

CASE 1928: Application of J. M.
WELLS for a gas-oil lease of his NIT
WELL NO. 3, HODY COUNTY, N. MEX.

Casa No.

1986

Application, Transcript,
Small Exhibits, Etc.

OIL CONSERVATION COMMISSION
P. O. BOX 871
SANTA FE, NEW MEXICO

June 10, 1960

Mr. Tom McKenna
302 E. Palace Avenue
Santa Fe, New Mexico

Dear Sir:

On behalf of your client we enclose two copies
of Order R-1696 in Case 1986 issued by the Oil
Conservation Commission this date.

Very truly yours,

A. L. PORTER, Jr.
Secretary-Director

ir/

Carbon copy of order sent to:

Oil Conservation Commission
Hobbs and Artesia

C
O
P
Y

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. 1986
Order No. R-1696

APPLICATION OF J. M. WELCH
FOR A GAS-OIL DUAL COMPLETION
IN AN UNDESIGNATED QUEEN GAS
POOL AND IN THE HENSHAW (SAN
ANDRES) POOL, EDDY COUNTY,
NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

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

NOW, on this 10th day of June, 1960, the Commission, a quorum being present, having considered the application, the evidence adduced, and the recommendations of the Examiner, Elvis A. Utz, and being fully advised in the premises,

FINDS:

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

(2) That the applicant, J. M. Welch, is the owner and operator of the Etx Well No. 3, located 1650 feet from the South line and 650 feet from the East line of Section 13, Township 16 South, Range 30 East, NMPN, Eddy County, New Mexico.

(3) That the applicant proposes to dually complete the said Etx Well No. 3 in such a manner as to permit the production of gas from the Penrose sand of an undesignated Queen Pool and the production of oil from the Henshaw (San Andres) Pool through the casing-tubing annulus and 2-inch tubing respectively, utilizing a Baker Model "E" packer to separate the producing horizons.

(4) That inasmuch as insignificant amounts of liquid production from the Queen formation are anticipated, the mechanics of the proposed dual completion are feasible and in accord with sound conservation practices.

-2-
CASE No. 1986
Order No. R-1696

IT IS THEREFORE ORDERED:

That the applicant be and the same is hereby authorized to dually complete its Etz Well No. 3, located 1650 feet from the South line and 650 feet from the East line of Section 13, Township 16 South, Range 30 East, NMPN, Eddy County, New Mexico, in such a manner as to permit the production of gas from the Penrose sand of an undesignated Queen Pool and the production of oil from the Hamshaw (San Andres) Pool through the casing-tubing annulus and 2-inch tubing respectively, utilizing a Baker Model "E" packer to separate the two producing horizons.

PROVIDED HOWEVER, That the applicant shall complete, operate, and produce said well in accordance with the provisions of Section V, Rule 112-A.

PROVIDED FURTHER, That the applicant shall take packer-leakage tests upon completion and annually thereafter on the anniversary date of the dual completion.

IT IS FURTHER ORDERED:

That jurisdiction of this cause is hereby retained by the Commission for such further order or orders as may seem necessary or convenient for the prevention of waste and/or the protection of correlative rights; upon failure of the applicant to comply with any requirement of this order, the Commission may terminate the authority herein granted and require the applicant or its successors and assigns to limit its activities to regular single-zone production in the interest of conservation.

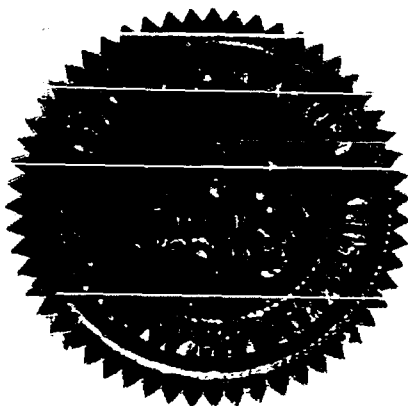
DONE at Santa Fe, New Mexico, on the day and year hereinabove designated.

STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION


JOHN BURROUGHS, Chairman


MURRAY E. MORGAN, Member


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



esx/

OIL CONSERVATION COMMISSION
SANTA FE, NEW MEXICO

Date 6-2-60

CASE 1986 Hearing Date 6-1-60

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

1. Grant Welch's request for a dual
Completion under Permissory — — — — — Port.
Henderson Lovington — — — — — Oil Pool.
2. Applicant proposes to use a Baker
Model ~~420~~ No. 420-E packer.

OIL CONSERVATION COMMISSION
SANTA FE, NEW MEXICO

Date 6-2-60

CASE 1986 Hearing Date 6-1-60

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

1. Grant Welch's request for a dual
Completion under Permiss ^{Port.} ~~in~~ ^{Good}
Henshaw Lovington ~~Oil~~ Pools.
2. Applicant proposes to use a Baker
Model ~~E~~ No. 420-E packer.

J. M. Welch
Oil Producer and Operator
P. O. Box 296 MAIN OFFICE OCC
Artesia, New Mexico
May 25, 1960 1960 MAY 27 AM 8:53

New Mexico Oil Conservation Commission
P. O. Box 871
Santa Fe, New Mexico

Attention: Mr. Dan Nutter

Re: Etz No. 3 well, NE/4 SE/4
Section 13-16S-30E, Eddy
County, New Mexico

Gentlemen:

Enclosed herewith you will find triplicate copies of the Application for Dual Completion, the Plat and the Diagrammatic Sketch of the Dual Completion for the above well, as per your request.

Please pardon the delay in providing this information. It took me some time to find the names of the owners of offset acreage.

Yours very truly,

J. M. Welch
J. M. WELCH

JMW/bb

NEW MEXICO OIL CONSERVATION COMMISSION

SANTA FE, NEW MEXICO

7-3-58

APPLICATION FOR DUAL COMPLETION ^{MAIN} OFFICE OCC

Field Name Henshaw		County Eddy	Date May 25, 1960
Operator J. M. Welch		Lease Jones-Hewitt	Well No. 53
Location of Well I	Section 13	Township 16S	Range 30E

1. Has the New Mexico Oil Conservation Commission heretofore authorized the dual completion of a well in these same pools or in the same zones within one mile of the subject well? YES _____ NO X
2. If answer is yes, identify one such instance: Order No. _____; Operator, Lease, and Well No.:

3. The following facts are submitted:	Upper Zone	Lower Zone
a. Name of reservoir	Penrose	Lovington
b. Top and Bottom of Pay Section (Perforations)	2680 2700	3235 3248
c. Type of production (Oil or Gas)	Gas	Oil
d. Method of Production (Flowing or Artificial Lift)	Flowing	Flowing

4. The following are attached. (Please mark YES or NO)

- Yes a. Diagrammatic Sketch of the Dual Completion, showing all casing strings, including size and setting, top of cement, perforated intervals, tubing strings, including diameters and setting depth, location and type of packers and side door chokes, and such other information as may be pertinent.
- Yes b. Plat showing the location of all wells on applicant's lease, all offset wells on offset leases, and the names and addresses of operators of all leases offsetting applicant's lease.
- No c. Waivers consenting to such dual completion from each offset operator, or in lieu thereof, evidence that said offset operators have been furnished copies of the application.*
- Yes d. Electrical log of the well or other acceptable log with tops and bottoms of producing zones and intervals of perforation indicated thereon. (If such log is not available at the time application is filed, it shall be submitted as provided by Rule 112-A.)

5. List all offset operators to the lease on which this well is located together with their correct mailing address.

Shell Oil Company	P. O. Box 845	Roswell, New Mexico
Texas Oil Company	P. O. Box 3109	Midland, Texas
Three States Oil Co.	17th Floor Corrigan Tower	Dallas 1, Texas
John Trigg	P. O. Box 5629	Roswell, New Mexico

6. Were all operators listed in Item 5 above notified and furnished a copy of this application? YES X NO ____ . If answer is yes, give date of such notification May 25, 1960.

CERTIFICATE: I, the undersigned, state that I am the Owner of the J. M. Welch (company), and that I am authorized by said company to make this report; and that this report was prepared under my supervision and direction and that the facts stated therein are true, correct and complete to the best of my knowledge.

J. M. Welch
Signature

- * Should waivers from all offset operators not accompany an application for administrative approval, the New Mexico Oil Conservation Commission will hold the application for a period of twenty (20) days from date of receipt by the Commission's Santa Fe office. If, after said twenty-day period, no protest nor request for hearing is received by the Santa Fe office, the application will then be processed.
- NOTE: If the proposed dual completion will result in an unorthodox well location and/or a non-standard proration unit in either or both of the producing zones, then separate application for approval of the same should be filed simultaneously with this application.

Memo

From

M. L. Armstrong
Supervisor District #2

To Edie Wtz
Jimmy Welch is intending to
use a E.O.J Baker Hook wall
Packer on his dual completion.
If this packer isn't satisfactory
let me know just what kind
you prefer he runs

Walt

Baker
Use Model "E"

1960 JUN 5 AM 8:34

MAIN OFFICE 09C

Top Cement
470'

3 3/8" Casing 615'

BEFORE EXAMINER UTZ
OIL CONSERVATION COMMISSION
JAL *[Signature]* EXHIBIT NO. 1
CASE NO. 1986

Top Oil
2410' by log

Gas St Perforations
2680-2700

Baker Hookwell Packer
2750'

2259'

2259' - 2260' 4"

INTER-OFFICE CORRESPONDENCE

PHILLIPS PETROLEUM COMPANY

Odessa, Texas
May 10, 1960

SUBJECT

Mr. J. H. Welch
Box 296
Artesia, New Mexico

Dear Sir:

Attached is a copy of the Fractional analysis that we ran on the Queen gas from the lease listed below.

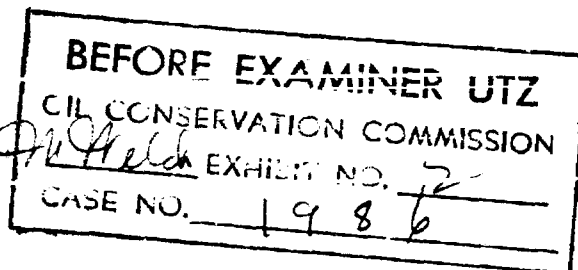
J. H. Welch #3 A. M. Etz. located C S/2 NE SE Sec. 13-16-30,
Eddy County, New Mexico.

The rate of gas flow during our test period was 885 MCFPD.

Best regards,

R. T. O'Malley
R. T. O'Malley

RTO'M:brm



ALSO IN COST REDUCTION — IT'S PERFORMANCE THAT COUNTS

PHILLIPS PETROLEUM COMPANY
Gasoline Department
Analysis Results Summary

Location: Odessa, Texas

St. No. 11-100-1

Run No. 1336

Date Run 4-28-50

Date Secured 4-27-50

Time

Sampler's Name

Well #3, Queen Area, Queen Formation, J. M. Welch

Well #3, Queen Area, Queen Formation, J. M. Welch

Well #3, Queen Area, Queen Formation, J. M. Welch

Well #3, Queen Area, Queen Formation, J. M. Welch

Well #3, Queen Area, Queen Formation, J. M. Welch

Well #3, Queen Area, Queen Formation, J. M. Welch

County: Eddy

State: New Mexico

Secured by: R. T. O'Neil

F. Pressure on Bomb: 7

lbs./sq. in.: 864 oil/day

Weather conditions at time of sampling

PSIG: Line Pressure

PSIG

Chro.

Analysis 14.55 PSI at 60°F

Atm. %

Liq. %

Carbon Dioxide

Oxygen

Nitrogen

Hydrogen Sulfide

48.79

Methane

42.31

Ethane

5.47

Propane

2.21

iso-Butane

.25

Nor-Butane

.56

iso-Pentane

.14

Nor-Pentane

.13

Hexanes

.10

Heptanes Plus

.13

Total

100.00

100.00

Propane Calc. G.P.M.

606

iso-Butane Calc. G.P.M.

1081

Nor-Butane Calc. G.P.M.

176

Pentanes Calc. G.P.M.

199

Test Cor. (Date)

B.T.U. / cu. ft. W.B.

825

Calc. Specific Gravity

625

Calc. A.P.I. @ 60°F

Observed A.P.I. Av.

H₂S & CO₂ by orator

H₂S grains/100 cu. ft.

Mercaptans gr/100 cu. ft.

Zero

Calc. Vap. Press. #/sq. in.

Reid Vap. Press. #/sq. in.

Cu. ft. gas/Gal. Liq.

Calc. Gasoline Factors

26-70 Gasoline

Excess Butane

Excess Propane

Excess Ethane & lighter

0.

0.

0.

0.

0.

1.0000

Run By: Bacon

Calculated by: Bacon

Checked by: Mason

Approved by:

Additional Data and Remarks:

Trap press = 8000

Gas temp. = 67°

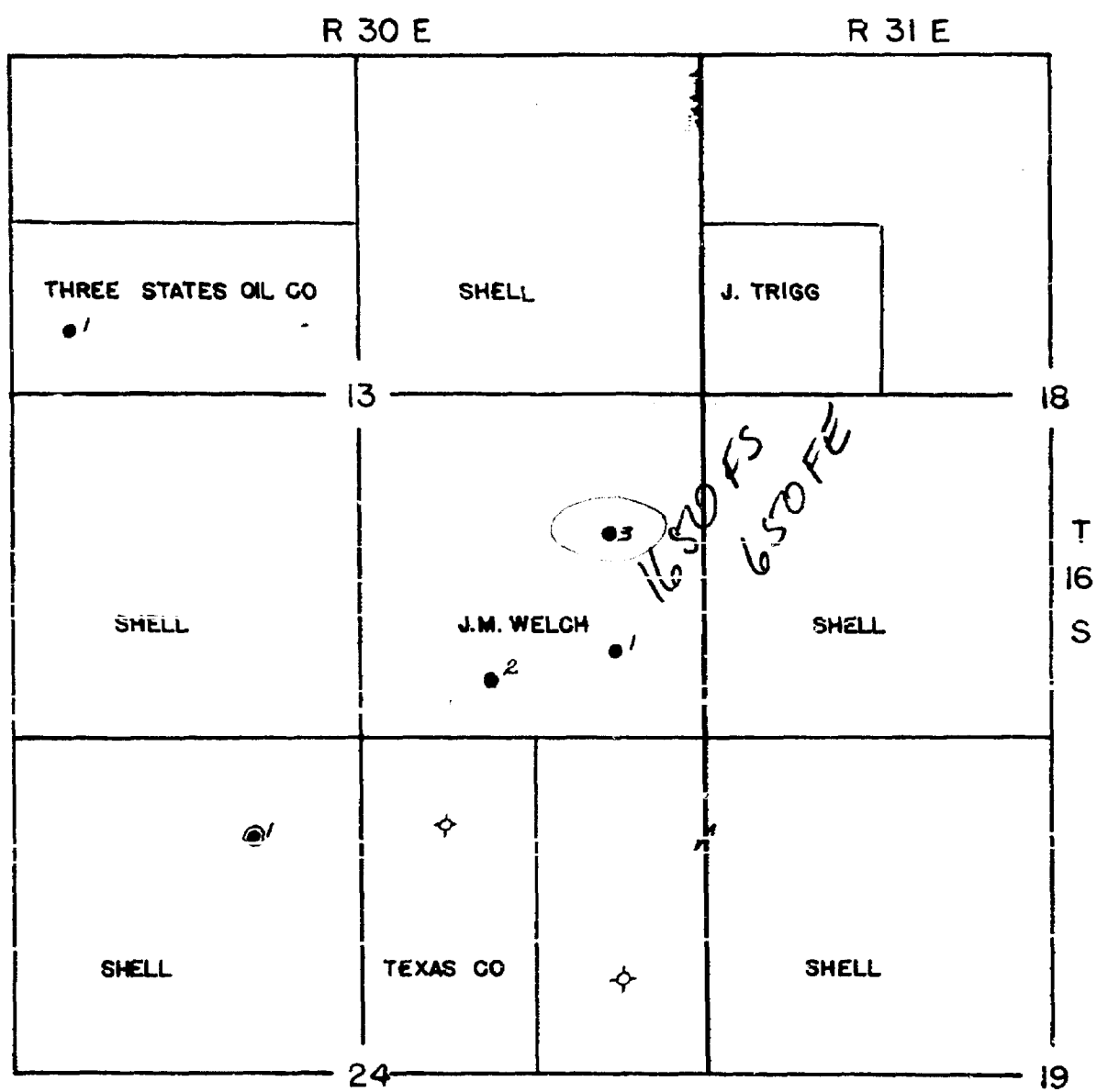
Shut in press. = 9000 est.

Producing from 2603' = 2618'

Sample Queen Zone while drilling to Grayburg oil zone.

Baro = 663

Distribution:



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

EXAMINER HEARING

IN THE MATTER OF:

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

Case
1986

BEFORE:

ELVIS A. UTZ, Examiner

TRANSCRIPT OF HEARING

MR. UTZ: Case 1986.

MR. PAYNE: Application of J. M. Welch for a gas-oil dual completion.

MR. McKENNA: Mr. Examiner, Thomas F. McKenna, McKenna and Sommer, for the applicant. One witness, Mr. J. M. Welch.

(Witness sworn.)

JAMES M. WELCH,

Applicant, appearing in his own behalf, having been first duly

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PHONE CH 3-6691

ALBUQUERQUE, NEW MEXICO



sworn, testified as follows:

DIRECT EXAMINATION

BY MR. McKENNA:

Q Will you give your full name?

A James M. Welch.

Q Where do you reside, Mr. Welch?

A Artesia.

Q Have you ever testified before this Commission?

A No, I have not.

Q Will you tell the Commissioner your business, background and experience in the oil and gas industry?

A In '46 I graduated from the University of California with a degree in economics. However, I have been in the oil business, associated with my father, since 1936.

Q What has this business been?

A In the oil business.

Q Has it been --

A *Production*
Introduction, primarily; contracting.

MR. McKENNA: May his qualifications be accepted, Mr. Examiner?

MR. UTZ: To testify in this case, yes, sir.

Q (By Mr. McKenna) Was this application prepared by you or on your behalf, Mr. Welch?

A On my behalf.

Q And what is the name and location of the well under



consideration?

A It is in Section 13 of 16, 30.

Q And do you know the exact location?

A In the northeast of the southeast section.

Q What is the distance from the south line, do you know?

A 1650 from the south line, 660 from the east line.

Q What is the purpose of this application?

A To produce gas from the Penrose sand and oil from the Lovington.

Q Was this well drilled by you or under your supervision?

A Yes.

Q What is your plan for dual completion; how do you propose to accomplish dual completion?

A We plan to perforate the gas zone, 2680, 2700, and water free that, and to treat the Lovington sand at 3230 to 3240, then to complete it, seat a Baker packer at approximately 2750 below the gas zones, and produce the oil through the tubing annulus and the gas through the casing tubing annulus.

Q What is the program for casing and cementing?

A Drilled with cable tools, set 615 feet of 8-5/8, cemented with 100 sacks, and the string was set at 3230 and cemented with 125 sacks, 5-1/2 inch casing.

Q Have you prepared a diagrammatic sketch of this proposed completion dual?



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PHONE CH 3-6691

ALBUQUERQUE, NEW MEXICO

A Yes, I have.

Q Was this sketch prepared by you or under your direction?

A At my supervision.

MR. McKENNA: I'd like to introduce that as evidence, Mr. Examiner.

Q Mr. Welch, do you contemplate any problem as to liquids in the production of gas from the annulus?

A None; it is very dry gas.

Q Have you received any analysis or report on the gas in the Penrose?

A Yes, I have. The Phillips Company made an analysis of that.

Q I hand you what I am going to ask the reporter to mark as Plaintiff's Exhibit 2 for identification. Now, what has been marked as No. 2 for identification, would you please tell the commission what that is?

A It is a report from the Phillips Petroleum Company, from their engineering. They came over to the well and took a test of this gas from the Penrose sand.

Q And what does the report show?

A Well, the well showed 885 MCF per day.

Q Is the gas shown as being a very dry gas?

A Yes; in fact, 48% nitrogen. It has in the neighborhood of about half a gallon of liquids per thousand.



MR. McKENNA: I'd like to offer in evidence Plaintiff's Exhibit No. 2 if I may.

MR. UTZ: MCF, half a gallon?

A Yes; it has 825 BTUs, was what it tested out.

Q (By Mr. McKenna) Have you submitted to the Commission a log on this well?

A I have.

Q Do you believe this application that you make for dual completion is in the interests of conservation and prevention of waste?

A Yes.

Q Do you think that this application will in any way impair or injure correlative rights?

A No.

Q Now, Mr. Welch, is this gas which will be produced from the Penrose through the annulus, is this a gas formation or a gas cap?

A It is a gas formation.

MR. McKENNA: That is all the questions I have.

MR. UTZ: Are there any oil wells in the Penrose in this vicinity?

A No, the closest is three miles west in the Penrose.

MR. PAYNE: Mr. Welch, is the packer a Baker retrievable-type packer?

A Yes, it is.

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PHONE CH 3-6691

ALBUQUERQUE, NEW MEXICO



MR. PAYNE: What pressure will that withstand, do you know?

A No; however, the gas zone has a pressure of 850 pounds, and the formation of the oil pressure below runs 400 to 450 pounds so our greatest pressure would be on top.

MR. PAYNE: And this is the type packer that pushes down from the top?

A Yes, that is correct.

MR. MCKENNA: No chokes are necessary?

A No, sir.

MR. UTZ: How much cement did you say you were going to put on?

A 125 sacks; on the log, *Gene Wells* ~~Layne Welch~~ came out and ran the test on it, and that is the actual height of the cement, 3110 I believe it is. Surface pipe runs at the top of the salt and cemented with a hundred sacks, and I don't actually know how far it filled up, but the cable, 8-5/8 in a ten-inch hole.

MR. UTZ: How about fresh water?

A No fresh water at all.

MR. UTZ: In the event you do have some liquid problems, that half gallon per MCF will eventually accumulate some liquids, will it not?

A I don't believe so. That gas is very dry. You can't even see it.

MR. UTS: Does this liquid reach the surface in the form



of liquid?

A No; that was their test they took at Midland.

MR. UTZ: That was squeezed out?

A Well, I guess you'd call it that. It showed on their letter, they gave the complete breakdown of the liquid content.

MR. UTZ: Other questions? Witness may be excused.
Statements? Case will be taken under advisement.

The hearing is adjourned.

(The hearing was adjourned at 6:00 P.M.)

STATE OF NEW MEXICO)
) ss
COUNTY OF BERNALILLO)

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

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

June Paige
Notary Public - Court Reporter

My commission expires:
May 13, 1964.

I do hereby certify that the foregoing is a complete record of the proceedings in the Examiner's hearing held on June 19, 1960, heard by me on June 19, 1960.
Shirley J. [Signature], Examiner
New Mexico Oil Conservation Commission



DEARNLEY-MEIER REPORTING SERVICE, Inc.

PHONE CH 3-6691

ALBUQUERQUE, NEW MEXICO