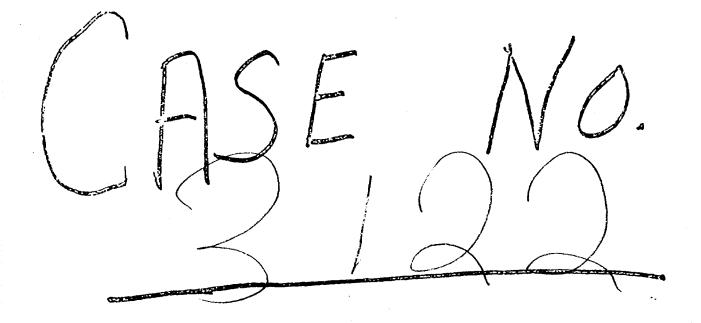
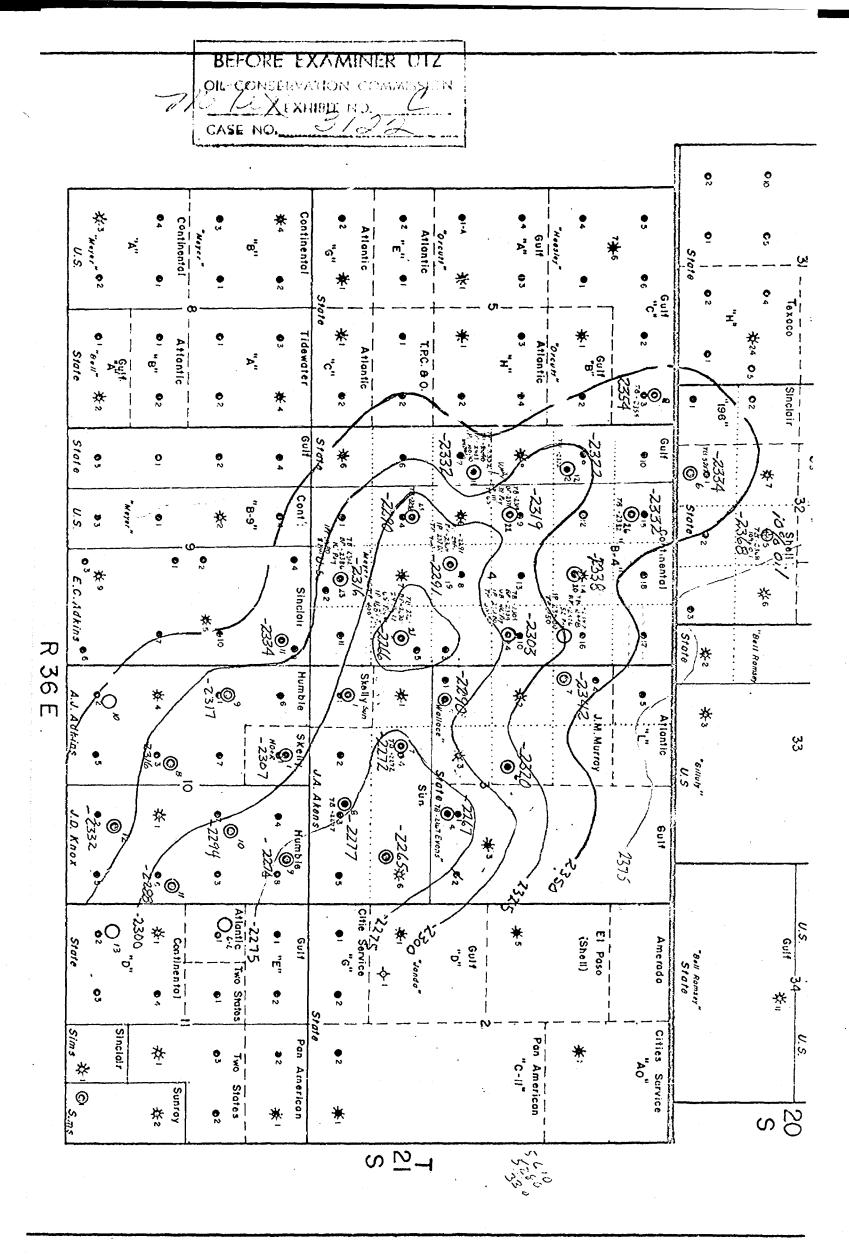
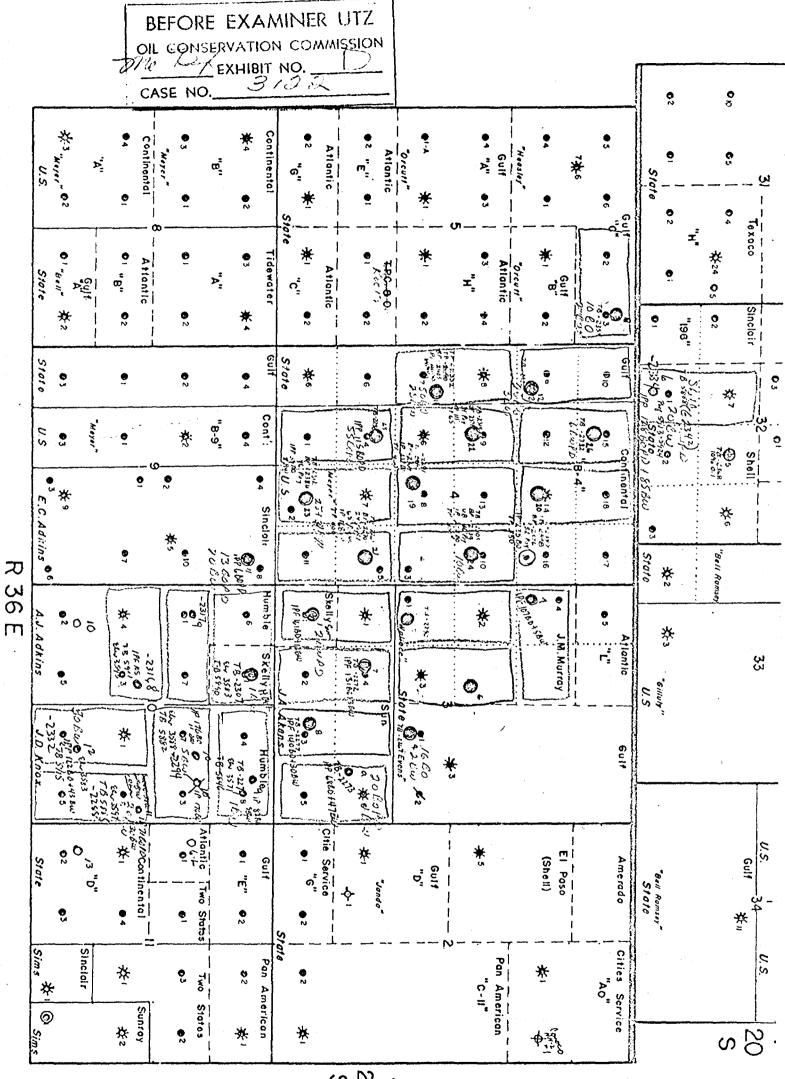
CASE 3122: Appli. of CONTINENTAL

for unorthodox location and a nonstandard unit, Lea County.



APPlication,
TYANSCHIPTS,
SMALL Exhibits
ETC.





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ro

## 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:	CF Subj.
APPLICATION OF CONTINENTAL OIL COMPANY FOR AN UNORTHODOX LOCATION AND A NON-STANDARD UNIT, LEA COUNTY, NEW MEXICO.	CASE No. 3122  Order No. R-3799

### ORDER OF THE COMMISSION

### BY THE COMMISSION:

This cause came on for hearing at 9 o'clock a.m. on October 13, 1964, at Santa Fe, New Mexico, before Examiner Daniel S. Nutter Eliver (1862).

NOW, on this \_\_\_\_day of \_\_October, 1964, the Commission, a quorum being present, having considered the testimony, the record, and the recommendations of the Examiner, and being fully advised in the premises,

### FINDS:

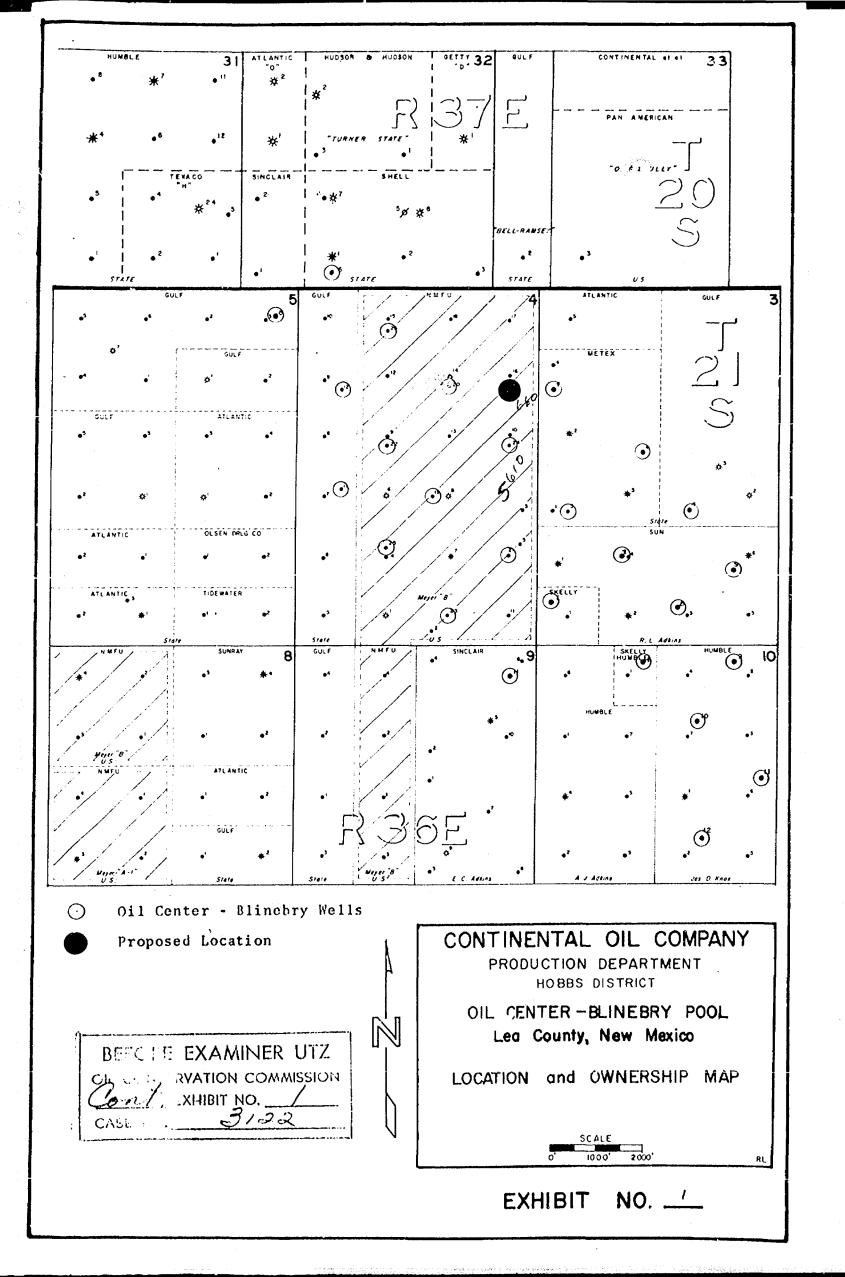
- (1) That due public notice having been given as required by law, the Commission has jurisdiction of this cause and the subject matter thereof.
- (2) That the applicant, Continental Oil Company, seeks authority to complete its Meyer B-4 Well No. 27 at an unorthodox location 5610 feet from the South line and 660 feet from the East line of Section 4, Township 21 South, Range 36 East, NMPM, Oil Center-Blinebry Pool, Lea County, New Mexico.

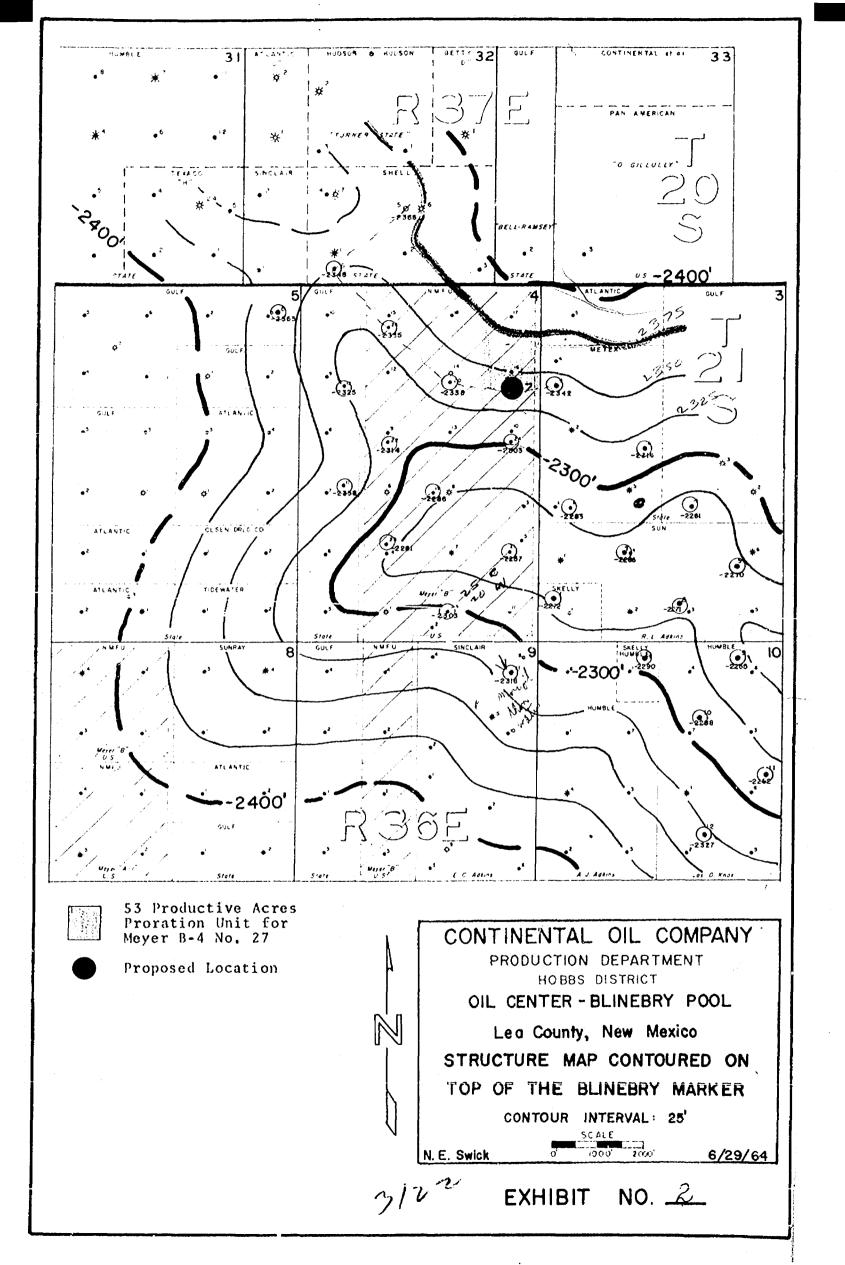
(3) That the Apelial Cular and Regulation for the Oil Center-Blumbry Pool provide that in Township at Douth, all wells on an 80 Alice provides unit shall be located in little the NE/4 or SW/4 of a governmental genetic-section, on, in irrigular governmental sections, on an odd-numbered lat.

(4) That the proposed location is in an irrigular governmental section of an irrigular governmental section on an even-numbered lat.

- (4) That the applicant also seeks approval of a 53-acre non-standard unit comprising all of Lot 1 and a portion of Lot 8 of said Section 4.
- (5) That Lot 1 can reasonably be presumed to contain approximately 40 productive acres and that Lot 8 can reasonably be presumed to contain approximately 13 productive acres in the Oil Center-Blinebry Pool.
- (6) That the drilling of the proposed well at a location nearer than 6270 feet to the South line or nearer than 660 feet to the East line of Section 4 will afford the applicant an opportunity to produce more than its just and equitable share of the oil in the pool.
- (3) That approval of an unorthodox location no nearer than 6270 feet to the South line and no nearer than 660 feet to the East line of Section 4 will afford each operator an opportunity to produce his just and equitable share of the oil in the pool, and will otherwise prevent waste and protect correlative rights, possibly the well received no more than a 53-Abre allowable IT IS THEREFORE ORDERED:
- (1) That the applicant, Continental Oil Company, is hereby authorized to complete its Meyer B-4 Well No. 27 at an unorthodox location no nearer than 6270 feet to the South line and no nearer than 660 feet to the East line of Section 4, Township 21 South, Range 36 East, NMPM, Oil Center-Blinebry Pool, Lea County, New Mexico.
- (2) That Lots 1 and 8 of Section 4, Township 21 South, Range 36 East, NMPM, Lea County, New Mexico, shall be dedicated to the Continental Oil Company Meyer B-4 Well No. 27 and that said well shall receive a 53-acre allowable in the Oil Center-Blinebry Pool.
- (3) 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.



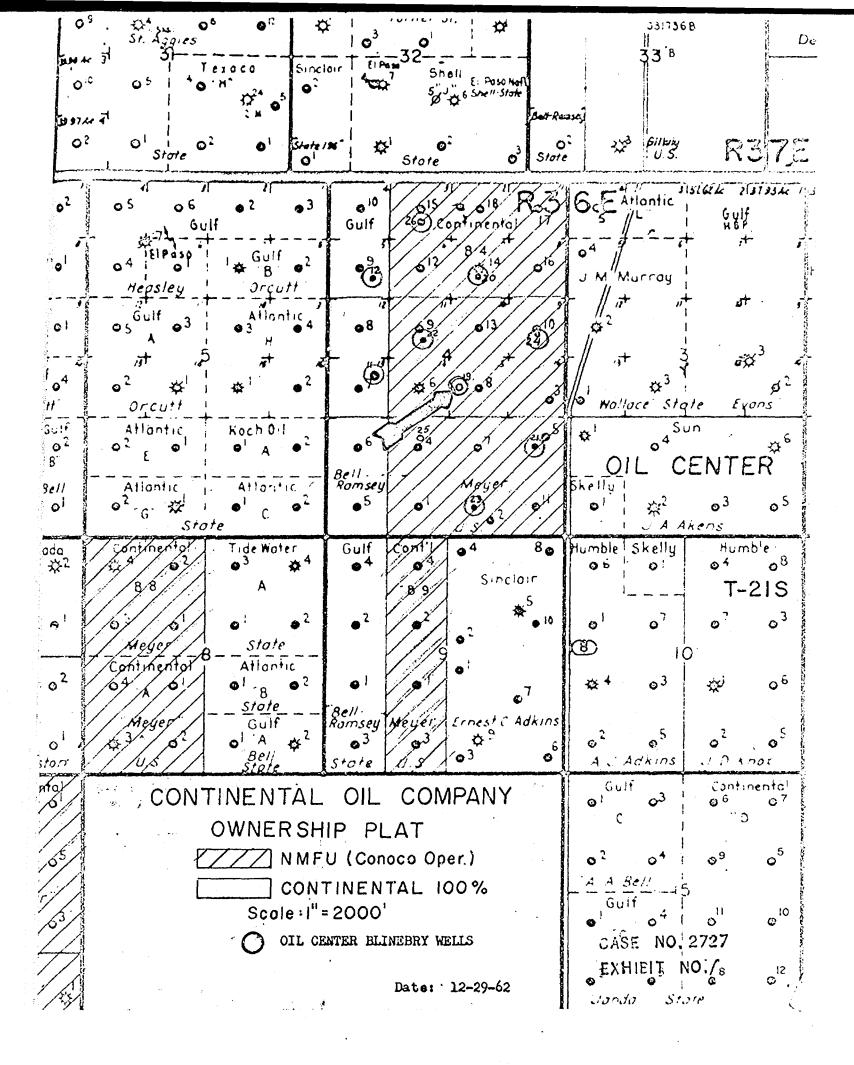


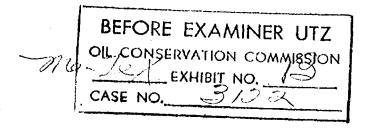
### EXHIBIT NO. 3

## DRAINAGE AREAS

,	Distance From Meyer B-4 No. 19	Drainage Area Required To Effect Pressure Drawdown In Meyer B-4 No. 19	
Well #20	21,701	块O acres	
Meyer <b>8-4</b> #20.	2150,	324 <b>"</b>	
# <b>2</b> 2	1500'	162 "	
#23	26801	518 <b>"</b>	
#24	2030'	29 <sup>1</sup> 7	
	1470'	156 <b>"</b>	
#25 #26	3760'	1020 <sup>8</sup>	

BEFORE EXAMINER UTZ
OIL CONSERVATION COMMISSION
OF LEF EXHIBIT NO.
CASE NO.





# CONTINENTAL OIL COMPANY

P. O. BOX 460 HOBBS, NEW MEXICO

September 17, 1964

1001 NORTH TURNER TELEPHONE: EX 3-4141

PRODUCTION DEPARTMENT HOBBS DISTRICT JACK MARSHALL
DISTRICT MANAGER
G. C. JAMIESON
ASSISTANT DISTRICT MANAGER

> New Mexico Oil Conservation Commission Post Office Box 2088 Santa Fe, New Mexico

Attention of Mr. A. L. Porter, Jr., Secretary-Director

Gentlemen:

Application for NSP and NSL - Meyer B-4 No. 27 Re:

We forward herewith application, in triplicate, for an exception to the special pool rules for the Oil Center Blinebry Pool, contained in Order No. R-2408, for our proposed Meyer 8-4 Well No. 27. We should appreciate your setting this matter for hearing at the earliest possible date for an Examiner hearing.

Yours very truly,

GCJ-DFW

Enc.

cc: RGP GW Jyk

Cast # 3122 Hearing 6 ct # 13,1964

### BEFORE THE OIL CONSERVATION COMMISSION

OF THE

STATE OF NEW MEXICO

IN THE MATTER OF THE APPLICATION OF CONTINENTAL OIL COMPANY FOR APPROVAL OF A NON-STANDARD LOCATION FOR ITS MEYER B-4 WELL NO. 27 AND FOR APPROVAL OF A 53-ACRE NON-STANDARD PRORATION UNIT IN EXCEPTION TO RULES 2 AND 4(a) OF ORDER NO. R-2408 COVERING THE OIL CENTER BLINEBRY POOL, LEA COUNTY, NEW MEXICO

### APPLICATION

comes now, Applicant, Continental Oil Company, and respectfully requests exception to Rule 4(a) of Order No. R-2408 for the location of its Meyer B-4 Well No. 27, 5,610 feet from the South line and 660 feet from the East line of Section 4, Township 21 South, Range 36 East, Lea County, New Mexico, and for approval of a 53-acre proration unit to be assigned to said well in exception to Rule 2 of said order, and in support thereof would show:

- 1. Applicant is co-owner and operator of the Meyer B-4 Lease consisting of Lots 1, 2, 3, 6 through 11, and 14 through 16, SE/4 and E/2 of the SW/4, Section 4, Township 21 South, Range 36 East, Lea County, New Mexico.
- 2. Applicant has drilled and completed eight wells on said lease as Oil Center Blinebry producers on a regular 80-acre spacing pattern as provided by Order No. R-2408.
- 3. All acreage on said lease is allocated to producing wells with the exception of Lots 1 and 8.
- 4. Applicant is unable to locate a commercial well to develop said Lots 1 and 8 in conformance with the provisions of said Order R-2408.

New Mexico Oil Conservation Commission Page 2

- 5. Information available to Applicant indicates that a well located 5,610 feet from the South line and 660 feet from the East line of said Section 4 would drain a productive area of 53 acres under said lots and would permit Applicant to recover the reserves underlying its acreage.
- 6. That the granting of this application is in the interests of protecting correlative rights and preventing waste.

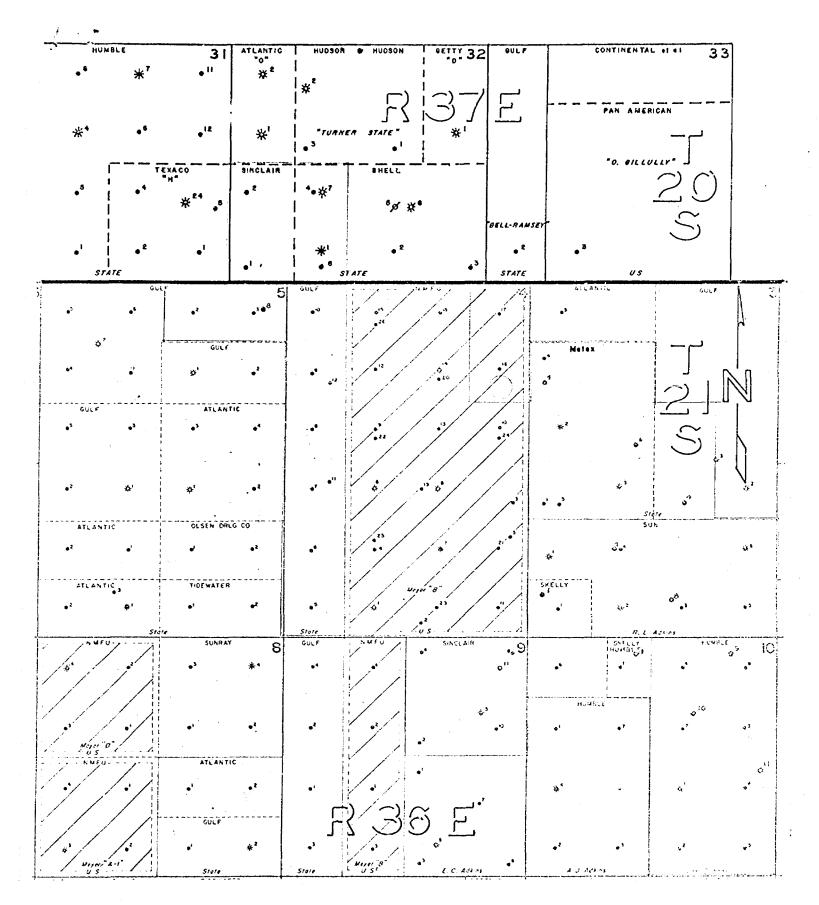
WHEREFORE, Applicant respectfully prays that this application be set for hearing before the Commission's duly-appointed Examiner, that due notice be given and that upon hearing, an order be entered approving the exceptions to Rules 2 and 4(a) of Order No. R-2408 for Applicant's Meyer B-4 Well No. 27 as described above.

Respectfully submitted,

CONTINENTAL OIL COMPANY

JACK MARSHALL District Manager Hobbs District

JM-CL



CONTINENTAL OIL COMPANY
PRODUCTION DEPARTMENT
HOBBS DISTRICT
MEYER "B" LEASE
LEA COUNTY, NEW MEXICO

## ONORTHODOX LOCATION AND NON-STANDARD PROBATION UNIT OYL CENTER BLINEBRY POOL

### PROPOSED TESTIMONY

Q.	Are you familiar	with the application in Case No?
Α.	Yes, sir.	
Q.	Would you please	state what it is?
Α.	Case No.	involves the request of the Commission by Continental

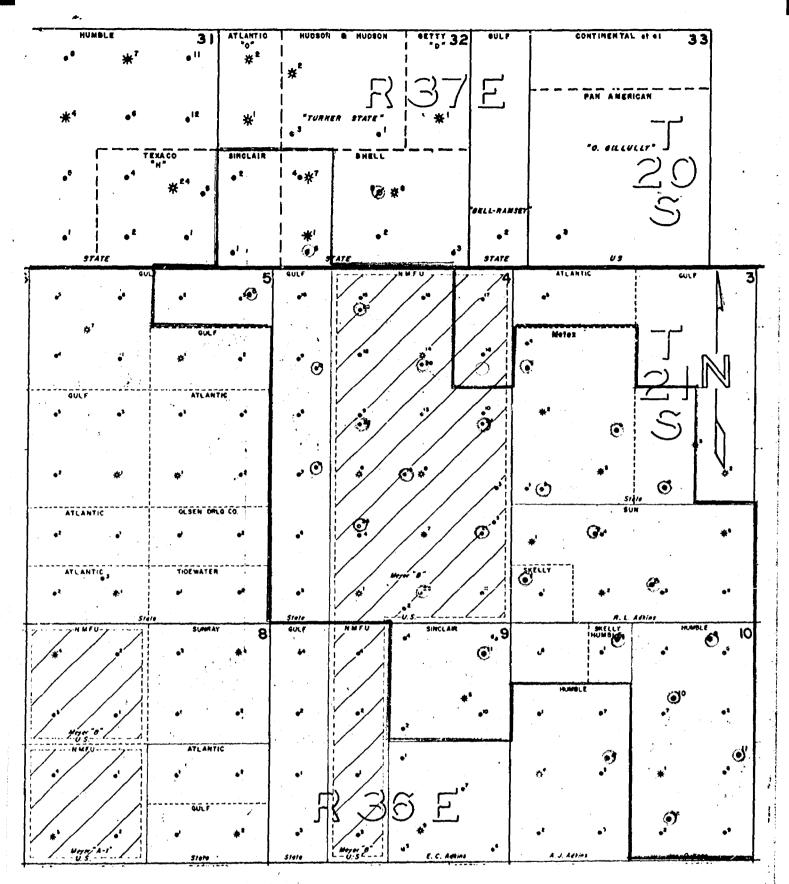
- Oil Company for approval of an unorthodox location and a non-standard provation unit allowable for our proposed well, Meyer R-4 No. 27, in the Oil Center Blinebry Pool.
- Q. Referring to what has been marked Exhibit No. 1, would you please state what it is?
- A. Exhibit No. 1 is a location and ownership map showing the Oil Center Blinebry Pool. The pool, as presently designated, is outlined in red and the wells producing from the pool are circled in green. The location of our proposed well is shown as a red dot located 2500 feet from the north line and 660 feet from the east line of Section 4, T-215, R-36E.
- Q. Does this location conform to Rule No. 4 of the Oil Center Slinebry Pool established by Order No. R-2408?
- A. No sir. The pool rules state that wells be located in the NE/4 and/or SW/4 of a quarter section or odd-numbered lots. This well is in an even-numbered lot, Lot No. 8.
- Q. Referring to what has been marked Exhibit No. 2, would you explain what it purports to show?
- A. Exhibit No. 2 is a structure map of the Oil Center Blinebry Pool contoured on top of the Blinebry marker.
- Q. Why are you asking that the Commission grant approval for this unorthodox location?
- A. Referring to Exhibit No. 2 again, it can be observed that a well in the standard location in Lot No. 1 in the NE/4 of the NE/4 of Section 4 will be below the estimated oil-water contact of the Oil Center Blinchry pay. In order to find sufficient net effective pay to warrant drilling the proposed well, the only structurally favorable position would be as located or even further south.

Proposed Testimony - Oil Center Blinebry Pool Page 2

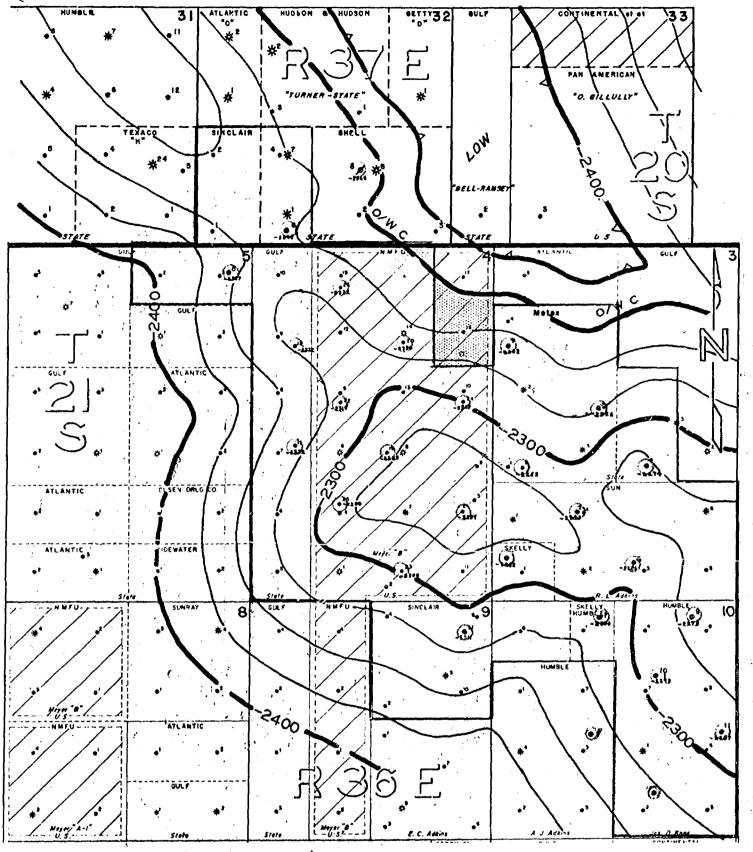
- Q. Referring to what has been marked Exhibit No. 3, please explain what it is and what it shows?
- A. Exhibit No. 3 is a cross-section through Shell's State J No. 5 and No. 6 wells in Section 32, T-20S, R-37E, Continental's Meyer B-4 No. 20 and Metex's Wallace State No. 7. These four wells clearly define an oil-water contact at -2375' in this area. This oil-water contact is shown in blue on Exhibit No. 2. Shell's State J No. 5 found water in all intervals tested, although the porosity above -2375' was not tested. Shell's State J No. 6 was perforated in the subsea interval -2367 to -2378' and produced 128 BOPD and 86 BWPD on initial potential. Continental's Meyer B-4 No. 20, on the other hand, had its lowermost perforation at -2374' and flowed at a daily rate of 235 BO and no water on initial potential, while Metex Wallace State No. 7 was perforated in the interval -2359 to -2385 and produced 107 BOPD and 5 BWPD on IP.
- Q. With the oil-water contact at -2375', how many acres will be productive in the 80-acre proration unit on which Meyer B-4 No. 27 will be drilled?
- A. Referring again to Exhibit No. 2, the area colored in orange is considered to be the productive limits inside the standard 80-acre unit. The area was found to be 53 acres by planimetering.
- Q. What is the allowable of wells producing from the Oil Center Blinebry Pool?
- A. By Order No. R-2408, dated 1-16-63, the Commission granted 80-acre spacing with 80-acre allowable to wells in the 011 Center Blinebry Pool. The multiplier factor is 2.33 of basic allowable.
- Q. As the productive acreage is not 80-acres, you would not expect an 80-acre allowable, would you?
- A. No sir, we are requesting that the Commission grant the allowable based on the productive acreage or 53/80 of an 80-acre allowable.

Proposed Testimony - Oil Center Blinebry Pool Page  $\beta$ 

- Q. What effect would the approval of this application have on correlative rights?
- A. The approval of this application would be in the interest of protecting correlative rights. While a portion of the oil under this tract will be recovered by our Meyer B-4 Nos. 20 and 24 wells, some of our oil will also be recovered by the Metex Wallace State No. 7 well, unless the tract is developed for oil production.
- Q. Would you summarize your recommendations to the Commission?
- A. It is my recommendation that the Commission grant approval of an unorthodox location of Meyer B-4 No. 27 being 2310 feet FML and 660 feet FEL of Section 4, T-21s, R-36E; and that an allowable of 53/80 of a normal 80-acre allowable be assigned the well.



CONTINENTAL OIL COMPANY
PRODUCTION DEPARTMENT
HOBBS DISTRICT
MEYER "B" LEASE
LEA COUNTY, NEW MEXICO



JO GON

CONTINENTAL OIL COMPANY
PRODUCTION DEPARTMENT
HOBBS DISTRICT
MEYER "B" LEASE
LEA COUNTY, NEW MEXICO
BLINEBRY STRUCTURE MAP
Contour Interval: 25'

4-6-64 J. George

RFL

53 Productive Acres Proration Proration Unit for Meyer B-4 #27

### DOCKET: EXAMINER HEARING - TUESDAY - OCTOBER 13, 1964

### 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 3108: (Continued from the September 30, 1964 examiner hearing)

  Application of Monsanto Company for a dual completion, Eddy
  County, New Mexico. Applicant, in the above-styled cause, seeks
  approval of the dual completion (conventional) of its Dagger
  Draw Well No. 1, located in Unit 0 of Section 6, Township 20
  South, Range 25 East, Eddy County, New Mexico, to produce gas
  from the Strawn and Morrow formations through the casing-tubing
  annulus and through tubing, respectively.
- CASE 3115: Application of Monsanto Company for a dual completion, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks approval of the dual completion (conventional) of its Lowe-State Well No. 1 located in Unit F of Section 36, Township 21 South, Range 23 East, Eddy County, New Mexico, to produce gas from the Cisco Canyon and Lower Morrow formations through parallel strings of tubing.
- CASE 3116: Application of Tex-Star Oil & Gas Corporation for force-pooling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks an order force-pooling all mineral interests in the Pearl-Queen Pool underlying the NW/4 NW/4 of Section 24, Township 19 South, Range 35 East, Lea County, New Mexico.
- CASE 3117: Application of Tex-Star Oil & Gas Corporation for force-pooling, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks an order force-pooling all mineral interests in the Basin-Dakota Pool underlying the E/2 of Section 26, Township 30 North, Range 14 West, San Juan County, New Mexico.
- CASE 3118: Application of Gulf Oil Corporation for a unit agreement, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval of the South Penrose Skelly Unit Area comprising 4,400 acres, more or less, of Federal, State and Fee lands in Township 22 South, Range 37 East, Penrose Skelly Pool, Lea County, New Mexico.

- CASE 3119: Application of Gulf Oil Corporation for a waterflood project,
  Lea County, New Mexico. Applicant, in the above-styled cause,
  seeks authority to institute a waterflood project in the Penrose
  Skelly Pool in its South Penrose Skelly Unit Area by the injection of water into the Grayburg formation through six wells in
  Sections 5 and 6, Township 22 South, Range 37 East, Lea County,
  New Mexico.
- CASE 3120: Application of Dr. Sam G. Dunn for a Review of the Commission's Directive of August 27, 1964, concerning salt water disposal, Chaves County, New Mexico. Applicant, in the above-styled cause, seeks a review of the Commission's Directive of August 27, 1964, prohibiting the disposal of produced salt water in unlined pits after November 1, 1964, in the Linda-San Andres Pool and adjacent areas in Townships 6 and 7 South, Range 26 East, Chaves County, New Mexico. Applicant specifically requests an extension of the November 1st deadline and a determination that salt water disposal in unlined pits in Sections 26, 27, and 34, Township 7 South, Range 26 East, among other areas, does not constitute a hazard to fresh waters and should be excepted from the Commission's directive.
- CASE 3121: Application of Dr. Sam G. Dunn for a water injection project, Chaves County, New Mexico. Applicant, in the above-styled cause, seeks authority to institute a water injection project by the injection of water into the San Andres formation through one well located in Section 33, Township 6 South, Range 26 East, Linda-San Andres Pool, and by the injection of water into one well in Section 32 or 33, and one well in Section 27, Township 7 South, Range 26 East, all in Chaves County, New Mexico.
- CASE 3122: Application of Continental Oil Company for an unorthodox location and a non-standard unit, Lea County, New Mexico.

  Applicant, in the above-styled cause, seeks authority to complete its Meyer B-4 Well No. 27 at an unorthodox location 5,610 feet from the South line and 660 feet from the East line of Section 4, Township 21 South, Range 36 East, Oil Center Blinebry Pool, Lea County, New Mexico. Said well would be dedicated to a 53-acre non-standard unit comprising that portion of Lots 1 and 8 of said Section 4 which is productive from the Oil Center Blinebry Pool.
- CASE 3123: Application of Continental Oil Company for special pool rules, Lea County, New Mexico. Applicant, in the above-styled cause, seeks the establishment of special pool rules including a provision for 80-acre spacing and a gas-oil ratio of 6000 to 1 for the Monument-Tubb Pool in Township 20 South, Range 37 East, Lea County, New Mexico.

PAGE -3-October 13, 1964 Examiner Hearing

- CASE 3124: Application of Continental Oil Company to amend Order No. R-2566, Lea County, New Mexico. Applicant, in the above-styled cause, seeks an amendment to Order No. R-2566, which authorized the Continental Baish-Yates Waterflood Project, to also provide authority for the injection into each well of approximately 500 barrels of LPG.
- CASE 3125: Application of Shell Oil Company for a dual completion, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval of the dual completion (conventional) of its Antelope Ridge Unit Well No. 4-1 in Unit B of Section 4, Township 24 South, Range 34 East, Lea County, New Mexico, to produce gas from the Antelope Ridge Pennsylvanian and Antelope Ridge Devonian Gas Pools through parallel strings of tubing.
- CASE 3126: Application of Murphy Oil Corporation for a pressure maintenance project, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks authority to institute a pressure maintenance project in the Many Rocks-Gallup Pool by the injection of water into the Gallup formation through five wells in Sections 17, 18 and 20, Township 32 North, Range 17 West, San Juan County, New Mexico. Applicant further seeks the promulgation of special rules for the operation of said project.
- CASE 2654: (Reopened)

  In the matter of Case No. 2654 being reopened pursuant to the provisions of Order No. R-2349, which order established temporary 320-acre gas proration units for the Buffalo Valley-Pennsylvanian Gas Pool, Chaves County, New Mexico, for a period of two years. The Commission will consider indefinite extension of Order No. R-2349 in the absence of evidence to the contrary.
- CASE 3127: Application of Shell Oil Company for a unit agreement, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks approval of the China Canyon Unit Area comprising 7611 acres, more or less, of Federal, State and Fee lands in Township 23 South, Ranges 23 and 24 East, Eddy County, New Mexico.
- CASE 3128: Application of Shell Oil Company for a unit agreement, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval of the Grama Ridge Unit Area comprising 3052 acres, more or less, of Federal and State lands in Townships 21 and 22 South, Range 34 East, Lea County, New Mexico.

PAGE -4-October 13, 1964 Examiner Hearing

CASE 3129: Application of Shell Oil Company for a unit agreement, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval of the West Wilson Deep Unit Area comprising 3360 acres, more or less, of State and Fee lands in Township 21 South, Range 34 East, Lea County, New Mexico.

### BEFORE THE OIL CONSERVATION COMMISSION

OF THE

STATE OF NEW MEXICO

IN THE MATTER OF THE APPLICATION OF CONTINENTAL OIL COMPANY FOR APPROVAL OF A NON-STANDARD LOCATION FOR ITS MEYER B-4 WELL NO. 27 AND FOR APPROVAL OF A 53-ACRE NON-STANDARD PRORATION UNIT IN EXCEPTION TO RULES 2 AND 4(a) OF ORDER NO. R-2408 COVERING THE OIL CENTER BLINEBRY POOL, LEA COUNTY, NEW MEXICO

Case 3/22

### APPLICATION

Comes now, Applicant, Continental Oil Company, and respectfully requests exception to Rule 4(a) of Order No. R-2408 for the location of its Meyer B-4 Well No. 27, 5,610 feet from the South line and 660 feet from the East line of Section 4, Township 21 South, Range 36 East, Lea County, New Mexico, and for approval of a 53-acre proration unit to be assigned to said well in exception to Rule 2 of said order, and in support thereof would show:

- 1. Applicant is co-owner and operator of the Meyer B-4 Lease consisting of Lots 1, 2, 3, 6 through 11, and 14 through 16, SE/4 and E/2 of the SW/E, Section 4, Township 21 South, Range 36 East, Lea County, New Mexico.
- 2. Applicant has drilled and completed eight wells on said lease as Oil Center Blinebry producers on a regular 80-acre spacing pattern as provided by Order No. R-2408.
- 3. All acreage on said lease is allocated to producing wells with the exception of Lots 1 and 8.
- 4. Applicant is unable to locate a commercial well to develop said Lots 1 and 8 in conformance with the provisions of said Order R-2408.

New Mexico Oil Conservation Commission Page 2

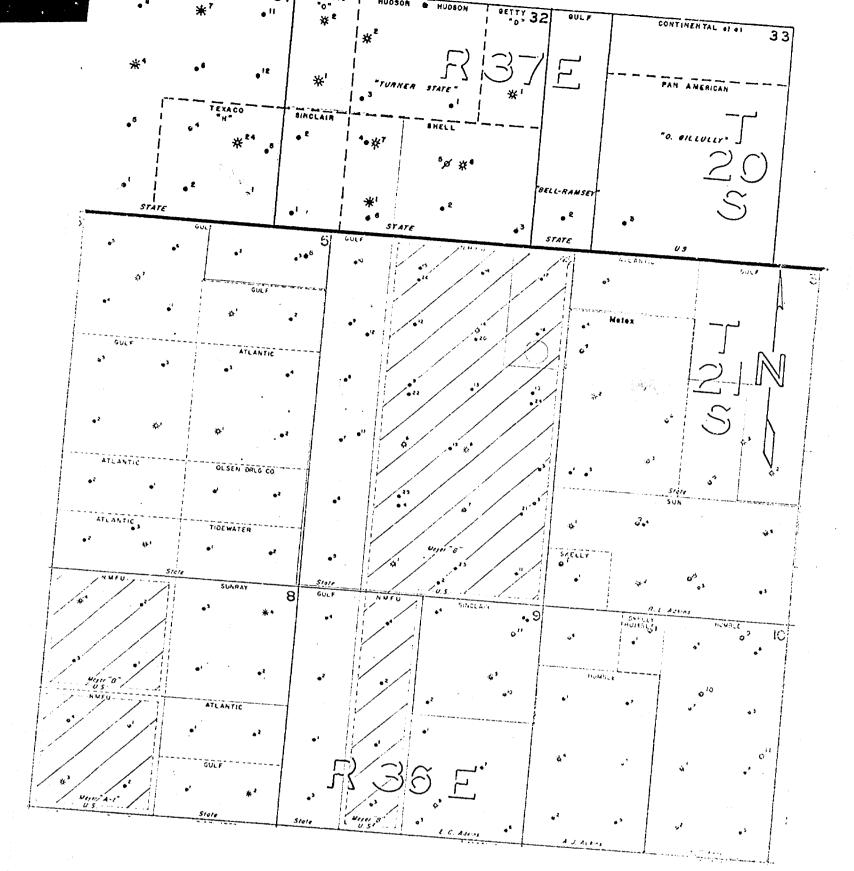
- 5. Information available to Applicant indicates that a well located 5,610 feet from the South line and 660 feet from the East line of said Section 4 would drain a productive area of 53 acres under said lots and would permit Applicant to recover the reserves underlying its acreage.
- 6. That the granting of this application is in the interests of protecting correlative rights and preventing waste.

WHEREFORE, Applicant respectfully prays that this application be set for hearing before the Commission's duly-appointed Examiner, that due notice be given and that upon hearing, an order be entered approving the exceptions to Rules 2 and 4(a) of Order No. R-2408 for Applicant's Meyer B-4 Well No. 27 as described above.

Respectfully submitted, CONTINENTAL OIL COMPANY

OckXX (anakal) JACK MARSHALL District Manager Hobbs District

JM-CL



CONTINENTAL OIL COMPANY
PRODUCTION DEPARTMENT
HOBBS DISTRICT
MEYER "B" LEASE
LEA COUNTY, NEW MEXICO

Can 322





# CONTINENTAL OIL COMPANY

P. O. BOX 460 HOBBS, NEW MEXICO

September 17, 1964

1001 NORTH TURNER TELEPHONE: EX 3-4141

PRODUCTION DEPARTMENT
HOBBS DISTRICT
JACK MARSHALL
DISTRICT MANAGER
G. C. JAMIESON
ASSISTANT DISTRICT MANAGER

New Mexico Oil Conservation Commission Post Office Box 2088 Santa Fe, New Mexico

Attention of Mr. A. L. Porter, Jr., Secretary-Director

Gentlemen:

Application for NSP and NSL - Meyer B-4 No. 27 Re:

We forward herewith application, in triplicate, for an exception to the special pool rules for the Oil Center Blinebry Pool, contained in Order No. R-2408, for our proposed Meyer B-4 Well No. 27. We should appreciate our proposed Meyer B-4 Well No. 27. We should appreciate this matter for hearing at the earliest mass your setting this matter for hearing at the earliest mass. your setting this matter for hearing at the earliest possible date for an Examiner hearing.

GCJ-DFW

Enc.

JWK cc: RGP GW

DOCKET M ILED

PROGRESS PETROLEUM PIONEERING 1 N

Care 3/22 Heard (0-13-64 11cec. 10-19-64 1. Securt Court Court Commercia to dill an unorthadox location for their EMayer B-4 # 27. Therequest was for 5600/5 + 660/F lines of sec. 14-215-36 E. This would be a NEL in a rigid pattern profrakechall operatorshare honored, and would cause a clustering of wells which in turn would cause a presence sump. It does not appear to be necessary to crowd the south line of lot 8 in order to recover the vil in their (53) are tradecolich Contrages diel faith north. Drecomend they died their subject well. 6270'/5, line & 660/Efront / gree. 4, with a tolerance for topographic. obstruction of 100' in any direction. Such tolerchuse to be granted on fair of fact by the destrict spice.

## 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. 3122 Order No. R-2799

APPLICATION OF CONTINENTAL OIL COMPANY FOR AN UNORTHODOX LOCA-TION AND A NON-STANDARD UNIT, I.EA COUNTY, NEW MEXICO.

### ORDER OF THE COMMISSION

### BY THE COMMISSION:

This cause came on for hearing at 9 o'clock a.m. on October 13, 1964, at Santa Fe, New Mexico, before Examiner Elvis A. Utz.

NOW, on this 10th day of November, 1964, the Commission, a quorum being present, having considered the testimony, the record, and the recommendations of the Examiner, and being fully advised in the premises,

### FINDS:

- (1) That due public notice having been given as required by law, the Commission has jurisdiction of this cause and the subject matter thereof.
- (2) That the applicant, Continental Oil Company, seeks authority to complete its Meyer B-4 Well No. 27 at an unorthodox location 5610 feet from the South line and 660 feet from the East line of Section 4, Township 21 South, Range 36 East, NMPM, Oil Center-Blinebry Pool, Lea County, New Mexico.
- (3) That the Special Rules and Regulations governing the Oil Center-Blinebry Pool provide that in Township 21 South, all wells on an 80-acre proration unit shall be located in either the NE/4 or SW/4 of a governmental quarter section; or, in irregular governmental sections, on an odd-numbered lot.
- (4) That the proposed location is in an irregular governmental section on an even-numbered lot.

-2-CASE No. 3122 Order No. R-2799

- (5) That the applicant also seeks approval of a 53-acre non-standard unit comprising all of Lot 1 and a portion of Lot 8 of said Section 4.
- (6) That Lot 1 can reasonably be presumed to contain approximately 40 productive acres and that Lot 8 can reasonably be presumed to contain approximately 13 productive acres in the Oil Center-Blinebry Pool.
- (7) That the drilling of the proposed well at a location nearer than 6270 feet to the South line or nearer than 660 feet to the East line of Section 4 will afford the applicant an opportunity to produce more than its just and equitable share of the oil in the pool.
- (8) That approval of an unorthodox location no nearer than 6270 feet to the South line and no nearer than 660 feet to the East line of Section 4 will afford each operator an opportunity to produce his just and equitable share of the oil in the pool, and will otherwise prevent waste and protect correlative rights, provided the well receives no more than a 53-acre allowable.

### IT IS THEREFORE ORDERED:

- (1) That the applicant, Continental Oil Company, is hereby authorized to complete its Meyer B-4 Well No. 27 at an unorthodox location no nearer than 6270 feet to the South line and no nearer than 660 feet to the East line of Section 4, Township 21 South, Range 36 East, NMPM, Oil Center-Blinebry Pool, Lea County, New Mexico.
- (2) That Lots 1 and 8 of Section 4, Township 21 South, Range 36 East, NMPM, Lea County, New Mexico, shall be dedicated to the Continental Oil Company Meyer B-4 Well No. 27 and that said well shall receive a 53-acre allowable in the Oil Center-Blinebry Pool.
- (3) That jurisdiction of this cause is retained for the entry of such further orders as the Commission may deem necessary.

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

STATE OF NEW MEXICO

JACK M. CAMPBELL, Chairman

S WALKER Member

A: E: PORTER, Jr., Member & Secretary

#### GOVIRNOR JACK M. CAMPBELL DHAIRMAN

### State of New Mexico

## **Bil Conserbation Commission**

LAND COMMISSIONER E. S. JOHNNY WALKER MEMBER



STATE GEGLOGIST A. L. FORTER, JR. SEGRETARY - DIRECTOR

November 10, 1964

Mr.	Jason Kellahin
Kell	ahin & Fox
Atte	rneys at Law
Post	Office Box 1769
Cani	TA TAN MANIA

Re: CASE NO. 3123

ORDER NO. R-3796, R-2799 & R-2800

APPLICANT Boo, Inc. & Continental

Dear Sir:

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

Very truly yours,

Later,

A. L. PORTER, Jr. Secretary-Director

ir/	
Carbon copy	of order also sent to:
Hobbs OCC _	<b>x</b>
Artesia OCC	
Aztec OCC _	R-2796 (letaling for itent)
OTHER	Mr. W. D. Girand (R-2799)

L''ING IN: DEPOSITIONS, HEARINGS, STATEMENTS, EXPERT TESTIMONY, DAILY COPY, CONVE

BEFORE THE
NEW MEXICO OIL CONSERVATION COMMISSION
Santa Fe, New Mexico
October 13, 1964

### EXAMINER HEARING

IN THE MATTER OF: Application of Continental
Oil Company for an unorthodox location and
a non-standard unit, Lea County, New Mexico.
Applicant, in the above-styled cause, seeks
authority to complete its Meyer B-4 Well No.
27 at an unorthodox location 5,610 feet from
the South line and 660 feet from the East
line of Section 4, Township 21 South, Range)
36 East, Oil Center Blinebry Pool, Lea County,
New Mexico. Said well would be dedicated to
a 53-acre non-standard unit comprising that
portion of Lots 1 and 8 of said Section 4
which is productive from the Oil Center
Blinebry Pool.

) Case No. 3122

BEFORE: ELVIS A. UTZ, EXAMINER

TRANSCRIPT OF HEARING



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MR. UTZ: Case 3122.

MR. UTZ: In the matter of the application of Continental Oil Company for an unorthodox location and a non-standard unit, Lea County, New Mexico.

MR. KELLAHIN: Examiner please, Jason Kellahin of Kellahin and Fox, Santa Fe, New Mexico, representing the Applicant. We have one witness I would like to have sworn.

(Witness sworn.)

### JACOB LEVINE

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

### DIRECT EXAMINATION

### BY MR. KELLAHIN.

- Would you state your name, please? Q
- Jason Levine.
- By whom are you employed and in what position?
- Continental Oil Company, Senior Engineer. Α

MR. UTZ: Maybe we ought to ask for appearances again. Any other appearances in this case?

MR. GIRAND: W. D. Girand of Girand, Cowan & Reese, Hobbs, New Mexico, appearing on behalf of Metex Supply Company protesting the Application.

MR. UTZ: Any other appearances? You may proceed.



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- (By Mr. Kellahin) Mr. Levine, you said you were Q employed by Continental Oil Company in what position?
  - Senior Engineer, Α
  - Where are you located?
  - Hobbs, New Mexico.
- Have you testified before the Oil Conservation Commission and made your qualifications a matter of record?
  - Yes, sir.
- MR. KELLAHIN: Are the witness's qualifications acceptable?
  - MR. UTZ: Yes, sir, they are.
- MR. KELIAHIN: Mr. Girand, would you like to have the witness qualified?
- MR. GIRAND: No, I heard him the last time we had a hearing on this. I'm satisfied with his qualifications.
- (By Mr. Kellahin) Are you familiar with the application of Continental Oil Company in Case 3122?
  - Yes, sir.
- Would you state briefly what is proposed by Continental in this application?
- Case No. 3122 involves the request of the Commission by Continental Oil Company for the approval of an unorthodox location and a non-standard proration unit allowable for our proposed well Meyer B-4 No. 27 in the Oil Center Blinebry Pool.



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(Whereupon, Applicant's Exhibit No. 1 was marked for identification.)

Referring to what has been marked as Exhibit 1, will you identify the exhibit and discuss it, please?

Exhibit No. 1 is a location and ownership map showing the Oil Center Blinebry Pool. The wells producing from the pool are circled in green. The location of the proposed well is shown as a red dot located 5610 feet from the south line and 660 feet from the east line of Section 4, Township 21 South, Range 36 East.

MR. UTZ: How far from the east line?

660 feet.

(By Mr. Kellahin) Does this location conform with Rule No. 4 of the Oil Center Blinebry Pool rules as established by Order R-2408?

No, sir. The pool rules state that the wells will be located in the northeast quarter and/or southwest quarter of a quarter section or odd-numbered lots. This well is an even-numbered lot, Lot No. 8.

> (Whereupon, Applicant's Exhibit No. 2 was marked for identification.)

- Referring to what has been marked as Exhibit 2, would you state what that is designed to show?
  - Exhibit No. 2 is a structure map of the Oil Center Α



Blinebry Pool contoured on top of the Blinebry marker.

Q Why is Continental asking for an approval of this unorthodox location, Mr. Levine?

A Referring to Exhibit No. 2 again, it can be observed that a well in the standard location in Lot No. 1 in the northeast quarter of the northeast quarter of section 4 will be below the estimated oil-water contact of the Oil Center Blinebry pay. In order to find sufficient net effective pay to drill the proposed well, the only favorable position will be located as is shown in the exhibit.

- O or further south than a normal location?
- A Yes, sir. Further south.

above -2375 was not tested.

(Whereupon, Applicant's Exhibit No. 3 was marked for identification.)

Q Referring to what has been marked as Exhibit No. 3, would you identify that exhibit and explain it?

Exhibit No. 3 is a cross-section through Shell's

State J No. 5 and J No. 6 wells in Section 32, T-20S, R-27E, Continental's Meyer B-4 No. 20 and Metex's Wallace State No. 7. These four wells clearly define oil-water contact at approximately -2375 in this area. This oil-water contact is shown in blue on Exhibit No. 2. Shell's State J No. 5 found water in all intervals tested, although the porosity



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Shell's State J No. 6 was perforated in a subsea interval -2367 to -2378 and produced a hundred and twentyeight barrels of oil per day and eighty-six barrels of water per day on initial potential.

Continental's Meyer B-4 No. 20, on the other hand, has lowermost perforation at -2374, and flowed at a daily rate of 235 barrels of oil and no water on initial potential, while Metex Wallace State No. 7 was perforated in an interval -2359 to -2385 and produced 107 barrels of oil per day and 5 barrels of water on initial potential.

- Was it on the basis of this information, Mr. Levine, 0 that Exhibit No. 2 was prepared?
  - Yes, sir. Α
- And that is the basis of your interpretation and location of the oil-water contact?
  - A Yes, sir.
- With the oil-water contact at 2375, -2375 feet, how many acres will be productive in the 80-acre proration unit on which the Meyer B-4 No. 27 will be drilled?
- Referring again to Exhibit 2, the area colored in orange is considered to be the productive limits inside the standard 80-acre unit. The area was found to be 53 acres by planimetering.
  - What is the allowable of the wells producing from the

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# Oil Center Blinebry?

A By Order No. R-2408, dated January 16, 1963, the Commission granted 80-acre spacing with 80-acre allowable to wells in the Oil Center Blinebry Pool. The multiplier factor is 2.33 of basic allowable.

Q Since the productive acreage does not amount to 80-acres, would you expect to receive an 80-acre allowable?

A No, sir. We are requesting that the Commission grant an allowable on a productive acreage or 53/80 of an 80-acre allowable.

Q What effect would the approval of this have on correlative rights?

A It would be in the interest of protecting correlative rights. While a portion of the oil would be recovered by our Meyer B-4 No. 20 and 24 wells, some of our oil will also be recovered by the Metex Wallace State No. 7 well, unless the tract is developed for oil production.

Q You mentioned the Metex Wallace State No. 7 well.

Is the tract proposed to be dedicated to this well by

Continental offset by Metex?

A Yes, sir.

Q Is there any possibility in your opinion, Mr. Levine, that the well located as is proposed in this application would drain oil from the Metex lease?



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- A No, sir.
- Q On what do you base this conclusion?
- A Our well will be located 660 feet from the east line whereas Metex Wallace No. 7 is located 330 feet from their west line, which would mean that their location is 383 feet closer to the lease line than ours would be.
- Q As you propose it, would there be any difference in the allowables assigned to the two wells?
- A Mes, sir, there definitely will be a difference in allowables. We would only receive 53/80 of an 80-acre allowable where they are producing their well at 80-acre allowable.
- Q Would this again have any effect on the drainage pattern of the Continental well in regard to it's effect on the Metex acreage?
  - A No, sir.
- Q Would it indicate that you would or would not drain the acreage, the fact that you have a smaller allowable?
- A It means that we would definitely not drain the acreage.
- Q Would you please summarize your recommendations to the Commission in this case?
- A It is my recommendation that the Commission grant approval of an unorthodox location of Meyer B-4 No. 27 being

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5610 feet from the south line and 660 feet from the east line of Section 4, Township 21 South, Range 36 East, and that an allowable of 53/80 of a normal 80-acre allowable be assigned this well.

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

Yes, sir.

MR. KELLAHIN: At this time I would like to offer in evidence Exhibits 1, 2, and 3.

MR. UTZ: Without objection, Exhibits 1, 2, and 3, will be entered into the record of this case.

(Whereupon, Applicant's Exhibits Nos. 1, 2, and 3 were offered and admitted into evidence.)

MR. GIRAND: Reserve the right of cross examination in connection with the exhibits.

MR. UTZ: Are there any questions of the witness? MR. GIRAND: Yes.

# CROSS EXAMINATION

# BY MR. GIRAND:

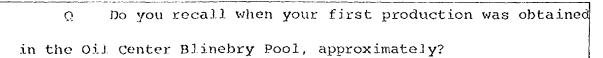
- Mr. Levine, how long have you been in the employ Q of Continental Oil Company?
  - Slightly over two years. А
  - During that period of time, where have you been Q



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## stationed?

- In Eunice and Hobbs, New Mexico. À
- In connection with the Oil Center Blinebry Pool, Q have you been in close contact since the pool was discovered?
- Not exactly since the pool was discovered, but since Ã it's development.
- You have appeared here before on behalf of Continental Oil Company in support of the rules they proposed back in January, 1963, have you not?
  - Yes, sir. Α
  - And you were not present at the hearing in 1963?
  - I believe I was present at the hearing in 1963.
  - You did not testify at that time? Ω
  - Yes, sir.
- You testified in January, 1964. I don't recall your testifying in the hearing in 1963.
- Well, you are probably right. I probably did not testify at that time. The establishment of the pool rules, I did not.
- In connection with the preparation for presenting your application at this time, you have reviewed the records in the cases that were held by the Commission in January of '63 as well as in January of '64?
  - Yes, sir.



A I wouldn't even be able to estimate approximately.

I think it was late in '61 if I am not mistaken.

- Q In other words, the area has been in production for more than two years?
  - A Yes, sir.
- Q On January the 22nd, 1964, you had reviewed the area and made certain tests and based on those tests you made certain recommendations to the Commission, did you not?
  - A Yes, sir.

(Whereupon, Applicant's Exhibit A was marked for identification.)

- Q In connection with that hearing, I hand you what has been marked as Metex Exhibit No. A, and ask you if you can identify that as an exhibit 3, No. 3, offered in the hearing held on January the 22nd, 1964?
  - A Yes, sir.
  - Q Explain that exhibit, if you will, Mr. Levine, please.
- A For instance, in Meyer B-4 No. 20, there was an interference test being conducted in Meyer No. 19 at this time, and in order for the effects of Meyer B-4 No. 20 to be felt in Meyer B-4 No. 19, which is 2470 feet apart, a drainage area of 440 acres must be the drainage area of that well



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in order to be able to feel the effects of drawdown.

- In connection with that exhibit you had of some of the wells, the influence of drainage would be felt within 156 acres, would it not?
  - yes, sir.
- That exhibit was made for the express purpose of supporting the position of Continental Oil Company at the time that an 80-acre subdivision proration unit was the proper method of draining that pool?
- It was the intent of Continental Oil Company to show that the whole pool was drained on this basis, not only supporting Continental's data, not only Continental's wells.
- You did propose the rules to the Commission of the company?
  - Yes. A
- At the time that you had your hearing in January of 1963, and again in January of 1964, the Continental Oil Company owned the acreage designated as Lots 8 and, I believe it was Lot, should be Lots 8 and 1, is that correct?
  - Yes, sir.
  - And you had that property at that time? Q
  - yes, sir. Α
- Since the case in 1963, being the first case, there had been no other development in that pool other than the three



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Metex wells, is that correct?

- No, sir, that's not correct. A
- What other wells had been developed since then? Q
- Shell's State J No. 6.
- Is that the well up in Township 20 South in Section 32?
  - yes, sir. A
- That well and the three Metex wells have been the only three wells that you've had in which you've changed your data information, is that correct?
  - I would say that's correct, yes, sir. Α
- At the time of the hearing in 1963, I believe that at that time you had completed all of the wells shown in Section 4 with the exception of the undrilled 80 acres this application covers, is that correct?
  - Yes, sir.  $\boldsymbol{A}$
- And the pattern that had been maintained in your drilling there had been the southwest, or the northeast --
  - Yes, sir.
  - -- of each 160 subdivision?
  - Yes, sir.
- At the time that you had your first hearing in 1963, the Metex Supply Company did not have any wells completed, did Q they?



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I would not be able to answer that without referring to information I have not available right here.

> (Whereupon, Applicant's Exhibit B was marked for identification.)

- Mr. Levine, I hand you what has been identified as Metex Exhibit No. B for identification purposes and ask you if you can identify that exhibit.
- I would have to assume that it is an exhibit presented in the hearing in January, 1963.
- All right. Directing your attention to that exhibit, I will ask you whether or not the exhibit shows any Oil Center Blinebry wells in the Wallace State lease?
  - No, sir, it doesn't.
- Then at the time the original rules were submitted to the Commission, the wells furthest east and north of the pool were the Continental wells, is that correct?
  - Yes, sir.
- Mr. Levine, in connection with all of the Continental wells as shown on our Exhibit B, I'll ask you whether or not it was the opinion of the geological department of your company that any of those wells could adequately drain 160 acres?
  - Well ---
  - I'll ask you to refer again to Exhibit A which was



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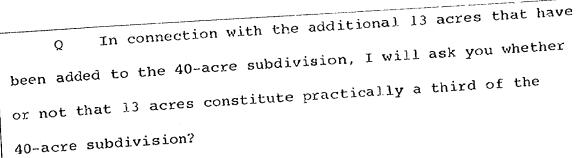
your Exhibit 3 in the case of January, 1963, and ask you if the 160 acre drainage pattern would not be true?

- Yes, sir. I assume that it will.
- East of the Metex Wallace lease, identified on the map as J. M. Murray and the Atlantic, being our Exhibit B, have you had any check points directly east of the J. M. Murray tract and the Atlantic tract?
  - No, sir.
- The only control that you have are the three producing wells in the Metex Murray tract, Wallace State, and the Shell well up in the Township above, is that correct?
  - Α Yes, sir.
  - When was the Shell well completed, Mr. Levine? Q
  - Α Which Shell well?
  - The one you testified to located in Section 32. Q
  - Α There are two Shell wells.
  - Township 30. Q
  - There are two Shell wells. A
- The one from which you got your data, there's only Q one Blinebry Shell well?
  - There was only one Blinebry well.
  - I didn't get you. Q
- There was one well which was dry and abandoned in the Shell well State No. 5.

- HEARINGS, STATEMENTS, EXPERT TESTIMONY, DAILY COPY, CONVENTIONS
- Well, the well down in the southwest corner of their tract there being the No. 6.
  - Yes, sir.
  - When was it completed?
  - It was completed in May, 1964.
- Mr. Levine, when you were here in January of 1964, I will ask you whether or not it was your opinion at that time that the spacing program and the allocation of acreage as set forth in the rule adopted by the Commission in Case No. 2727, being Order No. 2408, and 2408-A, that that was still the proper method and manner in which to develop that pool?
  - Yes, sir.
- It's only because of the influence or the analysis you placed on the Shell well No. 6 that's changed your opinion, is that correct?
  - Yes, sir.
- I'll ask you whether or not the location of your proposed well No. 27, if placed at a standard location, if it would be as favorable structural-wise as it is where you propose it?
  - A No, sir.
- I'll ask you whether or not that is the reason for your attempting to obtain the exception here to the rule?
  - Yes, sir. A



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- Approximately. Α
- I'll ask you in drawing your lines there, if there is not within that 40 acre subdivision, which would be the lot immediately above Lot 8, or 18, if there wouldn't be room within that 40 acre subdivision to drill a legal well within the limits of your 53-acre request?
  - I didn't quite understand the question. Would you A please repeat it?
  - You are seeking here a proration unit of 53 acres which amounts to about a 40-acre subdivision and about a third of another subdivision. I'll ask you whether or not a well can be within the 53 acres that you asked for and be located in the north 40 rather than in the south 40 of your proration unit you seek to establish?
    - Do you mean whether it can be legally put there? A
    - Yes, sir. Q
    - Yes, sir. Α
    - It could be? Q
    - Yes, it could be put there. A
    - And the only reason you seek the southern location Q



is because of the more favorable position for Continental Oil Company, is that correct on the structure?

- A Yes, sir.
- Q You testified on direct that in your opinion, a well drilled where you propose to drill one would have no effect on the Metex or the J. M. Murray No. 7, is that correct?
  - A Yes.
- Q What information has come to your department that has changed the opinion of the Continental Oil Company as to the drainability of a well being able to handle 160 acres?
- A There has been nothing changed. We don't contend that there has been a change, just the fact that this well cannot possibly drain a Metex well because of the distance from the lease line.
- $_{\rm Q}$   $_{\rm But}$  your other required spacing in there allowed a great deal more spacing than the 960 feet that would result here.
- A Well, in a radial drainage, the maximum distance that we could drain would be halfway between Metex 7 and the proposed location.
- Q Now, I'm not an engineer or geologist. Explain why it stops halfway.
- A Because your well, Metex 7, is draining the other half.

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- Is that true regardless of whether or not you are Q structurally above us or below us?
- It makes no difference so long as you are not below
- But you did admit that Continental can and does have the oil-water contact. room enough to drill a well at a legal location within the pattern in the field?
  - Reserves wouldn't warrant drilling at that location. It's legal, but it wouldn't be warranted on the reserve basis.
  - You are basing the reserve factor on the information that you obtained from the Shell well approximately a mile away, is that correct?
  - And the Metex 7 which made water on additional
  - Directing your attention to your Exhibit No. 3, completion. entered in this case, which is your cross-section of the Shell Oil Company J No. 6, Continental's Meyer No. 20, and No. 27, and the Metex, I will ask you whether or not the last report on the Metex wells shows no water?
    - The last report shows no water, yes, sir.
    - Then there being no water there, why your calculations as to the water contact may be in error, may they not?
      - Based on initial completion, I would say no, sir.
      - Based on the completion. Now, Mr. Levine, I'll ask



you whether or not the Continental Oil Company in continuing this, this being both in January 1963 and January of 1964, had recommended at that time that your water contact point was 2375 subsea?

A I'm not familiar with what we did call the water-oil contact at that time. I am not sure we had established a water-oil contact.

Q Well, I'll ask you whether or not in presenting the matter to the Commission, that was your then best estimate as to the water contact point?

A I am not certain of what our estimate was at that time.

MR. UTZ: Your estimate at this time is 2375, is that correct?

A Yes, sir.

Q (By Mr. Kellahin) In connection with the January, 1963 meeting, did you confer with Mr. Wolf in preparing the necessary data for that hearing?

A I did not present that hearing. I have not conferred with Mr. Wolf on that hearing in '63.

Q Is it your testimony that the evidence produced at that hearing was developed entirely by Mr. Wolf without any help from you?

A It was presented as Mr. Wolf's preparation of the



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exhibits.

Q I'll ask you if Mr. Wolf testified at that time that the contact point was imagined at -2375; would you assume that to be correct?

A If Mr. Wolf testified in that respect, I would say that is correct.

- Q And that, in your opinion, would be the opinion of the Continental Oil Company at that time?
  - A Yes, sir.
- Q What is your opinion now as to oil-water contact point?
  - A Minus 2375.
- Q Mr. Levine, in checking the map, being our Exhibit B, I will ask you if you can testify as to the other probable applications this Commission may have in connection with a prorated production unit with an unorthodox well location by reason of the granting of the exception of Continental?

MR. KELLAHIN: I'm afraid I don't understand the question.

MR. GIRAND: Let me ask Mr. Levine, do you understand the question?

- A No, sir, I don't understand it.

  MR. GIRAND: I'll start over again.
- Q (By Mr. Girand) Looking at your map and the



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ownership, and from the way you have constructed your own contour lines, and taking into consideration the undeveloped 80 of Atlantic up above the Metex Supply tract, and the undeveloped acreage of 4-80's immediately east of the Metex Supply and the Atlantic tract, I'll ask you, in your opinion how many applications can result in that one area whereby owners will seek an application or a right to drill a well in an unorthodox location and establish an unorthodox proration unit?

MR. KELIAHIN: If the Examiner please, I object to the question on the grounds that it calls for the witness to make a conclusion as to the approach to be taken by companies with which he is not associated.

MR. GIRAND: We submit, if the Commission please, he represents that the well has to be at the location he asserted because of the lines he has drawn on a piece of paper.

He has made a study of the contour lines. He takes a position that only so much of the land is subject to produce economically, and he can look from his own map and see how many fractional wells will be required to develop the pool.

Of course if he doesn't know, he can't answer.

A I would like to answer; I would like to answer that we don't expect Atlantic to drill on our interpretation, nor



do we expect to drill on their interpretation.

Q (By Mr. Girand) Well, let's assume then for the purpose of enlightenment Mr. Levine, that you own the Atlantic lease and the Gulf property immediately east of the Metex property. Now, in your opinion, how many unorthodox locations would you have to have in order to develop your reservoir and protect your interest?

MR. KELLAHIN: If the Examiner please, I object to the question for the reason that the witness has made no interpretation of the east half of Section 3 as shown by our Exhibit No. 2.

As to any interpretation of the Atlantic acreage, that's merely an extension of the contours, it is true, in a logical fashion, but the witness has not purported to testify as to whether that acreage is or is not productive.

I think that the exhibit clearly shows that in his opinion, the Atlantic acreage is not even productive and that is the interpretation that he has made of it.

MR. UTZ: By "Atlantic acreage" you mean the north half of the tract?

MR. GIRAND: The lots up there.

MR. KEIJAHIN: The north half of the northwest quarter.

MR. UTZ: The lots north of Metex?



MR. KELLAHIN: Yes.

MR. GIRAND: Lots 3 and 4.

MR. UTZ: If the witness can answer the question based on his study of this area and has an opinion on the matter based on that study, I think he should answer.

A I will state this, that Atlantic has not drilled a well to meet the offset of Metex, therefore they could very well consider their acreage not productive. This is the opinion that I have, that their acreage is not productive except for a very small fraction of it.

MR. UTZ: That opinion is based on your Exhibit No. 2?

A Yes, sir.

Q (By Mr. Girand) Is that true as to the Gulf acreage immediately east of the Metex?

A I have made no interpretation of that area and feel like that I would not be in a position to answer that question.

Q Mr. Levine, I will ask you whether or not it has been consistently the policy of the Continental Oil Company in connection with the Oil Center Blinebry Pool that the well spacing rule, I believe, being Rule 4 of the Order be rigidly complied with and that in complying with it, the pool can be efficiently and economically drained by that Order No. R-2408?



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A We feel that we cannot efficiently drain this
53 acres or we would not be here asking for an exception to
the rule.

Q I'll ask you that if this Commission allows the unorthodox location you propose that the Metex wells Nos. 5 and 7 will have five of the Continental wells which can influence the flow of the Metex wells 5 and 7.

Based on the representations you made in 1964 on Exhibit 3 which is our Exhibit --

A You must insert 5, 6, and 7 of Metex: 6 also has an influence on Continental's acreage.

- Q You say 6 has an influence on your well?
- A Your Metex Wallace State No. 6 has an influence on Continental's acreage also.
- O Now, if it has an influence on your acreage and it's over on the east side about 2300 feet from the west line, or from your well, and that well will influence your well No.

  24, I assume you are talking about, how can you rationalize your statement that your proposed well 27 won't influence the Metex well No. 7 which is only 990 feet away?
- A The only way that either one can influence the other is if a portion of the pool was shut down and yours remain on production while ours was shut-in.
  - Q You are not answering my question. You said our



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well No. 6 would influence your well No. 24?

I will say it has the same influence on our acreage as our Nos. 20 and 19 have on your acreage.

Well then, moving 990 feet closer, you would have a great deal more influence, wouldn't you, from a well located there?

It would half the distance to the other well, to the offset well.

- Wouldn't that be some additional influence?
- Only half the distance to the other well. In fact, if Metex Supply Wallace 7 was producing an allowable, it would have more influence on our well than our well would have on yours.
- I'll ask you if it was not Continental's position at the time they started drilling their wells, and maintained through the two hearings, that the well location should be located in the southwest and the northeast of each 160 acre subdivision?
  - Yes, sir, it was definitely at that time. Α
- And any deviation from that would ruin the development pattern that had been used and practiced by the operators in the then pool?
  - I don't quite understand the question. Α
  - I'll ask you if you know how the pool was developed? Q

- MEX
- Yes, I know how the pool was developed. Α
- How has it been developed from the standpoint of Q well spacing?
- Either in the northeast quarter or northwest quarter or the southwest quarter of a governmental quarter section.
  - Isn't that the southwest of the northeast?
  - Yes, sir, southwest of the northeast. Α
- No deviation from that procedure has happened, has it?
  - No, sir, not to date. Α
- Your company is the one who proposed the approval of these rules and after a one-year trial period came in and supported the continuation of those rules, and is the one now seeking to destroy that rule and create an exception to it --
  - Yes, sir.
  - -- for advantage to Continental? Q

MR. KELLAHIN: If the Examiner please, we object to the question and ask that the question and answer be stricken. There's no inference that anybody is going to destroy any rules whatever. We are asking for an exception while is a normal proceeding before this Commission.

MR. GIRAND: Mr. Kellahin, addressing my remarks to the Examiner, it is a well established rule that the only



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way to destroy one is to create an exception.

MR. UTZ: You wish to ask the question in the form of a statement?

MR. GIRAND: No, sir, I am making that statement in answer to his objection.

MR. UTZ: The objection will be sustained. We'll strike the question and the answer. If you want to ask him that question, go ahead.

Q (By Mr. Girand) Mr. Levine, I'll ask you, in your opinion, do you believe that if the unorthodox location is allowed and the 53-acre proration unit created, I'll ask you whether or not in your opinion that would favor the Continental Oil Company over the other producers in the field having heretofore drilled their wells under the pool rules?

A No, sir. I would say not.

Q I would ask you whether or not in your opinion, if the Metex well No. 6 had been drilled in the southeast in Lot No. 14, which would be in the southeast quarter of their tract rather than in the northeast quarter of the 160-acre subdivision, that that would have been a more favorable position for the Metex to have located it's well?

A I am unable to spot that location. Could you repeat that, please?

Q All right. The Metex Supply Company, Mr. Levine,



drilled their No. 6 well according to the pool rules in the northeast, which would be the lot immediately above Lot 14 in that long Section 3. That would be Lot 11.

Now, if Metex had been allowed, and the rules had permitted the drilling of that well in Lot 14 immediately below it, I'll ask you whether or not they would have been placed in a more favorable position reservoir-wise?

MR. UTZ: By below, you mean south?

MR. GIRAND: Yes, south.

MR. UTZ: He's asking if they had drilled their No.
6 in the 40-acre tract immediately south of where they did drill.

A Yes, sir.

Q (By Mr. Girand) Mr. Levine, can you positively testify that you cannot make a commercial well by following the rule adopted by the Commission governing the Oil Center Blinebry Pool being Order No. R-2408-A?

A I would never be able to testify on drilling any well whether it can make a producer.

May I ask you then why you have determined that your acreage, or your producing acreage factor is 53 acres rather than 55?

A Because that's the way it permits it underneath the oil-water contact.

 $\Omega$  What controls do you have on the oil-water contact?



- Based on that, you were able to pinpoint the water contact as it is represented on your Exhibit No. 2, is that correct?
- We were able to do it with all of the wells, not only those wells. We were able to have a reasonable interpretation made based on equal contour spacing.
- Well now, I understand, is that water contact line that you have on your Exhibit 2 representing a subsea level of -2375 feet?
  - Α Yes, sir.
- You had no control east of the Shell well No. 6, Q did you?
  - We had control southeast.
- Southeast. But, that's down below your line in your section, is it not?
  - Α Yes, sir.
- Mr. Levine, at the time the Commission held their hearing on January 22, 1964, the three Metex wells had been completed, had they not?
  - Yes, sir, I believe that's true. Ã
- Well, as a matter of fact, you used the information Q that you obtained from those completed wells as well as your



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own wells that you had in the area in making your representation to the Commission, did you not?

- Yes, sir.
- I'll ask you if at that time, whether or not you testified that the development pattern in the fixed location as provided by Rules 4 and 5 of the Order were satisfactory?

MR. KELLAHIN: May I ask a question? Are you asking if this witness so testified, Mr. Girand?

MR. GIRAND: Yes.

- Yes.
- (By Mr. Girand) I'll ask you if at that time you recommended the adoption of the Order as it had been temporarily enforced?
  - Yes, sir.
- And that the only other information you had in support of this application is the Shell wells referred to up in the next township, is that correct, that you didn't have available at that time?
  - Yes, sir.
- Mr. Levine, has there been any marked increase in gas-oil ratio?
  - No, sir. Α
- Has the bubble point, as it's used in the trade, been attained in any manner in any of the wells that you have



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## testified about?

- Yes, it has.
- What wells are those? Q
- I think that's a fluid analysis taken from Meyer B-4 Α No. 20.
  - Do you know that to be a fact, Mr. Levine--Q
  - No, sir. A
  - -- or do you just think so? Q
  - I just think that this is the case. Α
  - Q But you don't know?
  - No, I'm not positive.
- Then if you drilled your proposed No. 27, why you would hasten the drainage of your No. 20, would you not?
  - This could be true, yes, sir.
- Do you consider that as economical and a method that would prevent waste and reduce the drilling of unnecessary wells?
- Yes, I think that it would not only hasten the drainage from No. 20, but it would protect from drainage from Metex Supply Wallace No. 7.

Certainly if this proposed location could drain the area in the vicinity of well No. 20, it is positively certain that Metex well, Supply Wallace No. 17 would drain in the area that we want to drill a well.

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O That is true of wells throughout the entire pool when you recommended the pool spacing?

A Yes, sir, this is the reason that we have drilled quite a few more wells than anybody else.

MR. GIRAND: We would like to offer our Exhibits A and B.

MR. UTZ: Without objection, Exhibits A and B will be entered into the record of this case.

(Whereupon, Exhibits A and B were offered and entered into evidence.)

MR. GIRAND: Pass the witness.

MR. UTZ: Are there any other questions of the witness?

MR. KELLAHIN: I would like to ask some on re-direct examination if the cross examination is completed.

MR. UTZ: I have a few questions, Mr. Kellahin.

# BY MR. UTZ:

- Q Mr. Levine, would you call this structure an anticline?
  - A Yes, sir.
- Q Is it true that you only have a water-oil contact then on the northeast side of the structure, or is it 2375 water bearing around the periphery?



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- A This oil-water contact has been established also to the south.
  - Q About the same location?
  - A Yes, sir.
- Q And the water encroachment will then be toward the top of the anticline, is that correct?
  - A Yes, sir.
- Q In establishing your 2375 contact point in the northeast part of the structure, I believe you stated you used the wells on Exhibit No. 3. Did all those wells penetrate the water table?
  - A Yes, sir.
- Q So that you know precisely where it is at those wells?
  - A Yes, sir.
- Q Then, in establishing the line horizontally, it was necessary for you to assume a constant dip?
  - A Yes, sir.
- Q That could be in error possibly one way or the other, is that true?
  - A Yes, sir.
- Q Actually on the northeast side, do you have any positive control, northeast of the water contact?
  - A No, sir.

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- Q The Atlantic well No. 5 in the northeast quarter of Section 3, did it penetrate this zone at all?
  - A No, sir.
  - Q How about the No. 6 Shell well in Section 32, which is the well, well, your contour goes almost directly through that well, gas line?
    - A No, sir, that's the Yates gas.
    - Q It did penetrate the No. 5?
    - A Yes, sir.
    - Q The No. 5 did penetrate?
    - A Yes, sir.
  - Q So, other than the variation in dip, you have fairly good control locating your water-oil contact in this area?
    - A Yes, sir.
  - Mould you anticipate the water to move directly south from this water table toward the crest of the structure or to the southwest, southeast; how would you interpret that water table to act?
  - A I would interpret that it would probably move in the area of the greatest withdrawals.
  - $\Omega$  If you drilled your No. 27 well, and actually what would happen would be that you would have four wells pretty closely clustered there, would you not?
    - A Yes.





- Q Your No. 20 and your 24, the Metex 7 and your 27?
- A Yes, sir.
- Q In your opinion, do you think that clustering of wells would cause a low pressure area?
  - A It is very possible that it could do that, yes, sir.
- Q Therefore, your water table could, well, it could prematurely water out that area then, could it not?
- A If you had a moving water table, the water sweep would give you all of the oil in place, you could not recover if it was an active water table. It would be efficient drive mechanism which would displace your oil and that would be the oil that you had in place to recover.
- Q In other words, you are saying that there wouldn't be any loss of oil by creating a low pressure due to the clustering of the four wells, but it would water out a little sooner?
  - A Yes.
  - Q The same volume of oil being produced?
  - A Yes, sir.

MR. UTZ: Are there any other questions of the witness?

MR. GIRAND: I have one if the Examiner please. BY MR. GIRAND:

Q Mr. Levine, do you consider that to be an active water table as you've delineated there on the exhibit?



We haven't made any calculations as to the water encroachment. I would venture to say that it is not an active water drive.

- It is non-active?
- It is not a very active water drive.
- I'm sorry, I didn't follow you.
- It is not an active moving.
- It is not active. Do you have any information or have you made any attempts to establish that?
- No, sir. The only information we have available is the production data from the wells which shows that there has been no appreciable increase in water production.

MR. GIRAND: That's all.

## BY MR. UTZ:

- What you are really saying is that you think this is more of a solution drive pool than a water drive, is that correct?
  - Α Yes, sir.
- And your evidence of this would be your No. 20 going below the bubble point?
  - A Yes, sir.
- Have you seen any indication at all in studying the producing characteristics of these wells that the water drive is assisting in maintaining pressure?

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A No, sir. We haven't taken the pressure since the completion of the hearing in January.

MR. UTZ: Any other questions?

MR. KELLAHIN: Yes.

# RE-DIRECT EXAMINATION

# BY MR. KELLAHIN:

Q I believe you testified on cross examination that it would be possible for you to locate a well at a legal or a location provided by the present rules in Lot 1 and outside of the watered-out area as shown by your Exhibit No. 2, is that correct?

- A Yes, sir.
- Q Would a well so located, in your opinion, effectively and economically drain the oil underlying Lot 8?
  - A No, sir.
- Q Is it your testimony that the Metex well No. 7 is draining the acreage on which you propose to locate this well?
  - A Yes, sir.
- Q And how could you protect against this drainage by establishing counter-drainage?
  - A By drilling a well.
- Q Would a well located in Lot 1 afford you this protection?
  - A No, sir.



- Q Would a well located in Lot 1 water out before you had achieved completion of Lot 8?
  - A Yes, sir.
- Q You testified as to the radius of drainage between your proposed well location and the Metex well No. 7, that each well would drain to half the distance between the two wells.
  - A Only if they were producing at the same rate.
- Q But as you propose it, they would not be producing at the same rate, would they?
  - A No, sir.
- Q Then actually this center point between the two wells would be closer to the Continental well than to the Metex well, is that correct?
- A It would not be closer. It would be over the Continental acreage, would not be closer to either well.

  It would be closer, yes, sir, based on the lower withdrawal rates it would be closer to the Continental well.
- Q That would mean though, even though the Commission grants you permission to drill this location at this location and grants you a 53 allowable, Continental will still be draining Metex acreage, is that correct?
  - A Yes, sir.
  - Q There has been a great deal said about the spacing

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pattern established in the Oil Center Blinebry Pool on the recommendation of Continental Oil Company. You still believe this is a correct well pattern, Mr. Levine?

- A Yes, sir.
- Q But in order to produce the oil underlying Continental's acreage, is an exception required?
  - A Yes, sir.
- Q Do you feel that an exception of this type is proper?
  - A Yes, sir.

MR.KELLAHIN: That's all I have. Thank you.

MR. GIRAND: Re-cross examination, if I may, Mr.

Examiner.

MR. UTZ: Proceed.

## RE-CROSS EXAMINATION

# BY MR. GIRAND:

- Q You testified on re-direct that your proposed well would be closer to your No. 24 well than it would be to the Metex 7?
  - A No, sir, I never said that.
  - Q Which well is it going to be closer to?
- A I would have to measure it. I wouldn't assume it was closer to the Metex well.

MR. KELLAHIN: He did not testify as to well location

in any manner at all on re-direct.

MR. GIRAND: I challenge the record, we'll read his testimony back.

MR. KELLAHIN: Rather than waste time, could I explain what the witness did testify to?

MR. GIRAND: Well, he can at least answer my question whether it's going to be closer or not if he knows.

Q (By Mr. Girand) Will your proposed well No. 27 be closer to the proposed Metex 7 than any of the Continental wells?

A Yes, just looking at the map I would say so, I haven't measured it.

Q You say your proposed location of No. 27 if moved up to the upper 40 or the north 40 would not drain any of your Lot 8 or the 40 acres that you are proposing to drill a well on?

A I would say no.

Q You would say it wouldn't?

A Yes, it would not.

Q That would be true throughout the whole field where they have dedicated an 80 acres with a north-south direction, is that correct?

A Well, I can't quite understand the question I guess.

Q You say you still believe that those are good rules

except you don't believe they ought to apply to Continental?

A No, sir, that's not my testimony, that's your testimony.

MR. GIRAND: I must have misunderstood. That's all.

BY MR. UTZ:

Q How far north of the 40 acre tract, south side 40 acre tract, on which you propose to drill your No. 27 is the well located? I think it's 5610 from the south line, but this is an irregular section.

A How far from the south of that 80-acre tract, is that correct?

Q Of the 40-acre tract, Lot 8, the south boundary of Lot 8.

A Three hundred thirty feet.

 $\Omega$  So, it's actually -- that lot is a regular 40 acretract, isn't it?

A Lot 8, yes.

Q Then it's 330 feet south of the 40 tract?

A Yes, sir.

Q Is No. 16 drilled in the center?

A Yes, sir.

O So, while you could move a little farther north, you couldn't move to the center of the tract?

A No, sir.



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Q Since this isn't an active water drive, could you move north of well No. 16?

A The further north we move the less pay, productive pay, we will encounter.

MR. UTZ: Any other questions? The witness may be excused.

MR. UTZ: Do you have any other witness?

MR. KELLAHIN: That's all I have. Were the exhibits received in evidence?

MR. UTZ: I am not sure, how many did you enter?

MR. KELLAHIN: Three.

MR. UTZ: Continental's Exhibits 1 through 3 will be entered into the record of this case.

(Whereupon, Exhibits 1 through 3 were offered and entered into evidence.)

(Whereupon, Exhibits C and D were marked for identification.)

MR. GIRAND: Have you been sworn, Mr. Montgomery?
MR. MONTGOMERY: No, sir.

(Witness sworn.)

### RANDALL MONTGOMERY

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



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### DIRECT EXAMINATION

### BY MR. GIRAND:

- Q Will you state your name?
- A Randall Montgomery.
- Q Where do you live, Mr. Montgomery?
- A Hobbs, New Mexico.
- O By whom are you employed?
- A Metex Supply Company.
- Q Mr. Montgomery, I'll ask you whether or not you have previously testified before this Commission as a geologist?
  - A I have.

MR. GIRAND: Is the Commission satisfied with his qualifications?

MR. UTZ: Yes, sir, he's qualified.

- Q (By Mr. Girand) Now, Mr. Montgomery, in what capacity are you employed by Metex?
  - A Geologist.
- Q In connection with your duties, did you have anything to do with the drilling of the Metex wells 5, 6, and 7?
- A Yes, sir, I was in charge of the operations on that lease.
- Q I'll ask you whether or not in your capacity as geologist for the company you attended the Commission hearings in January of '63, as well as January of '64?



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- A Yes, sir, I did.
- Q At the time of the hearing in January of 1963, what development, if any, had Metex Supply Company completed?
- A We were completing the Wallace State Well No. 5 in the Oil Center Blinebry.
  - Q Is that the well located in Lot 13 of Section 3?
  - A Yes, sir.
- Q Thereafter, you drilled two additional wells in the area?
  - A We did.
- Q In the drilling of the two additional wells, did you follow the pool rules as to well location and assignment of acreage?
  - A We did.
- Q As a result of that, did you spend considerable money in drilling and completing those wells?
  - A Yes, sir.
- Q You are familiar with the application that has been filed by the Continental Oil Company, are you not?
  - A I am.
- O I'll ask you how much study have you made, if any, of the reservoir conditions of the Oil Center Blinebry Pool as it is deliniated?
  - A We have examined all of the testimony that has been



submitted by Continental Oil Company and also the information necessary to complete the wells on the Wallace State lease.

- If the temporary rules covering the Oil Center Blinebry development had not been enforced, I'll ask you if you would have located your wells as they are now located?
  - No, sir, we would not.
  - I'll ask you to explain why?
- At the time of the hearing, Metex Supply had asked for and concurred in the 80-acre spacing, the testimony of Continental Oil Company and still concurs in that conclusion. However, at that time it was Metex's opinion that this was probably an active water drive. At this time we still think it could be partially active as far as the water drive is concerned.

In order to obtain Metex's fair share of the oil under it's lease, the best location for drilling the wells would have been in Lot 13 and 14 rather than in Lot 11 where we were forced to drill well No. 6.

We would not have drilled a well in Lot No. 11 if it had not been for the stringent pool rules for firm locations in this pool.

Now, Mr. Montgomery, in connection with all of the wells delineated within the pool, have each of the wells been drilled up to this date in accordance with the well spacing



program as announced by rules 4 and 5 of the order governing the pool?

- A They have been.
- Q Without fear of any comments as to how these proration units were delineated, I will ask you, Mr. Montgomery, if you can identify Metex's Exhibit No. D?
- $\Lambda$  I can. This is a work map delineating the proration units as the Oil Conservation Commission has approved for proration in the Oil Center Blinebry Pool.
- Q Are those the presently existing proration delineated units?
  - A They are.
  - Q How are they shown on the map?
  - A In an enclosed square.
  - Q Inside the 80-acre subdivision?
  - A Yes.
- O I'll ask you, in your examination of that Exhibit D. whether or not any wells showed to have been drilled to the Oil Center Blinebry Pool in an unorthodox location?
  - A There are none.
- O Mr. Montgomery, in connection with your study of the area, I'll ask you whether or not you prepared a contour map based on the information that you studied?
  - A I did.



- Q I hand you what has been marked Metex Exhibit No. C and ask you if you can identify that map?
- A This is a contour map contoured on top of the Blinebry marker in the Oil Center Blinebry Pool area.
- O Based on your information and the data as reflected on our Exhibit C. I will ask you whether or not any or the north 40 of the proposed unit of the Continental Oil Company in their application here is capable of producing?
  - A Yes.
  - Q In the Blinebry Pool?
  - A Yes. In my opinion, Lot 1 could produce.
  - In your opinion, do you feel that there is any necessity for the Commission to make an allowance or an exception and disturb the development pattern of this pool?
    - A No, I see no reason whatsoever.
  - O Do you believe from the examination of the reservoir conditions that the Continental Oil Company will suffer any loss of it's just share of the production by reason of locating their well in the north 40 as against the south 40?
    - No, I don't think they will.
  - Q Will the location of the well in the south 40 as applied for have any effect on the Metex Well No. 7?
  - A It will draw down the pressure in the area and form a cone of depression; if it is an active water drive, it could



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possibly cone in water in this immediate area and cause waste and destroy the reservoir energy, --

- Q Go ahead.
- A --- and affect the reservoir energy on the Metex well.
- Q Do you feel that the spacing between the Continental Well No. 20 and the Continental Well No. 2 and the proposed Continental Well 27 and the Motex Well No. 7 would create an additional hazard to the reservoir underlying the Metex Supply Company property?
- A It will accelerate the pressure drawdown in that area, yes.
- Q Mr. Montgomery, you have examined since the hearing commenced the Continental Exhibit No. 3. I'll ask you whether or not you concur in the results as shown by that exhibit?
- A I do not concur with the interpretation that was placed on it. For example, on the Metex Wallace State Well No. 7, the well information that is shown thereon indicates a test in May of 1964 wherein the Metex well made 81 barrels a day and no water. We have no record of a test at that date.

However, we do have two tests after that date and they were 110 barrels of oil and no water with a gas-oil ratio of 1318, and then another test on 11-22-63 of 102 barrels of



182 Š oil a day, no water, with a gas-oil ratio of 1039.

- When were those tests made, if you recall?
- They were made in July and November, November of '63, and July of '64.
- From that information what conclusion do you arrive Q at as to the reservoir condition underlying your Metex Well No. 7?

Well, as shown on this exhibit, the well is perforated at a -2385. We are not producing any water in this well. It is a water-free well. The gas-oil ratio is not excessive, it doesn't indicate to me that the bubble point has been reached, although the bubble point is some four to five hundred pounds below what the reported bubble point would be in this case in previous hearings.

Then, is it your opinion that the water table is at a greater subsea level than the 2375?

It could indicate that. Further, some of the information that may have been interpreted to be a water table may not be due to a water table at all, but rather to a permeability situation, that is the permeability being more favorable to water or to oil or some isolated trapped water.

Further, on the same exhibit, Exhibit 3, the Shell State J well No. 6, the May production there is indicated as pumping 7 barrels of oil a day and 23 barrels of water.



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I would like to point out that the July report, that the average production in this well was 60 barrels of oil per day and 20 barrels of water, indicating that it is a better well than this information might indicate for that isolated month.

They probably didn't get the well completed during the month that is reported.

Further, I would like to point out that on Exhibit 3 and the Shell State J well No. 5, that all the perforations in this well, they did recover oil, however, I would like to point out that the main producing zone in this field was never perforated in this well.

- O That's in the J-5 well?
- A Yes, sir. One of the control wells, indicating a dry hole in the north end of the pool.
- Q That is the control well from which Mr. Levine delineated his contact point?
  - A Yes, sir.
  - 0 Water contact?
- A Yes. Even though it was perforated in tighter zones, it still produced oil. I might add that this was an early well in the field and that the Blinebry is not an easy well to complete wells in and a little experience in the area and trial and error and I am sure that if this well, in my

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opinion there's an excellent opportunity, that this is probably a productive well.

- Mr. Montgomery, what is your opinion as to the Q result to offset operators; should the Commission deviate from it's present rules and allow fractional proration units and non-standard locations?
- Well, if the Oil Conservation Commission elects to accept the interpretation of Continental Oil Company, it will be necessary to make several fractional units in order to be equitable throughout the field.
- In your opinion would the allowance of such fractional units create waste?
- It certainly would upset the correlative rights Α of the people that developed their property on rules that were established and testified to over a two-year period.
- Wouldn't the increased drilling cost to the limited Q reservoir result in waste?
  - Yes, sir, it would be economic waste. A
- I will ask you whether or not you enjoy the same opinion that Mr. Levine enjoys in stating that a well located north of a 40-acre in the pool there such as their proposed well 27, that a well located immediately north of it, of the north 40, would not drain the 40 in which they propose to drill their well?



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- A Based on the interference tests that we've run and the testimony that has been presented before, a well there would drain that entire acreage in the south Lot 8.
- Q As a representative of a producer in the field, do you see any need for any deviation from the rules as they now exist?
- A No, sir, I do not. Even using Continental's interpretation they can still drill a well with the legal location and be in the oil column.
- Q And take the same chances that Metex Supply Company and others took when they drilled their well in compliance with the rules?
- A Yes. We were stepping out. We were the edge wells and are the edge wells. We took our gamble at the time.
  - MR. GIRAND: I believe that's all.
  - MR. UTZ: Any questions of the witness?
  - MR. KELLAHIN: Yes.

### CROSS EXAMINATION

### BY MR. KELLAHIN:

- Q You say that Mr. Metex took a chance every time they stepped out. Continental stepped out on every well they drilled, too, didn't they?
  - A Yes, sir, they did.
  - Q You stated that a well located on Lot 1 would drain

a well underlying Lot 8?

- Yes, sir.
- You based that, as I understand it, on the interference tests that have been made in this pool?
  - Yes, sir.
- That doesn't say that lot well is entirely productive of oil based on the interference test made on other wells, does it?
  - No, is does not. A
- You stated that the increased drilling costs drilling additional wells would cause economic waste in this pool. What wells are you talking about?
- The wells that would be necessary to be drilled to protect the acreage.
  - Protect what acreage, whose acreage?
- I don't know of a specific example in here at this time where one is needed.
- There aren't any, are there? We are talking about one well which offsets Metex, isn't that right?
  - A
- And nobody else is affected by this then, assuming Q that Metex is affected, is that correct?
  - Metex is affected, yes.
  - If we assume that Metex is affected, nobody else is?

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- I presume that Atlantic would be affected.
- who? Q
- Atlantic.
- Atlantic?
- Yes.
- But it wouldn't cause them to drill an off-pattern well to protect themselves, would it?

Based on interpretations of the map presented by Continental Oil Company, it would be necessary that they drill an off-pattern well, yes.

Based on the map, they wouldn't drill a well, would they?

MR. GIRAND: I am going to object. The man hasn't qualified to represent Atlantic. He has qualified for Metex Supply Company.

MR. KELLAHIN: He testified on the maps submitted that Metex would have to drill an offset well to protect itself. My question is based on the map to which he has just testified; they wouldn't drill a well at all, would they?

I might add this. I have requested a farm-out from Atlantic that I would drill a well there, yes, sir.

- That's not based on the map though, is it Mr. Montgomery?
  - It's based on my interpretation and also based on

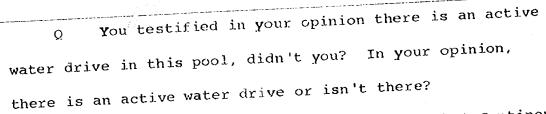
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Continental's map there is room for legal location. room for a location, non-standard location on the Atlantic There is acreage and in order, the map does indicate that there is productive acreage on the Atlantic acreage in order for them to protect themselves from drainage. they would have to drill a well.

- Would you drill a well on that much acreage? Q
- Well, I've testified that I would have drilled a well, yes.
- But not on the five acres or so that's shown on our map?
- I base that on my interpretation of the reservoir. You asked me if Atlantic would have to drill a well if they wanted to protect their acreage and my answer is yes.
- But, you are not basing that answer now on the map as you did before?
- Would you like -- your question, as I understand it, "Would Atlantic have to drill a well in order to protect their acreage from drainage?"
  - And you stated? Q
  - I said yes, sir. Α
  - And I asked, based on the map, didn't you say so? Q
- Yes, sir, based on Continental's map, part of their acreage is productive.







I believe I testified to the effect that Continental had testified that it would not and that we thought there could be an active water drive.

What is your opinion?

I also testified at this time, we think it's more of a solution-gas drive, but it could be a partially water drive.

In your opinion is the water drive effective as a Q producing mechanism to any extent in this pool?

I don't think it's effective at this time, it may be later.

Would it be effective to keep the oil below the Q bubble point?

No, we are already below the bubble point.

Already below that? Q

Yes, sir. If the bubble point was as reported by Continental, which I suggest that may not have been the true bubble point that they testified to earlier.

Well, do you have an opinion today?

I have no information what it is, but the reservoir does not act like it is past the bubble point.



- Q You haven't investigated Continental's wells in that connection?
- A Yes, sir, I have looked at all the wells in connection with that information.
  - Q Do you have any pressure information?
  - A Yes, I have some pressure.
  - Q Subsequent to the hearing in 1963?
- A I believe it is. I'm not sure. I will point out that looking at the July production, the gas-oil ratios were approximately fifteen hundred to one for the field and it certainly doesn't act like it's past the bubble point to me on that basis. The pressures are down in the range of about 1700 pounds.
  - Q As oil is withdrawn from this pool, particularly in the edge locations, in your opinion will water encroach?
  - A We don't have enough information at this time to say that positively.
  - Q Then your testimony is that the location of the well proposed by Continental and the grouping then of water encroachment is not based on any information that you have?
    - A I said a pressure drawdown.
  - Q Wouldn't pressure drawdown cause the water to encroach?



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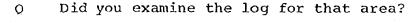
- A It could. If there's any effective water in the field at all, that could cause that.
- Q On the Shell No. 5, you testified that it was oil productive as I understand?
  - A Yes, sir.
  - Q It was not a commercial well though, was it?
- A They did not elect to complete it as a commercial well.
  - Q Did you examine the log on that well?
- A Yes, sir, I did in detail sometime back and I have it in front of me at this time, our Exhibit No. 3.
- Ω Did you make any calculation to determine if that well was wet?
- A As I recall, there were no logs available to interpret it that way. I don't know specifically; the logs that you have there is not enough information.
  - Q You haven't made such an examination?
- A I think I did about a year or two years ago.

  However, I might point out that the well did swab ten

  barrels a day and there are wells in the field that are

  producing ten barrels or less a day now.

I might further point out to remind you of my testimony earlier, that this well was not perforated in the main producing zone in the field.



A Yes. I'm looking at it at this moment.

O Did you ask for a farm-out on it?

A No, sir, I did not.

MR. KELLAHIN: That's all I have, thank you, Mr. Montgomery.

### RE-DIRECT EXAMINATION

### BY MR. GIRAND:

Q Mr. Montgomery, is it your opinion that the allowance of one well to deviate from the pool rules would effect particularly the applicant here in their proposal would effect the production of the Metex Supply Company Well No. 7?

A Yes, it will.

Q Will it in your opinion effect the production on the three Continental wells immediately surrounding to the south and to the west?

A Yes, it will.

MR. GIRAND: That's all. We would like to offer exhibits C and D in evidence.

MR. UTZ: I have some questions, Mr. Montgomery.

MR. UTZ: The exhibits will be received in evidence.

(Whereupon, Exhibits C and D were offered and admitted in evidence.)



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### BY MR. UTZ:

Q I note the difference in a pick; I presume it would be the tops of the Blinebry marker between your contour map and Continental's contour map. Is that the main difference between the two maps, the difference in your picks?

A No, sir, I don't think so. There are probably some different picks in the tops. It's a very difficult point to pick. I think in the mair, they do compare. I spot-checked them. I think it's more a matter of interpretation between the contour.

I might add that we drilled on the basis of my interpretation and found three oil wells. It extended the pool. We didn't find the oil field; I give Continental credit for that.

- Q The rules in 2408, what are the spacing rules in regard to distance from a 40-acre tract, is it 330 feet from any boundary?
  - A Yes, sir.
- Q So actually, you could have moved your No. 7 well further east without any jeopardy as far as rules are concerned, couldn't you?
  - A Yes, sir, we could have.
- Q Do you have any explanation as to why you didn't do that?





A We were trying to get the most advantageous place on the structure within the rules as promulgated by this Commission.

Q You think that the east half of your 80-acre tract is productive?

A In the 80 acres dedicated to well No. 7, yes. Yes, sir, I do.

Q Do you think that No. 7 well will drain that adequately located where it is?

A Based on the previous testimony that's been presented,
I would say yes it will.

Q And this faint sketched-in line up near the township line between 21 and 20, is that your interpretation of the water-oil contact?

A No, sir, that's just where contour -2375 would be.

 $\Omega$  You haven't actually showed your interpretation of the water-oil contact?

A I see no information to base a water-oil contact on at this time.

Q Do I understand you to say that your No. 7 well produced some water?

A Initially we reported a little bit of water. I think it was 7 barrels and then we have had two tests since that time with no water at all. Of course, we know we're not

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producing but a very minute amount of water on the lease. I would suspect this was either acid water or a little bit of formation water on the initial potential and is probably, it really isn't significant in the overall picture.

When you drilled the No. 7, did you drill into the water table, plug-back, or what?

I don't know where the water table is in this field. I do know we perforated a -2385 and we are not producing any water.

2385 would be the bottom of the perforations shown on Continental's Exhibit No. 3?

- Yes, sir.
- And your tests showed no water? 0

Yes, sir, except for that initial test, which I think is not pertinent to the question.

Would that indicate to you that the water table was somewhere below 2385?

Yes, sir.

MR. UTZ: Any other questions of the witness? MR. KELLAHIN: I have one more question.

### BY MR. KELLAHIN:

You stated that you have no basis on which to base a conclusion there is a water table under here or where it's located?



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A That's correct.

Q Did you take into consideration the production of the Meyer B-4 23 and 25, Sinclair, and Kinswell No. 11, Section 9?

A I know the wells are making a little bit of water, yes, sir. Frequently in a reservoir of this type, as I recall well No. 23, it's making about 11 barrels of water a day.

I certainly wouldn't call that an active water drive.

Sinclair well No. 8, No. 11, is making 20 barrels of water a day, and well No. 24 is making 10 barrels of water a day. I wouldn't consider those real active.

Q All of which amounts to more than 50% of the production, doesn't it?

A No, sir.

Q What oil are they producing?

A Well, the Continental well No. 23 is averaging about 25 barrels of oil a day.

Q And 20 barrels of water?

A Well, the reports submitted to the Oil Conservation Commission, unless I copied them down wrong, I don't know whether that is a three or a one barrel per day. I can't read my sketching. We can verify that I believe, if you thought it was pertinent.

Q There are wells in the pool which are making more

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than 50% water or at least 50% water, are there not?

A The only one that is reporting it would be Sinclair well No. 11, and that was a tight formation. It might be a case of permeability to water versus oil rather than water table. I suspect that's what it is. It's not the water table.

MR. KELLAHIN: That's all.

MR. UTZ: Any other questions?

MR. GIRAND: No further questions.

MR. UTZ: The witness may be excused.

(Witness excused.)

MR. GIRAND: If the Examiner please, we would like to introduce into evidence the questions and answers of Mr. John Wolf at the hearing on January the 3rd, 1963, as well as the testimony of Mr. McGuire, also the closing statement of Mr. Kellahin.

MR. UTZ: Would you just as soon introduce the record in that case as a part of the record in this case?

MR. GIRAND: Yes, sir, all the record in that case as well as the record in the subsequent hearing on January 22, 1964.

MR. HTZ: That's both previous cases?

MR. GIRAND: Yes, sir.

MR. UTZ: Any objection to Counsel's motion?



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MR. KELLAHIN: As I understand the motion, it is to introduce the record in both cases?

MR. UTZ: That's right.

MR. KELLAHIN: No objection.

MR. UTZ: It will be made a part of the record in this case. Any statements in this case?

MR. GIRAND: First, I would like to re-offer all my Exhibits, A, B, C, and D, and make sure they have been ruled on as being admitted.

MR. UTZ: A and B were admitted, however we will accept A, B, C, and D into the record.

(Whereupon, Exhibits A, B, C, and D were offered and admitted into evidence.)

MR. GIRAND: We would like to make this observation that this field was fairly well developed by Continental Oil Company at the time of the first hearing. As a matter of fact, they have done no further drilling since the time of the first hearing in January of 1963, and after having some two years observation of the pool and having the majority of the wells within the pool, they appeared before this Commission again and reiterated that the rule that was established by the Commission as a result of those hearings should be made permanent from all the data that they then had.



It now develops that in their opinion there is only one 80-acre within what they delineate as the pool that has not been developed, and by this application seek an advantage over the other producers who have developed their acreage by following the rules adopted and proposed by the Continental Oil Company.

We feel that the allowance of this deviation from the rule will work an undue hardship and will be improper drainage under the testimony heretofore offered to this Commission as to the Metex well No. 7.

We can see in connection with the edge wells around this pool that this Commission could, by examination and by presentation of the different companies, be called upon to make any number of exceptions which would result in the improper production from this pool as has been testified.

Now, they make some to-do about the fact that this is just a one-well exception. Well, as I said before, there only has to be one exception to destroy a rule and the Commission is well aware of that.

As Mr Kellahin recognized back at the second hearing, or the first hearing very well that the operators can't protect themselves against the location in a pool. Sometimes they have a favorable location and sometimes they



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don't.

Now, with this, Continental being in there, having within the heart of the pool some ten wells already, all of them producing, they seek to come in there and crowd one little area that can't do anything but result in damage and undue drainage of the properties belonging to the Metex Supply Company.

We see no cause for the Commission to deviate from rules which have been enforced now for over two years.

MR. UTZ: Mr. Kellahin.

MR. KELLAHIN: If the Examiner please, as stated by Mr. Girand, Continental Oil Company reiterates and still reiterates it's position that the pool rules in the Oil Center Blinebry Pool are correct as Mr. Levine so testified.

There's a lot more involved in this case than the simple well locations. It's fundamental in our law and I will not burden the Commission by reading it again that every operator shall be given the opportunity to produce the oil underlying his tract and for that purpose to utilize his fair share of the reservoir energy and that is the fundamental question that's involved in this case.

We are not here seeking simply a more favorable location; we are here seeking a location which will enable Continental Oil Company to produce the oil underlying Lot 8

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and that portion of Lot 1 which is found to be productive of oil.

We are not asking for any unfair advantage. Had we been going to, we would not voluntarily have come before this Commission and say we should and must have a curtailed allowable which would equilize the production from this well to it's proportionate share of that underlying the pool as a whole.

That's the real basis of Continental's position.

The statements have been made, and one was just this moment made, that we are now trying to crowd the line and drain Metex. There's no testimony in this record that Metex will be drained.

The only testimony in this record is that the oil going to the Metex No. 7 well, in part, and in a substantial part, is coming from Continental's acreage.

The only way Continental Oil Company can protect itself against this drainage is by offset drainage and the only way it can establish offset drainage is by drilling at a location at or substantially near the proposed location as we are seeking in this application.

It has been stated that we could drill in Lot 1, but true, we might get a producing well in Lot 1, but the testimony, and the only testimony in the record supported by

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any geological interpretations, is that a well so located would quickly water out and would not effectively and economically drain the oil underlying Lot 8.

It is Continental's position that we're entitled

to this well location and it should be approved by the Commission.

MR. UTZ: Any other statements?

MR. GIRAND: May I just make one observation? Mr. Kellahin brought in the word "fundamental right" for the first time in his speech. I might call the Commission's attention that if they were seeking to act fundamentally under our law, well, we have a regular spacing of 40 acres to a well. They have come in and asked for a half an allowable and a 40-acre designation; they would be in better face than coming in by saying "We can go a third up into the other 40 acres, so give us 53-acre allowable and pay no attention to our 80-acre rule".

MR. KELLAHIN: Which, of course, would ignore the fact that we have oil underlying the Lot 1.

MR. UTZ: According to your exhibits. Any other statements?

MR. UTZ: The case will be taken under advisement.



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STATE OF NEW MEXICO )
COUNTY OF BERNALILLO )

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

. Goda Dearnley-NOTARY PUBLIC

My Commission Expires:

June 19, 1967.

i do hereby certify that the foregoing is a complete record of the proceedings in the Examinor hearing of Case No. 3/22.

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## BEFORE THE OIL CONSERVATION COMMISSION OF THE STATE OF NEW MEXICO

APPLICATION OF CONTINENTAL OIL COMPANY FOR AN UNORTHODOX LOCATION AND A NON-STANDARD UNIT, LEA COUNTY, NEW MEXICO.

CASE No. 3122 Order No. R-2799-A

NUNC PRO TUNC ORDER

### BY THE COMMISSION:

It appearing to the Commission that due to clerical error, Order No. R-2799, issued in Case No. 1132 on November 10, 1964, does not correctly set out the findings of the Commission,

### IT IS THEREFORE ORDERED:

- (1) That Finding No. (6) in Order No. R-2799, dated November 10, 1964, is hereby corrected to read as follows:
  - (6) That Lot 1 can reasonably be presumed to contain approximately 13 productive acres and that Lot 8 can reasonably be presumed to contain approximately 40 productive acres in the Oil Center-Blinebry Pool.
- (2) That the correction set forth above shall be effective nunc pro tunc as of November 10, 1964.

DONE at Santa Fe, New Mexico, on this \_\_\_\_\_day of November, 1964.