

CASE 1935: Application of CHARLES
LOVELL, JR. for a 200-acre non-
standard gas unit in ALTA-PHOS.
GAS POOL.

Case No.

1985

Application, Transcript,
Small Exhibits, Etc.

OIL CONSERVATION COMMISSION

P O BOX 871

SANTA FE, NEW MEXICO

June 10, 1960

Mr. Charles C. Loveless, Jr.
Suite 727 Petroleum Building
Roswell, New Mexico

Dear Sir:

We enclose herewith two copies of Order R-1697
in Case 1985 issued by the Oil Conservation
Commission this date.

Very truly yours,

A. L. PORTER, Jr.
Secretary-Director

lr/

Carbon copy of order sent to:

Oil Conservation Commission
Hobbs and Artesia

Burn Everts

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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. 1985
Order No. R-1697

APPLICATION OF CHARLES LOVELESS, JR.,
FOR A 280-ACRE NON-STANDARD GAS UNIT
IN THE ATOKA-PENNSYLVANIAN GAS POOL,
EDDY COUNTY, NEW MEXICO, OR IN THE
ALTERNATIVE FOR A FORCE-POOLING ORDER
TO ESTABLISH A STANDARD UNIT IN SAID
POOL.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 o'clock a.m. on
June 1, 1960, at Santa Fe, New Mexico, before Elvis A. Utz,
Examiner duly appointed by the Oil Conservation Commission of
New Mexico, hereinafter referred to as the "Commission," in
accordance with Rule 1214 of the Commission Rules and Regula-
tions.

NOW, on this 10th day of June, 1960, the Commission, a
quorum being present, having considered the application, the
evidence adduced, and the recommendations of the Examiner,
Elvis A. Utz, 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, Charles Loveless, Jr., is the opera-
tor of the NE/4 NE/4, W/2 NE/4 and NW/4 of Section 11, Township 18
South, Range 26 East, NMPM, Eddy County, New Mexico.

(3) That the applicant proposes that the above-described
acreage be established as a 280-acre non-standard gas unit in the
Atoka-Pennsylvanian Gas Pool, said unit to be dedicated to a well
to be drilled 1650 feet from the North line and 1650 feet from the
West line of said Section 11, or in the alternative for an order
force-pooling the mineral interests of all persons in the N/2 of
Section 11 to form a standard 320-acre gas unit in the Atoka-
Pennsylvanian Gas Pool to be dedicated to the above-described
well.

(4) That Socony Mobil Oil Company, the working-interest
owner of the SE/4 NE/4 of Section 11 objects to being included

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CASE No. 1985
Order No. R-1697

in the standard unit proposed by the applicant on the ground that it would deprive it of its fair share of the gas underlying the SE/4 NE/4 of said Section 11.

(5) That the request of the applicant to force-pool all mineral interest owners in the E/2 of said Section 11 to form a standard 320-acre gas unit in the Atoka-Pennsylvanian Gas Pool should be denied, but the alternative proposal of the applicant to establish a 280-acre non-standard gas unit should be approved.

(6) That approval of the above-described non-standard gas unit will neither cause waste nor impair correlative rights.

IT IS THEREFORE ORDERED:

That a 280-acre non-standard gas unit in the Atoka-Pennsylvanian Gas Pool consisting of the NE/4 NE/4, W/2 NE/4 and the NW/4 of Section 11, Township 18 South, Range 26 East, NMDM, Eddy County, New Mexico, be and the same is hereby established. Said unit is to be dedicated to a well to be drilled 1650 feet from the North line and 1650 feet from the West line of said Section 11.

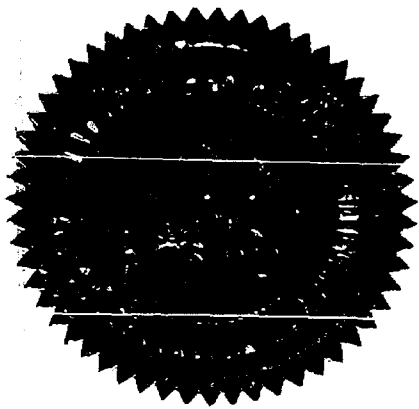
DONE at Santa Fe, New Mexico, on the day and year hereinabove designated.

STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION


JOHN BURROUGHS, Chairman


MURRAY E. MORGAN, Member


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



esr/

No. 15-60

DOCKET: EXAMINER HEARING JUNE 1, 1960

Oil Conservation Commission 9 a.m., Mabry Hall, State Capitol, Santa Fe, N.M.
The following cases will be heard before Elvis A. Utz, Examiner, or Oliver E. Payne, Attorney, as alternate Examiner:

- CASE 1970: Application of Gulf Oil Corporation for approval of a gas-oil dual completion. Applicant, in the above-styled cause, seeks permission to dually complete its Lea-State "AQ" Well No. 8, located in Unit E of Section 32, Township 19 South, Range 35 East, Lea County, New Mexico, in such a manner as to permit the production of gas from the East Pearl-Seven Rivers Gas Pool and the production of oil from the Pearl Queen Pool through the casing-tubing annulus and 2-3/8 inch tubing respectively, utilizing a retrievable type packer to separate the two producing horizons.
- CASE 1971: Application of Gulf Oil Corporation for permission to commingle the production from two separate pools. Applicant, in the above-styled cause, seeks permission to commingle the Blinebry oil production with the Tubb gas condensate from all wells presently completed or hereafter drilled on its Evelyn Lineberry lease, consisting of the N/2 SW/4 of Section 29, Township 22 South, Range 38 East, Lea County, New Mexico, after separately metering the Blinebry oil production.
- CASE 1972: Application of Gulf Oil Corporation for permission to commingle the production from several separate pools. Applicant, in the above-styled cause, seeks permission to commingle the Blinebry oil production with the Blinebry gas condensate and Tubb gas condensate from all wells on its T. R. Andrews lease comprising the E/2 of Section 32, Township 22 South, Range 38 East, Lea County, New Mexico, after separately metering the Blinebry oil production.
- CASE 1973: Application of Graridge Corporation for approval of the unorthodox locations of three water injection wells. Applicant, in the above-styled cause, seeks approval of an unorthodox location for three water injection wells to be located in the SE/4 NE/4 of Section 28, Township 18 South, Range 28 East, Artesia Pool, Eddy County, New Mexico.

Docket No. 15-60

- CASE 1974: Application of C. T. Robertson for an order authorizing a water flood project. Applicant, in the above-styled cause, seeks an order authorizing him to institute a water flood project in the Coyote-Queen Pool, Chaves County, New Mexico, by the injection of water into the Queen formation through six wells located in Sections 11 and 14, Township 11 South, Range 27 East.
- CASE 1975: Application of Amerada Petroleum Corporation for approval of, an oil-oil dual completion. Applicant, in the above-styled cause, seeks an order authorizing the dual completion of its State LM "T" Well No. 5, located in Unit A, Section 36, Township 23 South, Range 36 East, Lea County, New Mexico, in such a manner as to permit the production of oil from the Jalmat Gas Pool and the production of oil from the Langlie-Mattix Pool through parallel strings of 1-inch tubing and 2-3/8 inch tubing respectively, utilizing a retrievable type packer to separate the two producing horizons.
- CASE 1976: Application of Caulkins Oil Company for approval of a gas-gas dual completion and for the establishment of a non-standard gas unit. Applicant, in the above-styled cause, seeks an order authorizing the dual completion of its Reuter PC-297 well in such a manner as to permit the production of gas from the South Blanco-Pictured Cliffs Gas Pool and the production of gas from the Dakota Producing Interval through parallel of 1 1/4-inch and 2 3/8 inch tubing respectively. Applicant further seeks an order establishing a non-standard gas unit to be dedicated to the subject well in the Dakota Producing Interval consisting of the SW/4 of Section 15 and the NW/4 of Section 22, Township 26 North, Range 6 West, Rio Arriba County, New Mexico.
- CASE 1977: Application of Hondo Oil & Gas Company for approval of an automatic custody transfer system. Applicant, in the above-styled cause, seeks an order authorizing the installation of an automatic custody transfer system to handle the production from the Empire-Abo Pool from all wells presently completed or hereafter drilled on the Hondo-Western-Yates State 647 lease, which lease consists of acreage in Sections 25, 26, 34, 35, and 36, all in Township 17 South, Range 28 East, Eddy County, New Mexico.

- CASE 1978: Application of Shell Oil Company for an order authorizing two salt water disposal wells. Applicant, in the above-styled cause, seeks an order authorizing the disposal of produced salt water through its State ETA Well No. 1, located in the NE/4 NE/4 of Section 8, Township 16 South, Range 35 East, Lea County, New Mexico, with the injection to be in the Wolfcamp formation in the interval from 10,365 feet to 10,463 feet. Applicant further seeks an order authorizing the disposal of produced salt water through its State EDA Well No. 2, located in the SW/4 SW/4 of Section 7, Township 16 South, Range 35 East, Lea County, New Mexico, with injection to be in the Wolfcamp formation in the interval from 10,712 feet to 10,734 feet.
- CASE 1979: Application of The Atlantic Refining Company for an order authorizing a water injection project in the Horseshoe-Gallup Oil Pool, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks an order authorizing the injection of water, for purposes of pressure maintenance and/or secondary recovery, into the Horseshoe-Gallup Oil Pool through 15 wells located in Sections 19, 20, 29, 30 and 31, Township 31 North, Range 16 West, San Juan County, New Mexico. Applicant further requests that special rules and regulations be promulgated governing the operation of this water injection project including the assignment of a project allowable.
- CASE 1980: Application of Hudson and Hudson for nine unorthodox locations. Applicant, in the above-styled cause, seeks an order authorizing the drilling of wells at nine 5-spot locations on its Puckett "A" Lease, Maljamar Pool, Lea and Eddy Counties, New Mexico, said wells to be located in the 40-acre units hereinafter described, and within 100 feet of the indicated corner thereof.
- SW Corner Unit O, Section 13, and the following wells in Section 24:
- | | |
|-------------------|-------------------|
| SE Corner Unit D, | SE Corner Unit F; |
| NW Corner Unit C, | NE Corner Unit G; |
| SW Corner Unit B, | NW Corner Unit K; |
| NW Corner Unit A, | NW Corner Unit I; |
- all in Township 17 South, Range 31 East, Eddy County.

- CASE 1981: Application of El Paso Natural Gas Company for an order amending the special pool rules for the Blanco-Mesaverde Gas Pool. Applicant, in the above-styled cause, seeks an order amending the special pool rules for the Blanco-Mesaverde Gas Pool, Rio Arriba and San Juan Counties, New Mexico, to authorize district supervisors to approve "slim hole" completions in the Blanco-Mesaverde Gas Pool, regardless of depth.
- CASE 1982: Application of Otto Reynolds for an unorthodox oil well location. Applicant, in the above-styled cause, seeks approval of an unorthodox oil well location for his Wood Well No. 1, located 330 feet from the South line and 1629 feet from the West line of Section 14, Township 29 North, Range 11 West, San Juan County, New Mexico.
- CASE 1983: Application of Ralph Lowe for permission to commingle the production from several separate leases. Applicant, in the above-styled cause, seeks permission to commingle the production from an undesignated Delaware pool from several separate leases comprising the N/2 NW/4 of Section 17 and the E/2 NE/4 and the E/2 NW/4 of Section 18, Township 25 South, Range 30 East, Eddy County, New Mexico.
- CASE 1984: Application of Mountain States Petroleum Corporation for an unorthodox gas well location and for a 183-acre non-standard gas unit. Applicant, in the above-styled cause, seeks approval of an unorthodox gas well location for a well to be drilled 1050 feet from the North line and 750 feet from the West line of partial Section 31, Township 26 North, Range 2 West, Rio Arriba County, New Mexico. Applicant further seeks the establishment of a 183-acre non-standard gas unit in the Pine Lakes-Pictured Cliffs Gas Pool consisting of all of said partial Section 31 to be dedicated to the subject well.
- CASE 1985: Application of Charles Loveless, Jr. for a 280-acre non-standard gas unit. Applicant, in the above-styled cause, seeks the establishment of a 280-acre non-standard gas unit in the Atoka-Pennsylvanian Gas Pool consisting of the NE/4 NE/4, W/2 NE/4, NW/4 of Section 11, Township 18 South, Range 26 East, or in the alternative to force pool all mineral interest owners in the SE/4 NE/4 of said Section 11 in the Atoka-Pennsylvanian Gas Pool with the interests of those in the above-described non-standard unit in said pool. Said unit is to be dedicated to a well to be drilled 1650 feet from the North and West lines of said Section 11, Township 18 South, Range 26 East, Eddy County, New Mexico.

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Docket No. 15-60

CASE 1986:

Application of J. M. Welch for a gas-oil dual completion. Applicant, in the above-styled cause, seeks an order authorizing the dual completion of his Etz Well No. 3, located in the NE/4 SE/4 of Section 13, Township 16 South, Range 30 East, Eddy County, New Mexico, in such a manner as to produce gas from the Penrose sand of the Queen formation and to produce oil from the Lovington sand of the San Andres formation in the Henshaw (San Andres) Pool, through the casing-tubing annulus and 2-inch tubing respectively, utilizing a retrievable type packer to separate the two producing horizons.

June 1965

CHARLES C. LOVELESS, JR.
SUITE 727 PETROLEUM BUILDING
ROSWELL, NEW MEXICO

REG. PETROLEUM ENGINEER
TEXAS
NEW MEXICO

May 12, 1960

TELEPHONE
OFFICE MAIN 2-1958
HOME MAIN 2-7313

Mr. A. L. Porter, Jr.
New Mexico Oil Conservation Commission
107 Mabry Hall
Capitol Building
Santa Fe, New Mexico

Re: Atoka - Pennsylvanian
Gas Pool, Eddy County,
New Mexico. O.C.C. Order
No. R-1417

Dear Sir:

I propose to drill a field development well at a standard location in the NW/4 of Section 11, Township 18 South, Range 26 East in subject pool and request you enter an appearance for me on the docket of June 1, 1960, to hear my request for the following:

1. The granting of a non-standard 280-acre gas unit to comprise all the north one-half of said Section 11 except and excluding the SE/4 NE/4 of Section 11 which tract is under lease to Mobil Oil Company, or in the alternative,
2. Require the Mobil Oil Company to pool its 40-acre tract with the balance of 280-acres to be contributed by me to the standard unit.

It is further requested you agree to approve my Oil Conservation Commission form C-101 for location of the Atoka sand development well 1650 feet from the north line and 1650 feet from the west line of Section 11 pending outcome of the June 1, 1960, hearing since an early expiration date requires that I commence drilling at the described location by June 10, 1960.

Respectfully,

Charles C. Loveless, Jr.

*Docket
5-19-60
CCL:bh*

OIL CONSERVATION COMMISSION
SANTA FE, NEW MEXICO

Date 6-2-60

CASE 1985 Hearing Date 6-1-60

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

1. Grant Chas. Lovelace request for NSP
for a well to be drilled 1656/1 NW lease of sec.
11-185-26 E. Consisting of the N/2 NE/4, SW/4
NE/4, NW/4 sec 11-185-26 E. This well should
be drilled in conformance to the Atoka
Pension Pool Rules.
2. The remaining 40 Ac. SESE of Sec. 11.
should not be assigned to any other
unit than a std. unit. So long as
this unit is valid the 40 should be
dedicated to this unit.

Thrust. W. R.

Hold the After the above.

BEFORE THE
OIL CONSERVATION COMMISSION
Santa Fe, New Mexico
June 1, 1960

EXAMINER HEARING

IN THE MATTER OF: -----

Application of Charles Loveless, Jr. for a 280-acre
non-standard gas unit. Applicant, in the above-
styled cause, seeks the establishment of a 280-acre
non-standard gas unit in the Atoka-Pennsylvanian Gas) Case
Pool consisting of the NE/4 NE/4, W/2 NE/4, NW/4 of) 1985
Section 11, Township 18 South, Range 26 East, or in
the alternative to force pool all mineral interest
owners in the SE/4 NE/4 of said Section 11 in the
Atoka-Pennsylvanian Gas Pool with the interests of
those in the above-described non-standard unit in said
pool. Said unit is to be dedicated to a well to be
drilled 1650 feet from the North and West lines of
said Section 11, Township 18 South, Range 26 East,
Eddy County, New Mexico.

BEFORE:

ELVIS A. UTZ, Examiner

TRANSCRIPT OF HEARING

MR. UTZ: 1985.

MR. PAYNE: Application of Charles Loveless, Jr. for a
280-acre non-standard gas unit, or, for an alternative, a forced
pooling order.

(Witness sworn)

CHARLES LOVELESS,

Applicant, appearing in his own behalf, having been first duly
sworn, testified as follows:

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PHONE CH 3-6691

ALBUQUERQUE, NEW MEXICO



DIRECT EXAMINATION

BY MR. PAYNE:

Q Will you state your name?

A Charles Loveless, Jr.

Q Mr. Loveless, do you intend to represent yourself in this hearing?

A I do.

Q Would you please explain to the Examiner your qualifications and what you are asking for?

A I have been qualified and have appeared as technical witness here before, and if the Examiner will accept my qualifications

MR. UTZ: You have been qualified prior.

THE WITNESS: I am requesting that I be granted a 280-acre non-standard unit for production of gas in the Atoka-Pennsylvanian Field in Township 18 South, Range 26 East; 280 acres more specifically described as the NW/4, Section 11, W/2 of N/E and the N/E of Section 11, or, in the alternative that Mobil Oil Company be forced to pool with me, it will include the S/E of the N/E Section 11 to comprise a full standard unit.

I have an Exhibit 1, which is the only exhibit I have, which has the unit colored in red and the proposed location at the standard location which is 1650 west and 1650 feet north from the north line of Section 11. The exhibit is an isopachous map of the so-called Morrow sand which is the productive reservoir in the

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Atoka-Pennsylvanian gas pool. This sand generally appears to be of a lenticular nature, having apparently no relation to structure insofar as I am able to determine. I might say that the projection of the sand lens into Section 11 is not based on any specific control which lies to the northeast of the present production, but the fact that the Standard of Texas Martin, located in the southeast of Section 15, had 55 feet of sand, and the Standard of Texas Everest, 1.1 in Section 14 in the southwest corner had 39 feet of sand, possibly projects the producing sand in a northeasterly direction.

BY MR. PAYNE:

Q What is the ownership status of the southwest corner of Section 11?

A That is fee land; the leasehold is in the name of Standard Oil Company of Texas. It is currently held by virtue of shallow production in the so-called Atoka, I believe.

Q You can run your 320 unit either way in the Atoka-Pennsylvanian, and gas pool, can you not?

A That's right. The order, I believe, which has been extended provides that any 320-acre subsurface lying within the section east-west or north-south may comprise a standard gas unit as long as the standard location be in the northwest or southeast specifically.

Q Why don't you propose to dedicate the west half of Section 11 to this well?



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A Because the Standard of Texas wouldn't give me a farm-out on the southwest quarter of Section 11.

Q Why don't you force pool them, or propose to, rather than Magnolia?

A Because the Standard of Texas still has a prerogative to withhold the whole thing from me and, I daresay it would not be politic to attempt to force pool Standard of Texas.

Q Now, Mr. Loveless, if your 280-acre non-standard is granted, that will ultimately result, will it not, in all probability, in a 360-acre unit consisting of the Magnolia acreage as well as the south half of Section 11?

A No, not necessarily. Of course, that is quite possible. I would opine that if the well at the proposed location is a producer that the south half of Section 11, comprising 320 acres, would ultimately be the unit with Magnolia joining by either paying their portion of the cost or allowing me to collect their costs out of production from the well.

Q So you feel there is a possibility, if you get your non-standard unit, ultimately Magnolia might still join you in the form of 320?

A I think with the additional information that that well would afford that Magnolia would have nothing to lose, unless they assumed I was not capable of operating a gas well.

Q Now, at the present time, you haven't actually got a



market for gas in this pool?

A That is true. However, there have been contracts signed by various operators with Transwestern Pipeline Company, and I believe they are anticipating the initial purchases sometime in the latter part of this summer.

Q Of your two alternatives, which would you prefer, actually?

A It is immaterial. If Magnolia does not elect to join, I certainly would not want them to be forced into the unit unless the Conservation Commission sees some reason, for convenience, and at some later date for the protection of correlative rights of the mineral owners in the southeast of the northeast of Section 11. I feel that the well located as I have shown it on Exhibit 1 would drain Magnolia's tract.

Q Do you feel there is any possibility you will get a dry hole?

A My experience in drilling wells in the Pennsylvania gas sand has eloquently demonstrated to me that is always a possibility.

Q Would that be the reason Magnolia is not anxious to join?

A I feel sure they probably have a different interpretation than mine, and certainly, anyone that can draw a contour can come up with a different interpretation.

Q Even if you got a dry hole, it wouldn't prove the northeast quarter of the section was dry?

A And it would still leave the east half of 11 as a possibility.



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ALBUQUERQUE, NEW MEXICO
PHONE CH 3-6891

Q With Magnolia force pooled, if you got a dry hole it wouldn't cost them anything?

A Precisely, unless they elected to join me and pay their share.

MR. UTZ: Any other questions?

MR. ERREBO: I have some questions.

CROSS EXAMINATION

BY MR. ERREBO:

Q Mr. Loveless, I don't believe we are acquainted, and I have never heard you testify before. You say you had previously qualified as a technical witness; as a geologist?

A No, petroleum engineer.

Q You have practiced as a geologist?

A I have never been paid for any geology; I have practiced it, fruitfully and to my sorrow, for about 30 years as a practical matter.

Q You didn't receive a degree in it, I assume; your talents lie primarily, they arise primarily from experience, is that correct, or did you receive a degree as a geologist?

A No.

Q It has been practical experience?

A That's right.

Q Have you been employed as a geologist and paid as such?

A No. I served several years with Continental Oil Company



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as an evaluation engineer in their Reservoir Department in the 30's.

Q In those days that might have required map drawing and lots of things; is that right?

A Yes.

Q Mr. Loveless, have you commenced this well?

A No; as a matter of fact, have not been authorized to do so.

Q Have you filed your notice of intention to drill?

A I was informed that I could not until this hearing was completed.

Q What you are saying here, then, you propose to either force Mobil Oil Company into this venture by order of the Commission, or you propose that they be left out insofar as that 40 acres is concerned, and you really don't care?

A No.

Q You have no preference and you wouldn't recommend any to the Commission?

A That's right.

Q I can assume you advocate both of them equally strongly; is that right?

A Well, the ultimate goal, of course, is to have allocation approved in the northwest quarter.

Q That is the most important thing, so you can drill, at least, right away?



A Yes.

Q Actually, then, from what you testified I assume the reason you have not composed units comprised of the west half and east half of Section 11 is a matter of practicality?

A That's right.

Q So by force of circumstances, Socony Mobil, as a matter of practicality, finds itself now being forced into a questionable well?

A I wouldn't force Mobil into a questionable well under any circumstances. It think it is strictly Mobil's own interpretation of whether they feel it would be a profitable venture for them to join me in the drilling of that well.

Q Now, referring to your exhibit, Mr. Loveless, I ask you to refer to the zero isopach line in the vicinity of Section 12, of the township which is shown centrally on your exhibit and ask you what control guided you in pulling that line far to the north, perhaps a mile and a half, and then bringing it down into Section 19?

A Because there seems to be -- that as I qualified this awhile ago, I said we had no immediate control, but a study of the general deposition feature in the Penn sands, starting with the Empire-Abo, there seems to be an echelon series of sand depositions striking generally northeast, and southwest, through the area and insofar as this application is concerned I don't know that that particular bit of romance detracts or adds to my prospect.



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Q I was leading into that point.

A I thought you were.

Q I was just wondering now, if you would smooth off that hump there, let's assume you did, round it down so it is not quite so pointed, and bring it more in an easterly direction -- anyhow, if you were to smooth that off, erase that, would that affect the area in question? How would it affect the deposition of sand as you would then view it?

A I would take the view that, regardless of how I drew it I don't think it would affect the sand as it now is distributed.

Q Would it in any way cause you to pull the series of contours in the area of Section 11 to the southeast?

A Well, I suppose it could be interpreted in that manner. I don't see any reason that it could not be.

Q And then if it were interpreted in that manner, how would it then affect the possibility of your obtaining a well at your proposed location?

A It would probably end up, I spent \$98,000 to no avail.

Q Do you regard the Chalk Bluff Draw area as you have designated it on that plat there as being connected with the area in question and the production to the southwest?

A The way I have it interpreted there seems to be a slight necking there of the sand deposition; an examination of the logs indicate that the Chalk Bluff zone is possibly communicating, it



could be in the section. I think you could probably just as well close that saddle across there as far as the deposition is concerned. I do find it difficult to visualize the truncation of this lens to conform to the interpretation that you apparently were leading to by an abrupt easterly swing of the sand, assuming that it might lie in this direction.

Q That would, of course, not be more abrupt than the re-entry you have shown in Section 11 area?

A True.

Q Now, departing from geologic features, and going to the nature of the leases which you propose to obtain, as to the leases in the proposed unit, whether it be 320 or 280, and other than the Socony Mobil 40-acres, do you have under control or do you have under lease all of the other mineral rights or leasehold interests in that area?

A Yes. The only interests not owned by Standard of Texas is an undivided interest owned by Gulf in the northeast, and I have a farm-out from Gulf on approximately a net 8 acres out of that 40. The balance is owned by Standard of Texas. I said undivided; they are not, small lots, I believe.

Q By that you mean that, to your knowledge, there are no unleased interests?

A No, as far as I am able to determine there are none. The Stroup group owns the minerals under the northwest quarter and



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I believe the northeast quarter of the northeast quarter is broken up into small subdivided lots. There could possibly be some outstanding ownerships, but there are producing wells in the Atokas and San Andres, and I have examined the title in a rather summary fashion and I believe there is a division order now in effect insofar as it affects the shallow interests of Standard of Texas and Gulf.

Q Returning to your map again, the dashed lines in the upper right-hand area of the map, what do they represent as compared with the solid lines?

A They represent, generally, an uncertainty of interpretation. In other words, a lack of complete control insofar as the actual sand distribution is concerned.

Q That lack of complete control seems to occur just immediately to the north of the north half of Section 11, doesn't it?

A Yes.

Q Actually, why did you commence it there and not at some point to the south?

A Well, just my God-given right to interpret, I guess.

MR. ERREBO: That's all. Thank you.

MR. UTZ: Any other questions?

MR. KELLAHIN: Jason Kellahin, Kellahin & Fox, for Standard Oil Company of Texas.

BY MR. KELLAHIN:



Q Mr. Loveless, as I understand it, you hold the working interests for the Atoka-Pennsylvanian formation on all of the north half with the exception of the 40 acres?

A That's right.

Q Now, if you were to force pool Standard as to the southwest quarter, that would leave you with acreage uncommitted, wouldn't it?

A That's right.

Q Do you have any other acreage in this area?

A No.

MR. KELLAHIN: That's all I have.

BY MR. PAYNE:

Q Who owns the southeast quarter?

A Socony Mobil, and I believe the Standard of Texas, as I previously testified, owns the southwest quarter.

Q Now, you have the farm-out from Standard on the southwest quarter?

A No, I do not; I have only the farm-out, roughly 232 acres, I mean, 272 acres, from the Standard of Texas, and 8 acres from Gulf, comprising 280.

Q You don't know, to your knowledge, do you, that Standard would have some reason for not going in with Mobil on the south half of Section 11?

A No; as a matter of fact, to my certain knowledge, Standard



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A. JUQUERQUE, NEW MEXICO

of Texas has approached Mobil about proceeding with the obtaining of pooling clauses in their leases, which I understand they do not now have. I would stand corrected if I am in error on that, with a view to setting up a standard gas unit to comprise the south half.

BY MR. UTZ:

Q Mr. Loveless, if you should get a pretty fair gas well there, is it your anticipation Magnolia will want to join you?

A I would assume that, if you grant me a unit comprising the north half, that it would only be good business, if geological data indicated that the reservoir is substantially as it is interpreted there; otherwise, I would be in a position of draining their 40 acre tract until such time as they drilled an offsetting well on the southeast quarter.

Q Would you be willing, at that time, if this should happen, would you be willing to accept them into the unit?

A Of course; yes, I certainly would.

MR. UTZ: Any other questions?

BY MR. ERREIRO:

A Mr. Loveless, would the southwest quarter of Section 11, according to your present interpretation, as reflected by your exhibit, benefit more by being placed in a unit with the well which you propose to drill or the well which Mobil might sometime be expected to drill in the southeast quarter?



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MR. PAYNE: You are speaking of a 40-acre tract?

MR. ERREBO: I am speaking of the southwest quarter.

Well, actually, where is the thickest sand reflected?

THE WITNESS: According to the way I have it contoured, it would seem to be almost fifty-fifty. I think if you would run a perimeter around there and figure the aerial inclusion in each of the respective tracts, it would almost be a stand-off insofar as Magnolia, the sand content in your tract and the sand content in the southeast southwest quarter.

Q Wouldn't, actually, Standard of Texas be safer and benefit more by participating in the well drilled in the southeast quarter of Section 11 than in going along with you in the northwest quarter?

A Without appearing to be facetious, I think at this point, historically, from experience, that they would not be in a position to judge either way, or, if they can, they certainly don't have their heart in putting up their money for it.

Q For your well?

A Yes.

Q They don't have their heart in putting up their money for your well?

A Well, that is the reason they are farming the acreage out.

Q They probably gave you what they considered to be the



poorer acreage. That is what companies do when they farm out.

A Having worked for two major oil companies, I can assure you I know about that.

Q Marginal, isn't it?

A Well --

. MR. KELLAHIN: I object to speculating.

THE WITNESS: Let me say this: I have no objection to the question. I think it is strictly a matter of whether I propose to gamble on drilling a well there. I think that, as you know from your experience with major oil companies, that after you blunt your pick in an area several times that management is quite often not inclined to continue the efforts, even though maybe some of their local people feel that it does have merit. It is a matter more of policy in a good many instances rather than their geology, I think you will agree, and I am sure that Standard of Texas feels that they are being very prudent in farming out this acreage to me, because if I get a well there, then it will definitely prove the southwest quarter for them. I wouldn't say definitely in any Pennsylvania reservoir, but it would certainly enhance the value of the southwest quarter.

Q They probably had a purpose in farming out the northwest instead of the southwest.

A I feel confident they did.

BY MR. PAYNE:

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Q Assume you got a dry hole; the east half of Section 11 could always be dedicated to a well which would be drilled in the southeast quarter, assuming you and Magnolia could get together on that?

A True, and after I make my contribution to science I am sure Magnolia will have a better understanding of what they have in the southeast quarter.

BY MR. ERREBO:

Q Do you feel somewhat of an esthetic value in drilling this well, over and above the monetary value; is that correct?

A Yes, I am given to charity, it seems, in the oil business.

MR. UTZ: Other questions? Witness may be excused. This case will be taken under advisement.

MR. ERREBO: We have two witnesses.

(Witnesses sworn.)

ROY MILKS,
called as a witness, having been first duly sworn, testified as follows:

DIRECT EXAMINATION

BY MR. ERREBO:

Q State your name, please.

A Roy Milks.

Q And by whom are you employed and in what capacity?

A Mobil Oil Company, production geologist supervisor, Hobbs,

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Q And by whom are you employed and in what capacity?

A Mobil Oil Company, production geologist supervisor, Hobbs,



New Mexico.

Q You are production geologist supervisor?

A Yes, sir.

Q Have you ever testified before the Oil Conservation Commission?

A No, I have not.

Q Would you please give the Commission a brief resume of your background, educational, and experience?

A Graduated from Michigan State University with a Bachelor of Science degree in geology in 1948. Since then I have been employed by Mobil Oil Company, eight years of it in New Mexico, in both exploration and production.

Q And your exploration and production geology experience has been in southeast New Mexico?

A Yes, it has.

Q Have you made a study of the Atoka formation in the area of southeast New Mexico?

A I have made regional studies of the Atoka, and specifically of the Morrow sand in the Atoka-Pennsylvanian, and Red Lake-Pennsylvanian gas pools.

Q Have you prepared a plat as a result of this study?

A Yes.

(Exhibit No. 1 marked for identification.)

Q Would you please explain, Mr. Milks, what is shown on this



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plat which has been marked Mobil's Exhibit No. 1?

A This is a structural map contoured on the base of the Morrow sand pay, and also, superimposed on it, is an isopachous map of the net sand pay in the Atoka-Pennsylvanian and Red Lake pools, gas pools.

Q The structure map is the lighter lines?

A The lighter lines are the structural map which shows a general normal southeast dip with the exception of a nosing in the vicinity of the Red Lake Pool and the heavier line is the isopach of the net sand thickness, Morrow sand.

Q Now, what is the general geologic background of this sand accumulation according to your information and belief?

A Well, as Mr. Loveless has stated, it is a sand lens that shales out both up-dip and down-dip. It has followed, generally, the structural contours. It is nosing in the Red Lake Field, and also the normal southeastward dip in the vicinity of the Atoka Field.

Q Do the structural contours represent the banks of the shores of an ancient sea?

A To a degree they do, yes. Of course, the subsequent movement has changed that somewhat. I believe this nosing over in the Red Lake Pool was present during the deposition, and for that reason the sand deposition has followed that nosing and, at that time, probably over here in the Atoka-Pennsylvanian Pool that was



about the same water depth as the nosing over in the Red Lake Pool.

Q Red Lake being to the northeast, and the other pool being to the southwest?

A Yes, sir. Subsequent to that, probably the late Pennsylvanian and even during a later time the area experienced more uplift and the drain of the structure has been changed.

Q Now, then, how does this background that you have just explained to the Examiner affect your interpretation of the way this sand bar lies?

A I think, specifically, that it shows that it is probably one sand bar and is not broken.

Q And does it also enable you to more accurately explain and predict where this sand bar may be found in areas which are more doubtful insofar as geologic control is concerned?

A I think that is true. You have to go on what control you have, and where you do not have the control you have to follow the normal mapping practices and perhaps not get too wild on interpretation.

Q Now, you have observed and had the opportunity to see the map presented by Mr. Loveless, did you not?

A Yes, sir.

Q Would you point out any significant differences between his interpretation and yours?

A Well, as Mr. Loveless stated, he said there may be



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different interpretations, but I believe he essentially has shown two sand lenses, bars in echelon. The reason I don't particularly agree with this interpretation is because the logs in the Atoka-Pennsylvanian Pool can be correlated with those logs in the Red Lake Pool, and if there are two separate sand bars, I don't think you could correlate those across.

Q You say they can be; have you noticed such correlations?

A Yes, I have.

Q And have you made it with the thought in mind of determining whether there are one or two sand bars?

A Yes, I was making the map for this presentation. Of course, one thing I was interested in was, these wells in the Red Lake Pool and in the Atoka-Pennsylvanian Pool were producing from the same horizon.

Q How does the question of whether there are one or two sand bars affect the location of the sand development in the area under question?

A I think that in that respect you have this control in the Atoka-Pennsylvanian Pool, and also in the Red Lake. Your contour interval is set up substantially the same in both pools, and there is no reason to depart from it in between the pools. I mean, there is no control up in Section 2 or no control down in Section 4 that would cause you to depart from that particular interval and particular strike of the sand bar.



Q Now, I notice that Mr. Loveless' map shows that the sand bar is bent upward so that the sand bar almost completely covers the north half of Section 21 whereas yours bends downward and it only covers part of Section 11?

A That's correct.

Q Can you explain why you feel that yours is the more valid interpretation?

A I think that bringing the structure in helps the whole situation. I believe it is more valid to have the two together and look at them as a whole rather than separately, because the sand deposition is certainly affected by the depth of the water during the Morrow time.

Q Now, the nosing of the structural contour which you have depicted, and the subsequent deposition of the sand bars upon that, and then the even more subsequent uplift of the area to the southwest, does that all fit into, in each respect corroborate and validate the interpretation which you have given here?

A Yes, I think it does.

Q Are there any loose ends in your interpretation which don't fit that picture?

A Well, of course, we can't look two miles underground; we can't know exactly what happened. However, I do think that this interpretation I have is more the normal one, not radically out of the ordinary. I think that is what you stick to, something that is



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not out of the ordinary.

Q You just testified you feel that is more the ordinary interpretation and the other interpretation is out of the ordinary; is that correct?

A I believe the lightest structure contours; yes.

Q Let's assume that the other interpretation, that there are two sand bars lying there, might be the true interpretation; then, would it affect the location of that sand bar with regard to Section 11?

A If this is the true interpretation there is --

Q Excuse me. I'd like to interrupt. I am not saying that Mr. Loveless', I am not asking you to assume his interpretation as depicted there is the true interpretation; rather, that there are two sand bars lying somewhere there. Would you proceed on that basis.

A What I mean, exactly, two bars --

Q Let's assume there are two sand bars lying approximately in the same direction insofar as the longitudinal axis is concerned, if that be the case, then would it materially affect the location of the sand bar insofar as Section 11 is concerned?

A I think only slightly, because on Mr. Loveless' map he has a set of control points down in the Atoka-Pennsylvanian pool. Then he somewhat departs in the vicinity of Section 11 from that normal contour; they spread out. I don't believe that would be



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the case. I think, if anything, they would narrow down.

Q You are saying he has no control for spreading out the contours, you might say, north and east of Section 22?

A No, sir.

Q Insofar as you proceed to the northeast?

A That's right.

Q Now, referring to your map, what do the circles represent?

A Circles represent the depth control of those wells that have penetrated the Morrow sand pay.

Q I notice that a numeral is shown in each of those circles. What does that represent?

A The numeral is the net sand thickness.

Q And what does the numeral in the triangle beside each well represent?

A In the triangle, that represents the net porosity present in the sand thickness.

Q Now, would you refer to these wells that are shown in the lower left-hand corner of that plat and tell me which of those wells, insofar as their location with respect to the sand bar is concerned, have been the good wells and which wells have been the dry holes or the poor wells?

A Starting at the northwest, the Standard of Texas Paul Terry, is a dry hole.

Q What section?



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A Section 15 of 1 South 16 East; that had a calculated 4 feet of net porosity, drill stem tested the section, and, as it is noted here, they recovered only an estimated 215 MCF of gas per day, which certainly doesn't sound commercial. Going to the south-east, the Standard of Texas C. R. Martin No. 1, 50 feet of net sand pay, 20 feet of porosity, completed in the Morrow sand, 43,000 MCF of gas per day. The discovery well in Section 14, Standard of Texas Everest, has 47 feet of sand pay, 12 feet of porosity; that was completed for 21,000 MCF of gas per day. Continuing to the east in Section 14, Standard of Texas No. 2 Everest had 22 feet of net sand pay, 6 feet of apparently ineffective porosity; drill stem tested, no significant recovery. The Pan Am down in Section 23, Pan Am C. R. Martin was recently completed in a sand above the sands that are producing in the Everest well and Martin's wells. They perforated and tested the Morrow sand, reported 94 MCF of gas per day,; also mentioned salt water. Plugged back and perforated another sand that is not developed to the northwest.

Q Does this sand appear as you go laterally across the axis of the sand body, appear to drop off rather rapidly both to the northwest and southeast?

A Yes, it does. It thins quite rapidly, and particularly the amount of porosity drops off rapidly.

Q Therefore, it follows, I assume, that you can determine



pretty well what type of well you can get, if any, by determining what the porosity is?

A That's right.

Q And the better the porosity, the better the well. Have you given consideration to any proposal to join with Mr. Loveless in the drilling of a well as he has proposed here today?

A Well, yes; we received his letters, of course, proposing that we join in a unit with him.

Q As a result of that, did you make a study of the geologic nature of the Atoka as it appears in that immediate area and the general area surrounding?

A Yes, I did.

Q And did you make any recommendation to your management as a result of that study?

A I recommended that we not join on the basis that I felt that he has a very good chance of making a dry hole. If he doesn't make a dry hole it could be a poor well, and in that case I believe that our 40 acres in the southeast, the northeast of Section 11, will have more sand thickness and if he makes a poor well, of course we won't get our fair share of the gas.

Q What do you mean by a poor well?

A A well that won't pay out, or a very long pay out.

Q Where would his location lie in respect to the ten foot contour in this area of Section 11?



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A Well, of course as I interpret it, it is going to lie on the thin side of the ten-foot sand thickness.

Q You would expect, then, that he would have less than ten feet in his well?

A Yes, sir.

Q Now, what is the least sand thickness that has been found in a well which has been completed as a well and is now producing?

A Approximately 28 feet.

Q So this was another consideration which led you to turn down this proposal?

A Yes, sir.

Q What has been the sand thickness which has produced the best wells in this area?

A Shown on the map, the best well in Section 15 is the Standard of Texas Martin which has 50 feet of net sand thickness. Pan Am's well in Section 22 Flynn, very close, 39 feet of sand thickness.

Q Do you have anything further to add to your testimony at this time?

A I think not.

MR. ERREBO: That is all I have.

MR. LOVELESS: May I ask a couple of questions?

CROSS EXAMINATION



BY MR. LOVELESS:

Q Are you familiar with the two wells that Ohio has drilled in Section 29 of the same township and range, Ohio Arnquist and Ohio Nix.

A Particularly the Arnquist; that is a good well.

Q I note with interest that you have a tendency to correlate your sand deposition, and particular sand porosity, with structure. You have cut off your map without carrying your interpretation to the southwest portion of the Atoka-Pennsylvanian field, and I wonder if there is any particular reason for that? Let me put it this way, would the correlation that you have employed as related to porosity and structure hold in the area of the Ohio Arnquist and the Ohio Nix, or have you made a study?

A I haven't, only a regional study in that area; I haven't got this close type of thing on that area.

Q Speaking generally of the history of the Penn sand out here, in your experience do you know of any other field in New Mexico or West Texas where the sand deposition has been as extensive in trend as you have depicted it on your map? I mean, a continuous Penn sand deposition?

A I think that in the Continental Bell Lake area it is quite continuous.

Q Over how many miles?

A I'd say three miles without seeing a map.



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Q Are you familiar with the Grayberg unit that Wilshire and Great Western drilled in the Jalmar?

A Again, on a regional basis, yes.

Q Have you attempted to correlate your hypothesis there with what you have done here in extending this sand distribution over what appears to be probably six or eight miles if you continue your sand thickness contours on to the southwest, as you logically would have to?

Q No; we, unfortunately, are rather poor in that area and we haven't.

Q Are you familiar with the history of the attempts to extend production in the vicinity of the Empire-Penn field of Standard's, what now is Pan Am's A.B.? If not, I can assure you I am. I promoted three attempts in there. What I am leading up to, generally speaking, aren't these Penn fields very limited in nature?

A Yes, up to -- I would say this is the most extensive one, probably, in New Mexico.

Q It certainly is as far as I know. One other question; I am not trying to pick your interpretation apart. In section 17, 18, 27, in the vicinity of the Humble 1-C Chalk Bluff Draw Unit, is there any particular reason that you have drawn that evulsive re-entrant back up into 18 there and given it a more pronounced character than the other contours along your southeasterly striking nose; do you see what I mean there?



A Yes, I do. Generally down here we have a northeast strike, and again we have a control point up here, and so we are going to have to -- if we came straight over and went back up it is going to be a great widening of the contour, and I was trying to keep the contour normal.

Q I gather you were keeping a rather close watch on this area because of your interests there. Were you surprised at the subsurface datum on that Pan Am well in Section 23, or did that conform pretty well?

MR. ERREBO: Mr. Examiner, I object. He never testified he had been keeping close watch.

MR. PAYNE: Mr. Errebo, the witness is testifying on the basis of Mobil's Exhibit 1 which covers a wide area in the Atoka-Penn Pool. It would seem that if his exhibit merits consideration that surely he must have made a study of this entire area, or he wouldn't have been able to compile it.

MR. ERREBO: That study may have been made after development had taken place. I assume he was leading into what had occurred during the development of this pool.

MR. PAYNE: Mr. Loveless, why don't you proceed further until the Examiner can see more clearly the direction of your questioning.

MR. LOVELESS: Well, what I was trying to lead up to is the obvious vagaries of structural contouring in this area. Almost



every well seems changed as far as I am able to tell. I was just wondering if he changed his interpretation appreciably with the advent of the Pan American well in Section 23. That is all I was after.

A No, actually that came in very well on the map, on the structure. You are right that every well will change somewhat, but I think generally there is still a northeast southwest strike in this area with this southeast dip.

MR. UTZ: In other words, the Pan American well fell pretty well where you expected it to, did it?

Q (By Mr. Leveless) Can you bring yourself to believe, on the basis of your interpretation, that anything but the southeast quarter of Section 11 deserves development insofar as the way you have drawn this map?

A No, that is not quite the case because I am sure we all realize that these contours can be displaced one way or another pretty easily, any map can. However, I think that what I am trying to show is that, regardless of how they are displaced, either to the northwest or southeast, that the southeast portion of Section 11 will be better than the northwest portion of Section 11, and by the same token, since it is a northeast strike, that our 40 acres will be better say than the east half of the northwest corner.

Q I did want to ask you one other question. Your sand distribution map in the so-called Chalk Bluff area seems to depart



radically from the typical sand distribution alignment that you have illustrated in the Atoka-Pennsylvanian. Do you have any explanation for that?

A Well, only this; that during Morrow time when that sand was being deposited there was a nosing in that area, and since a sand bar type of deposition will be deposited within a fairly restricted depth of water there was spreading of the depth along this nosing and, therefore, the sand deposition conformed to that depth of water.

MR. LOVELESS: I don't believe I have anything else.

BY MR. PAYNE:

Q Would you propose to your management that they drill a well in the southeast quarter of Section 11?

A Yes, sir; I would.

Q Do you know if they have any immediate plans to do so?

A They have none until the gas is marketed in this area.

Q Have you ever been present in a spacing case, well, as a matter of fact, in the spacing case for this particular pool, the Atoka-Pennsylvanian, where various witnesses will testify that one of the advantages of going to so-called wider spacing is that it allows the operators to step out and find the outer boundaries of the pool?

A I have never been in those meetings; no.

Q Do you think the Commission should encourage oper-

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ators to step out and drill wells in order that the pool limits can be determined as soon as possible?

A I don't think that they should encourage them to drill what we might believe is an uneconomical well, because the oil business is tough enough right now economically.

Q You don't mean the Commission should decide whether an operator is going to get a producer or not, do you?

A Certainly not.

Q I take it that Magnolia's chief objection -- I realize they are objecting to the entire application -- I take it their chief objection is to including the southeast quarter of the northeast quarter of Section 11 in Mr. Loveless' proposed unit?

A That is the chief objection; yes, sir.

Q Even if Mr. Loveless drilled in the northwest quarter of Section 11, that still wouldn't preclude you from drilling the southeast quarter, would it?

A It would not.

Q You would still have a communitization problem with the southwest quarter?

A That's right.

Q Turn the unit north and south, there is also a communitization problem with the balance of the northeast quarter of Section 11?

A Right.

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Q So we are quibbling over the 40 acres. Assume the Commission would have no objection to a 360-acre unit comprising the entire southeast half of Section 11, southeast corner of the northeast corner of Section 11, would Magnolia object to this application, the balance to be dedicated to a well Mobil would drill in the northwest quarter?

A I would be satisfied with that.

MR. ERREBO: Mobil would want the additional credit for the additional 40 acres at such time you might allocate the pool, according to the pool formula.

MR. PAYNE: Thank you. That is all.

BY MR. UTZ:

Q Mr. Milks, the fact of the matter is here that this pool at the present time is subject to considerable interpretation; is that correct?

A Yes, I think that is so.

Q In other words, from 1826, vicinity of Section 14 and 15, over about four or five miles over into 1837, Sections 28 and 17, you have no control whatsoever?

A That's correct.

Q Over in Sections 28 and 17 you do have quite an anomaly there, nosing to the south; is that your interpretation?

A Yes, sir.

Q Well, if that happens there where you have control and



know that it happens, it could happen in between this area where you don't have control, couldn't it?

A It could. However, we have no reason to expect it in there.

Q You have no reason to think it does not exist, do you? You don't know if it is north, south, or any other direction?

A It could, yes. However, I think as I said once before that we do not have the control. I don't believe it should depart from the norm; it should follow the normal type of structure.

Q In other words, we should draw lines in the line of least resistance, directly from one contour point to the other?

A More or less; yes, sir.

MR. LOVELESS: I might observe, if we are going on control, we don't have anything north of the south half of 14.

MR. UTZ: Other questions? Witness may be excused.

JOE GORDON, JR.

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

DIRECT EXAMINATION

BY MR. ERREBO:

Q State your name, please.

A Joe Gordon, Jr.

Q What is your occupation, by whom are you employed, and where are you located?



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A Senior production engineer, Mobil Oil, Hobbs.

Q Have you previously testified before this commission as engineer expert witness?

A Yes, sir.

Q Have you heard the testimony Mr. Loveless presented in connection with his proposal?

A Yes.

Q And you have heard the testimony of Geologist Milks?

A That is correct.

Q Are you acquainted with the Atoka Field pool rules?

A Yes, sir.

Q That being the case, you are aware, then, that the units can be composed of the north half and the south half of the east half and the west half of the section?

A Yes, sir.

Q That actually the Commission has the authority to go on either system if they want?

A Yes.

Q And when the matter is in controversy the Commission must have some good reason to go in one direction or the other, and you would assume they would in issuing the order?

A Yes.

Q Now, do you know whether this pool is now allocated?

A No, sir; this pool is not allocated at this time.



Q You would reasonably expect, however, would you not, that at some future date when gas takes are occurring from the pool, that an allocation normally would be adopted by this Commission?

A Certainly.

Q Have you made a study of this pool in the area in question?

A Yes, sir, insofar as it pertains to the engineering economics study.

Q You haven't made a reservoir study?

A No, sir.

Q Or anything of that type?

A No, sir.

Q You have conferred with Mr. Milks and other personnel in your company concerning Mr. Loveless' proposal?

A Yes, sir; we have studied his proposal.

Q Will you state what your opinion then is as a result of these conferences concerning whether Mr. Loveless' well will be dry or a poor producer?

A On the basis of the geological information already presented by Mr. Milks, we believe that a well in the location proposed by Mr. Loveless would be, in all expectations, classified as a dry hole with a bare possibility that it might be a poor producer.

Q What is your opinion, insofar as the testimony is concerned, what position have you adopted in your studies concerning the type of well which would be obtained by Socony Mobil in the

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southeast quarter of Section 11?

A Based on the same evidence, same testimony by Mr. Milks, we believe that a standard location, well located in the southeast quarter of Section 11 would be a good producer.

Q That is because the well is located as reflected by the exhibit which has been introduced here by Mr. Milks, near the correctional structure?

A Yes.

Q In an area of maximum thickness?

A Yes.

Q On this basis, have you made any calculations as to the proper arrangements of the units and assignments of acreage?

A We have compared the effects by a check study using a profit and loss form, taking into account all investment, income, expenses, taxes, royalty and working interest. We have compared the effects insofar as Socony Mobil is concerned in regard to the north half unit as proposed by Mr. Loveless, and also as to an east half unit as we show on our exhibit 1, the proposed unit outlined. The additional recovery to Socony Mobil as a result of being in this east half unit, wherein we have under lease 200 acres in the east half unit, as compared to a north half unit in which we had forty acres, and a south half unit in which we had 160 acres, the difference in that cash recovery to us would be approximately \$45,000 in favor of our participation in an east half unit. This



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is, of course, based on the fact that in the east half unit as shown here we would participate in a good well, and that our 40 acres in question here would be receiving their proper credit for their sand thickness, and we would be able to drain the 40 acres from our well in the southeast quarter, whereas we do not believe that a north half unit with 40 acres dedicated to that well, that our acreage would receive its proper credit. The gas might be produced in any direction, but we would not receive credit in the north half unit for that gas.

Q Is your testimony then, you would lose \$45,000 if a north half unit was adopted by this Commission and force pooled in lieu of an east half unit?

A Yes, sir.

Q That is to your working interest, isn't it?

A Yes, sir.

Q Have you given any consideration as to what would happen to Mr. Fanning's 40 acres of royalty under that 40 acres in question?

A Mr. Fanning, as owner of the royalty interest under the 40 acres in question, and also the 80 acres which compose the north half of the southeast quarter, would lose an even greater proportion as his 40 acres bear a larger relationship to his entire acreage. Socony Mobil would lose to a certain extent; he would lose to a greater extent because of the different relative areas involved there.



Q Actually, then, your assumption has been, in giving these figures to the Commission, that a well drilled by Mr. Loveless would be either a dry one or would not pay out; is that correct?

A It would be a very poor well; yes, sir.

Q You also assume a well in the southeast quarter would be a good well?

A Yes, sir.

Q If that is the case, then, and you have also assumed, have you not, that the southeast of the northeast contains recoverable gas?

A Yes, sir.

Q Would it be possible, based on the evidence that has been produced here today, and your studies, for a well like that Mr. Loveless would drill to be dry and still have recoverable gas under the southeast of the northeast?

A You mean a unit as held by Mr. Loveless' well?

Q Yes.

A Yes, there would be gas reserves there dedicated to that well.

Q Yet his well could be dry?

A Yes.

Q It could be a poor well, produce a few months, be abandoned and there could still be recoverable reserves under the southeast of the northeast?

A True.



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Q If there is recoverable reserves there, and Socony Mobil is force pooled into this north half unit, what would happen to the gas under it?

A The gas under the 40 acres southeast of the northeast would be produced possibly to the south through a well in the southeast quarter, possibly through a well located in Section 1 to the west, being the nearest escape for that gas.

Q And would Mr. Fanning then be paid for any of that 40 acres of gas produced on other people's leases?

A Mr. Fanning would not receive anything for that since his gas rights were dedicated to a well in the north half unit.

Q Then, in your opinion, forced pooling the southeast northeast quarter would result in a violation of correlative rights?

A Yes.

Q Correlative rights of Socony Mobil Oil Company?

A Yes.

Q Is that the basis of your opposition of this application here today?

A Yes, sir.

Q Likewise, the well drilled by Socony in the southeast, Section 11, Socony's participation in that well would be one-half, would it not?

A In a standard south half unit.

Q We are still going under the same set of circumstances



we have been discussing. Then they would be obtaining one-half of the revenue from that well whereas they would be contributing a 40-acres, namely, the 40 acres in question, worth of reserves for which they would not be receiving revenues; is that correct?

A Yes, sir. Some of the gas contracts which have been proposed and are being negotiated at the present time are based on this dedication of reserves, and in that case, in not being able to dedicate these reserves to the south half unit they would be lost to the payment in the rate of take under a gas contract.

Q So then they would be contributing to a hundred acres worth of reserves but would be sharing in the well on the basis of 160 acres worth?

A Yes.

Q Some of that gas might go to the west in a well drilled over there, might it not? It might not be a full 200 acres?

A Yes, some percentage.

Q Do you have anything further to add to your testimony at this time?

MR. LOVELESS: As far as I am concerned, I'd like to ask him one question, and then I've got to depart. You all can continue this hearing in the morning.

MR. ERREBO: I wonder if we could take this first, but I would like to consult with the witness.

Q (By Mr. Errebo) What plan do you have for drilling a well

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in the southeast quarter?

A In the southeast quarter, as soon as possible in 1961; based on present market demand and market availability we do not believe 1960 is the right time for drilling this well.

MR. ERREBO: If it please the Commission, that is all I have. I would like to make a brief statement.

CROSS EXAMINATION

BY MR. LOVELESS:

Q Since we seem to be in a mood for balancing the equities, Mr. Gordon, so to speak, and Mobil seems to have an unusual and overweening desire to protect its royalty owner, namely, Mr. Fanning--

MR. ERREBO: I object to the phrasing of that question, Mr. Examiner.

MR. UTZ: Objection sustained.

MR. LOVELESS: I withdraw it.

Q Would you say, Mr. Gordon, that if I were granted the right to drill a well in the northwest quarter and got a dry well, and you were ultimately granted a right to dedicate the east half of that Section 11 for a well to be located in the southeast quarter, the standard location, that more equitable drainage would be effected as relates to the southeast of the northeast quarter or to the southwest quarter in view of the exhibit that Mr. Milks has presented? In other words, would you say, within your knowledge, as an expert witness on this reservoir and based on what Mr. Milks



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has presented, that it would be more equitable for you to turn this unit east-west and include the southwest quarter than it would be to dedicate the east half of the section to your location here? In other words, you have testified that your Mr. Fanning here would lose his gas if I got a dry hole and his forty never got into a gas unit. How would you say the man who owns the royalty under the southwest quarter would be affected by your dedicating the east half -- we are talking about the correlative rights of royalty owners?

A It would be hard to draw a distinction there. Our main concern is in establishing and keeping our acreage here together insofar as there is a difference in the north half and the south half. We desire for our acreage to retain its single identity since, on the basis of geological testimony it does have a common identity here. There is not too much unequality between the different parts of our leases.

Q Is this the Mr. D. E. Fanning the one and same who has the southeast of the northeast quarter?

A Yes, sir; 120 acre lease.

Q Then, would you say that if it became necessary for you to dedicate the south half of Section 11 to a unit ultimately rather than the east half, provided I drilled a dry hole up there, that Mr. Fanning would not ultimately get a portion of his royalty out of a well drilled in the southeast quarter?



A In the event of a dry hole drilled at your location we most probably would attempt to establish a south half unit with the additional 40 acres there, with due allowance made for the additional acreage in allocation formula.

Q My next question, if I drilled a dry hole here and you succeeded in having dedicated the east half of Section 11 to a well here, what would become of the royalty under the Standard of Texas tract in the southwest quarter of Section 11?

A I believe they would be, unless they were unitized, they would have no outlet except by drilling an additional well.

Q Would you say, getting back to balancing the equity, it would be fair for you to, for this Commission to refuse me the right to drill here, and give you the alternative to go either way with your unit ultimately?

MR. ERREBO: May it please the Commission, I don't believe the issue here is whether or not Mr. Loveless will be refused the right. I am certain Socony Mobil is not objecting to that. The question is the acreage to be assigned. I object to the question for that reason.

MR. PAYNE: Would you repeat your question?

Q (By Mr. Loveless) I simply stated that I wondered if it would be -- apparently you are opposing my drilling a well and dedicating the north half of 11 to it, -- if I am refused that right then it gives you the option to put your unit either way,



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either the east half or the south half, at your leisure?

A Yes.

Q Do you think that if I want to take a gamble to drill a well up here in the belief I will get a producing well that would justify putting the north half in there, the whole north half of Section 11; do you oppose my right to do that on the strength of your running this unit either way?

MR. ERREBO: I object. I think that the question, first of all, ought to be rephrased and, secondly, I object to the form of it because Mr. Loveless has concluded that Socony Mobil, in the event this application is denied, will have the opportunity to run it either way. I don't believe that necessarily follows, and I don't believe it is a proper question to put to the witness on that basis.

MR. PAYNE: I believe the Examiner has enough testimony and exhibits here to study them over and determine what the best solution will be to protect correlative rights on the case, so I don't really feel we need to go into that aspect of the case any further.

MR. UTZ: I think that is true. The fact of the matter is, Mr. Errebo, the man has to have a unit of some kind before he can get a well. You don't separate the two.

BY MR. PAYNE:

Q Mr. Gordon, Magnolia does propose to drill a well some-



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time in 1961, has a tentative plan?

A Yes, sir.

Q If -- we have been assuming here on some of the testimony that Mr. Loveless will get either a dry hole or a poor well, which I believe was stated in the question, or at least that it might play out in three or four months and be abandoned -- if he gets a dry hole or poor well and it is abandoned prior to the time that Magnolia drills their well, then assume that the Commission grants Mr. Loveless only the 280-acre non-standard unit, nobody should be injured in such a case, is that right, because then you could run your unit either the east half of Section 11 or the south half of Section 11 and ask for an additional 40 acres?

A Yes, sir; we would.

Q So, if he does get a poor well, actually in all probability all parties concerned will know about it prior to 1961, or prior to the time Magnolia would drill their well?

A Yes, sir.

MR. PAYNE: Thank you.

MR. UTZ: If he gets a good enough well, Standard of Texas might want to communitize the southwest quarter.

BY MR. LOVELESS:

Q I assume from Mr. Milks testimony that you would prefer to have this east half, as that would be your first choice of the unit when you do drill your well; is that true?



A Yes, sir.

Q If you do that, and under the present rules, would you object -- let's say I didn't drill my well up there, which you may have convinced me I shouldn't, and you did elect to turn your unit this way -- if the Standard of Texas came in and asked for a non-standard location, would Magnolia object to their placing a location in the southwest quarter of the section, or the west half, comprising 320 acres?

A No, sir. I can't speak for the Commission --

MR. ERREBO: If the Commission please, now, that is rather a difficult question to answer, I think, at this time, and I object to it. Certainly Socony Mobil wouldn't advocate putting in the northwest in a 320-acre unit when it has been proven dry.

MR. LOVELESS: I said, assuming I didn't drill my well and you elected to go on the east half of that section.

MR. ERREBO: I see your point.

Q (By Mr. Loveless) Do you think Socony Mobil would be inclined to object to a well being located in the southwest quarter on a non-standard location?

MR. ERREBO: I don't think they would object to the location.

Q (By Mr. Loveless) They might to the dedication?

MR. ERREBO: Their views on that would be governed by their views in the hearing here today.



MR. UTZ: Other questions? The witness may be excused. Statements in this case?

MR. KELLAHIN: Standard of Texas, if the Commission please, is in support of the application of Mr. Loveless for the forced pooling of a standard 320-acre unit or the non-standard unit as proposed in the application.

In regard to the testimony that has been presented, some things have been said as to correlative rights. Now, on the forced pooling phase of the application, perhaps correlative rights do have some place in the application, but I do feel that on the basis of our statutes they have no place in the hearing on the non-standard proration unit. As the Examiner will recall, Section 65-3-14 of our New Mexico statutes provides for the formation of a unit and the pooling of properties, and adds this language: "provided that the owner of any tract that is smaller than the drilling unit established for the field shall not be deprived from drilling thereon and produce from such tract if the same can be done without waste." Certainly there has been no showing of waste here, and on the basis of that statute I don't feel the Commission could do anything but approve the application unless it is assumed the drilling of this well would constitute waste, and I don't think the Commission is ready to assume that. For that reason, I don't think Mr. Loveless can be denied the opportunity to drill the well on the unit as he proposes. However, we do feel he has made a

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strong case for the establishment of a standard unit and forced pooling of the Mobil acreage.

MR. ERREBO: It is quite obvious from all the testimony here today that nobody wants the northwest quarter up there except Mr. Loveless. Certainly, Standard of Texas doesn't want it; they don't even want to be in a unit with them. They want us to take that southwest quarter in, and I think that has become obvious throughout the entire hearing, that is, that the northwest quarter is questionable and we have no objection to Mr. Loveless' first proposal, and that is for a non-standard 280-acre unit. We do have a serious objection, and we raise a question as to whether or not the evidence here today justifies the Commission force-pooling that 40-acres in there. We would like to urge that the Commission grant his application, and grants the non-standard unit.

Now, we know that we couldn't ask this Commission to come in after they have adopted a regular and systematic pattern of units and adopt a helter-skelter checkerboard piecemeal pattern of pro-ration units based upon whims of geologists, perhaps, and the various ideas that people might have as to the relative volumes of parts of their acreage. But, on the other hand, we feel that the Commission is dealing with a narrow sand bar, and with 320-acre units, which, of course, are one mile long in one dimension, and when you consider the fact that this sand body isn't too much more than a mile wide, that you are inevitably going to be including

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scenery in some of these units, and you are going to be on the edge and the Commission is going to -- we trust and ask that they do --- be flexible in the instances where it is called for, and we do believe that this is an exception to the pattern that is called for here.

MR. UTZ: Other statements? Case will be taken under advisement.

STATE OF NEW MEXICO)
) ss
COUNTY OF BERNALILLO)

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

IN WITNESS WHEREOF I have affixed my hand and notarial seal this 20th day of June, 1960.

June Paige
Notary Public - Court Reporter

My commission expires:
May 13, 1964.

I do hereby certify that the foregoing is a complete record of the proceedings in the Examiner hearing of Case No. 1985, heard by me on June 1, 1960.
Elmer A. [Signature] Examiner
New Mexico Oil Conservation Commission

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