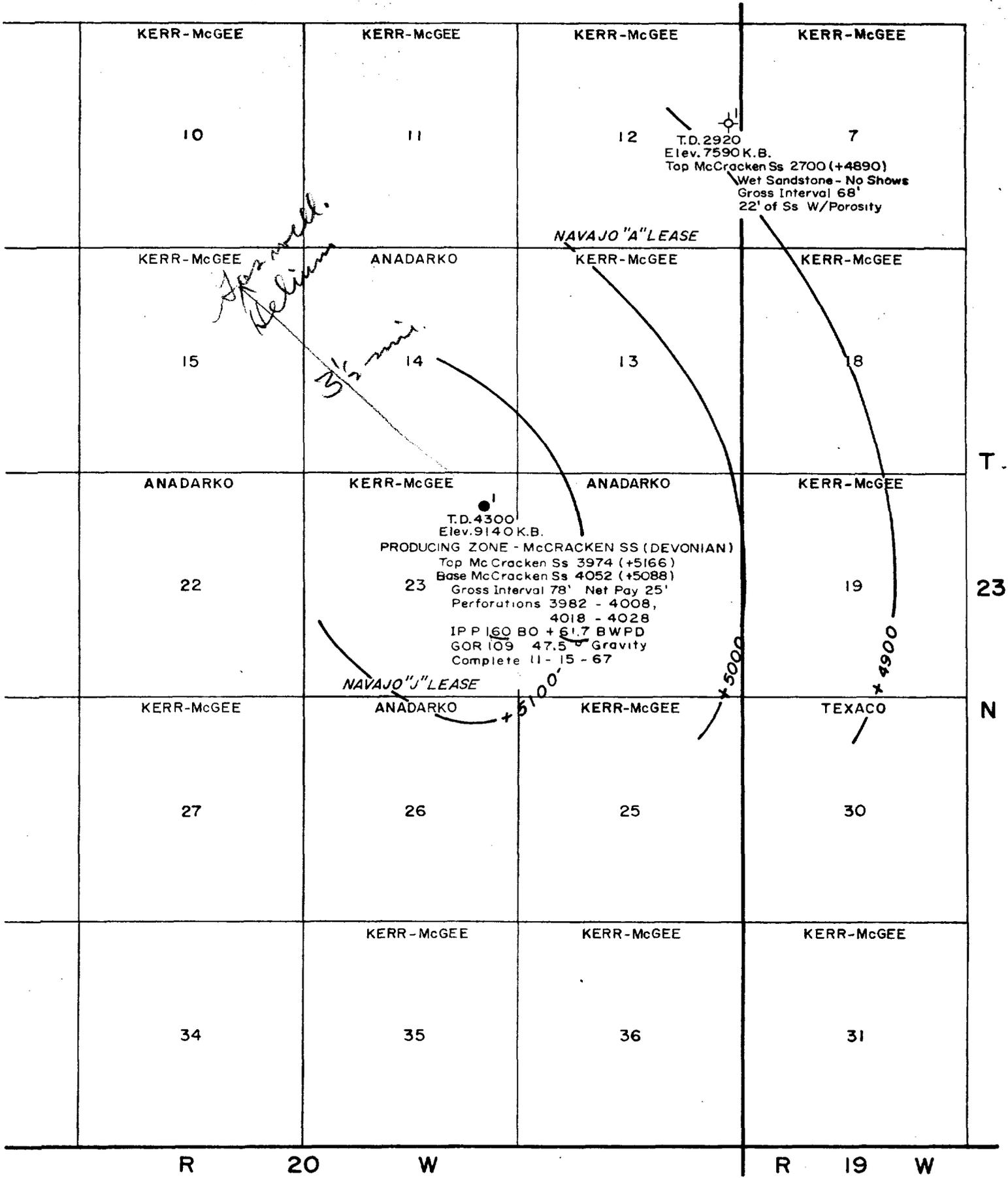


U. S. Geological Survey
"Geology, Structure & Uranium Deposits of
the Shiprock Quadrangle, New Mexico and
Arizona". Map I-345. 1963. Scale 1:250,000

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

MC KINLEY COUNTY



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

CONTOURED ON: TOP McCracken Ss
 CONTOUR INTERVAL: 100 FEET

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

BEFORE EXAMINER UTZ
 OIL CONSERVATION COMMISSION
Applied 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
Utzie 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.

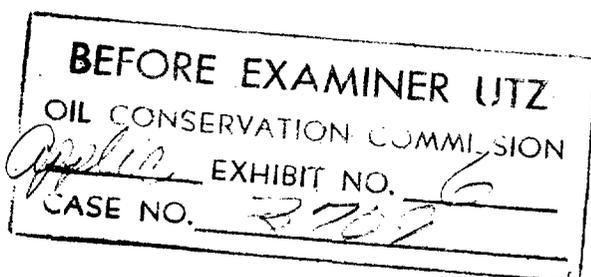
RULE 3. The Secretary-Director of the Commission may grant an exception to the requirements of Rule 2 without notice and hearing when an application has been filed for a non-standard unit comprising a governmental quarter-quarter section or lot, or the unorthodox size or shape of the tract is due to 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.

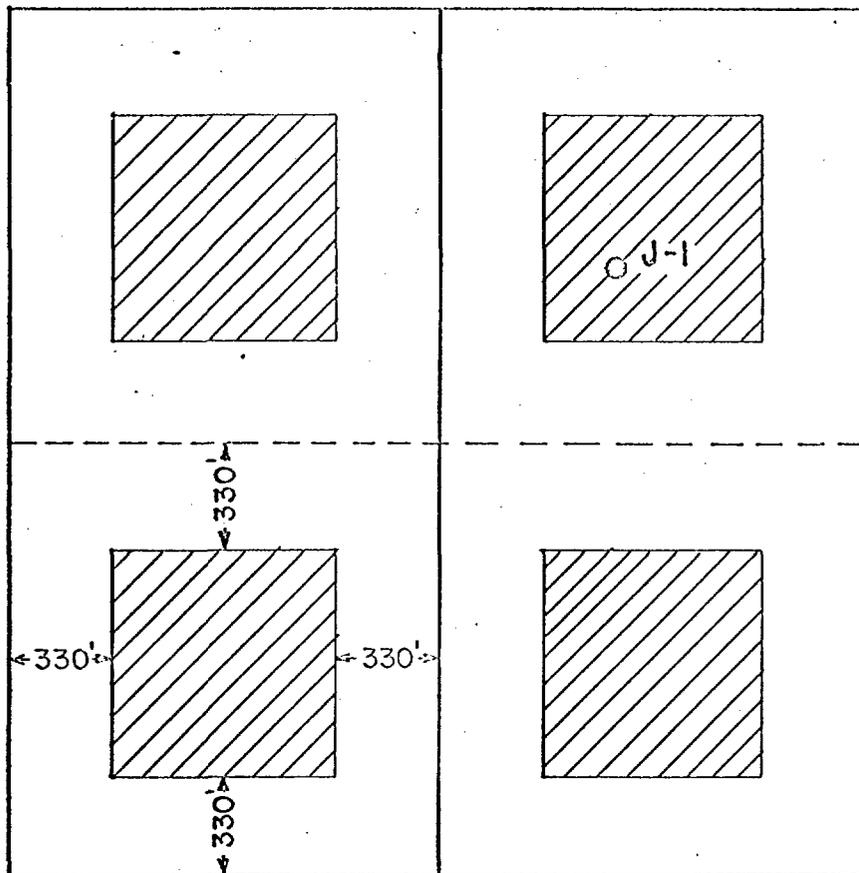
RULE 5. The Secretary-Director may grant an exception to the requirements of Rule 4 without notice and hearing when an application has been filed for an unorthodox location necessitated by topographical conditions or the recompletion of a well previously drilled to another horizon. All operators offsetting 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.

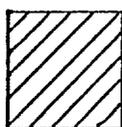
Exhibit No. _____
Case No. 3709
January 10, 1968



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
JANUARY 10, 1968

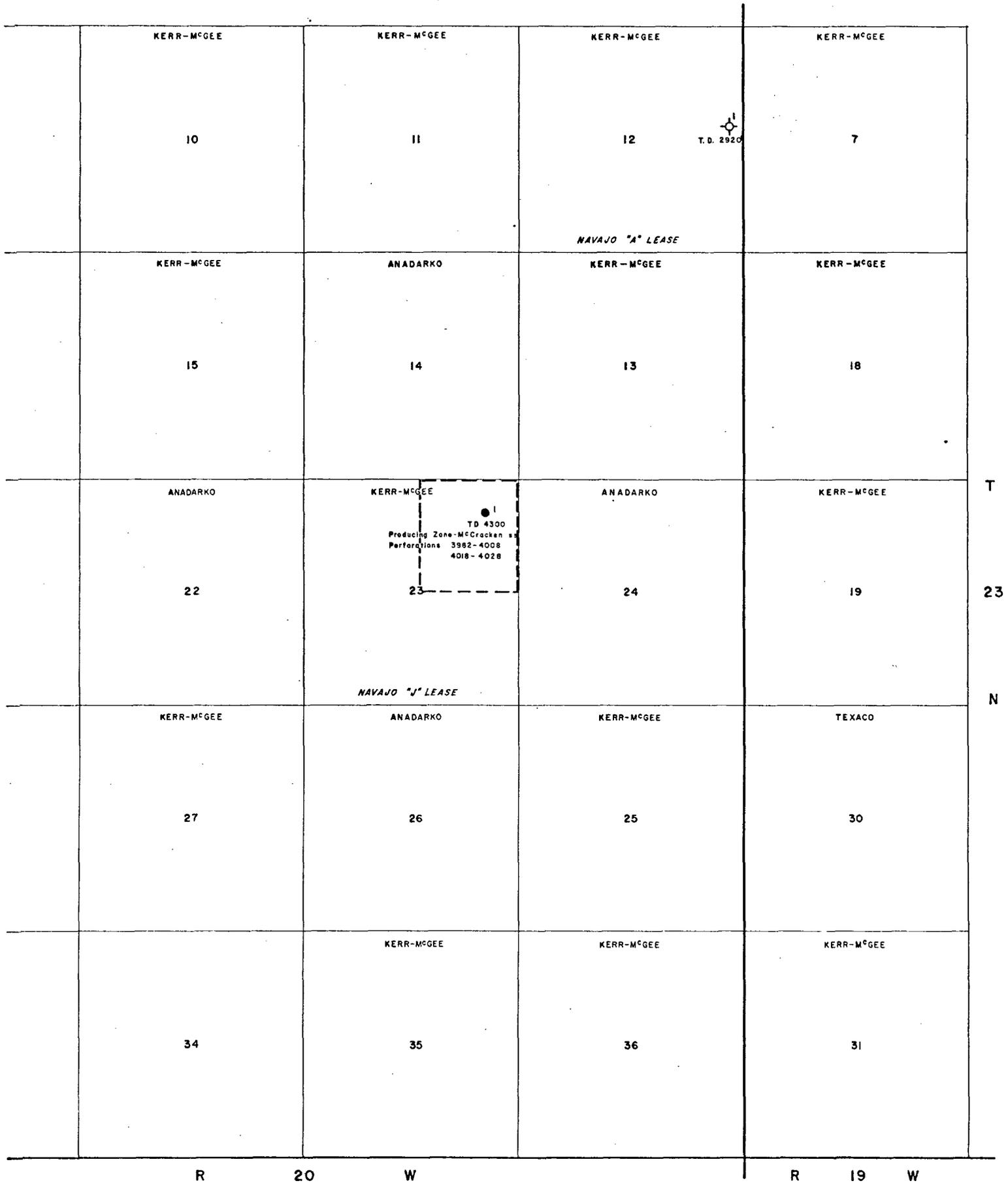
BEFORE EXAMINER UTZ
OIL CONSERVATION COMMISSION
Applicant EXHIBIT NO. 7
CASE NO. 3709

CASE NO. 3709
(Reopened)

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

KERR-McGEE CORPORATION
EXHIBITS

BEFORE EXAMINER NUTTLE
OIL CONSERVATION COMMISSION
EXHIBIT NO. 1
CASE NO. 3709
Reopened



----- Akah-Nez Devonian Oil Pool

KERR-MCGEE CORPORATION	
LUKACHUKAI AREA San Juan Co., N. M.	
Contoured On Scale 1" =	Contour Interval Date By

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

NUMBERED INDUCTION-ELECTRICAL LOG

WELL NAVAJO #J-1
 COMPANY KERR-MCGEE CORP.
 COMPANY KERR-MC GEE CORPORATION
 WELL NAVAJO #J-1
 FIELD WILDCAT
 COUNTY SAN JUAN STATE NEW MEXICO
 LOCATION 790' FNL 790' FEL
 Sec. 23 Twp. 23N Rge. 20W
 Other Services: SLC-GR
FDC/GR
CDM

measured From KB Elev. 9127 Elev. K.B. 9140
 Measured From KB 13 Ft. Above Perm. Datum D.F. 9139
 10/13/67 G.L. 9127

Driller	ONE	
Logger	4300	
Log Interval	4299	
Driller	9 5/8 1272	
Logger	1272	
Log Interval	8 3/4	
Fluid in Hole	FGM	
Visc.	8.7	4.5
Fluid Loss	8.5	4.6 ml
Core Sample	CIRC.	
Meas. Temp.	4.40 @ 63 °F	
Meas. Temp.	3.58 @ 68 °F	
Meas. Temp.	2.11 @ 115 °F	
Meas. Temp.	N	C
Meas. Temp.	2.60 @ 115 °F	
Meas. Temp.	2 HRS.	



TIGHT HOLE

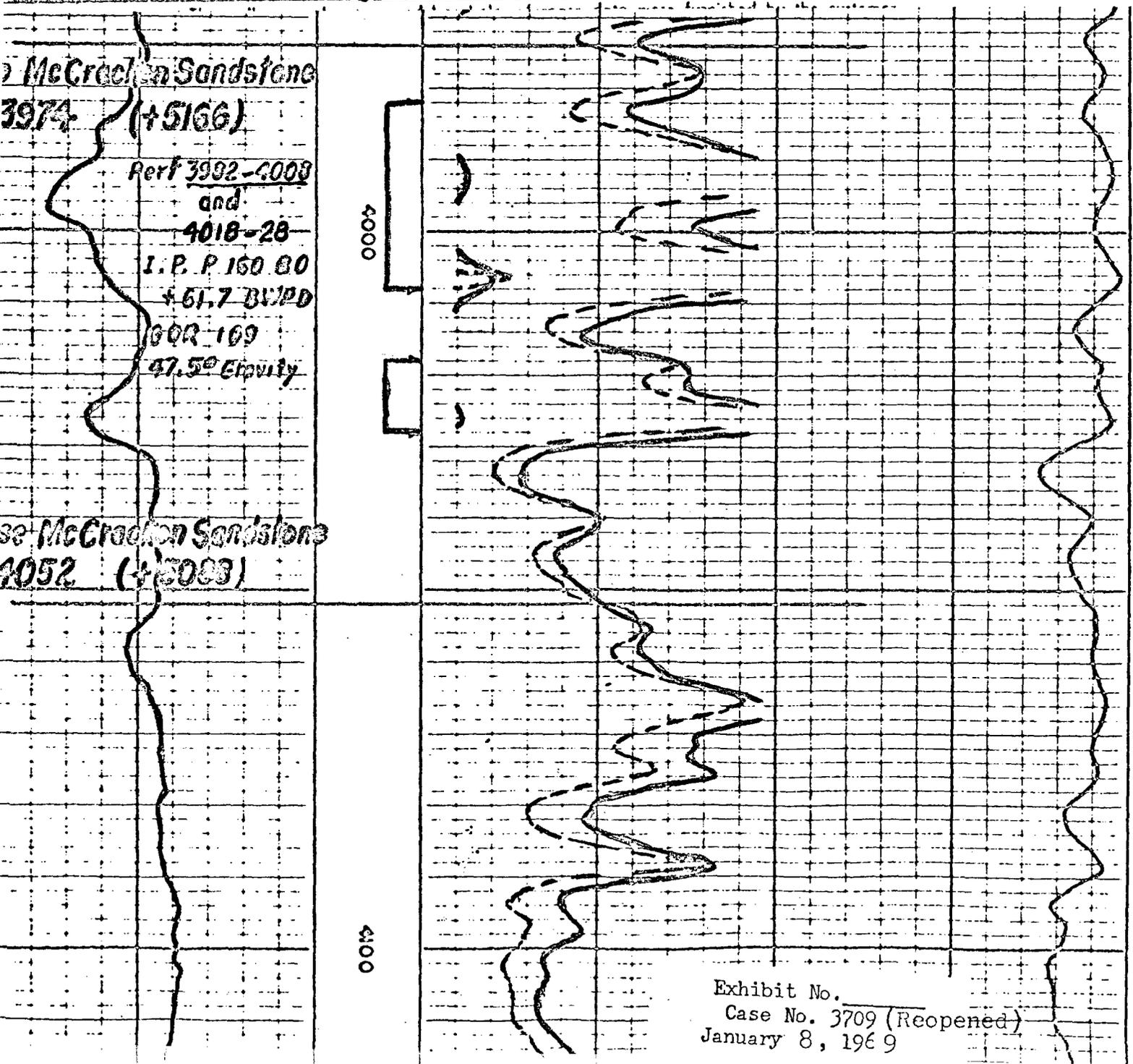
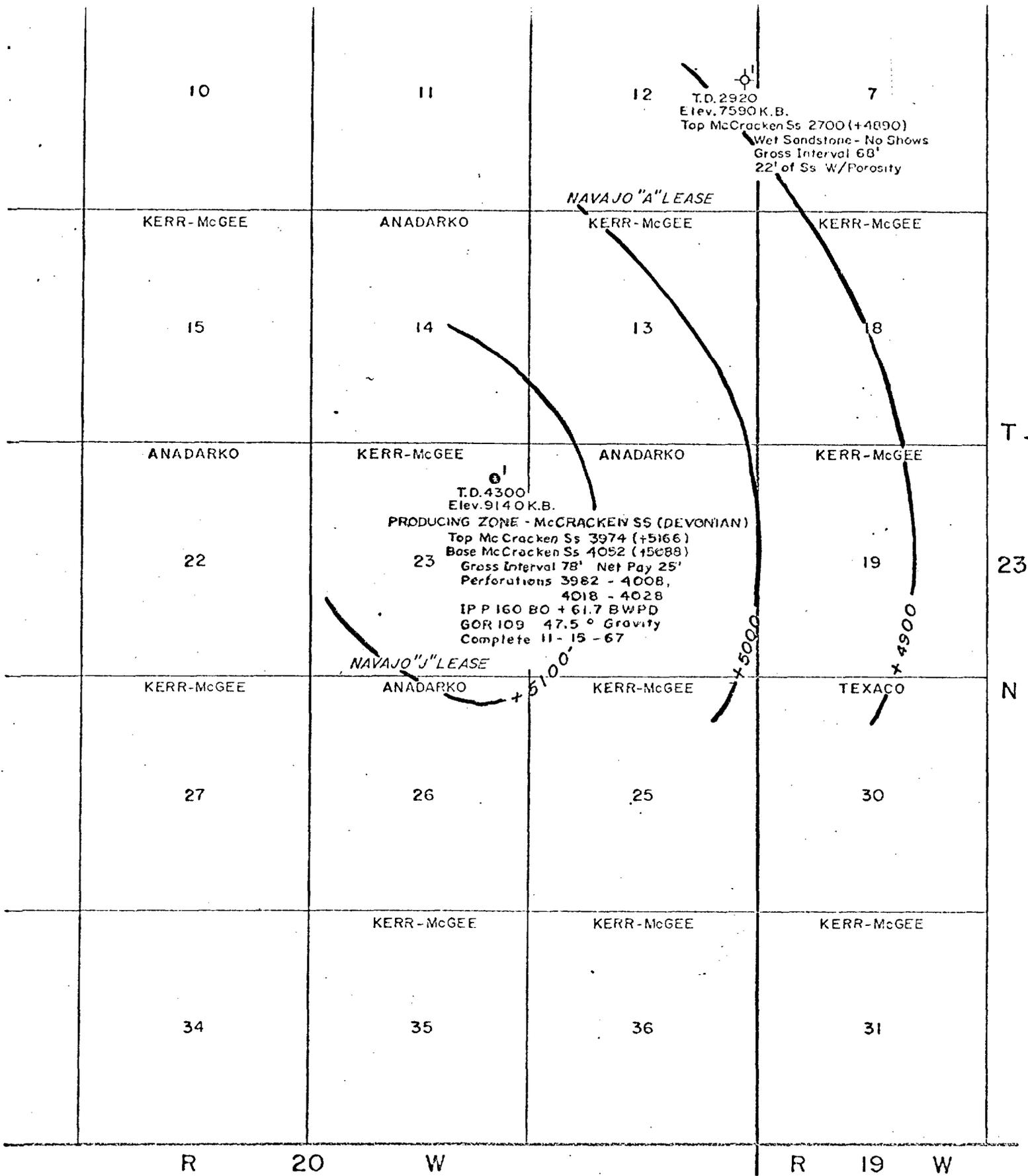


Exhibit No. _____
 Case No. 3709 (Reopened)
 January 8, 1969



KERR - Mc GEE 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

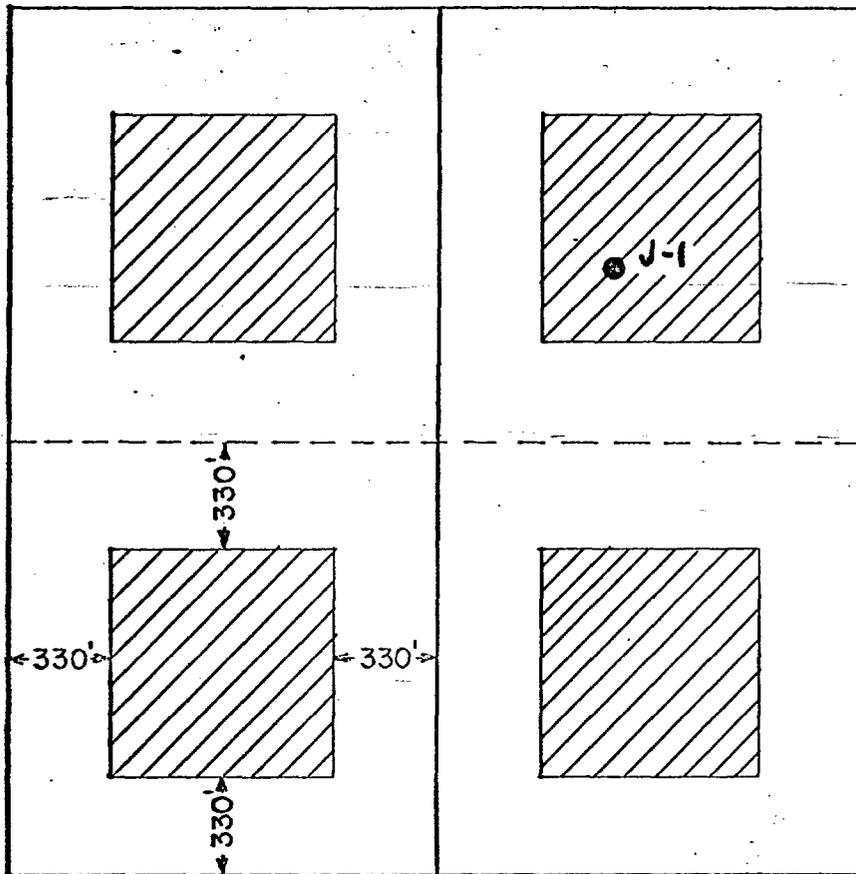
<u>Well</u>	<u>Date Completed</u>	<u>Date of Test</u>	<u>Test Data</u>
Navajo "J" No. 1	November 15, 1967	November 19, 1967	Pump 160 barrels oil and 62 barrels water per day with G.O.R. of 109 cubic feet per barrel oil.
		November 25, 1967	Pump 202 barrels oil and 64 barrels water per day.
		December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

*J-1 well
 163.5 md
 8% porosity
 47.5° gravity
 766 psig BHP*

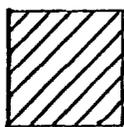
*Net permeability
 (calculated)
 163.5 md
 8% porosity
 47.5° gravity*

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 2, 1960

CONTOUR INTERVAL 40'

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.

-3-

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

-4-

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

esr/