

CASE 3709: Application of KERR-
McGEE CORPORATION for pool rules
for the AKAH NEZ-DEVONIAN POOL.

Continued
March 1st

Case No.

3709

Application, Transcript,
Small Exhibits, Etc.

Docket No. 1-72

DOCKET: EXAMINER HEARING - WEDNESDAY - JANUARY 5, 1972

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 4621: (Continued from the November 10, 1971 Examiner Hearing)
Application of Jack L. McClellan for a dual completion,
Chaves County, New Mexico. Applicant, in the above-
styled cause, seeks approval for the dual completion
(conventional) of his Bar-J Federal Well No. 1 located
in Unit E of Section 15, Township 6 South, Range 27 East,
Chaves County, New Mexico, in such a manner as to produce
oil from an undesignated Siluro-Devonian pool through
tubing and gas from the Haystack-Cisco Gas Pool through
the casing-tubing annulus.

CASE 4609: (Continued from the November 17, 1971 Examiner Hearing)
Application of Jack L. McClellan for a unit agreement,
Chaves County, New Mexico. Applicant, in the above-
styled cause, seeks approval of the Sulimar-Queen Unit
Area comprising 1520 acres, more or less, of Federal lands
in Sections 13, 23, 24, 25, and 26 of Township 15 South,
Range 29 East, and Sections 18 and 19 of Township 15 South,
Range 30 East, Chaves County, New Mexico.

CASE 4482: (Reopened):
In the matter of Case 4482 being reopened pursuant to the
provisions of Order No. R-4093, which order established
160-acre spacing units and established a maximum gas-oil
ratio limitation of 3,000 cubic feet of gas for each barrel
of oil produced for the Parkway-Strawn Pool, Eddy County,
New Mexico. All interested parties may appear and show
cause why said pool should not be developed on 40-acre
or 80-acre spacing units and why the limiting gas-oil
ratio should not revert to the statewide limit of 2,000
to one.

CASE 3709 (Reopened):
In the matter of Case 3709 being reopened pursuant to the
provisions of Order No. R-3366-B, which order continued
80-acre spacing for the Akah Nez-Devonian Oil Pool, San
Juan County, New Mexico, for an additional one-year period.
All interested persons may appear and show cause why said
pool should not be developed on 40-acre spacing units.

CASE 4638: Application of Holder Petroleum Corporation for downhole

(Case 4638 continued)

and surface commingling, Roosevelt County, New Mexico. Applicant, in the above-styled cause, seeks authority to commingle production from the Todd Lower-San Andres Pool and the Todd Upper-San Andres Gas Pool in the wellbores of its BA Wells Nos. 1 and 2, located respectively, in Units A and H of Section 34, Township 7 South, Range 35 East, Roosevelt County, New Mexico. Applicant further seeks authority to commingle, on the surface, production from said wells prior to measurement.

- CASE 4639: Application of Great Western Drilling Company to directionally drill, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to drill out its State Well No. 1, having a surface location 330 feet from the North and East lines of Section 17, Township 16 South, Range 35 East, Townsend-Morrow Gas Pool, Lea County, New Mexico, to a depth of approximately 8,000 feet and whipstock the well in a southwesterly direction to a bottom-hole location within the NE/4 of said Section 17 at a depth of approximately 11,800 feet.
- CASE 4640: Application of Amoco Production Company for special pool rules, Lea County, New Mexico. Applicant, in the above-styled cause, seeks the promulgation of special rules for the East Gem-Yates Pool, Lea County, New Mexico, including a provision for 80-acre spacing and proration units.
- CASE 4641: Application of Reserve Oil and Gas Company for a waterflood expansion, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to expand its South Langlie Jal Unit Jalmat Waterflood Project, Jalmat Oil Pool, by the conversion of water injection of its Unit Well No. 23, located 2310 feet from the South and West lines of Section 17, Township 25 South, Range 37 East, Lea County, New Mexico.
- CASE 4642: Application of Fluid Power Pump Company for special pool rules and a pressure maintenance project, Sandoval County, New Mexico. Applicant, in the above-styled cause, seeks the promulgation of special rules for the Media-Entrada Pool, including a provision for 160-acre spacing and proration units. Applicant further seeks authority to institute a pressure maintenance project in said pool by the injection of water into the Entrada formation through various wells located in Sections 10, 11, 22, and 23 of Township 19 North, Range 3 West, Sandoval County, New Mexico, and promulgation of rules for said project including a procedure whereby additional injection or production wells at orthodox or unorthodox locations may be approved administratively.

CASE 4643: Application of Cities Service Oil Company for compulsory pooling and unorthodox gas well location, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the Morrow formation underlying the N/2 of Section 19, Township 22 South, Range 27 East, South Carlsbad-Morrow Gas Pool, Eddy County, New Mexico, to form a standard 320-acre proration unit for the production of gas from the Morrow formation with said unit to be dedicated to a well to be drilled at an unorthodox location 2173 feet from the North line and 1200 feet from the East line of said Section 19.

CASE 4644: Application of Continental Oil Company for four non-standard gas proration units and rededication of acreage, Lea County New Mexico. Applicant, in the above-styled cause, seeks the rededication of acreage and the establishment of the following-described non-standard gas proration units for wells on its Meyer A-29 Lease in Section 29, Township 22 South, Range 36 East, Jalmat Gas Pool, Lea County, New Mexico.

1. A 240-acre unit comprising the SE/4 and E/2 SW/4 to be dedicated to Well No. 3 in Unit N;
2. An 80-acre unit comprising the W/2 SW/4 to be dedicated to Well No. 4 in Unit L;
3. An 80-acre unit comprising the E/2 NE/4 to be dedicated to Well No. 5 in Unit A;
4. A 240-acre unit comprising the NW/4 and W/2 NE/4 to be dedicated to Well No. 9 in Unit E.

CASE 4563: (Continued from the December 1, 1971, Examiner Hearing) Application of Corrinne Grace for special gas-oil ratio limitation and pressure maintenance project, Chaves County, New Mexico. Applicant, in the above-styled cause, seeks authority to produce her State Well No. 1 located in Unit A of Section 1, Township 15 South, Range 29 East, Double L-Queen Pool, Chaves County, New Mexico, with no gas-oil ratio limitation, strip the liquids, and institute a pressure maintenance project by the injection of all said gas back into the producing formation through her State Well No. 2 located in Unit B of said Section 1, Applicant further seeks to transfer an oil allowable from said Well No. 2 to said Well No. 1.

CASE 4619: (Continued from the December 1, 1971, Examiner Hearing)

Application of Corinne Grace for compulsory pooling, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests from the surface of the ground down to and including the Morrow formation underlying the N/2 of Section 25, Township 22 South, Range 26 East, which acreage is within one mile of the South Carlsbad-Morrow Gas Pool, Eddy County, New Mexico. Said acreage to be dedicated to a well to be drilled to the Morrow formation at a location 1980 feet from the North and East lines of said Section 25. Also to be considered will be the costs of drilling said well, a charge for the risk involved, a provision for the allocation of actual operating costs, and the establishment of charges of supervision of said well.

CASE 4620: (Continued from the December 1, 1971, Examiner Hearing)

Application of Corinne Grace for compulsory pooling, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests from the surface of the ground down to and including the Morrow formation underlying the N/2 of Section 24, Township 22 South, Range 26 East, which acreage is in the vicinity of the South Carlsbad-Morrow Gas Pool, Eddy County, New Mexico. Said acreage to be dedicated to a well to be drilled to the Morrow formation at a location 1980 feet from the North and East lines of said Section 24. Also to be considered will be the costs of drilling said well, a charge for the risk involved, a provision for the allocation of actual operating costs, and the establishment of charges for supervision of said well.

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. 3709
Order No. R-3366-C

APPLICATION OF KERR-McGEE CORPORATION
FOR SPECIAL POOL RULES, SAN JUAN COUNTY,
NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on March 1, 1972,
at Santa Fe, New Mexico, before Examiner Richard L. Stamets.

NOW, on this 7th day of March, 1972, the Commission, a
quorum being present, having considered the record and the recom-
mendations 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-3366, dated January 22, 1968,
temporary Special Rules and Regulations were promulgated for the
Akah Nez-Devonian Oil Pool, San Juan County, New Mexico, estab-
lishing 80-acre spacing units.

(3) That pursuant to the provisions of Order No. R-3366-B,
this case was reopened to allow the operators in the subject
pool to appear and show cause why the Akah Nez-Devonian Oil Pool
should not be developed on 40-acre spacing units.

(4) That no operator in the subject pool appeared to show
cause why the Akah Nez-Devonian Oil Pool should not be developed
on 40-acre spacing units.

(5) That it is not anticipated that additional wells will
be drilled in the subject pool.

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CASE No. 3709

Order No. R-3366-C

(6) That the operators in the subject pool have not established that one well can efficiently and economically drain and develop 80 acres.

(7) That no necessity exists for the continuation of the Special Rules and Regulations promulgated by Order No. R-3366 and that said rules should therefore be abolished.

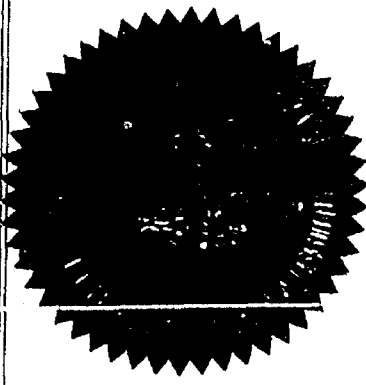
IT IS THEREFORE ORDERED:

(1) That the Special Rules and Regulations governing the Akah Nez-Devonian Oil Pool, San Juan County, New Mexico, promulgated by Orders Nos. R-3366, R-3366-A, and R-3366-B, are hereby abolished.

(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


Bruce King
BRUCE KING, Chairman

Alex J. Armiijo
ALEX J. ARMIJO, Member

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

esr/



OIL CONSERVATION COMMISSION

STATE OF NEW MEXICO
P. O. BOX 2088 - SANTA FE
87501

GOVERNOR
BRUCE KING
CHAIRMAN

**LAND COMMISSIONER
ALEX J. ARMIJO
MEMBER**

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

March 8, 1972

Re: Case No. 3709

Order No. R-3366-C

Applicant:

Kerr-McGee

Mr. Richard S. Morris
Montgomery, Federici, Andrews,
Hannahs & Morris
Attorneys at Law
Post Office Box 2307
Santa Fe, New Mexico

Dear Sir:

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

Very truly yours,

A. L. Porter, Jr.

A. L. PORTER, Jr.
Secretary-Director

ALP/ir

Copy of order also sent to:

Hobbs OCC **x**

Artesia OCC

Aztec OCC **x**

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. 3709
Order No. R-3366-B

APPLICATION OF KERR-McGEE CORPORATION
FOR SPECIAL POOL RULES, SAN JUAN COUNTY,
NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on January 6, 1971,
at Santa Fe, New Mexico, before Examiner Daniel S. Nutter.

NOW, on this 15th day of January, 1971, 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-3366, dated January 22, 1968,
temporary Special Rules and Regulations were promulgated for the
Akah Nez-Devonian Oil Pool, San Juan County, New Mexico.

(3) That by Order No. R-3366-A, dated January 13, 1969,
said temporary Special Rules and Regulations were continued in
full force and effect for an additional two-year period.

(4) That pursuant to the provisions of Order No. R-3366-A,
this case was reopened to allow the operators in the subject pool
to appear and show cause why the Akah Nez-Devonian Oil Pool
should not be developed on 40-acre spacing units.

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CASE No. 3709

Order No. R-3366-B

(5) That the evidence establishes that said temporary pool rules for the Akah Nez-Devonian Oil Pool should be continued in effect for an additional one-year period.

(6) That the Special Rules and Regulations promulgated by Orders Nos. R-3366 and R-3366-A have afforded and will afford to the owner of each property in the pool the opportunity to produce his just and equitable share of the oil in the pool.

(7) That in order 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 Orders Nos. R-3366 and R-3366-A should be continued in full force and effect for an additional one-year period.

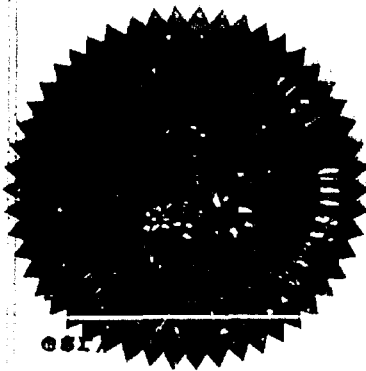
IT IS THEREFORE ORDERED:

(1) That the Special Rules and Regulations governing the Akah Nez-Devonian Oil Pool, San Juan County, New Mexico, promulgated by Orders Nos. R-3366 and R-3366-A, are hereby continued in full force and effect for an additional one-year period.

(2) That this case shall be reopened at an examiner hearing in January, 1972, at which time the operators in the subject pool may appear and show cause why the Akah Nez-Devonian Oil Pool should not be developed on 40-acre spacing units.

(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.



STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION

Bruce King
BRUCE KING, Chairman

Alex J. Arriaga
ALEX J. ARRIAGA, Member

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

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. 3709
Order No. R-3366-A

APPLICATION OF KERR-McGEE CORPORATION
FOR SPECIAL POOL RULES, SAN JUAN COUNTY,
NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on January 8, 1969, at Santa Fe, New Mexico, before Examiner Daniel S. Nutter.

NOW, on this 13th day of January, 1969, the Commission, a quorum being present, having considered the testimony, the record, and the recommendations of the Examiner, and being fully advised in the premises,

FINDS:

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

(2) That by Order No. R-3366, dated January 22, 1968, temporary Special Rules and Regulations were promulgated for the Akah Nez-Devonian Oil Pool, San Juan County, New Mexico.

(3) That pursuant to the provisions of Order No. R-3366, this case was reopened to allow the operators in the subject pool to appear and show cause why the Akah Nez-Devonian Oil Pool should not be developed on 40-acre spacing units.

(4) That the evidence establishes that the temporary pool rules for the Akah Nez-Devonian Oil Pool should be continued in effect for an additional two-year period.

(5) That the Special Rules and Regulations promulgated by Order No. R-3366 have afforded and will afford to the owner of

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CASE No. 3709

Order No. R-3366-A

each property in the pool the opportunity to produce his just and equitable share of the oil in the pool.

(6) That in order 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-3366 should be continued in full force and effect for an additional two years.

IT IS THEREFORE ORDERED:

(1) That the Special Rules and Regulations governing the Akah Nez-Devonian Oil Pool, promulgated by Order No. R-3366, are hereby continued in full force and effect for an additional two years.

(2) That this case shall be reopened at an examiner hearing in January, 1971, at which time the operators in the subject pool may appear and show cause why the Akah Nez-Devonian Oil Pool should not be developed on 40-acre spacing units.

(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.

STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION


DAVID F. CARGO, Chairman


ALEX J. ARMILLO, Member


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


esr/

BEFORE THE OIL CONSERVATION COMMISSION
OF THE STATE OF NEW MEXICO

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

CASE No. 3709
Order No. R-3366

APPLICATION OF KERR-McGEE CORPORATION
FOR SPECIAL POOL RULES, SAN JUAN COUNTY,
NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on January 10, 1968, at Santa Fe, New Mexico, before Examiner Elvis A. Utz.

NOW, on this 22nd day of January, 1968, the Commission, a quorum being present, having considered the testimony, the record, and the recommendations of the Examiner, and being fully advised in the premises,

FINDS:

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

(2) That the applicant, Kerr-McGee Corporation, seeks the promulgation of special rules and regulations for the Akah Nez-Devonian Oil Pool, San Juan County, New Mexico, including a provision for 80-acre spacing units.

(3) That in order 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, temporary special rules and regulations providing for 80-acre spacing units should be promulgated for the Akah Nez-Devonian Oil Pool.

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CASE No. 3709

Order No. R-3366

(4) That the temporary special rules and regulations should be established for a period of one year in order to allow the operators in the subject pool to gather reservoir information to establish the area that can be efficiently and economically drained and developed by one well.

(5) That this case should be reopened at an examiner hearing in January, 1969, at which time the operators in the subject pool should be prepared to appear and show cause why the Akah Nez-Devonian Oil Pool should not be developed on 40-acre spacing units.

IT IS THEREFORE ORDERED:

That temporary Special Rules and Regulations for the Akah Nez-Devonian Oil Pool, San Juan County, New Mexico, are hereby promulgated as follows:

SPECIAL RULES AND REGULATIONS
FOR THE
AKAH NEZ-DEVONIAN OIL POOL

RULE 1. Each well completed or recompleted in the Akah Nez-Devonian Oil Pool or in the Devonian formation within one mile thereof, and not nearer to or within the limits of another designated Devonian oil pool, shall be spaced, drilled, operated, and produced in accordance with the Special Rules and Regulations hereinafter set forth.

RULE 2. Each well shall be located on a standard unit containing 80 acres, more or less, consisting of the N/2, S/2, E/2, or W/2 of a quarter section; provided, however, that nothing contained herein shall be construed as prohibiting the drilling of a well on each of the quarter-quarter sections in the unit.

RULE 3. The Secretary-Director of the Commission may grant an exception to the requirements of Rule 2 without notice and hearing when an application has been filed for a non-standard unit comprising a quarter-quarter section or lot or the unorthodox size or shape of the tract is due to a variation in the subdivision of the survey. All operators offsetting the proposed non-standard unit shall be notified of the application by registered or certified mail, and the application shall state that such notice has been furnished.

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CASE No. 3709

Order No. R-3366

The Secretary-Director may approve the application upon receipt of written waivers from all offset operators or if no offset operator has entered an objection to the formation of the non-standard unit within 30 days after the Secretary-Director has received the application.

RULE 4. Each well shall be located no closer than 330 feet to a quarter-quarter section line.

RULE 5. The Secretary-Director may grant an exception to the requirements of Rule 4 without notice and hearing when an application has been filed for an unorthodox location necessitated by topographical conditions or the recompletion of a well previously drilled to another horizon. All operators offsetting the proposed location shall be notified of the application by registered or certified mail, and the application shall state that such notice has been furnished. The Secretary-Director may approve the application upon receipt of written waivers from all operators offsetting the proposed location or if no objection to the unorthodox location has been entered within 20 days after the Secretary-Director has received the application.

RULE 6. A standard proration unit (79 through 81 acres) shall be assigned an 80-acre proportional factor of 2.00 for allowable purposes, and in the event there is more than one well on an 80-acre proration unit, the operator may produce the allowable assigned to the unit from the wells on the unit in any proportion.

The allowable assigned to a non-standard proration unit shall bear the same ratio to a standard allowable as the acreage in such non-standard unit bears to 80 acres.

IT IS FURTHER ORDERED:

(1) That the locations of all wells presently drilling to or completed in the Akah Nez-Devonian Oil Pool or in the Devonian formation within one mile thereof are hereby approved; that the operator of any well having an unorthodox location shall notify the Aztec District Office of the Commission in writing of the name and location of the well on or before February 1, 1968.

(2) That each well presently drilling to or completed in the Akah Nez-Devonian Oil Pool or in the Devonian formation within

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CASE No. 3709

Order No. R-3366

one mile thereof shall receive a 40-acre allowable until a Form C-102 dedicating 80 acres to the well has been filed with the Commission.


(3) That this case shall be reopened at an examiner hearing in January, 1969, at which time the operators in the subject pool may appear and show cause why the Akah Nez-Devonian Oil Pool should not be developed on 40-acre spacing units.

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

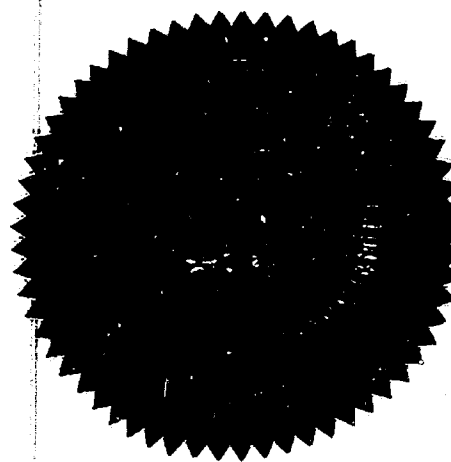
DONE at Santa Fe, New Mexico, on the day and year hereinabove designated.

STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION


DAVID F. CARGO, Chairman


GORTON B. HAYS, Member


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



esr/

State of New Mexico
Oil Conservation Commission



P. O. BOX 2085
SANTA FE

Date 10-22-70

Date 12-21-77

Docket No. 5-72

DOCKET: EXAMINER HEARING - WEDNESDAY - MARCH 1, 1972

9 A.M. - OIL CONSERVATION COMMISSION CONFERENCE ROOM,
STATE LAND OFFICE BUILDING - SANTA FE, NEW MEXICO

The following cases will be heard before Richard L. Stamets, Examiner, or Daniel S. Nutter, Alternate Examiner:

- CASE 4668: In the matter of the hearing called by the Oil Conservation Commission on its own motion to consider instituting gas prorationing in the South Carlsbad-Morrow and South Carlsbad-Strawn Gas Pools, Eddy County, New Mexico. The Commission will consider limiting gas production from the South Carlsbad-Morrow and South Carlsbad-Strawn Gas Pools in Eddy County, New Mexico, to reasonable market demand and to the capacity of gas transportation facilities. The Commission will also consider methods for allocating the allowable production among the gas wells in the pools.
- CASE 4563: (Continued from the February 2, 1972 Examiner Hearing)
Application of Corinne Grace for special gas-oil ratio limitation and pressure maintenance project, Chaves County, New Mexico. Applicant, in the above-styled cause seeks authority to produce her State Well No. 1 located in Unit A of Section 1, Township 15 South, Range 29 East, Double L-Queen Pool, Chaves County, New Mexico, with no gas-oil ratio limitation, strip the liquids, and institute a pressure maintenance project by the injection of all said gas back into the producing formation through her State Well No. 2 located in Unit B of said Section 1. Applicant further seeks to transfer an oil allowable from said Well No. 2 to said Well No. 1.
- CASE 4619: (Continued from the February 2, 1972, Examiner Hearing)
Application of Corinne Grace for compulsory pooling, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests from the surface of the ground down to and including the Morrow formation underlying the N/2 of Section 25, Township 22 South, Range 26 East, which acreage is within one mile of the South Carlsbad-Morrow Gas Pool, Eddy County, New Mexico. Said acreage to be dedicated to a well to be drilled to the Morrow formation at a location 1980 feet from the North and East lines of said Section 25. Also to be considered will be the costs of drilling said well, a charge for the risk involved, a provision for the allocation of actual operating costs, and the establishment of charges or supervision of said well.
- CASE 4620: (Continued from the February 2, 1972, Examiner Hearing)
Application of Corinne Grace for compulsory pooling, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests from the surface of the ground down to and including the

(Case 4620 continued)

Morrow formation underlying the N/2 of Section 24, Township 22 South, Range 26 East, which acreage is in the vicinity of the South Carlsbad-Morrow Gas Pool, Eddy County, New Mexico. Said acreage to be dedicated to a well to be drilled to the Morrow formation at a location 1980 feet from the North and East lines of said Section 24. Also to be considered will be the costs of drilling said well, a charge for the risk involved, a provision for the allocation of actual operating costs, and the establishment of charges of supervision of said well.

CASE 3709: (Continued from the January 5, 1972, Examiner Hearing)
(Reopened)

In the matter of Case 3709 being reopened pursuant to the provisions of Order No. R-3366-B, which order continued 80-acre spacing for the Akah Nez-Devonian Oil Pool, San Juan County, New Mexico, for an additional one-year period. All interested persons may appear and show cause why said pool should not be developed on 40-acre spacing units.

CASE 4669: In the matter of the hearing called by the Oil Conservation Commission on its own motion to permit El Paso Natural Gas Company to appear and show cause why it should not take immediate action to repair each of the five following dual completions in such a manner as to prevent communication between zones in the well-bores:

San Juan 27-4 Unit #30
N-32-27N-4W, Rio Arriba

San Juan 27-5 Unit #31
A-24-27N-5W, Rio Arriba

Bolack C #14
B-30-27N-8W, San Juan

Huerfano Unit #60
M-4-26N-9W, San Juan

Allison Unit #17
K-24-32N-7W, San Juan

- CASE 4674: Application of Hanagan Petroleum Corporation for an unorthodox gas well location, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks approval of an unorthodox gas well location for its Millman Deep Well No. 1 located 660 feet from the North line and 1924 feet from the East line of Section 4, Township 19 South, Range 28 East, undesignated Morrow gas pool, Eddy County, New Mexico, with the E/2 of said Section 4, to be dedicated to the well.
- CASE 4670: Application of BTA Oil Producers for a special gas-oil ratio limitation, Lea County, New Mexico. Applicant, in the above-styled cause, seeks as an exception to Rule 506 of the Commission Rules and Regulations, a limiting gas-oil ratio of 10,000 cubic feet of gas per barrel of oil for the Vada-Pennsylvanian Pool, Lea County, New Mexico.
- CASE 4671: Application of V. F. Vasicek and J. M. Fullinwider, dba V-F Petroleum for compulsory pooling, Lea County, New Mexico. Applicants, in the above-styled cause, seek an order pooling all mineral interests from the surface of the ground down to and including the Wolfcamp formation underlying the SE/4 SW/4 of Section 1, Township 15 South, Range 36 East, Lea County, New Mexico, to form a standard oil proration unit to be dedicated to a well to be drilled at a standard location on said unit. Also to be considered will be the costs of drilling said well, a charge for the risk involved, a provision for the allocation of actual operating costs, and the establishment of charges for supervision of said well.
- CASE 4672: Application of Paul M. Mershon, Jr., and Vincent Shryack for compulsory pooling, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests from the surface of the ground down to and including the Morrow formation underlying the W/2 of Section 15, Township 17 South, Range 29 East, Grayburg-Morrow Gas Pool, Eddy County, New Mexico, to form a standard 320-acre unit for the production of gas to be dedicated to a well to be drilled at a standard location for said unit. Also to be considered will be the costs of drilling said well, a charge for the risk

Examiner Hearing - March 1, 1972

-4-

Docket No. 5-72

(Case 4672 continued)

involved, a provision for the allocation of actual operating costs, and the establishment of charges for supervision of said well.

CASE 4508: (Reopened)

In the matter of Case 4508 being reopened pursuant to the provisions of Order No. R-4117, which order established special rules and regulations for the Warren-Devonian Pool, Lea County, New Mexico, including a provision for 80-acre spacing units. All interested persons may appear and show cause why said pool should not be developed on 40-acre spacing units.

CASE 4673: Application of Fluid Power Pump Company for two non-standard oil proration units, Sandoval County, New Mexico. Applicant, in the above-styled cause, seeks approval for two 160-acre non-standard oil proration units in Township 19 North, Range 3 West, Media-Entrada Oil Pool, Sandoval County, New Mexico, said units comprising acreage as follows:

1. S/2 NW/4 and N/2 SW/4 of Section 14
2. S/2 NE/4 and N/2 SE/4 of Section 15

DOCKET: EXAMINER HEARING - WEDNESDAY - JANUARY 8, 1969

9 A.M. - OIL CONSERVATION COMMISSION CONFERENCE ROOM,
STATE LAND OFFICE BUILDING, SANTA FE, NEW MEXICO

The following cases will be heard before Daniel S. Nutter, Examiner, or A. L. Porter, Jr., Alternate Examiner:

CASE 4016: Application of American Trading and Production Corporation for a dual completion, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for the dual completion (conventional) of its Southeast Lea Unit Well No. 2 located in Unit L of Section 25, Township 20 South, Range 35 East, Lea County, New Mexico, in such a manner as to permit the production of gas from an undesignated Wolfeamp gas pool and gas from an undesignated Morrow gas pool through parallel strings of tubing.

CASE 3709: (Reopened)

In the matter of Case No. 3709 being reopened pursuant to the provisions of Order No. R-3366, which order established 80-acre spacing units for the Akah Nez-Devonian 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 40-acre spacing units.

CASE 4017: Application of Corinne Grace for compulsory pooling, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the Morrow formation underlying Section 8, Township 21 South, Range 24 East, North Indian Hills-Morrow Gas Pool, Eddy County, New Mexico. Said acreage to be dedicated to a well to be drilled in the SE/4 of said Section 8. Also to be considered will be the costs of drilling said well, a charge for the risk involved, a provision for the allocation of actual operating costs, and the establishment of charges for supervision of said well.

CASE 4018: Application of Solar Oil Company for a dual completion, Lea County, New Mexico. Applicant, in the above-styled cause seeks approval for the dual completion (conventional) of its Fanning "B" Well No. 1 located in Unit A of Section 33, Township 23 South, Range 37 East, Lea County, New Mexico, to produce oil from the Teague-Blinebry and undesignated Tubb-Drinkard Pools through parallel strings of tubing.

CASE 4019: Application of Sinclair Oil Corporation for salt water injection, Lea County, New Mexico. Applicant, in the above styled cause, seeks authority to inject produced salt water into the Yates formation in the perforated interval from approximately 3860 feet to 4050 feet in its Mescalero Ridge Unit Well No. 2 located in Unit B of Section 28, Township 19 South, Range 34 East, Quail Ridge-Yates Pool, Lea County, New Mexico.

CASE 4020: Application of Burk Royalty Company for salt water disposal, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to dispose of produced salt water into the Yates formation in the perforated interval from 3564 to 3585 feet in its Hanson "C" Well No. 4 located in Unit K of Section 23, Township 20 South, Range 34 East, Lynch Yates-Seven Rivers Pool, Lea County, New Mexico.

CASE 4015: (Continued from December 27, 1968, Examiner Hearing)

Application of Wilson Oil Company for salt water disposal, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to dispose of produced salt water into the Yates-Seven Rivers formations, Wilson Yates-Seven Rivers Pool, Lea County, New Mexico, through the following six wells:

TOWNSHIP 21 SOUTH, RANGE 34 EAST

Wilson State Well No. 9 located in Unit F of Section 13;

Shell State Well No. 13 located in Unit H of Section 13;

Wilson State Well No. 8 located in Unit O of Section 13;

Wilson State Well No. 20 located in Unit B of Section 23;

Wilson State Well No. 21 located in Unit J of Section 23;

TOWNSHIP 21 SOUTH, RANGE 35 EAST

Wilson State Well No. 1-A located in Unit G of Section 7;

Applicant further seeks an administrative procedure whereby other wells in said pool may be approved for disposal purposes without the requirement of notice and hearing.

CASE 4010: (Continued from December 27, 1968, Examiner Hearing)

Application of John H. Trigg for a waterflood project, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks authority to institute a waterflood project by the injection of water into the Grayburg-San Andres formations through his Empire "J" Federal Well No. 1 located in Unit P of Section 1, Township 18 South, Range 26 East, Red Lake Grayburg-San Andres Pool, Eddy County, New Mexico.

CASE 4013: (Continued from December 27, 1968, Examiner Hearing)

Application of Redfern Development Corporation and Wil-Mc Oil Corporation for salt water disposal, Lea County, New Mexico. Applicants, in the above-styled cause, seek authority to dispose of produced salt water into the San Andres formation in the interval from approximately 4042 feet to 4179 feet in the Wil-Mc State "K" Well No. 1, located in Unit O of Section 11, Township 10 South, Range 32 East, Mescalero-San Andres Pool, Lea County, New Mexico. (The above perforated interval is in lieu of the originally advertised interval from 4200 feet to 4300 feet.)

GOVERNOR
DAVID F. CARGO
CHAIRMAN

State of New Mexico
Oil Conservation Commission



LAND COMMISSIONER
GUYTON B. HAYS
MEMBER

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

P. O. BOX 2088
SANTA FE

January 22, 1968

Mr. Richard S. Morris
Montgomery, Federici & Andrews
Attorneys at Law
Post Office Box 2307
Santa Fe, New Mexico

Re: Case No. 3709
Order No. R-3366
Applicant:
KERR-McGEE CORPORATION

Dear Sir:

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, appearing to read "A. L. Porter, Jr.".

A. L. PORTER, Jr.
Secretary-Director

ALP/ir

Carbon copy of order also sent to:

Hobbs OCC X

Artesia OCC

Aztec OCC X

Other _____

DOCKET MARKED

Date 12-30-68

Case 3709.

Heard 1-10-68

Rec. 1-16-68.

Grant Ken. McSee special pool
rules for the Arkah Key - Devonian
Oil Pools as follows:

1. 80 Ac spacing.
2. 330' from boundaries of $\frac{1}{4}$ $\frac{1}{4}$.
3. Either Both $\frac{1}{4}$ $\frac{1}{4}$'s.
4. Admin. approval for W.S.L.
5. 2.0 Allow. factor.
6. 1 year temporary.

— J. H. McSee —

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

WESTERN UNION TELEGRAM

W. P. MARSHALL
CHAIRMAN OF THE BOARD

R. W. McFALL
PRESIDENT

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

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

sent

LA077 NSA417

NS FWB225 PDB=FAX FORT WORTH TEX 9 300P CST=
A L PORTER JR, SECY-DIRECTOR=
NEW MEXICO OIL CONSERVATION COMMISSION
STATE LAND OFFICE BLDG COLLEGE AVE SANTA FE NMEX=

1968 JAN 9 PM 2 36

ANADARKO PRODUCTION COMPANY OPERATOR OF OFFSETTING
LEASES, IN ALL RESPECTS SUPPORTS THE APPLICATION OF
KERR-MCGEE FOR FIELD RULES FOR AKAH NEZ DEVONIAN POOL,
T23N, R20W, SAN JUAN COUNTY, NEW MEXICO, TO BE HEARD
JANUARY 10 IN CASE NO. 3709=
ANADARKO PRODUCTION CO==

'68 JAN 9 PM 4 34

T23N R20W 10 3709(14).

IS FROM ITS PATRONS CONCERNING ITS SERVICE



UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

Drawer 1857
Roswell, New Mexico 88201

IN REPLY REFER TO:

January 9, 1968

*Letter was not read into
the record as it arrived after the hearing.*

Kerr-McGee Corporation
215 Petroleum Center Building
Farmington, New Mexico 87401

Attention: Mr. C. D. Williams

Gentlemen:

We have reviewed the application furnished by your letter of December 20, 1967 calling for the establishment of special rules and regulations for the Akah-Mez-Devonian oil pool, San Juan County, New Mexico. Based upon information furnished by the completion of your well No. 1 Navajo J in the NE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 23, T. 23 N., R. 20 W., the proposed rules and regulations provide for 80 acre well spacing and an 80 acre proration factor for allowable purposes.

This office offers no objections to the rules and regulations as proposed.

Sincerely yours,

(ORIG. SGD.) JOHN A. ANDERSON

JOHN A. ANDERSON
Regional Oil & Gas Supervisor

MAIN OFFICE

'68 JAN 10 PM

cc:
Farmington
NMOCC - Santa Fe

BEFORE THE NEW MEXICO OIL
CONSERVATION COMMISSION

APPLICATION OF KERR-McGEE CORPORATION
FOR ESTABLISHMENT OF SPECIAL RULES
AND REGULATIONS IN THE AKAH-NEZ-
DEVONIAN OIL POOL, SAN JUAN COUNTY, N.M.

Case No. 3709.

A P P L I C A T I O N

Comes now Kerr-McGee Corporation by its attorneys and applies to the New Mexico Oil Conservation Commission for an order establishing special rules and regulations governing spacing development and production in the Akah-Nez-Devonian Oil Pool, San Juan County, New Mexico, and in support of its application, states:

1. The Akah-Nez-Devonian Oil Pool was discovered in November, 1967, by Kerr-McGee Corporation's Navajo "J" No. 1 Well located 790 feet from the north line and 790 feet from the east line of Section 23, T.23 N., R. 20 W., San Juan County, New Mexico.

2. The producing formation in the said Navajo "J" No. 1 Well is the McCracken sand of Devonian age in the interval from 3,974 feet to 4,052 feet, as shown on the Schlumberger Induction-Electrical Log which is attached to this application. The perforated interval is from 3,982 feet to 4,008 feet and 4,018 feet to 4,028 feet.

3. On November 19, 1967, the said Navajo "J" No. 1 Well tested on pump 160 barrels of oil and 61.7 barrels of water with a gas-oil ratio of 109 cubic feet of gas per barrel of oil.

4. A hearing has been scheduled by the Commission for December 15, 1967, to consider the creation of a new oil pool based upon this discovery well, and designation of the pool as the Akah-Nez-Devonian Oil Pool.

5. The evidence presently available from the said Navajo "J" No. 1 Well indicates that one well in the proposed Akah-Nez-Devonian Oil Pool can efficiently and economically drain and develop an area of at least eighty acres.

6. Kerr-McGee Corporation proposes the establishment of special rules and regulations in the Akah-Nez-Devonian Oil Pool, including

DOCKET MAILED

Date 12/28/67

provisions for eighty-acre oil proration units, well spacing in either quarter-quarter section of the proration unit no closer than 330 feet to a quarter-quarter section line, an eighty-acre proportional factor for allowable purposes of 2.0, and application of the special rules and regulations to all wells within the horizontal limits of the pool, as defined by Commission order as the result of the hearing on December 15, 1967, and within one mile thereof.

7. Establishment of special rules and regulations as requested by this application will prevent waste and protect correlative rights.

8. The said Navajo "J" No. 1 Well is located upon lands owned by the Navajo Tribe of Indians, and all lands offsetting the said well likewise are owned by the Navajo Tribe of Indians. The ownership of leasehold interests in lands offsetting and in the vicinity of the said well are as shown on the plat attached to this application.

WHEREFORE, Kerr-McGee Corporation requests that the New Mexico Oil Conservation Commission set this application for hearing before the Commission or one of its examiners and that the Commission enter its order establishing special rules and regulations for the Akah-Nez-Devonian Oil Pool as requested in this application.

MONTGOMERY, FEDERICI & ANDREWS

By: Richard J. Morris
P. O. Box 2307
Santa Fe, New Mexico
Attorneys for Kerr-McGee
Corporation, Applicant

SPECIAL RULES AND REGULATIONS FOR
THE AKAH-NEZ-DEVONIAN OIL POOL

RULE 1. Each well completed or recompleted in the Akah-Nez Oil Pool or in the Devonian formation within the defined vertical limits of said pool and within one mile thereof, and not nearer to or within the limits of another designated Devonian oil pool, shall be spaced, drilled, operated, and produced in accordance with the Special Rules and Regulations hereinafter set forth.

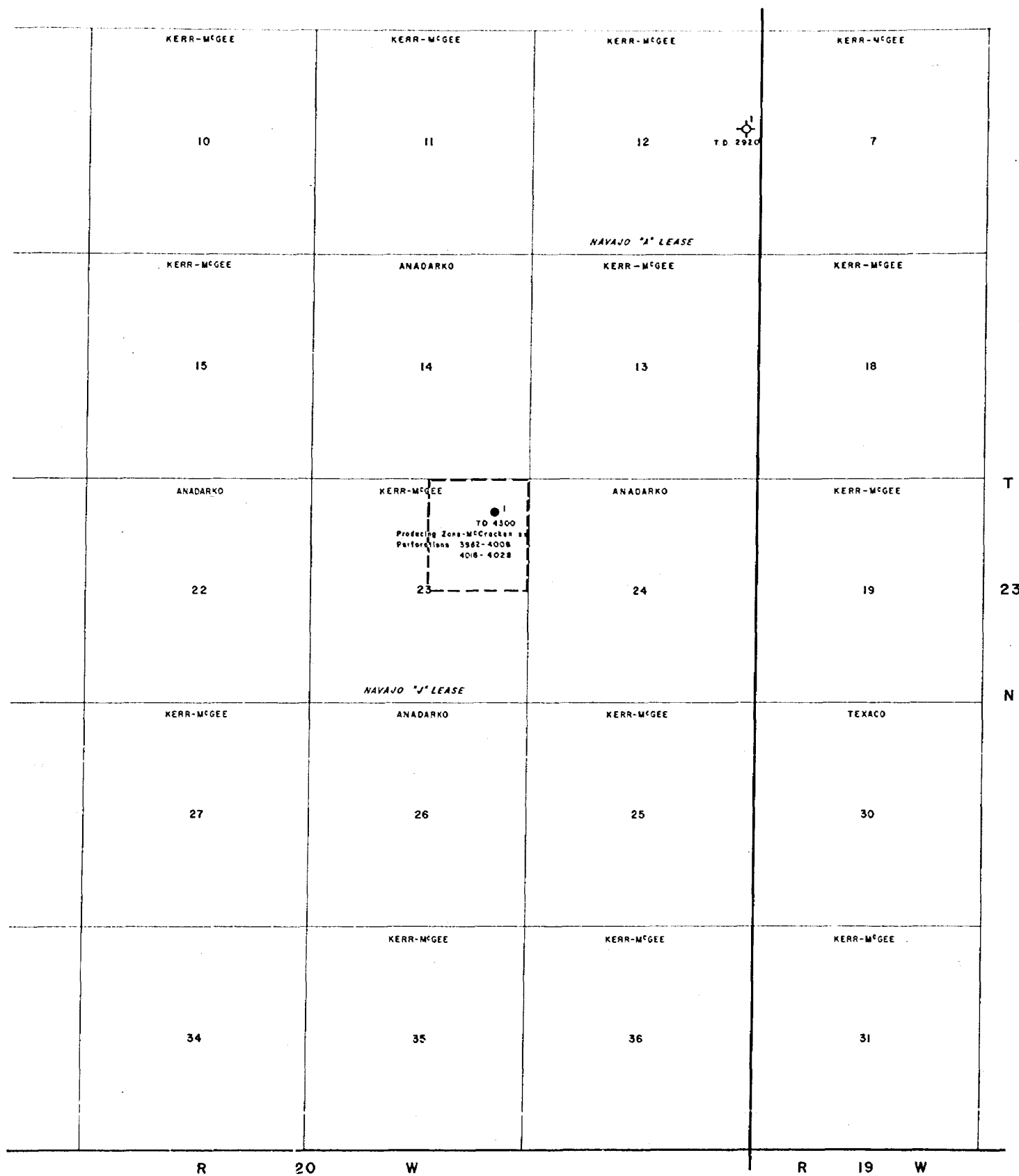
RULE 2. Each well shall be located on a standard unit containing 80 acres, more or less, consisting of the N/2, S/2, E/2, or W/2 of a governmental quarter section; provided, however, that nothing contained herein shall be construed as prohibiting the drilling of a well on each of the quarter-quarter sections in the unit.

RULE 3. The Secretary-Director of the Commission may grant an exception to the requirements of Rule 2 without notice and hearing when an application has been filed for a non-standard unit comprising a governmental quarter-quarter section or lot, or the unorthodox size or shape of the tract is due to a variation in the legal subdivision of the United States Public Land Surveys. All operators offsetting the proposed non-standard unit shall be notified of the application by registered or certified mail, and the application shall state that such notice has been furnished. The Secretary-Director may approve the application upon receipt of written waivers from all offset operators or if no offset operator has entered an objection to the formation of the non-standard unit within 30 days after the Secretary-Director has received the application.

RULE 4. Each well shall be located no closer than 330 feet to a governmental quarter-quarter section line.

RULE 5. The Secretary-Director may grant an exception to the requirements of Rule 4 without notice and hearing when an application has been filed for an unorthodox location necessitated by topographical conditions or the recompletion of a well previously drilled to another horizon. All operators offsetting the proposed location shall be notified of the application by registered or certified mail, and the application shall state that such notice has been furnished. The Secretary-Director may approve the application upon receipt of written waivers from all operators offsetting the proposed location or if no objection to the unorthodox location has been entered within 20 days after the Secretary-Director has received the application.

RULE 6. A standard proration unit (79 through 81 acres) shall be assigned an 80-acre proportional factor of 2.00 for allowable purposes, and in the event there is more than one well on an 80-acre proration unit, the operator may produce the allowable assigned to the unit from the wells on the unit in any proportion. The allowable assigned to a non-standard proration unit shall bear the same ratio to a standard allowable as the acreage in such non-standard unit bears to 80 acres.



----- Akah-Nez Devonian Oil Pool

KERR-McGEE CORPORATION	
LUKACHUKAI AREA	
San Juan Co., N. M.	
Controlled On	Control Interest
Scale 1/4"	Date 8/1

Wednesday, January 10, 1968 Examiner Hearing

Docket No. 1-68

-2-

Order No. R-3179-A, Temporary Rules, Vada-Pennsylvanian Pool, be adopted and made permanent for the above-described area or, in the alternative, that the above-described land be deleted from the Lane-Pennsylvanian and Middle-Lane Pennsylvanian Pools and the Vada-Pennsylvanian Pool be extended to include said lands therein.

CASE 3246: (Reopened)

In the matter of Case No. 3246 being reopened pursuant to the provisions of Order No. R-2935-A, which order extended special pool rules for the Mesa Queen Pool, Lea and Eddy Counties, New Mexico. All interested parties may appear and show cause why the gas-liquid ratio limitation of 5,000 cubic feet of gas per barrel of liquid hydrocarbons should not be reduced and why the special rules and regulations should not be discontinued.

CASE 3709:

Application of Kerr-McGee Corporation for special pool rules, San Juan County, New Mexico. Applicant, in the above-styled cause seeks the promulgation of special pool rules for the Akah Nez-Devonian Oil Pool, San Juan County, New Mexico, including a provision for 80-acre oil proration units.

CASE 3252 (Reopened)

In the matter of Case No. 3252 being reopened pursuant to the provisions of Order No. R-2917-A, which order extended 640-acre spacing units for the McMillan-Morrow Gas Pool, Eddy County, New Mexico, for a period of 18 months. All interested parties may appear and show cause why said pool should not be developed on 320-acre spacing units.

DOCKET: EXAMINER HEARING - WEDNESDAY - JANUARY 10, 1968
9 A.M. - OIL CONSERVATION COMMISSION CONFERENCE ROOM
STATE LAND OFFICE BUILDING, SANTA FE, NEW MEXICO

The following cases will be heard before Elvis A. Utz, Examiner, or Daniel S. Nutter, Alternate Examiner:

CASE 3690: (Continued from the November 29, 1967, Examiner Hearing)

Application of Roger C. Hanks, Ltd., for special pool rules, Lea County, New Mexico. Applicant, in the above-styled cause, seeks the promulgation of special pool rules for the Bar-U Pennsylvanian Pool, Lea County, New Mexico, including a provision for 160-acre spacing units and the establishment of 80-acre allowables for said 160-acre units.

CASE 3707: Application of William B. Barnhill for a dual completion, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for the dual completion (conventional) of his Keohane Well No. 1 located in Unit N of Section 6, Township 20 South, Range 38 East, Lea County, New Mexico, to produce oil from the Skaggs-Grayburg and undesignated Blinbry pool through parallel strings of tubing.

CASE 3708: Application of BTA Oil Producers for special area rules, Lea County, New Mexico. Applicant, in the above-styled cause, seeks the promulgation of special rules for that area of Lea County, New Mexico, including the Vada-Pennsylvanian, Lane-Pennsylvanian, and a portion of the Middle Lane-Pennsylvanian Pools, and described as follows:

TOWNSHIP 9 SOUTH, RANGE 33 EAST
Section 36: All

TOWNSHIP 9 SOUTH, RANGE 34 EAST
Sections 15 through 22, and 27 through 33: All

TOWNSHIP 10 SOUTH, RANGE 33 EAST
Sections 1, 2, 3, 10, 11 and 12: All
N/2 Section 13;
N/2 Section 14;
N/2 Section 15;

TOWNSHIP 10 SOUTH, RANGE 34 EAST
Sections 4 through 9: All
N/2 Section 16;
N/2 Section 17;
N/2 Section 18;

Applicant proposes the adoption of 160-acre proration units for the above-described area, or within one mile thereof, for the Bough "C" zone of the Pennsylvanian formation with each proration unit to be assigned an 80-acre proportional factor of 4.77 for allowable purposes.

Applicant proposes that the rules presently contained in Commission

DOCKET: EXAMINER HEARING - WEDNESDAY - JANUARY 6, 1971

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 4463: Continued from the November 18, 1970, Examiner Hearing

Application of Roger C. Hanks for compulsory pooling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the Pennsylvanian formation underlying the NE/4 of Section 18, Township 9 South, Range 36 East, Vada-Pennsylvanian Pool, Lea County, New Mexico, said acreage to be dedicated to applicant's Ford Federal Well No. 1 located in the NW/4 NE/4 of Section 18. Also to be considered will be the costs of drilling said well, a charge for the risk involved, a provision for the allocation of actual operating costs, and the establishment of charges for supervision of said well.

CASE 4477: Application of Gulf Oil Corporation for a waterflood expansion, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to expand its Northwest Eumont Unit Waterflood Project, Eumont Pool, by the conversion to water injection of thirteen additional wells in Sections 26, 27, 33, and 34, of Township 19 South, Range 36 East, Lea County, New Mexico.

CASE 3786: (Reopened):

In the matter of Case No. 3786 being reopened pursuant to the provisions of Order No. R-3437-A, which order extended for a period of 18 months the special rules and regulations for the North Paduca-Delaware Pool, Lea County, New Mexico. All interested persons may appear and show cause why the gas-liquid ratio limitation of 3,000 cubic feet of gas per barrel of liquid hydrocarbons should not be reduced and why the special rules and regulations should not be discontinued.

CASE 4455: Continued from the November 18, 1970, Examiner Hearing

In the matter of the hearing called by the Oil Conservation Commission for the creation of a new oil pool and for the assignment of a discovery allowable, Sandoval County, New Mexico. The Commission, at the request of Refiners Petroleum Corporation, will consider the creation of a new oil pool for the production of oil from the Dakota formation comprising the NE/4 of Section 25, Township 22 North, Range 3 West, Sandoval County, New Mexico, said pool having been discovered by said corporation's Cuba Union Well No. 1 located in Unit A of said Section 25. Also to be considered will be the assignment of approximately 34,390 barrels of discovery allowable to said well.

- CASE 4478: Application of Refiners Petroleum Corporation for the creation of a new oil pool and special rules therefor, Sandoval County, New Mexico. Applicant, in the above-styled cause, seeks the creation of a new pool for the production of oil from the Graneros-Dakota formation for its Cuba-Union Well No. 1 located in Unit A of Section 25, Township 22 North, Range 3 West, Sandoval County, New Mexico, and for the promulgation of special rules therefor, including a provisions for 160-acre spacing units.
- CASE 4479: Application of Eastland Oil Company for the creation of a new pool, assignment of discovery allowable, and special pool rules, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks creation of a new pool for the production of oil from the Grayburg and San Andres formations for its Arco Federal Well No. 1 located in the NW/4 NW/4 of Section 5, Township 18 South, Range 31 East, Eddy County, New Mexico, and for the assignment of an oil discovery allowable to said well. Applicant further seeks the adoption of special pool rules to provide for a limiting gas-oil ratio of 5,000 to one.
- CASE 4480: Application of Coastal States Gas Producing Company for expansion of a unit area, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to expand the Flying "M" (San Andres) Unit Area, authorized by Order No. R-3220, to include some 879 acres, more or less, of Federal, State and Fee lands in Townships 9 and 10 South, Range 33 East, Flying "M" San Andres Pool, Lea County, New Mexico.
- CASE 4481: Application of Delaware-Apache Corporation for a non-standard proration unit, Roosevelt County, New Mexico. Applicant, in the above-styled cause, seeks approval for an 80-acre non-standard oil proration unit comprising the SW/4 NE/4 and NW/4 SE/4 of Section 20, Township 8 South, Range 38 East, Bluit-San Andres Associated Pool, Roosevelt County, New Mexico, to be dedicated to a well to be drilled at a standard location in the SW/4 NE/4 of said Section 20.
- CASE 4482: Application of the Petroleum Corporation for the creation of a new pool, special rules therefor, and exceptions to Orders Nos. R-3221 and R-4070, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks the creation of a new Strawn oil pool for its Petco State Well No. 1 located in Unit P of Section 26, Township 19 South, Range 29 East, Eddy County, New Mexico, and for the promulgation of special rules therefor, including provisions for 160-acre spacing units and a limiting gas-oil ratio of 4000 cubic feet of gas per barrel of oil. Applicant further seeks exceptions to Orders Nos. R-3221 and R-4070, respectively, to permit the disposal of water produced by said well in an unlined surface pit and to flare gas produced by said well.
- CASE 3709: (Reopened)
In the matter of Case 3709 being reopened pursuant to the provisions of Order No. R-3366-A, which order extended 80-acre spacing units for the Akah Nez-Devonian Oil Pool, San Juan County, New Mexico, for a period of two years. All interested persons may appear and show cause why said pool should not be developed on 40-acre spacing units.

- CASE 4483: Application of Pubco Petroleum Corporation for a unit agreement, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval of the Kemnitz-Lower Wolfcamp East Unit Area comprising the SW/4 and W/2 SE/4 of Section 22, the E/2 NW/4 of Section 27, and the E/2 NE/4 of Section 28, Township 16 South, Range 34 East, Kemnitz-Lower Wolfcamp Pool, Lea County, New Mexico.
- CASE 4484: The application of the Oil Conservation Commission upon its own motion for an order granting an exception to the ninth paragraph of Chapter II, Section 2 of Order No. R-333-F to permit shutting in gas wells for the required shut-in test at some period during the 1971 test season other than immediately following the 7-day deliverability flow test; further to permit measuring the shut-in test pressure during the 8th to 15th day of shut-in of the well rather than on the 8th day as presently required. The above exceptions would be for the 1971 annual deliverability test season only and would be applicable to all wells in San Juan, Rio Arriba, McKinley, and Sandoval Counties, New Mexico, subject to the testing requirements of Chapter II of Order No. R-333-F.
- CASE 4485: Application of Continental Oil Company for a non-standard gas proration unit, Lea County, New Mexico. Applicant, in the above-styled cause, seeks the establishment of a 240-acre non-standard gas proration unit comprising the NW/4 NW/4, S/2 NW/4, NE/4 SW/4, and S/2 SW/4 of Section 1, Township 25 South, Range 36 East, Jalmat Gas Pool, Lea County, New Mexico, to be dedicated to its Wells "A" Wells Nos. 2 and 7, located, respectively, in Units E and F of said Section 1. Applicant further seeks authority to produce the allowable assigned to said unit from either of said wells in any proportion.
- CASE 4486: Application of Continental Oil Company for a waterflood expansion, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to expand its Langlie-Mattix Jack A-29 waterflood project, Langlie-Mattix Pool, by the drilling of an additional injection well at an orthodox location in the SW/4 NW/4 of Section 29, Township 24 South, Range 37 East, Lea County, New Mexico.
- CASE 4487: Application of Pennzoil United, Inc., for compulsory pooling, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the Strawn formation underlying the W/2 of Section 6, Township 23 South, Range 27 East, South Carlsbad Strawn Gas Pool, Eddy County, New Mexico, said acreage to be dedicated to a well in the W/2 of said Section 6. Also to be considered will be the cost of drilling said well, a charge for the risk involved, a provision for the allocation of actual operating costs, and the establishment of charges for supervision of said well.
- CASE 4488: Application of Resler and Sheldon for downhole commingling, Lea County, New Mexico. Applicants, in the above-styled cause, seek approval for the downhole commingling of gas and liquids produced from the Jalmat Gas Pool and oil and gas produced from the Langlie-Mattix Oil Pool through a common string of tubing in their Steeler Well No. 1 located in Unit L of Section 20, Township 23 South, Range 37 East, Lea County, New Mexico.

MR. UTZ: Case 3709.

MR. HATCH: Case 3709. Application of Kerr-McGee Corporation for special pool rules, San Juan County, New Mexico.

MR. MORRIS: I am Dick Morris of Montgomery, Federici, Andrews, Hannahs and Morris, Santa Fe, appearing on behalf of the applicant Kerr-McGee Corporation. We will have two witnesses, Mr. John Barwin, Mr. Ivan Geddie and ask that they both stand and be sworn at this time. We may have a third witness, Mr. Bill Stauss.

(Witness sworn.)

(Applicant's Exhibits 1 through 8 marked for identification.)

JOHN BARWIN

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

DIRECT EXAMINATION

BY MR. MORRIS:

Q Mr. Barwin, please state your name, where you reside, by whom you are employed and in what capacity?

A My name is John Barwin. I am employed by the Kerr-McGee Corporation in the capacity of senior geologist in Amarillo, Texas.

MR. UTZ: Would you spell that name for the

reporter and me?

MR. BARWIN: That's B-a-r-w-i-n.

Q (By Mr. Morris) Mr. Barwin, have you previously testified before the New Mexico Oil Conservation Commission or one of its Examiners?

A No, I have not.

Q Would you briefly state your education and your experience in the petroleum industry?

A I received a Bachelor of Science Degree with a major in Geology of Ohio State University in 1956 and a Master of Arts Degree Geology Major from the University of Wyoming in 1961. I was employed for two years by the Pan American Petroleum Corporation, one year in Casper, one year in Denver, Colorado. Following this I spent five years with Kerr-McGee in Denver, Colorado doing exploration and development work in the Rocky Mountains. This was followed by two years with Kerr-McGee in our New Orleans, Louisiana Office and I have spent the last year and a half in our Amarillo, Texas Office doing exploration and development work in Arizona and New Mexico.

Q What is your area of responsibility in the Amarillo Office?

A My responsibility has been the greater part

of the last year and a half, the Four Corners area and the area in discussion.

Q What is your familiarity with the subject pool?

A I have worked this area, both exploration and development wise and was present during the drilling and logging of the Kerr-McGee Navajo J-1 Well which was the discovery well for the Akah Nez-Devonian Pool.

MR. MORRIS: Are the witnesses qualifications acceptable?

MR. UTZ: Yes, they are.

Q (By Mr. Morris) Mr. Barwin, if you will refer to what has been marked Exhibit Number 1 in this case and state what that is and what it shows.

A Exhibit Number 1 is a plat showing the location of the Kerr-McGee J-1 Navajo Well which is the discovery well for the Akah Nez-Devonian Pool. It is located seven hundred ninety feet from the north and east lines of Section 23 in Township 23 North, Range 20 West.

Q Let me stop you right there, Mr. Barwin. Where is this just regionally with respect to some well-known land marks in this area?

A The J-1 Well is about seven miles due east of the Arizona-New Mexico border. The community and Indian School

of Toadalena are located about two and a half miles northeast of the J-1 Well.

Q When was the discovery well completed?

A This well was completed on the fifteenth of November 1967.

Q And what is the depth of that well?

A The total depth of the well was forty-three hundred feet.

Q And what is the producing interval in the well?

A The producing interval in the well, the perforations are shown on Exhibit Number 1 from thirty-nine eighty-two to four thousand eight and four thousand eighteen to four thousand eighteen to four thousand twenty-eight and these two intervals, perforated intervals are both in the McCracken Sandstone of Devonian Age which is the pay section in the well.

A The McCracken Sandstone of Devonian Age is a white to very light gray, fine to coarse grained, well-rounded fractured quartzose sandstone with a few thin shale laminae. It's a very wide spread blanket-type deposit that is found regionally throughout the Four Corners Area.

Q I see another well shown on Exhibit 1 to the northeast. Did that well penetrate this formation?

A Yes, it did. That well is the Kerr-McGee Navajo A-1 Well which was drilled almost exactly one year ago to a total depth of two thousand nine hundred twenty feet in Precambrian and we did penetrate the McCracken Sandstone of Devonian Age in that well.

Q Is it productive?

A It is not productive. There was no shales encountered. It is water bearing, it is too low structurally.

Q Where is the nearest oil production to this area?

A The nearest presently producing oil fields include Tocito Dome which is located about twenty miles northeast of the J-1 Well, the production here is from Limestone and Pennsylvanian formation. Also, about twenty miles to the northwest of the J-1, is the Dinah Bi Keyah field which produces from a tertiary shell that's been intruded into the Pennsylvanian Age sediments.

Q Does Exhibit 1 show the leasehold interest in this area?

A Yes, it does. The leasehold interest in the surrounding acreage are shown.

Q And what is the royalty ownership in this area?

A This is all Navajo Indian land.

Q Refer to Exhibit Number 2 and state what that exhibit

is what it shows.

A Exhibit Number 2 is a copy of the pertinent portion of Schlumberger induction electrical survey in the Kerr-McGee Navajo J-1 well. It's on a scale of five inches to one hundred feet and it shows, we have indicated on this Exhibit, the limits of the productive McCracken sandstone of Devonian age, the top of which is 3974, the base 4052. We have also indicated on here the previously mentioned perforated intervals from 3982 to 4008 and 4018 to 28.

Q Have you determined from this log, the effective porosity in the interval that you have perforated?

A We feel that we are dealing with about 25 feet of net pay.

Q Yes, and have you been instrumental in computing the effective porosity in this zone?

A Yes.

Q And what is that?

A The range of porosity in this zone is on the order of six to eleven percent and our average figure is about eight percent.

Q Refer next to the regional structural map, U.S. Geological Survey Map, which is marked as Exhibit 3, and point out the features of that map, please.

A The purpose of Exhibit 3, is to clarify regionally the structural position of the Kerr-McGee Navajo J-1 well. This is a reproduction of a portion of a published U.S.G.S. Map, structure contour map, that is contoured on the Dakota Sandstone. It was published in 1963 and I think, rather clearly shows the structural position of the J-1 well, as being along or near the crest of the major northwest south-east trending Toadalema anticline.

Q Now, is your structure in this particular area further shown on Exhibit 4?

A Yes, it is.

Q Point out the features of that exhibit, please?

A On Exhibit Number 4, again, we have a tract showing the area around and immediately adjacent to the discovery well of the Akah Nez Pool, and we have attempted to show on here, to the best of our current knowledge what the most likely structural configuration is, namely that we are near the crest of the Toadalema anticline.

Q At the present time there is only the one well that has been drilled in this pool; is that correct?

A That's correct.

Q Do you have sufficient information, at this time, to determine the aerial extent of the reservoir?

A It is extremely difficult at this stage, and with the

limited information we have to make a definite statement about that. We have, of course, no comparable production from the ~~McCracken~~ Sandstone, with which to compare the Navajo J-1 Well. I would say that at least at this stage we certainly have no indication that it's going to be extremely limited and I think ultimately it will depend almost entirely on what the actual structural configuration is in the area adjacent to the J-1.

Q Were Exhibits 1 through 4 prepared by you or under your direction?

A Yes, they were.

MR. MORRIS: We offer Exhibits 1 through 4 into evidence.

MR. UTZ: Without objection, Exhibits 1 through 4 will be entered into the record of this case.

(Whereupon Applicant's Exhibits
1 through 4 were offered and
admitted in evidence.)

MR. MORRIS: Mr. Examiner, we will have another witness, with respect to the engineering aspects of the Reservoir, but that's all we have on Direct Examination of Mr. Barwin.

MR. UTZ: Are there questions of Mr. Barwin?

CROSS EXAMINATION

BY MR. ARNOLD:

Q Mr. Barwin, there are a couple of gas wells completed in the same general area in this Zone also, aren't there? If so,

where are they located?

A We do have a shut in Helium Bearing Gas Well, that is located three and, oh, a quarter mile northwest of the J-1 Well, that is correct.

Q Is it on the same structure?

A It is on the same structural feature along the ~~Toddiana~~ anticline, that is correct. The specific relationship between that well and this J-1 Well, is not immediately clear at this time.

Q You don't know whether there is a relationship between the gas production and the oil production?

A Well, as usually occurs in the development of such a rank wildcat area as this, we have discovered with each succeeding well that we have drilled out here, that the problem becomes considerably more complicated, and it appeared previously -- at the present time I would say that it would appear that we have more structural relief along the crest of this thing than we initially thought, and that quite possibly the presence of several local ~~domes~~ and saddles along the crest of the anticline would seem to be very likely.

Q Is there any helium gas present in this oil well, at all?

A The small amount of gas that is produced with the well does have a helium content, it is lower than the helium content

~~it is~~ lower than the helium content in the well to the north.

MR. UTZ: What percentage helium is it?

A I think it is slightly over four percent.

Q (By Mr. Arnold) Did you mention a permeability figure in this well?

MR. MORRIS: Our other witness will testify with respect to the permeability.

Q One other thing, I notice a couple of pronunciations on the name of this field. Why don't we all get it straightened out, to begin with, who is the expert on Navajo?

MR. POHLMANN: I am no expert, but Akah Nez, is pronunciation, just plain --

MR. ARNOLD: That's all the questions I have.

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

(Witness Excused.)

IVAN D. GEDDIE

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

DIRECT EXAMINATION

BY MR. MORRIS:

Q Mr. Geddie, will you please state your name, where you reside, by whom you are employed and in what capacity?

A My name is Ivan D. Geddie, that's spelled G-E-D-D-I-E, I am employed by the Kerr-McGee Corporation, I live in Oklahoma City, and I am a professional petroleum engineer.

Q Have you previously testified before the New Mexico Oil Conservation Commission or one of its Examiners?

A I have not.

Q Would you briefly state your education and experience in the petroleum industry?

A I graduated from Louisiana Polytechnic Institute in 1954, immediately upon graduation I was employed by the Mobile Oil Corporation and worked for Mobile approximately twelve years, I held a position of field exploitation engineer, reservoir engineer and unitization and conservation engineer, in Oklahoma and in West Texas and since the last two years I have worked for the Kerr-McGee Corporation, and the title of my position is conservation and unitization engineer with Kerr-McGee.

Q What is your familiarity with the subject Pool, Mr. Geddy?

A Well, I have made a study of the history of drilling the J-1 Well, the economics, the cost of drilling that well, estimated the recoverys from eighty acre tracts and forty acre spacing in the field and economics of drilling wells, in general in the Akah Nez Field.

MR. MORRIS: Are the witness's qualifications acceptable?

MR. UTZ: Yes, they are.

Q (By Mr. Morris) Mr. Geddie, please refer to Exhibit Number 5, entitled Reservoir Data Sheets and point out the features as shown on this Exhibit.

A Exhibit Number 5 is a Reservoir Data Sheet showing the information that we have available on the McCracken Sandstone of Devonian Age in the Akah Nez Field. The top of the sand in the J-1 Well, is plus five thousand one hundred six feet sub-sea. The net sand thickness in this well is approximately twenty five feet. The porosity as determined from log calculations is eight percent. The average permeability calculated by Darcys Radial Flow Calculations is one hundred sixty three point five millidarcies. The bottom hole pressure was measured at seven hundred sixty six PSIG, this is a shut in bottom hole pressure. The gravity of the oil has been measured at forty-seven point forty five degrees. On initial tests, the initial test data or test data on the was as shown on the bottom of this exhibit, the well was completed on November 15, 1967, and our initial test was on November the 19th. The well pumped one hundred sixty barrels of oil on this test, and sixty-two barrels of water with GOR of 109 cubic feet per barrel of oil. We tested the well again on November 25, 1967, and it pumped two hundred two barrels of oil and sixty-four barrels of water per day. On December 3rd, we again tested the well, and it pumped two hundred thirty-two barrels of oil and forty-four barrels of water per day.

Q Mr. Geddie, in the completion of this well, how was the well treated?

A We did fracture treat the well, in the completions operations. We set five and a half inch casing and cemented and then perforated and fracked.

Q And was this a water frack?

A It was not. It was an oil frack.

Q It was an oil frack?

A Yes.

Q From this information, do you have any opinion concerning the effectiveness of one well in this pool to drain a given area that would be established by the Commission as a proration unit for the Pool?

A Well, in my opinion, and based upon my calculations, Darcys Radial Flow Calculations and based upon my knowledge of petroleum reservoirs, in general, it is my opinion that one well will drain in access of eighty acres.

Q Have you made some calculations, Mr. Geddie, that are not shown as exhibits here, as to the reserves in place in this field, and have you computed those for forty and eighty acre units?

A Yes, sir, I have. I calculated reserves for this field, based upon the eight percent porosity, which was previously given in the testimony of our geologist, and with a water

saturation of thirty percent, which calculated from logs, and from this calculation that a formation volume factor estimated at one point zero five, which is necessary for us to estimate, because we have no data available to us. We determined the reserves for eighty acres to be one hundred fifty five thousand barrels of oil, and the reserves for forty acres to be seventy-eight thousand barrels of oil, this is the recoverable reserves and assuming an eighteen percent recovery of the original oil in place.

MR. UTZ: How much for eighty?

A One hundred fifty-five thousand barrels and seventy-eight thousand for forty.

Q (By Mr. Morris) Now what was the cost of your discovery well?

A Our discovery well cost one hundred fifty thousand dollars. We feel that we can drill subsequent wells for something less than that we estimate the cost of the average well in the field to be on the order of one hundred twenty-five thousand dollars.

Q Now, comparing the cost with your reserve calculations and taking into account other matters of economics, do you arrive at any conclusions with respect to the development of this Pool on forty acres versus eighty acres proration units?

A Yes. The oil is being sold for two dollars eighty cents a barrel out there, and we have to pay forty-two cents

a barrel trucking charge. My economics using the two dollars eighty cents and the forty-two cents trucking charge plus fifty cents a barrel operating cost, which is rather high operating cost, but is factual for this area, because of the terrain and the difficulties in operation, and the snow, the weather and what have you, result in a well on eighty acres yielding a net profit, before income tax and before other tax deduction, of one hundred five thousand dollars. A well on forty acres will yield a net loss before these same items of nine thousand dollars. I might go on to say that the one hundred five thousand dollar return for one hundred twenty-five thousand dollars investment makes this a, let's say a marginally attractive investment, and even at that it's certainly not a highly attractive investment.

Q Is this discovery well on pump?

A The discovery well is on pump, yes sir.

Q And do you anticipate that additional development wells in the pools will also have to be put on pump from the very beginning?

A Yes.

Q Do you have any anticipation that the area will be served by pipeline in the near future?

A No, of course, if we are able to develop a large field here, then I assume we would be able to either build a pipeline or interest someone else into coming in, but this is on down the

line a year or so, at least, I would assume, before we are able to determine the aerial extent of the field and the productive capacity, and so forth.

Q Even if pipeline were developed for this area, would that significantly change your recovery and your economic picture in this pool?

A If we are able to get a pipeline into the field the forty acre drilling still would not be economically attractive it would make eighty acre drilling more attractive and would yield a break even proposition something on this order, for forty acre drilling.

Q Do you have any proposal to make to the commission for the adoption of special rules and regulations for this Pool?

A Yes, I have prepared an exhibit and I believe it is Exhibit Number 6, that shows the Field Rules that I propose for the Akah Nez Devonian Pool, I will briefly go through these, they are rather standard rules. Rule Number 1, makes the field rules to be adopted here applicable to the Pool limits of the Akah Nez Devonian Pool, in an area of one mile around this oil pool. Rule Number 2, establishes eighty acre spacing. Rule Number 3, is a standard unorthodox size or shape rule, where you have unorthodox tracts in the public land survey.

Rule 4, provides that each well shall be located no closer than three hundred thirty feet to a governmental quarter quarter Section. Rule 5, is a standard exception rule, that permits administrative granting of location exceptions due to topographic reasons after notification of off-setting operators has been given, twenty days after notice of the off-set operators has been given, and no objections received. Rule 6, provides for a proportional factor of two point zero for a standard proration unit, and consisting of seventy-nine through eighty-one acres.

Q All right. Mr. Geddie, with respect to that allowable factor of two under current unit allowables that would yield what allowable for the subject well, for the discovery well?

A For the discery well, we will have one hundred forty barrels a day allowable plus twenty-four barrels a day discovery allowable yielding, one hundred sixty-four barrels a day, total allowable for the well.

Q And is the well capable of producing that allowable?

A It is.

Q Now, your Rule 4 provides a flexible well location pattern, do you have another exhibit prepared showing the permissible locations in the pool as presently defined by Commission Order?

A Yes, I do. This is Exhibit Number 7, and Exhibit Number 7 shows the pool limits as presently established, which is the

northeast quarter of Section 23, Township 23, north twenty west, as you can see the J-1 Well is spotted in the northeast quarter of that quarter section. The area shown hatched on the plat is the permitted well location for each quarter quarter Section.

Q Now, further with respect to the Well locations, is there any particular reason why you have prepared a flexible rather than a fixed well location pattern?

A Yes, this is very rough country, mountainous country, rugged terrain, and it is our belief that the operators should be allowed to drill the well within three hundred thirty feet of the quarter section line, quarter quarter section line of any quarter section, and that they, of course, be allowed to drill additional wells in each eighty acre tract. Now, my next exhibit, Exhibit Number 8, shows the terrain in this area, and this is prepared from a preliminary topographic survey made by the U.S.G.S. and shows the terrain in the area of the Navajo J-1. These locations in here are very expensive to make and even with this liberal location with this location tolerance that we are asking for here, we will undoubtedly have some locations in subsequent development in this field that will have to be brought in as exceptions, but it costs us about fifteen thousand dollars to make location on one of these wells.

MR. UTZ: Those contour lines being close together that means it is pretty steep doesn't it?

A Yes, sir, that's pretty steep. Those are forty foot contour intervals ~~ten~~ ten, they are forty foot contour lines,

Q (By Mr. Morris) Mr. Geddie, do you have an opinion concerning the effect of the proposed rules and regulations to prevent waste and protect correlative rights?

A In my opinion the proposed rules will prevent waste and protect correlative rights.

Q Are you proposing temporary or permanent rules?

A Temporary rules.

Q Were Exhibits 5 through 8, prepared by you or under your direction?

A Yes.

MR. MORRIS: We offer Applicant's Exhibits 5 through 8 into evidence.

MR. UTZ: Without objection, Exhibits 5 through 8 will be entered into the record of this case.

(Whereupon, Applicant's Exhibits 5 through 8 were offered and admitted in evidence.)

MR. MORRIS: That's all under Direct Examination.

MR. UTZ: Other questions of the witness?

CROSS EXAMINATION

BY MR. ARNOLD:

Q Has a survey been made, which fixes the acreage in

all the sub-divisions out there? Or you speak of Standard and Non-Standard prolation units, I was wondering what you are using for acreage?

A Well, we have a requirement to make a survey, which we inherited, more or less, when we leased this area, and it will be and is being surveyed by a contract surveyor in that area, and he will fix Standard Governmental Section Units, and so forth in the area.

Q There isn't any reason to expect that there will be a lot of non-standard units there, then?

A No, sir. As I understand it he plans to grid this with a Standard Township and Range Grid, and of course, there will be the normal correction line work, at the Township, and Section line, where you have a correction line, odd-ball section, that correction line, but other than that, it should be a Standard Section grid, one mile square grid.

MR. UTZ: Will this conform to the N.M.P.M. as the land office uses?

A Now, you are going ~~past~~ my knowledge of Survey work out here. We, of course, as I said, we have this contract surveyor out there, what is the gentleman's name, Mr. Ecklehawk, and I assume that he was going to tie it in with existing surveys to the best of his ability.

MR. UTZ: Do you know about that?

MR. POHLMAN: Yes, he will. And I can't testify that this is the absolute truth, but I am sure that's what he is doing.

MR. WILLIAMS: I am C. D. Williams, with Kerr-McGee, and each lease is surveyed and the survey plat is filed with the U.S.G.S. before permit to drill is approved by the U.S.G.S.

MR. UTZ: Thank you.

MR. ARNOLD: Will these surveys be accepted by the General Land Office then, as a final survey on that area?

MR. McGRATH: No, they just don't do it, unless they have a man out there that checks the notes, and then they will, and they normally do it on Indian Lands, however, we have had some, but these are not G.L.O. Surveys.

MR. UTZ: Then to boil it down, it will be a Navajo Survey, but they will try to conform with the Land Office Township Lines.

MR. McGRATH: The Land Office does put out what they call, protraction diagrams, which if, this land were ever so surveyed, this is the way it would be and they try to follow those.

MR. UTZ: Does that answer your question, Mr. Arnold?

MR. ARNOLD: I was just trying to prevent getting into a situation where we had to have a Hearing eventually, for every ^W Unit, which varied more than two acres, if the General Land Office comes in and re-calculatess all the acreages what we are

already having on a lot of gas units in the San Juan Basin, and of course, the rules have now been re-written to say that if the variation is not more than twenty-five percent of the Standard Unit, in either direction that the District Office can approve the non-standard location, without the necessity of a hearing, of course, I believe you do say, without notice of hearing?

A Yes, we do, I was trying to remember exactly how it was worded, let's see exactly what we say here: May grant exception without notice of hearing when an application has been filed, for a non-standard unit comprising the governmental quarter section lot or the unorthodox size or shape of the Tract as due to variation of the legal sub-division of the Public Lands Survey, so it can be granted by administrative action.

Q (By Mr. Arnold) You wouldn't object to that being written like the gas wells order, or that if it doesn't exceed twenty-five percent of a Unit, either direction, that it can be approved in the District Office?

A No, sir, I wouldn't have any objection to that?

MR. UTZ: Are there other questions? Witness may be excused.

(Whereupon, Witness excused.)

MR. GEDDIE: Mr. Utz, I might make one remark.

Mr. Arnold asked me if it would satisfy us to include the twenty-five percent provision in the field rules as opposed to that twenty-five percent variation, from a Standard Unit Provision in the field rules, and I told him, that it was satisfactory, as far as Kerr-McGee is concerned, so if you all want to re-write the rules there to permit District Office approval of unorthodox size units up to twenty-five percent, that's all right.

MR. UTZ: All right, sir. Do you have another witness?

MR. MORRIS: No, that's all we have.

MR. UTZ: Statements in the case.

MR. HATCH: I have a telegram from Anadarko Production Company, supporting the application.

MR. UTZ: Case will be taken under Advisement.

STATE OF NEW MEXICO)
) ss
 COUNTY OF BERNALILLO)

I, KAY EMBREE, 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.

Witness my Hand and Seal this 30th day of January, 1968.

Kay Embree

 NOTARY PUBLIC

My Commission Expires:

November 19, 1971

I do hereby certify that the foregoing is a complete record of the proceedings in the Bernalillo hearing of Case No. 3229, heard by me on 1-10-1968.
Thomas G. [Signature]

 Registrar
 New Mexico Oil Conservation Commission

dearnley-meier reporting service, inc.

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

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BEFORE THE
NEW MEXICO OIL CONSERVATION COMMISSION
Santa Fe, New Mexico
January 8, 1969
EXAMINER HEARING

IN THE MATTER OF:)

Case No. 3709 being)
reopened pursuant to the)
provisions of Order No.)
R-3366, which order)
established 80-acre spacing)
units for the Akah Nez-)
Devonian Oil Pool, San Juan)
County, New Mexico.)

Case No. 3709

BEFORE: Daniel S. Nutter, Examiner

TRANSCRIPT OF HEARING

MR. HATCH: Case 3709, reopened, in the matter of Case No. 3709 being reopened pursuant to the provisions of Order No. R-3366, which order established 80-acre spacing units for the Akah Nez-Devonian Oil Pool, San Juan County, New Mexico.

MR. MORRIS: Mr. Examiner, I am Richard Morris of Montgomery, Federici, Andrews, Hannahs & Morris, Santa Fe, appearing on behalf of Kerr-McGee Corporation. We will have one witness in this case, Mr. Geddie, and I ask that he be sworn, please.

(Witness sworn.)

(Whereupon, Applicant's Exhibit Number 1, inclusive, was marked for identification.)

IVAN D. GEDDIE

called as a witness on behalf of the Applicant, having been first duly sworn, was examined and testified as follows:

DIRECT EXAMINATION

BY MR. MORRIS:

Q Mr. Geddie, please state your name and where you reside?

A My name is Ivan D. Geddie, and I reside in Oklahoma City.

Q By whom are you employed and in what capacity?

A I am employed by the Kerr-McGee Corporation as a Conservation and Unitization Engineer.

Q Have you previously qualified before the Commission or one of its examiners, and have your qualifications as an engineer been established and accepted as a matter of record?

A Yes, I testified in this same hearing 3709 last year, when it was initially heard.

Q Was Kerr-McGee the applicant for the original pool rules in the Akah Nez-Devonian Oil Pools at that time?

A Yes, they were.

Q Please refer to the package of exhibits marked as Exhibit Number 1 in this case, and first please refer to the plat that is shown in that package of exhibits. Does this show the location and designation of the discovery well for this pool?

A Yes, it does. The discovery well for the Akah Nez-Devonian Pool is the Navajo J No. 1. This well is located in the northeast quarter of the northeast quarter of Section 23, 23N, 20W, San Juan County, New Mexico.

Q What is the total depth of that well?

A The well was drilled to a total depth of 4,300 feet.

Q When was that well drilled and completed?

A It was completed on November 15, 1967.

Q What is the producing interval in this well?

A The well was completed in the McCracken sand of Devonian Age.

If you will now turn to the electric log section of the exhibit, which is the next exhibit in the packet, you will see that the well produces through perforations from 3,982 feet to 4,008 feet, and 4,018 feet to 4,028 feet.

The perforated interval was found to be productive of oil. No additional wells have been drilled in this field since the initial discovery well.

Q Has a structure map been prepared on the Devonian Formation in this area?

A Yes, the next exhibit shows the structure on the top of the McCracken sand that was presented at the original field rules hearing. No new information is available, and consequently we have not changed this structure map.

Q Nothing has occurred since the original hearing that would cause you to believe that the structure is any different from what was originally presented at the first hearing?

A That is correct.

Q Do you have an exhibit showing the reservoir data?

A Yes, the next exhibit shows the reservoir data that we have available on the McCracken Sand of Devonian Age, and it was obtained from the J 1 well. I believe this information is self-explanatory, and I won't read it off the exhibit unless the Examiner requests that I do so.

Q Is this information substantially the same as presented to the Commission at the original field rules hearing?

A That is correct.

Q What is the present well location requirements under the temporary field rules, and what is your recommendation concerning the continued spacing of wells in this area?

A Well, the location that was granted at the original field rules hearing allowed, permitted the drilling of a well in any 40-acre quarter section tract, at a point no closer than 330 feet to the quarter quarter section line. At this original hearing, 80-acre spacing units were granted.

Q And your discovery well, the J 1, fitted into this spacing pattern?

A Yes, it did. It complied with that pattern of spacing or drilling.

Q What is your opinion concerning the adequacy of the 80-acre spacing rule?

A In my opinion, the 80-acre spacing rule is applicable to this field and should be continued.

Q Please refer to your next exhibit showing the topography in this area. Does this topography have an effect upon your continued request for flexible well locations in that area?

A Yes, it does. This is a section out of a topographic map, and shows the very rugged topography in the area of the Navajo J No. 1 well. It is necessary that we have considerable tolerance in locating wells in order to be able to make a location in this area.

Q What is the approximate cost of drilling a well in this field to that Devonian Formation?

A The cost is approximately \$150,000 to drill the Navajo J No. 1 well.

Q Does this cost reflect the problems that you have with respect to topography?

A Yes, it does. The roads and location alone cost in excess of \$15,000 on the Navajo J No. 1 well.

Q In your opinion, would it be economically feasible to drill wells on a spacing pattern of less than 80 acres?

A It would not be economically feasible to drill on a pattern of less than 80 acres.

Q Have you prepared an exhibit showing the summary of the production history on the J 1 well since it was completed to the present time?

A Yes, the next exhibit shows the production by months from Navajo J No. 1 well. On the lower part of this exhibit, you will see a history of the tests that were run on the well during

the time that it was producing. You will notice that on November 15th of 1967, which was a complete date, the well was making, tested 160 barrels of oil, and with a GOR of 109 to 1.

On February 21st of 1968, after producing only three months or so, the well tested 123 barrels of oil per day, with a gas-oil ratio of 2,399.

On February 29th, which is only eight days later, the well tested 103 barrels of oil per day, with a gas-oil ratio of 2,872, an increase of approximately 600 cubic feet per barrel since the test eight days earlier.

Shortly after this, the well was shut in to conserve the gas production. I could elaborate on why that well was shut in.

Q If you will, please?

A As I said, the lower part of this exhibit clearly shows the problem. The value of the gas was declining so rapidly that we felt that it would not be prudent economically to continue to produce the oil, and to flare and to vent the gas to the atmosphere, so at this point we did shut the well in after an economic analysis of this. We do plan to produce the well possibly in the future, if we do get a market for the gas. If we are able to arrange for a market of the gas, I would assume we would try to get some relief from this Conservation Commission,

and go ahead and vent the gas, and product the remaining oil reserves.

Q At the present time, you are exploring a possible market for the gas?

A Yes.

Q Please review the present rules that are in effect on a temporary basis for this field, and state your recommendations to the Examiner with respect to what action the Commission should take with respect to those rules?

A A copy of the rules adopted by the Conservation Commission in Case No. 3709 is attached as an Exhibit. Rule No. 1 makes the rules applicable to all wells completed in the pool or within one mile thereof.

Rule No. 2 establishes 30-acre units.

Rule No. 3 permits the granting of an exception without hearing for unorthodox size or shape units.

Rule No. 4 requires that no well be drilled closer than 330 feet to a quarter quarter section line.

Rule 5 permits the granting of a location exception for topographical reasons.

Rule 6 establishes a proration factor of 2.00 for a standard size unit.

In my opinion, these rules are proper for the

Akah Nez Field, and should be made permanent. However, there may be some additional drilling that will yield more information on the field, and we certainly have no objection to the Conservation Commission continuing the temporary rules for another year or two, until development is completed, if they desire to do so.

Q In your opinion, Mr. Geddie, will these rules, the continuation of these rules either in permanent or temporary form protect correlative rates and prevent waste of oil and gas in this area?

A Yes.

MR. MORRIS: At this time, Mr. Examiner, we offer into evidence Kerr-McGee Corporation's Exhibit Number 1 in this reopened case.

MR. NUTTER: Kerr-McGee Exhibit Number 1 will be admitted in evidence.

(Whereupon, Applicant's Exhibit Number 1, inclusive, was admitted in evidence.)

MR. MORRIS: That is all I have.

CROSS EXAMINATION

BY MR. NUTTER:

Q Mr. Geddie, in the original hearing of this case, did you offer any estimate of the reserves which were in place in

this reservoir?

A I believe we did on cross examination in that matter. I have looked at the reserves volumetrically again, and I would be willing to give another estimate of the reserves.

Q I just wondered if you had a current estimate of remaining reserves here or of the original reserves?

A Yes, I estimate that the reserves, this is volumetric still, we have been unable to come up with a reserve estimate based upon anything other than the volumetric determination. We estimate that that well on the 40 acres would recover 83,000 barrels of oil, and a well on 80 acres would recover 166,000 barrels of oil.

The economics, as I have them computed here, show that on 40-acre spacing, we would lose \$33,000 by developing on 40; and on 80, we have a profit of only \$84,000, which is still not a significant profit when compared with \$150,000 initial investment.

Q If we look at decline in production which occurred from November to February, in all probability the well won't make these volumetric calculated reserves unless some artificial stimulation was given to production, don't you agree?

A I agree there is a definite possibility. However, if you graph these out, and I have, you will find that there was a

very rapid decline in oil production during the first month, and then it seems that on into January we begin to get a leveling out and a tailing off effect, so we may continue to produce for some period of time at the 100 barrel per rate a day, or something on that order.

Q Your test on February 21st indicated 123 barrels of oil a day, and then eight days later it had fallen to 103 barrels. How much was it making the last day of production?

A The last day of production, well, the last three days it made about 250 barrels, if I remember correctly. It was shut in the middle of the third day, so it is hard to say, but it is something in the order of about 90 barrels per day average during that time.

Q It made 250 in the last two and a half days, in other words?

A Yes.

Q The oil has to be trucked out, I presume.

A Yes, that is correct. We have a trucking charge here of about forty-two cents a barrel.

Q Now, how far away is the nearest market for gas?

A They are marketing the gas over, I believe it is at Shiprock, I believe, is where they are trucking it to.

Q The gas?

A Oh, excuse me. The gas is a helium content gas, and there is no immediate--we need a plant in the area.

Q This is not ordinary gas?

A No, it will not burn, it is not that type of gas, and so the problem here is determining the feasibility of constructing the necessary plant to process this gas.

Q Mr. Geddie, wasn't another well or so drilled in that neighborhood which was classified as a gas well?

A Yes, they were up north of here.

Q Have those wells ever been connected to any market?

A No.

MR. NUTTER: Any further questions of this witness?
You may be excused. Do you have anything further, Mr. Morris?

MR. MORRIS: No, sir.

MR. NUTTER: Does anyone have anything they wish to offer in Case 3709?

I N D E X

<u>WITNESS</u>	<u>PAGE</u>
IVAN D. GEDDIE	
Direct Examination by Mr. Morris	2
Cross Examination by Mr. Nutter	9

<u>EXHIBITS</u>	<u>MARKED</u>	<u>OFFERED AND ADMITTED</u>
Applicant's Exhibit Number 1	2	9

STATE OF NEW MEXICO)
) ss.
 COUNTY OF BERNALILLO)

I, SAMUEL MORTELETTE, Court Reporter 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.

Samuel Mortelette
 COURT REPORTER

I do hereby certify that the foregoing is
 a complete record of the proceedings in
 the hearing of Case No. **3709**
 heard by me on **1-8**, 19**67**.

James H. ..., Examiner
 New Mexico Oil Conservation Commission

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SPECIALIZING IN: DEPOSITIONS, HEARINGS, STATEMENTS, EXPERT TESTIMONY, DAILY COPY, CONVENTIONS
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BEFORE THE
NEW MEXICO OIL CONSERVATION COMMISSION
Santa Fe, New Mexico
January 6, 1971

EXAMINER HEARING

IN THE MATTER OF:

----->
In the matter of Case 3709 being)
reopened pursuant to the provisions)
of Order No. R-3366-A, which order) Cause No.
extended 80-acre spacing units for) 3709
the Akah Nez-Devonian Oil Pool, San) (reopened)
Juan County, New Mexico, for a per-)
iod of two years. All interested)
persons may appear and show cause)
why said pool should not be devel-)
oped on 40-acre spacing units.)
----->

BEFORE: Daniel S. Nutter, Examiner

TRANSCRIPT OF HEARING

I N D E XIVAN D. GEDDIE

	<u>PAGE</u>
Direct Examination by Mr. Lopez	3
Cross Examination by Mr. Nutter	88
Redirect Examination by Mr. Lopez	9

E X H I B I T S

	<u>MARKED</u>	<u>OFFERED AND ADMITTED</u>
Applicant's Exhibit No. 1	4	9
Applicant's Exhibit Nos. 2-8	9	9

MR. HATCH: This Case No. 3709, in the matter of Case No. 3709 being reopened pursuant to the provisions in the matter of Order No. R-3366-A, which order extended 80-acre spacing units for the Akah Nez-Devonian Oil Pool, San Juan County, New Mexico, for a period of two years.

MR. LOPEZ: I am Owen Lopez, and I am an attorney with Montgomery, Federici, Andrews, Hannahs and Morris of Santa Fe. I have one witness.

IVAN D. GEDDIE

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

DIRECT EXAMINATION

BY MR. LOPEZ:

Q Mr. Geddie, would you state your name and tell us by whom you are employed, and in what capacity?

A I am employed by the Kerr-McGee Corporation as a petroleum engineer.

Q Have you previously testified before the Oil Conservation Commission as an expert petroleum engineer and are your qualifications a matter of record with the Commission?

A Yes.

MR. NUTTER: Yes, they are.

BY MR. LOPEZ:

Q Has Kerr-McGee drilled a well in the Akah

Nez-Devonian Oil Pool, which is the subject of this Hearing?

A Yes.

Q This well is one that is located in the north half, northeast quarter of Section 23 and 23 north and 20 west, San Juan County, New Mexico, and the first page of this exhibit shows this well. This is Exhibit 1.

(Whereupon, Applicant's Exhibit No. 1 was received.)

BY MR. LOPEZ:

Q What was the total depth of the Nez Well?

A 4300 feet.

Q When was the well completed?

A November 15th, 1967.

Q At what interval did this produce?

A Well, as shown on Exhibit No. 2, it shows that it was perforated at 1,382 feet and at 4,028 feet, and it was found to be productive of oil. The well was initially tested at 160 barrels of oil per day. The next Exhibit, which is a structure map--

Q (Interrupting) Do you mean Exhibit No. 3?

A Yes, sir, that is Exhibit No. 3.

Q What other well has been drilled in this field?

A The Navajo-Grunewald, which is located 1,800 feet from the north line and 780 feet from the east line

A Yes, there is some helium in it.

Q This gas from this area, there is not any helium produced at the plant, is there?

A No, sir, there is not.

Q The gas over in Arizona, those wells over there, that is being processed for heating, however, isn't it?

A No, sir, not the oil wells that are immediately across the line, they are in Dinehbikeya (sic) Field in Arizona.

Q Where they are processing helium gas, that is further south?

A Yes, in the Pinto-Dome/Navajo Springs area, in the Apache country.

(Whereupon, a discussion was held off the record.)

BY MR. LOPEZ:

Q Are you prepared to summarize the information on this reservoir?

A Yes, Exhibits 4 and 5 show this information. I would like particularly to call the February 29th, 1968-test on Exhibit 5 to the trial examiner's attention. Based on these, it shows the test for the gas-oil ratio was increasing. The well was shut in on March 12th, 1968, and accumulative production at this time shows as 165 barrels of oil.

of Section 23, and it is also shown on the first Exhibit. A well was drilled to the depth of 4,010 feet with a five and a half inch of casing set down 4,009, and then operations were suspended on December 21st, 1970 due to the heavy snows. The operator planned to continue testing in the spring. The Grunewald Well seemed to confirm the structure map which we just discussed.

BY MR. NUTTER:

Q Did you find out anything before suspended operations?

A Yes, sir, I conducted limited testing, and the one test I saw, the well was producing approximately 2 million cubic feet of gas and some oil, but I assume they plan to go back in and try to complete the well in the spring.

Q Did your well make gas?

A Yes, sir, my well made 2,800 cubic feet of gas per barrel, and approximately 100 barrels of oil.

Q I recently have seen a form--I think it was a Commission form--or a federal form, and I think it indicated that the gas was not combustible; was it carbon dioxide?

A I am really not too much of an expert on this gas. In this area, I'd just rather not go into that, Mr. Nutter.

Q Was there helium in this gas?

Q Now, would you please refer to the Exhibit No. 6 and identify it?

A Exhibit No. 6 shows the premitted well location which has previously been established by this reservoir, and it shows that the location tolerance is rather liberal. Exhibit No. 7 is a topographic map of the area.

Q Now, turning to Exhibit No. 8, would you identify that exhibit?

A Exhibit No. 8 is the order which established the rules presently in effect, and it provides for an 80-acre-unit spacing.

Q What action do you recommend that the Commission take in this Hearing?

A It is recommended that the Commission extend the temporary rules for one year to permit assessment of information obtained from drilling the Grunewald Well, and I would like to go on to state that we must take some action in the field within the next year.

Q In your opinion, is it economically feasible to drill on 40-acre spacing?

A No, because the wells cost approximately 150,000 dollars. In the light of cost--due to the cost of roads and location and preparation in mountainous country, the volumetric recovery indicates that well on 40 will recover

some at 33,000 barrels, which is a volumetric loss of 33,000 dollars.

Q In your opinion, will one well adequately drain the area, and protect the correlative rights?

A Yes.

Q Mr. Geddie, what we have discussed in this Hearing, has this been discussed with representatives for the Indians and with the USGS, are they aware of your position in the matter?

A We have previously presented them with copies of the field rules and they had no objection to them.

Q Have you discussed this with William Grunewald?

A Yes, and he informed me that he thought this was reasonable and he would not take any part in the hearing today.

MR. LOPEZ: I have no further questions, Mr. Examiner.

MR. NUTTER: Are there any questions of Mr. Geddie?

CROSS EXAMINATION

BY MR. NUTTER:

Q You established the well in 1968, and then continued it for one year until 1969, and then they

have continued it for two years until, in 1971, you are now going to ask for a one-year extension, is that correct?

A Yes, sir, that is correct, and I think that I just have stated that this year we must do something: Either abandon the well or put it back on production, or at least make some firm assessment of it because of our lease-expiration problem. The lease starts to expire on August 31st, and then, I believe, our last lease in the area expires on December 31st or approximately along in there, about December 31st of this year, 1971, and so this means we must--these leases are not the type of leases you can hold without producing from the well. The well must be produced in order to hold the lease. We must take some action this year.

REDIRECT EXAMINATION

BY MR. LOPEZ:

Q Were the exhibits previously discussed prepared by you or under your supervision?

A Yes.

MR. LOPEZ: I would like to offer these exhibits.

MR. NUTTER: Kerr-McGee's Exhibits Nos. 1 through 8 will be admitted into evidence.

Are there any further questions of Mr. Geddie?

You may be excused.


Do you have any further questions, Mr. Lopez?

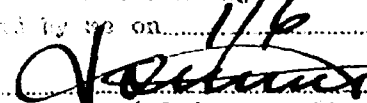
MR. LOPEZ: No, I don't.

MR. NUTTER: Case No. 3709 (Reopened) will be taken under advisement.

STATE OF NEW MEXICO)
) SS
 COUNTY OF SANTA FE)

I, RICHARD L. NYE, Court Reporter, do hereby certify that the foregoing and attached Transcript of Hearing before the New Mexico Oil Conservation Commission was reported by me, and the same is a true and correct record of the said proceedings, to the best of my knowledge, skill and ability.


 RICHARD L. NYE, Court Reporter

I do hereby certify that the foregoing is a complete record of the proceedings in the within hearing of Case No. 3709
 held by me on 1/6 1972

 New Mexico Oil Conservation Commission

dearnley-meier reporting service

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BEFORE THE
NEW MEXICO OIL CONSERVATION COMMISSION
STATE LAND OFFICE BUILDING
SANTA FE, NEW MEXICO
January 5, 1972

EXAMINER HEARING

IN THE MATTER OF:)
Case 3709 being reopened)
pursuant to the provisions) of Order No. R-3366-B)
80-acre spacing for the)
Akah Nez-Devonian Oil Pool) San Juan County,)
New Mexico)

Case No. 3709

BEFORE: Daniel S. Nutter,
Alternate Examiner.

TRANSCRIPT OF HEARING

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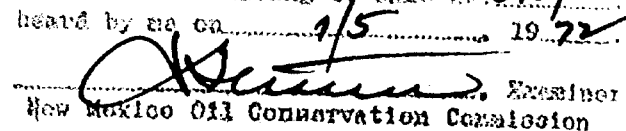
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PAGE 4

1 STATE OF NEW MEXICO)
2) ss.
3 COUNTY OF BERNALILLO)

4 I, RICHARD STURGES, a Certified Shorthand Reporter, in and
5 for the County of Bernalillo, State of New Mexico, do hereby
6 certify that the foregoing and attached Transcript of Hearing
7 before the New Mexico Oil Conservation Commission was reported
8 by me; and that the same is a true and correct record of the
9 said proceedings to the best of my knowledge, skill and ability.

10 
11 CERTIFIED SHORTHAND REPORTER

22 I do hereby certify that the foregoing is
23 a complete record of the proceedings in
24 the Examiner hearing of Case No. 3709
25 heard by me on 1/5 19 72

New Mexico Oil Conservation Commission

dearnley-meier reporting

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BEFORE THE
NEW MEXICO OIL CONSERVATION COMMISSION
CONFERENCE ROOM, STATE LAND OFFICE BUILDING
SANTA FE, NEW MEXICO
March 1, 1972

EXAMINER HEARING

IN THE MATTER OF:

Case 3709 being reopened pursuant to
the provisions of Order No. R-3366-B,
which order continued 80-acre spacing
for the Akah Nez-Devonian Oil Pool,
San Juan County, New Mexico.

Case No. 3709

BEFORE: Richard L. Stamets
Examiner

TRANSCRIPT OF HEARING

1 MR. STAMETS: Case No. 3709.

2 MR. HATCH: In the matter of Case No. 3709 being
3 reopened pursuant to the provisions of Order No. R-3366-B,
4 which order continued 80-acre spacing for the Akah Nez-Devonian
5 Oil Pool, San Juan County, New Mexico, for an additional
6 one-year period. I believe Mr. Morris has something to
7 say.

8 MR. MORRIS: I am Dick Morris of Santa Fe and
9 appear for the Kerma-G Corporation. Kerma-G was the
10 original applicant for the special rules in this field,
11 and under which two wells were drilled. These wells have
12 not performed as well as it was hoped and I have been
13 advised by Kerma-G that they tend to plug the one
14 remaining well that they operate.

15 The other remaining well in the pool is
16 operated by another operator and Kerma-G is in no position
17 to say anything with respect to the reopening of this
18 application and as far as we are concerned, the spacing
19 in this pool can revert to 40-acre units.

20 MR. STAMETS: Are there any additional appearances
21 in Case No. 3709?

22 (No response.)

23 MR. HATCH: I would recommend in the absence
24 of anyone appearing that the special pool be abolished.

25 MR. STAMETS: The appropriate order will be

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1 STATE OF NEW MEXICO)
2) ss
3 COUNTY OF BERNALILLO)

4 I, RICHARD E. MCCORMICK, a Certified Shorthand Reporter,
5 in and for the County of Bernalillo, State of New Mexico do
6 hereby certify that the foregoing and attached Transcript of
7 Hearing before the New Mexico Oil Conservation Commission was
8 reported by me; and that the same is a true and correct record
9 of the said proceedings to the best of my knowledge, skill and
10 ability.

11 *Richard E. McCormick*
12 CERTIFIED SHORTHAND REPORTER
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22 I do hereby certify that the foregoing is
23 a correct record of the proceedings in
24 the Bernalillo hearing of the New Mexico
25 State Oil Conservation Commission, 1971
New Mexico Oil Conservation Commission

	KERR-MCGEE 10	KERR-MCGEE 11	KERR-MCGEE 12	KERR-MCGEE 7	
	KERR-MCGEE 15	ANADARKO 14	NAVAJO "A" LEASE KERR-MCGEE 13	KERR-MCGEE 18	
	ANADARKO 22	KERR-MCGEE 23 TD 4350 Producing Zone - McCracken's Perforations 3952-4008 4018-4028	ANADARKO 24	KERR-MCGEE 19	T 23
	KERR-MCGEE 27	ANADARKO 26	KERR-MCGEE 25	TEXACO 30	N
	KERR-MCGEE 34	KERR-MCGEE 35	KERR-MCGEE 36	KERR-MCGEE 31	
	R	20	W	R	19

----- Akoh-Nez Devonian Oil Pool

KERR-MCGEE CORPORATION	
LUKACHUKAI AREA	
San Juan Co., N. M.	
EXAMINED ON	DATE
By	By

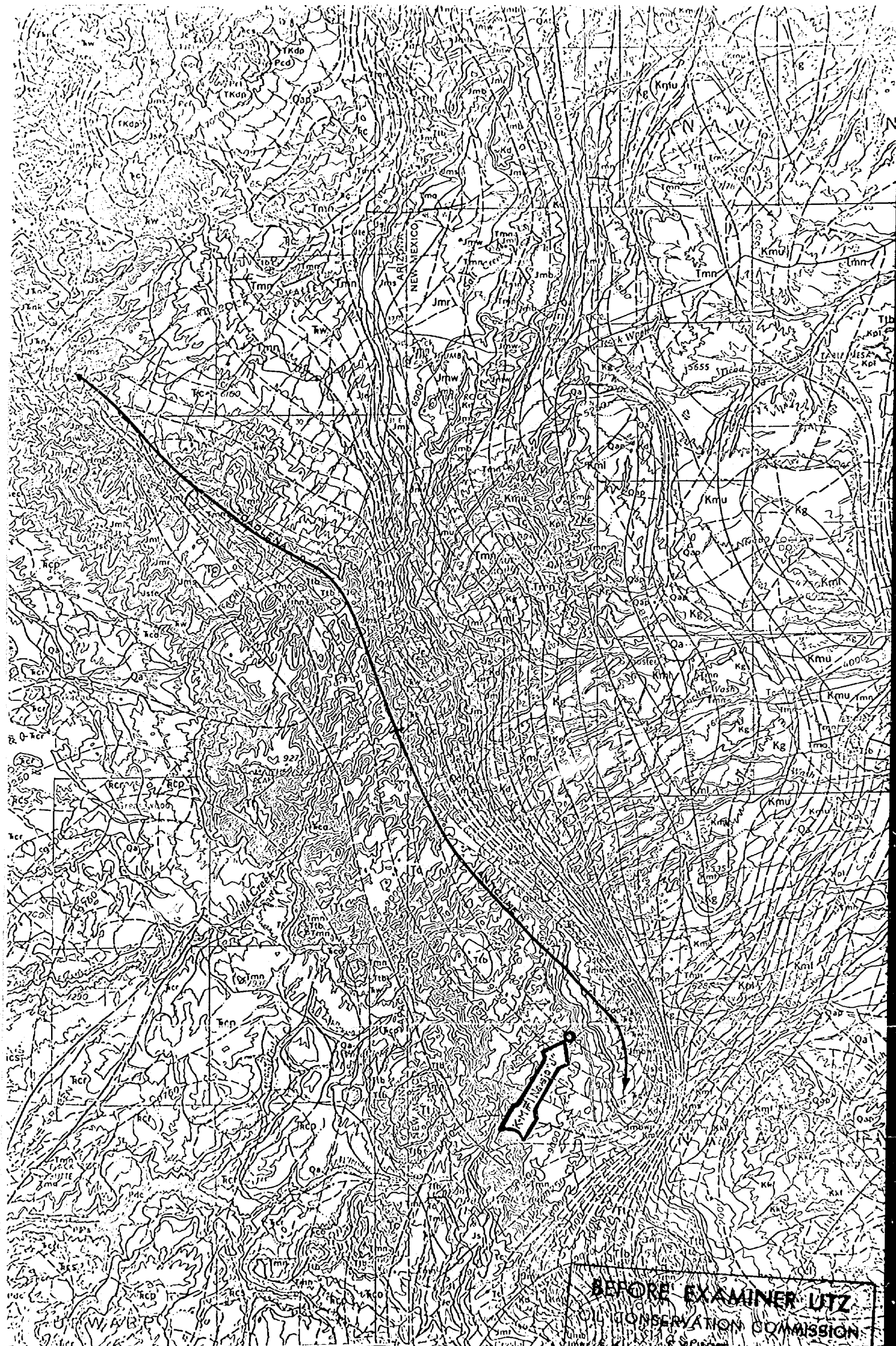
BEFORE EXAMINER UTZ

CIL CONSERVATION COMMISSION

EXHIBIT NO. 1

CASE NO. 3709

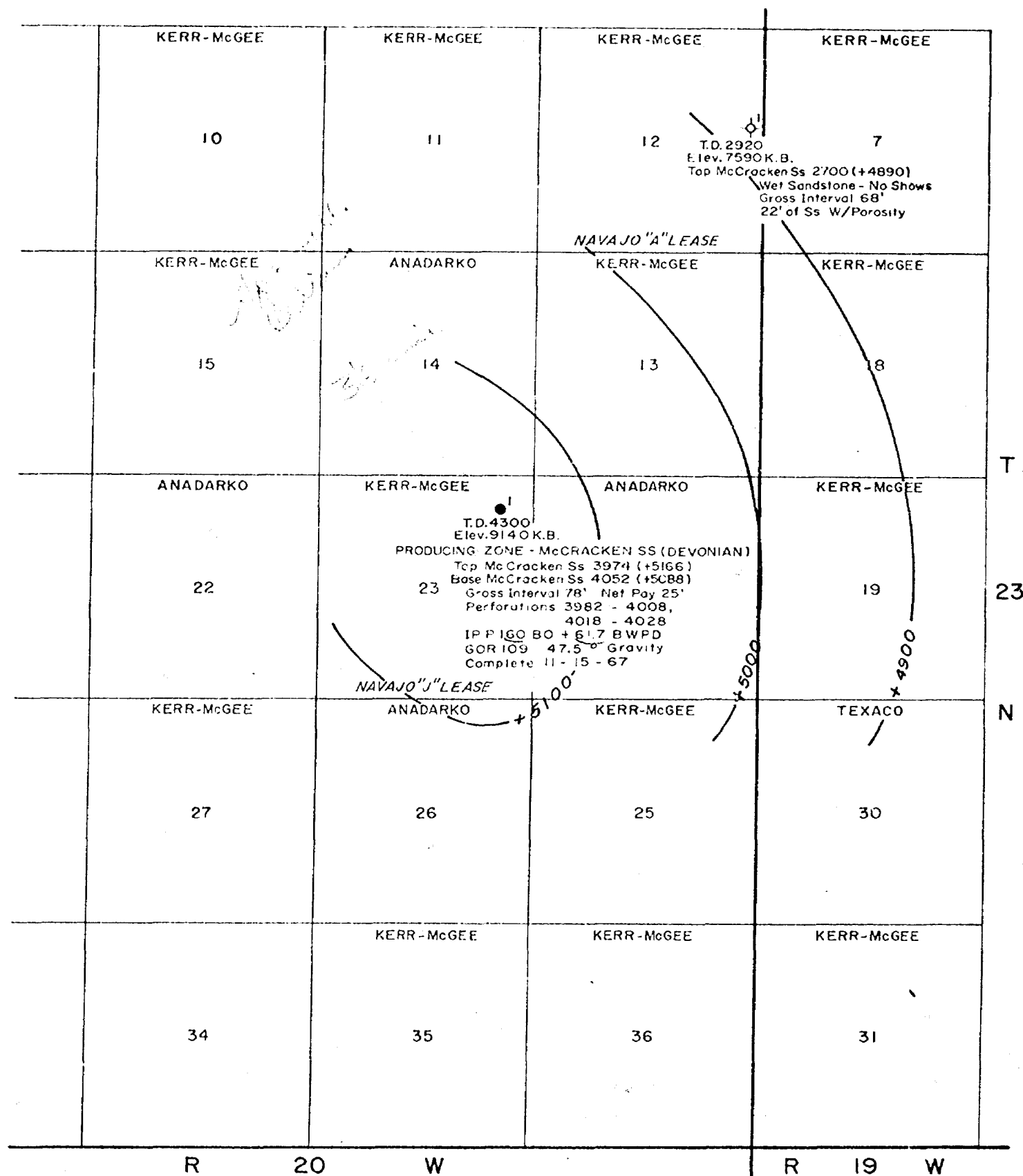
Exhibit No. _____
Case No. 3709
January 10, 1968



U. S. Geological Survey
"Geology, Structure & Uranium Deposits of
the Shiprock Quadrangle, New Mexico and
Arizona". Map I-345. 1963. Scale 1:250,000

BEFORE EXAMINER UTZ
OIL CONSERVATION COMMISSION
EXHIBIT NO. 10
CASE NO. 10

MC KINLEY COUNTY



KERR-McGEE CORPORATION
AKAH-NEZ DEVONIAN OIL POOL
SAN JUAN COUNTY, NEW MEXICO

CONTOURED ON: TOP McCRACKEN Ss
CONTOUR INTERVAL: 100 FEET

GEOLOGIST: J. R. BARWIN DATE: 12/67 SCALE: 1" = 3000'

BEFORE EXAMINER UTZ
OIL CONSERVATION COMMISSION
Applic EXHIBIT NO. 4
CASE NO. 3709

RESERVOIR DATA SHEET
AKAH-NEZ DEVONIAN RESERVOIR
SAN JUAN COUNTY, NEW MEXICO

Top Sand (J-1 Well), Sub-Sec	+ 5,166 feet
Net Sand Thickness (J-1 Well)	25 feet
Average Porosity	8 per cent
Average Permeability (calculated)	163.5 md.
BHP	766 psig
Oil Gravity	47.5°

WELL TEST DATA

<u>Well</u>	<u>Date Completed</u>	<u>Date of Test</u>	<u>Test Data</u>
Navajo "J" No. 1	November 15, 1967	November 19, 1967	Pump 160 barrels oil and 62 barrels water per day with G.O.R. of 109 cubic feet per barrel oil.
		November 25, 1967	Pump 202 barrels oil and 64 barrels water per day.
		December 3, 1967	Pump 232 barrels oil and 44 barrels water per day.

Exhibit No. _____
Case No. 3709
January 10, 1968

BEFORE EXAMINER UTZ
OIL CONSERVATION COMMISSION
EXHIBIT NO. _____
CASE NO. _____

SPECIAL RULES AND REGULATIONS FOR
THE AKAH-NEZ-DEVONIAN OIL POOL

RULE 1. Each well completed or recompleted in the Akah-Nez Oil Pool or in the Devonian formation within the defined vertical limits of said pool and within one mile thereof, and not nearer to or within the limits of another designated Devonian oil pool, shall be spaced, drilled, operated, and produced in accordance with the Special Rules and Regulations hereinafter set forth.

RULE 2. Each well shall be located on a standard unit containing 80 acres, more or less, consisting of the N/2, S/2, E/2, or W/2 of a governmental quarter section; provided, however, that nothing contained herein shall be construed as prohibiting the drilling of a well on each of the quarter-quarter sections in the unit.

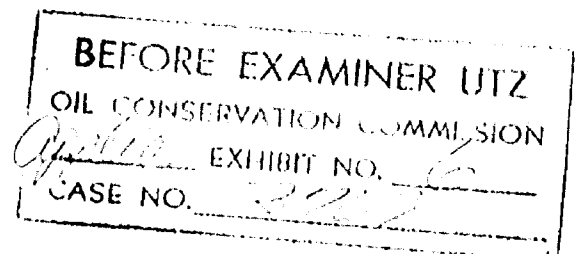
RULE 3. The Secretary-Director of the Commission may grant an exception to the requirements of Rule 2 without notice and hearing when an application has been filed for a non-standard unit comprising a governmental quarter-quarter section or lot, or the unorthodox size or shape of the tract is due to a variation in the legal subdivision of the United States Public Land Surveys. All operators offsetting the proposed non-standard unit shall be notified of the application by registered or certified mail, and the application shall state that such notice has been furnished. The Secretary-Director may approve the application upon receipt of written waivers from all offset operators or if no offset operator has entered an objection to the formation of the non-standard unit within 30 days after the Secretary-Director has received the application.

RULE 4. Each well shall be located no closer than 330 feet to a governmental quarter-quarter section line.

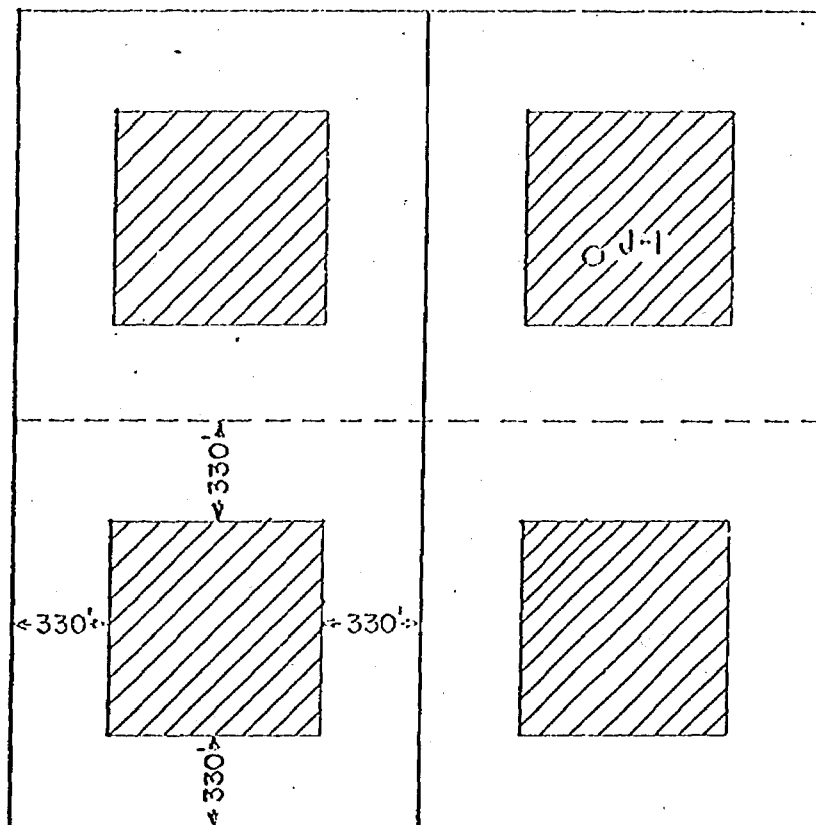
RULE 5. The Secretary-Director may grant an exception to the requirements of Rule 4 without notice and hearing when an application has been filed for an unorthodox location necessitated by topographical conditions or the recompletion of a well previously drilled to another horizon. All operators offsetting the proposed location shall be notified of the application by registered or certified mail, and the application shall state that such notice has been furnished. The Secretary-Director may approve the application upon receipt of written waivers from all operators offsetting the proposed location or if no objection to the unorthodox location has been entered within 20 days after the Secretary-Director has received the application.

RULE 6. A standard proration unit (79 through 81 acres) shall be assigned an 80-acre proportional factor of 2.00, for allowable purposes, and in the event there is more than one well on an 80-acre proration unit, the operator may produce the allowable assigned to the unit from the wells on the unit in any proportion. The allowable assigned to a non-standard proration unit shall bear the same ratio to a standard allowable as the acreage in such non-standard unit bears to 80 acres.

Exhibit No. _____
Case No. 3709
January 10, 1928



FIELD RULES HEARING
AKAM-NEZ FIELD
San Juan Co., New Mexico

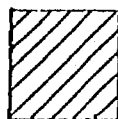


NE 1/4 Section 23

T23N R20W

San Juan Co., New Mexico

Scale: 1" = 600'

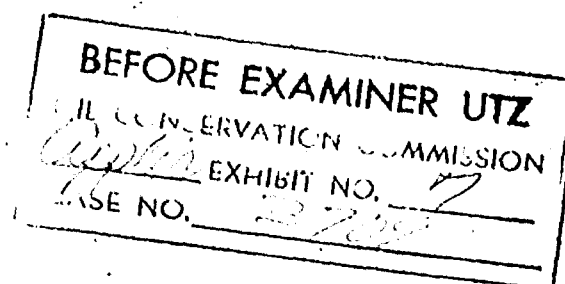


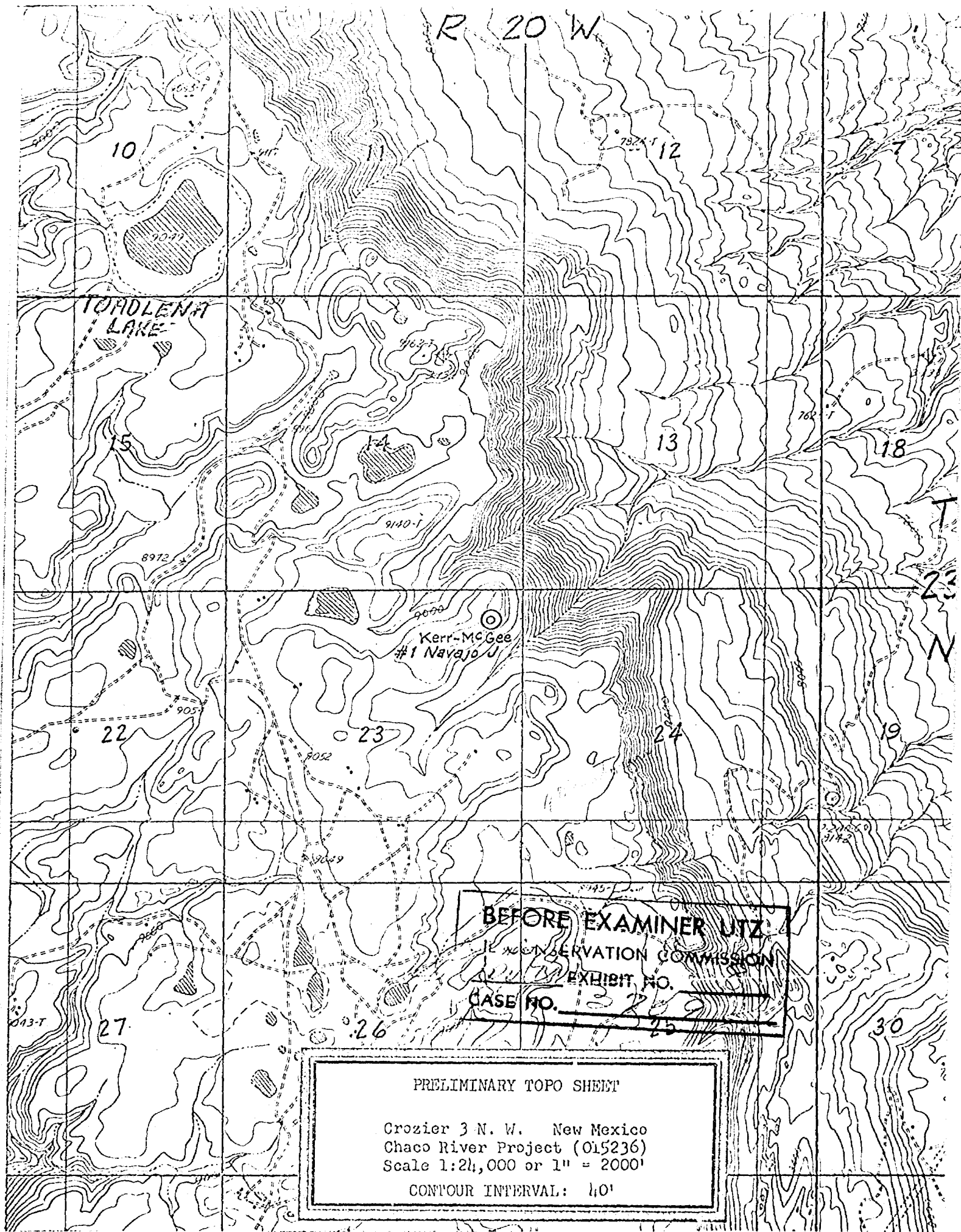
Permitted Well Location

EXHIBIT No. _____

CASE No. 3709

JANUARY 10, 1968





CASE NO. 3709
(Reopened)

APPLICATION FOR FIELD RULES
AKAH-NEZ DEVONIAN OIL POOL
JANUARY 8, 1969

KERR-McGEE CORPORATION
EXHIBITS

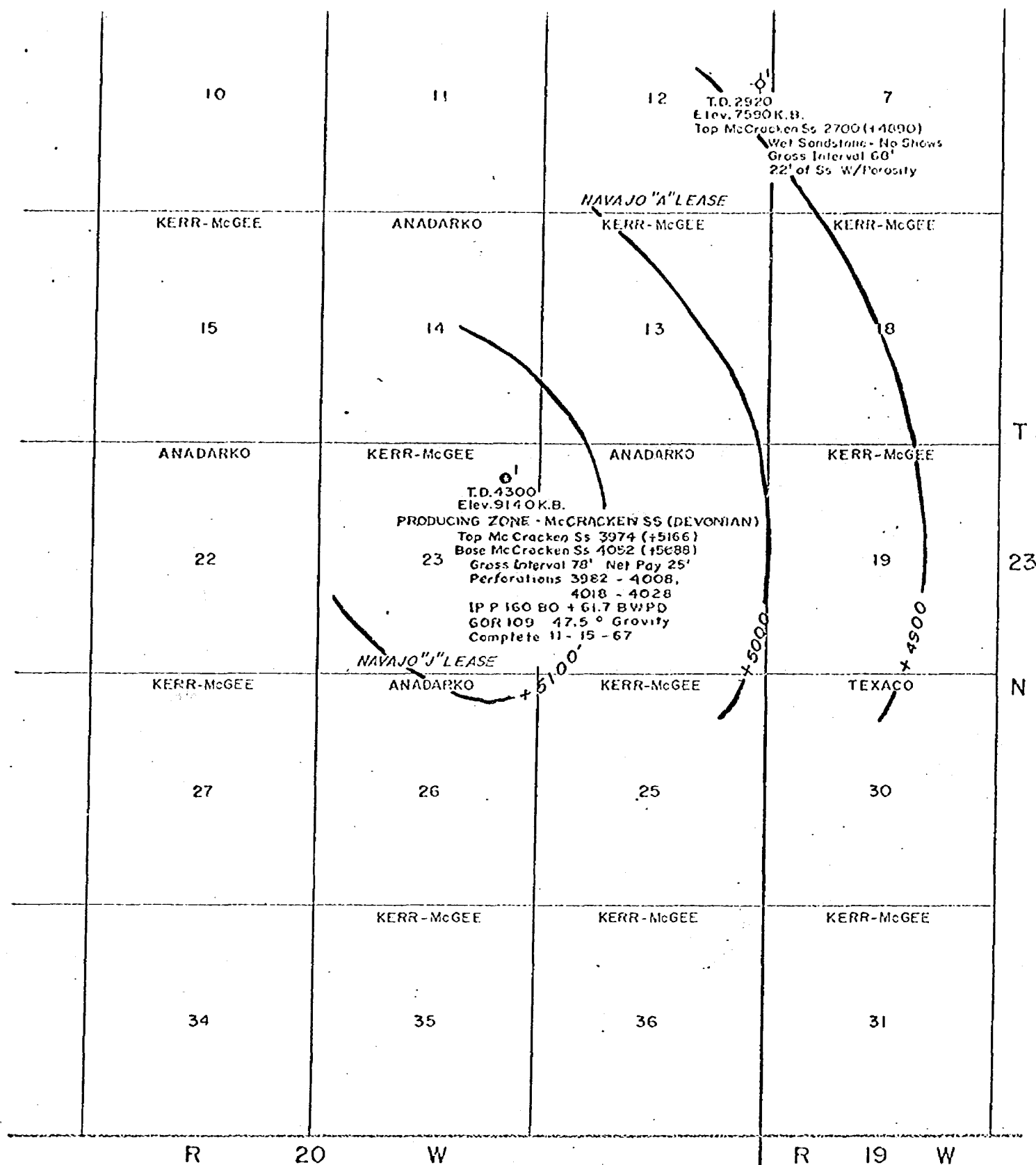
BEFORE EXAMINER NUTTER	
OIL CONSERVATION COMMISSION	
Appl	EXHIBIT NO. 1
FILE NO.	3709
Reopened	

	KERR-McGEE 10	KERR-McGEE 11	KERR-McGEE 12	KERR-McGEE 7	
	KERR-McGEE 15	ANADARKO 14	NAVAJO "A" LEASE KERR-McGEE 13	KERR-McGEE 18	
	ANADARKO 22	KERR-McGEE 23 TD 4300 Producing Zone-McCracken Perforations 3992-4008 4018-4028 NAVAJO "J" LEASE	ANADARKO 24	KERR-McGEE 19	T 23
	KERR-McGEE 27	ANADARKO 26	KERR-McGEE 25	TEXACO 30	N
	KERR-McGEE 34	KERR-McGEE 35	KERR-McGEE 36	KERR-McGEE 31	
	R 20	W		R 19 W	

----- Akah-Nez Devonian Oil Pool

KERR-McGEE CORPORATION	
LUKACHUKAI AREA	
San Juan Co., N. M.	
Contract No.	Contract Date
Sheet 1 of 1	81

Exhibit No. _____
Case No. 3709 (Reopened)
January 8, 1969



KERR-McGEE CORPORATION
AKAH-NEZ DEVONIAN OIL POOL
 SAN JUAN COUNTY, NEW MEXICO

CONTOURED ON: TOP McCRACKEN Ss
 CONTOUR INTERVAL: 100 FEET

GEOL: R. W. KING DATE: 12 / 67 SCALE: 1" = 3000'

Exhibit No. _____
 Case No. 3709 (Reopened)
 January 8, 1969

RESERVOIR DATA SHEET
AKAH-NEZ DEVONIAN RESERVOIR
SAN JUAN COUNTY, NEW MEXICO

Top Sand (J-1 Well), Sub-Sec	+ 5,166 feet
Net Sand Thickness (J-1 Well)	25 feet
Average Porosity	8 per cent
Average Permeability (calculated)	163.5 md.
BHP	766 psig
Oil Gravity	47.5°

WELL TEST DATA

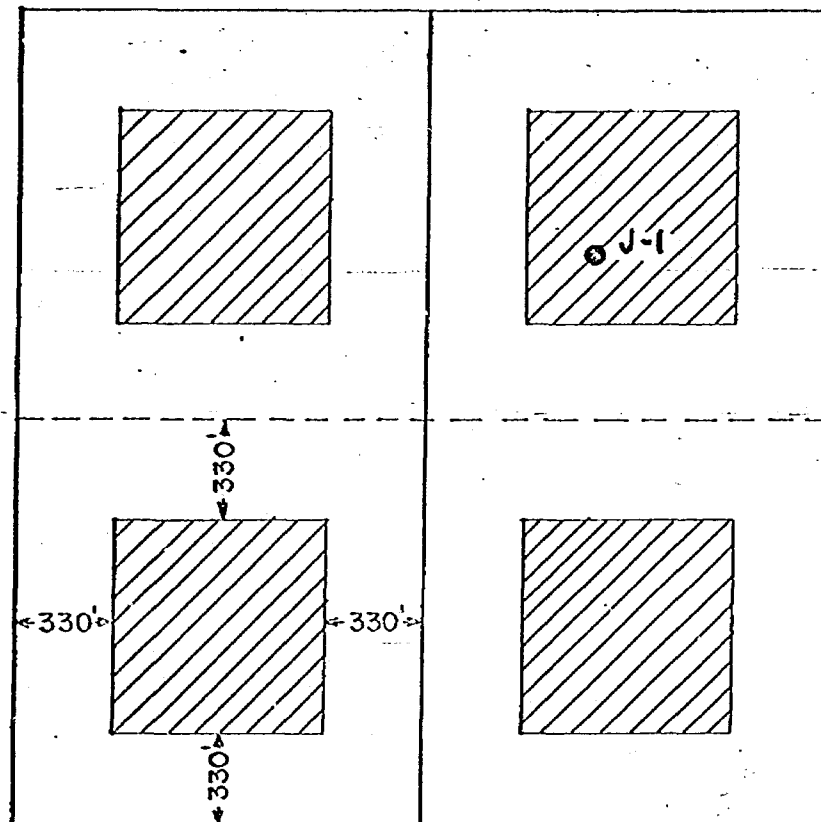
<u>Well</u>	<u>Date Completed</u>	<u>Date of Test</u>	<u>Test Data</u>
Navajo "J" No. 1	November 15, 1967	November 19, 1967	Pump 160 barrels oil and 62 barrels water per day with G.O.R. of 109 cubic feet per barrel oil.
		November 25, 1967	Pump 202 barrels oil and 64 barrels water per day.
		December 3, 1967	Pump 232 barrels oil and 44 barrels water per day.

*J-1 COR
163.5
8%
166
47.5*

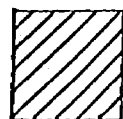
*204 barrels
(calculated)
80
166
80*

Exhibit No. _____
Case No. 3709 (Reopened)
January 8, 1969

FIELD RULES HEARING
AKAH-NEZ FIELD
San Juan Co., New Mexico



NE/4 Section 23
T23N R20W
San Juan Co., New Mexico
Scale: 1" = 600'



Permitted Well Location

EXHIBIT No. _____

CASE No. 3709 (REOPENED)

JANUARY 8, 1969

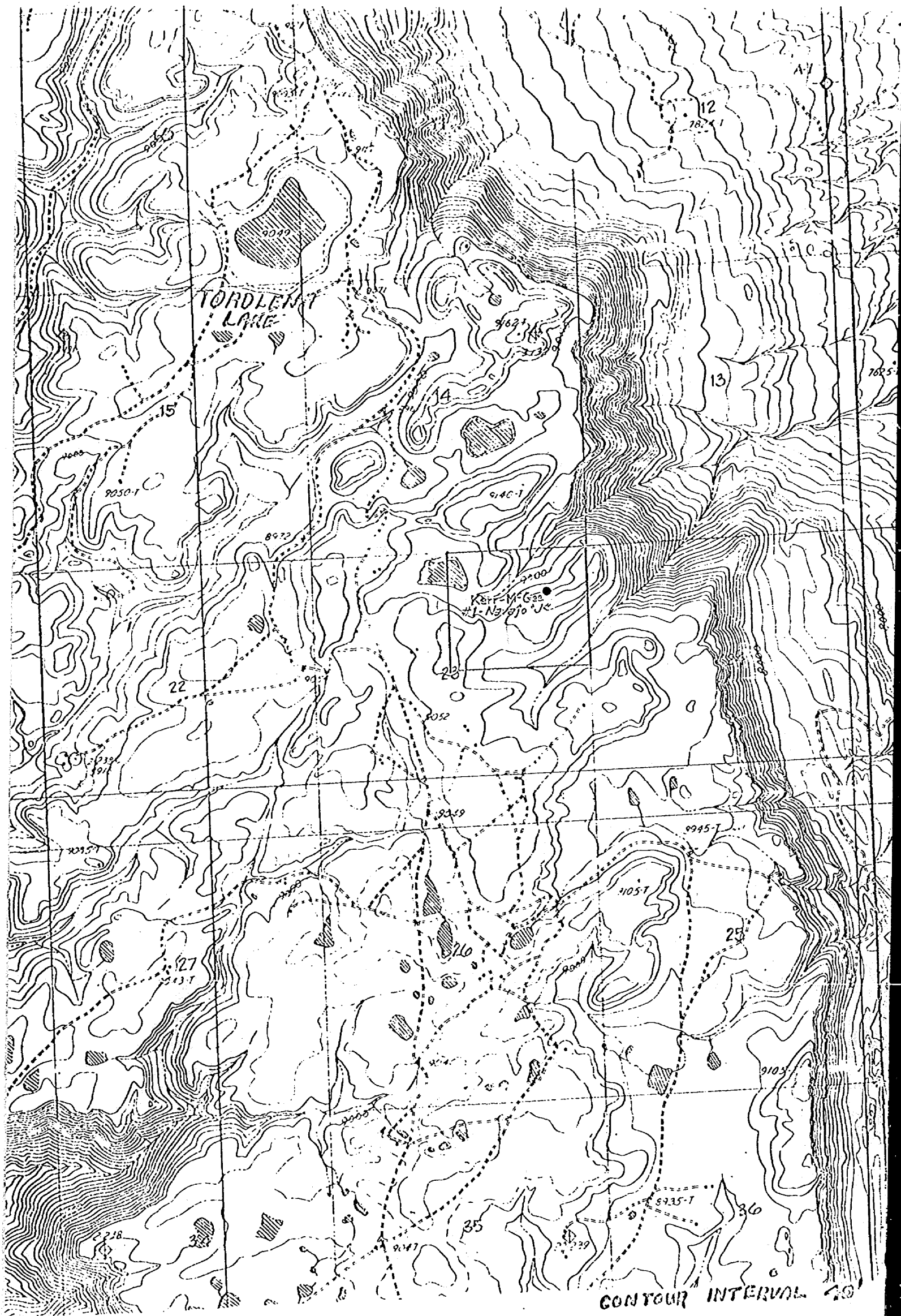


Exhibit No. _____
Case No. 3709 (Reopened)
January 8, 1969

PRODUCTION SUMMARY

<u>MONTH</u>	<u>OIL PRODUCTION</u>
NOVEMBER, 1967	1,316 BBLS.
DECEMBER, 1967	2,183 BBLS.
JANUARY, 1968	3,408 BBLS.
FEBRUARY, 1968	3,990 BBLS.
MARCH, 1968 (S. I. 3/12/68)	<u>1,268 BBLS.</u>
CUMULATIVE PRODUCTION	12,165 BBLS.

TESTS OF SPECIAL INTEREST

<u>DATE OF TEST</u>	<u>OIL</u>	<u>GAS</u>	<u>WATER</u>	<u>GOR</u>
NOVEMBER 15, 1967	160 BBLS.	17	62 BBLS.	109
FEBRUARY 21, 1968	123 BBLS.	295	20 BBLS.	2,399
FEBRUARY 29, 1968	103 BBLS.	297	26 BBLS.	2,872

EXHIBIT NO.
CASE NO. 3709 (REOPENED)
JANUARY 8, 1969

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. 3709
Order No. R-3366

APPLICATION OF KERR-McGEE CORPORATION
FOR SPECIAL POOL RULES, SAN JUAN COUNTY,
NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on January 10, 1968,
at Santa Fe, New Mexico, before Examiner Elvis A. Utz.

NOW, on this 22nd day of January, 1968, the Commission, a
quorum being present, having considered the testimony, the record,
and the recommendations of the Examiner, and being fully advised
in the premises,

FINDS:

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

(2) That the applicant, Kerr-McGee Corporation, seeks the
promulgation of special rules and regulations for the Akah Nez-
Devonian Oil Pool, San Juan County, New Mexico, including a
provision for 80-acre spacing units.

(3) That in order 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, temporary special rules and regulations
providing for 80-acre spacing units should be promulgated for
the Akah Nez-Devonian Oil Pool.

EXHIBIT NO. _____
CASE NO. 3709
(REOPENED)
JANUARY 8, 1969

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CASE No. 3709

Order No. R-3366

(4) That the temporary special rules and regulations should be established for a period of one year in order to allow the operators in the subject pool to gather reservoir information to establish the area that can be efficiently and economically drained and developed by one well.

(5) That this case should be reopened at an examiner hearing in January, 1969, at which time the operators in the subject pool should be prepared to appear and show cause why the Akah Nez-Devonian Oil Pool should not be developed on 40-acre spacing units.

IT IS THEREFORE ORDERED:

That temporary Special Rules and Regulations for the Akah Nez-Devonian Oil Pool, San Juan County, New Mexico, are hereby promulgated as follows:

SPECIAL RULES AND REGULATIONS
FOR THE
AKAH NEZ-DEVONIAN OIL POOL

RULE 1. Each well completed or recompleted in the Akah Nez-Devonian Oil Pool or in the Devonian formation within one mile thereof, and not nearer to or within the limits of another designated Devonian oil pool, shall be spaced, drilled, operated, and produced in accordance with the Special Rules and Regulations hereinafter set forth.

RULE 2. Each well shall be located on a standard unit containing 80 acres, more or less, consisting of the N/2, S/2, E/2, or W/2 of a quarter section; provided, however, that nothing contained herein shall be construed as prohibiting the drilling of a well on each of the quarter-quarter sections in the unit.

RULE 3. The Secretary-Director of the Commission may grant an exception to the requirements of Rule 2 without notice and hearing when an application has been filed for a non-standard unit comprising a quarter-quarter section or lot or the unorthodox size or shape of the tract is due to a variation in the subdivision of the survey. All operators offsetting the proposed non-standard unit shall be notified of the application by registered or certified mail, and the application shall state that such notice has been furnished.

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CASE No. 3709

Order No. R-3366

The Secretary-Director may approve the application upon receipt of written waivers from all offset operators or if no offset operator has entered an objection to the formation of the non-standard unit within 30 days after the Secretary-Director has received the application.

RULE 4. Each well shall be located no closer than 330 feet to a quarter-quarter section line.

RULE 5. The Secretary-Director may grant an exception to the requirements of Rule 4 without notice and hearing when an application has been filed for an unorthodox location necessitated by topographical conditions or the recompletion of a well previously drilled to another horizon. All operators offsetting the proposed location shall be notified of the application by registered or certified mail, and the application shall state that such notice has been furnished. The Secretary-Director may approve the application upon receipt of written waivers from all operators offsetting the proposed location or if no objection to the unorthodox location has been entered within 20 days after the Secretary-Director has received the application.

RULE 6. A standard proration unit (79 through 81 acres) shall be assigned an 80-acre proportional factor of 2.00 for allowable purposes, and in the event there is more than one well on an 80-acre proration unit, the operator may produce the allowable assigned to the unit from the wells on the unit in any proportion.

The allowable assigned to a non-standard proration unit shall bear the same ratio to a standard allowable as the acreage in such non-standard unit bears to 80 acres.

IT IS FURTHER ORDERED:

(1) That the locations of all wells presently drilling to or completed in the Akah Nez-Devonian Oil Pool or in the Devonian formation within one mile thereof are hereby approved; that the operator of any well having an unorthodox location shall notify the Aztec District Office of the Commission in writing of the name and location of the well on or before February 1, 1968.

(2) That each well presently drilling to or completed in the Akah, Nez-Devonian Oil Pool or in the Devonian formation within

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CASE No. 3709

Order No. R-3366

one mile thereof shall receive a 40-acre allowable until a Form C-102 dedicating 80 acres to the well has been filed with the Commission.

(3) That this case shall be reopened at an examiner hearing in January, 1969, at which time the operators in the subject pool may appear and show cause why the Akah Nez-Devonian Oil Pool should not be developed on 40-acre spacing units.

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

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

STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION

DAVID F. CARGO, Chairman

GUYTON B. HAYS, Member

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

S E A L

csr/