

CASE 4083: Application of GULF OIL
FOR DOWNHOLE COMMINGLING, LEA
COUNTY, NEW MEXICO.

- add number

4083

Application
Transcripts.

Small Exhibits

ETC.

dearnley-meier reporting service, inc.

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

March 26, 1969

EXAMINER HEARING

IN THE MATTER OF:)

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

Case No. 4083

BEFORE: Elvis A. Utz, Examiner

TRANSCRIPT OF HEARING

MR. UTZ: The hearing will come to order, please.
Case 4083.

MR. HATCH: Case 4083, application of Gulf Oil Corporation for downhole commingling, Lea County, New Mexico.

MR. KASTLER: If the Examiner please, I am Bill Kastler from Roswell, New Mexico, representing Gulf, and our witness will be John H. Hoover.

(Witness sworn.)

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

JOHN H. HOOVER

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

DIRECT EXAMINATION

BY MR. KASTLER:

Q Mr. Hoover, would you state your name and your position with Gulf?

A John H. Hoover, and I am the District Production Engineer with Gulf Oil Corporation in Roswell, New Mexico.

Q Are you familiar with Gulf's application in Case No. 4083?

A Yes, sir.

MR. KASTLER: Are the witness's qualifications

satisfactory?

MR. UTZ: He has been previously qualified.

Q Mr. Hoover, please explain what Gulf is seeking in this application.

A We are asking for approval to commingle oil and gas production from the Penrose-Skelly and Paddock Oil Pools in the well-bore of our Eunice King Well No. 7.

Q Will you please refer to Exhibit Number 1, and explain what is shown there, that is pertinent to this case?

A Exhibit Number 1 is a plat showing our Eunice King Lease. It is outlined in orange, and is described as the north half of Section 28, Township 21 South, Range 37 East, Lea County, New Mexico.

The Eunice King Well No. 7 is located in Unit G, 1,980 feet from the north line and 1,980 feet from the east line of Section 28. The current producing wells in the Penrose-Skelly and the Paddock Oil Pools are circled, and dark colored according to the legend. The circles around the Penrose-Skelly Oil Pools are colored one half in red, and the circles around the Paddock oil wells are colored half in green.

If the well is dual in both pools, the circle is colored one half in green and one half in red.

If it may be noted from examining this plat that the location of the green colored wells and the red colored wells in the vicinity of the Eunice King Lease, that it is an edge, that the wells are edge wells for the Penrose-Skelly and Paddock pools.

All of the offsetting wells, the direct and diagonal offsetting wells in these two pools are all Gulf's, except Atlantic's Cason No. 2 Penrose-Skelly well in Unit J of Section 28. The Paddock well in that Unit J, which is colored in green, is Gulf's.

Q When was the Eunice King Well No. 7, which is the subject well here, completed?

A The well was originally drilled and completed in the Brunson Pool in March of 1948. The Brunson was temporarily abandoned, and the well dually completed in the Penrose-Skelly and Paddock Oil Pools in September of 1960.

Q What were the initial potentials for these Penrose-Skelly and Paddock zones in these wells?

A The initial potential for the Penrose-Skelly was 166 barrels of oil per day, 17 barrels of water per day flowing, with 361 Mcf of gas per day.

The Paddock was 30 barrels of oil per day, two barrels of water per day flowing, with 54 Mcf per day.

Q Will you identify what is marked as Exhibit Number 2, and explain what is shown thereon?

A Exhibit Number 2 is a log of the Eunice King Well No. 7. On this log we show the base of the Queen, and the top of the Grayburg at 3,610 feet, the base of the Grayburg and the top of the San Andres at 3,850 feet, and the base of the San Andres, top of the Glorieta at 5,032 feet.

Also shown on this log are the perforations which I will go into on the next exhibit.

Q Will you now identify Exhibit Number 3, and state what is shown on there?

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. The cement was circulated. Nine and five-eighths-inch OD casing set at 2,850 feet, cemented with 1,300 sacks, top of the cement at 1,625 feet.

The seven-inch casing was set at 7,904 feet, cemented with 800 sacks, the top of the cement at 2,985 feet.

We have two strings of two and three-eighths-inch tubing. The upper string is set in a baker parallel anchor at 3,668 feet, the seating nipple at 3,661 feet. The long string of two and three-eighths-inch tubing is set at 5,118

feet, the seating nipple at 5,107 feet.

We have a baker lockset packer at 5,007 feet.

The Penrose-Skelly perforations are shown as 3,677 feet, 3,699 feet, 3,720 feet, and 3,735 feet.

The Paddock perforations are shown as 5,098 feet to 5,104 feet, 5,118 feet to 5,128 feet, 5,138 feet to 5,144 feet, and 5,152 feet to 5,160 feet.

We have another set of perforations which have been temporarily abandoned. This is in the Paddock, and they are from the interval 5,168 feet to 5,174 feet, 5,180 to 5,184 feet, 5,188 to 5,198 feet, 5,206 to 5,210 feet.

We have a plug at 5,177 feet, which was capped with two sacks of cement. The plugged-back depth as it now exists is 5,163 feet. I believe that covers that exhibit.

Q Will you please now go to what we have marked as Exhibit Number 4, and identify it, and refer to it in your testimony?

A Exhibit Number 4 is a graph showing the monthly oil production from each zone from the date of first production through January of 1969. The Penrose-Skelly production is the dotted line, and for the past thirteen months that has averaged 90 barrels per month, or three barrels per day.

The Paddock production is shown by a solid line on

the graph, and the average for the past thirteen months has been 380 barrels per month, or approximately twelve and a half barrels per day.

Q Do you have any well problems that prompted the request for approval of downhole commingling at this time?

A Yes, we have. The recent annual packer leakage test indicates that we have developed communication. We believe there is a hole in the long string or tubing. Since it is necessary that we enter the well bore to correct this communication problem, if approval would be given for the downhole commingling, now would be the time to do it. If downhole commingling is not allowed, we plan to squeeze off the Penrose-Skelly when the well is entered for repairs.

Q That is the deeper of the two, is it not?

A The Penrose-Skelly is the upper.

Q Since the Penrose-Skelly is the upper zone, there is no way to temporarily abandon this zone without squeezing the cement, is that correct?

A That's correct, because you just can't shut this in, because we have the communication problem which has to be corrected. We don't want to squeeze cement to the zone, because it is possible that in the future, secondary recovery operations might prove feasible and extend into this area.

It could be reperforated, but probably as a result of cementing, the formation may never be returned to its present condition.

Q Are there any pilot projects operating now that could prove secondary recovery practical for these pools?

A Yes, sir, we operate the South Penrose-Skelly Unit Waterflood approximately two miles southwest, and Humble operates the Paddock San Angelo Unit Waterflood approximately two and a half miles southeast of this well. We don't expect any secondary recovery operations in the area of our Eunice King No. 7 for some time, and maybe never. However, the possibility does exist.

Q Is this the first case of communication trouble that you have had in this well?

A No, it is not. This is the fifth time since the well was dualled in September, 1960. The tubing has failed, due to corrosion on an average of one failure every two months.

Q What are the economics, insofar as repairing this communication and returning the well to dual status?

A The most recent test for the Penrose-Skelly, it pumped three barrels of oil per day, no water, and 68 Mcf of gas per day. Using these production figures, our monthly net income is \$209. The cost is \$4,600 to repair the communication in returning as a dual. Since the tubing failures occur an

average of one every 20 months, if you divide 20 into \$4,600, then the repair costs just for the communication averages \$230 per month. Since our net revenue is \$209, we would have a loss of \$21 per month just for returning the Penrose-Skelly zone to production. We can't justify returning as a dual.

Q What is the production from the Paddock well, the Paddock zone?

A The most recent test was fifteen barrels of oil per day, four barrels of water per day, and 64 Mcf of gas per day. This zone is pumping below a packer.

Q Since you have regular communication problems, do you treat this tubing for corrosion?

A Yes, we do. But it is practically impossible to treat the Paddock production for corrosion, since it is below a packer. There is no practical way to get treatment in the annulus below the packer. If downhole commingling were permitted, the packer would be removed, and the Penrose-Skelly and Paddock production can be treated by injecting down the annulus.

Q If the Penrose-Skelly and the Paddock oil is commingled in the well bore, would this reduce the value of the oil?

A No, it would not. The price received for the crude

is the same. In fact, the production is commingled on the surface by prior approval of the Commission.

Q If downhole commingling is allowed by the Commission, would there be any migration of oil or damage to the reservoir in this area?

A In my opinion, there would be no migration or damage to the reservoir. These zones in this area are in the later stage of depletion. We would keep the fluid pumped off in the well bore, if downhole commingling is allowed. At the present time, the fluid level for each zone is being pumped off, and we would continue to do so.

Q Will additional oil be recovered by the downhole commingling?

A Yes, in my opinion, it will. I firmly believe that additional oil will be recovered because of downhole commingling -- because if downhole commingling is not allowed, we will squeeze off the Penrose-Skelly and produce only the Paddock. If secondary recovery would prove feasible in the future, the Penrose-Skelly could be opened up again at that time. But we don't know now if secondary recovery in this area would be undertaken. Downhole commingling will allow us to recover oil now that may or may not be recovered in the future.

Q The production of three barrels of oil a day from the Penrose-Skelly, and fifteen barrels of oil a day from the Paddock would be considered marginal, would it not?

A Yes, it is marginal. The March, 1969 top allowable for the Penrose-Skelly Pool is 60 barrels of oil per day, and for the Paddock is 80 barrels of oil per day. The combined production of eighteen barrels of oil per day is only 30 per cent of the top allowable for the shallowest zone, being the Penrose-Skelly.

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

A Yes, it will. Considering each zone as an individual well, the oil from the Penrose-Skelly will continue to be produced, if downhole commingling is allowed. Otherwise, it will be squeezed off. Considering this zone, the producing life will be extended.

By downhole commingling the Penrose-Skelly and Paddock, the producing by one pump, the operating costs will be reduced, and the operating life will be extended, because we will be supplementing the Paddock production with the Penrose-Skelly production, which has to extend the economic life.

Q Has the owner of the offset well, Carson No. 2, been

advised of this hearing?

A We furnished copies of our application to all offset operators to our Eunice King Lease.

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

A No, sir.

Q If granted, in your opinion, would this be in the interest of prevention of waste?

A Yes.

Q And the protection of correlative rights?

A Yes, it would.

MR. KASTLER: This concludes our case on direct examination, and I would like at this time to enter Exhibits 1, 2, 3, and 4, which were prepared at the direction and under the supervision of Mr. Hoover.

MR. UTZ: Without objection, the exhibits will be entered into the record of this case.

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

CROSS EXAMINATION

BY MR. UTZ:

Q Mr. Hoover, did you state how you intend to tube this well if this is granted?

A No, sir, I didn't. We would remove the baker packer,

which is set at 5,007 feet, we would drill that out. We would remove the baker parallel anchor set at 3,668 feet. We would remove the short string of tubing, and also remove the long string, and then re-run one string of two and three-eighths-inch tubing, which would be set at 5,118 feet, where it is set at now. The plugged back depth would remain the same.

Q Do you have any pressure information at all on this?

A No, sir, there have been no bottom-hole pressures taken. Both zones have been pumping for a number of years. The only thing we do know is that we are pumping both zones. The pump capacity for both zones is being produced at a rate of about ten per cent of its capacity. The upper zone is being pumped on a time cycle, and is being pumped off, so all we know here is that the fluid levels are just at the seating nipple of the pump. The pressures would be very low.

MR. UTZ: Any other questions? You may be excused.
Any statements in this case? It will be taken under advisement.

I N D E X

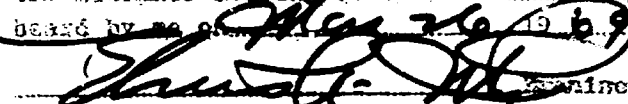
<u>WITNESS</u>	<u>PAGE</u>
JOHN H. HOOVER	
Direct Examination by Mr. Kastler	2
Cross Examination by Mr. Utz	12

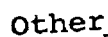
<u>EXHIBITS</u>	<u>MARKED</u>	<u>ADMITTED INTO EVIDENCE</u>
Applicant's Exhibits Numbers 1 through 4	2	12

STATE OF NEW MEXICO)
)
 COUNTY OF BERNALILLO) ss.

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.


 COURT REPORTER

I do hereby certify that the foregoing is
 a complete record of the proceedings in
 the Examiner hearing of Case No. 4083
 heard by me on May 26 1969

 Examiner
 New Mexico Oil Conservation Commission



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. 4083
Order No. R-3721

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 March 26, 1969,
at Santa Fe, New Mexico, before Examiner Elvis A. Utz.

NOW, on this 1st day of April, 1969, 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 Eunice King Well No. 7, located in Unit G 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 3 barrels of oil per day from the Penrose Skelly Pool
and approximately 12 barrels 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 set at or near the perforations in the lower
zone.

CASE No. 4083
Order No. R-3721

(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:

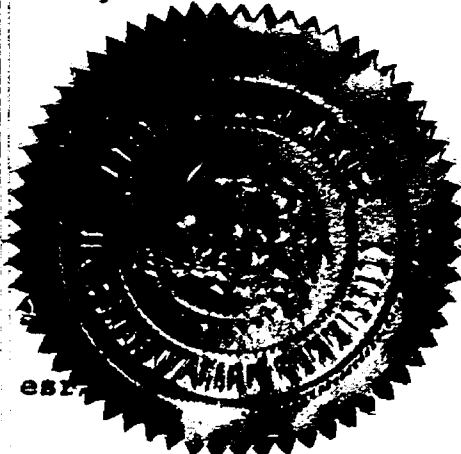
(1) That the applicant, Gulf Oil Corporation, is hereby authorized to complete its Eunice King Well No. 7, located in Unit G of Section 28, Township 21 South, Range 37 East, NMPM, Lea County, New Mexico, in such a manner as to produce oil from the Penrose Skelly Pool through perforations from 3677 feet to 3735 feet and from the Paddock Pool through perforations from 5098 feet to 5160 feet, commingling the production from each of said zones in the well-bore;

PROVIDED HOWEVER, that the production from 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
DAVID F. CARGO, Chairman

Alex J. Armitage
ALEX J. ARMITAGE, Member

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

Case #083.

Rec'd 3-26-69

Rec. 3-27-69

Grant full permission to
commingle the Paddock and
Purcell Shelly zones in their
Premise King # 7 8-28-215-
37 E in the wellbore.

There shall be no more
than 1 allowable product
from both zones. If either
zone should at any time
become capable of producing
a top allow the the order
shall be rescinded.

That this limited Paddock is
Marginal and the Purcell Shelly
is uneconomical to produce
by itself.

The tubing shall be run to
the top of the lower prod-
ucing zone. (Paddock)

W. H. H. H.

DOCKET: EXAMINER HEARING - WEDNESDAY - MARCH 26, 1969

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

The following cases will be heard before Elvis A. Utz, Examiner, or Daniel S. Nutter, Alternate Examiner:

CASE 4078: Application of J. Gregory Merrion for downhole commingling, Rio Arriba County, New Mexico. Applicant, in the above-styled cause, seeks authority to commingle production from the Devils Fork-Gallup Pool and an undesignated Mesaverde oil pool in the well-bore of his NCRA State Well No. 3 located in Unit L of Section 16, Township 24 North, Range 6 West, Rio Arriba County, New Mexico.

CASE 4079: Application of Robert B. Holt for the creation of a new pool, assignment of a discovery allowable, and the promulgation of special pool rules, Lea County, New Mexico. Applicant, in the above-styled cause, seeks the creation of a new Middle Pennsylvanian oil pool for his Aztec State Well No. 2 located in Unit A of Section 26, Township 13 South, Range 32 East, Lea County, New Mexico, and for the assignment of an oil discovery allowable in the amount of approximately 48,715 barrels to said well. Applicant further seeks the promulgation of special pool rules for said pool, including a provision for 160-acre proration units and the assignment of 80-acre allowables.

CASE 3975: (Reopened)
In the matter of Case No. 3975 being reopened pursuant to the provisions of Order No. R-3618, which order established 80-acre spacing units for the East Bluitt-San Andres Pool, Roosevelt County, New Mexico, for a period of approximately two months. All interested parties may appear and present evidence as to whether the subject area is indeed a separate common source of supply or an extension of the Bluitt-San Andres Gas Pool. Further, in the event said East Bluitt-San Andres Pool is found to be an extension of said Bluitt-San Andres Gas Pool, the Commission will consider the amendment of the Special Rules and Regulations governing the Bluitt-San Andres Gas Pool to provide for the classification of oil and gas wells, spacing and well location requirements for oil and gas wells, and an allocation formula for withdrawals from the gas cap and oil rim.

CASE 4080: Application of Monsanto Company for a unit agreement, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks approval of the Black River Unit Area comprising 14,961.23 acres, more or less, of State, Federal and Fee lands

CASE 4080 - Continued

in Townships 25 and 26 South, Ranges 23 and 24 East, Eddy County, New Mexico.

CASE 4081: Application of Curtis Hankamer for a unit agreement, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks approval of the Brushy Draw Deep Unit Area comprising 9,672.53 acres, more or less, of State and Federal lands in Township 26 South, Ranges 29 and 30 East, Eddy County, New Mexico.

CASE 4082: Application of Sam D. Ares for salt water disposal, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to inject produced salt water into the Yates-Seven Rivers formation in the open-hole interval from approximately 3358 to 3495 feet in his Arnott Ramsey "A" Well No. 3, located 660 feet from the North and West lines of Section 2, Township 25 South, Range 36 East, Jalmat Yates Seven Rivers Pool, Lea County, New Mexico.

CASE 4083: Application of Gulf Oil Corporation for downhole 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 Eunice King Well No. 7 located in Unit G 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 4084: Application of Olen F. Featherstone for the creation of a new pool and for special pool rules, Lea County, New Mexico. Applicant, in the above-styled cause, seeks the creation of a new Wolfcamp oil pool for his Cabot State Well No. 1 located in the NE/4 NW/4 of Section 29, Township 15 South, Range 32 East, Lea County, New Mexico, and for the promulgation of special rules therefor including a provision for 160-acre spacing and proration units and the assignment of 80-acre allowables.

CASE 4085: Application of Tamarack Petroleum Corporation, Inc. for salt water disposal, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to dispose of produced salt water into the Queen formation in the perforated interval from approximately 4948 feet to 5043 feet in its Cabot 23 State Well No. 2 located in Unit C of Section 23, Township 19 South, Range 35 East, Pearl-Queen Pool, Lea County, New Mexico.

- CASE 4086: Application of Hanson Oil Company for a dual completion and salt water disposal, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to dually complete its CSA Federal Well No. 1 located in Unit B of Section 29, Township 26 South, Range 37 East, Scarborough Yates-Seven Rivers Pool, Lea County, New Mexico, in such a manner as to permit production of oil from the Yates formation and the disposal of produced salt water into the Seven Rivers formation through parallel strings of tubing.
- CASE 4087: Application of Solar Oil Company for a dual completion, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for the dual completion (conventional) of its McCallister Well No. 1 located in Unit C of Section 7, Township 22 South, Range 38 East, Lea County, New Mexico, to produce oil from undesignated Drinkard and Abo oil pools through parallel strings of tubing.
- CASE 4071: (Continued from the March 19, 1969, Regular Hearing)
Application of T. J. Sivley for a dual completion and salt water disposal, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to dually complete his Federal Silver Well No. 4 located in the SW/4 SE/4 of Section 28, Township 20 South, Range 34 East, Lynch Yates-Seven Rivers Pool, in such a manner as to permit production of oil from the Yates-Seven Rivers formations and the disposal of produced salt water into the Lower Seven Rivers formation.
- CASE 4088: Application of Paul M. Mershon, Jr., for compulsory pooling, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the Upper Pennsylvanian formation underlying Section 21, Township 22 South, Range 23 East, Eddy County, New Mexico. Said acreage to be dedicated to a well to be drilled at an unorthodox gas well location 990 feet from the North and East lines of said Section 21, and within one mile of the Indian Basin-Upper Pennsylvanian Gas Pool. Also to be considered will be the costs of drilling said well, a charge for the risk involved, a provision for the allocation of actual operating costs, and the establishment of charges for supervision of said well.
- CASE 4089: Application of Paul M. Mershon, Jr., for an unorthodox gas well location, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks an exception to the special rules and regulations governing the Indian Basin-Upper Pennsylvanian Gas Pool to permit the drilling of a well at an unorthodox gas well location 990 feet from the North and East lines of Section

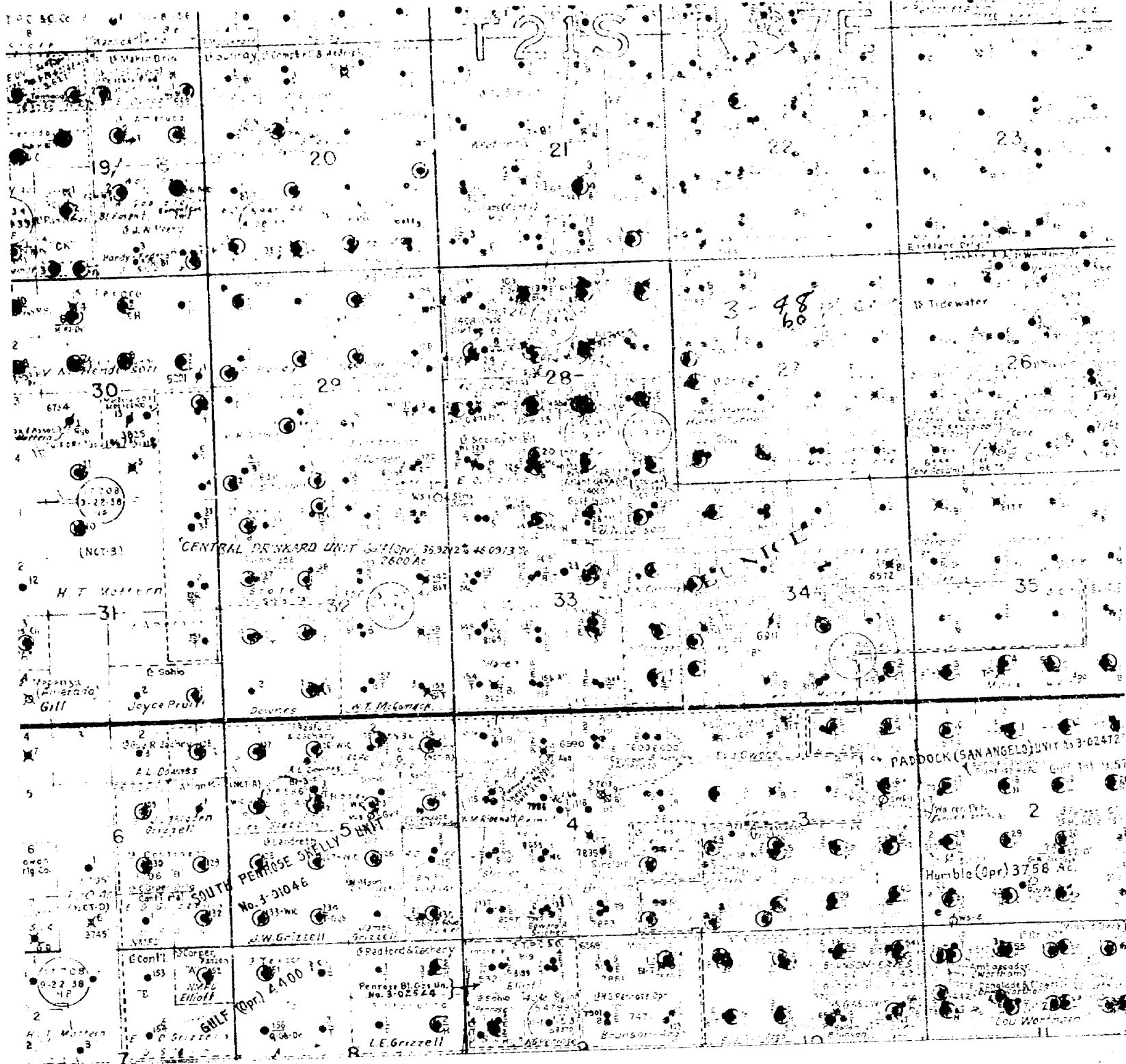
Docket No. 9-69

Examiner Hearing - March 26, 1969

21, Township 22 South, Range 23 East, Indian Basin-
Upper Pennsylvanian Gas Pool, Eddy County, New Mexico.

CASE 4090: Application of Getty Oil Company for an exception to Commission Order No. R-111-A, Lea County, New Mexico. Applicant, in the above-styled cause, seeks an exception to the potash-oil area casing and cementing rules as set forth in Commission Order No. R-111-A. Applicant proposes to re-enter and deepen approximately 3500 feet in the Yates formation four wells located in Sections 19 and 30 of Township 20 South, Range 34 East, Lea County, New Mexico, in such a manner as to eliminate the necessity of running the salt protection string provided the production string would be cemented to the surface.

CASE 4091: Application of Union Oil Company of California for a dual completion and salt water disposal, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to dually complete its Elliott Federal Well No. 1 located in Unit O of Section 27, Township 11 South, Range 38 East, Lea County, New Mexico, in such a manner as to permit the production of oil from the Field Ranch-Wolfcamp Pool and the disposal of produced salt water into the San Andres, Glorieta, Blinberry, Tubb and Abo formations in the open-hole interval from approximately 4458 feet to 8050 feet.



PLAT
GULF OIL CORPORATION
EUNICE KING LEASE
Lea County, New Mexico

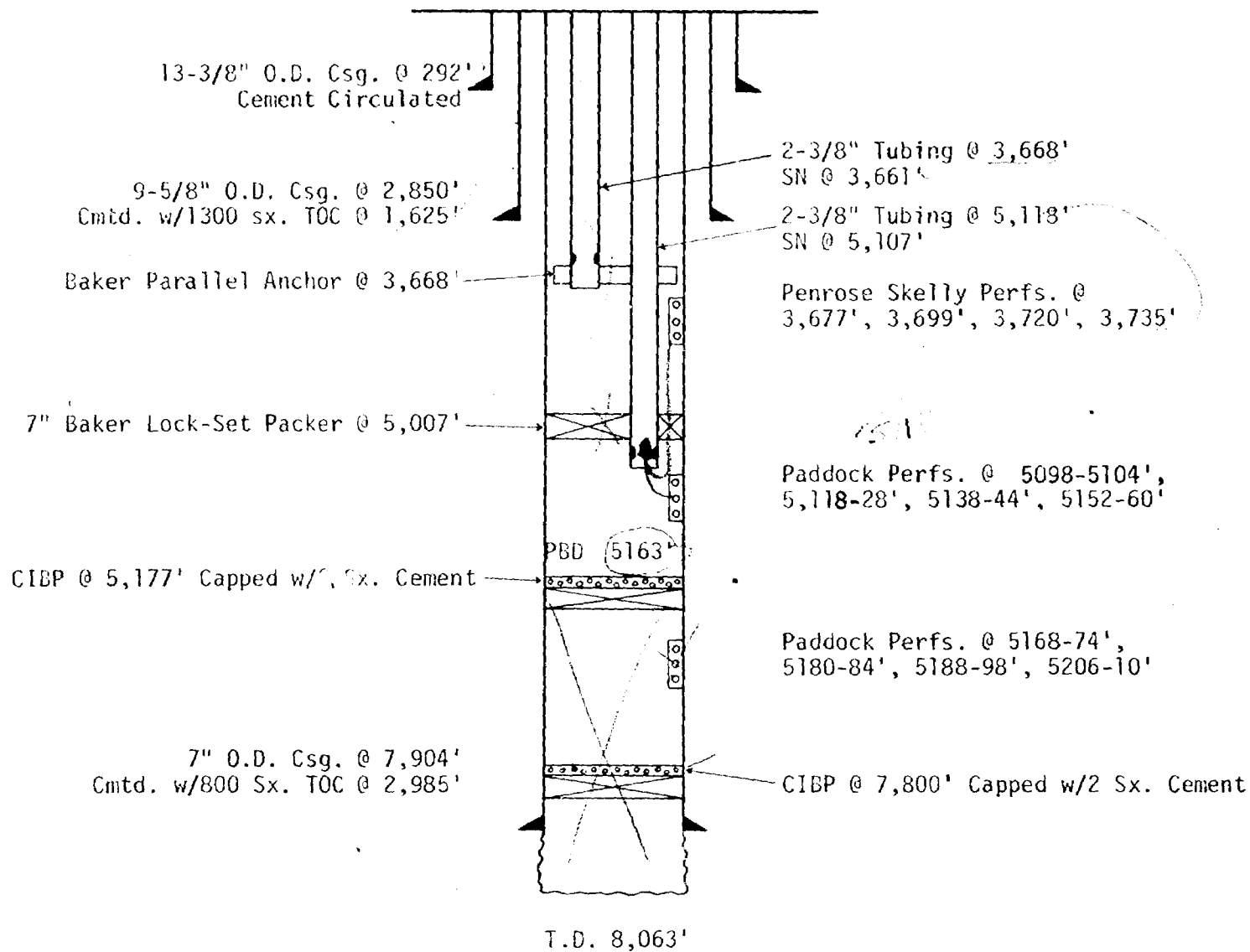
BEFORE EXAMINER UTZ
OIL CONSERVATION COMMISSION
appl. EXHIBIT NO. 1
CASE NO. 4083

- LEGEND -
PENROSE SKELLY OIL WELL
PADDOCK OIL WELL

CASE NO. 4083
EXHIBIT NO. 1
March 26, 1969

EUNICE KING WELL NO. 7

PENROSE SKELLY OIL - PADDOCK OIL DUAL COMPLETION
1980' FN & EL SECTION 28-T21S-R37E
LEA COUNTY, NEW MEXICO
ELEV. = 3,447' GL



CASE NO. 4083

EXHIBIT NO. 3

March 26, 1969

BEFORE EXAMINER UTZ
OIL CONSERVATION COMMISSION
EXHIBIT NO. 3
CASE NO. 4083

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

February 26, 1969

P. O. Drawer 1938
Roswell, New Mexico 88201

Copy 4083

Oil 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 Downhole Commingling of Production in the
Eunice King Well No. 7, 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 downhole commingling in the well bore of Penrose Skelly and Paddock oil and gas production in the Eunice King Well No. 7, located in Unit G, 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 Eunice King Lease described as the N/2 Section 28, T-21-S, R-37-E, Lea County, New Mexico. The attached plat shows the Eunice King Lease outlined in red and Well No. 7 circled and colored in red.
- (2) Production from the Paddock Pool is marginal and the Penrose Skelly zone is not only marginal, but is uneconomical to produce.
- (3) Applicant will request no more than one allowable be assigned to the well which will be considerably below the top allowable for the shallow zone.

Respectfully submitted,

GULF OIL CORPORATION

M. I. Taylor
M. I. Taylor

Attachment
JHH:dch

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



A DIVISION OF GULF OIL CORPORATION

DOCKET MAILED

Date 3-14-69

Oil Conservation Commission
State of New Mexico

Page 2

February 26, 1969

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

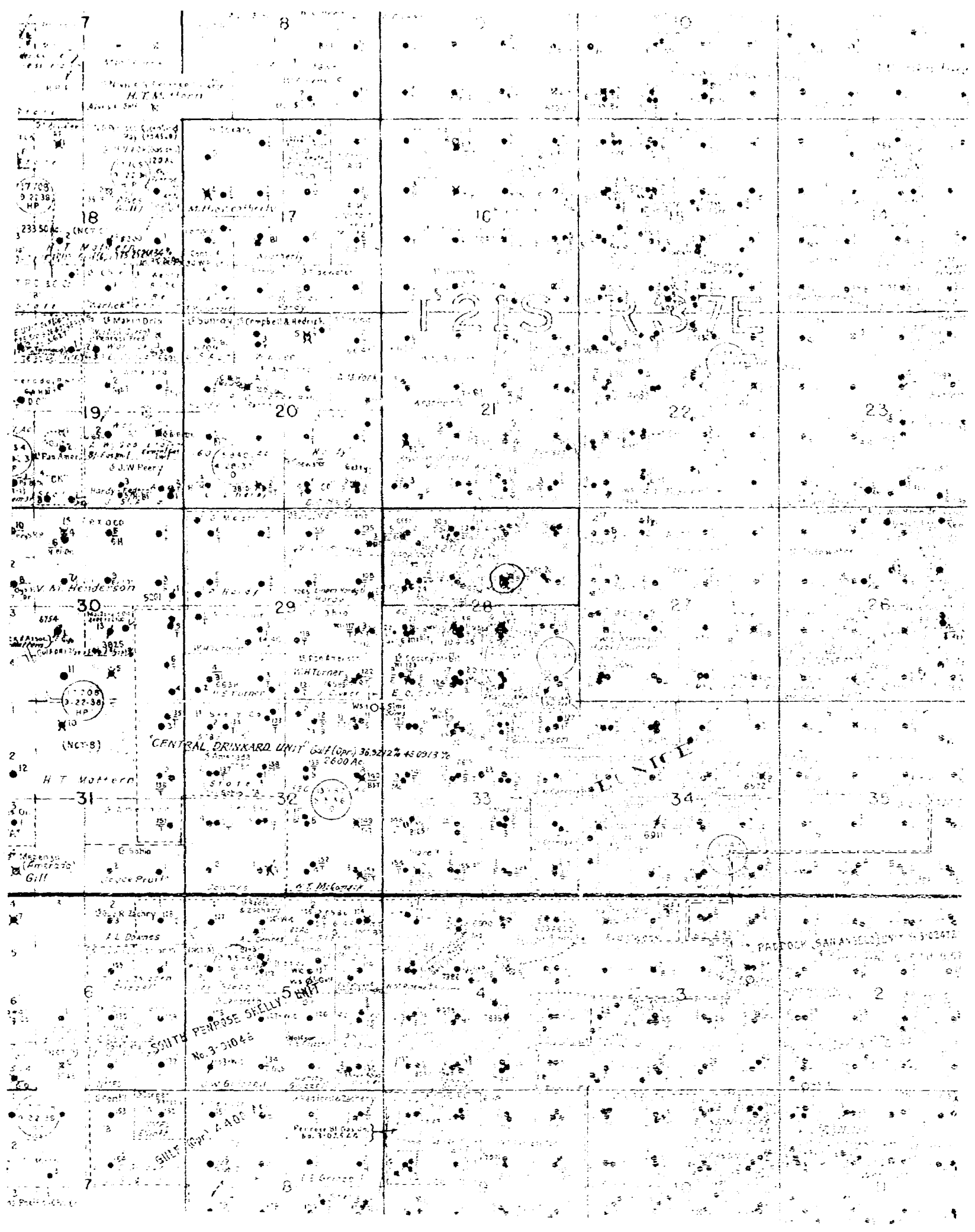
Marathon Oil Company
Post Office Box 220
Hobbs, New Mexico 88240

Mobil Oil Corporation
Post Office Box 633
Midland, Texas 79701

Getty Oil Company
Post Office Box 249
Hobbs, New Mexico 88240

Shell Oil Company
Post Office Box 1509
Midland, Texas 79701

Sun Oil Company - DX Division
Post Office Box 1416
Roswell, New Mexico 88201



DRAFT

GMH/esr

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. 4083

Order No. R-3721

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 March 26, 1969,
at Santa Fe, New Mexico, before Examiner Elvis A. Utz.

NOW, on this _____ day of _____, 1969, 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 Eunice King Well No. 7, located in Unit G 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 3 barrels of oil per day from the Penrose Skelly Pool
and approximately 12 barrels 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 *set at or near the perforation in the Lower Zone.*

(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 Eunice King Well No. 7, located in Unit G 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 3677 feet to 3735 feet and from the Paddock Pool through perforations from 5098 feet to 5160 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.