

CASE 2715: Application of SHELL
for rules for the CUSTER-ELLEN-
BURGER GAS POOL, Lea County, N.M.

DOUGLAS W. LEE

12-24-64
~~DATE~~

OK

OK

Don't put in as requested
for 2 years -
V. Lee

gla - case
Set this opening
for re-opening Jan 1965
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Thin, Transcript,
Exhibits, Etc.

CLASS OF SERVICE

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WESTERN UNION TELEGRAM

W. P. MARSHALL, PRESIDENT

SYMBOLS

DL = Day Letter
NL = Night Letter

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Telegram

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1965 JAN 4 PM 1:00

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OIL CONSERVATION COMMISSION=

SANTA FE NMEX=

RE: JALMAT DEEP UNIT CUSTER ELLENBURGER FIELD, LEA COUNTY,
NEW MEXICO. THIS IS TO ADVISE THAT TEXACO INC. CONCURS
WITH SHELL OIL COMPANY AS OPERATOR OF JALMAT DEEP UNIT ON
THEIR REQUEST FOR INDEFINITE EXTENSION OF ORDER NO.
R-2401 SCHEDULED FOR JANUARY 6 HEARING, CASE NO. 2715,
PROVIDING FOR TEMPORARY 320 ACRE SPACING IN CUSTER
ELLENBURGER FIELD=

J H MARKLEY TEXACO INC DIVISION MANAGER=

=JALMAT R-2401 6 2715 320=

MAIN OFFICE 000

'65 JAN 4 PM 2

Docket No. 1-65

DOCKET: EXAMINER HEARING - WEDNESDAY - JANUARY 6, 1965

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 3187: Application of Tom L. Ingram for the creation of a new oil pool and for special pool rules, Roosevelt County, New Mexico. Applicant, in the above-styled cause, seeks the creation of a new oil pool for Devonian production for his State Well No. 1 located in Unit C of Section 32, Township 8 South, Range 38 East, Roosevelt County, New Mexico, and the promulgation of special rules for said pool, including a provision for 80-acre spacing.

CASE 3188: Application of Maleta Y. Brimhall and Barbara Burnham for force-pooling, San Juan County, New Mexico. Applicants, in the above-styled cause, seek an order force-pooling all mineral interests in the Basin Dakota Pool underlying the W/2 of Section 7, Township 30 North, Range 11 West, San Juan County, New Mexico.

CASE 3189: Application of Continental Oil Company for a dual completion, Rio Arriba County, New Mexico. Applicant, in the above-styled cause, seeks approval of the dual completion (conventional) of its Jicarilla Apache 30 Well No. 2 located in Unit C of Section 28, Township 25 North, Range 4 West, Rio Arriba County, New Mexico, in such a manner as to produce gas from the Chacra formation and oil from the Gallup formation through the casing-tubing annulus and tubing, respectively.

CASE 3190: Application of Continental Oil Company for a triple completion, Rio Arriba County, New Mexico. Applicant, in the above-styled cause, seeks approval of the triple completion (combination) of its Northeast Haynes Apache Well No. 1 located in Unit K of Section 9, Township 24 North, Range 5 West, Rio Arriba County, New Mexico, to produce gas from the Ballard-Pictured Cliffs Pool through 2 7/8-inch casing, and oil from the Otero-Gallup Pool and gas from the Basin-Dakota Pool through tubing installed in two separate 4 1/2-inch casing strings, all casing strings being cemented in a common wellbore.

CASE 2715: (Reopened)

In the matter of Case No. 2715 being reopened pursuant to the provisions of Order No. R-2401, which order established temporary 320-acre gas proration units for the Custer-Ellenburger Pool, Lea County, New Mexico, for a period of two years. The Commission will consider indefinite extension of Order No. R-2401 in the absence of evidence to the contrary.

CASE 2720: (Reopened)

In the matter of Case No. 2720 being reopened pursuant to the provisions of Order No. R-2397-A which continued the original order for an additional year, establishing special rules governing the production of oil and gas wells in the Double-X Delaware Pool, Lea County, New Mexico, including classification of wells as gas wells when the gas-liquid hydrocarbon ratio exceeds 30,000 to one.

January 6, 1965 Examiner Hearing

CASE 2935: (Reopened)

In the matter of Case No. 2935 being reopened pursuant to the provisions of Order No. R-2612, which order established temporary 160-acre spacing for the South Waterflow Oil Pool, San Juan County, New Mexico, for a period of one year. All interested parties may appear and show cause why said pool should not be developed on either 80-acre or 40-acre spacing.

CASE 3158: (Continued from the November 24th examiner hearing).

Application of The Pure Oil Company for the creation of a new gas pool and for special pool rules, Lea County, New Mexico. Applicant, in the above-styled cause, seeks the creation of a new Wolfcamp gas pool for its Red Hills Unit Well No. 1 located 330 feet from the South line and 2310 feet from the East line of Section 32, Township 25 South, Range 33 East, Lea County, New Mexico, and the promulgation of special pool rules including a provision for 640-acre spacing.

CASE 3159: (Continued from the November 24th examiner hearing).

Application of The Pure Oil Company for the creation of a new gas pool and for special pool rules, Lea County, New Mexico. Applicant, in the above-styled cause, seeks the creation of a new Pennsylvanian gas pool for its Red Hills Unit Well No. 1, located 330 feet from the South line and 2310 feet from the East line of Section 32, Township 25 South, Range 33 East, Lea County, New Mexico, and the promulgation of special pool rules including a provision for 640-acre spacing.

CASE 3173: (Continued from the December 15th examiner hearing).

Application of Pan American Petroleum 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 S/2 of Section 31, Township 30 North, Range 12 West, San Juan County, New Mexico.



Mobil Oil Company

A Division of Socony Mobil Oil Company, Inc.

P. O. BOX 2406, HOBBS, NEW MEXICO

December 4, 1962

Mr. A. L. Porter, Secretary-Director
New Mexico Oil Conservation Commission
P. O. Box 871
Santa Fe, New Mexico

Dear Mr. Porter:

Socony Mobil Oil Company, Inc., as owner of a portion of the working interest of the Jalmat Deep Unit, concurs with the field rules proposed by Shell Oil Company for the Custer Ellenburger Gas Pool in Case 2715.

Yours very truly,

A handwritten signature in cursive script, reading "Glen W. Barb".

Glen W. Barb
Producing Superintendent

JCGordon/nrh

A. K. MONTGOMERY
WM. FEDERICI
FRANK ANDREWS
FRED C. HANNAHS
GEORGE A. GRAHAM, JR.
RICHARD S. MORRIS

SETH, MONTGOMERY, FEDERICI & ANDREWS

ATTORNEYS AND COUNSELORS AT LAW

301 DON GASPAR AVENUE
SANTA FE, NEW MEXICO

J. O. SETH
COUNSEL

POST OFFICE BOX 828
TELEPHONE YU 3-7315

November 23, 1962

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

Attention: Mr. James M. Durrett, Jr., General Counsel

Gentlemen:

Enclosed is the original and two copies of Shell Oil Company's application in case No. 2715 which already has been set for hearing on December 6, 1962.

Very truly yours,

RSM:nm

Encl.



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. 2715
Order No. R-2401

APPLICATION OF SHELL OIL COMPANY
FOR THE ESTABLISHMENT OF SPECIAL
RULES AND REGULATIONS FOR THE
CUSTER-ELLENBURGER GAS POOL, LEA
COUNTY, NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 o'clock a.m. on December 6, 1962, at Santa Fe, New Mexico, before Daniel S. Nutter, 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 28th day of December, 1962, the Commission, a quorum being present, having considered the application, the evidence adduced, and the recommendations of the Examiner, Daniel S. Nutter, 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, Shell Oil Company, seeks the promulgation of special rules and regulations governing the Custer-Ellenburger Gas Pool, Lea County, New Mexico, including a provision for 320-acre gas proration units therein.

(3) That the evidence presently available concerning reservoir characteristics establishes that the Custer-Ellenburger Gas Pool may be efficiently and economically drained and developed on 320-acre proration units.

(4) That the evidence establishes that temporary 320-acre proration units will prevent the drilling of unnecessary wells, prevent reduced recovery which might result from the drilling of too few wells, and will otherwise prevent waste and protect correlative rights.

(5) That this order should be in effect for two years and that, during this two-year period, the applicant should gather all

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CASE No. 2715
Order No. R-2401

available information relative to drainage and recoverable reserves in the subject pool.

(6) That this case should be reopened at an examiner hearing in January, 1965, at which time the operators in the subject pool should be prepared to appear and show cause why the Custer-Ellebenburger Gas Pool should not be developed on 160-acre proration units.

IT IS THEREFORE ORDERED:

(1) That Special Rules and Regulations for the Custer-Ellebenburger Gas Pool are hereby promulgated as follows, effective January 1, 1963.

SPECIAL RULES AND REGULATIONS
FOR THE
CUSTER-ELLENBURGER GAS POOL

RULE 1. Each well completed or recompleted in the Ellebenburger formation within one mile of the boundary of the Custer-Ellebenburger Gas Pool and not nearer to or within the boundaries of another designated Ellebenburger gas pool, shall be drilled, spaced, and produced in accordance with the special rules and regulations hereinafter set forth.

RULE 2. (a) Each well completed or recompleted in the Custer-Ellebenburger Gas Pool shall be located on a standard unit consisting of approximately 320 acres which shall comprise any two contiguous quarter sections of a single governmental section, being a legal subdivision (half section) of the United States Public Lands Survey. For purposes of these rules a unit consisting of between 316 and 324 contiguous surface acres shall be considered a standard unit.

(b) The Secretary-Director shall have authority to grant an exception to Rule 2 (a) without notice and hearing where an application has been filed in due form and where the unorthodox size or shape of the tract is due to a variation in a legal subdivision of the United States Public Lands Survey, or where the non-standard unit consists of less acreage than a standard proration unit, the following facts exist, and the following provisions are complied with:

(1) The non-standard unit consists of contiguous quarter-quarter sections or lots.

(2) The entire non-standard unit may reasonably be presumed to be productive of gas from the Custer-Ellebenburger Gas Pool.

(3) The applicant presents written consent in the form of waivers from all offset operators and from all

-3-

CASE No. 2715
Order No. R-2401

operators owning interest in the section or sections in which any part of the non-standard unit is situated and which acreage is not included in said non-standard unit.

(4) In lieu of Paragraph (3) of this rule, the applicant may furnish proof of the fact that all of the aforesaid operators were notified by registered or certified mail of his intent to form such non-standard unit. The Secretary-Director may approve the application if, after a period of 30 days, no such operator has entered an objection to the formation of such non-standard unit.

RULE 3. (a) Each well completed or recompleted in the Custer-Ellenburger Gas Pool shall be located no nearer than 660 feet to the outer boundary of a quarter section or nearer than 330 feet to any governmental quarter-quarter section line.

(b) The Secretary-Director shall have authority to grant exceptions to Rule 3 (a) without notice and hearing where an application has been filed in due form and the necessity for the unorthodox location is based on topographical conditions or is occasioned by the recompletion of a well previously drilled to another horizon.

Applicants shall furnish all offset operators and all operators within the section in which the subject well is located a copy of the application and shall stipulate to the Commission that proper notice has been furnished to all such operators. The Secretary-Director may approve the application if, after a period of 20 days, no offset operator has entered an objection to the proposed unorthodox location.

(2) That this case shall be reopened at an examiner hearing in January, 1965, at which time the operators in the subject pool may appear and show cause why the Custer-Ellenburger Gas Pool should not be developed on 160-acre gas proration units.

IT IS FURTHER ORDERED:

That all operators presently producing gas from the Custer-Ellenburger Gas Pool who propose to dedicate 320 acres to a well in said pool must file an amended Commission Form C-128 with the Hobbs District Office of the Commission by January 10, 1963.

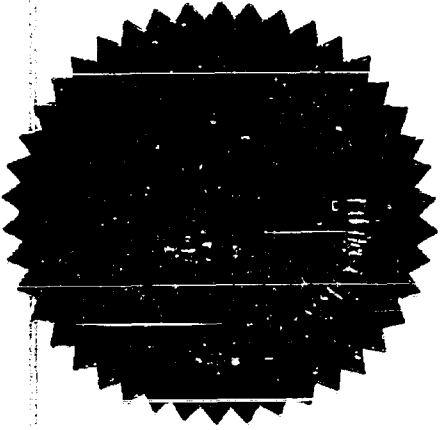
IT IS FURTHER ORDERED:

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

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CASE No. 2715
Order No. R-2401

DONE at Santa Fe, New Mexico, on the day and year herein-
above designated.

STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION


Tom Dolack
TOM DOLACK, Chairman

E. S. Walker
E. S. WALKER, Member

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

esr/

CLASS OF SERVICE

This is a fast message unless its deferred character is indicated by the proper symbol.

WESTERN UNION

TELEGRAM

W. P. MARSHALL, PRESIDENT

1201 (4-60)

SYMBOLS

DL=Day Letter
NL=Night Letter
LT=International Letter Telegram

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THE NEW MEXICO OIL CONSERVATION MISSION
SANTAFE NMEX=

SUBJECT CASE #2715 JANUARY 6TH 1965. AS WORKING INTEREST OWNERS IN STATE WELL B-36 #1 IN THE CUSTER ELLENBURGER GAS POOL LEE COUNTY NEW MEXICO THIS IS TO ADVISE THAT IRIS GOLDSTON AND THE ESTATE OF WALKER L GOLDSTON ARE IN SUPPORT OF SHELL OIL COMPANYS PREFERENCE TO MAINTAIN THE EXISTING FIELD RULEE AS SET UP IN ORDER #R-2401 DATED DECEMBER 28 1962=

IRIS GOLDSTON AND THE ESTATE OF W L GOLDSTON=

THE COMPANY WILL APPRECIATE SUGGESTIONS FROM ITS PATRONS CONCERNING ITS SERVICE

CLASS OF SERVICE

This is a fast message unless its deferred character is indicated by the proper symbol.

WESTERN UNION

TELEGRAM

W. P. MARSHALL, PRESIDENT

1201 (4-60)

SYMBOLS

DL=Day Letter
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L HBA036 PD=HOBBS NMEX 31 134P MST=
NEW MEXICO OIL CONSERVATION COMMISSION=
ATTN A L PORTER JR SANTA FE NMEX= 1964 DEC 31 PM 1 52
RE CASE 2715 JANUARY 6TH 1965 CITIES SERVICE OIL COMPANY
RECOMMENDS ORDER R-2401 BE EXTENDED INDEFINITELY
AUTHORIZING 320 ACRE SPACING IN THE CUSTER-ELLENBURGER
POOL, LEA COUNTY NEW MEXICO=
E F MOTTER DIVN ENGINEER==

2715 6 1965 R-2401 320=

THE COMPANY WILL APPRECIATE SUGGESTIONS FROM ITS PATRONS CONCERNING ITS SERVICE

ITS PATRONS CONCERNING ITS SERVICE

CLASS OF SERVICE
This is a fast message unless its deferred character is indicated by the proper symbol.

WESTERN UNION TELEGRAM

W. P. MARSHALL, President

1201 (4-60)

SYMBOLS
DL = Day Letter
NL = Night Letter
LT = International Letter Telegram

The time shown in the date line on domestic telegrams is LOCAL TIME at point of origin. Time of receipt is LOCAL TIME at point of destination.

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K BRA123 NL PD=BARTLESVILLE OKLA 30=
A L PORTER, NEW MEXICO OIL CONSERVATION COMMISSION,
STATE LAND OFFICE BLDG COLLEGE AVE SANTA FE NMEX=
REFERENCE HEARING JANUARY 6, 1965 CASE NUMBER 2715
ORDER NUMBER R-2401 ESTABLISHING TEMPORARY 320 ACRE
SPACING CUSTER ELLENBURGER GAS FIELD, LEA COUNTY, NEW
MEXICO. AS AN INTEREST OWNER IN JALMAT DEEP UNIT
OPERATED BY SHELL OIL COMPANY WE ARE IN FAVOR OF
INDEFINITE EXTENSION OF 320 ACRE SPACING PENDING
FURTHER DEVELOPMENT IN FIELD.
PHILLIPS PETROLEUM CO EARL GRIFFIN

MAIN OFFICE

6 1965 2715 R-2401 320 320

ITS PATRONS CONCERNING ITS SERVICE



Mobil Oil Company

A Division of Socony Mobil Oil Company, Inc.
P. O. BOX 1800, HOBBS, NEW MEXICO 88240

December 31, 1964

Mr. A. L. Porter, Jr., Secretary Director
New Mexico Oil Conservation Commission
P. O. Box 2088
Santa Fe, New Mexico

RE: CASE NO. 2715, CUSTER ELLEN-
BURGER POOL, FIELD RULES
HEARING, JANUARY 6, 1965.

Dear Mr. Porter:

Socony Mobil Oil Company, Inc., as owner of an interest in the Jalmat Deep Unit, wishes to support the request of Shell Oil Company for indefinite extension of the temporary 320 acre spacing rule, Order R-2401.

Yours very truly,

A handwritten signature in cursive script, reading "Glen W. Barb".

Glen W. Barb
Producing Superintendent

JCGordon/jlh



CONTINENTAL OIL COMPANY

P. O. BOX 460
HOBBS, NEW MEXICO

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

December 31, 1964

1001 NORTH TURNER
TELEPHONE: EX 3-4141

Mr. A. L. Porter, Secretary-Director
New Mexico Oil Conservation Commission
P. O. Box 2088
Santa Fe, New Mexico

Dear Sir:

This refers to Case 2715 (Reopened) pursuant to provisions of Order No. R-2401 establishing 320 acre gas proration units, Custer Ellenburger Pool, Lea County, New Mexico.

Continental Oil Company supports the indefinite extension of Order No. R-2401 for 320 acre gas proration units in the Custer Ellenburger Pool.

Yours very truly,

A handwritten signature in cursive script, appearing to read "G. C. Jamieson".

GCJ-CL

HUMBLE OIL & REFINING COMPANY

MIDLAND, TEXAS

MIDLAND AREA

PRODUCTION DEPARTMENT

R. R. MCCARTY
MANAGER

H. L. HENSLEY
J. M. SHEPHERD
OPERATIONS SUPERINTENDENTS

H. E. MEADOWS
ENGINEERING COORDINATOR

December 31, 1964

POST OFFICE BOX 1600

N.M.O.C.C. Case 2715
Operating Rules

Mr. A. L. Porter
New Mexico Oil Conservation Commission
P. O. Box 871
Santa Fe, New Mexico

Dear Sir:

Humble Oil & Refining Company has working interest in the Jalmat Deep Unit, Custer (Ellenburger) gas pool, Lea County, New Mexico. Examiners hearing is to be held on January 6, 1965, case #2715 to consider indefinite extension of Order R-2401 establishing operating rules for the Custer (Ellenburger) gas pool. Please be advised that Humble Oil & Refining Company is in accord with indefinite extension of Order No. R-2401.

Yours very truly,

HUMBLE OIL & REFINING COMPANY

R. R. McCarty

WEN/jlg

cc: Mr. R. R. Alworth

H. L. Hensley

By: H. L. Hensley



SINCLAIR OIL & GAS COMPANY

P. O. Box 1470
MIDLAND, TEXAS 79701

December 31, 1964

65 JAN 4 1965

MIDLAND DIVISION

New Mexico Oil Conservation Commission
P. O. Box 2088
Santa Fe, New Mexico

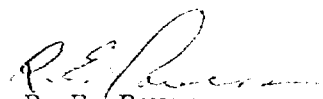
Attention: Mr. A. L. Porter, Jr.

Gentlemen:

Case No. 2715 is to be reopened and appears on Docket No. 1-65 to be heard January 6, 1965. The case pertains to the Custer Ellenburger Pool, Lea County, New Mexico.

Sinclair Oil & Gas Company, owner of a working interest, concurs with Shell Oil Company, operator of the Jalmat Deep Unit Well No. 1, that Order No. R-2401, which established temporary 320 acre gas proration units for the Custer Ellenburger Pool, should be extended indefinitely.

Yours very truly,


R. E. Powers
Division Engineer

DMC/ah

GOVERNOR
EDWIN L. MECHEM
CHAIRMAN

State of New Mexico
Oil Conservation Commission

LAND COMMISSIONER
E. S. JOHNNY WALKER
MEMBER



STATE GEOLOGIST
A. L. PORTER, JR.
SECRETARY - DIRECTOR

P. O. BOX 871
SANTA FE

December 28, 1962

Re: Case No. 2715

Order No. 2-2401

Mr. Richard S. Morris
Seth, Montgomery, Federici & Andrews Applicants
Attorneys at Law
Post Office Box 828
Santa Fe, New Mexico

~~Shell Oil Company~~

Dear Sirs:

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

Very truly yours,

A handwritten signature in cursive script that reads "A. L. Porter, Jr.".

A. L. PORTER, Jr.
Secretary-Director

lr/

Carbon copy of order also sent to:

Hobbs OCC

Artesia OCC

Aztec OCC

OTHER Mr. Bob Black (Texaco, Inc.)

GOVERNOR
JACK M. CAMPBELL
CHAIRMAN

State of New Mexico
Oil Conservation Commission



LAND COMMISSIONER
GUYTON B. HAYS
MEMBER

P. O. BOX 2088
SANTA FE

STATE GEOLOGIST
A. L. PORTER, JR.
SECRETARY - DIRECTOR

January 20, 1965

Mr. Sumner Buell
Seth, Montgomery, Federici & Andrews
Attorneys at Law
Post Office Box 2307
Santa Fe, New Mexico

Re: Case No. 2715
Order No. R-2401-A
Applicant: R-2839-A
SHELL OIL COMPANY

Dear Sir:

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

Very truly yours,

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

ir/

Carbon copy of order also sent to:

Hobbs OCC x

Artesia OCC R-2839-A

Aztec OCC

OTHER

BEFORE THE OIL CONSERVATION COMMISSION
OF THE STATE OF NEW MEXICO

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

CASE No. 2715
Order No. R-2401-A

APPLICATION OF SHELL OIL COMPANY
FOR THE ESTABLISHMENT OF SPECIAL
RULES AND REGULATIONS FOR THE
CUSTER-ELLENBURGER GAS POOL, LEA
COUNTY, NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 o'clock a.m. on January 6, 1965, at Santa Fe, New Mexico, before Examiner Daniel S. Nutter.

NOW, on this 20th day of January, 1965, 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 by Order No. R-2401, dated December 28, 1962, temporary Special Rules and Regulations were promulgated for the Custer-Ellenburger Gas Pool, Lea County, New Mexico.

(3) That pursuant to the provisions of Order No. R-2401, this case was reopened to allow the operators in the subject pool to appear and show cause why the Custer-Ellenburger Gas Pool should not be developed on 160-acre gas proration units.

(4) That since the issuance of Order No. R-2401, the Commission has amended Rule 104 of the Statewide Rules and Regulations to permit the dedication of 320 acres to a gas well in Lea, Chaves, Eddy, and Roosevelt Counties, New Mexico, projected to or completed in the Pennsylvanian formation or a deeper formation.

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CASE No. 2715

Order No. R-2401-A

(5) That to prevent the economic loss caused by the drilling of unnecessary wells, to avoid the augmentation of risk arising from the drilling of an excessive number of wells, to prevent reduced recovery which might result from the drilling of too few wells, and to otherwise prevent waste and protect correlative rights, the Special Rules and Regulations promulgated by Order No. R-2401 should be continued in full force and effect until further order of the Commission.

IT IS THEREFORE ORDERED:

(1) That the Special Rules and Regulations governing the Custer-Ellenburger Gas Pool promulgated by Order No. R-2401 are hereby continued in full force and effect until further order of the Commission.

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

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

STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION


Jack M. Campbell
JACK M. CAMPBELL, Chairman

Guyton B. Hays
GUYTON B. HAYS, Member

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

esr/

No. 36-62

DOCKET: EXAMINER HEARING - THURSDAY - DECEMBER 6, 1962

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, as Alternate Examiner:

- CASE 2711: Application of Gulf Oil Corporation for compulsory pooling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks an order force pooling all mineral interests in the Blinebry Gas Pool underlying the SE/4 of Section 23, Township 22 South, Range 37 East, Lea County, New Mexico.
- CASE 2712: Application of The Capitan Corporation for a waterflood project, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks authority to inject water into the Grayburg-San Andres formations through seven wells located in Section 17, Township 18 South, Range 28 East, Artesia Pool, Eddy County, New Mexico.
- CASE 2713: Application of Sunray DX Oil Company to make up underproduction, Lea County, New Mexico. Applicant, in the above-styled cause, seeks permission to make up 3,431 barrels of underproduction incurred on its U. D. Sawyer lease, Crossroads Pool, Lea County, New Mexico, which underproduction occurred as the result of mechanical failure and lease shut-down while installing certain equipment.
- CASE 2714: Application of Texaco Inc. for a dual completion, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to complete its M. B. Weir "B" Well No. 7, located in Unit M of Section 12, Township 20 South, Range 37 East, as a dual completion (tubingless) to produce gas from an undesignated Tubb pool and oil from the Skaggs Drinkard Oil Pool, Lea County, New Mexico, through parallel strings of 2 7/8 inch casing cemented in a common well bore.
- CASE 2715: Application of Shell Oil Company for the establishment of special rules and regulations, Lea County, New Mexico. Applicant, in the above-styled cause, seeks the establishment of special rules and regulations in the Custer-Ellenburger Gas Pool, Township 24 South, Range 36 East, Lea County, New Mexico, including a provision establishing 320-acre spacing units in said pool.

- CASE 2716: Application of Markham, Cone & Redfern for a multiple completion, Lea County, New Mexico. Applicant, in the above-styled cause, seeks an order authorizing the multiple completion of its Eubanks Well No. 3, located in Unit K, Section 14, Township 21 South, Range 37 East, Lea County, New Mexico, in such a manner as to produce a limited amount of gas from the Blinebry Gas Pool, oil from the Blinebry Oil Pool and oil from each of two pays in the Drinkard Pool. Separation of the four zones would be achieved by means of three packers.
- CASE 2717: Application of Consolidated Oil & Gas, Inc. for an unorthodox location, Rio Arriba County, New Mexico. Applicant, in the above-styled cause, seeks approval of an unorthodox location for its Champlin Well No. 2-35, located 1800 feet from the South line and 1680 feet from the East line of Section 35, Township 27 North, Range 4 West, Rio Arriba County, New Mexico. Said Well is proposed as a Pictured Cliffs Blanco Mesaverde dual completion and is off-pattern for the Blanco Mesaverde Gas Pool.
- CASE 2718: Application of Continental Oil Company for approval of a supplemental cooperative repressuring agreement, a plan of operation for gas and water injection, certain administrative procedures, and permission to produce more than 16 wells into a single tank battery, Maljamar Cooperative Area, Maljamar Pool, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for the continued operation of the Maljamar Cooperative Repressuring Area under the Maljamar Cooperative Agreement including the allowable provisions thereof, subject to the provisions of the 5th Supplemental and Amendatory Agreement to said Cooperative Agreement. Said 5th Supplemental Agreement, among other things, provides for the unitization of all oil and gas produced from the Grayburg-San Andres formations underlying the Participating Area defined therein. Applicant further seeks approval of an initial plan of operation under said agreement and approval of an administrative procedure for future expansions of the injection area and participating area, conversion of additional wells for injection purposes, and for transfer of allowables within the participating area. Applicant further seeks authority to produce more than 16 wells into a single tank battery.

-3-

Docket No. 36-62

- CASE 2719: Application of Shell Oil Company for a unit agreement, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval of its Antelope Ridge Unit Area, comprising 3840 acres, more or less, of Federal, State and Fee lands in Townships 23 and 24 South, Range 34 East, Lea County, New Mexico.
- CASE 2720: Application of Tenneco Oil Company for special rules and regulations governing wells in the Double-X Delaware Pool, Lea County, New Mexico. Applicant, in the above-styled cause, seeks the promulgation of special rules governing the production of oil and gas wells in the Double-X Delaware Pool, Lea County, New Mexico, including classification of wells as gas wells when the gas-liquid hydrocarbon ratio exceeds 30,000 to one.

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WESTERN UNION

TELEGRAM

W. P. MARSHALL, PRESIDENT

SYMBOLS

DL=Day Letter
NL=Night Letter
LT=International Letter Telegram

1201 (4-60)

The filing time shown in the date line on domestic telegrams is LOCAL TIME at point of origin. Time of receipt is LOCAL TIME at point of destination

LA037 DB049 LB102

L HBA008 PD=HOBBS NMEX 4 832A MST=
NEW MEXICO OIL CONSERVATION COMMISSION=
BOX 871 SANTA FE NMEX=

ATTN A L PORTER JR: CITIES SERVICE PETROLEUM COMPANY
RECOMMENDS APPROVAL OF SPECIAL RULES FOR THE CUSTER
ELLENBERGER GAS POOL LEA COUNTY NEW MEXICO PROPOSED BY
SHELL OIL COMPANY IN CASE #2715=

D D BODIE

THE COMPANY WILL APPRECIATE SUGGESTIONS FROM ITS PATRONS CONCERNING ITS SERVICE

CLASS OF SERVICE

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WESTERN UNION

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D MDA173 PD=FAX MIDLAND TEX 3 416P CST=
A L PORTER JR, NEW MEXICO OIL CONSERVATION COMM=
STATE LAND OFFICE BLDG SANTA FE NMEX=

IN REFERENCE TO CASE 2715 SCHEDULED FOR HEARING ON
DECEMBER 6, 1962, HUMBLE OIL & REFINING COMPANY AS A
PARTICIPANT IN THE JALMAT DEEP UNIT ENDORSES SHELL OIL
COMPANY'S PROPOSED RULES FOR 320 ACRE SPACING IN THE
CUSTER ELLENBURGER GAS POOL, LEA COUNTY, NEW MEXICO=
R R MCCARTY BY HENRY E MEADOWS=

=2715 6 1962 320=

THE COMPANY WILL APPRECIATE SUGGESTIONS FROM ITS PATRONS CONCERNING ITS SERVICE

BEFORE THE OIL CONSERVATION
COMMISSION OF NEW MEXICO

APPLICATION OF SHELL OIL COMPANY
FOR THE ESTABLISHMENT OF SPECIAL
RULES AND REGULATIONS, LEA
COUNTY, NEW MEXICO.

No. 2715

APPLICATION

Comes now Shell Oil Company and applies to the Oil Conservation Commission of New Mexico for the establishment of special rules and regulations in the Custer-Ellenburger Gas Pool, and in support of its application states:

1. That the Custer-Ellenburger Gas Pool was established by O.C.C. order No. R-1824 dated November 21, 1960. At the present time this pool comprises the NW/4 of Section 36, Township 24 South, Range 36 East, Lea County, New Mexico.

2. That the applicant seeks the establishment of special rules and regulations in the Custer-Ellenburger Gas Pool including a provision establishing 320 acre spacing units in the pool. A copy of the proposed pool rules is attached to this application as Exhibit "A".

WHEREFORE, the applicant requests that this matter be set for hearing before one of the commission's examiners on December 6, 1962 and that an order be entered granting this application.

SETH, MONTGOMERY, FEDERICK & ANDREWS

By

Richard S. Morris
Attorneys for Shell Oil Company

RECEIVED
NOV 20 A.M.
SETH & MONTGOMERY

PROPOSED FIELD RULES
CUSTER ELLENBURGER GAS POOL
LEA COUNTY, NEW MEXICO

Rule 1. Each well completed or recompleted in the Ellenburger formation within one mile of the boundary of the Custer Ellenburger Gas Pool and not nearer to nor within the boundaries of another designated Ellenburger gas pool, shall be drilled, spaced, and produced in accordance with the special rules and regulations hereinafter set forth.

Rule 2. (a) Each well completed or recompleted in the Custer Ellenburger Gas Pool shall be located on a tract consisting of approximately 320 acres, which may reasonably be presumed to be productive of gas from said pool, and which shall comprise any two contiguous quarter sections of a single governmental section, being a legal subdivision (half section) of the United State Public Lands Survey. For purposes of these rules a unit consisting of between 316 and 324 surface contiguous acres shall be considered a standard unit.

(b) The Secretary-Director shall have authority to grant an exception to Rule 2 (a) without notice and hearing where an application has been filed in due form and where the unorthodox size or shape of the tract is due to a variation in the legal subdivision of the United States Public Lands Survey, or where the following facts exist and the following provisions are complied with:

(1) The non-standard unit consists of contiguous quarter-quarter sections or lots.

(2) The entire unit may reasonably be presumed to be productive of gas from the Custer Ellenburger Gas Pool.

(3) That the applicant presents written consent in the form of waivers from all offset operators and from all operators owning interest in the section or sections in which any part of the non-standard unit is situated and which acreage is not included in said non-standard unit.

(4) In lieu of Paragraph (3) of this rule, the applicant may furnish proof of the fact that all of the aforesaid operators were notified by registered mail of his intent to form such non-standard unit. The Secretary-Director may approve the application if, after a period of 20 days no such operator has entered an objection to the formation of such non-standard unit.

Exhibit A

Rule 3. (a) Each well completed or recompleted in the Custer Ellenburger Gas Pool shall be located no nearer than 660 feet to the outer boundary of the quarter section nor nearer than 330 feet to any governmental quarter-quarter section line.

(b) The Secretary-Director shall have authority to grant exceptions to Rule 3 (a) without notice and hearing where an application has been filed in due form and the necessity for the unorthodox location is based on topographical conditions or is occasioned by the recompletion of a well previously drilled to another horizon.

Applicants shall furnish all offset operators and all operators within the section in which the subject well is located a copy of the application to the Commission and shall stipulate to the Commission that proper notice has been furnished to all such operators. The Secretary-Director may approve the application if, after a period of 20 days, no offset operator has entered an objection to the proposed unorthodox location.

BEFORE THE
NEW MEXICO OIL CONSERVATION COMMISSION
Santa Fe, New Mexico
January 6, 1965

EXAMINER HEARING

IN THE MATTER OF:

IN THE MATTER OF CASE NUMBER 2715 BEING RE-
OPENED PURSUANT TO THE PROVISIONS OF ORDER
NUMBER R-2401, WHICH ORDER ESTABLISHED
TEMPORARY 320-ACRE GAS PRORATION UNITS FOR
THE CUSTER-ELLENBURGER POOL, LEA COUNTY,
NEW MEXICO, FOR A PERIOD OF TWO YEARS

Case No. 2715
(Reopened)

BEFORE:

DANIEL S. NUTTER

TRANSCRIPT OF HEARING

DEARNLEY-MEIER REPORTING SERVICE, Inc.

FARMINGTON, N. M.
PHONE 325-1162

SANTA FE, N. M.
PHONE 983-3971

ALBUQUERQUE, N. M.
PHONE 243-6691

MR. NUTTER: The hearing will come to order. We will call the next case, Case Number 2715.

MR. DURRETT: In the matter of Case Number 2715 being reopened pursuant to the provisions of Order Number R-2401.

MR. BUEHL: Mr. Examiner, I am Sumner Buehl of Seth, Montgomery, Federici & Andrews, representing Shell Oil Company. Shell's position in this is that they would like an extension for an indefinite period of time with the 320-acre spacing, in light of the recent amendment to Rule 104, since the Custer-Ellenburger Pool is lower than Pennsylvanian age. If there is no opposition to continuance of the 320-acre spacing we will leave it at that; otherwise, we have testimony, if the Commission is interested.

MR. NUTTER: Is there an objection to taking Case Number 2715 under advisement, with the recommendation that this commercial pool be developed on 320-acre spacing? ... If not, we will take the case under advisement.

* * *

MR. NUTTER: I would like to re-open the last case and make a notation that we received a telegram from Iris Goldston in the estate of L. W. Goldston, supporting the extension of the 320-acre spacing; a telegram from Texaco, Inc., concurring with Shell Oil Company; a telegram from Phillips Petroleum Company in favor of indefinite extension of the 320-

dearnley-meier reporting service, inc.

SPECIALIZING IN: DEPOSITIONS, HEARINGS, STATEMENTS, EXPERT TESTIMONY, DAILY COPY, CONVENTIONS

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PAGE 3

acre spacing; a telegram from E. F. Motter, Division Engineer with City Service, supporting indefinitely continuing the 320-acre spacing; a letter from Sinclair Oil and Gas Company concurring with Shell Oil; a letter from Humble Oil and Refining Company concurring with Shell; a letter from Continental Oil Company supporting Shell; a letter from Mobile Oil Company supporting Shell. These are--that was Case Number 2715.

* * *

STATE OF NEW MEXICO)
COUNTY OF BERNALILLO) ss

I, Elizabeth K. Hale, Notary Public and Court Reporter, do hereby certify that the proceedings in Case Number 2715 were taken and transcribed by me, and that the foregoing is a true and correct transcript of proceedings to the best of my knowledge, skill and ability.

IN WITNESS WHEREOF, my hand and seal of office this 16th day of January, 1965.

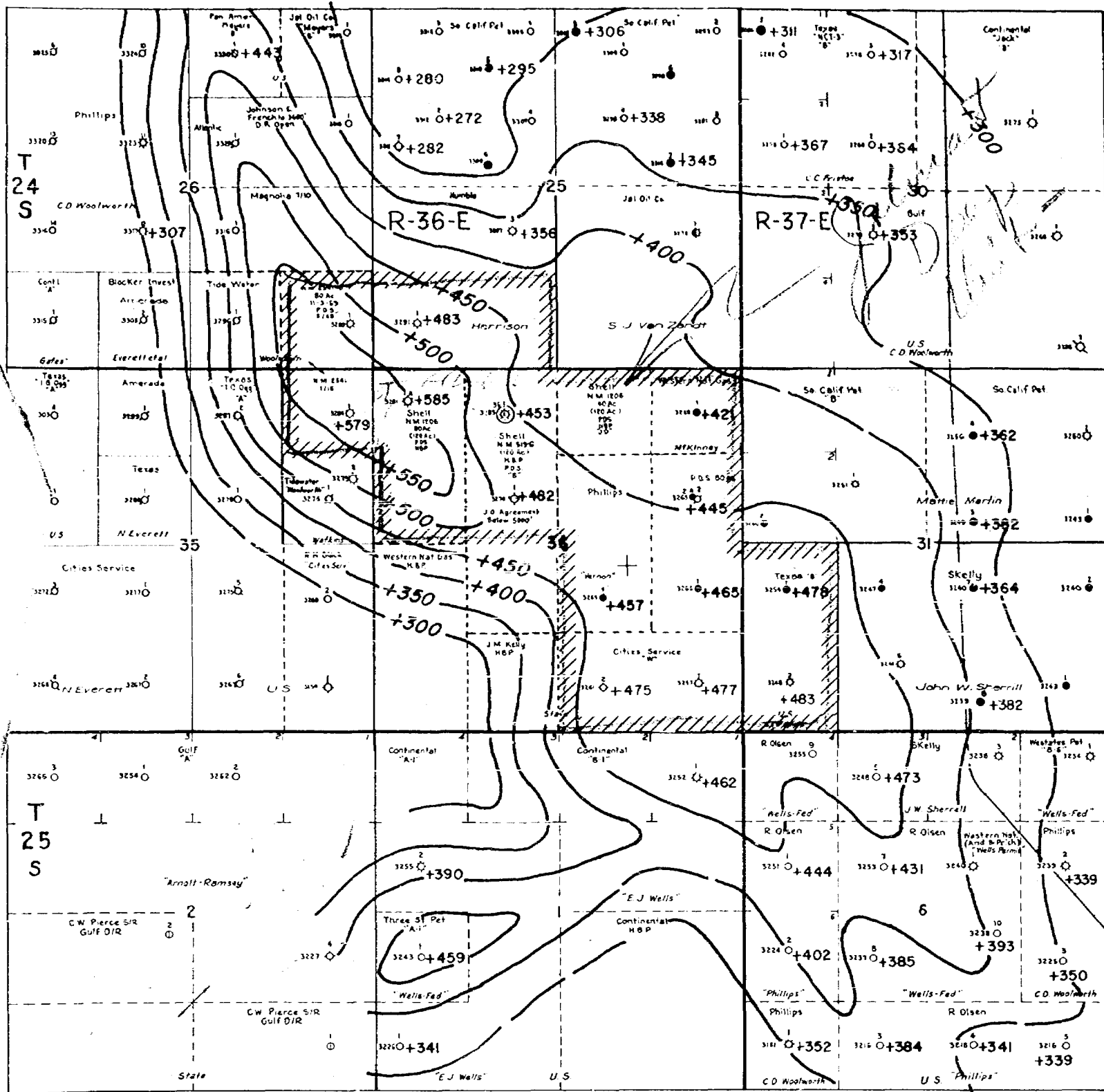
Elizabeth K. Hale
Notary Public

My commission expires
May 23, 1968.

I hereby certify that the foregoing is a complete record of the proceedings in, the Examiner hearing of Case No. 2715, heard by me on 1/6, 1965.

John J. [Signature], Examiner
New Mexico Oil Conservation Commission

SHELL OIL COMPANY
CUSTER ELLENBURGER GAS POOL
LEA COUNTY, NEW MEXICO
LOCATION PLAT



Structure contours on
top of Yates

BEFORE EXAMINER NUTTER
FELIX CONSERVATION COMMISSION
APPEAL EXHIBIT NO. 1
CASE NO. 2715

Scale in feet

NMOCC Case No. 2715
Exhibit No. 1
Date: Dec. 6, 1962

SHELL OIL COMPANY
CUSTER ELLENBURGER GAS POOL
WELL COMPLETION AND RESERVOIR DATA
STATE B-36 NO. 1

Completion Data

Formation	Ellenburger			
Total Depth	12,966			
Top Ellenburger	12,725 (-9440)			
Completion Date	7-5-60			
Completion Interval	12,730-12,890			
Treatment	6,760 Gallons Acid			
Calculated AOP	61.5 MMCF 530 Bbls. Condensate			
Test Data	1	2	3	4
S.I. Pressure	4,250	3,261	5,887	7,714
Flow Rate MCF/Day	2,246	4,175	4,025	3,945
Tubing Pressure	4,196	14/64	16/64	18/64
Choke Size	12/64	0.59		
Gas Gravity		57° API		
Condensate Gravity				

Reservoir Properties*

Porosity	4.5%
Permeability	6.3 md
Water Saturation	35%
Net Pay	100 Feet
Reservoir Temperature	187° F
Original Reservoir Pressure	5512 psi
Probable Drive Mechanism	Gas Expansion

*Determined from electric log and pressure data.

BEFORE EXAMINER NUTTER

RE CO. VATION COMMISSION

EXHIBIT NO. 2

CASE NO. 2715

NMOCC Case No.:

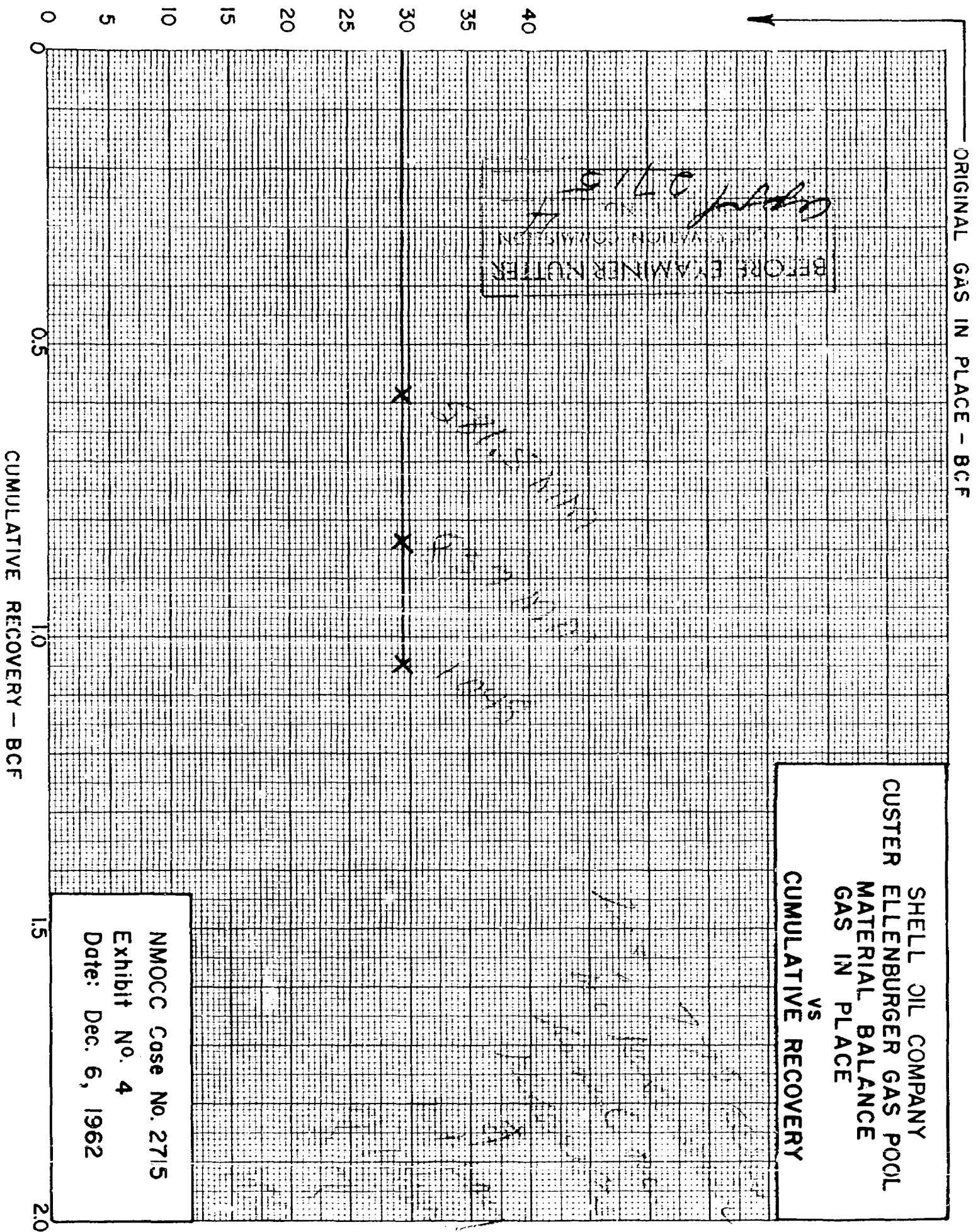
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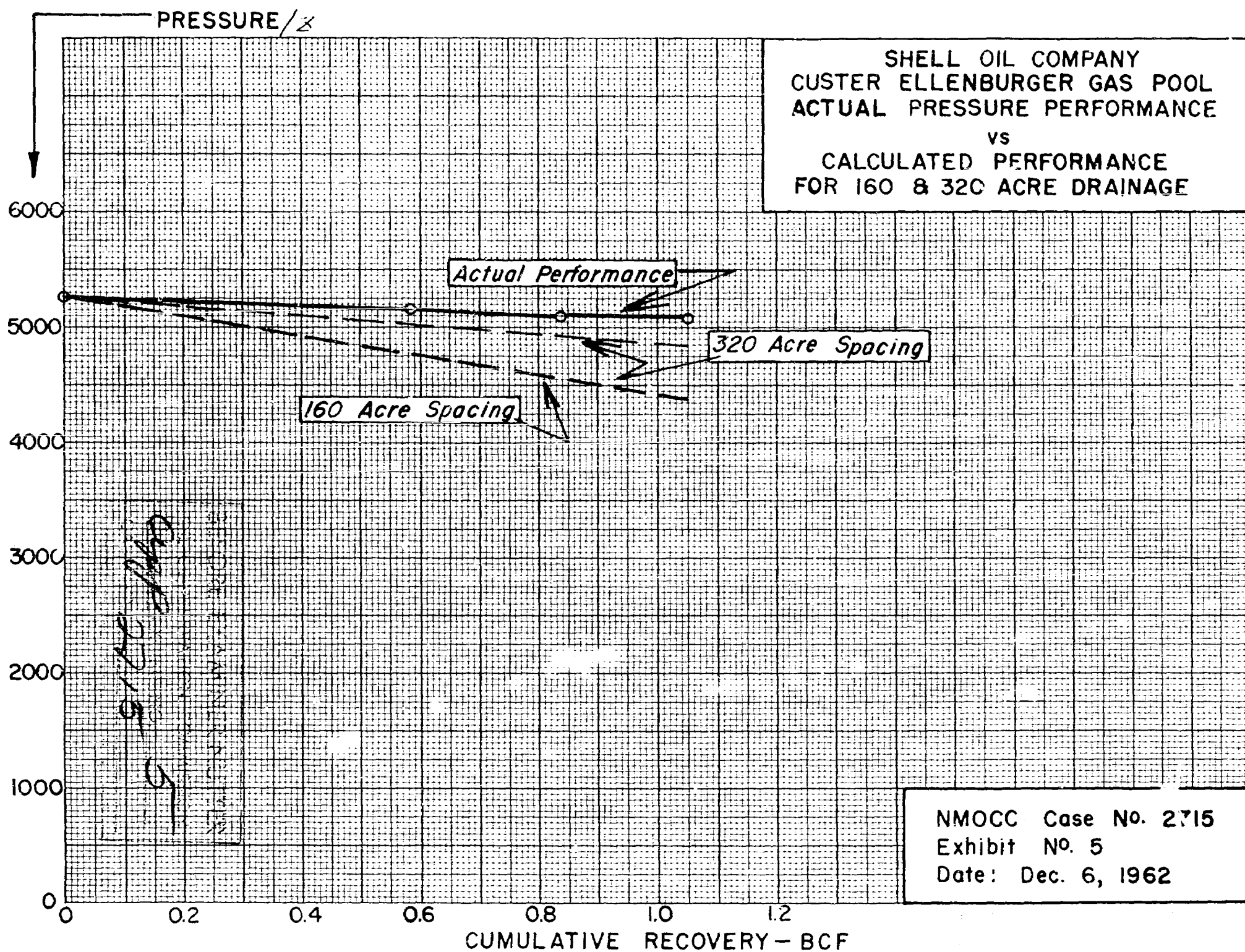
Exhibit No.:

2

Date:

December 6, 1962





SHELL OIL COMPANY
CUSTER ELLENBURGER GAS POOL
ECONOMICS FOR 160 AND 320 ACRE
WELL SPACING

1. Cost and Income Data

Operating Net Income per MMCF

Gas Price \$/MMCF	160.00
Liquid/Gas Ratio Over Life bbls/MMCF	4
Condensate Income \$/MMCF	10.92
Gross Income \$/MMCF	170.92

Royalty \$/MMCF	21.35
Production and Property Taxes \$/MMCF	10.46
Overhead \$/MMCF	7.73
Subtotal	39.54
Operating Net Income \$/MMCF	131.38

Well Cost \$326,000

2. 160 Acre Spacing

Reserves	4,250 MMCF
Life	13 years
Income	\$558,000
Direct Operating Cost	\$23,000
Profit	\$209,000
Profit Discounted @ 6%	\$48,000
Per Cent Profit Discounted @ 6%	14.7%

3. 320-Acre Spacing

Reserves	8,500 MMCF
Life	13 years
Income	\$1,116,000
Direct Operating Cost	23,000
Profit	767,000
Profit Discounted @ 6%	439,000
Per Cent Profit Discounted @ 6%	135%

BEFORE EXAMINER NUTTER
 OR CONSERVATION COMMISSION
 CASE NO. 2715
 EXHIBIT NO. 6

NMOCC Case No: 2715
 Exhibit No: 6
 Date: December 6, 1962

PROPOSED FIELD RULES
CUSTER ELLENBURGER GAS POOL
LEA COUNTY, NEW MEXICO

Rule 1. Each well completed or recompleted in the Ellenburger formation within one mile of the boundary of the Custer Ellenburger Gas Pool and not nearer to nor within the boundaries of another designated Ellenburger gas pool, shall be drilled, spaced, and produced in accordance with the special rules and regulations hereinafter set forth.

Rule 2. (a) Each well completed or recompleted in the Custer Ellenburger Gas Pool shall be located on a tract consisting of approximately 320 acres, ~~which~~ may reasonably be presumed to be productive of gas from said pool, and which shall comprise any two contiguous quarter sections of a single governmental section, being a legal subdivision (half section) of the United States Public Lands Survey. For purposes of these rules a unit consisting of between 316 and 324 surface contiguous acres shall be considered a standard unit.

(b) The Secretary-Director shall have authority to grant an exception to Rule 2 (a) without notice and hearing where an application has been filed in due form and where the unorthodox size or shape of the tract is due to a variation in the legal subdivision of the United States Public Lands Survey, or ~~where~~ where the following facts exist, and the following provisions are complied with:

(1) The non-standard unit consists of contiguous quarter-quarter sections or lots. *(no more than 1/4 section)*

(2) The entire unit may reasonably be presumed to be productive of gas from the Custer Ellenburger Gas Pool.

(3) ~~That~~ The applicant presents written consent in the form of waivers from all offset operators and from all operators owning interest in the section or sections in which any part of the non-standard unit is situated and which acreage is not included in said non-standard unit.

(4) In lieu of Paragraph (3) of this rule, the applicant may furnish proof of the fact that all of the aforesaid operators were notified by registered mail of his intent to form such non-standard unit. The Secretary-Director may approve the application if, after a period of ~~20 days~~ *30 days* no such operator has entered an objection to the formation of such non-standard unit.

BEFORE EXAMINER NUTTER	
OIL CONSERVATION COMMISSION	
EXHIBIT NO.	<u>7</u>
CASE NO.	<u>2715</u>

Rule 3. (a) Each well completed or recompleted in the Custer Ellenburger Gas Pool shall be located no nearer than 660 feet to the outer boundary of the 2 quarter section nor nearer than 330 feet to any governmental quarter-quarter section line.

(b) The Secretary-Director shall have authority to grant exceptions to Rule 3 (a) without notice and hearing where an application has been filed in due form and the necessity for the unorthodox location is based on topographical conditions or is occasioned by the recompletion of a well previously drilled to another horizon.

Applicants shall furnish all offset operators and all operators within the section in which the subject well is located a copy of the application to the Commission and shall stipulate to the Commission that proper notice has been furnished to all such operators. The Secretary-Director may approve the application if, after a period of 20 days, no offset operator has entered an objection to the proposed unorthodox location.

BEFORE EXAMINER NUTTER	
OIL CONSERVATION COMMISSION	
EXHIBIT NO.	7
CASE NO.	

NMOCC Case No: 2715
Exhibit No: 7
Date: December 6, 1962

ALPUQUERQUE, N. M.
PHONE 243-6691

EXAMINER HEARING

Application of Shell Oil Company for the establishment of special rules and regulations, Lea County, New Mexico. Applicant, in the above-styled cause, seeks the establishment of special rules and regulations in the Custer-Ellenburger Gas Pool, Township 24 South, Range 36 East, Lea County, New Mexico, including a provision establishing 320-acre spacing units in said pool.

CASE 2715

BEFORE: Daniel S. Nutter, Examiner

TRANSCRIPT OF HEARING

MR. NUTTER: We will call Case 2715.

MR. DURRETT: Application of Shell Oil Company for the establishment of special rules and regulations, Lea County, New Mexico.

MR. MORRIS: Mr. Examiner, I'm Richard Morris of Seth, Montgomery, Federici and Andrews, Santa Fe, New Mexico, appearing on behalf of Shell Oil Company in this case. We will have one witness.

(Witness sworn.)

(Whereupon, Applicant's Exhibits Nos. 1 through 7 marked for identification.)

DANA STOKES

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

DIRECT EXAMINATION

BY MR. MORRIS:

Q Mr. Stokes, please state your name and position.

A My name is Dana Stokes. I am employed by Shell Oil Company as a Senior Reservoir Engineer in their Roswell office.

Q Have you previously testified before this Commission, Mr. Stokes?

A Yes, I have.

Q What does Shell Oil Company seek by the application in Case 2715?

A We're making application for an order establishing field rules for the Custer-Ellenburger Gas Pool. These rules are to include 320-acre standard drilling units.

Q Have you prepared a plat of the area of this pool which has been marked as Exhibit 1 in this case?

A Yes. Exhibit 1 is a plat of the Custer area. It shows the Jalmat Deep Unit outlined by hashers, and it shows our structural interpretation at Yates level. This unit was put together for the purpose of drilling an exploratory well based on the shallow structure that was present there. We drilled the well and found that the shallow structure did reflect the deeper structure, and obtained production in the Ellenburger. When we finished drilling



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PAGE 4

the well, we ran a dip meter survey. This dip meter survey indicated that the structure at Ellenburger level had shifted somewhat to the east of the structure shown on our plat here. With the one well control, we are not able to present a structure on the Ellenburger.

Q Referring to what has been marked as Exhibit No. 2, Mr. Stokes, would you explain what's shown on that exhibit?

A Exhibit 2 shows a completion and reservoir data for State B-36 No. 1, which is the only well in the pool. This well was drilled during the middle part of 1960. It was drilled to total depth at 12,966 feet. We ran several drillstem tests in the Ellenburger zone during the drilling of this well, and established a water level at approximately 12,890 feet. We cemented 5-1/2 inch casing at 12,965 feet and perforated the Ellenburger from 12,730 to 12,860 feet. After acidizing with 6,670 gallons of acid, the well was potentialized for 61.5 million cubic feet and 530 barrels of condensate per day.

This is based on the test data that is shown on this Exhibit 2. We also show the reservoir properties for this well. These properties were determined from electrical log analysis and pressure buildup data. We determined porosity and the net feet of pay from sonic logs and neutron logs. The water saturation of 35 percent was determined from the induction log and we used the slope of pressure buildup curves that are shown on Exhibit 3 to calculate the permeability of 6.3 millidarcys.



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PAGE 5

Q Referring to that Exhibit No. 3, would you explain that in some detail, Mr. Stokes?

A Yes. At the top of Exhibit 3 are shown the test data for the bottom hole pressure measurements that have been run in this well. Our one on the initial completion showed an initial pressure of 5560 pounds. That on the graph is shown as curve number one. This curve is a plot of the pressure points versus dimension, with shutin time, which is determined by dividing the cumulative recovery at the time this well was shut in by the rate immediately prior to shutin. The pressure is plotted, the over delta, the plus one, and the delta; it is the length of time shut in.

I have noted on this curve the hours of shutin time that correspond to the various points. This curve has then been extrapolated to infinity shutin time, which gives the original reservoir pressure. The slope of this curve is related to permeability and to producing rate to the viscosity of the oil or gas, as the case may be. Since we know the producing rate and the viscosity and the expansion factor we can then calculate the permeability.

Each succeeding curve then shows the data for various pressure tests. You'll note that on each test, the pressure has declined somewhat until on this test number four, after production of a little over a billion cubic feet of gas, the pressure has dropped approximately 313 pounds.

Q Referring now to what has been marked Exhibit No. 4,



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PAGE 6

will you explain that?

A On Exhibit 4 is shown the results of the material balance calculations, using the pressure data from Exhibit 3. The three points shown on this graph reflect calculations made of cumulative recoveries of 581 million cubic feet, 837 million, and a billion 48. In each case, the material balance calculation showed the original gas in place to be approximately 29.1 billion cubic feet.

MR. NUTTER: What is the point of the production at the first point?

A That was 500.85 million. These data are also shown on Exhibit 2 at the top of the chart, or Exhibit 3, rather. This calculation of original gas in place indicates that the reservoir is being produced by gas expansion, since if there had been any water encroachment into the reservoir, it would have been reflected by an increased calculation of gas in place at each point. The calculations did not show this.

Now, we've assumed that the pay thickness in the State B-36 No. 1, which is 100 feet, represents average thickness throughout this reservoir, and on that basis, the amount of gas in place would be underlying 778 acres. The reservoir is quite small.

Q (By Mr. Morris) Do you have any information available, Mr. Stokes, concerning the area which you believe this one well to be draining in this pool?

A Well, I have Exhibit No. 5, which is a plot of pressure



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PAGE 7

divided by "Z" factor, for the actual performance of this well and for the calculated performance if the well were draining only 320 acres or 160 acres. As you can see, the actual well performance shows considerably less pressure decline than would have been expected if the well were draining only 320 acres. This is a plot of "P" over "Z" so the difference of 250 pounds roughly would actually be, say, in the order of 280 pounds multiplied by the "Z" factor. If the well were draining only 160 acres, the pressure drop should have been even more significant.

I believe that the calculations shown here prove that the well is capable of draining the entire reservoir, and is certainly draining in excess of 320 acres.

Q Have you prepared as an exhibit an analysis of the economics in this reservoir on 160 and 320-acre spacing?

A Yes. Exhibit 6 presents our economic analysis of the profit that would be obtained from wells drilled on 160 and 320 acre spacing. Under item number one at the top of this exhibit, we show the cost and income data with a gas price of \$160 per million cubic feet. Liquid gas ratio of the life of four barrels per million, the value of the condensate per million cubic feet then being \$10.92, for a total value of a million cubic feet of gas at \$170.92. The deduction for royalty, production, taxes and overhead amounts to \$39.54, leaving a net of \$131.38 per million cubic feet.

Our well cost on State B-36 No. 1 was \$326,000. I have



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calculated reserves for 160 and 320-acre spacing, based on volumetric data shown on Exhibit 2. Assuming a 71 percent recovery efficiency, which is equivalent to an abandonment pressure of 1500 pounds, on that basis the reserves for 160 acres would be 4,250,000 or 4,250,000 million cubic feet. This would be depleted over the life of thirteen years and would yield an income of \$558,000, and with direct operating costs deducted of \$23,000, deducted from that, you would have a profit of \$209,000. This profit discounted at six percent would amount to \$48,000 and would give a profit to investment ratio of only 14.7 percent, or .147 discounted at six percent.

On 320 acres we would have 8,500,000,000 reserves. It would deplete over the same life because of the difference in allowable. Our income would then be \$1,116,000 with a direct operating cost of \$23,000, return of profit of \$767,000. This profit discounted at six percent would be \$439,000 and would give us a profit to investment ratio of 1.35 or 135 percent. We feel that this exhibit shows that 160-acre spacing would not be economically justifiable.

Q Mr. Stokes, what conclusions can you draw from the information that you have presented to the Examiner with respect to the ability of one well to efficiently drain a given number of acres?

A Well, it's my opinion that the data we've presented here shows that a well will effectively drain more than 320 acres.



Based on the information we have, development on any spacing less than 320 would not be economically justified.

Q Are you prepared to recommend to the Commission and to the Examiner some proposed field rules for the Custer-Ellenburger Pool?

A Yes. We have a set of proposed field rules listed as Exhibit 7. These rules are standard rules for 320-acre gas units, with the exception of a provision for administrative approval of non-standard units.

Q Exactly in what way is your proposal for approval of non-standard units exceptional?

A Well, it provides for non-standard units that cross section lines. I believe that's the only difference in these field rules and the standard set of field rules.

Q Referring to that Exhibit 7, is the provision that you are referring to to be found under Rule 2, Subparagraph B, subparagraph (1)?

A Yes, that's correct.

Q And would you read that provision?

A That provision (1) there, "The non-standard unit consists of contiguous quarter-quarter sections or lots."

Q In a normal or standard provision for administrative approval, how would that particular provision read?

A That would read, "lying within a single governmental section."



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Q If I understand the way these rules would work, Mr. Stokes, under Rule 2, a standard section would be 320 acres, would be a half section, being all within a single governmental section?

A Yes, that's correct.

Q Then administrative approval could be obtained under your proposed rules for a non-standard unit which might or might not cross a section line?

A That's correct.

Q And your rules include the standard provisions for giving notice to all offset operators and operators within any section within which the non-standard unit would lie, and would give them the opportunity to object to the formation of the proposed non-standard unit?

A Yes, that's correct.

Q If any such offset operator or operator within either section should object to the formation of the proposed unit, what would happen at that point?

A We would have to schedule a hearing to attempt to obtain our non-standard unit through normal channels.

Q So the effect of the proposed rules would be merely to afford to any operator the right to establish a non-standard unit which might cross a section line if, but only if, no objection were received to the proposed unit?

A That's correct.

Q If, under your proposal, units should be established



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which might cross section lines, would orderly development of the pool in any way be disrupted?

A No, I don't believe so. I think the small size of this reservoir -- because of the small size of this reservoir these rules would actually promote orderly development.

Q Would you amplify upon that answer, Mr. Stokes? Just in what way do you believe that your proposed rules would promote orderly development?

A Well, this is a very small reservoir and it trends in a northwest-southeast direction so that the productive limits do not lie within a single governmental section. I believe that in order to put together a proration unit consisting of 320 acres in a single section, it would result in the inclusion of quite a bit of unproductive acreage. This would cause delay in getting a well drilled, I believe, because no one with the productive acreage would be too interested in including non-productive acreage within the standard unit.

Q In your opinion, Mr. Stokes, what will be the effect of the granting of this application, including the rules that you have proposed?

A Well, in my opinion, the granting of this application will prevent waste in the form of unnecessary drilling, and will protect correlative rights through inclusion of a maximum possible amount of productive acreage in each drilling unit, or gas proration unit.



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

A No, that's all.

Q Were Exhibits 1 through 7 prepared by you or under your direction?

A Yes, they were.

MR. MORRIS: We move the introduction of Shell's Exhibits 1 through 7, and that concludes the direct examination of Mr. Stokes.

MR. NUTTER: Shell's Exhibits 1 through 7 will be admitted in evidence.

(Whereupon, Applicant's Exhibits 1 through 7 admitted in evidence.)

MR. NUTTER: Does anyone have any questions of Mr. Stokes?

MR. DURRETT: Yes, sir, I have a question.

CROSS EXAMINATION

BY MR. DURRETT:

Q Mr. Stokes, referring to your Exhibit No. 7 which is the proposed field rules, specifically Rule 2-B (4), the last paragraph on the page, requires a 20-day waiting period before granting a non-standard proration unit.

A Yes, sir.

Q Would you have any objection to a 30-day period, if the Commission would determine that this was more desirable?

A No, sir.



MR. DURRETT: That's all I have.

BY MR. NUTTER:

Q Is the Jalmat Deep Unit still in existence?

A Yes. It is an operating unit; all of the partners in this unit participated in the drilling of the first well and share in its production.

Q So that in effect the participating area for this B-36 No. 1 is the limit of the unit?

A So far as the operation is concerned; it is not unitized as to royalty.

Q I see. Now presuming that the Commission adopts the 320-acre spacing that you've asked for here for proration units, and also this opportunity to obtain a non-standard unit crossing a section line, how would the acreage be dedicated to the B-36 No. 1?

A B-36 No. 1 would be in a standard unit, being the North Half of Section 36.

Q It would be the standard unit?

A Yes, sir.

Q Is it anticipated by the operators of the Jalmat Deep Unit that a second well will be drilled here?

A Well, certainly not under present conditions where we have 160-acre allowable. If we are successful in obtaining 320-acre spacing, we will then have to evaluate whether or not we can drill another well within the unit, or we would certainly drill to meet competitive locations outside the unit area.



Q There wouldn't be another 320-acre unit left in the unit area, however, would there?

A No, sir. It would require pooling.

Q Of unitized acreage with non unitized acreage?

A Yes.

Q When was the well actually connected, Mr. Stokes?

A July, 1960.

Q What's the cumulative production to date?

A The last production I have on it is that October figure of a billion, 48 million.

Q That was October of 1962?

A Yes, sir.

Q Now your 13-year depletion that you figured for your computation of reserves and profit, is that based on the rate of production that the well has had from July of 1960 to October of '62?

A No, sir. If this well had to drain the entire reservoir and were to produce at the rate it's produced since completion, it would take 64 years to deplete it. This 13-year life is based on full development either on 160-acre spacing or 320, as the case may be, and on an allowable of 897,000 cubic feet per day for 160-acre spacing, and twice that for 320. This is our contract basis.

Q What was that exact amount of acreage that you said you computed?

A 778.



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Q So the 13-year depletion would be based not on this one well but on full development?

A Full development, yes, sir.

Q Of 778 acres?

A Yes, sir.

MR. NUTTER: Are there any further questions of Mr. Stokes? He may be excused.

(Witness excused.)

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

MR. MORRIS: No, sir.

MR. NUTTER: Does anyone have anything they wish to offer in Case 2715? Mr. Black.

MR. BLACK: C. R. Black, Texaco Inc. Texaco owns 10.5 percent of the Jalmat Deep Unit. We had been advised by Shell of the proposed rules and had an opportunity to study the rules. We are in agreement with their proposals and urge that the Commission adopt the rules as proposed by Shell.

MR. NUTTER: Thank you.

MR. DURRETT: May the Examiner please, I have several pieces of correspondence in the Commission's official file which I would like to read into the record at this time.

First is a telegram from Humble Oil and Refining Company which reads as follows: "In reference to Case 2715 scheduled for hearing on December 6, 1962, Humble Oil and Refining Company as a participant in the Jalmat Deep Unit endorses Shell Oil Company's



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proposed rules for 320-acre spacing in the Custer-Ellenburger Gas Pool, Lea County, New Mexico." That's signed R. R. McCarty by Henry E. Meadows.

Also have a telegram from Cities Service Petroleum Company which reads as follows: "Cities Service Petroleum Company recommends approval of special rules for the Custer-Ellenburger Gas Pool, Lea County, New Mexico, proposed by Shell Oil Company in Case 2715." That is signed D. D. Bodie.

I also have a letter from Mobil Oil Company received on December 6th, which reads as follows: "Socony Mobil Oil Company, Inc., as owner of a portion of the working interest of the Jalmat Deep Unit, concurs with the field rules proposed by Shell Oil Company for the Custer-Ellenburger Gas Pool in Case 2715." That letter is signed by Glenn W. Barb.

MR. NUTTER: Anything further? We will take the case under advisement.

* * * * *



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STATE OF NEW MEXICO)
COUNTY OF BERNALILLO) ss

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 Proceedings 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.

WITNESS my Hand and Seal this 17th day of December, 1962, in the City of Albuquerque, County of Bernalillo, State of New Mexico.

Ada Dearnley
NOTARY PUBLIC

My Commission Expires:
June 19, 1963.

I do hereby certify that the foregoing is a complete record of the proceedings in the Examination of the 2715 heard by me on December 62

[Signature] Examiner
New Mexico Oil Conservation Commission

