

CASE 3984: Application of GULF  
OIL CORP. FOR DOWNHOLE COMMINGLING  
LEA COUNTY, NEW MEXICO.

---

Case Number

3984

Application

Transcripts.

Small Exhibits

ETC.

dearnley-meier

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

1120 SIMMS BLDG. • P. O. BOX 1092 • PHONE 243-6691 • ALBUQUERQUE, NEW MEXICO



BEFORE THE  
NEW MEXICO OIL CONSERVATION COMMISSION  
Santa Fe, New Mexico  
December 11, 1968

EXAMINER HEARING

-----  
IN THE MATTER OF: )  
)  
)

Application of Gulf Oil )  
Corporation for downhole )  
commingling, Lea County, )  
New Mexico. )  
-----

Case No. 3984

BEFORE: Elvis A. Utz, Examiner

TRANSCRIPT OF HEARING

## NEW MEXICO OIL CONSERVATION COMMISSION

EXAMINER HEARINGSANTA FE, NEW MEXICOHearing Date DECEMBER 11, 1968TIME: 9 A.M.

NAME	REPRESENTING	LOCATION
WV KOTLER	GULF OIL CORP	Roswell NM
J H HOOVER	✓	✓
C.W. STUMHOPPER	ANADARKO PRODUCTION CO	FT WORTH, TEXAS
JOHN D. TOWNSEND	✓	✓
Michael J. Morris	Montgomery et al	Santa Fe
John M. Salzman	Bell Petroleum Company	Los Angeles
FRED G. BROWN	Midwest Oil Corp	Midland, Tex.
John Pulte	Midwest Oil Corp	Midland, Tex.
Miss Dillman	Midwest Oil Corp	Midland, Tex.
James E. Hinkle	Humble, Buckle & Chisley	Roswell
Lincoln Sherman	Union American Ref.	Midland, Tex.
Roger C. Hanks	Roger C. Hanks	Wichita Falls, Tex.
Waymon L. Davis	Jaylor Pruitt	Fort Worth, Texas
M. Canall Anton	Arastel States Gas Prod. Co.	Midland, Tex.
Jack McGraw	Coastal States	Midland, Tex.
Gordon D. Ryan	Pan Am. Pet. Corp.	Fort Worth, Texas
Bill Wells	Pan Am.	Fort Worth
Guy Buell	✓	✓
E.B. Kennedy	Kennedy Oil Co	Albany, N. M.

MR. UTZ: Case 3984.

MR. HATCH: Case 3984, application of Gulf Oil Corporation for downhold commingling, Lea County, New Mexico.

MR. KASTLER: If the Examiner please, I am Bill Kastler, an attorney from Roswell, appearing on behalf of my client, Gulf Oil Corporation, and the witness for this case will be Mr. John H. Hoover.

MR. UTZ: Are there any other appearances? You may proceed.

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

JOHN H. HOOVER

called as a witness on behalf of the Applicant, having been first duly sworn, was examined and testified as follows:

DIRECT EXAMINATION

BY MR. KASTLER:

Q Will you state your name.

A John Hoover.

Q Have you previously appeared as a production engineer and employee of Gulf Oil Corporation, and been qualified to testify before the New Mexico Oil Conservation Commission?

A Yes, I have.

MR. KASTLER: Are the witness's qualifications

satisfactory?

MR. UTZ: Yes, they are.

Q Will you state what Gulf Oil Corporation is seeking in this application?

A We are asking for approval to commingle oil and gas production from the Penrose Skelly and Paddock Pools in the well-bore of our J. N. Carson (NCT-C) Well No. 9. The reason for this request is a matter of economics.

Q Will you please take Exhibit Number 1, and explain what is shown there?

A Yes, Exhibit Number 1 is a plat of our J. N. Carson C lease outlined in orange. It is described as the east half, southeast quarter of Section 28, and the northeast quarter, northeast quarter of Section 33, both in Township 21 South, Range 37 East, Lea County, New Mexico.

The J. N. Carson (NCT-C) Well No. 9 is located 2086 feet from the south line, and 766 feet from the east line of Section 28. Also shown on this plat are the current producing Penrose Skelly and Paddock wells circled and colored according to the pools, as the legend on the plat indicates. The Penrose Skelly oil wells are colored in red and the Paddock oil wells are colored in green.

This plat shows in this particular area that there

is an isolated section of the producing Paddock and Penrose Skelly wells, and our J. N. Carson C Well No. 9 could be considered an edge of a well, since there are no Penrose Skelly wells east of our well, and only four Paddock wells immediately east.

Q When was Gulf's J. N. Carson (NCT-C) Well No. 9 completed?

A It was originally completed in the Hair Simpson Pool in November of 1950, at a total depth of the 7048 feet, plugged back to 7453 feet. In December of 1959, the Hair Pool was abandoned, and the well dually completed in the Penrose Skelly and Paddock oil pools.

The Penrose Skelly had an initial potential pumping was 99 barrels of oil per day, and four barrels of water per day. The Paddock initial potential was 11 barrels of oil per day, and 32 barrels of water per day pumping.

Q I call your attention to Exhibit Number 2, and would you please state what that is.

A Exhibit Number 2 is a log of the J. N. Carson (NCT-C) Well No. 9. The top and bottom of the Penrose Skelly, San Andres, and Paddock formations are shown. The base of the Queen, top of the Grayburg is shown at 3616 feet. The base of the Grayburg, top of the San Andres, is marked at 3853 feet.

And the base of the San Andres and the top of the Glorietta are marked at 5022 feet.

We also have shown on this log the perforations for the Penrose Skelly and the Paddock, and those perforated intervals will be shown on the next exhibit.

Q Referring now to Exhibit Number 3, please identify what it consists of and what is shown thereon.

A Exhibit Number 3 is a schematic diagram of the dual completion as it now exists. We have thirteen and three-eighths OD casing set at 292 feet, cemented with 300 sacks, and cement circulated; nine and five-eighths inch OD casing set at 2800 feet, cemented with 1300 sacks, top of the cement at 790 feet by temperature survey. We have seven-inch OD casing set at 7487 feet, cemented with 700 sacks. We have two strings of tubing, two and three-eighths inch tubing, one set at 3615 feet in a baker parallel anchor; the other string of tubing set at 5146 feet through a baker model D packer set at 5050 feet.

The Penrose Skelly perforations as they now exist are from 3642 feet to 3701 feet, and then an interval from 3737 feet to 3768 feet, which has been squeezed with 200 sacks of cement. The Paddock perforations are from 5111 feet to 5169 feet. I believe that covers it.



Q Now, please identify Exhibit Number 4, and explain what is shown on that.

A Exhibit Number 4 is a graph showing the monthly oil production from each zone from date of completion through September of 1968. The Penrose Skelly production is the dotted line, and has averaged approximately 200 barrels per month for the last three years. The Paddock is the solid line graph, and its production has averaged less than 30 barrels per month for the last three to four years.

Q Is there any reason other than economics that prompted the request for approval of the downhole commingling at this time?

A Yes, sir. The 1968 annual packer leadage tests indicate that we have developed communication. We believe that there is a hole in the long tubing string. Since it is necessary that we enter the well to repair this communication, now is the time to do this downhole commingling work, if approval would be granted by the Commission. If the downhole commingling is not approved, we plan to abandon the Paddock zone when the well is entered to repair the communication.

Q Will you please explain your earlier statement that this downhole commingling request is a matter of economics?

A The most recent well test for the Penrose Skelly zone was taken on October 10, 1968, and it was pumping nine

barrels of oil per day with one barrel of water per day, and 81 MCF of gas. The most recent Paddock well test on June 8, 1968, was one barrel of oil per day, zero water, and 18 MCF of gas per day.

Using these producing rates for the oil and gas, and the average monthly production expense taken from our operating statement, we come up with economics as follows: the Penrose Skelly average monthly net income after royalties, but before deduction for expenses, is \$881.00 per month. The average monthly production expense is \$299.00. Therefore, the average monthly income after expenses is \$582.00.

The Paddock average monthly net income after royalties, but before deduction for expenses, is \$125.00. The average monthly expenses is \$180.00. Therefore, the average monthly net income after expenses is a loss of \$55.00.

Adding these figures together, the average monthly net income as a dual is \$1,006.00 per month, and the average monthly production as a dual is \$469.00, leaving an average monthly income after expenses of \$527.00.

Q Assuming now downhole commingling is granted, how would that affect the income and the operating figures?

A The income, the monthly net income would remain the same, \$1,006.00. However, the average operating expense for

one pumping unit producing both zones would be \$185.00. This would leave an average monthly net income of \$182.00 as compared to \$527.00 average monthly income as a dual.

Q Mr. Hoover, the economics you give as a dual indicate that the Paddock is operating at a loss. Why can't Gulf merely shut down this zone and temporarily abandon it while continuing to produce?

A This would be the logical thing to do, would be to shut the Paddock zone down. However, this well has a dual piston, hydraulic pumping unit, and it has to have two rod strings for balancing. So, therefore, you have to keep both zones pumping. And the marginal stage of production, based on the production figures I gave on Exhibit 4, do not justify installing two pumping units.

If the downhole commingling is not approved, it would be necessary that we change out this pumping unit, and produce the Penrose Skelly with a single zone conventional pump, if the Paddock zone was abandoned.

Q What will happen if this downhole commingling is not approved?

A If downhole commingling is not approved, then when we go in to repair this communication, we will take that pumping unit off.

Q Still put in a conventional--

A Abandon the Paddock zone and install a conventional pump for the Penrose Skelly.

Q If you commingle in the well-bore, would this reduce the value of the product?

A No, the gravity of the Penrose Skelly is four degrees, API corrected, and the Paddock is 34.8 degrees, API corrected. This gravity range brings the same price as the crude .

Q Is the production presently commingled at the surface?

A No, it isn't.

Q If downhole commingling is allowed, would there be any migration of oil, or damage to the reservoir in one formation or the other?

A In my opinion, there would not be any migration or damage to the reservoirs. I base this opinion on the fact that both zones are pumping, and the fluid levels are low. The pumps are set from near the perforated intervals, and we feel that the bottom hole pressures are low, and the differential is small. The pumps are set in the seating nipples in the tubing, as shown on Exhibit Number 3, which are at or near the perforations. We know the fluid levels are

approximately in this vicinity, because the pumps are pounding fluid.

Q Will any additional oil be recovered by downhole commingling?

A I firmly believe that additional oil will be recovered by the downhole commingling. If we can downhole commingle, we will produce this one barrel of oil per day now from the Paddock, and if it is not approved, we will have to abandon the zone. This zone due to the low producing rate would not be opened up again, unless any future secondary recovery operations justify the work. At this time there are no plans at all being considered for secondary recovery. I do not believe that there is any question that additional oil will be recovered where we are producing oil now, that will be shut off if the downhole commingling is disallowed.

Q The production of nine barrels of oil per day from the Penrose Skelly, and one barrel of oil per day from the Paddock would be considered marginal, would it not?

A Yes, it is marginal. The top allowable for Penrose Skelly is 58 barrels of oil per day, and for the Paddock is 78 barrels of oil a day. The combined production of nine barrels from the Penrose Skelly and one barrel for the Paddock, making a total of ten barrels of oil per day from both zones, is only approximately one-sixth or 17 percent of the top

allowable for the shallowest zone.

Q Are there any top allowable Penrose Skelly wells or Paddock wells in this pool in the near vicinity of this J. N. Carson Well No. 9?

A No, there are not.

Q Would downhole commingling extend the producing life of this well?

A Yes, it would. The economic limit under the existing dual conditions and operating costs is 4.3 barrels per day for the Penrose Skelly, and 2.6 barrels per day for the Paddock. Of course, the Paddock is operating at a loss now. It is below the economic limit. By downhole commingling, we would reduce our operating costs, and the economic limit would be 2.6 barrels per day. If we abandon the Paddock and produce the Penrose Skelly by changing out the pumping unit, the economic life of Penrose Skelly is still approximately 2.6 barrels of oil per day. However, by downhole commingling, we will add an additional one barrel of oil per day, which has to improve the producing economics. I believe that the main gain of downhole commingling is recovering additional oil which will not be recovered otherwise.

Q Do you have anything further to add in this case?

A No, sir.

Q Were Exhibits 1, 2, 3, and 4 prepared by you or under your direction and supervision?

A Yes.

MR. KASTLER: This concludes our questions on direct examination, and I would like to move at this time that Exhibits 1, 2, 3, and 4 be admitted into evidence.

MR. UTZ: Applicant's Exhibits 1 through 4 will be entered into the record in this case.

(Whereupon, Applicant's Exhibits Numbers 1 through 4, inclusive, were admitted into evidence.)

CROSS EXAMINATION

BY MR. UTZ:

Q Referring to Exhibit 3, what was the top of the cement? You had 700 sacks. Would you say 700 sacks behind 7-inch would bring it up, bring the well above the 3642 perforation?

A Yes, temperature survey, which was conducted on November 20, 1960, showed the cement behind the 7-inch casing at 2700 feet. That is well above the top of the Penrose Skelly perforations.

Q Did you say how you intended to complete this well if you are allowed to commingle?

A No, sir, I didn't. We would remove the two strings

of tubing, drill out the packer, model D packer, run one string of tubing which would be set at approximately the same depth that the long string is set now at about 5146 feet.

Q With one string pumping unit?

A Yes, sir, it would be a conventional-type pump.

Q How much water and gas did you say Penrose would make now?

A The Penrose Skelly on test, October tenth of this year, nine barrels of oil per day and one barrel of water, 81 MCF of gas per day. The Paddock on test, June 8, 1968, one barrel of oil per day, zero water, and 18 MCF of gas.

Q Do you have any idea what the pressures are in these two zones, or where the oil stands in the hole?

A We have no Paddock open hole pressures, but we know that the fluid level is standing at about the pump setting depths. For the Penrose Skelly, the pump is set at approximately 3604 feet, and we know the fluid level is in that general vicinity, because the pumps are pounding fluid at that point. On the Paddock, the pump is set at approximately 5163 feet, which is about mid-point, say, of the perforations there. And, there again, we know that the fluid level is approximately at the pump, since the pump is pounding fluid.



Q So the pressure in your Paddock zone will probably be somewhat less than that in your Penrose zone?

A It could be less, but I don't believe it would be somewhat less. I believe both of them are pretty low.

Q You have approximately 50 feet of fluid that you know of?

A Sir?

Q You have approximately 50 feet of fluid that you know of below the top perforation?

A Yes, sir.

MR. UTZ: Any other questions of the witness?

The witness may be excused, and the case will be taken under advisement.

I N D E X

<u>WITNESS</u>	<u>PAGE</u>
JOHN HOOVER	
Direct Examination by Mr. Kastler	2
Cross Examination by Mr. Utz	12

<u>EXHIBITS</u>	<u>MARKED</u>	<u>OFFERED AND ADMITTED</u>
Applicant's Exhibit Numbers 1 through 4	2	12

[illegible]

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

Samuel Monteleone  
COURT REPORTER

I do hereby certify that the foregoing is  
a complete record of the proceedings in  
the Examiner hearing of Case No. 3284,  
heard by me on Dec. 11, 1965.  
Thurman J. [Signature], Examiner  
New Mexico Oil Conservation Commission

Hobbs OCC \_\_\_\_\_ x  
 Artesia OCC \_\_\_\_\_  
 Aztec OCC \_\_\_\_\_  
 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. 3984  
Order No. R-3652

APPLICATION OF GULF OIL CORPORATION  
FOR DOWNHOLE COMMINGLING, LEA COUNTY,  
NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on December 11, 1968, at Santa Fe, New Mexico, before Examiner Elvis A. Utz.

NOW, on this 31st day of December, 1968, the Commission, a quorum being present, having considered the testimony, the record, and the recommendations of the Examiner, and being fully advised in the premises,

FINDS:

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

(2) That the applicant, Gulf Oil Corporation, is the owner and operator of the J. N. Carson (NCT-C) Well No. 9, located in Unit I of Section 28, Township 21 South, Range 37 East, NMPH, Lea County, New Mexico.

(3) That the subject well is presently dually completed for the production of oil from the Penrose Skelly and Paddock Pools through parallel strings of tubing.

(4) That the subject well is presently producing approximately 9 barrels of oil per day from the Penrose Skelly Pool and approximately 1 barrel of oil per day from the Paddock Pool.

(5) That the applicant proposes to remove the packer and one string of tubing from said well and to produce the low marginal production from the subject zones through a single string of tubing.

-2-

CASE No. 3984

Order No. R-3652

(6) That the proposed commingling may substantially extend the productive lives of the subject zones in the aforesaid well.

(7) That the reservoir characteristics of each of the subject zones are such that underground waste would not be caused by the proposed commingling in the well-bore.

(8) That the proposed commingling may result in the recovery of additional oil from each of the subject pools, thereby preventing waste, and will not violate correlative rights.

(9) That production tests should be conducted, prior to commingling, to determine the production from each zone.

IT IS THEREFORE ORDERED:

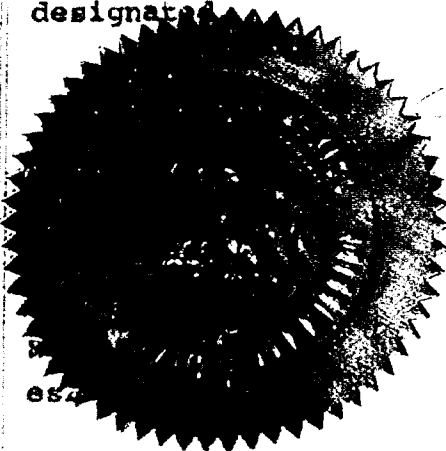
(1) That the applicant, Gulf Oil Corporation, is hereby authorized to complete its J. N. Carson (NCT-C) Well No. 9, located in Unit I of Section 28, Township 21 South, Range 37 East, NMPM, Lea County, New Mexico, in such a manner as to produce oil from the Penrose Skelly Pool through perforations from 3642 feet to 3701 feet and from the Paddock Pool through perforations from 5111 feet to 5169 feet, commingling the production from each of said zones in the well-bore;

PROVIDED HOWEVER, that the production of each zone shall be established and future production allocated to the Penrose Skelly Pool and the Paddock Pool in the subject well in the proportion that the production from each of said zones bears to the combined production from both zones until further order of the Commission;

PROVIDED FURTHER, that commingling in the well-bore shall continue only so long as the commingled production does not exceed the top unit allowable for either of the zones in the subject well.

(2) 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

DAVID F. CARGO, Chairman

GUYTON B. HAYS, Member

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

Case. 3984

Heard 12-11-68

Rec. 12-23-68.

Grant Guy permission to  
commingle the Remrose Skelly &  
Paddocks in their J. H. Carson  
(NITC-C) #9 D 28-215-37E.

The Remrose Skelly zone is now  
producing 9 BO + 1 BW per day. The  
Paddocks has 1 BO. I believe that  
allowing these people to commingle  
it will recover some Paddocks oil  
that otherwise would not be re-  
covered.

The tubing should be set at  
approx 5146' so that the Paddock  
zone can be properly pumped.  
— E. C. [Signature]

Reporting shall be made on the  
basis of zone production tests  
made before the commingling  
is accomplished.  
— E. C. [Signature]

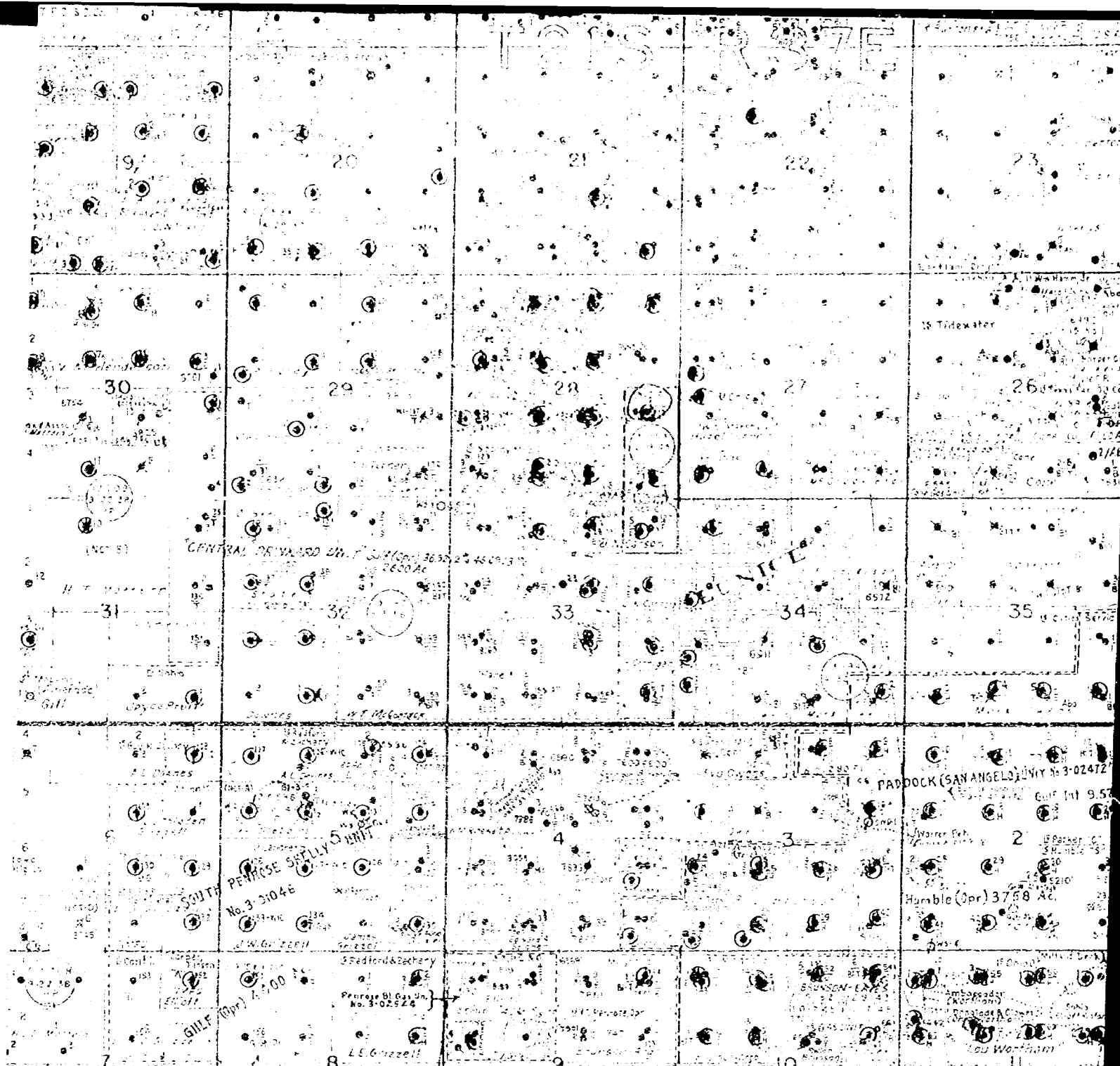
DOCKET: EXAMINER HEARING - WEDNESDAY - DECEMBER 11, 1968

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

The following cases will be heard before ELLIS A. STZ, EXAMINER, or  
DANIEL S. NUTTER, ALTERNATE EXAMINER:

- CASE 3984: Application of Gulf Oil Corporation for commingling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to commingle production from the Penrose Skelly Pool and the Paddock Pool in the well-bore of its J. N. Carson (NCT-C) Well No. 9 located in Unit I of Section 28, Township 21 South, Range 37 East, Lea County, New Mexico, with the provision that no more than one allowable will be produced from said well.
- CASE 3985: Application of Midwest Oil Corporation for salt water disposal, Roosevelt County, New Mexico. Applicant, in the above-styled cause, seeks authority to dispose of produced salt water into the San Andres formation in the perforated interval from approximately 4048 feet to 4218 feet in its Morgan-Federal Tract 4 Well No. 5 located in Unit I of Section 12, Township 7 South, Range 33 East, Chaveroo-San Andres Pool, Roosevelt County, New Mexico.
- CASE 3986: Application of Bell Petroleum 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 San Andres formation in the perforated interval from approximately 4224 feet to 4447 feet in its State "5" Well No. 3 located in Unit J of Section 5, Township 9 South, Range 32 East, South Button Mesa-San Andres Pool, Lea County, New Mexico.
- CASE 3987: Application of Union Texas Petroleum Corporation for salt water injection, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to inject produced salt water into the Seven Rivers formation in the open-hole interval from approximately 3421 feet to 3520 feet in its Wells lease Well No. 4 located in Unit D of Section 5, Township 25 South, Range 37 East, Langlie-Mattix Pool, Lea County, New Mexico.
- CASE 3988: Application of Anadarko Production Company for a unit agreement, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks approval of the Far West Loco Hills Sand Unit Area comprising 840 acres, more or less, of Federal, State and fee lands in Sections 4, 9, and 16, of Township 18 South, Range 29 East, Loco Hills Pool, Eddy County, New Mexico.





PLAT

GULF OIL CORPORATION

J. N. CARSON (NCT-C) LEASE  
Lea County, New Mexico

BEFORE EXAMINER UTZ  
OIL CONSERVATION COMMISSION  
EXHIBIT NO. 1  
CASE NO. 3981

- LEGEND -

- Penrose Skelly Oil Well
- ⊙ Paddock Oil Well

CASE NO. 3984  
EXHIBIT NO. 1  
December 11, 1968

J. N. CARSON (NCT-C) NO. 9  
PENROSE SKELLY OIL - PADDOCK OIL - DUAL COMPLETION  
ELEV = 3,435' GL  
H = 11' ABOVE GL

13-3/8" OD CSG. @ 293'  
CMTD W/300 SX. & CIRCULATED

9-5/8" OD CSG. @ 2,800'  
CMTD W/1300 SX. TOC  
@ 790' BY TS

2-3/8" TUBING @ 3,615'  
SN @ 3,604'

BAKER PARALLEL ANCHOR @ 3,615'

PENROSE SKELLY PERFS.

3642' - 3644'

3659' - 3661'

3669' - 3671'

3681' - 3683'

3689' - 3691'

3699' - 3701'

3737' - 3739' ) Squeezed W/

3766' - 3768' ) 200 SX. CMT.

BAKER SEAL ASSY. @ 5,046'

2-3/8" TUBING @ 5,146'  
SN @ 5,136'

BAKER MODEL "D" PACKER @ 5,050'

PADDOCK PERFS.

5111' - 5118'

5129' - 5139'

5165' - 5169'

BAKER CI BP @ 7,300'

CAPPED W/2 SX. CEMENT EST. TOP @ 7295'

HARE SIMPSON PERFS.

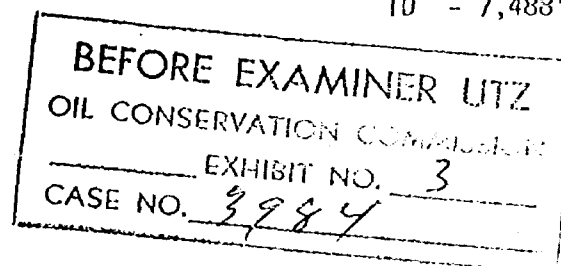
7374' - 7405'

7415' - 7438'

7" OD CSG. @ 7,487'  
CMTD W/700 SX.

PBD - 7,453'

TD - 7,488'



CASE NO. 3984  
EXHIBIT NO. 3  
DECEMBER 11, 1968

# Gulf Oil Company - U.S.

EXPLORATION AND PRODUCTION DEPARTMENT  
ROSWELL DISTRICT

T. W. Kidd  
DISTRICT MANAGER  
M. I. Taylor  
DISTRICT PRODUCTION  
MANAGER  
P. E. Wyche  
DISTRICT EXPLORATION  
MANAGER  
H. A. Rankin  
DISTRICT SERVICES MANAGER

November 8, 1968

P. O. Drawer 1938  
Roswell, New Mexico 88201

Case 3984  
29  
MAIN OFFICE 900

'68 Nov 12 AM 8 07

Cil Conservation Commission  
State of New Mexico  
Post Office Box 2088  
Santa Fe, New Mexico 87501

Attention: Mr. A. L. Porter, Jr.

Re: Application of Gulf Oil Corporation  
for Approval of Down Hole Commingling  
of Production in the J. N. Carson (NCT-C)  
Well No. 9, Penrose Skelly and Paddock  
Oil Pools, Lea County, New Mexico

Gentlemen:

Gulf Oil Corporation respectfully requests an Examiner Hearing to consider its application for approval of down hole commingling in the well bore of Penrose Skelly and Paddock oil and gas production in the J. N. Carson (NCT-C) Well No. 9, located in Unit I of Section 28, T-21-S, R-37-E, Lea County, New Mexico.

In support of this application the following facts are submitted:

- (1) Applicant is owner and operator of the J. N. Carson (NCT-C) Lease, described as the E/2 SE/4 of Section 28, and the NE/4 NE/4 of Section 33, both in T-21-S, R-37-E, Lea County, New Mexico. The attached plat shows the J. N. Carson (NCT-C) lease outlined in red and Well No. 9 circled and colored in red.
- (2) The production from the Penrose Skelly pool is marginal and the Paddock zone is not only marginal but is uneconomical to produce.



A DIVISION OF GULF OIL CORPORATION

DOCKET MAILED

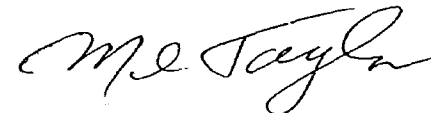
Date 11-26-68

November 8, 1968

- (3) Applicant will request no more than one allowable be assigned to the well, which will be considerably below the top allowable for the shallowest zone.

Respectfully submitted,

GULF OIL CORPORATION



M. I. Taylor

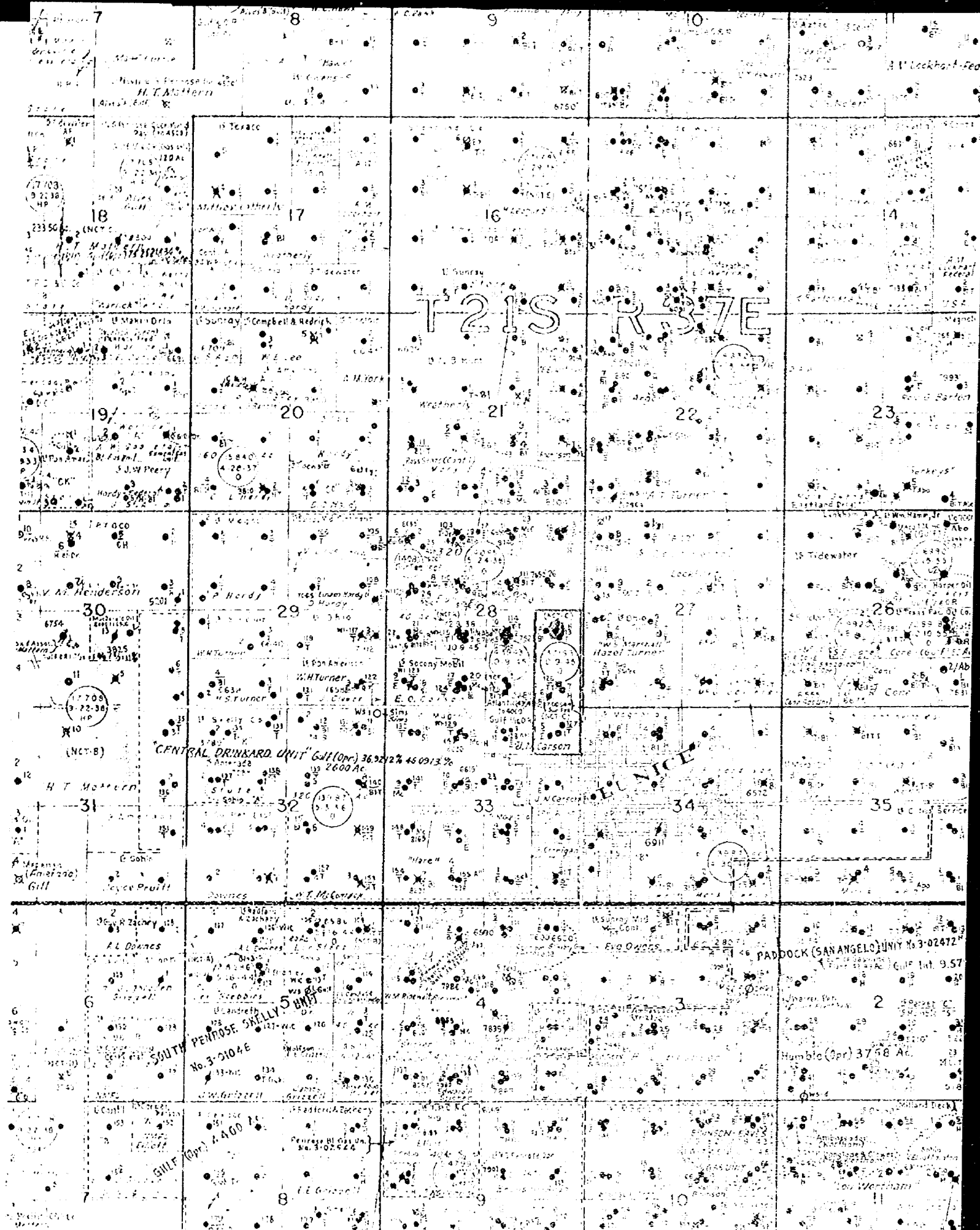
Attachment  
JHH:dch

cc: New Mexico Oil Conservation Commission  
Post Office Box 1980  
Hobbs, New Mexico 88240

Continental Oil Company  
Post Office Box 460  
Hobbs, New Mexico 88240

Marathon Oil Company  
Post Office Box 220  
Hobbs, New Mexico 88240

Mobil Oil Corporation  
Post Office Box 633  
Midland, Texas 79701



DRAFT

GMH/esr  
12-23-68

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. 3984

Order No. R-3652

APPLICATION OF GULF OIL CORPORATION  
FOR DOWNHOLE COMMINGLING, LEA COUNTY,  
NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on December 11, 1968,  
at Santa Fe, New Mexico, before Examiner Elvis A. Utz.

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

FINDS:

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

(2) That the applicant, Gulf Oil Corporation, is the owner  
and operator of the J. N. Carson (NCT-C) Well No. 9, located in  
Unit I of Section 28, Township 21 South, Range 37 East, NMPM, Lea  
County, New Mexico.

(3) That the subject well is presently dually completed for  
the production of oil from the Penrose Skelly and Paddock Pools  
through parallel strings of tubing.

(4) That the subject well is presently producing approxi-  
mately 9 barrels of oil per day from the Penrose Skelly Pool  
and approximately 1 barrel of oil per day from the Paddock Pool.

(5) That the applicant proposes to remove the packer and one string of tubing from said well and to produce the low marginal production from the subject zones through a single string of tubing.

(6) That the proposed commingling may substantially extend the productive lives of the subject zones in the aforesaid well.

(7) That the reservoir characteristics of each of the subject zones are such that underground waste would not be caused by the proposed commingling in the well-bore.

(8) That the proposed commingling may result in the recovery of additional oil from each of the subject pools, thereby preventing waste, and will not violate correlative rights.

(9) That production tests should be conducted, prior to commingling, to determine the production from each zone.

IT IS THEREFORE ORDERED:

(1) That the applicant, Gulf Oil Corporation, is hereby authorized to complete its J. N. Carson (NCT-C) Well No. 9, located in Unit I of Section 28, Township 21 South, Range 37 East, NMPM, Lea County, New Mexico, in such a manner as to produce oil from the Penrose Skelly Pool through perforations from 3642 feet to 3701 feet and from the Paddock Pool through perforations from 5111 feet to 5169 feet, commingling the production from each of said zones in the well-bore;

PROVIDED HOWEVER, that the production of each zone shall be established and future production allocated to the Penrose Skelly Pool and the Paddock Pool in the subject well in the proportion that the production from each of said zones bears to the combined production from both zones until further order of the Commission;

-3-

CASE No. 3984

PROVIDED FURTHER, that commingling in the well-bore shall continue only so long as the commingled production does not exceed the top unit allowable for either of the zones in the subject well.

(2) 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.