize its SEMU Well No. 7, located in Unit F of Section 23, Township 20 South, Range 37 East, NMPM, Cass-Pennsylvanian Gas Pool, Lea County, New Mexico, to dispose of produced salt water into the Pennsylvanian formation, injection to be accomplished through 3 1/2-inch tubing installed in a packer set at approximately 7600 feet, with injection into the open-hole interval from approximately 7648 feet to 7690 feet;

PROVIDED HOWEVER, that the tubing shall be plastic-lined; that the casing-tubing annulus shall be filled with an inert fluid; and that a pressure gauge shall be attached to the annulus or the annulus shall be equipped with an approved leak detection device in order to determine leakage in the casing, tubing, or packer.

(2) That the operator shall notify the supervisor of the Hobbs district office of the Commission of the date and time of the installation of disposal equipment so that the same may be inspected.

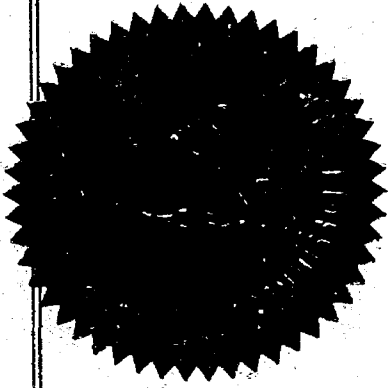
(3) That the operator shall immediately notify the supervisor of the Commission's Hobbs district office of the failure of the tubing, casing, or packer, in said well or the leakage of water from or around said well and shall take such steps as may be timely and necessary to correct such failure or leakage.

(4) That the applicant shall submit monthly reports of its disposal operations in accordance with Rules 704 and 1120 of the Commission Rules and Regulations.

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

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Case No. 5480
Order No. R-5026

DONE at Santa Fe, New Mexico, on the day and year herein-
above designated.



STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION

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

Phil R. Lucero
PHIL R. LUCERO, Member

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

S E A L

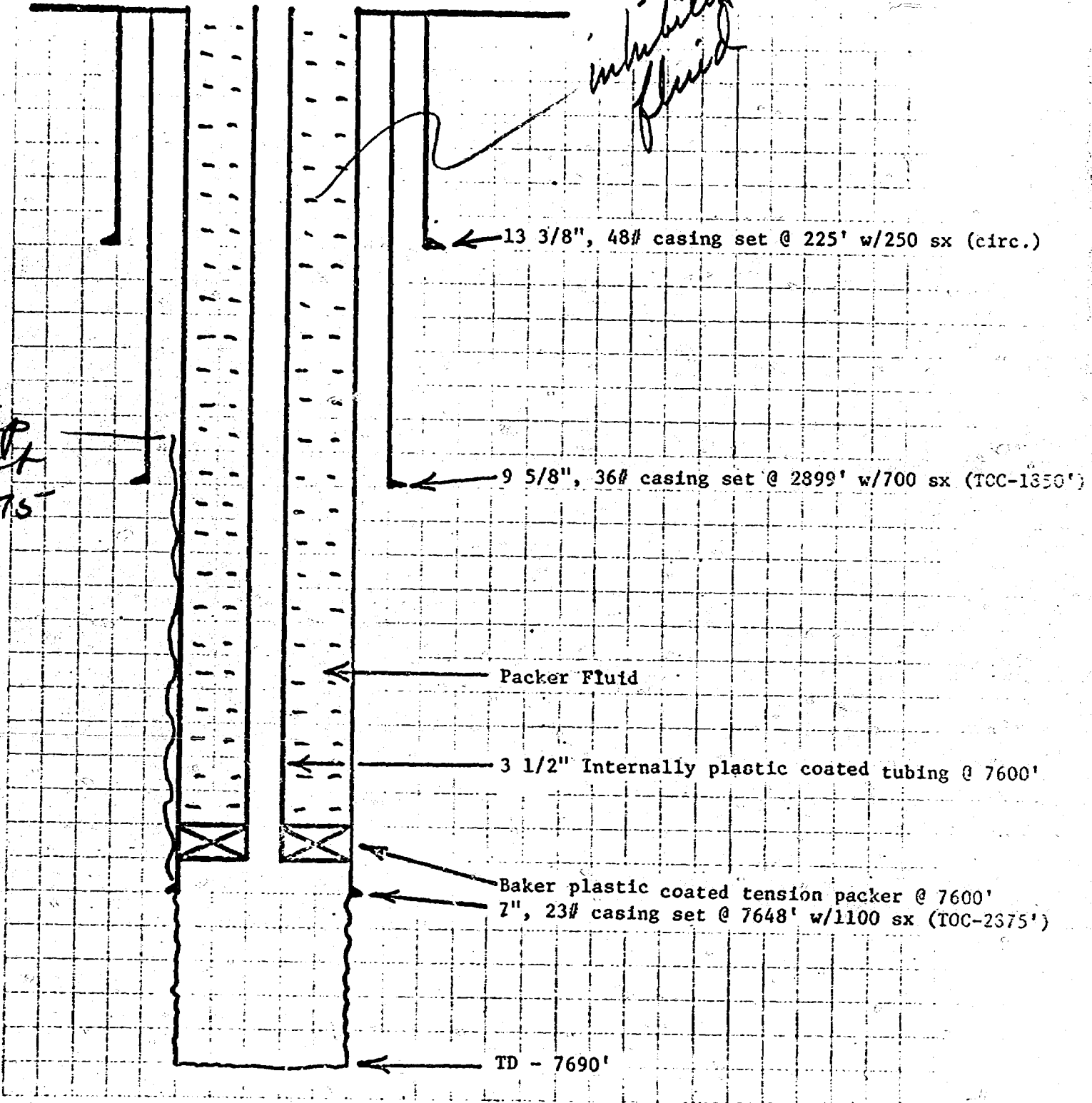
jr/

*pressure
detection
device*

SEMU Penn #7
"0" - 10' ABHF

*inhibited
fluid*

*Top
Curt
2875*



MADE BY.....
CHECKED BY.....
DATE.....
PAGE..... OF.....

CONTINENTAL OIL COMPANY
CALCULATION SHEET

JOB NO.....
FIELD.....
STATE.....

TITLE Proposed Condition

BEFORE EXAMINER NUTTER
OIL CONSERVATION COMMISSION
Conoco EXHIBIT NO. 2
CASE NO. 5480

6882 F
6885 T

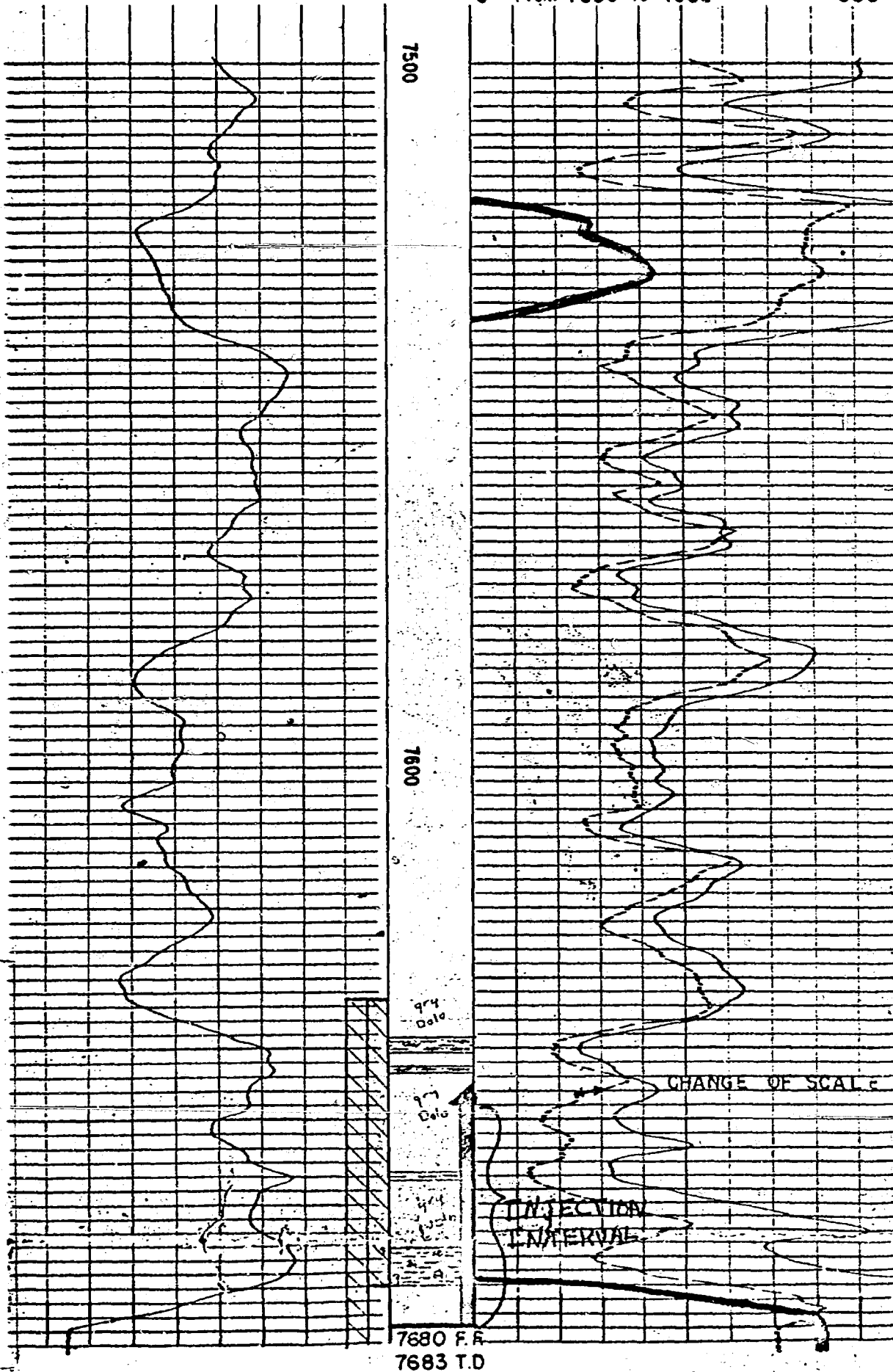
SEM U Penn #7
23-20S-37E

1980' FNL:FWL

S.P.

- 15 +

0	Resistivity	100
100		200
0	From 7500 to 7650	150
0	From 7650 to 7680	300



BEFORE EXAMINER NOTTER
OIL CONSERVATION COMMISSION
Case No. EXHIBIT NO. 3
CASE NO. 5480

7680 F.F.
7683 T.D.

WATER ANALYSIS RESULTS



BRADFORD LABORATORIES

CLIENT: CONTINENTAL OIL COMPANY

Case No.

Sample No.	X-1	X-2	X-3	X-4
Date Sampled	11-14-67	11-14-67	11-14-67	11-14-67
Time Sampled				
Date Received	11-14-67	11-14-67	11-14-67	11-14-67
Location:				
SOUTHEAST MONUMENT UNIT LEA COUNTY, NEW MEXICO	S.E.M.U. #2	S.E.M.U. #3	S.E.M.U. #4	S.E.M.U. #7
Appearance When Sampled				
Appearance After Standing				
Odor				
Temperature °F	110		113	104
pH	6.4	ND	6.6	6.5
Carbon Dioxide CO ₂	500	ND	340	370
Dissolved Oxygen O ₂				
Residual Chlorine Cl ₂				
Hydrogen Sulfide H ₂ S	<i>did not test for H₂S has high H₂S content</i>			
Turbidity SiO ₂				
Carbonate Alkalinity CO ₃	0.0	ND	0.0	0.0
Bicarbonate Alkalinity HCO ₃	820	ND	840	750
Chlorides Cl	43,500	43,500	28,000	55,000
Total Hardness CaCO ₃				
Calcium Ca	3,450	2,700	2,700	4,100
Magnesium Mg				
Sulfates SO ₄	3,000	1,570	3,400	2,350
Meta Phosphate NaPO ₃				
Manganese Mn				
Iron (Total) Fe	1.5	3.0	0.8	0.9
Iron (Dissolved) Fe				
Total Solids				
Suspended Solids				
Specific Gravity (60°F)				

Results expressed in mg/liter - "ND" means not determined.

BEFORE EXAMINER NUTTER
OIL CONSERVATION COMMISSION
Conoco EXHIBIT NO. 4
CASE NO. 5480

Dockets Nos. 12-75 and 13-75 are tentatively set for hearing on May 28 and June 11, 1975. Applications for hearing must be filed at least 22 days in advance of hearing date.

DOCKET: EXAMINER HEARING - WEDNESDAY - MAY 14, 1975

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 from seventeen prorated pools in Lea, Eddy, Roosevelt and Chaves Counties, New Mexico, for June, 1975.
 - (2) Consideration of the allowable production of gas from five prorated pools in San Juan, Rio Arriba, and Sandoval Counties, New Mexico, for June, 1975.

CASE 5429: (Continued from the March 5, 1975 Examiner Hearing)

In the matter of the hearing called by the Oil Conservation Commission on its own motion to permit Charles M. Goad and United States Fidelity & Guaranty Company and all other interested parties to appear and show cause why the Charles M. Goad, State No. 1 Well located in Unit M of Section 28, Township 2 South, Range 26 East, De Baca County, New Mexico, should not be plugged and abandoned in accordance with a Commission-approved plugging program.

CASE 5408: (Continued from the April 2, 1975 Examiner Hearing)

In the matter of the hearing called by the Oil Conservation Commission on its own motion to permit W. E. Medlock and Reliance Insurance Company and all other interested parties to appear and show cause why the Queen Ridge No. 1 Well located in Unit M of Section 36, Township 10 South, Range 26 East, Chaves County, New Mexico, should not be plugged and abandoned in accordance with a Commission-approved plugging program.

CASE 5469: Application of Read & Stevens for an unorthodox gas well location, Chaves County, New Mexico. Applicant, in the above-styled cause, seeks approval for the unorthodox gas well location of a well to be drilled at a point 990 feet from the South and East line of Section 7, Township 15 South, Range 28 East, Chaves County, New Mexico, in exception to the Buffalo Valley-Pennsylvanian Gas Pool Rules.

CASE 5470: Application of Maralo, Inc. for a unit agreement, Chaves County, New Mexico. Applicant, in the above-styled cause, seeks approval for the Butler Springs Unit Area comprising 3841 acres, more or less, of state and federal lands in Townships 14 and 15 South, Range 28 East, Chaves County, New Mexico.

- CASE 5471: Application of Union Texas Petroleum for downhole commingling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for the downhole commingling of Justis Blinbry and Justis Tubb-Drinkard production in the wellbore of its Carlson "B" Wells Nos. 1 and 2 located in Unit P of Section 23 and Unit H of Section 26, respectively, Township 25 South, Range 37 East, Lea County, New Mexico.
- CASE 5472: Application of Mesa Petroleum Co. for an unorthodox gas well location, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for the unorthodox gas well location of a well to be drilled at a point 660 feet from the North and East line of Section 6, Township 26 South, Range 33 East, Red Hills Field, Lea County, New Mexico.
- CASE 5473: Application of Mesa Petroleum Co. for pool creation and special pool rules, Lea County, New Mexico. Applicant, in the above-styled cause, seeks the creation of a new oil pool for Drinkard production for its West Knowles Well No. 1 located in Unit P of Section 34, Township 16 South, Range 37 East, Lea County, New Mexico, and for the promulgation of special rules therefore, including a provision for 80-acre spacing units.
- CASE 5474: Application of Gulf Oil Company for two non-standard locations and the amendment of Order Nos. R-2904 and R-2909, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for the unorthodox location of its Central Drinkard Unit Wells Nos. 101 and 401 located, respectively, 554 feet from the North line and 766 feet from the East line, and 660 feet from the North and East lines of Section 28, Township 21 South, Range 37 East, Drinkard Pool, Lea County, New Mexico. Applicant further seeks the amendment of Order No. R-2904 which order approved the Central Drinkard Unit Agreement to provide that the vertical limits of the unitized formation shall include the entire Drinkard formation; application further seeks the amendment of Order No. R-4909 which approved the Central Drinkard Unit Waterflood Project to provide an administrative procedure for the approval of additional unorthodox well locations.
- CASE 5475: Application of Mobil Oil Corporation for salt water disposal, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to dispose of produced salt water into the Lower Siluro-Devonian formation in the open-hole interval from 12,188 feet to 12,525 feet in its Santa Fe Pacific Well No. 9, located in Unit E of Section 35, Township 9 South, Range 36 East, Crossroads Siluro-Devonian Pool, Lea County, New Mexico.
- CASE 5476: 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 in the Wolfcamp formation underlying the NE/4 of Section 30, Township 22 South, Range 27 East, and in the Pennsylvanian formation underlying the E/2 of said Section 30, to be dedicated to a proposed gas well to be drilled at an orthodox location for both formations. 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 will be the designation of the applicant as operator of the well and a charge for the risk involved in drilling said well.

(gg) EXTEND the Round Tank San Andres Pool in Chaves County, New Mexico, to include therein:

TOWNSHIP 15 SOUTH, RANGE 29 EAST, NMPM
Section 31: NW/4 NW/4

(hh) EXTEND the vertical limits of the Sand Hills-San Andres Pool in Lea County, New Mexico, to include the Grayburg formation.

(ii) EXTEND the Sulimar Queen Pool in Chaves County, New Mexico, to include therein:

TOWNSHIP 15 SOUTH, RANGE 30 EAST, NMPM
Section 18: SW/4 SW/4

(jj) EXTEND the Tres Papalotes-Pennsylvanian Pool in Lea County, New Mexico, to include therein:

TOWNSHIP 15 SOUTH, RANGE 34 EAST, NMPM
Section 5: SW/4

(kk) EXTEND the Turkey Track Queen-Grayburg Pool in Eddy County, New Mexico, to include therein:

TOWNSHIP 18 SOUTH, RANGE 29 EAST, NMPM
Section 32: NE/4 NE/4

(q) EXTEND the Blinebry Oil and Gas Pool in Lea County, New Mexico, to include therein:

TOWNSHIP 20 SOUTH, RANGE 38 EAST, NMPM
Section 27: SE/4

(r) EXTEND the Buffalo Valley-Pennsylvanian Gas Pool in Chaves County, New Mexico, to include therein:

TOWNSHIP 15 SOUTH, RANGE 27 EAST, NMPM
Section 3: N/2

(s) EXTEND the Burton Flat-Morrow Gas Pool in Eddy County, New Mexico, to include therein:

TOWNSHIP 21 SOUTH, RANGE 27 EAST, NMPM
Section 18: N/2

(t) EXTEND the South Carlsbad-Atoka Gas Pool in Eddy County, New Mexico, to include therein:

TOWNSHIP 23 SOUTH, RANGE 26 EAST, NMPM
Section 3: W/2
Section 11: All

TOWNSHIP 23 SOUTH, RANGE 27 EAST, NMPM
Section 8: All
Section 17: N/2

(u) EXTEND the South Carlsbad-Morrow Gas Pool in Eddy County, New Mexico, to include therein:

TOWNSHIP 23 SOUTH, RANGE 26 EAST, NMPM
Section 16: S/2

TOWNSHIP 24 SOUTH, RANGE 26 EAST, NMPM
Section 1: W/2

(v) ESTABLISH a discovery allowable in the Casey-Strawn Pool in Lea County, New Mexico, and assign 56,630 barrels of discovery allowable to the discovery well, the C & K Petroleum, Inc. Shipp "27" Well No. 1, located in Unit 0 of Section 27, Township 16 South, Range 37 East, NMPM.

(w) EXTEND the Cerca-Upper Pennsylvanian Pool in Lea County, New Mexico, to include therein:

TOWNSHIP 13 SOUTH, RANGE 34 EAST, NMPM
Section 27: S/2 and NE/4

(x) EXTEND the East Chisum San Andres Pool in Chaves County, New Mexico, to include therein:

TOWNSHIP 11 SOUTH, RANGE 28 EAST, NMPM
Section 16: NE/4 NE/4

(y) EXTEND the Double L Queen Associated Pool in Chaves County, New Mexico, to include therein:

TOWNSHIP 14 SOUTH, RANGE 29 EAST, NMPM
Section 23: NE/4

TOWNSHIP 14 SOUTH, RANGE 30 EAST, NMPM
Section 32: N/2 and SW/4

TOWNSHIP 15 SOUTH, RANGE 30 EAST, NMPM
Section 17: N/2

(z) EXTEND the Double X-Delaware Pool in Lea County, New Mexico, to include therein:

TOWNSHIP 24 SOUTH, RANGE 32 EAST, NMPM
Section 27: NE/4

(aa) EXTEND the Drinkard Pool in Lea County, New Mexico, to include therein:

TOWNSHIP 21 SOUTH, RANGE 36 EAST, NMPM
Section 36: SW/4

(bb) EXTEND the East Empire Yates Seven Rivers Pool in Eddy County, New Mexico, to include therein:

TOWNSHIP 17 SOUTH, RANGE 28 EAST, NMPM
Section 34: W/2 NE/4

(cc) EXTEND the Kennedy Farms-Morrow Gas Pool in Eddy County, New Mexico, to include therein:

TOWNSHIP 17 SOUTH, RANGE 26 EAST, NMPM
Section 22: E/2

(dd) EXTEND the Penasco Draw-San Andres-Yeso Pool in Eddy County, New Mexico, to include therein:

TOWNSHIP 18 SOUTH, RANGE 26 EAST, NMPM
Section 30: NW/4 SW/4

(ee) EXTEND the Ranger Lake-Bough Pool in Lea County, New Mexico, to include therein:

TOWNSHIP 12 SOUTH, RANGE 34 EAST, NMPM
Section 23: SW/4

(ff) EXTEND the Rock Tank-Lower Morrow Gas Pool in Eddy County, New Mexico, to include therein:

TOWNSHIP 23 SOUTH, RANGE 25 EAST, NMPM
Section 18: All

TOWNSHIP 21 SOUTH, RANGE 29 EAST, NMPM

Section 6: Lots 1, 2, 7, 8, 9, 10, 15, and 16

(f) CREATE a new pool in Eddy County, New Mexico, classified as a gas pool for Atoka production and designated as the Grayburg-Atoka Gas Pool. The discovery well is the Horizon Oil & Gas Co. of Texas State 28 Com Well No. 2, located in Unit K of Section 28, Township 17 South, Range 29 East, NMPM. Said pool would comprise:

TOWNSHIP 17 SOUTH, RANGE 29 EAST, NMPM

Section 28: S/2

Section 29: E/2

(g) CREATE a new pool in Eddy County, New Mexico, classified as a gas pool for Premier production and designated as the High Nitro-Premier Gas Pool. The discovery well is the McClellan Oil Corporation Hinkle Federal Well No. 1, located in Unit A of Section 9, Township 16 South, Range 29 East, NMPM. Said pool would comprise:

TOWNSHIP 16 SOUTH, RANGE 29 EAST, NMPM

Section 3: SW/4

Section 4: SE/4

Section 9: NE/4

(h) CREATE a new pool in Eddy County, New Mexico, classified as a gas pool for Morrow production and designated as the Hoag Tank-Morrow Gas Pool. The discovery well is the Yates Petroleum Corporation Allison CQ Federal Well No. 1, located in Unit P of Section 22, Township 19 South, Range 24 East, NMPM. Said pool would comprise:

TOWNSHIP 19 SOUTH, RANGE 24 EAST, NMPM

Section 22: E/2

(i) CREATE a new pool in Eddy County, New Mexico, classified as a gas pool for Morrow production and designated as the N. W. Indian Basin-Morrow Gas Pool. The discovery well is the Charles A. Dean Northwest Indian Basin Well No. 1Y, located in Unit K of Section 28, Township 20 South, Range 23 East, NMPM. Said pool would comprise:

TOWNSHIP 20 SOUTH, RANGE 23 EAST, NMPM

Section 28: W/2

(j) CREATE a new pool in Chaves County, New Mexico, classified as an oil pool for San Andres production and designated as the Lonesome-San Andres Pool. The discovery well is the Phillips Petroleum Company Luther A Well No. 1 located in Unit N of Section 18, Township 8 South, Range 32 East, NMPM. Said pool would comprise:

TOWNSHIP 8 SOUTH, RANGE 32 EAST, NMPM

Section 18: SW/4

(k) CREATE a new pool in Eddy County, New Mexico, classified as a gas pool for Wolfcamp production and designated as the South Rocky Arroyo-Wolfcamp Gas Pool. The discovery well is the El Paso Natural Gas Co. Patterson A Well No. 1, located in Unit N of Section 20, Township 22 South, Range 22 East, NMPM. Said pool would comprise:

TOWNSHIP 22 SOUTH, RANGE 22 EAST, NMPM
Section 20: SW/4

(l) CREATE a new pool in Eddy County, New Mexico, classified as a gas pool for Atoka production and designated as the Sheep Draw-Atoka Gas Pool. The discovery well is the Hanagan Petroleum Corp. Mary Federal Well No. 1, located in Unit H of Section 11, Township 23 South, Range 25 East, NMPM. Said pool would comprise:

TOWNSHIP 23 SOUTH, RANGE 25 EAST, NMPM
Section 11: E/2

(m) CREATE a new pool in Eddy County, New Mexico, classified as a gas pool for Morrow production and designated as the Sheep Draw-Morrow Gas Pool. The discovery well is the Hanagan Petroleum Corp. Mary Federal Well No. 1 located in Unit H of Section 11, Township 23 South, Range 25 East, NMPM. Said pool would comprise:

TOWNSHIP 23 SOUTH, RANGE 25 EAST, NMPM
Section 11: E/2
Section 12: W/2

(n) CREATE a new pool in Lea County, New Mexico, classified as an oil pool and designated as the Shipp-Drinkard Pool and assign 41,650 barrels of discovery allowable to the discovery well, the Mesa Petroleum Company West Knowles Well No. 1, located in Unit P of Section 34, Township 16 South, Range 37 East, NMPM. Said pool would comprise:

TOWNSHIP 16 SOUTH, RANGE 37 EAST, NMPM
Section 34: SE/4

(o) EXTEND the Atoka-Pennsylvanian Gas Pool in Eddy County, New Mexico, to include therein:

TOWNSHIP 18 SOUTH, RANGE 26 EAST, NMPM
Section 2: All

(p) EXTEND the North Benson Queen-Grayburg Pool in Eddy County, New Mexico, to include therein:

TOWNSHIP 18 SOUTH, RANGE 30 EAST, NMPM
Section 32: N/2 NE/4

CASE 5477: Application of Cities Service Oil Company for compulsory pooling and an unorthodox location, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the Pennsylvanian formation underlying the W/2 of Section 18, Township 22 South, Range 27 East, South Carlsbad Field, Eddy County, New Mexico, to be dedicated to a well to be drilled at an unorthodox location for said unit 1650 feet from the South line and 1980 feet from the West line of said Section 18. 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 will be the designation of the application as operator of the well and a charge for the risk involved in drilling said well.

CASE 5478: Application of Continental Oil Company for a dual completion, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for the dual completion of its Warren Unit Well No. 31 located in Unit O of Section 27, Township 20 South, Range 38 East, Lea County, New Mexico, in such a manner as to produce oil from the Blinebry Oil and Gas Pool and oil from the Warren-Tubb Gas Pool through parallel strings of tubing.

CASE 5479: Application of Continental Oil Company for two non-standard gas proration units, two unorthodox locations, and simultaneous dedication, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for a non-standard gas proration unit comprising Lots 1, 2, and 3 and Lots 6 through 11 of Section 4, Township 11 South, Range 36 East, Eumont Gas Pool, Lea County, New Mexico, to be dedicated to its Meyer B-4 Well No. 14 located in Unit G of said Section 4. Applicant further seeks approval of a 360-acre Eumont Gas proration unit comprising Lots 14, 15, and 16 and the SE/4 and E/2 SW/4 of said Section 4 to be simultaneously dedicated to its Meyer B-4 Well No. 4 and 29 at unorthodox locations in Units S and P, respectively, of said Section 4.

CASE 5480: Application of Continental Oil Company for salt water disposal, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to dispose of produced salt water into the Pennsylvanian formation through the perforated interval 7648 to 7690 feet in its SEMU Well No. 7 located in Unit F of Section 23, Township 20 South, Range 37 East, Cass-Pennsylvanian Gas Pool, Lea County, New Mexico.

CASE 5481: Application of Phillips Petroleum Company for downhole commingling, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks approval for the downhole commingling of South Carlsbad-Atoka and South Carlsbad-Morrow gas production in the wellbore of its Tidwell-A "COM" Well No. 1 located in Unit E of Section 8, Township 23 South, Range 27 East, Eddy County, New Mexico.

CASE 5482: Application of Phillips Petroleum Company for an unorthodox gas well location and simultaneous dedication, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for the unorthodox location of its Lusk Deep Unit "A" Well No. 1 located in Unit A of Section 19, Township 19 South, Range 32 East, Lusk-Morrow Gas Pool, Lea County, New Mexico, and the simultaneous dedication of said Section 19 to the above well and to applicant's Lusk Deep Unit "A" Well No. 5 located in Unit J of said Section 19.

CASE 5483: Application of Phillips Petroleum Company for a dual completion, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval to dually complete its Lusk Deep Unit "A" Well No. 12 located in Unit G of Section 20, Township 19 South, Range 32 East, Lusk Field, Lea County, New Mexico, in such a manner as to produce oil from the Wolfcamp formation through the casing-tubing annulus and gas from the Lusk-Morrow Gas Pool through tubing.

CASE 5484: Southeastern New Mexico nomenclature case calling for the creation and extension of certain pools in Lea, Eddy, and Chaves Counties, New Mexico and for the assignment of certain oil well discovery allowables.

(a) CREATE a new pool in Eddy County, New Mexico, classified as a gas pool for Wolfcamp production and designated as the East Carlsbad-Wolfcamp Gas Pool. The discovery well is the Champlin Petroleum Co. Nix-Yates Well No. 1, located in Unit G of Section 2, Township 22 South, Range 27 East, NMPM. Said pool would comprise:

TOWNSHIP 21 SOUTH, RANGE 27 EAST, NMPM
Section 36: SW/4

TOWNSHIP 22 SOUTH, RANGE 27 EAST, NMPM
Section 1: NW/4
Section 2: NE/4

(b) CREATE a new pool in Eddy County, New Mexico, classified as a gas pool for Wolfcamp production and designated as the Cemetary-Wolfcamp Gas Pool. The discovery well is the Read & Stevens, Inc. Allirish Well No. 1, located in Unit P of Section 30, Township 20 South, Range 25 East, NMPM. Said pool would comprise:

TOWNSHIP 20 SOUTH, RANGE 25 EAST, NMPM
Section 30: SE/4

(c) CREATE a new pool in Eddy County, New Mexico, classified as a gas pool for Strawn production and designated as the Crooked Creek-Strawn Gas Pool. The discovery well is the C & K Petroleum Inc. Lowe State Well No. 1, located in Unit C of Section 16, Township 24 South, Range 24 East, NMPM. Said pool would comprise:

TOWNSHIP 24 SOUTH, RANGE 24 EAST, NMPM
Section 16: N/2

(d) CREATE a new pool in Lea County, New Mexico, classified as an oil pool for San Andres production and designated as the Dickenson-San Andres Pool. The discovery well is the Hanson Oil Corporation Santa Fe Well No. 1, located in Unit F of Section 35, Township 10 South, Range 36 East, NMPM. Said pool would comprise:

TOWNSHIP 10 SOUTH, RANGE 36 EAST, NMPM
Section 35: NW/4

(e) CREATE a new pool in Eddy County, New Mexico, classified as a gas pool for Atoka production and designated as the Golden Lane-Atoka Gas Pool. The discovery well is the Meadco Properties Ltd. Harris 6 Well No. 1, located in Unit I of Section 6, Township 21 South, Range 29 East, NMPM. Said pool would comprise:

Case 5480

BEFORE THE OIL CONSERVATION COMMISSION
OF THE STATE OF NEW MEXICO

IN THE MATTER OF THE APPLICATION
OF CONTINENTAL OIL COMPANY FOR
AUTHORITY TO INJECT WATER INTO
THE PENNSYLVANIAN FORMATION
THROUGH ITS SOUTHEAST MONUMENT
UNIT WELL NO. 7 IN UNIT F OF
SECTION 23, TOWNSHIP 20 SOUTH,
RANGE 37 EAST, LEA COUNTY, NEW
MEXICO

SWP

A P P L I C A T I O N

Applicant, Continental Oil Company, hereby requests authority to inject water produced from the Cass Pennsylvanian Pool into the same formation through its Southeast Monument Unit Well No. 7 located in Unit F of Section 23, T-20S, R-37E, and in support thereof would show:

1. Applicant is operator and co-owner of the Southeast Monument Unit consisting of Section 23 and other lands in T-20S, R-37E, and in T-20S, R-38E, in Lea County, New Mexico.
2. Operator has drilled wells on said unit, some of which have been completed in the Cass Pennsylvanian Pool, including Well No. 7 located 1980' FNL and 1980' FWL of said Section 23.
3. Applicant has recently drilled and completed in the Cass Pennsylvanian Pool the Southeast Monument Unit Well No. 95 in said Section 23.
4. Said Well No. 95 produces large quantities of water and applicant desires to inject said water back into the Pennsylvanian Formation in its Well No. 7. Said well will be equipped so as to adequately protect other formations and confine the water to the zone from which it was produced.
5. The granting of this application will result in the prevention of waste and will not impair correlative rights.

WHEREFORE, Applicant respectfully requests that this matter be set for hearing before the Commission's duly appointed Examiner and upon hearing an order be entered authorizing the injection of produced water into Southeast Monument Unit Well No. 7 as described above.

Respectfully submitted,

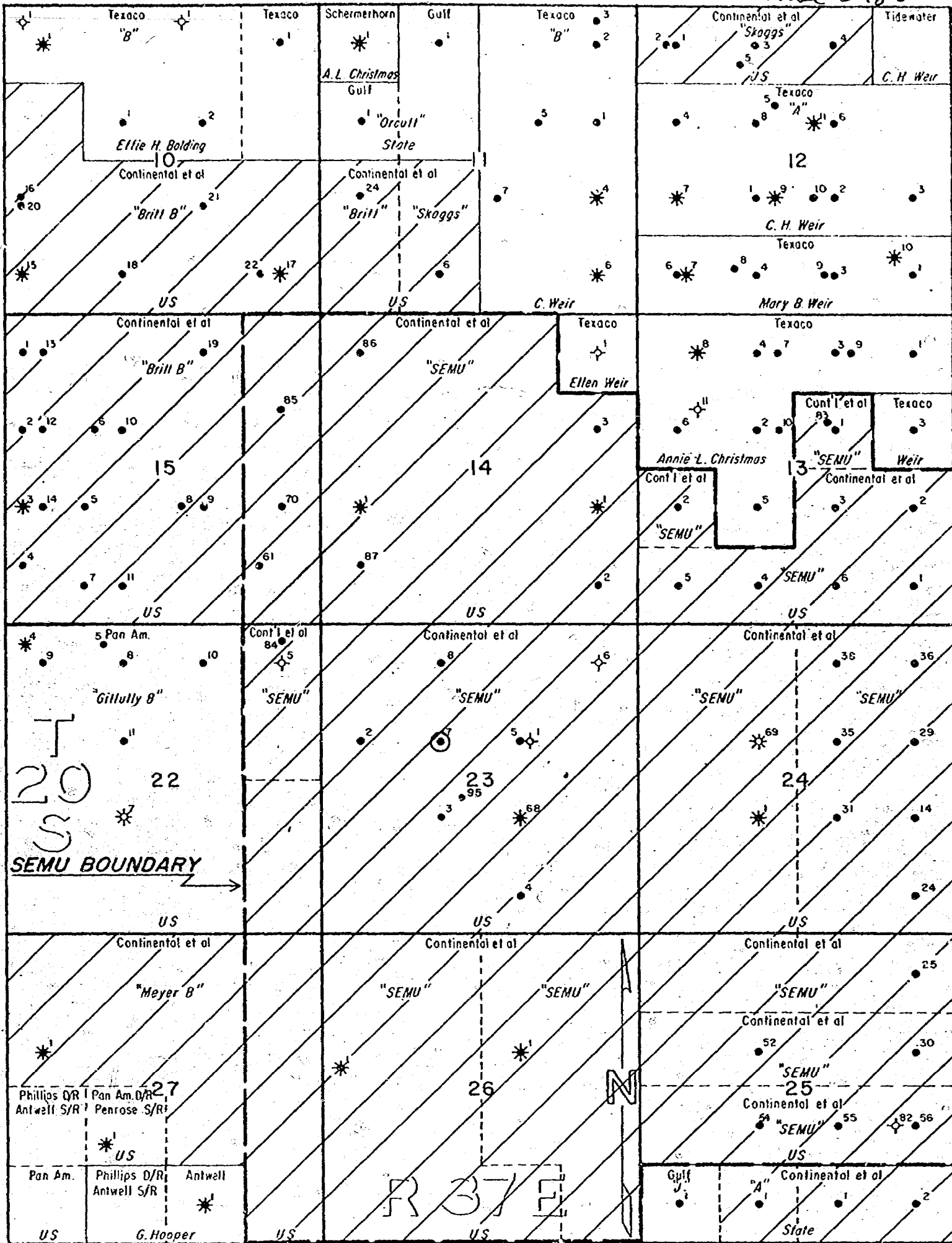
CONTINENTAL OIL COMPANY
L. P. Thompson
L. P. Thompson
Division Manager
Production
reh

Vic Lyon: Perf Int 7648-90

DOCKET MAILED

Date 5-2-75

Case 5480



CONTINENTAL OIL COMPANY
 PRODUCTION DEPARTMENT—HOBBS DISTRICT

LEA COUNTY, NEW MEXICO

SCALE
 0' 1000' 2000'

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. 5480

Order No. R- 5026

APPLICATION OF CONTINENTAL OIL
COMPANY FOR SALT WATER DISPOSAL,
LEA COUNTY, NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on ~~May 14, 1975~~
at Santa Fe, New Mexico, before Examiner, Daniel S. Nutter.

NOW, on this day of May, 1975, 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, Continental Oil Company,
is the owner and operator of the SEMU Well No. 7,
located in Unit F of Section 23, Township 20 South,
Range 37 East, NMPM, Cass-Pennsylvanian Gas Pool,
Lea County, New Mexico.

(3) That the applicant proposes to utilize said well to
dispose of produced salt water into the Pennsylvanian
formation, with injection into the ~~perforated~~ open-hole interval
from approximately 7648 feet to 7690 feet.

(4) That the injection should be accomplished through
3½-inch plastic lined tubing installed in a packer
set at approximately 7600 feet; that the casing-tubing annulus
should be filled with an inert fluid; and that a pressure gauge
or approved leak detection device should be attached to the

annulus in order to determine leakage in the casing, tubing, or packer.

(4) That the injection well or system should be equipped with a pop-off valve or acceptable substitute which will limit the wellhead pressure on the injection well to no more than 700 psi.

(5) That the operator should notify the supervisor of the Hobbs district office of the Commission of the date and time of the installation of disposal equipment so that the same may be inspected.

(5) That the operator should take all steps necessary to ensure that the injected water enters only the proposed injection interval and is not permitted to escape to other formations or onto the surface.

(6) That approval of the subject application will prevent the drilling of unnecessary wells and otherwise prevent waste and protect correlative rights.

IT IS THEREFORE ORDERED:

(1) That the applicant, Continental Oil Company, is hereby authorized to utilize its SEMU Well No. 7, located in Unit F of Section 23, Township 20 South, Range 37 East, NMPM, Cass-Pennsylvanian Gas Pool, Lea County, New Mexico, to dispose of produced salt water into the Pennsylvanian formation, injection to be accomplished through 3 1/2-inch tubing installed in a packer set at approximately 7600 feet, with injection into the open-hole perforated interval from approximately 7648 feet to 7690 feet;

PROVIDED HOWEVER, that the tubing shall be plastic-lined; that the casing-tubing annulus shall be filled with an inert fluid; and that a pressure gauge shall be attached to the annulus or the annulus shall be equipped with an approved leak detection device in order to determine leakage in the casing, tubing, or packer.

(2) That the injection well or system shall be equipped with a pop-off valve or acceptable substitute which will limit the wellhead pressure on the injection well to no more than 700 psi.

(2) That the operator shall notify the supervisor of the Hobbs district office of the Commission of the date and time of the installation of disposal equipment so that the same may be inspected.

(3) That the operator shall immediately notify the supervisor of the Commission's Hobbs district office of the failure of the tubing, casing, or packer, in said well or the leakage of water from or around said well and shall take such steps as may be timely and necessary to correct such failure or leakage.

(4) That the applicant shall submit monthly reports of its disposal operations in accordance with Rules 704 and 1120 of the Commission Rules and Regulations.

(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 herein-
above designated.

Appls. Called in by Oic Ryan 4-22-75 Am

Centl Oil Co inj wtr into Perm Perm
SEMR Well No 7, Loc F of Sec 23
205 37E Lea Co.

7648 - 7690 Case Perm disposal

two 360-ac MSP Eumout
Meyer B-4 Loc S 4, T21S, R36E Lea

1st unit: Lots 12 & 3 and 6 thru 11

Well No 14 Unit A

2nd unit

14, 15, 16 and SE/4
and E/2 SW/4.

Wells No 4 Unit 5 } both unorth
29 Unit P } docs.

~~Post Rules Warren Furbt gas Pool~~

Dual completion: Warren Unit # 3)