

CASE 4164: Application of MOBIL  
OIL CORP. FOR AN UNORTHODOX  
LOCATION, LEA COUNTY, NEW MEXICO.

Case Number.

4164

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Application

Transcripts.

Small Exhibits

ETC.

BEFORE THE  
NEW MEXICO OIL CONSERVATION COMMISSION  
Santa Fe, New Mexico  
July 9, 1969

EXAMINER HEARING

IN THE MATTER OF:

Application of Mobil Oil Corporation  
for an unorthodox location, Lea  
County, New Mexico.

Case No. 4164

BEFORE: Daniel S. Nutter, Examiner.

TRANSCRIPT OF HEARING

MR. NUTTER: Call Case 4164.

MR. HATCH: Case 4164, application of Mobil Oil Corporation for an unorthodox location, Lea County, New Mexico.

MR. SPERLING: James E. Sperling of Modrall, Seymour, Sperling, Roehl & Harris of Albuquerque appearing on behalf of the applicant.

We have one witness. Stand and be sworn.

(Witness sworn.)

W. B. SIMMONS

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

DIRECT EXAMINATION

BY MR. SPERLING:

Q Would you state your name, please?

A W. B. Simmons.

Q And how do you spell your last name?

A S-I-M-M-O-N-S.

Q Where do you reside, Mr. Simmons, and by whom are you employed and in what capacity?

A I reside at 3407 West Michigan in Midland, Texas. I am employed with Mobil Oil

Corporation in Midland, Texas, in the capacity of senior production engineer in the Proration Group.

Q Mr. Simmons, have you previously testified before the Commission and are your qualifications a matter of record?

A No, I haven't, and no, they aren't.

Q Would you please state briefly your educational background and your experience?

A I graduated from the Texas Technological College with a Bachelor of Science Degree in Engineering. I went to work for Mobil, then Magnolia Petroleum in 1952, and for seventeen years with Mobil, I have been in petroleum engineering or related engineering work.

MR. SPERLING: Are the witness' qualifications acceptable, Mr. Examiner?

MR. NUTTER: Yes, they are.

Q (By Mr. Sperling) Are you familiar with the application which has been filed on Mobil's behalf in this matter?

A Yes, I am.

Q State briefly what is sought by the application?

A We are applying for an unorthodox location in Unit H, which is 2470 feet from the north line and 430 feet from the east line of Section 3, Township 25 South, Range 37 East, in Lea County, New Mexico.

Q Now, would you please refer to what has been marked for identification as Exhibit Number One, and state for the record the information contained on that exhibit and its significance relative to this hearing?

A This exhibit shows an eighty-acre, irregular shaped five-spot injection pattern, and the triangular shaped mark indicates the well location that we propose. You will note there is an existing producer within that area marked Number Four, and there are -- there is at present only one well injecting at this time. It's Gulf's SIM Unit Number 102. It has been injecting since, oh, approximately the first of the year.

We have not had any response in any of our producing wells on the Fristoe Lease, and within this unit boundary area that we show, that is the proposed unit boundary area.

The Well Number 6 has been drilled and completed as an injector well. Well Number 7 has been drilled and completed as an injector well, but we are not injecting water at this time. Well Number Eight -- Well Number 5 in this five-spot is an existing producing well which will be converted to an injector.

Q Now, were these drilled -- these wells drilled initially by Mobil? In other words, was this acreage developed by Mobil?

A Actually not. This is part of a purchase effective May 1st, 1969. We purchased the Fristoe Lease in addition to several others in the area from George Buckles, and we planned initially water fluid operations on this lease and adjacent tracts as shown on this outline on Exhibit One.

Q Are you in the process now of completing unitization within this unit area?

A Yes, we are. Actually, the outline shown is the proposed unit which has been submitted to the USGS for unit designation and preliminary approval. Now, we have not received this approval, but we expect to in a matter of days.

Q I see; the particular lease upon which the proposed well is located is a Federal lease, is it not?

A Yes sir, it is.

Q I see; now, it is noted that in the vicinity of the well which is marked Five and which I think you stated earlier would be converted to an injection well, there is a sort of a fan-shaped, red-shaded area. What is the significance of that shading?

A We attempted to show on this exhibit and explain why Number Eight was to be drilled. Number 4 will drain we expect about 10.31 acres of this five-spot pattern, and the rest would be more efficiently and effectively drained by the proposed case Hole Number 8. In essence, if we did not have Well Number 8 there, we feel that we would lose considerable secondary production.

Q Has this area been the subject of a previous application for the establishment of a water flood program?

A Yes, sir. Actually, it was approved by -- at George Buckles' request in Commission's Order R-3426, and we have that marked and submitted



as Exhibit Two.

Q Exhibit Two being a copy of the order that you have just referred to?

A Yes, sir.

Q Which was pursuant to the application of the prior owner?

A That's right.

Q Do you have anything further to add at this time with reference to Exhibit One?

A Well, just to show that as marked on there, that the red squares are the water injection wells approved in Order 3426, and we intend to use those as indicated by this pattern.

Q Was injection actually undertaken by the prior operator, Mr. Buckles, pursuant to the application which resulted in Order Number R-3426?

A No sir, he did not start injection. We are continuing with his efforts and we will -- after approval for unitization, we will start water flood operations this year.

Q Who is the operator of the acreage lying to the east of the proposed well?

A Gulf Oil Corporation.

Q And I believe you stated earlier that Gulf is presently injecting in its well designated as Number 102, which is in the southwest quarter of the northwest quarter of Section 2 in 25 South, 37 East?

A Yes sir, since the first of the year.

Q I see; now, has Gulf been contacted with reference to the proposed drilling of the well under this application?

A Actually, they were contacted, and their signed waiver, which is noted Exhibit Three and submitted at this time, is -- essentially says that they -- as offset operators, they have no objection to the Commission granting Mobil this unorthodox location.

Q And that waiver is designated as Exhibit Three --

A Yes, sir.

Q -- in those exhibits submitted to the Commission?

A Yes sir, Exhibit Three.

Q All right; now, would you give us a brief history of this particular pool?

A The production was established on this Fristoe Lease with completion of Well Number Two. This was on December 13, 1937, then three additional wells were completed in '38. Now, in September and October of '68, two injectors, Number 6 and Number 7, were drilled. Our current production from the lease is very near the economic limit, between one or two barrels per well per day.

Q Does Exhibit Four represent a tabulation of the oil production for this Fristoe Lease?

A Yes sir, it does.

Q All right; please now refer to Exhibit Number Five, and state what it shows?

A Exhibit Five was supplied to show graphically the oil production and its subsequent decline. Its pretty well levelled off now at a very low rate of production.

Q So this is simply in effect a recapitulation of the production history?

A Yes, sir.

Q In other words, amounts versus time, is that right?

A That's right.

Q All right; do you have an estimate as to the amount of oil that would remain unrecovered if this well which is the subject of the application were not drilled?

A Yes, sir. In calculating the economics of this well, we were -- we had to estimate what the recoveries would be, and in doing so, we drew a -- using the five-spot eighty-acre pattern, and it calculates to be 78.23 -- referring to Exhibit One, please. The total area in that five-spot is about 78.23 acres.

And within this -- and I'd like to also refer to Exhibit Six, and that is a summary of the calculations there. What we did is attempted to develop just how much secondary production would be within this five-spot area, and that amounted to 182,740 for primary, and then assuming a secondary to primary ratio of .75, the secondary oil to be recovered would amount to approximately a hundred thirty-seven thousand barrels.

And since there is an additional -- an existing well in this area right now, we discounted

the amount to be drained by the proposed well, and that amounted to -- let's see, the fractional area left was -- Fristoe Number 4 will recover eighty thousand barrels, and that's that fan-shaped area we talked about before.

Now, this left a remainder of a hundred and nineteen thousand barrels in place that the proposed Well Number 8 could more efficiently recover.

Q In other words, the drilling of the proposed well would prevent the loss of approximately a hundred nineteen thousand barrels of secondary oil?

A Yes, sir.

Q Do you have anything to add with reference to Exhibit Six, which is the calculation of the recovery?

A No, sir. Like I said, that was a summary of the calculations and it shows the assumptions made. This ratio of seventy-five -- .75 was -- has been used on most of our studies in that area concerning secondary economics.

Q You do contemplate at sometime in the future

the filing of an application for approval of the water flood program that you have outlined?

A Yes, sir. We have a time table on that, and it will be this year, and more probably in August. We're trying to speed this up as much as we can.

Q I see; is Mobil the sole interest owner within this area that is shown on Exhibit One as being the unit area, proposed unit area?

A Yes sir, Mobil has one hundred per cent of the working interest in this acreage designated by that cross-hatched line.

Q I see; well, you are requesting that the well which is the subject of this application be drilled prior to the initiation of the water flood program, is that right?

A Yes, sir.

Q Is there any particular reason for that?

A Yes, sir. We, in an attempt to get as good a drilling bid on -- as we could in this area, we let out a three-well packet, on drilling three wells in the area. We were required to drill one of them by June 16th, 1969, and that was on our

Federal X Number 1, and we included two others in this packet, the Liberty Number 6 and the Fristoe Number 8.

Now, we have drilled the second well of this three-well packet, and this Number 8, the proposed well, is all that's remaining to finish the contract on it.

Q Well, does this result in a savings insofar as --

A Yes sir, it did. We have run out the economics on it, and it was an appreciable five thousand dollars per well, and if we drill this Number 8, we -- at this time, we feel that we can save five thousand dollars on the drilling of the well.

Q I see; do you have anything else to add with reference to the application?

A The main thing is that Gulf is going along with their flood and we are offsetting them. Amerada, to the north of us, is -- we are not working out line agreements with them on a co-operative basis, and the same way with Union on the west, so this will run out the whole flood project. We

anticipate no trouble reaching agreements, but we are negotiating at this time.

Q I see; do you have anything further?

A No, I have not.

MR. SPERLING: At this time, we would like to offer in evidence the Exhibits One through Six.

MR. NUTTER: Mobil's Exhibits One through Six will be admitted in evidence.

(Whereupon, Applicant's Exhibits 1 through 6 were offered and admitted in evidence.)

MR. SPERLING: And that's all we have at this time.

CROSS EXAMINATION

BY MR. NUTTER:

Q Mr. Simmons, do you know whether it was Mr. Buckles' plan to drill an infield production well here when he obtained approval for the water flood project?

A I have tried to find out ever since we bought this property, but the records were rather slim. I can't find any information that would show



this, but -- and it isn't in the order, but as far as I know, he did not anticipate drilling this --

Q It would appear, just from a casual glance at your Exhibit Number One, and also a study of Exhibit Number Six, that a well in this vicinity is necessary.

A It would appear that way to us, yes sir, and it's just the time that we are just doing it now while it's a little more advantageous to us.

Q You do expect to have the area unitized before you put any of those wells on injection, I presume?

A Yes, sir. Since there's a Federal lease involved there, all of our negotiations will be contingent upon Federal approval, but we anticipate no trouble there.

Q I am not certain about the letter of transmittal for the water flood order that issued to Buckles, but in all probability it set out an allowable for each of the various leases that are involved here.

A I don't have that.

Q A separate water flood allowable for each of them, but once it's unitized, you would be eligible for a single project allowable.

A Yes sir, and we'll be coming to you, probably in late August, with a complete, brand new proposal for that.

Q I see.

A And as you notice, the pattern is somewhat different because of these line agreements.

Q Now, haven't the Amerada wells to the north been drilled there in the south part of Section 34?

A Number 16, we show that to be a proposed injection well. The injection wells to the north, I believe those now may have been, but I am not familiar with anything except right immediately adjacent to our north line, and we are negotiating now on an offset agreement involving this Well Number 16.

Q Now, what is that red square out here at Tract 5 in Section 4?

A Oh, that's a location that was approved in Order 3426 that was never drilled.

Q I see.

A And you can see why. In other words, this will have some bearing -- where we drill that well will have some bearing with our negotiations with Union, and at this present time we anticipate drilling it where the triangle is.

Q In other words, moving the well southwest?

A Yes, sir, a small amount.

Q So you can make this for your revision of that Order 3426 or for another order?

A Yes sir, or for another order.

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

You may be excused.

(Witness excused.)

MR. NUTTER: Do you have anything further, Mr. Sperling?

MR. SPERLING: No, sir.

MR. NUTTER: Does anyone have anything further to offer in Case 4164?

We'll take the case under advisement.

I N D E XWITNESSPAGE

W. B. SIMMONS

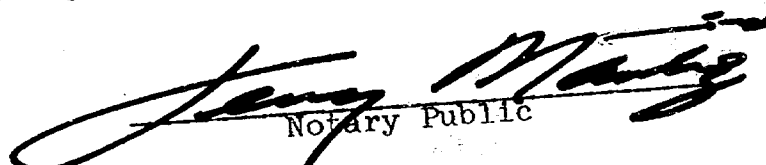
Direct Examination by Mr. Sperling  
Cross Examination by Mr. Nutter2  
14EXHIBITMARKEDOFFERED AND  
ADMITTEDApplicant's 1  
through 6

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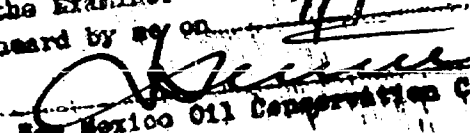
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STATE OF NEW MEXICO  
COUNTY OF BERNALILLO }

I, JERRY MARTINEZ, Notary Public in and for the  
County of McKinley, 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.

  
Notary Public

My Commission Expires:  
January 24, 1970.

I do hereby certify that the foregoing is  
a complete record of the proceedings in  
the Examiner hearing of Case No. 4164  
heard by me on 7/9 1969.  
 Examiner  
New Mexico Oil Conservation Commission



**OIL CONSERVATION COMMISSION**  
STATE OF NEW MEXICO  
P. O. BOX 2088 - SANTA FE  
87501

GOVERNOR  
DAVID F. CARGO  
CHAIRMAN  
LAND COMMISSIONER  
ALEX J. ARMIJO  
MEMBER  
STATE GEOLOGIST  
A. L. PORTER, JR.  
SECRETARY - DIRECTOR

July 16, 1969

Mr. James E. Sperling  
Modrall, Seymour, Sperling,  
Roehl & Harris  
Attorneys at Law  
Public Service Building  
Albuquerque, New Mexico 87103

Re: Case No. 4164  
Order No. R-3799  
Applicant:  
Mobil Oil Corporation

Dear Sir:

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

Very truly yours,

*A. L. Porter, Jr.*  
A. L. PORTER, Jr.  
Secretary-Director

ALP/ir

Copy of order also sent to:

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. 4164  
Order No. R-3799

APPLICATION OF MOBIL OIL CORPORATION  
FOR AN UNORTHODOX LOCATION, LEA COUNTY,  
NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on July 9, 1969,  
at Santa Fe, New Mexico, before Examiner Daniel S. Nutter.

NOW, on this 15th day of July, 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, Mobil Oil Corporation, is the opera-  
tor of a waterflood project comprising all of Section 3 and the  
E/2 NE/4 and the NE/4 SE/4 of Section 4, Township 25 South, Range  
37 East, NMPM, Langlie-Mattix Pool, Lea County, New Mexico,  
approved by Commission Order No. R-3426, dated June 5, 1969.

(3) That the applicant, Mobil Oil Corporation, seeks author-  
ity to drill a producing oil well in said project area, its  
Fristoe Well No. 8, at an unorthodox location 2470 feet from the  
North line and 430 feet from the East line of said Section 3.

(4) That the proposed unorthodox location is necessary  
to complete an efficient oil producing pattern.

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CASE No. 4164  
Order No. R-3799

(5) That approval of the subject application will afford the applicant the opportunity to produce its just and equitable share of the oil in the Langlie-Mattix Pool, and will otherwise prevent waste and protect correlative rights.

IT IS THEREFORE ORDERED:

(1) That the applicant, Mobil Oil Corporation, is hereby authorized to drill a producing oil well in the waterflood project area comprising all of Section 3 and the E/2 NE/4 and the NE/4 SE/4 of Section 4, Township 25 South, Range 37 East, NMPM, Langlie-Mattix Pool, Lea County, New Mexico, at an unorthodox location 2470 feet from the North line and 430 feet from the East line of said Section 3.

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

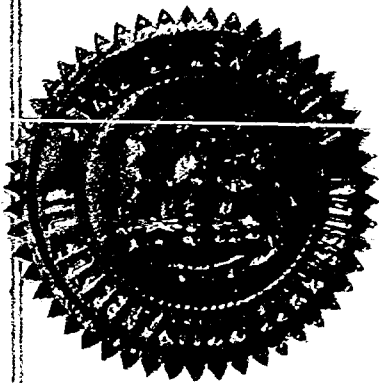
DONE at Santa Fe, New Mexico, on the day and year hereinabove designated.

STATE OF NEW MEXICO  
OIL CONSERVATION COMMISSION

  
DAVID F. CARGO, Chairman

  
ALEX J. ARMIJO, Member

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



esr/



J. B. MODRALL  
JAMES E. SPERLING  
JOSEPH E. ROEHL  
GEORGE T. HARRIS, JR.  
DANIEL A. BISK  
LELAND S. SEOBERRY, JR.  
ALLEN C. DEWEY, JR.  
FRANK H. ALLEN, JR.  
JAMES P. SAUNDERS, JR.  
JAMES A. PARKER

JOHN R. COONEY  
KENNETH L. HARRIGAN  
PETER J. ADAMS  
DALE W. EK  
PETER J. BROULLIRE, III  
CAMERON R. GRAHAM

LAW OFFICES OF  
MODRALL, SEYMOUR, SPERLING, ROEHL & HARRIS

PUBLIC SERVICE BUILDING  
P. O. BOX 2168  
ALBUQUERQUE, NEW MEXICO 87103

JOHN F. SIMMS (1885-1954)  
AUGUSTUS T. REYNOLDS  
(1907-1965)

TELEPHONE 243-4511  
AREA CODE 505

July 17, 1969

4447  
4144

Mr. Daniel S. Nutter  
Oil Conservation Commission  
State of New Mexico  
P. O. Box 2088  
Santa Fe, New Mexico 87501

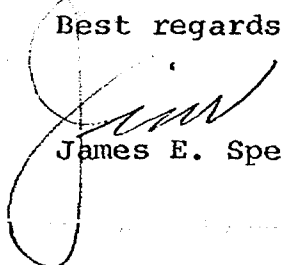
Re: Order No. R-3799

Dear Dan:

I have received the Commission's order issued July 15, 1969, and note that in paragraph numbered 2 of the findings that there is apparently a typographical error relating to the approval date of order numbered R-3426. I do not believe the year should be 1969.

On behalf of Mobil Oil Corporation, I appreciate the promptness with which the order was issued in this matter. They can now go ahead and accommodate the contractor.

Best regards,

  
James E. Sperling

JES:jv

cc: Mobil Oil Corporation

DOCKET NO. 19-69

DOCKET: EXAMINER HEARING - WEDNESDAY - JULY 9, 1969

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  
Elvis A. Utz, Alternate Examiner:

CASE 4160: Application of Roger C. Hanks for pool redelineation, Roosevelt County, New Mexico. Applicant, in the above-styled cause, seeks the redelineation of certain pool boundaries to include the deletion of the NE/4 of Section 29 from the South Prairie-Cisco Pool and the extension of the Middle Allison-Pennsylvanian Pool to include all of Section 29, the SE/4 of Section 30, and the N/2 of Section 32, all in Township 8 South, Range 36 East, Roosevelt County, New Mexico.

CASE 4161: Application of Roger C. Hanks for special pool rules, Lea County, New Mexico. Applicant, in the above-styled cause, seeks the promulgation of special pool rules for the North Mescalero-Cisco Pool, Lea County, New Mexico, including a provision for 160-acre spacing and proration units and the assignment of 80-acre allowables.

CASE 3786: (Reopened)

In the matter of Case No. 3786 being reopened pursuant to the provisions of Order No. R-3437, which order established special rules and regulations for the North Paduca-Delaware Pool, Lea County, New Mexico, including provisions for the classification of and spacing for oil and gas wells and a special gas-liquid ratio limitation. All interested parties may appear and show cause why the special rules and regulations should not be discontinued.

CASE 4162: Application of Western States Producing Company for a dual completion and salt water disposal, Roosevelt County, New Mexico. Applicant, in the above-styled cause, seeks authority to dually complete its State 30 Well No. 2 located in Unit M of Section 30, Township 7 South, Range 33 East, Roosevelt County, New Mexico, in such a manner as to permit the production of oil from the Chaveroo-San Andres Pool and the disposal of produced salt water through 8 5/8 X 4 1/2 inch casing-casing annulus into the Yates, Seven Rivers, and Queen formations in the open-hole interval from approximately 1825 feet to 3785 feet.

- CASE 4163: Application of Pan American Petroleum Corporation for a non-standard gas proration unit, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval of a 181-acre non-standard gas proration unit for its Pike Federal Well No. 1 located in Unit A of Section 6, Township 23 South, Range 38 East, Tubb Gas Pool, Lea County, New Mexico, said unit to comprise the N/2 N/2 of said Section 6.
- CASE 4164: Application of Mobil Oil Corporation for an unorthodox location, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to drill its Fristoe Well No. 8 at an unorthodox location 2470 feet from the North line and 430 feet from the East line of Section 3, Township 25 South, Range 37 East, Langlie Mattix Pool, Lea County, New Mexico.
- CASE 4165: Application of Sam Boren for special pool rules, Lea County, New Mexico. Applicant, in the above-styled cause, seeks the promulgation of special pool rules for the East Bagley-Pennsylvanian Pool, Lea County, New Mexico, including a provision for 160-acre spacing and proration units and the assignment of 80-acre allowables.
- CASE 4166: Application of Sam Boren for a dual completion and salt water disposal, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to dually complete his Barbera State "A" Well No. 1 located in Unit P of Section 6, Township 12 South, Range 34 East, Lea County, New Mexico, in such a manner as to permit the production of oil from the East Bagley-Pennsylvanian Pool and the disposal of produced salt water through the intermediate casing-production casing annulus into the San Andres and Glorieta formations in the open-hole interval from approximately 4060 feet to 6562 feet.
- CASE 4167: Application of Charles B. Read for a dual completion and salt water disposal, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to dually complete his Hobbs "Y" Well No. 1 located in Unit J of Section 29, Township 12 South, Range 34 East, Lea County, New Mexico, in such a manner as to permit the production of oil from the East Hightower-Pennsylvanian Pool and the disposal of produced salt water through the intermediate casing-production casing annulus into the San Andres, Glorieta, Yeso, and Abo formations in the open-hole interval from approximately 4195 feet to 7720 feet.

CASE 4168: Application of Charles B. Read for salt water disposal, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to dispose of produced salt water into the Seven Rivers Reef formation in the open-hole interval between 3783 feet and 3797 feet in his Sinclair State Well No. 1 located 2310 feet from the South and West lines of Section 2, Township 21 South, Range 33 East, Lynch Pool, Lea County, New Mexico.

CASE 4169: Application of Mask, Jennings, Keohane and Westall for an exception to Order No. R-3221, as amended, Eddy County, New Mexico. Applicants, in the above-styled cause, seek an exception to Order No. R-3221, as amended, which order prohibits the disposal of water produced in conjunction with the production of oil on the surface of the ground in Lea, Eddy, Chaves and Roosevelt Counties, New Mexico, after January 1, 1969. Said exception would be for applicants' wells in the E/2 NW/4 and the NE/4 of Section 2, Township 19 South, Range 31 East, Shugart Pool, Eddy County, New Mexico. Applicants seek authority to dispose of salt water produced by said wells in an unlined surface pit located in Unit C of said Section 2.

CASE 4170: Application of H. C. Hood for pool redelineation, Lea County, New Mexico. Applicant, in the above-styled cause, seeks the redelineation of the High Plains-Pennsylvanian Pool by the deletion of the SW/4 of Section 14 and the SE/4 of Section 15, Township 14 South, Range 34 East, Lea County, New Mexico.

BEFORE THE OIL CONSERVATION COMMISSION  
OF THE STATE OF NEW MEXICO

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

CASE No. 3772  
Order No. R-3426

APPLICATION OF GEORGE L. BUCKLES  
COMPANY FOR THREE WATERFLOOD PROJ-  
ECTS, LEA COUNTY, NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 8 a.m. on May 22, 1968,  
at Santa Fe, New Mexico, before Examiner Daniel S. Nutter.

NOW, on this 5th day of June, 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, George L. Buckles, seeks authority  
to institute three waterflood projects by the injection of water  
into the Queen Sand of the Langlie-Mattix Pool in Township 25  
South, Range 37 East, NMPM, Lea County, New Mexico, as follows:

A waterflood project comprising all of Section 3 and the  
E/2 NE/4 and NE/4 SE/4 of Section 4, with injection to be  
through eight wells located in Units A, F, J, L, M, O, & P  
of Section 3, and Unit H of Section 4;

A waterflood project comprising the S/2 S/2 of Section 10,  
the W/2 SW/4 of Section 11, the W/2 NW/4 of Section 14, and  
the NE/4 and NE/4 NW/4 of Section 15, with injection to be  
through ten wells located in Units M & O of Section 10, Unit  
M of Section 11, Unit D of Section 14, and Units A, B, C, E,  
and H of Section 15;

BEFORE EXAMINER NUTTER	
OIL CONSERVATION COMMISSION	
Appl	EXHIBIT NO. <u>2</u>
CASE NO.	<u>4164</u>

-2-

CASE No. 3772  
Order No. R-3426

A waterflood project comprising the NE/4 of Section 22, with injection to be through three wells located in Units B, G, and H of Section 22.

(3) That the applicant also requests authority to drill a number of said injection wells at unorthodox locations, often 5 to 15 feet from the corners and/or boundaries of their respective 40-acre tracts.

(4) That the wells in each of the project areas are in an advanced state of depletion and should properly be classified as "stripper" wells.

(5) That in order to complete an efficient injection pattern, the applicant should be authorized to drill a number of said injection wells at unorthodox locations as shown on Exhibits Nos. 2 and 3.

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

(7) That the subject application should be approved and the projects should be governed by the provisions of Rules 701, 702, and 703 of the Commission Rules and Regulations.

IT IS THEREFORE ORDERED:

(1) That the applicant, George L. Buckles, is hereby authorized to institute three waterflood projects in the Langlie-Mattix Pool by the injection of water into the Queen Sand of the Langlie-Mattix Pool in Township 25 South, Range 37 East, NMPM, Lea County, New Mexico, as follows:

A waterflood project comprising all of Section 3 and the E/2 NE/4 and NE/4 SE/4 of Section 4, with injection to be through the eight wells to be located as follows:

1. 990 feet from the North line and 100 feet from the East line of Section 3.
2. 1750 feet from the North line and 2970 feet from the East line of Section 3.
3. 2970 feet from the North line and 1650 feet from the East line of Section 3.

Unit #6

Humphrey #11

Humphrey #15

-3-

CASE No. 3772

Order No. R-3426

LIBERTY #5

LIBERTY #6

Hampshire #9

Smith #7

Smith #5

4. 1830 feet from the South line and 660 feet from the West line of Section 3.

5. 100 feet from the South line and 5 feet from the West line of Section 3.

6. 100 feet from the South line and 1980 feet from the East line of Section 3.

7. 1315 feet from the South line and 100 feet from the East line of Section 3.

8. 2310 feet from the North line and 990 feet from the East line of Section 4.

A waterflood project comprising the S/2 S/2 of Section 10, the W/2 SW/4 of Section 11, the W/2 NW/4 of Section 14, and the NE/4 and the NE/4 NW/4 of Section 15, with injection to be through the 10 wells to be located as follows:

1. 1220 feet from the South line and 1315 feet from the West line of Section 10.

2. 4290 feet from the North line and 2145 feet from the East line of Section 10.

3. 1315 feet from the South line and 1315 feet from the West line of Section 11.

4. 1315 feet from the North line and 1315 feet from the West line of Section 14.

5. 5 feet from the North line and 80 feet from the East line of Section 15.

6. 5 feet from the North line and 2635 feet from the East line of Section 15.

7. 1315 feet from the North line and 1325 feet from the West line of Section 15.

8. 2540 feet from the North line and 2635 feet from the East line of Section 15.

9. 1325 feet from the North line and 1325 feet from the East line of Section 15.

-4-

CASE No. 3772  
Order No. R-3426

10. 2540 feet from the North line and 100 feet from the East line of Section 15.

A waterflood project comprising the NE/4 of Section 22, with injection to be through the three wells to be located as follows:

1. 1315 feet from the North line and 1325 feet from the East line of Section 22.
2. 2635 feet from the North line and 2635 feet from the East line of Section 22.
3. 2635 feet from the North line and 80 feet from the East line of Section 22.

(2) That each of the above waterflood project areas is hereby designated an area wherein transfer of allowables between leases is permitted, provided the area has been unitized or otherwise consolidated, or provided all persons owning working interests and/or royalty interests within said area have so agreed and evidence of such unitization, consolidation, or agreement has been furnished the Santa Fe Office of the Commission, effective day that Commission receives said evidence.

(3) That the subject waterflood projects authorized by Order (1) and modified by Order (2) of this order shall be governed by the provisions of Rules 701, 702, and 703 of the Commission Rules and Regulations insofar as said Rules and Regulations are not inconsistent with this order.

(4) That monthly progress reports of the waterflood projects authorized by Order (1) and modified by Order (2) shall be submitted to the Commission in accordance with Rules 702 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 hereinabove designated.

STATE OF NEW MEXICO  
OIL CONSERVATION COMMISSION

DAVID F. CARGO, Chairman

GUYTON B. HAYS, Member

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

S E A L

ear/



W A I V E R

New Mexico Oil Conservation Commission  
P. O. Box 2083  
Santa Fe, New Mexico 87501

UNORTHODOX LOCATION, MOBIL OIL  
CORPORATION'S FRISTOE LEASE,  
WELL # 8, QUEEN FORMATION,  
LANGLIE MATTIX FIELD, LEA  
COUNTY, NEW MEXICO

Gentlemen:

Gulf Oil Corporation has been informed by Mobil Oil Corporation of their application for an unorthodox well location on the subject lease. Please be advised that Gulf, as the operator of offset proration or spacing units, has no objection to the Commission granting Mobil the authority to drill this well located as follows:

2470' from the north line and 430' from the east line of  
Sec. 3, T25S, R37E, Lea County, New Mexico.

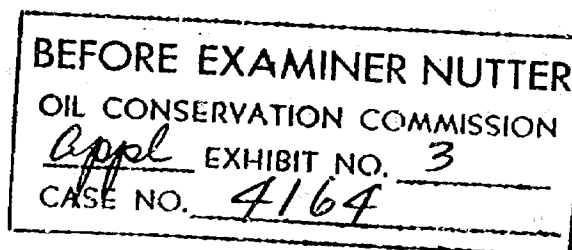
Yours truly,

Gulf Oil Corporation

By *B. A. Coleman*

Title or  
Position (for) District Production Manager

Date June 20, 1969



TABULATION OF OIL PRODUCTION  
FRISTOE LEASE  
LANGLIE-MATTIX POOL  
LEA COUNTY, NEW MEXICO

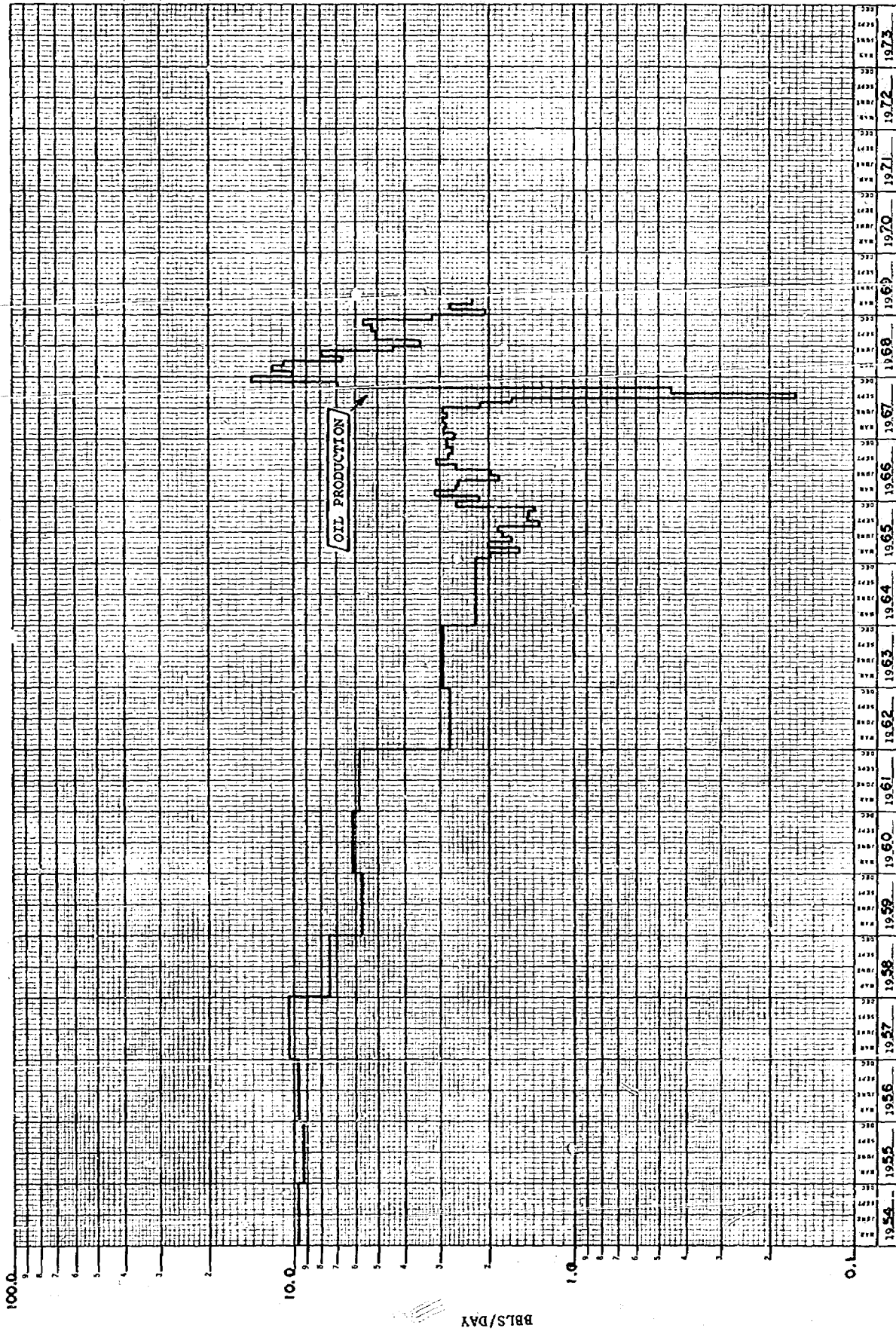
Cumulative Oil Prod. 1/1/54 ..... 349,194 bbls

<u>Year &amp; Month</u>	<u>Oil Prod. Bbls</u>	<u>Year &amp; Month</u>	<u>Oil Prod. Bbls</u>
1954	3,576	1967 January	81
1955	3,410	February	81
1956	3,563	March	89
1957	3,808	April	87
1958	2,709	May	87
1959	2,115	June	87
1960	2,262	July	67
1961	2,125	August	52
1962	1,008	September	5
1963	1,088	October	14
1964	831	November	206
		December	435
1965 January	71	Year Total	1,291
February	56		
March	48		
April	60	1968 January	311
May	52	February	345
June	53	March	333
July	57	April	200
August	41	May	248
September	44	June	135
October	45	July	110
November	41	August	157
December	81	September	152
Year Total	649	October	163
		November	168
1966 January	67	December	99
February	88	Year Total	2,421
March	81		
April	78	1969 January	64
May	57	February	77
June	59	March	71
July	82		
August	96		
September	84		
October	84		
November	85		
December	83		
Year Total	944		

Cumulative Oil Prod. 4/1/69 ..... 381,206 bbls

BEFORE EXAMINER NUTTER  
 OIL CONSERVATION COMMISSION  
 App'l EXHIBIT NO. 4  
 CASE NO. 4164

5



TIME-YEARS

BEFORE EXAMINER NUTTER  
OIL CONSERVATION COMMISSION  
EXHIBIT NO. 5  
CASE NO. 4164

**Mobil Oil Corporation**  
EXPLORATION AND PRODUCING DEPARTMENT  
MIDLAND DIVISION  
GRAPHIC OIL PRODUCTION HISTORY  
FRISTOE-LEASE  
LANGLIE-MATTIX POOL  
LEA COUNTY, NEW MEXICO

DATE 7/1/69  
DRAWN BY JJA  
CHECKED BY PA  
REVISED  
REVISED

CALCULATION OF WATERFLOOD RECOVERY  
FROM FRISTOE #8 PATTERN

<u>Lease and Well</u>	<u>1/1/69 Cum. Oil Bbls.</u>	<u>Acreage Fraction in Fristoe #8 Pattern</u>	<u>Approx. Primary Oil from Fristoe #8 Pattern, Bbls.</u>
Fristoe #2	85,554	.04	3,422
Fristoe #3	87,121	.63	54,886
Fristoe #4	110,177	.73	80,429
Humphrey "A" #5	89,228	.06	5,354
Gulf-SLM #101	77,653	.01	777
Gulf-SLM #102	91,090	.33	30,060
Gulf-SLM #105	65,144	.12	7,812

Total Primary from Fristoe #8 Pattern: 182,740

Assuming Secondary/Primary = 0.75, the waterflood oil to be recovered from Fristoe #8 Pattern is:

$$0.75 \times 182,740 = 137,055 \text{ bbls.} = 137 \text{ MB}$$

Acreage drained by Fristoe #4 at time it is flooded out = 10.31 acs.

Total acreage in Fristoe #8 Pattern = 78.23 acs.

Fractional acreage left to be drained by Fristoe #8:

$$\frac{78.23 - 10.31}{78.23} = 0.868$$

Approximate oil not recoverable with existing wells:

$$0.868 \times 137 \text{ MB} = 119 \text{ MB}$$

BEFORE EXAMINER NUTTER	
OIL CONSERVATION COMMISSION	
<i>Appl</i>	EXHIBIT NO. <u>6</u>
CASE NO. <u>4164</u>	

PWKelly/kim  
7/7/69

# Mobil Oil Corporation

MAIN OFFICE 000

JUN 16 AM 7 53

June 13, 1969

P.O. BOX 633  
MIDLAND, TEXAS 79701

Case 4164

New Mexico Oil Conservation Commission (2)  
P. O. Box 2088  
Santa Fe, New Mexico 87501

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

APPLICATION FOR UNORTHODOX  
LOCATION, MOBIL OIL CORPORATION'S  
FRISTOE WELL #8, QUEEN FORMATION,  
LANGLIE-MATTIX FIELD,  
LEA COUNTY, NEW MEXICO

Gentlemen:

Mobil Oil Corporation respectfully requests that the New Mexico Oil Conservation Commission schedule a hearing at the earliest possible date to consider Mobil's application for an unorthodox location on the subject well. This well is to be located on unit H, 2470' from the north line and 430' from the east line of Sec. 3, T-25-S, R-37-E, Lea County, New Mexico. It will be drilled to a total depth of approximately 3600 ft to the Queen formation.

This is a Federal lease and all rules and regulations of the United States Department of the Interior - Geological Survey will, of course, be complied with.

Operator of the offsetting spacing units is Gulf Oil Corporation, Box 1938, Roswell, New Mexico 88201.

Should there be additional information necessary to get this matter set for hearing, please advise.

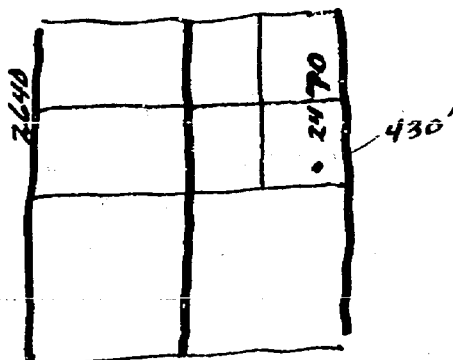
Very truly yours,

*Ira B. Stitt*

Ira B. Stitt  
Division Operations Engineer

ADBond/bje

cc: NMOCC - Hobbs  
U.S.G.S. - Hobbs (2)



2640  
2470  
170

DOCKET MARKED

Date 6-25-69

## Mobil Oil Corporation

June 13, 1969

MAIN OFFICE

JUN 15 AM 7 54

P.O. BOX 633  
MIDLAND, TEXAS 79701

*Case 4/64*

United States Department of the Interior  
Geological Survey  
P. O. Box 1157  
Hobbs, New Mexico 88240

Att: Mr. Arthur R. Brown

UNORTHODOX LOCATION  
MOBIL OIL CORPORATION'S  
FRISTOE LEASE, WELL #8  
QUEEN FORMATION, LANGLIE-MATTIX FIELD  
LEA COUNTY, NEW MEXICO

Gentlemen:

Mobil Oil Corporation has requested a hearing before the New Mexico Oil Conservation Commission to consider an application to drill the subject well at an unorthodox location. Since this is a Federal lease it is necessary that Mobil furnish evidence to the Conservation Commission to the effect that the U.S.G.S. approves the drilling of this well.

This well is located on the same unit as another well (Well #3) and it is only 170 ft from the nearest quarter-quarter section line thus causing an unorthodox location. The location of Mobil's proposed Fristoe Well #8 is in unit H, 2470 ft from the north line and 430 ft from the east line of Sec. 3, T-25-S, R-37-E, Lea County, New Mexico. It is Mobil's opinion that this well is necessary to recover hydrocarbons that will be caused to migrate to this area by both surrounding, existing and proposed water injection wells.

In support of this request the following items are being furnished in quintuplicate:

1. Plat of the Fristoe lease showing the location of Well #8 and surrounding injection and producing wells.
2. U.S.G.S. Form 9-331 C
3. NMOCC Form C-102

Your consideration in this matter will be appreciated. Please advise if additional information is required.

Very truly yours,



Ira B. Stitt  
Division Operations Engineer

ADBond/bje  
Attachments

cc: NMOCC - Santa Fe ✓  
NMOCC - Hobbs

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. 4164

Order No. R-3799

APPLICATION OF MOBIL OIL CORPORATION  
FOR AN UNORTHODOX LOCATION, LEA COUNTY,  
NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on July 9, 1969,  
at Santa Fe, New Mexico, before Examiner Daniel S. Nutter.

NOW, on this \_\_\_\_\_ day of July, 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, Mobil Oil Corporation, seeks  
*a producing oil well in said project area,*  
authority to drill its Fristoe Well No. 8, at an unorthodox loca-  
tion 2470 feet from the North line and 430 feet from the East  
line of <sup>said</sup> Section 3. Township 25 South, Range 37 East, NMPM,  
Langlie-Mattix Pool, Lea County, New Mexico.

(4) ~~(3)~~ That the proposed unorthodox location is  
necessary to complete an efficient oil producing  
pattern.

(3) That the applicant, Mobil Oil Corporation, is the operator of a waterflood  
project comprising all of Section 3 and the E/2 NE/4 and the NE/4 SE/4 of Section 4,  
Township 25 South, Range 37 East, NMPM, Langlie-Mattix Pool, Lea County,  
New Mexico, approved by Commission Order No. R-3799, dated June 5, 1969.

(5) ~~(4)~~ That approval of the subject application will afford the applicant the opportunity to produce its just and equitable share of the oil and gas in the Langlie-Mattix Pool, and will otherwise prevent waste and protect correlative rights.

IT IS THEREFORE ORDERED:

(1) That an unorthodox location in the Langlie-Mattix Pool is hereby approved for the Mobil Oil Corporation Fristoe Well No. 8 to be located 2470 feet from the North line and 430 feet from the East line of Section 3, Township 25 South, Range 37 East, NMPM, Lea County, New Mexico.

(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.

(1) That the applicant, Mobil Oil Corporation, is hereby authorized to drill a producing oil well in the waterflood project area comprising the all of Section 3 and the E/2 NE/4 and the NE/4 SE/4 of Section 4, NMPM, Langlie - Mattix Pool, Lea County, New Mexico, located at an unorthodox location 2470 feet from the North line and 430 feet from the East line of said Section 3.