KERR-MCGEE #11 NAVAJO
NW SE 32-36N-30E APACHE CO. 306

s1

COUNTY Apache AREA 9 mi SW Redrock LEASE NO. 14-20-0603-8823

Mtn. States Petroleum (5-1-94)

WELL NAME ~~KERR MCGEE~~ #11 Navajo[redacted]

LOCATION NW SE SEC 32 TWP 36N RANGE 30E FOOTAGE 2310' FSL - 2070' FEL

ELEV 7402 GR 7413 KB SPUD DATE 7-8-69 STATUS Oil COMP. DATE ~~8-9-69~~ TOTAL DEPTH 2893

CONTRACTOR Loffland Brothers

CASING SIZE	DEPTH	CEMENT	LINER SIZE & DEPTH
9 5/8"	272	200 SKS	NA
7"	2831	150 SKS	

DRILLED BY ROTARY 0-2831'

DRILLED BY CABLE TOOL 2831-2893'

PRODUCTIVE RESERVOIR Lower Hermosa

INITIAL PRODUCTION 456 BOPD 167 MCF/D

FORMATION TOPS	DEPTHS	SOURCE L.L.	SOURCE E.L.	REMARKS
Chinle	Surface	X	X	*This lease covers sections 29,30 and 32.
Coconino	482'			
Hermosa	2328'			
Black Shale	2792'			
Intrusive	2800'			

ELECTRIC LOGS	PERFORATED INTERVALS	PROD. INTERVALS
IE/GR - 2; CFD - 2	2831-2893'	

SAMPLE LOG Am Strat
SAMPLE DESCRP. 4 corners
SAMPLE NO. 1503*
CORE ANALYSIS 3000-3178'
DSTs
*Tucson 2580

REMARKS

APP. TO PLUG
PLUGGING REP.
COMP. REPORT

WATER WELL ACCEPTED BY

BOND CO. ~~Firemen's Insurance Company~~ BIA BOND BOND NO. ~~188 98 10 528~~

BOND AMT. $ ~~25,000~~ CANCELLED 12/1/97 DATE ORGANIZATION REPORT 6-17-67

FILING RECEIPT 9588 LOC. PLAT x WELL BOOK x PLAT BOOK x

API NO. 02-001-20106 DATE ISSUED 6-20-69 DEDICATION SE/4* (See Order #21-A)

PERMIT NUMBER 506

(over)

WELL COMPLETION OR RECOMPLETION REPORT AND WELL LOG

DESIGNATE TYPE OF COMPLETION:

New Well [X] Work-Over [ ] Deepen [ ] Plug Back [ ] Same Reservoir [ ] Different Reservoir [ ] Oil [X] Gas [ ] Dry [ ]

DESCRIPTION OF WELL AND LEASE

Operator: KERR-McGEE CORPORATION	Address: 215 Petroleum Center Building, Farmington, New Mexico 87401
Federal, State or Indian Lease Number or name of lessor if fee lease: 14-20-0603-8823 NAVAJO	Well Number: 11 / Field & Reservoir: Dineh-bi-Keyah Field
Location: 2310' FSL and 2070' FEL	County: Apache
Sec. TWP-Range or Block & Survey: Sec 32, T36N, R30E	

Date spudded	Date total depth reached	Date completed, ready to produce	Elevation (DF, RKB, RT or Gr.) feet	Elevation of casing hd. flange feet
7-8-69	7-26-69	8-9-69	7401 GR	

Total depth	P.B.T.D.	Single, dual or triple completion?	If this is a dual or triple completion, furnish separate report for each completion.
2893'	2893'	Single	

Producing interval (s) for this completion	Rotary tools used (interval)	Cable tools used (interval)
2831-2893'	0-2831'	2831-2893'

Was this well directionally drilled?	Was directional survey made?	Was copy of directional survey filed?	Date filed
no	no	no	---

Type of electrical or other logs run (check logs filed with the commission)	Date filed
Induction-Electric and Gamma Ray-Density	August 25, 1969

CASING RECORD

Casing (report all strings set in well—conductor, surface, intermediate, producing, etc.)

Purpose	Size hole drilled	Size casing set	Weight (lb./ft.)	Depth set	Sacks cement	Amt. pulled
Surface	13 3/4"	9 5/8"	32.30	272'	200	None
Production	8 3/4"	7"	20.0	2831	150	None

TUBING RECORD

Size	Depth set	Packer set at
2 7/8 in.	2871 ft.	None ft.

LINER RECORD

Size	Top	Bottom	Sacks cement	Screen (ft.)
--- in.	None ft.	ft.		

PERFORATION RECORD

Number per ft.	Size & type	Depth Interval
Open Hole	below 7" pipe	2831-2893'

ACID, SHOT, FRACTURE, CEMENT SQUEEZE RECORD

Am't. & kind of material used	Depth Interval
60,060 gal oil, 37,500# sand & 3000# Adomite	2831-2893'

INITIAL PRODUCTION

Date of first production: 8-18-69

Producing method (indicate if flowing, gas lift or pumping—if pumping, show size & type of pump:) Pumping - $2\frac{1}{2}$"x$2\frac{1}{4}$"x11'x13', Tubing Pump

Date of test	Hrs. tested	Choke size	Oil prod. during test	Gas prod. during test	Water prod. during test	Oil gravity
8-19-69	24	--	456 bbls.	167 MCF	-- bbls.	42.8° API (Corr)

Tubing pressure	Casing pressure	Cal'ted rate of Production per 24 hrs.	Oil	Gas	Water	Gas-oil ratio
None	None		456 bbls.	167 MCF	--- bbls.	366 CF/bbl

Disposition of gas (state whether vented, used for fuel or sold): Vented

CERTIFICATE: I, the undersigned, under the penalty of perjury, state that I am the Field Superintendent of the Kerr-McGee Corporation (company), and that I am authorized by said company to make this report; and that this report was prepared under my supervision and direction and that the facts stated therein are true, correct and complete to the best of my knowledge.

August 25, 1969
Date

Signature C J Breeden

RECEIVED AUG 26 1969 STATE O & G CONS. COMM.

2 Ariz
1 Tribe
1 JIFisher
1 R W King
1 CDWilliams
1 File

Permit No. 506

STATE OF ARIZONA
OIL & GAS CONSERVATION COMMISSION
Well Completion or Recomplete Report and Well Log
File Copy
Form No. 4

(Complete Reverse Side)

DETAIL OF FORMATIONS PENETRATED

Formation	Top	Bottom	Description*
Chinle (Triassic)	0	482'	Red shale with thin stringers of sand
Coconino (Permian)	482	2328'	Massive sandstone with shaly stringers
Hermosa (Penn)	2328	2792'	Limestone, predominantly dense and tite with red and gray shale, some thin sandstone stringers
Black Shale (Penn)	2792	2800'	Shale, dolomitic, dense
Intrusive (Tertiary)	2800	2893	Syenite

NO CORES or DRILL STEM TESTS

* Show all important zones of porosity, detail of all cores, and all drill-stem tests, including depth interval tested, cushion used, time tool open, flowing and shut-in pressures, and recoveries.

INSTRUCTIONS:

Attach drillers log or other acceptable log of well.

This Well Completion or Recompletion report and well log shall be filed with the State of Arizona Oil & Gas Conservation Commission not later than thirty days after project completion.

Form No. 4

OPERATOR'S CERTIFICATE OF COMPLIANCE AND AUTHORIZATION
TO TRANSPORT OIL OR GAS FROM LEASE

Federal, State or Indian Lease Number, or lessor's name if fee lease	Field	Reservoir
14-20-0603-8823	Dineh-BI-Keyah	Hermosa
Survey or Sec-Twp-Rge	**County**	**State**
Sec29,30,31,32 T-36N-R30E	Apache	AZ

Operator: Mountain States Petroleum Corp.

ADDRESS ALL CORRESPONDENCE CONCERNING THIS FORM TO:

Street	City	State
P O Bx 1936	Roswell,	New Mexico 88202

Above named operator authorizes (name of transporter)

Giant Industries

Transporter's street address	City	State
P O Bx 12999	Scottsdale,	AZ

Field address: P O Bx 256 (Bloomfield Hwy) Farmington, N M 87499

Oil, condensate, gas well gas, casinghead gas

To transport 100% of the oil from said lease.

OTHER GATHERERS TRANSPORTING FROM THIS LEASE ARE AS FOLLOWS:

Name of gatherer	% transported	Product transported

Indicate whether or not this certificate is for a new lease. If not a new lease, indicate whether or not it is a change of operator, change of lease name, change of gatherer, or a consolidation or subdivision of leases and give effective date of change.

Change of Oper.

The undersigned certifies that the rules and regulations of the State of Arizona Oil & Gas Conservation Commission have been complied with in drilling and producing operations on this lease, except as noted above, and that the above transporter is authorized to transport the above specified percentage of the allowable oil or gas produced from the above described property, and that this authorization will be valid until further notice or until cancelled by the State of Arizona Oil & Gas Conservation Commission.

CERTIFICATE: I, the undersigned, under the penalty of perjury, state that I am the Secretary of the Mountain States Petro. Corp. (company), and that I am authorized by said company to make this report; and that this report was prepared under my supervision and direction and that the facts stated therein are true, correct and complete to the best of my knowledge.

Date Aug. 11, 1995

Signature Ruby Wickersham

Date approved: AUG 16 1995

STATE OF ARIZONA
OIL & GAS CONSERVATION COMMISSION

By: Steven L. Rains

Permit No. 506

STATE OF ARIZONA
OIL & GAS CONSERVATION COMMISSION

Operator's Certificate of Compliance & Authorization to Transport Oil or Gas from Lease

File Two Copies

Form No. 8

OPERATOR'S CERTIFICATE OF COMPLIANCE AND AUTHORIZATION TRANSPORT OIL OR GAS FROM LEASE

Federal, State or Indian Lease Number, or lessor's name if fee lease	Field	Reservoir
14-20-0603-8823 Navajo	Dineh-Bi-Keyah	Hermosa
Survey or Sec-Twp-Rge	**County**	**State**
Several - T 36 N, R 30 E	Apache	Arizona

Operator: Kerr-McGee Corporation

ADDRESS ALL CORRESPONDENCE CONCERNING THIS FORM TO:

Street	City	State
P. O. Box 250	Amarillo	Texas, 79189

Above named operator authorizes (name of transporter): Gary-Williams Energy

Transporter's street address	City	State
370 17th St., Suite 5300	Denver	Colorado, 80202

Field address: P. O. Box 159, Bloomfield, NM 87413

To transport 100 % of the Oil (Oil, condensate, gas well gas, casinghead gas) from said lease.

OTHER GATHERERS TRANSPORTING FROM THIS LEASE ARE AS FOLLOWS:

Name of gatherer	% transported	Product transported

Indicate whether or not this certificate is for a new lease. If not a new lease, indicate whether or not it is a change of operator, change of lease name, change of gatherer, or a consolidation or subdivision of leases and give effective date of change.

The undersigned certifies that the rules and regulations of the State of Arizona Oil & Gas Conservation Commission have been complied with in drilling and producing operations on this lease, except as noted above, and that the above transporter is authorized to transport the above specified percentage of the allowable oil or gas produced from the above described property, and that this authorization will be valid until further notice or until cancelled by the State of Arizona Oil & Gas Conservation Commission.

CERTIFICATE: I, the undersigned, under the penalty of perjury, state that I am the Area Manager of the Kerr-McGee Corporation (company), and that I am authorized by said company to make this report; and that this report was prepared under my supervision and direction and that the facts stated therein are true, correct and complete to the best of my knowledge.

8/18/92
Date

H.H. Rice
Signature

H.H. Rice

Date approved: 8-21-92

STATE OF ARIZONA
OIL & GAS CONSERVATION COMMISSION

By: Steven L. Ruiz

Permit No.

STATE OF ARIZONA
OIL & GAS CONSERVATION COMMISSION

Operator's Certificate of Compliance & Authorization to Transport Oil or Gas from Lease

File Two Copies

Form No. 8

GAS-OIL RATIO TEST REPORTS

Filed under Oil-Gas Ratio Tests, Dineh-bi-Keyah Field
in cabinet in office of Enforcement Director

Form 9-331
(May 1963)

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

SUBMIT IN DUPLICATE*
(Other instructions on reverse side)

Form approved.
Budget Bureau No. 42-R1424.

SUNDRY NOTICES AND REPORTS ON WELLS

(Do not use this form for proposals to drill or to deepen or plug back to a different reservoir. Use "APPLICATION FOR PERMIT—" for such proposals.)

1. OIL WELL [X] GAS WELL [ ] OTHER

2. NAME OF OPERATOR: KERR-MCGEE CORPORATION

3. ADDRESS OF OPERATOR: P. O. BOX 250, AMARILLO, TEXAS 79105

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.* See also space 17 below.) At surface: 2,310' FSL & 2,070' FEL of SEC. 32 G & SRM SURVEY

5. LEASE DESIGNATION AND SERIAL NO.: 14-20-0603-8823

6. IF INDIAN, ALLOTTEE OR TRIBE NAME: NAVAJO

7. UNIT AGREEMENT NAME:

8. FARM OR LEASE NAME: NAVAJO

9. WELL NO.: 11

10. FIELD AND POOL, OR WILDCAT: DINEH-BI-KEYAH

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA: Sec. 32, T&GN, R30E

12. COUNTY OR PARISH: APACHE

13. STATE: ARIZONA

14. PERMIT NO.: State 506

15. ELEVATIONS (Show whether DF, RT, GR, etc.): 7402'

16. Check Appropriate Box To Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:				SUBSEQUENT REPORT OF:			
TEST WATER SHUT-OFF		PULL OR ALTER CASING		WATER SHUT-OFF		REPAIRING WELL	
FRACTURE TREAT		MULTIPLE COMPLETE		FRACTURE TREATMENT	X	ALTERING CASING	
SHOOT OR ACIDIZE		ABANDON*		SHOOTING OR ACIDIZING	X	ABANDONMENT*	
REPAIR WELL		CHANGE PLANS		(Other) Clean-out			X
(Other)				(NOTE: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)			

17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)*

Acidized well with 1,000 gals Resi-Sol. Pulled rods & tubing. Cleaned out to 2,893'. Fraced with 500 gals scale inhibitor; 95,900 gals crude oil; 7,350# 100 mesh sand; 81,000# 10-20 sand. I.S.D.P.: 200 Psi; A.I.R.: 115 BPM; A.I.P.: 1,616 Psi. Cleaned out to 2,893'. Run tubing, pump & rods & placed well on production.

Dates: 12/4/77 to 12/15/77

18. I hereby certify that the foregoing is true and correct

SIGNED L. D. McRae TITLE District Manager-Engineering DATE 12/16/77

(This space for Federal or State office use)

APPROVED BY _____ TITLE _____ DATE _____

CONDITIONS OF APPROVAL, IF ANY:

RECEIVED
DEC 21 1977
O & G CONS. COMM.

*See Instructions on Reverse Side

Form 9-331
(May 1963)

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

SUBMIT IN TRIPLICATE*
(Other instructions on reverse side)

Form approved.
Budget Bureau No. 42-R1424.

SUNDRY NOTICES AND REPORTS ON WELLS

(Do not use this form for proposals to drill or to deepen or plug back to a different reservoir. Use "APPLICATION FOR PERMIT—" for such proposals.)

1. OIL WELL [XX] GAS WELL [ ] OTHER

2. NAME OF OPERATOR
KERR McGEE CORPORATION

3. ADDRESS OF OPERATOR
P. O. BOX 250, AMARILLO, TEXAS 79105

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.* See also space 17 below.)
At surface
2,310' FSL and 2,070' FEL (NW SE) of Sec. 32

5. LEASE DESIGNATION AND SERIAL NO.
14-20-0603-8823

6. IF INDIAN, ALLOTTEE OR TRIBE NAME
NAVAJO

7. UNIT AGREEMENT NAME

8. FARM OR LEASE NAME
NAVAJO

9. WELL NO.
NO. 11

10. FIELD AND POOL, OR WILDCAT
DINEH-BI-KEYAH

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA
Sec. 32, T36N, R30E
G & SRM Survey

12. COUNTY OR PARISH: APACHE
13. STATE: ARIZONA

14. PERMIT NO.
State No. 506

15. ELEVATIONS (Show whether DF, RT, GR, etc.)
7,402' GR

16. Check Appropriate Box To Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:

TEST WATER SHUT-OFF		PULL OR ALTER CASING	
FRACTURE TREAT	X	MULTIPLE COMPLETE	
SHOOT OR ACIDIZE	X	ABANDON*	
REPAIR WELL		CHANGE PLANS	
(Other)		CLEAN OUT	X

SUBSEQUENT REPORT OF:

WATER SHUT-OFF		REPAIRING WELL	
FRACTURE TREATMENT		ALTERING CASING	
SHOOTING OR ACIDIZING		ABANDONMENT*	
(Other)			

(NOTE: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)*

Acidize well with 1,000 gal. Resi-Sol and 400 gals. crude oil down tubing annulus. Pump acid out. Pull pump, rods, and tubing. Clean out to 2,893'. Fracture treat with 500 gal. scale preventative, 95,900 gals. crude oil, 81,000# 10-20 sand, 7,350# 100 mesh sand @ 120 BPM. Clean out to 2,893. Run tubing, pump, and rods and place well on production.

Est. Date: December 5, 1977

RECEIVED
NOV 14 1977
O & G CONS. COMM.

18. I hereby certify that the foregoing is true and correct
SIGNED L. D. McRae TITLE DISTRICT MANAGER-ENGINEERING DATE 11-11-77

(This space for Federal or State office use)
APPROVED BY TITLE DATE 11-18-77
CONDITIONS OF APPROVAL, IF ANY:

*See Instructions on Reverse Side

PETROLEUM ENGINEERING
RESERVOIR STUDIES
EVALUATIONS
GEOLOGICAL STUDIES

EWELL N. WALSH, P.E.
President

WALSH
ENGINEERING & PRODUCTION CORPORATION
PETROLEUM CLUB PLAZA BUILDING
P. O. BOX 254
FARMINGTON, NEW MEXICO 87401

LEASE MANAGEMENT
CONTRACT PUMPING
DRILLING SUPERVISION
WORKOVER SUPERVISION

TELEPHONE 325-8203

KERR McGEE CORPORATION
NAVAJO NO. 11
NWSE Section 32-T36N-R30E
Apache County, Arizona

7-27-69	Sandoil frac open hole interval from 2813' to 2893' with 60,000 gallons lease crude and 37,500 pounds of sand. Load oil in well to be recovered 1801 barrels.
7-28 to 8-9-69	Recovering load oil by swabbing and pumping. During last 24 hours pumped 460 barrels load oil.
8-9-69	Recovered all load oil at 6:00 A. M. Pulled rods and pump from well. Ran Amerada B.H.P. bomb in well to 2845'. B.H.P. bomb in well at 10:30 A. M.
8-10-69	12:15 P.M. - Pulled Amerada B.H.P. bomb. Bottom hole pressure almost stabilized at 130 psig. Less than 2 psig change during last 24-hour period B.H.P. bomb was in well.
	12:45 P.M. - Ran Amerada B.H.P. bomb back in well to 2845'. Surface casing pressure - 120 psig. Surface tubing pressure - 118 psig.
	1:40 P.M. - Shut in wells No. 1, 2, 3-X and 4. See Table No. 1
	5:55 P.M. - Pulled Amerada B.H.P. bomb from well. Approximately 1 psig increase.
	6:35 P.M. - Sperry Sun B.H.P. bomb run in well to 2845'.
8-11-69	1:40 A.M. - Completed 12-hour build up test on Wells No. 1, 2, 3-X and 4. Well No. 4 put on production.
	1:40 P.M. - Well No. 3-X put on production.
8-12-69	1:40 A.M. - Well No. 2 put on production.
	1:40 P.M. - Well No. 1 put on production.

RECEIVED
AUG 20 1969
STATE O & G
CONS. COMM.

14 506

8-13-69 Producing Wells No. 1, 2, 3-X and 4 with Sperry Sun B.H.P. bomb in No. 11.

8-14-69 Pulled Sperry Sun B.H.P. bomb at 6:35 A.M. Replaced charts, batteries and top recorder. Reran bomb in well to 2845'. Bomb at 2845' at 8:10 A.M.

Run No. 1, Sperry Sun B.H.P. Bomb

B.H.P. bomb in well for total of 84 hours. Initial pressure - 134.30 psig. Pressure increased to 135.43 psig and stabilized from approximately 21 hr. 10 min. to 35 hrs. 50 min. Pressure then decreased to 134.97 psig at end of bomb run 84 hours.

Comments

Run No. 1 of Sperry Sun B.H.P. bomb indicated that one of the Wells No. 1, 2, 3-X and 4 was in communication with Well No. 11. This was indicated on the chart by the stabilization of the pressure and subsequent decrease in pressure in Well No. 11. It is estimated at this time that the decrease in pressure or interference between one of the surrounding wells and Well No. 11 occurred at approximately 28 hours and 30 minutes after Well No. 4 was put on production.

8-15-69 Pulled Sperry Sun B.H.P. bomb at 9:00 P.M. Replaced charts and batteries. Reran bomb in well to 2845'. Bomb at 2845' at 10:30 P.M.

Run No. 2, Sperry Sun B.H.P. Bomb

1 hour 35 minute interval between Run No. 1 and Run No. 2 during which the B.H.P. bomb was not in well. Initial pressure - 134.25 psig. Pressure increased to 134.50 psig in 2 hrs 8 min. Pressure decreased to 134.25 psig after 7 hrs. 24 min. Pressure then decreased to 133.90 psig at end of bomb run, 36 hrs. 50 min.

Comments

The field readings for Run No. 2 did not indicate communication with additional wells. The decrease in pressure between the end of Run No. 1 - 134.97 psig and the start of Run No. 2 - 134.25 psig, was evidently due to the loss of gas pressure from removing the gas from the lubricator when servicing the bomb. The increase in pressure during the first portion of Run No. 2 was due to the reservoir being disturbed by running the B.H.P. bombs in and out of the well and the reservoir was trying to stabilize the pressure. There was no indication of an additional well interfering with No. 11.

564

8-16-69 Producing Wells No. 1, 2, 3-X and 4 with Sperry Sun B.H.P. bomb in No. 11.

8-17-69 Pulled Sperry Sun B.H.P. bomb at 2:50 P.M. Replaced charts, batteries and bottom recorder. Reran bomb in well to 2845'. Bomb at 2845' at 4:30 P.M.

Run No. 3, Sperry Sun B.H.P. Bomb

1 hour 30 minute interval between Run No. 2 and Run No. 3 during which the B.H.P. bomb was not in well. Initial pressure - 133.90 psig. Pressure increased to 134.26 psig in 2 hrs 8 min. Pressure decreased to 134.06 psig after 17 hrs 4 minutes. Pressure then decreased to 134.04 psig at end of bomb run, 40 hrs. 0 min.

Comments

The field readings indicated the configuration of the curve in Run No. 3 to be similar to the curve in Run No. 2. There was no indication of an additional well interfering with Well No. 11.

8-18-69 Pulled Sperry Sun B.H.P. bomb at 2:00 P.M. (192 hours 20 minutes after Wells No. 1, 2, 3-X and 4 were shut in). Pressure bled off of Well No. 11 and rods and pump run in well to put well on production.

Run No. 4, Sperry Sun B.H.P. Bomb

1 hour 40 minute interval between Run No. 3 and Run No. 4 during which the B.H.P. bomb was not in well. Initial pressure - 132.90 psig. Pressure increased to 133.35 psig after 2 hrs. 0 min. Pressure decreased to 133.33 psig after 18 hrs, 0 min. Pressure increased to 133.38 psig after 16 hrs., 0 min. Pressure increased to 133.42 psig at end of bomb run, 19 hrs. 50 min.

Comments

The field readings indicated the configuration of the curve in Run No. 4 to be similar to the curve in Run No. 2 and 3 except for the increase in pressure during the last portion of the bomb run. The increase in pressure could be due to transient shut in pressure signal arriving at Well No. 11 from one of the offset wells or the reservoir attempting to adjust after being disturbed.

TABLE NO. 1
PRESSURE BUILD UP TESTS

Producing Pressures

Well	Pressure Psig.	Depth	Sub-sea Depth	+4500' Datum Press.-psia
1	109	2918'	+4655'	174
2	70	3107'	+4429'	56
3	70	3450'	+4522'	88
4	92	2922'	+4462'	90

Pressure Build Up

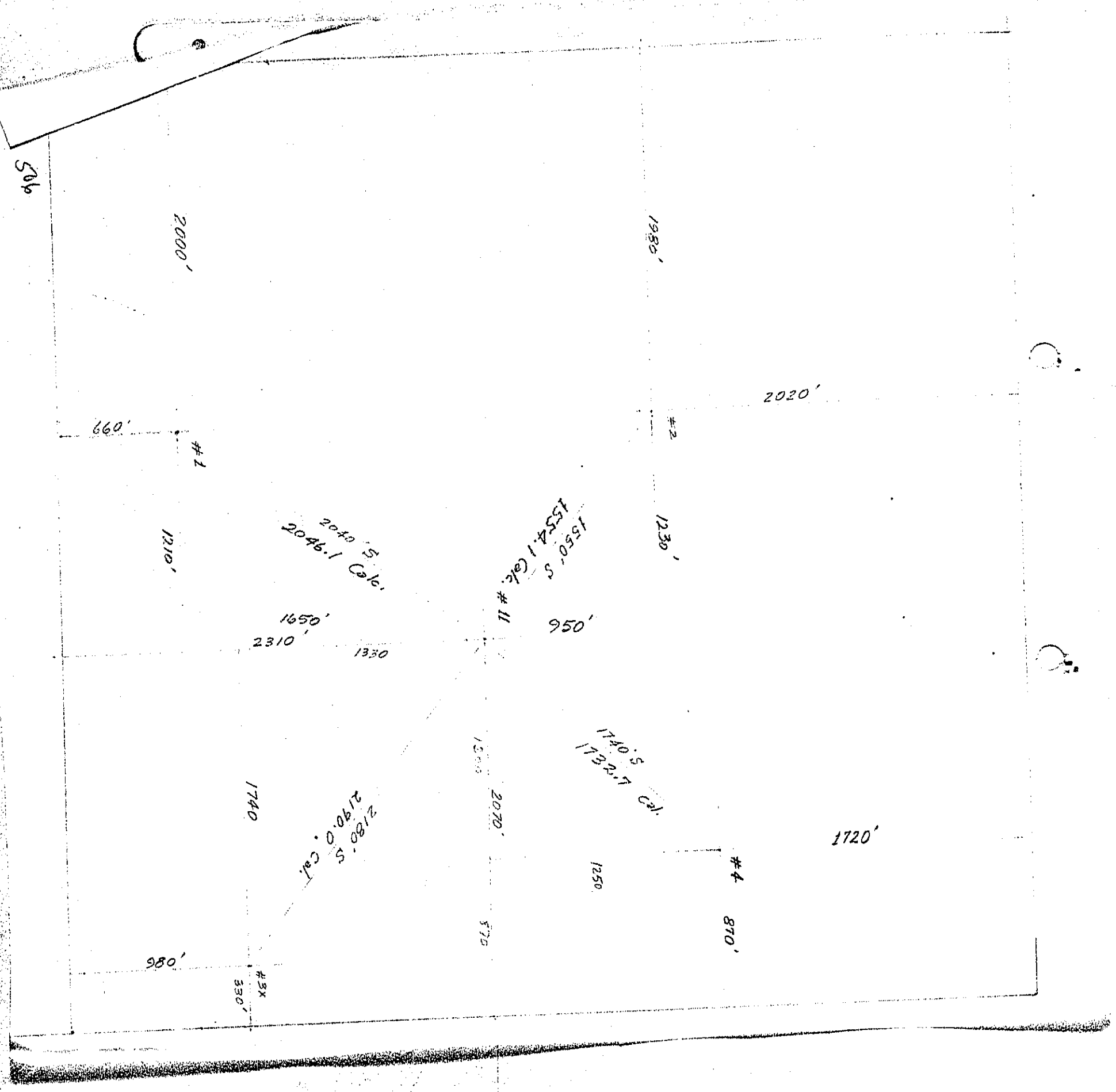
Well	Pressure Psig	Depth	Sub-sea Depth	+4500' Datum Press-psia	$\overline{P}$ Psia
1	112	2918'	+4655'	166	298
2	170	3107'	+4429'	156	191
3	163	3450'	+4552'	192	211
4	126	2922'	+4462'	124	126
11	132	2845'	--	--	--

NOTE: Pressures for Well No. 1 not accurate due to inconsistencies in fluid level during shut in period.

TABLE NO. 2

SHUT IN TIME

Date 1969	Time	Item	Time Diff. Hrs.	Time Diff. Min.	TOTAL ELAPSED TIME From SI of No.11 Hrs.	From SI of No.11 Min.	TOTAL ELAPSED TIME From SI of No.1,2,3-X & 4 Hrs.	From SI of No.1,2,3-X & 4 Min.
8- 9	6:00 AM	#11 Recover Load Oil	--		--		--	
8- 9	10:30 AM	Amerada Bomb in #11-Well Shut in	--		--		--	
8-10	12:15 PM	Pull Amerada Bomb from #11	25	45	25	45	--	
8-10	12:45 PM	Run Amerada Bomb back in #11	0	30	26	15	--	
8-10	1:40 PM	Shut in #1,2,3-X & 4	0	55	27	10	--	
8-10	5:55 PM	Pull Amerada Bomb from #11	4	15	31	25	4	15
8-10	6:35 PM	Sperry Sun Bomb in #11	0	40	32	05	4	55
8-11	1:40 AM	#4 Put on Production	7	05	39	10	12	00
8-11	1:40 PM	#3-X Put on Production	12	00	51	10	24	00
8-12	1:40 AM	#2 Put on Production	12	00	63	10	36	00
8-12	1:40 PM	#1 Put on Production	12	00	75	10	48	00
8-14	6:35 AM	Pull Sperry Sun Bomb from #11	40	55	116	05	88	55
8-14	8:10 AM	Sperry Sun Bomb in #11	1	35	117	40	90	30
8-15	9:00 PM	Pull Sperry Sun Bomb from #11	36	50	154	30	127	20
8-15	10:30 PM	Sperry Sun Bomb in #11	1	30	156	00	128	50
8-17	2:50 PM	Pull Sperry Sun Bomb from #11	40	20	196	20	169	10
8-17	4:30 PM	Sperry Sun Bomb in #11	1	40	198	00	170	50
8-18	2:00 PM	Sperry Sun Bomb pull from #11	21	30	219	30	192	20


2000'
1980'
2020'
660'
#2
1210'
2040' S
2046.1 Cal.
1550' S
1554.1 Cal. #11
1230'
1650'
2310'
1330
950'
1740
2190.0 S
2190.0 Cal.
2020'
1740' S
1732.7 Cal.
1720'
1250
#4
870'
980'
#5x
330'

October 31, 1969

Memo to Kerr-McGee #11 Navajo 8823
T36N, R30E, G & SRM
Sec. 32: NW/4 SE/4
Apache County
Permit #506

Memo from James Scurlock, Geologist

Telephone from Bill Stauss, Kerr-McGee, Oklahoma City, this date. Bill pointed out that he had sent us all of the data, computer runs and so forth, on the subject well. The company, of course, is continuing to monitor and to plot the production of the subject well and of the surrounding wells in the section. Bill seems to have reached at least a tenative conclusion that the #4 well has indeed been directly affected by the production from the #11 and also that the #2 well at least to some extent is affected. These conclusions, of course, are not positive at this point because enough time has not yet elasped since the #11 was completed in August. Bill indicated that after about six months that the curves and the plotted points should show a valid picture of what is happening to the reservoir in this section. This means that in about December or January we will see these curves take a form which will allow us to make some conclusions that we can rely on.

At this time perhaps the company will be able to determine quantitatively how the production from the #11 well relates with the decline in production from the other wells. Thus, we should know at this time whether the #11 was indeed an economically successful well.

TEFTELLER, INC.
RESERVOIR ENGINEERING DATA
Midland, Texas

Well : NAVAJO NO. 11 Page 3 of 4

Field : DINEH BI KEYAH File 2-3508-BU

CHRONOLOGICAL PRESSURE AND PRODUCTION DATA

1969 Date	Status of Well	Time	Elapsed Time Hrs.	Elapsed Time Min.	Wellhead Pressure Tbg	Wellhead Pressure Csg	BHP @ 2845' Psig
8-9	Load Oil Recovered	05:30					
"	Unit shut down	06:00	0	00			
"	Pulled rods & pump				0	70	
"	BHP Inst. @ 2845'	10:30	4	30			132
"	"	18:00	12	00			132
8-10	"	06:00	24	00			132
"	~~Pull Inst.~~	10:30	28	30			132
"	"Pull Inst @ 12:15	12:00	30	00			132
"	Pull Tandem BHP Inst.	17:55	35	55	110	110	132
"	Sperry-Sun Inst.@2845'	18:35					

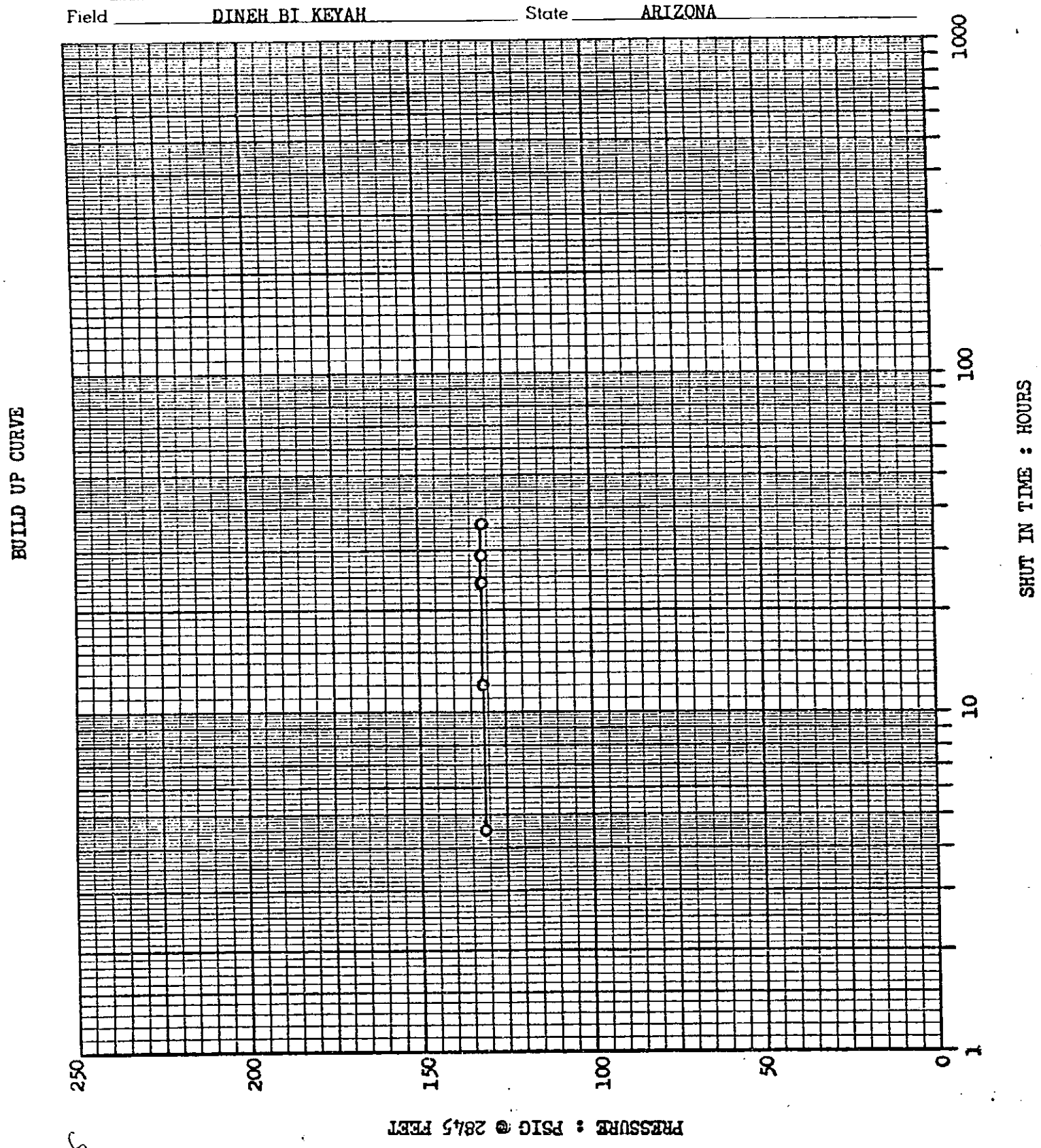
RECEIVED
SEP 22 1969
STATE O & G
CONS. COMM.

8 506

TEFTELLER, INC.
reservoir engineering data
MIDLAND, TEXAS

Page 4 of 4
File 2-3508-BU

Company KERR-McGEE CORPORATION Formation
Well NAVAJO NO. 11 County APACHE
Field DINEH BI KEYAH State ARIZONA



POTENTIAL TEST AND REQUEST FOR ALLOWABLE — OIL WELLS

DESIGNATE TYPE OF COMPLETION:

New Well [X] Work-over [ ] Deepen [ ] Plug Back [ ] Same Reservoir [ ] Different Reservoir [ ]

Other Reason For Filing:

Operator: KERR-McGEE CORPORATION

Address: 215 Petroleum Center Building, Farmington, New Mexico 87401

DESCRIPTION OF WELL AND LEASE

Federal, State or Indian Lease Number, or Lessor's Name if Fee Lease	Well Name	County
14-20-0603-8823 NAVAJO	11	Apache

Footage Location: 2310' FSL and 2070' FEL

Sec. Twp. Rge.: Sec. 32, T36N, R30E

Date spudded	Date completed, ready to produce	Total depth	P.B.T.D.
7-8-69	8-9-69	2893'	2893'

Field and reservoir	Top of pay	Producing interval
Dineh-bi-Keyah Lower Hermosa	2800'	2831-2893'

TEST DATA

Date of first production	Date of test	Length of test	Producing method (flow pump, gas lift)	Amount of load oil injected if any.
8-18-69	8-19-69	24 hrs.	Pump	2287 bbls

Number of barrels of oil produced from completion or recompletion date to test date: -0-

If well is produced by pumping, give pump size, length of stroke and strokes per minute: $2\frac{1}{2}$"x13', 14 SPM, 72"

Tubing pressure	Casing pressure	Choke size
None	None	None

*Actual production during test:	Oil (bbls)	Water (bbls)	Gas (MCF)
456	456	-0-	167

*Production must actually equal or exceed wells daily allowable or test must be for full 24 hours

Gas-oil ratio	Oil gravity	Name of transporter of oil
0.366 MCF/bbl.	42.8 * A.P.I. corrected	Kerr-McGee Pipeline Corporation

Number of acres attributed to this well	Number of producing wells in this reservoir on this lease, including this well	Single, dual or triple completion?	Daily allowable requested (bbls)
See Order No. 21A	12	Single	

Plat showing acreage attached—plat should show leases, offset wells, distance from this well to the nearest well on the same lease completed in or drilling to the same reservoir, and the boundaries of drilling and producing, or proration, units attributed to this well and other wells on the same lease completed in or drilling to the same reservoir, the number of acres in each unit and the number of acres in the lease.

CERTIFICATE: I, the undersigned, under the penalty of perjury, state that I am the Field Superintendent of the KERR-McGEE CORPORATION (company), and that I am authorized by said company to make this report; and that this report was prepared under my supervision and direction and that the facts stated therein are true, correct and complete to the best of my knowledge.

August 25, 1969
Date

C J Breeden
Signature C J Breeden

Witnessed by: Kerr-McGee Corporation
Organization

C J Breeden
Signature

August 25, 1969
Date

RECEIVED AUG 26 1969 STATE O & G CONS. COMM.

STATE OF ARIZONA
OIL & GAS CONSERVATION COMMISSION

Potential Test & Request for Allowable—Oil Wells

File One Copy

Permit No. 506

Form No. 6

1 Ariz 1 Tribe 1 JIFisher
1 RWKing 1 CDWilliams 1 WRF

WALSH
ENGINEERING & PRODUCTION
CORPORATION
PETROLEUM ENGINEERING
RESERVOIR STUDIES
EVALUATIONS
GEOLOGICAL STUDIES
LEASE MANAGEMENT
CONTRACT DRILLING
DRILLING SUPERVISION
WORKOVER SUPERVISION
PETROLEUM CLUB PLAZA BUILDING
P. O. BOX 264
FARMINGTON, NEW MEXICO 87401
TELEPHONE 325-8203
ENELL N. WALSH, P.E.
President

August 19, 1969

RECEIVED
AUG 20 1969
STATE O & G
CONS. COMM.

Mr. John Bannister
Executive Secretary
Oil & Gas Conservation Commission
State of Arizona
1624 W. Adams, Room 202
Phoenix, Arizona 85007

Ref: Kerr McGee Corporation
Well Navajo No. 11
Apache County, Arizona

Dear Mr. Bannister:

Enclosed is the information concerning the interference test conducted on the above-referred-to well.

From the readings obtained in the field from the pressure charts, evidently there was only one well of the four surrounding wells that was in communication with Well No. 11. It cannot be determined exactly which well was in communication; however, in view of other information and prior production history, it can be assumed that the well was in communication with Well No. 4.

Well No. 11 was definitely in communication with one of the four surrounding wells due to the bottom hole pressure recorded in Well No. 11 during the build up test prior to the time that the interference test was conducted.

The pressure information presented should be considered as approximate due to the pressures being interpreted in the field. The final and absolute pressures will be available as soon as the pressure bomb readings are computed by a computer and presented by Sperry Sun Company. At that time a more positive and definite study can be made of the pressures recorded.

In addition to pressures, additional information will be necessary from the future producing rates of the wells included in the interference test. Additional information

506

which will be important will be the plotting of cumulative production vs. producing rate in order to attempt to determine which well or wells are in communication with Well No. 11.

The computed pressures and plot will be sent to you by the Kerr McGee Corporation. As soon as you receive them, if you would please send me a copy, I would be able to give the test additional study and possibly have more conclusive results interpreted concerning the possible communication of Well No. 11 with the surrounding wells.

Very truly yours,

Ewell N. Walsh

Ewell N. Walsh, P. E.
President

ENW:lt

Enclosures

RECEIVED
AUG 20 1969
STATE O & G
CONS. COMM.

8-19-69

X Order 21A

Memo to: Kerr-McGee #11 Navajo 8832
NW/4 SE/4 Section 32-T36N-R30E
Apache County
Permit #506

From: John Bannister

Ewell Walsh, Petroleum Engineer employed to represent the Commission during the tests on this well, reported in by phone today that the tests are essentially completed.

He indicated that the tests indicate definite communication with this well and others located within the same section. It is Mr. Walsh' belief at this point that the well definitely is within communication with Kerr-McGee No. 4 Navajo.

The collected information will be sent by Kerr-McGee to Houston to be put through computers at that point. When the total information is available, we will see that Mr. Walsh is furnished with a copy of all data from which he will make a final report to the Commission.

Mr. Walsh was instructed to report his activities to date and to bill this Commission for his services to date. It is estimated his bill will probably cover 4 half days of work. When final information is furnished to Mr. Walsh and we receive his final report, it will be necessary to reimburse him for this additional work.

Mr. Walsh indicated that the use of the Sperry-Sun bomb will cost Kerr-McGee approximately $3,000 and the use of the Amerada bomb and wire line truck will run approximately $1,000, making the total testing procedure run approximately $4,000.

The ordered testing of this well has now been completed and Kerr-McGee has complied with Commission Order No. 21A.

13

August 15, 1969

Memo to Kerr-McGee #11 Navajo 8832
T36N, R30E, G & SRM
Sec. 32: NW/4 SE/4
Apache County
Permit #506

Memo From J. Scurlock

On Thursday, August 14, at 6:30 a.m. I accompanied Mr. Bill Stauss and Red Walsh to the Kerr-McGee #11 Well in order to witness the recovery of the Sperry-Sun pressure instrument which had been in the hole for 84 hours; that is, since Sunday at 1:40 p.m. The recovered instrument; which is an extremely sensitive pressure measuring device, showed that at the beginning of the test the pressure reading was 134.26 pounds and that during the course of the first 46 to 48 hours of the test the pressure gradually built up to about 135.54 pounds and that after this initial 46 to 48 hours and for the remainder of the 84-hour testing period the pressure declined to a final reading of 134.97 pounds. This is to say that a field reading indicated a deflection in the curve after a 46 to 48 hour period during which time the #1, 2, 3X, and 4 wells were shut in.

377 379 386 387

At this time it is assumed that this deflection represents the effect from well #4 which was put back on production at 1:40 a.m. Monday morning after a 12-hour shut in. Mr. Stauss had calculated that a deflection point from this well would be seen after 46 hours and so we were very gratified to see that the actual test data bore out his calculation.

The meaning of this series of tests is that we are now sure that the #11 well has good avenues of communication with the rest of the field and this determination primarily was the reason for the tests. The remaining tests will show deflection points on the curve as the effect from wells 3X, 2, and 1 are felt now that they have been placed back on production. This further testing is for the purpose of indicating the direction of the avenues of communication between the #11 well and these other four wells. In other words, we hope to be able to determine the nature of the fracture system within the reservoir and just which other wells may be in close communication with the #11 well.

506

15

Memo to File #506
August 15, 1969

The Sperry-Sun bomb will be pulled again tonight at 11:30 p.m. and again on Sunday afternoon at about 3:00 or 4:00 p.m. and then again for the final time on Monday afternoon, August 18, at 1:40 p.m. which time will end the 192-hour testing period.

I would presume that as a result of this series of tests that Kerr-McGee will not wish to drill anymore inside locations nor wish to change the spacing pattern in the field because it is obvious that the established spacing is providing adequate drainage.

506

X-Chrono

Mgm

August 11, 1969

Memo to Kerr-McGee #11 Navajo 8832
NW/4 SE/4 Section 32-T36N-R30E
Apache County
Permit #506

From J. Scurlock

Telephone conversation at 4:00 p.m. this date with Bill Stauss, Kerr-McGee, concerning the Kerr-McGee #11 Navajo well. Mr. Stauss indicated that the #11 well had recovered all of the load oil (by beam pump) plus about 15 barrels of crude oil. On Sunday at 6:30 p.m. the Amerada [redacted] was placed in the well for 84 hours and recovered from the well at 6:30 a.m. Thursday morning.

bomb

X - 377 X - 379 386X 384X

Bill reports that the #1, 2, 3X, and 4 wells were shut in at 1:40 p.m. Sunday. The #4 well now has been put back on production as of this morning at 1:40 a.m. The #3X well resumed production this afternoon at 1:40 p.m. (after 24 hours shut in). The #2 well will resume production tomorrow at 1:40 p.m. and the #1 well will resume production tomorrow at 1:40 p.m. (after 48 hours shut in).

Mr. Bannister has directed Red Walsh and Geologist Scurlock to be present at 6:30 Thursday morning in order to witness the recovery of the Amerada [redacted] and its replacement with the Sperry-Sun instrument.

Bomb

The #11 well appears to have fair communications with at least one neighboring well inasmuch as the shut-in pressure has been shown to be low; that is, on the order of 128 to 130 pounds. The well was initially shut in with the Amerada pump on Saturday morning and left shut in for a period of 26 hours.

No! Sperry-Sun instrument was pulled thru a.m. and was re-run.

46
12
58

24
24
25

16 506

Form 9-331
(May 1963)

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

SUBMIT IN TRIPLICATE*
(Other instructions on reverse side)

Form approved.
Budget Bureau No. 42-R1424.

SUNDRY NOTICES AND REPORTS ON WELLS

(Do not use this form for proposals to drill or to deepen or plug back to a different reservoir. Use "APPLICATION FOR PERMIT—" for such proposals.)

1. OIL WELL [X] GAS WELL [ ] OTHER

2. NAME OF OPERATOR
Kerr-McGee Corporation

3. ADDRESS OF OPERATOR
215 Petroleum Center Building, Farmington, New Mexico 87401

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.* See also space 17 below.)
At surface
2310' FSL and 2070' FEL (NWSE) of Sec 32

5. LEASE DESIGNATION AND SERIAL NO.
14-20-0603-8823

6. IF INDIAN, ALLOTTEE OR TRIBE NAME
Navajo

7. UNIT AGREEMENT NAME

8. FARM OR LEASE NAME
Navajo

9. WELL NO.
11

10. FIELD AND POOL, OR WILDCAT
Dineh-bi-Keyah

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA
Sec 32, T36N, R30E

12. COUNTY OR PARISH
Apache

13. STATE
Arizona

14. PERMIT NO.
State 506

15. ELEVATIONS (Show whether DF, RT, GR, etc.)
7401' GR

16. Check Appropriate Box To Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:				SUBSEQUENT REPORT OF:			
TEST WATER SHUT-OFF	[ ]	PULL OR ALTER CASING	[ ]	WATER SHUT-OFF	[ ]	REPAIRING WELL	[ ]
FRACTURE TREAT	[ ]	MULTIPLE COMPLETE	[ ]	FRACTURE TREATMENT	[X]	ALTERING CASING	[ ]
SHOOT OR ACIDIZE	[ ]	ABANDON*	[ ]	SHOOTING OR ACIDIZING	[ ]	ABANDONMENT*	[ ]
REPAIR WELL	[ ]	CHANGE PLANS	[ ]	(Other) Total depth			[X]
(Other)				(NOTE: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)			

17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)*

4C
2831
(13)

Moved in cable tool unit and drilled 6 1/4" hole to 2893'. This leaves open hole from 2813 to 2893'. Fraced open hole with 60,060 gal oil, 37,500# 10-20 sand and 3000# Adomite Mark II. Max Press 1350 psi; Ave Press 1200 psi; Ave Inj Rate 79 BPM. Frac performed 7-27-69. Ran 2 7/8" tubing and swab tested. Well swabbing approximately 140 BOPD. Well put to pump to recover rest of load oil. Have 850 bbls load recovered with 1437 bbls left to recover.

18. I hereby certify that the foregoing is true and correct

SIGNED C D Williams TITLE Production Superintendent DATE August 5, 1969

(This space for Federal or State office use)

APPROVED BY _____ TITLE _____ DATE _____
CONDITIONS OF APPROVAL, IF ANY:

RECEIVED AUG 6 1969 STATE O & G CONS. COMM.

2 USGS
2 Ariz
1 Tribe
1 JIFisher
2 WRF
1 RF

*See Instructions on Reverse Side

WELL SITE CHECK

By [illegible]
Date 8-5-69

Contractor Jim Manus — WORKOVER RIG

Person(s) Contacted Bob Delaney - production FOREMAN

Spud date _____

Type Rig _____ Rotary ____ Cable ____

Present Operations Pulling Tbg. Will install Beam pump.

Samples _____

Pipe _____

Drilling with Air ____ Mud ____

Water Zones _____

Size Hole 6¼" below Csg.

Lost Circ. Zones _____

Size Drill Pipe Size Tbg: 2 7/8

Formation Tops _____

Type Bit _____

Cores, Logs, DST _____

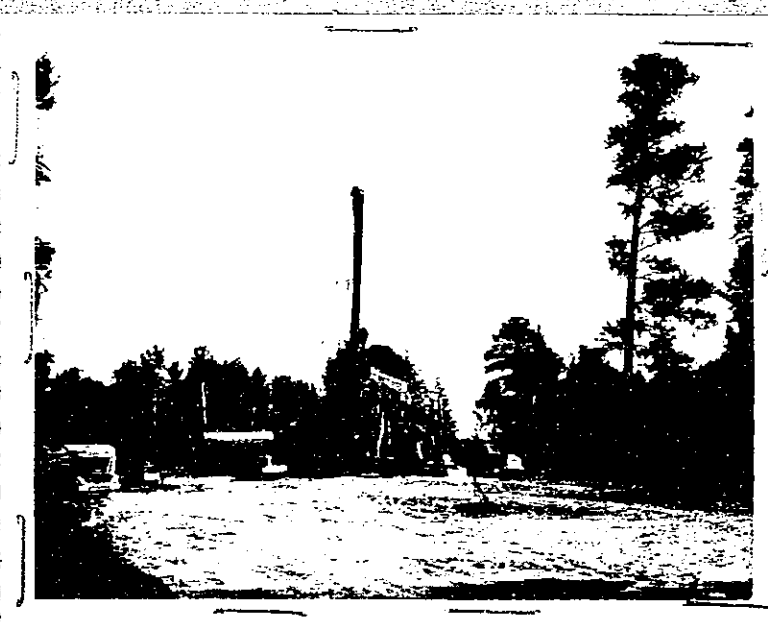
No. Bit ____ Drilling Rate _____

Formation _____

Crews _____

Lithology _____

REMARKS, PHOTO, MAP



pulling Tbg - prep to install beam pump.

Have fracked with 40,000 # sand and 1700 bbls oil. Have swabbed back about 850 bbls of frack oil. Very disappointing rate on swb testing.

TD 2890'

Fracked with 1700

WELL NAME Kerr McGee # 11 Nav

Permit No. 506

Confidential: Yes No

18

X-Chrono

July 23, 1969

Memo to Kerr-McGee #11 Navajo 8832 File
T36N, R30E, G & SRM
Sec. 32: NW/4 SE/4
Apache County
Permit #506

From J. Scurlock

Talked this date with Mr. Bill Stauss, Engineer, Kerr-McGee, Oklahoma City. The #11 well has set 7" casing at 2813. Plans to drill out with cable tools. 2831 cs7

21

506

July,21,1969

Dear Mr. Lambert:

The following two wells have been received at the Cut.

Odessa,#1 Aircodessa Permit #501
Sec.10-35N-30E
Apache Co. Arizona

Kerr McGee,#11 Navajo Permit # 506
Sec.32-36N-30E
Apache Co. Arizona

Jo Ratcliff

506

Form 9-331
(May 1963)

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

SUBMIT IN TRIPLICATE*
(Other instructions on reverse side)

Form approved.
Budget Bureau No. 42-R1424.

SUNDRY NOTICES AND REPORTS ON WELLS

(Do not use this form for proposals to drill or to deepen or plug back to a different reservoir. Use "APPLICATION FOR PERMIT—" for such proposals.)

1. OIL WELL [X] GAS WELL [ ] OTHER

2. NAME OF OPERATOR
KERR-McGEE CORPORATION

3. ADDRESS OF OPERATOR
215 Petroleum Center Building, Farmington, New Mexico 87401

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.* See also space 17 below.)
At surface
2310' FLS and 2070' FEL (NWSE) of Section 32

5. LEASE DESIGNATION AND SERIAL NO.
14-20-0603-8823

6. IF INDIAN, ALLOTTEE OR TRIBE NAME
Navajo

7. UNIT AGREEMENT NAME

8. FARM OR LEASE NAME
Navajo

9. WELL NO.
11

10. FIELD AND POOL, OR WILDCAT
Dineh-bi-Keyah

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA
Sec. 32, T36N, R30E

12. COUNTY OR PARISH
Apache

13. STATE
Arizona

14. PERMIT NO.
State No. 506

15. ELEVATIONS (Show whether DF, RT, GR, etc.)
7402' GR ungraded

16. Check Appropriate Box To Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:				SUBSEQUENT REPORT OF:			
TEST WATER SHUT-OFF	[ ]	PULL OR ALTER CASING	[ ]	WATER SHUT-OFF	[X]	REPAIRING WELL	[ ]
FRACTURE TREAT	[ ]	MULTIPLE COMPLETE	[ ]	FRACTURE TREATMENT	[ ]	ALTERING CASING	[ ]
SHOOT OR ACIDIZE	[ ]	ABANDON*	[ ]	SHOOTING OR ACIDIZING	[ ]	ABANDONMENT*	[ ]
REPAIR WELL	[ ]	CHANGE PLANS	[ ]	(Other)			
(Other)							

(NOTE: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)*

Drilled 8 3/4" hole to 2831'. Logged well and set 7" 20#/ft SFSC K-55 8rd casing at TD. Cemented with 150 sxs Class A cement. Tested casing with 1500 psi for 30 minutes, held ok. Will move out rotary rig and move in cable tool unit for drilling pay.

RECEIVED
JUL 18 1969
STATE O & G
CONS. COMM.

18. I hereby certify that the foregoing is true and correct

SIGNED C D Williams TITLE Production Superintendent DATE July 17, 1969

(This space for Federal or State office use)

APPROVED BY _____ TITLE _____ DATE _____
CONDITIONS OF APPROVAL, IF ANY:

*See Instructions on Reverse Side

2 USGS
2 Ariz
1 Tribe
1 JIFisher
2 WRF
1 RF

23506

Form 9-331
(May 1963)

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

SUBMIT IN TRIPLICATE*
(Other instructions on reverse side)

Form approved.
Budget Bureau No. 42-R1424.

SUNDRY NOTICES AND REPORTS ON WELLS

(Do not use this form for proposals to drill or to deepen or plug back to a different reservoir. Use "APPLICATION FOR PERMIT—" for such proposals.)

5. LEASE DESIGNATION AND SERIAL NO.: 14-20-0603-8823

6. IF INDIAN, ALLOTTEE OR TRIBE NAME: Navajo

7. UNIT AGREEMENT NAME:

8. FARM OR LEASE NAME: Navajo

9. WELL NO.: 11

10. FIELD AND POOL, OR WILDCAT: Dineh-bi-Keyah

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA: Sec. 32, T36N, R30E

12. COUNTY OR PARISH: Apache

13. STATE: Arizona

1. OIL WELL [ ] GAS WELL [X] OTHER

2. NAME OF OPERATOR: KERR-McGEE CORPORATION

3. ADDRESS OF OPERATOR: 215 Petroleum Center Building, Farmington, New Mexico 87401

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.* See also space 17 below.) At surface: 2310' FSL and 2070' FEL (NWSE) of Section 32

14. PERMIT NO.: State No. 506

15. ELEVATIONS (Show whether DF, RT, GR, etc.): 7402' GR ungraded

16. Check Appropriate Box To Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:

TEST WATER SHUT-OFF	[ ]	PULL OR ALTER CASING	[ ]
FRACTURE TREAT	[ ]	MULTIPLE COMPLETE	[ ]
SHOOT OR ACIDIZE	[ ]	ABANDON*	[ ]
REPAIR WELL	[ ]	CHANGE PLANS	[ ]
(Other)			

SUBSEQUENT REPORT OF:

WATER SHUT-OFF	[X]	REPAIRING WELL	[ ]
FRACTURE TREATMENT	[ ]	ALTERING CASING	[ ]
SHOOTING OR ACIDIZING	[ ]	ABANDONMENT*	[ ]
(Other) Spud			

(NOTE: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)*

Moved in Loffland Brothers Rig 223. SPUDDED 4:00 P.M. 7-8-69. Drilled 13 3/4" hole to 272' and set 9 5/8" OD 32.30# H-40 ST&C, 8R R2 casing at TD. Cemented with 150 sacks Class A Cement with 4% gel, 2% CaCl and 1/4# flocele per sack, followed by 50 sacks without gel. Circulated out estimated 30 sks cement. Plug down 6:30 AM 7-9-69.

RECEIVED JUL 10 1969 STATE O & G CONS. COMM.

18. I hereby certify that the foregoing is true and correct

SIGNED C. D. Williams TITLE Production Superintendent DATE July 9, 1969

(This space for Federal or State office use)

APPROVED BY _____ TITLE _____ DATE _____

CONDITIONS OF APPROVAL, IF ANY:

X USGS
1 Tribe
2 WRF

X ARIZ
1 JLFisher
1 RF

25

*See Instructions on Reverse Side

506

APPLICATION FOR PERMIT TO DRILL OR RE-ENTER

APPLICATION TO DRILL ☒ RE-ENTER OLD WELL ☐

KERR-McGEE CORPORATION
NAME OF COMPANY OR OPERATOR

215 Petroleum Center Building — Farmington, — New Mexico 87401
Address — City — State

Unknown at this time
Drilling Contractor

Unknown at this time
Address

DESCRIPTION OF WELL AND LEASE

Federal, State or Indian Lease Number, or if fee lease, name of lessor: 14-20-0603-8852 Navajo	Well number: 11	Elevation (ground): 7402' GR Ungraded
Nearest distance from proposed location to property or lease line: 2070 feet	Distance from proposed location to nearest drilling, completed or applied—for well on the same lease: 1554 feet	
Number of acres in lease: 2533	Number of wells on lease, including this well, completed in or drilling to this reservoir: 13	
If lease, purchased with one or more wells drilled, from whom purchased: N/A — Name — Address		
Well location (give footage from section lines): 2310' FSL and 2070' FEL	Section—township—range or block and survey: Sec 32, T36N, R30E, G&SRM	Dedication (Comply with Rule 105): 160 acres * *Order 21A
Field and reservoir (if wildcat, so state): Dineh-bi-Keyah, Lower Hermosa	County: Apache	
Distance, in miles, and direction from nearest town or post office: 9 miles southwest of Red Rock, Arizona		
Proposed depth: 3030'	Rotary or cable tools: Both	Approx. date work will start: July 1, 1969
Bond Status: Blanket bond Amount	Organization Report: On file X Or attached	Filing Fee of $25.00 Attached Yes

Remarks:
New well covered by Commission Order No. 21A as an additional well in the SE¼ of Section 32

CERTIFICATE: I, the undersigned, under the penalty of perjury, state that I am the Production Superintendent of the Kerr-McGee Corporation (company), and that I am authorized by said company to make this report; and that this report was prepared under my supervision and direction and that the facts stated therein are true, correct and complete to the best of my knowledge.

2 Ariz
1 Tribe
1 JIFisher
1 WRF
1 RF

Signature C D Williams
June 18, 1969
Date

Permit Number: 506
Approval Date: 6-20-69
Approved By: John Bannister

Notice: Before sending in this form be sure that you have given all information requested. Much unnecessary correspondence will thus be avoided.

STATE OF ARIZONA
OIL & GAS CONSERVATION COMMISSION
Application to Drill or Re-enter
File Two Copies

RECEIVED JUN 20 1969 STATE O & G CONS. COMM.

Form No. 3

(Complete Reverse Side)

1. Operator shall outline the dedicated acreage for *both* oil and gas wells on the plat.

2. A registered professional engineer or land surveyor registered in the State of Arizona or approved by the Commission shall show on the plat the location of the well and certify this information in the space provided.

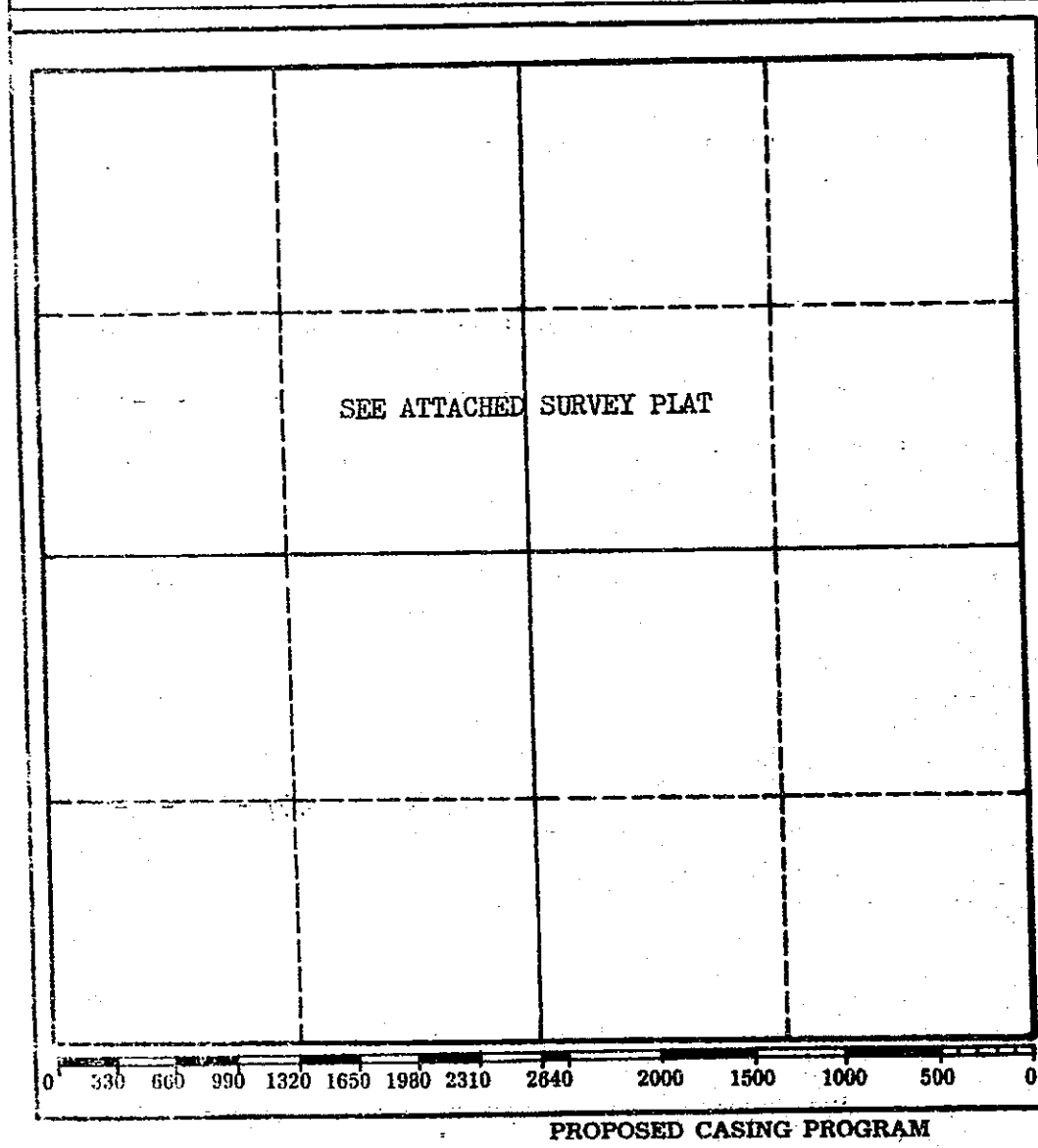
3. All distances shown on the plat must be from the outer boundaries of the Section.

4. Is the Operator the only owner in the dedicated acreage outlined on the plat below? YES X NO_____

5. If the answer to question four is "no," have the interests of all the owners been consolidated by communitization agreement or otherwise? YES_____ NO_____. If answer is "yes," Type of Consolidation_____

6. If the answer to question four is "no," list all the owners and their respective interests below:

Owner	Land Description



CERTIFICATION

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

Name: C D Williams

Position: Production Superintendent

Company: Kerr-McGee Corporation

Date: June 18, 1969

I hereby certify that the well location shown on the plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my knowledge and belief.

Date Surveyed

Registered Professional Engineer and/or Land Surveyor

Certificate No.

PROPOSED CASING PROGRAM

Size of Casing	Weight	Grade & Type	Top	Bottom	Cementing Depths	Sacks Cement
9 5/8"	32.3	H-40 ST&C	0	250	0-250	Sufficient to circulate
7"	20#	J-55 ST&C	0	2850		Sufficient to cover all potential producing zones

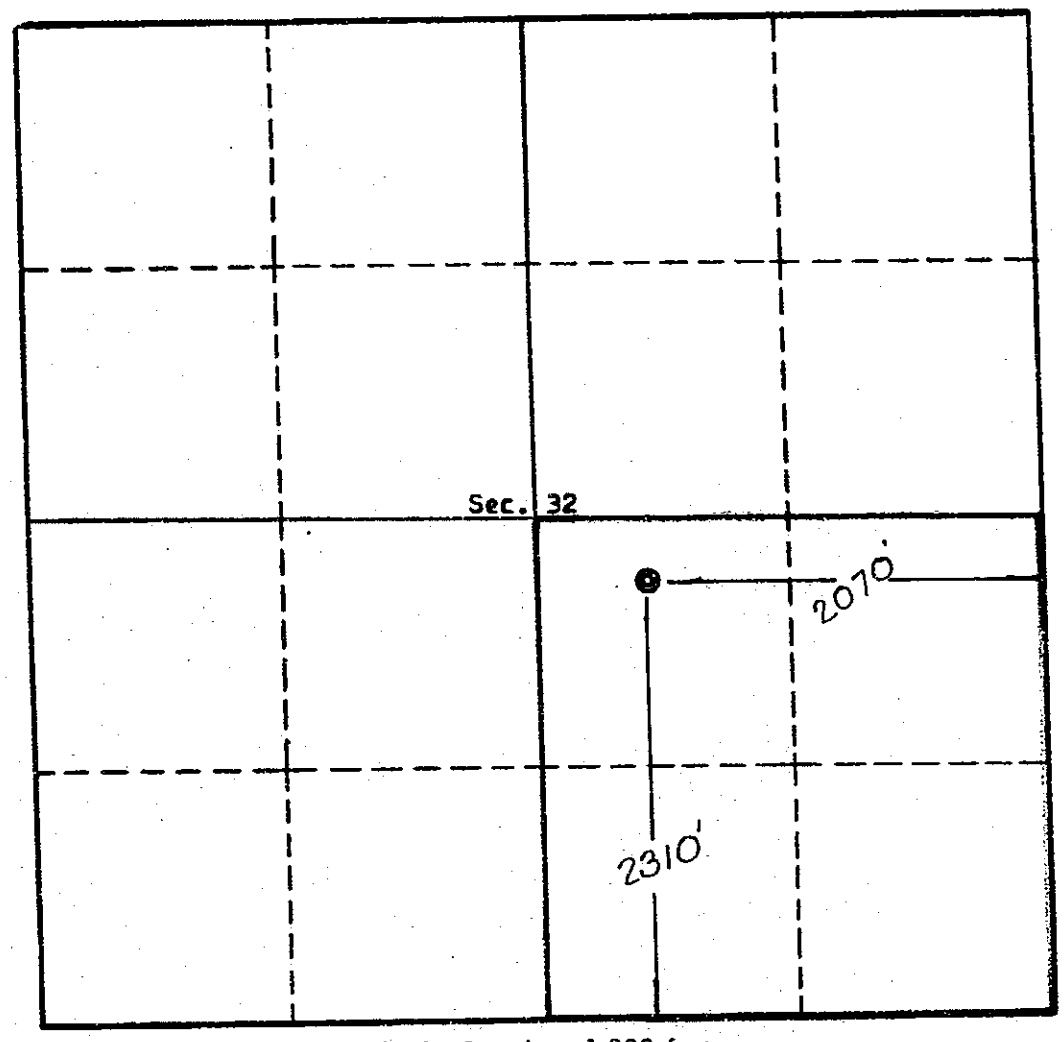
Company KERR-McGEE CORPORATION

Well Name & No. No. 11 Navajo

Location 2310 feet from the South line and 2070 feet from the East line.

Sec. 32, T. 36 N., R. 30 E., G. & S. R. M., County Apache, Arizona

Ground Elevation 7402



Scale, 1 inch = 1,000 feet

Surveyed June 13, 1969

This is to certify that the above plat was prepared from field notes of actual surveys made by me or under my supervision and that the same are true and correct to the best of my knowledge and belief.

REGISTERED LAND SURVEYOR
CERTIFICATE EXPIRES
ERNEST V. ECHOHAWK
Seal
DEC. 31, 1969
ARIZONA, U.S.A.

Ernest V. Echohawk
Registered Land Surveyor
Arizona Registration No. 2311

RECEIVED
JUN 20 1969
STATE O & G
CONS. COMM.

PERMIT TO DRILL

This constitutes the permission and authority from the

OIL AND GAS CONSERVATION COMMISSION,
STATE OF ARIZONA,

To: Kerr-McGee Corporation
(OPERATOR)

to drill a well to be known as

Kerr-McGee #11 Navajo 8823
(WELL NAME)

located 2310' FSL - 2070' FEL

Section 32 Township 36N Range 30E, Apache County, Arizona.

The W/2 SE/4 of said Section, Township and Range is dedicated to this well.

Said well is to be drilled substantially as outlined in the attached Application and must be drilled in full compliance with all applicable laws, statutes, rules and regulations of the State of Arizona.

Issued this 20th day of June, 19 69.

OIL AND GAS CONSERVATION COMMISSION

By John Bannister
EXECUTIVE SECRETARY

PERMIT Nº 506

RECEIPT NO. 9588
API NO. 02-001-20106

State of Arizona
Oil & Gas Conservation Commission
Permit to Drill
FORM NO. 27

SAMPLES ARE REQUIRED

#506

SPERRY-SUN

Precision Pressure Gauge Report

FOR

KERR-McGEE CORPORATION

TYPE OF TEST: INTERFERENCE RUN NO. 1

DEPTH: 2,845 FT. TEMPERATURE 85°F

LEASE: NAVAJO WELL NO. 11

FIELD: DINEH BI KEYAH

COUNTY/~~PARISH~~: APACHE STATE ARIZONA

DATE OF TEST AUGUST 10-14, 1969 JOB NO. SPG-6700

OFFICE: HOUSTON, TEXAS

506

SPERRY-SUN

PRECISION PRESSURE GAUGE REPORT

FOR

KERR-McGEE CORPORATION

RECEIVED
SEP 22 1969
STATE O & G
CONS. COMM.

TYPE OF TEST: INTERFERENCE RUN NO. 1

DEPTH: 2,845 FT. TEMPERATURE 85°F

LEASE: NAVAJO WELL NO. 11

FIELD: DINEH BI KEYAH

COUNTY/~~PARISH~~ APACHE STATE ARIZONA

DATE OF TEST AUGUST 10-14, 1969 JOB NO. SPG-6700

OFFICE: HOUSTON, TEXAS

506

SP-384

51536

SPERRY-SUN WELL SURVEYING COMPANY
PRECISION SUBSURFACE PRESSURE GAUGE REPORT
--FOR--

KERR-MC GEE CORPORATION

LEASE NAVAJO WELL NO. 11
FIELD DINEH BI KEYAH LOCATION NW SE SEC.32 T36N. R30E.
COUNTY/PARISH APACHE
STATE ARIZONA
TYPE TEST INTERFERENCE JOB NO. SPG-6700
DATE OF TEST AUGUST 10-14,1969

REFERENCE ELEV. 0. FT. REFERENCE POINT WIRELINE VALVE
DATUM 0. FT. REF. SEA LEVEL

NOTE: ALL REPORTED PRESSURES ARE ADJUSTED TO THE ABOVE DATUM

RUN NO.	GAUGE NO.	DEPTH (FT.)	DATUM CORR. (PSI)	PRESS. GRAD. (PSI/FT.)	TEST TEMP. (DEG.F)	CALIBRATION (BHP=)
1	137	2845.	.0	.000	85.	27.304 * EXT - 17.960

COMMENTS: THIS IS TEST NO.1

51537

LEASE NAVAJO WELL NO. 11

DELTA TIME	PRESSURE	TIME	DATE	COMMENT
.00	134.187	18:35	8-10-69	ON BOTTOM
.27	134.281	18:51	8-10-69	
.54	134.374	19:07	8-10-69	
.80	134.386	19:23	8-10-69	
1.07	134.386	19:39	8-10-69	
1.34	134.398	19:55	8-10-69	
1.61	134.421	20:11	8-10-69	
1.87	134.433	20:27	8-10-69	
2.14	134.444	20:43	8-10-69	
2.41	134.468	20:59	8-10-69	
2.68	134.479	21:16	8-10-69	
2.94	134.479	21:32	8-10-69	
3.21	134.491	21:48	8-10-69	
3.48	134.503	22:04	8-10-69	
3.75	134.515	22:20	8-10-69	
4.01	134.526	22:36	8-10-69	
4.28	134.538	22:52	8-10-69	
4.55	134.550	23:08	8-10-69	
4.82	134.550	23:24	8-10-69	
5.08	134.561	23:40	8-10-69	
5.35	134.573	23:56	8-10-69	
5.62	134.585	0:12	8-11-69	
5.89	134.597	0:28	8-11-69	
6.15	134.608	0:44	8-11-69	
6.42	134.620	1:00	8-11-69	
6.69	134.620	1:16	8-11-69	
6.96	134.632	1:32	8-11-69	
7.22	134.643	1:48	8-11-69	
7.49	134.655	2:04	8-11-69	
7.76	134.667	2:20	8-11-69	
8.03	134.678	2:37	8-11-69	
8.29	134.690	2:53	8-11-69	
8.56	134.702	3:09	8-11-69	
8.83	134.714	3:25	8-11-69	
9.10	134.725	3:41	8-11-69	
9.36	134.737	3:57	8-11-69	
9.63	134.749	4:13	8-11-69	
9.90	134.749	4:29	8-11-69	
10.17	134.760	4:45	8-11-69	
10.43	134.772	5:01	8-11-69	
10.70	134.784	5:17	8-11-69	
10.97	134.795	5:33	8-11-69	
11.24	134.807	5:49	8-11-69	
11.50	134.807	6:05	8-11-69	
11.77	134.807	6:21	8-11-69	

51538

LEASE NAVAJO WELL NO. 11

12.04	134.831	6:37	8-11-69
12.31	134.842	6:53	8-11-69
12.57	134.854	7:09	8-11-69
12.84	134.854	7:25	8-11-69
13.11	134.866	7:41	8-11-69
13.38	134.877	7:58	8-11-69
13.64	134.889	8:14	8-11-69
13.91	134.901	8:30	8-11-69
14.18	134.901	8:46	8-11-69
14.45	134.913	9:02	8-11-69
14.71	134.913	9:18	8-11-69
14.98	134.924	9:34	8-11-69
15.25	134.936	9:50	8-11-69
15.52	134.936	10:06	8-11-69
15.78	134.948	10:22	8-11-69
16.05	134.959	10:38	8-11-69
16.32	134.959	10:54	8-11-69
16.59	134.971	11:10	8-11-69
16.85	134.983	11:26	8-11-69
17.12	134.983	11:42	8-11-69
17.39	134.994	11:58	8-11-69
17.66	135.006	12:14	8-11-69
17.92	135.018	12:30	8-11-69
18.19	135.018	12:46	8-11-69
18.46	135.030	13:03	8-11-69
18.73	135.041	13:19	8-11-69
18.99	135.053	13:35	8-11-69
19.26	135.065	13:51	8-11-69
19.53	135.076	14:07	8-11-69
19.80	135.088	14:23	8-11-69
20.06	135.088	14:39	8-11-69
20.33	135.088	14:55	8-11-69
20.60	135.100	15:11	8-11-69
20.87	135.111	15:27	8-11-69
21.13	135.123	15:43	8-11-69
21.40	135.123	15:59	8-11-69
21.67	135.135	16:15	8-11-69
21.94	135.147	16:31	8-11-69
22.20	135.147	16:47	8-11-69
22.47	135.147	17:03	8-11-69
22.74	135.158	17:19	8-11-69
23.01	135.170	17:35	8-11-69
23.27	135.182	17:51	8-11-69
23.54	135.193	18:07	8-11-69
23.81	135.205	18:24	8-11-69
24.08	135.205	18:40	8-11-69
24.34	135.217	18:56	8-11-69
24.61	135.229	19:12	8-11-69
24.88	135.240	19:28	8-11-69
25.15	135.252	19:44	8-11-69
25.41	135.252	20:00	8-11-69

51539

LEASE NAVAJO WELL NO. 11

25.68	135.264	20:16	8-11-69
25.95	135.264	20:32	8-11-69
26.22	135.275	20:48	8-11-69
26.48	135.275	21:04	8-11-69
26.75	135.287	21:20	8-11-69
27.02	135.287	21:36	8-11-69
27.29	135.299	21:52	8-11-69
27.55	135.299	22:08	8-11-69
27.82	135.310	22:24	8-11-69
28.09	135.310	22:40	8-11-69
28.36	135.322	22:56	8-11-69
28.62	135.334	23:12	8-11-69
28.89	135.346	23:29	8-11-69
29.16	135.346	23:45	8-11-69
29.43	135.357	0:01	8-12-69
29.69	135.357	0:17	8-12-69
29.96	135.369	0:33	8-12-69
30.23	135.381	0:49	8-12-69
30.50	135.381	1:05	8-12-69
30.76	135.392	1:21	8-12-69
31.03	135.392	1:37	8-12-69
31.30	135.404	1:53	8-12-69
31.57	135.416	2:09	8-12-69
31.83	135.416	2:25	8-12-69
32.10	135.427	2:41	8-12-69
32.37	135.427	2:57	8-12-69
32.64	135.427	3:13	8-12-69
32.90	135.439	3:29	8-12-69
33.17	135.451	3:45	8-12-69
33.44	135.451	4:01	8-12-69
33.71	135.451	4:17	8-12-69
33.97	135.463	4:33	8-12-69
34.24	135.463	4:50	8-12-69
34.51	135.463	5:06	8-12-69
34.78	135.463	5:22	8-12-69
35.04	135.463	5:38	8-12-69
35.31	135.451	5:54	8-12-69
35.58	135.451	6:10	8-12-69
35.85	135.451	6:26	8-12-69
36.11	135.451	6:42	8-12-69
36.38	135.451	6:58	8-12-69
36.65	135.451	7:14	8-12-69
36.92	135.451	7:30	8-12-69
37.18	135.451	7:46	8-12-69
37.45	135.439	8:02	8-12-69
37.72	135.439	8:18	8-12-69
37.99	135.439	8:34	8-12-69
38.25	135.439	8:50	8-12-69
38.52	135.439	9:06	8-12-69
38.79	135.439	9:22	8-12-69
39.06	135.439	9:38	8-12-69

51540

LEASE NAVAJO WELL NO. 11

39.32	135.451	9:54	8-12-69
39.59	135.451	10:11	8-12-69
39.86	135.451	10:27	8-12-69
40.13	135.451	10:43	8-12-69
40.39	135.451	10:59	8-12-69
40.66	135.439	11:15	8-12-69
40.93	135.439	11:31	8-12-69
41.20	135.439	11:47	8-12-69
41.46	135.427	12:03	8-12-69
41.73	135.427	12:19	8-12-69
42.00	135.427	12:35	8-12-69
42.27	135.416	12:51	8-12-69
42.54	135.416	13:07	8-12-69
42.80	135.404	13:23	8-12-69
43.07	135.404	13:39	8-12-69
43.34	135.404	13:55	8-12-69
43.61	135.392	14:11	8-12-69
43.87	135.392	14:27	8-12-69
44.14	135.392	14:43	8-12-69
44.41	135.392	14:59	8-12-69
44.68	135.392	15:16	8-12-69
44.94	135.392	15:32	8-12-69
45.21	135.392	15:48	8-12-69
45.48	135.381	16:04	8-12-69
45.75	135.381	16:20	8-12-69
46.01	135.381	16:36	8-12-69
46.28	135.381	16:52	8-12-69
46.55	135.369	17:08	8-12-69
46.82	135.369	17:24	8-12-69
47.08	135.369	17:40	8-12-69
47.35	135.357	17:56	8-12-69
47.62	135.357	18:12	8-12-69
47.89	135.357	18:28	8-12-69
48.15	135.346	18:44	8-12-69
48.42	135.346	19:00	8-12-69
48.69	135.346	19:16	8-12-69
48.96	135.346	19:32	8-12-69
49.22	135.334	19:48	8-12-69
49.49	135.334	20:04	8-12-69
49.76	135.322	20:20	8-12-69
50.03	135.322	20:37	8-12-69
50.29	135.322	20:53	8-12-69
50.56	135.310	21:09	8-12-69
50.83	135.310	21:25	8-12-69
51.10	135.310	21:41	8-12-69
51.36	135.310	21:57	8-12-69
51.63	135.310	22:13	8-12-69
51.90	135.310	22:29	8-12-69
52.17	135.310	22:45	8-12-69
52.43	135.310	23:01	8-12-69
52.70	135.299	23:17	8-12-69

51541

LASE NAVAJO WELL NO. 11

52.97	135.299	23:33	8-12-69
53.24	135.299	23:49	8-12-69
53.50	135.299	0:05	8-13-69
53.77	135.299	0:21	8-13-69
54.04	135.299	0:37	8-13-69
54.31	135.299	0:53	8-13-69
54.57	135.299	1:09	8-13-69
54.84	135.299	1:25	8-13-69
55.11	135.299	1:41	8-13-69
55.38	135.287	1:58	8-13-69
55.64	135.287	2:14	8-13-69
55.91	135.287	2:30	8-13-69
56.18	135.275	2:46	8-13-69
56.45	135.275	3:02	8-13-69
56.71	135.275	3:18	8-13-69
56.98	135.275	3:34	8-13-69
57.25	135.275	3:50	8-13-69
57.52	135.264	4:06	8-13-69
57.78	135.264	4:22	8-13-69
58.05	135.264	4:38	8-13-69
58.32	135.264	4:54	8-13-69
58.59	135.252	5:10	8-13-69
58.85	135.252	5:26	8-13-69
59.12	135.240	5:42	8-13-69
59.39	135.240	5:58	8-13-69
59.66	135.240	6:14	8-13-69
59.92	135.240	6:30	8-13-69
60.19	135.240	6:46	8-13-69
60.46	135.229	7:03	8-13-69
60.73	135.229	7:19	8-13-69
60.99	135.229	7:35	8-13-69
61.26	135.229	7:51	8-13-69
61.53	135.229	8:07	8-13-69
61.80	135.229	8:23	8-13-69
62.06	135.217	8:39	8-13-69
62.33	135.217	8:55	8-13-69
62.60	135.217	9:11	8-13-69
62.87	135.205	9:27	8-13-69
63.13	135.205	9:43	8-13-69
63.40	135.205	9:59	8-13-69
63.67	135.193	10:15	8-13-69
63.94	135.193	10:31	8-13-69
64.20	135.193	10:47	8-13-69
64.47	135.182	11:03	8-13-69
64.74	135.182	11:19	8-13-69
65.01	135.182	11:35	8-13-69
65.27	135.182	11:51	8-13-69
65.54	135.182	12:07	8-13-69
65.81	135.170	12:24	8-13-69
66.08	135.170	12:40	8-13-69
66.34	135.170	12:56	8-13-69

51542

LEASE NAVAJO WELL NO. 11

66.61	135.170	13:12	8-13-69
66.88	135.158	13:28	8-13-69
67.15	135.158	13:44	8-13-69
67.41	135.158	14:00	8-13-69
67.68	135.158	14:16	8-13-69
67.95	135.158	14:32	8-13-69
68.22	135.147	14:48	8-13-69
68.48	135.147	15:04	8-13-69
68.75	135.147	15:20	8-13-69
69.02	135.135	15:36	8-13-69
69.29	135.135	15:52	8-13-69
69.55	135.135	16:08	8-13-69
69.82	135.123	16:24	8-13-69
70.09	135.123	16:40	8-13-69
70.36	135.111	16:56	8-13-69
70.62	135.111	17:12	8-13-69
70.89	135.100	17:29	8-13-69
71.16	135.100	17:45	8-13-69
71.43	135.088	18:01	8-13-69
71.69	135.088	18:17	8-13-69
71.96	135.076	18:33	8-13-69
72.23	135.076	18:49	8-13-69
72.50	135.065	19:05	8-13-69
72.76	135.065	19:21	8-13-69
73.03	135.065	19:37	8-13-69
73.30	135.053	19:53	8-13-69
73.57	135.053	20:09	8-13-69
73.83	135.053	20:25	8-13-69
74.10	135.053	20:41	8-13-69
74.37	135.053	20:57	8-13-69
74.64	135.041	21:13	8-13-69
74.90	135.041	21:29	8-13-69
75.17	135.041	21:45	8-13-69
75.44	135.041	22:01	8-13-69
75.71	135.041	22:17	8-13-69
75.97	135.030	22:33	8-13-69
76.24	135.030	22:50	8-13-69
76.51	135.030	23:06	8-13-69
76.78	135.030	23:22	8-13-69
77.04	135.030	23:38	8-13-69
77.31	135.030	23:54	8-13-69
77.58	135.018	0:10	8-14-69
77.85	135.018	0:26	8-14-69
78.11	135.006	0:42	8-14-69
78.38	135.006	0:58	8-14-69
78.65	135.006	1:14	8-14-69
78.92	135.006	1:30	8-14-69
79.18	135.006	1:46	8-14-69
79.45	135.006	2:02	8-14-69
79.72	135.006	2:18	8-14-69
79.99	135.006	2:34	8-14-69

51543

LEASE NAVAJO

WELL NO. 11

80.48	135.126	2:50	8-14-69	
80.64	134.994	3:06	8-14-69	
80.79	134.994	3:22	8-14-69	
81.00	134.994	3:36	8-14-69	
81.32	134.994	3:54	8-14-69	
81.59	134.994	4:11	8-14-69	
81.85	134.994	4:27	8-14-69	
82.10	134.983	4:43	8-14-69	
82.35	134.983	4:59	8-14-69	
82.60	134.963	5:15	8-14-69	
82.95	134.983	5:31	8-14-69	
83.21	134.971	5:47	8-14-69	
83.46	134.971	6:03	8-14-69	
83.76	134.971	6:19	8-14-69	
84.00	134.959	6:35	8-14-69	OFF BOTTOM

SPERRY-SUN

PRECISION PRESSURE GAUGE REPORT

FOR

KERR-McGEE CORPORATION

RECEIVED
SEP 22 1969
STATE O & G
CONS. COMM.

TYPE OF TEST: INTERFERENCE RUN NO. 1

DEPTH: 2,845 FT. TEMPERATURE 85°F

LEASE: NAVAJO WELL NO. 11

FIELD: DINEH BI KEYAH

COUNTY/~~PARISH~~ APACHE STATE ARIZONA

DATE OF TEST AUGUST 10-14, 1969 JOB NO. SPG-6700

OFFICE: HOUSTON, TEXAS

506

SP-384

51536

SPERRY-SUN WELL SURVEYING COMPANY
PRECISION SUBSURFACE PRESSURE GAUGE REPORT
--FOR--

KERR-MC GEE CORPORATION

LEASE NAVAJO WELL NO. 11
FIELD DINEH BI KEYAH LOCATION NW SE SEC.32 T36N. R30E.
COUNTY/PARISH APACHE
STATE ARIZONA
TYPE TEST INTERFERENCE JOB NO. SPG-6700
DATE OF TEST AUGUST 10-14,1969

REFERENCE ELEV 0. FT. REFERENCE POINT WIRELINE VALVE
DATUM 0. FT. REF. SEA LEVEL

NOTE: ALL REPORTED PRESSURES ARE ADJUSTED TO THE ABOVE DATUM

RUN NO.	GAUGE NO.	DEPTH (FT.)	DATUM CORR. (PSI)	PRESS. GRAD. (PSI/FT.)	TEST TEMP. (DEG.F)	CALIBRATION (BHP=)
1	137	2845.	.0	.000	85.	27.304 * EXT - 17.960

COMMENTS: THIS IS TEST NO.1

51537

LEASE NAVAJO WELL NO. 11

DELTA TIME	PRESSURE	TIME	DATE	COMMENT
.00	134.187	18:35	8-10-69	ON BOTTOM
.27	134.281	18:51	8-10-69	
.54	134.374	19:07	8-10-69	
.80	134.386	19:23	8-10-69	
1.07	134.386	19:39	8-10-69	
1.34	134.398	19:55	8-10-69	
1.61	134.421	20:11	8-10-69	
1.87	134.433	20:27	8-10-69	
2.14	134.444	20:43	8-10-69	
2.41	134.468	20:59	8-10-69	
2.68	134.479	21:16	8-10-69	
2.94	134.479	21:32	8-10-69	
3.21	134.491	21:48	8-10-69	
3.48	134.503	22:04	8-10-69	
3.75	134.515	22:20	8-10-69	
4.01	134.526	22:36	8-10-69	
4.28	134.538	22:52	8-10-69	
4.55	134.550	23:08	8-10-69	
4.82	134.550	23:24	8-10-69	
5.08	134.561	23:40	8-10-69	
5.35	134.573	23:56	8-10-69	
5.62	134.585	0:12	8-11-69	
5.89	134.597	0:28	8-11-69	
6.15	134.608	0:44	8-11-69	
6.42	134.620	1:00	8-11-69	
6.69	134.620	1:16	8-11-69	
6.96	134.632	1:32	8-11-69	
7.22	134.643	1:48	8-11-69	
7.49	134.655	2:04	8-11-69	
7.76	134.667	2:20	8-11-69	
8.03	134.678	2:37	8-11-69	
8.29	134.690	2:53	8-11-69	
8.56	134.702	3:09	8-11-69	
8.83	134.714	3:25	8-11-69	
9.10	134.725	3:41	8-11-69	
9.36	134.737	3:57	8-11-69	
9.63	134.749	4:13	8-11-69	
9.90	134.749	4:29	8-11-69	
10.17	134.760	4:45	8-11-69	
10.43	134.772	5:01	8-11-69	
10.70	134.784	5:17	8-11-69	
10.97	134.795	5:33	8-11-69	
11.24	134.807	5:49	8-11-69	
11.50	134.807	6:05	8-11-69	
11.77	134.807	6:21	8-11-69	

51538

LEASE NAVAJO WELL NO. 11

12.04	134.831	6:37	8-11-69
12.31	134.842	6:53	8-11-69
12.57	134.854	7:09	8-11-69
12.84	134.854	7:25	8-11-69
13.11	134.866	7:41	8-11-69
13.38	134.877	7:58	8-11-69
13.64	134.889	8:14	8-11-69
13.91	134.901	8:30	8-11-69
14.18	134.901	8:46	8-11-69
14.45	134.913	9:02	8-11-69
14.71	134.913	9:18	8-11-69
14.98	134.924	9:34	8-11-69
15.25	134.936	9:50	8-11-69
15.52	134.936	10:06	8-11-69
15.78	134.948	10:22	8-11-69
16.05	134.959	10:38	8-11-69
16.32	134.959	10:54	8-11-69
16.59	134.971	11:10	8-11-69
16.85	134.983	11:26	8-11-69
17.12	134.983	11:42	8-11-69
17.39	134.994	11:58	8-11-69
17.66	135.006	12:14	8-11-69
17.92	135.018	12:30	8-11-69
18.19	135.018	12:46	8-11-69
18.46	135.030	13:03	8-11-69
18.73	135.041	13:19	8-11-69
18.99	135.053	13:35	8-11-69
19.26	135.065	13:51	8-11-69
19.53	135.076	14:07	8-11-69
19.80	135.088	14:23	8-11-69
20.06	135.088	14:39	8-11-69
20.33	135.088	14:55	8-11-69
20.60	135.100	15:11	8-11-69
20.87	135.111	15:27	8-11-69
21.13	135.123	15:43	8-11-69
21.40	135.123	15:59	8-11-69
21.67	135.135	16:15	8-11-69
21.94	135.147	16:31	8-11-69
22.20	135.147	16:47	8-11-69
22.47	135.147	17:03	8-11-69
22.74	135.158	17:19	8-11-69
23.01	135.170	17:35	8-11-69
23.27	135.182	17:51	8-11-69
23.54	135.193	18:07	8-11-69
23.81	135.205	18:24	8-11-69
24.08	135.205	18:40	8-11-69
24.34	135.217	18:56	8-11-69
24.61	135.229	19:12	8-11-69
24.88	135.240	19:28	8-11-69
25.15	135.252	19:44	8-11-69
25.41	135.252	20:00	8-11-69

51539

LEASE NAVAJO WELL NO. 11

25.68	135.264	20:16	8-11-69
25.95	135.264	20:32	8-11-69
26.22	135.275	20:48	8-11-69
26.48	135.275	21:04	8-11-69
26.75	135.287	21:20	8-11-69
27.02	135.287	21:36	8-11-69
27.29	135.299	21:52	8-11-69
27.55	135.299	22:08	8-11-69
27.82	135.310	22:24	8-11-69
28.09	135.310	22:40	8-11-69
28.36	135.322	22:56	8-11-69
28.62	135.334	23:12	8-11-69
28.89	135.346	23:29	8-11-69
29.16	135.346	23:45	8-11-69
29.43	135.357	0:01	8-12-69
29.69	135.357	0:17	8-12-69
29.96	135.369	0:33	8-12-69
30.23	135.381	0:49	8-12-69
30.50	135.381	1:05	8-12-69
30.76	135.392	1:21	8-12-69
31.03	135.392	1:37	8-12-69
31.30	135.404	1:53	8-12-69
31.57	135.416	2:09	8-12-69
31.83	135.416	2:25	8-12-69
32.10	135.427	2:41	8-12-69
32.37	135.427	2:57	8-12-69
32.64	135.427	3:13	8-12-69
32.90	135.439	3:29	8-12-69
33.17	135.451	3:45	8-12-69
33.44	135.451	4:01	8-12-69
33.71	135.451	4:17	8-12-69
33.97	135.463	4:33	8-12-69
34.24	135.463	4:50	8-12-69
34.51	135.463	5:06	8-12-69
34.78	135.463	5:22	8-12-69
35.04	135.463	5:38	8-12-69
35.31	135.451	5:54	8-12-69
35.58	135.451	6:10	8-12-69
35.85	135.451	6:26	8-12-69
36.11	135.451	6:42	8-12-69
36.38	135.451	6:58	8-12-69
36.65	135.451	7:14	8-12-69
36.92	135.451	7:30	8-12-69
37.18	135.451	7:46	8-12-69
37.45	135.439	8:02	8-12-69
37.72	135.439	8:18	8-12-69
37.99	135.439	8:34	8-12-69
38.25	135.439	8:50	8-12-69
38.52	135.439	9:06	8-12-69
38.79	135.439	9:22	8-12-69
39.06	135.439	9:38	8-12-69

51540

LEASE NAVAJO WELL NO. 11

39.32	135.451	9:54	8-12-69
39.59	135.451	10:11	8-12-69
39.86	135.451	10:27	8-12-69
40.13	135.451	10:43	8-12-69
40.39	135.451	10:59	8-12-69
40.66	135.439	11:15	8-12-69
40.93	135.439	11:31	8-12-69
41.20	135.439	11:47	8-12-69
41.46	135.427	12:03	8-12-69
41.73	135.427	12:19	8-12-69
42.00	135.427	12:35	8-12-69
42.27	135.416	12:51	8-12-69
42.54	135.416	13:07	8-12-69
42.80	135.404	13:23	8-12-69
43.07	135.404	13:39	8-12-69
43.34	135.404	13:55	8-12-69
43.61	135.392	14:11	8-12-69
43.87	135.392	14:27	8-12-69
44.14	135.392	14:43	8-12-69
44.41	135.392	14:59	8-12-69
44.68	135.392	15:16	8-12-69
44.94	135.392	15:32	8-12-69
45.21	135.392	15:48	8-12-69
45.48	135.381	16:04	8-12-69
45.75	135.381	16:20	8-12-69
46.01	135.381	16:36	8-12-69
46.28	135.381	16:52	8-12-69
46.55	135.369	17:08	8-12-69
46.82	135.369	17:24	8-12-69
47.08	135.369	17:40	8-12-69
47.35	135.357	17:56	8-12-69
47.62	135.357	18:12	8-12-69
47.89	135.357	18:28	8-12-69
48.15	135.346	18:44	8-12-69
48.42	135.346	19:00	8-12-69
48.69	135.346	19:16	8-12-69
48.96	135.346	19:32	8-12-69
49.22	135.334	19:48	8-12-69
49.49	135.334	20:04	8-12-69
49.76	135.322	20:20	8-12-69
50.03	135.322	20:37	8-12-69
50.29	135.322	20:53	8-12-69
50.56	135.310	21:09	8-12-69
50.83	135.310	21:25	8-12-69
51.10	135.310	21:41	8-12-69
51.36	135.310	21:57	8-12-69
51.63	135.310	22:13	8-12-69
51.90	135.310	22:29	8-12-69
52.17	135.310	22:45	8-12-69
52.43	135.310	23:01	8-12-69
52.70	135.299	23:17	8-12-69

51541

LEASE NAVAJO WELL NO. 11

52.97	135.299	23:33	8-12-69
53.24	135.299	23:49	8-12-69
53.50	135.299	0:05	8-13-69
53.77	135.299	0:21	8-13-69
54.04	135.299	0:37	8-13-69
54.31	135.299	0:53	8-13-69
54.57	135.299	1:09	8-13-69
54.84	135.299	1:25	8-13-69
55.11	135.299	1:41	8-13-69
55.38	135.287	1:58	8-13-69
55.64	135.287	2:14	8-13-69
55.91	135.287	2:30	8-13-69
56.18	135.275	2:46	8-13-69
56.45	135.275	3:02	8-13-69
56.71	135.275	3:18	8-13-69
56.98	135.275	3:34	8-13-69
57.25	135.275	3:50	8-13-69
57.52	135.264	4:06	8-13-69
57.78	135.264	4:22	8-13-69
58.05	135.264	4:38	8-13-69
58.32	135.264	4:54	8-13-69
58.59	135.252	5:10	8-13-69
58.85	135.252	5:26	8-13-69
59.12	135.240	5:42	8-13-69
59.39	135.240	5:58	8-13-69
59.66	135.240	6:14	8-13-69
59.92	135.240	6:30	8-13-69
60.19	135.240	6:46	8-13-69
60.46	135.229	7:03	8-13-69
60.73	135.229	7:19	8-13-69
60.99	135.229	7:35	8-13-69
61.26	135.229	7:51	8-13-69
61.53	135.229	8:07	8-13-69
61.80	135.229	8:23	8-13-69
62.06	135.217	8:39	8-13-69
62.33	135.217	8:55	8-13-69
62.60	135.217	9:11	8-13-69
62.87	135.205	9:27	8-13-69
63.13	135.205	9:43	8-13-69
63.40	135.205	9:59	8-13-69
63.67	135.193	10:15	8-13-69
63.94	135.193	10:31	8-13-69
64.20	135.193	10:47	8-13-69
64.47	135.182	11:03	8-13-69
64.74	135.182	11:19	8-13-69
65.01	135.182	11:35	8-13-69
65.27	135.182	11:51	8-13-69
65.54	135.182	12:07	8-13-69
65.81	135.170	12:24	8-13-69
66.08	135.170	12:40	8-13-69
66.34	135.170	12:56	8-13-69

51542

LEASE NAVAJO WELL NO. 11

66.61	135.170	13:12	8-13-69
66.88	135.158	13:28	8-13-69
67.15	135.158	13:44	8-13-69
67.41	135.158	14:00	8-13-69
67.68	135.158	14:16	8-13-69
67.95	135.158	14:32	8-13-69
68.22	135.147	14:48	8-13-69
68.48	135.147	15:04	8-13-69
68.75	135.147	15:20	8-13-69
69.02	135.135	15:36	8-13-69
69.29	135.135	15:52	8-13-69
69.55	135.135	16:08	8-13-69
69.82	135.123	16:24	8-13-69
70.09	135.123	16:40	8-13-69
70.36	135.111	16:56	8-13-69
70.62	135.111	17:12	8-13-69
70.89	135.100	17:29	8-13-69
71.16	135.100	17:45	8-13-69
71.43	135.088	18:01	8-13-69
71.69	135.088	18:17	8-13-69
71.96	135.076	18:33	8-13-69
72.23	135.076	18:49	8-13-69
72.50	135.065	19:05	8-13-69
72.76	135.065	19:21	8-13-69
73.03	135.065	19:37	8-13-69
73.30	135.053	19:53	8-13-69
73.57	135.053	20:09	8-13-69
73.83	135.053	20:25	8-13-69
74.10	135.053	20:41	8-13-69
74.37	135.053	20:57	8-13-69
74.64	135.041	21:13	8-13-69
74.90	135.041	21:29	8-13-69
75.17	135.041	21:45	8-13-69
75.44	135.041	22:01	8-13-69
75.71	135.041	22:17	8-13-69
75.97	135.030	22:33	8-13-69
76.24	135.030	22:50	8-13-69
76.51	135.030	23:06	8-13-69
76.78	135.030	23:22	8-13-69
77.04	135.030	23:38	8-13-69
77.31	135.030	23:54	8-13-69
77.58	135.018	0:10	8-14-69
77.85	135.018	0:26	8-14-69
78.11	135.006	0:42	8-14-69
78.38	135.006	0:58	8-14-69
78.65	135.006	1:14	8-14-69
78.92	135.006	1:30	8-14-69
79.18	135.006	1:46	8-14-69
79.45	135.006	2:02	8-14-69
79.72	135.006	2:18	8-14-69
79.99	135.006	2:34	8-14-69

51543

LEASE NAVAJO WELL NO. 11

80.25	135.006	2:50	8-14-69	
80.52	134.994	3:06	8-14-69	
80.79	134.994	3:22	8-14-69	
81.06	134.994	3:38	8-14-69	
81.32	134.994	3:54	8-14-69	
81.59	134.994	4:11	8-14-69	
81.86	134.994	4:27	8-14-69	
82.13	134.983	4:43	8-14-69	
82.39	134.983	4:59	8-14-69	
82.66	134.983	5:15	8-14-69	
82.93	134.983	5:31	8-14-69	
83.20	134.971	5:47	8-14-69	
83.46	134.971	6:03	8-14-69	
83.73	134.971	6:19	8-14-69	
84.00	134.959	6:35	8-14-69	OFF BOTTOM

#506

SPERRY-SUN

Precision Pressure Gauge Report

FOR

KERR-McGEE CORPORATION

YPE OF TEST: INTERFERENCE RUN NO. 2

EPTH: 2,845 FT. TEMPERATURE 85°F

EASE: NAVAJO WELL NO. 11

IELD: DINEH BI KEYAH

OUNTY/PARISH APACHE STATE ARIZONA

ATE OF TEST AUGUST 14-15, 1969 JOB NO. SPG-6700

FFICE: HOUSTON, TEXAS

506

SPERRY-SUN

PRECISION PRESSURE GAUGE REPORT

FOR

KERR-McGEE CORPORATION

RECEIVED
SEP 22 1969
STATE O & G
CONS. COMM.

TYPE OF TEST: INTERFERENCE RUN NO. 2

DEPTH: 2,845 FT. TEMPERATURE 85°F

LEASE: NAVAJO WELL NO. 11

FIELD: DINEH BI KEYAH

COUNTY/~~PARISH~~ APACHE STATE ARIZONA

DATE OF TEST AUGUST 14-15, 1969 JOB NO. SPG-6700

OFFICE: HOUSTON, TEXAS

506

SP-384

51544

SPERRY-SUN WELL SURVEYING COMPANY
PRECISION SUBSURFACE PRESSURE GAUGE REPORT
--FOR--

KERR-MC GEE CORPORATION

LEASE NAVAJO WELL NO. 11
FIELD DINEH BI KEYAH LOCATION NW-SE SEC.32 T36N. R30E.
COUNTY/PARISH APACHE
STATE ARIZONA
TYPE TEST INTERFERENCE JOB NO. SPG-6700
DATE OF TEST AUGUST 14-15,1969

REFERENCE ELEV 0. FT. REFERENCE POINT WIRELINE VALVE
DATUM 0. FT. REF. SEA LEVEL

NOTE: ALL REPORTED PRESSURES ARE ADJUSTED TO THE ABOVE DATUM

RUN NO.	GAUGE NO.	DEPTH (FT.)	DATUM CORR. (PSI)	PRESS. GRAD. (PSI/FT.)	TEST TEMP. (DEG.F)	CALIBRATION (BHP=)
1	137	2845.	.0	.000	85.	27.304 * EXT - 17.960

COMMENTS: THIS IS RUN NO.2

51545

LEASE NAVAJO WELL NO. 11

DELTA TIME	PRESSURE	TIME	DATE	COMMENT
.06	134.257	8:09	8-14-69	ON BOTTOM
.13	134.362	8:17	8-14-69	
.27	134.421	8:25	8-14-69	
.40	134.433	8:33	8-14-69	
.53	134.491	8:41	8-14-69	
.66	134.491	8:49	8-14-69	
.80	134.491	8:57	8-14-69	
.93	134.503	9:05	8-14-69	
1.06	134.491	9:13	8-14-69	
1.20	134.491	9:21	8-14-69	
1.33	134.479	9:29	8-14-69	
1.46	134.491	9:37	8-14-69	
1.59	134.491	9:45	8-14-69	
1.73	134.479	9:53	8-14-69	
1.86	134.479	10:01	8-14-69	
1.99	134.479	10:09	8-14-69	
2.12	134.479	10:16	8-14-69	
2.26	134.468	10:24	8-14-69	
2.39	134.456	10:32	8-14-69	
2.52	134.444	10:40	8-14-69	
2.66	134.444	10:48	8-14-69	
2.79	134.444	10:56	8-14-69	
2.92	134.433	11:04	8-14-69	
3.05	134.433	11:12	8-14-69	
3.19	134.433	11:20	8-14-69	
3.32	134.421	11:28	8-14-69	
3.45	134.421	11:36	8-14-69	
3.59	134.409	11:44	8-14-69	
3.72	134.409	11:52	8-14-69	
3.85	134.409	12:00	8-14-69	
3.98	134.398	12:08	8-14-69	
4.12	134.398	12:16	8-14-69	
4.25	134.398	12:24	8-14-69	
4.38	134.386	12:32	8-14-69	
4.51	134.386	12:40	8-14-69	
4.65	134.374	12:48	8-14-69	
4.78	134.374	12:56	8-14-69	
4.91	134.362	13:04	8-14-69	
5.05	134.362	13:12	8-14-69	
5.18	134.362	13:20	8-14-69	
5.31	134.362	13:28	8-14-69	
5.44	134.351	13:36	8-14-69	
5.58	134.351	13:44	8-14-69	
5.71	134.351	13:52	8-14-69	
5.84	134.351	14:00	8-14-69	

51560

LEASE NAVAJO WELL NO. 11

DELTA TIME	PRESSURE	TIME	DATE	COMMENT
.00	132.556	16:30	8-17-69	ON BOTTOM
.27	132.845	16:46	8-17-69	
.53	132.906	17:02	8-17-69	
.80	132.954	17:18	8-17-69	
1.07	132.966	17:34	8-17-69	
1.34	132.978	17:50	8-17-69	
1.60	132.990	18:06	8-17-69	
1.87	133.014	18:22	8-17-69	
2.14	133.027	18:38	8-17-69	
2.41	133.014	18:54	8-17-69	
2.67	133.002	19:10	8-17-69	
2.94	133.002	19:27	8-17-69	
3.21	133.002	19:43	8-17-69	
3.48	132.990	19:59	8-17-69	
3.74	133.002	20:15	8-17-69	
4.01	133.002	20:31	8-17-69	
4.28	133.002	20:47	8-17-69	
4.55	133.002	21:03	8-17-69	
4.81	133.002	21:19	8-17-69	
5.08	133.002	21:35	8-17-69	
5.35	132.990	21:51	8-17-69	
5.62	132.990	22:07	8-17-69	
5.88	132.978	22:23	8-17-69	
6.15	132.990	22:39	8-17-69	
6.42	132.978	22:55	8-17-69	
6.69	132.990	23:11	8-17-69	
6.95	132.990	23:27	8-17-69	
7.22	132.990	23:43	8-17-69	
7.49	133.002	23:59	8-17-69	
7.76	132.990	0:15	8-18-69	
8.02	132.990	0:31	8-18-69	
8.29	132.990	0:48	8-18-69	
8.56	132.990	1:04	8-18-69	
8.83	132.990	1:20	8-18-69	
9.09	132.990	1:36	8-18-69	
9.36	132.990	1:52	8-18-69	
9.63	133.002	2:08	8-18-69	
9.90	133.002	2:24	8-18-69	
10.16	133.002	2:40	8-18-69	
10.43	133.002	2:56	8-18-69	
10.70	132.990	3:12	8-18-69	
10.97	133.002	3:28	8-18-69	
11.23	133.002	3:44	8-18-69	
11.50	132.990	4:00	8-18-69	
11.77	132.990	4:16	8-18-69	

51561

LEASE NAVAJO WELL NO. 11

12.04	133.002	4:32	8-18-69	
12.30	133.002	4:48	8-18-69	
12.57	133.002	5:04	8-18-69	
12.84	133.002	5:20	8-18-69	
13.11	133.002	5:36	8-18-69	
13.37	133.002	5:52	8-18-69	
13.64	133.014	6:09	8-18-69	
13.91	133.014	6:25	8-18-69	
14.18	133.014	6:41	8-18-69	
14.44	133.014	6:57	8-18-69	
14.71	133.014	7:13	8-18-69	
14.98	133.014	7:29	8-18-69	
15.25	133.027	7:45	8-18-69	
15.51	133.027	8:01	8-18-69	
15.78	133.027	8:17	8-18-69	
16.05	133.039	8:33	8-18-69	
16.32	133.039	8:49	8-18-69	
16.58	133.039	9:05	8-18-69	
16.85	133.051	9:21	8-18-69	
17.12	133.051	9:37	8-18-69	
17.39	133.051	9:53	8-18-69	
17.65	133.063	10:09	8-18-69	
17.92	133.063	10:25	8-18-69	
18.19	133.063	10:41	8-18-69	
18.46	133.075	10:57	8-18-69	
18.72	133.075	11:13	8-18-69	
18.99	133.087	11:30	8-18-69	
19.26	133.075	11:46	8-18-69	
19.53	133.075	12:02	8-18-69	
19.79	133.087	12:18	8-18-69	
20.06	133.075	12:34	8-18-69	
20.33	133.075	12:50	8-18-69	
20.60	133.075	13:06	8-18-69	
20.86	133.063	13:22	8-18-69	
21.13	133.075	13:38	8-18-69	
21.40	133.063	13:54	8-18-69	
21.50	133.075	14:00	8-18-69	OFF BOTTOM

#502

SPERRY-SUN

Precision Pressure Gauge Report

FOR

KERR-McGEE CORPORATION

YPE OF TEST: INTERFERENCE RUN NO. 3

PTH: 2,845 FT. TEMPERATURE 85°F

ASE: NAVAJO WELL NO. 11

ELD: DINEH BI KEYAH

OUNTY/~~PARISH~~ APACHE STATE ARIZONA

ATE OF TEST AUGUST 15-17, 1969 JOB NO. SPG-6700

FFICE: HOUSTON, TEXAS

506

SPERRY-SUN

PRECISION PRESSURE GAUGE REPORT

FOR

KERR-McGEE CORPORATION

RECEIVED
SEP 22 1969
STATE O & G
CONS. COMM.

TYPE OF TEST: INTERFERENCE RUN NO. 3

DEPTH: 2,845 FT. TEMPERATURE 85°F

LEASE: NAVAJO WELL NO. 11

FIELD: DINEH BI KEYAH

COUNTY/~~PARISH~~ APACHE STATE ARIZONA

DATE OF TEST AUGUST 15-17, 1969 JOB NO. SPG-6700

OFFICE: HOUSTON, TEXAS

506

SP-384

51551

SPERRY-SUN WELL SURVEYING COMPANY
PRECISION SUBSURFACE PRESSURE GAUGE REPORT
--FOR--

KERR-MC GEE CORPORATION

LEASE NAVAJO WELL NO. 11
FIELD DINEH BI KEYAH LOCATION NW SE SEC.32 T36N. R30E.
COUNTY/PARISH APACHE
STATE ARIZONA
TYPE TEST INTERFERENCE JOB NO. SPG-6700
DATE OF TEST AUGUST 15-17,1969

REFERENCE ELEV 0. FT. REFERENCE POINT WIRELINE VALVE
DATUM 0. FT. REF. SEA LEVEL

NOTE: ALL REPORTED PRESSURES ARE ADJUSTED TO THE ABOVE DATUM

RUN NO.	GAUGE NO.	DEPTH (FT.)	DATUM CORR. (PSI)	PRESS. GRAD. (PSI/FT.)	TEST TEMP. (DEG.F)	CALIBRATION (BHP=)
1	137	2845.	.0	.000	85.	27.304 * EXT - 17.960

COMMENTS: THIS IS RUN NO.3

51552

LEASE NAVAJO WELL NO. 11

DELTA TIME	PRESSURE	TIME	DATE	COMMENT
.00	133.894	22:32	8-15-69	ON BOTTOM
.13	134.070	22:40	8-15-69	
.27	134.163	22:48	8-15-69	
.40	134.222	22:56	8-15-69	
.53	134.222	23:04	8-15-69	
.67	134.234	23:12	8-15-69	
.80	134.245	23:20	8-15-69	
.94	134.245	23:28	8-15-69	
1.07	134.245	23:36	8-15-69	
1.20	134.257	23:44	8-15-69	
1.34	134.269	23:52	8-15-69	
1.47	134.269	0:00	8-16-69	
1.60	134.257	0:08	8-16-69	
1.74	134.257	0:16	8-16-69	
1.87	134.257	0:24	8-16-69	
2.00	134.257	0:32	8-16-69	
2.14	134.245	0:40	8-16-69	
2.27	134.245	0:48	8-16-69	
2.41	134.245	0:56	8-16-69	
2.54	134.245	1:04	8-16-69	
2.67	134.245	1:12	8-16-69	
2.81	134.234	1:20	8-16-69	
2.94	134.234	1:28	8-16-69	
3.07	134.234	1:36	8-16-69	
3.21	134.234	1:44	8-16-69	
3.34	134.234	1:52	8-16-69	
3.48	134.222	2:01	8-16-69	
3.61	134.222	2:09	8-16-69	
3.74	134.222	2:17	8-16-69	
3.88	134.210	2:25	8-16-69	
4.01	134.210	2:33	8-16-69	
4.14	134.199	2:41	8-16-69	
4.28	134.199	2:49	8-16-69	
4.41	134.199	2:57	8-16-69	
4.54	134.187	3:05	8-16-69	
4.68	134.187	3:13	8-16-69	
4.81	134.187	3:21	8-16-69	
4.95	134.187	3:29	8-16-69	
5.08	134.175	3:37	8-16-69	
5.21	134.175	3:45	8-16-69	
5.35	134.175	3:53	8-16-69	
5.48	134.175	4:01	8-16-69	
5.61	134.175	4:09	8-16-69	
5.75	134.163	4:17	8-16-69	
5.88	134.163	4:25	8-16-69	

51546

LEASE NAVAJO WELL NO. 11

6.98	134.351	14:03	8-14-69
6.11	134.339	14:16	8-14-69
6.24	134.339	14:23	8-14-69
6.37	134.339	14:31	8-14-69
6.51	134.327	14:39	8-14-69
6.64	134.327	14:47	8-14-69
6.77	134.327	14:55	8-14-69
6.91	134.315	15:03	8-14-69
7.04	134.316	15:11	8-14-69
7.17	134.304	15:19	8-14-69
7.30	134.304	15:27	8-14-69
7.44	134.292	15:35	8-14-69
7.57	134.292	15:43	8-14-69
7.70	134.281	15:51	8-14-69
7.83	134.281	15:59	8-14-69
7.97	134.281	16:07	8-14-69
8.10	134.281	16:15	8-14-69
8.23	134.281	16:23	8-14-69
8.37	134.269	16:31	8-14-69
8.50	134.269	16:39	8-14-69
8.63	134.269	16:47	8-14-69
8.76	134.257	16:55	8-14-69
8.90	134.257	17:03	8-14-69
9.03	134.257	17:11	8-14-69
9.16	134.245	17:19	8-14-69
9.30	134.245	17:27	8-14-69
9.43	134.234	17:35	8-14-69
9.56	134.234	17:43	8-14-69
9.69	134.222	17:51	8-14-69
9.83	134.222	17:59	8-14-69
9.96	134.210	18:07	8-14-69
10.09	134.210	18:15	8-14-69
10.22	134.210	18:22	8-14-69
10.36	134.199	18:30	8-14-69
10.49	134.199	18:38	8-14-69
10.62	134.199	18:46	8-14-69
10.76	134.199	18:54	8-14-69
10.89	134.187	19:02	8-14-69
11.02	134.187	19:10	8-14-69
11.15	134.187	19:18	8-14-69
11.29	134.175	19:26	8-14-69
11.42	134.175	19:34	8-14-69
11.55	134.187	19:42	8-14-69
11.69	134.175	19:50	8-14-69
11.82	134.175	19:58	8-14-69
11.95	134.175	20:06	8-14-69
12.08	134.175	20:14	8-14-69
12.22	134.163	20:22	8-14-69
12.35	134.163	20:30	8-14-69
12.48	134.163	20:38	8-14-69
12.62	134.163	20:46	8-14-69

51547

LEASE NAVAJO WELL NO. 11

12.75	134.152	20:54	8-14-69
12.88	134.152	21:02	8-14-69
13.01	134.152	21:10	8-14-69
13.13	134.140	21:18	8-14-69
13.26	134.140	21:26	8-14-69
13.41	134.140	21:34	8-14-69
13.54	134.140	21:42	8-14-69
13.68	134.140	21:50	8-14-69
13.81	134.128	21:58	8-14-69
13.94	134.128	22:06	8-14-69
14.08	134.128	22:14	8-14-69
14.21	134.128	22:22	8-14-69
14.34	134.128	22:29	8-14-69
14.47	134.128	22:37	8-14-69
14.61	134.128	22:45	8-14-69
14.74	134.128	22:53	8-14-69
14.87	134.128	23:01	8-14-69
15.01	134.128	23:09	8-14-69
15.14	134.128	23:17	8-14-69
15.27	134.117	23:25	8-14-69
15.40	134.117	23:33	8-14-69
15.54	134.117	23:41	8-14-69
15.67	134.117	23:49	8-14-69
15.80	134.105	23:57	8-14-69
15.94	134.105	0:05	8-15-69
16.07	134.105	0:13	8-15-69
16.20	134.105	0:21	8-15-69
16.33	134.105	0:29	8-15-69
16.47	134.105	0:37	8-15-69
16.60	134.105	0:45	8-15-69
16.73	134.105	0:53	8-15-69
16.86	134.093	1:01	8-15-69
17.00	134.093	1:09	8-15-69
17.13	134.093	1:17	8-15-69
17.26	134.093	1:25	8-15-69
17.40	134.093	1:33	8-15-69
17.53	134.093	1:41	8-15-69
17.66	134.093	1:49	8-15-69
17.79	134.093	1:57	8-15-69
17.93	134.082	2:05	8-15-69
18.06	134.082	2:13	8-15-69
18.19	134.082	2:21	8-15-69
18.33	134.082	2:29	8-15-69
18.46	134.082	2:36	8-15-69
18.59	134.082	2:44	8-15-69
18.72	134.082	2:52	8-15-69
18.86	134.070	3:00	8-15-69
18.99	134.070	3:08	8-15-69
19.12	134.070	3:16	8-15-69
19.25	134.070	3:24	8-15-69
19.39	134.070	3:32	8-15-69

51548

LEASE NAVAJO WELL NO. 11

19.32	134.058	3:40	8-15-69
19.45	134.058	3:48	8-15-69
19.79	134.058	3:56	8-15-69
19.92	134.058	4:04	8-15-69
20.05	134.058	4:12	8-15-69
20.18	134.058	4:20	8-15-69
20.32	134.058	4:28	8-15-69
20.45	134.058	4:36	8-15-69
20.58	134.058	4:44	8-15-69
20.72	134.058	4:52	8-15-69
20.85	134.058	5:00	8-15-69
20.98	134.058	5:08	8-15-69
21.11	134.058	5:16	8-15-69
21.25	134.058	5:24	8-15-69
21.38	134.046	5:32	8-15-69
21.51	134.046	5:40	8-15-69
21.65	134.046	5:48	8-15-69
21.78	134.046	5:56	8-15-69
21.91	134.046	6:04	8-15-69
22.04	134.035	6:12	8-15-69
22.18	134.035	6:20	8-15-69
22.31	134.035	6:28	8-15-69
22.44	134.035	6:36	8-15-69
22.57	134.035	6:43	8-15-69
22.71	134.035	6:51	8-15-69
22.84	134.035	6:59	8-15-69
22.97	134.023	7:07	8-15-69
23.11	134.023	7:15	8-15-69
23.37	134.023	7:31	8-15-69
23.50	134.023	7:39	8-15-69
23.64	134.023	7:47	8-15-69
23.77	134.011	7:55	8-15-69
23.90	134.011	8:03	8-15-69
24.04	134.011	8:11	8-15-69
24.17	134.011	8:19	8-15-69
24.30	134.011	8:27	8-15-69
24.43	134.000	8:35	8-15-69
24.57	134.000	8:43	8-15-69
24.70	134.000	8:51	8-15-69
24.83	134.000	8:59	8-15-69
24.96	134.000	9:07	8-15-69
25.10	134.000	9:15	8-15-69
25.23	134.000	9:23	8-15-69
25.36	133.988	9:31	8-15-69
25.50	133.988	9:39	8-15-69
25.63	133.988	9:47	8-15-69
25.76	133.988	9:55	8-15-69
25.89	133.988	10:03	8-15-69
26.03	133.988	10:11	8-15-69
26.16	133.988	10:19	8-15-69
26.29	133.988	10:27	8-15-69

01548

LEASE NAVAJO WELL NO. 11

26.43	133.976	10:35	8-15-69
26.56	133.976	10:43	8-15-69
26.69	133.976	10:50	8-15-69
26.82	133.976	10:58	8-15-69
26.95	133.976	11:06	8-15-69
27.09	133.976	11:14	8-15-69
27.22	133.976	11:22	8-15-69
27.36	133.976	11:30	8-15-69
27.49	133.976	11:38	8-15-69
27.62	133.965	11:46	8-15-69
27.75	133.965	11:54	8-15-69
27.89	133.965	12:02	8-15-69
28.02	133.965	12:10	8-15-69
28.15	133.965	12:18	8-15-69
28.28	133.953	12:26	8-15-69
28.42	133.953	12:34	8-15-69
28.55	133.953	12:42	8-15-69
28.68	133.953	12:50	8-15-69
28.82	133.953	12:58	8-15-69
28.95	133.953	13:06	8-15-69
29.08	133.953	13:14	8-15-69
29.22	133.953	13:22	8-15-69
29.35	133.953	13:30	8-15-69
29.48	133.953	13:38	8-15-69
29.61	133.941	13:46	8-15-69
29.75	133.941	13:54	8-15-69
29.88	133.941	14:02	8-15-69
30.01	133.941	14:10	8-15-69
30.14	133.941	14:18	8-15-69
30.28	133.941	14:26	8-15-69
30.41	133.941	14:34	8-15-69
30.54	133.941	14:42	8-15-69
30.67	133.941	14:49	8-15-69
30.81	133.941	14:57	8-15-69
30.94	133.941	15:05	8-15-69
31.07	133.941	15:13	8-15-69
31.21	133.941	15:21	8-15-69
31.34	133.941	15:29	8-15-69
31.47	133.941	15:37	8-15-69
31.60	133.941	15:45	8-15-69
31.74	133.941	15:53	8-15-69
31.87	133.941	16:01	8-15-69
32.00	133.941	16:09	8-15-69
32.14	133.941	16:17	8-15-69
32.27	133.941	16:25	8-15-69
32.40	133.941	16:33	8-15-69
32.53	133.941	16:41	8-15-69
32.67	133.941	16:49	8-15-69
32.80	133.929	16:57	8-15-69
32.93	133.929	17:05	8-15-69
33.07	133.929	17:13	8-15-69

81550

LEASE NAVAJO WELL NO. 11

[illegible]	133.929	17:21	8-15-69	
[illegible]	133.929	17:29	8-15-69	
[illegible]	133.929	17:37	8-15-69	
[illegible]	133.929	17:45	8-15-69	
[illegible]	133.929	17:53	8-15-69	
[illegible]	133.929	18:01	8-15-69	
[illegible]	133.929	18:09	8-15-69	
[illegible]	133.918	18:17	8-15-69	
[illegible]	133.918	18:25	8-15-69	
[illegible]	133.918	18:33	8-15-69	
[illegible]	133.918	18:41	8-15-69	
[illegible]	133.918	18:49	8-15-69	
[illegible]	133.918	18:56	8-15-69	
[illegible]	133.918	19:04	8-15-69	
[illegible]	133.918	19:12	8-15-69	
[illegible]	133.918	19:20	8-15-69	
[illegible]	133.918	19:28	8-15-69	
[illegible]	133.918	19:36	8-15-69	
[illegible]	133.918	19:44	8-15-69	
[illegible]	133.918	19:52	8-15-69	
[illegible]	133.918	20:00	8-15-69	
[illegible]	133.906	20:08	8-15-69	
36.12	133.906	20:16	8-15-69	
[illegible]	133.906	20:24	8-15-69	
[illegible]	133.906	20:32	8-15-69	
[illegible]	133.906	20:40	8-15-69	
[illegible]	133.906	20:48	8-15-69	
[illegible]	133.906	20:56	8-15-69	
[illegible]	133.906	20:58	8-15-69	
36.85	133.906	21:00	8-15-69	OFF BOTTOM

#506

SPERRY-SUN

Precision Pressure Gauge Report

FOR

KERR-McGEE CORPORATION

E OF TEST: INTERFERENCE RUN NO. 4

TH: 2,835 FT. TEMPERATURE 85°F

SE: NAVAJO WELL NO. 11

D: DINEH BI KEYAH

UNTY/PARISH APACHE STATE ARIZONA

E OF TEST AUGUST 17-18, 1969 JOB NO. SPG-6700

ICE: HOUSTON, TEXAS

506

SPERRY-SUN

PRECISION PRESSURE GAUGE REPORT

FOR

KERR-McGEE CORPORATION

TYPE OF TEST: INTERFERENCE RUN NO. 4

DEPTH: 2,835 FT. TEMPERATURE 85°F

LEASE: NAVAJO WELL NO. 11

FIELD: DINEH BI KEYAH

COUNTY/~~PARISH~~ APACHE STATE ARIZONA

DATE OF TEST AUGUST 17-18, 1969 JOB NO. SPG-6700

OFFICE: HOUSTON, TEXAS

506

SP-384

51559

SPERRY-SUN WELL SURVEYING COMPANY
PRECISION SUBSURFACE PRESSURE GAUGE REPORT
--FOR--

KERR-MC GEE CORPORATION

LEASE NAVAJO WELL NO. 11
FIELD DINEH BI KEYAH LOCATION NW SE SEC. 32 T36N.R30E.
COUNTY/PARISH APACHE
STATE ARIZONA
TYPE TEST INTERFERENCE JOB NO. SPG-6700
DATE OF TEST AUGUST 17-18,1969

REFERENCE ELEV 0. FT. REFERENCE POINT WIRELINE VALVE
DATUM 0. FT. REF. SEA LEVEL

NOTE: ALL REPORTED PRESSURES ARE ADJUSTED TO THE ABOVE DATUM

RUN NO.	GAUGE NO.	DEPTH (FT.)	DATUM CORR. (PSI)	PRESS. GRAD. (PSI/FT.)	TEST TEMP. (DEG.F)	CALIBRATION (BHP=)
1	131	2835.	.0	.000	85.	28.173 * EXT - 14.492

COMMENTS: THIS IS RUN NO.4

51553

LEASE NAVAJO WELL NO. 11

6.01	134.163	4:33	8-16-69
6.15	134.163	4:41	8-16-69
6.28	134.163	4:49	8-16-69
6.42	134.163	4:57	8-16-69
6.55	134.152	5:05	8-16-69
6.68	134.152	5:13	8-16-69
6.82	134.152	5:21	8-16-69
6.95	134.152	5:29	8-16-69
7.08	134.152	5:37	8-16-69
7.22	134.152	5:45	8-16-69
7.35	134.140	5:53	8-16-69
7.49	134.140	6:01	8-16-69
7.62	134.140	6:09	8-16-69
7.75	134.140	6:17	8-16-69
7.89	134.140	6:25	8-16-69
8.02	134.140	6:33	8-16-69
8.15	134.128	6:41	8-16-69
8.29	134.128	6:49	8-16-69
8.42	134.128	6:57	8-16-69
8.55	134.128	7:05	8-16-69
8.69	134.128	7:13	8-16-69
8.82	134.117	7:21	8-16-69
8.96	134.117	7:29	8-16-69
9.09	134.117	7:37	8-16-69
9.22	134.117	7:45	8-16-69
9.36	134.105	7:53	8-16-69
9.49	134.105	8:01	8-16-69
9.62	134.105	8:09	8-16-69
9.76	134.093	8:17	8-16-69
9.89	134.093	8:25	8-16-69
10.02	134.093	8:33	8-16-69
10.16	134.093	8:42	8-16-69
10.29	134.093	8:50	8-16-69
10.43	134.093	8:58	8-16-69
10.56	134.082	9:06	8-16-69
10.69	134.082	9:14	8-16-69
10.83	134.082	9:22	8-16-69
10.96	134.082	9:30	8-16-69
11.09	134.082	9:38	8-16-69
11.23	134.082	9:46	8-16-69
11.36	134.082	9:54	8-16-69
11.50	134.082	10:02	8-16-69
11.63	134.082	10:10	8-16-69
11.76	134.082	10:18	8-16-69
11.90	134.082	10:26	8-16-69
12.03	134.070	10:34	8-16-69
12.16	134.070	10:42	8-16-69
12.30	134.070	10:50	8-16-69
12.43	134.070	10:58	8-16-69
12.56	134.070	11:06	8-16-69
12.70	134.058	11:14	8-16-69

51554

LEASE NAVAJO WELL NO. 11

12.83	134.058	11:22	8-16-69
12.97	134.058	11:30	8-16-69
13.10	134.058	11:38	8-16-69
13.23	134.058	11:46	8-16-69
13.37	134.046	11:54	8-16-69
13.50	134.046	12:02	8-16-69
13.63	134.046	12:10	8-16-69
13.77	134.046	12:18	8-16-69
13.90	134.035	12:26	8-16-69
14.03	134.035	12:34	8-16-69
14.17	134.035	12:42	8-16-69
14.30	134.035	12:50	8-16-69
14.44	134.035	12:58	8-16-69
14.57	134.035	13:06	8-16-69
14.70	134.035	13:14	8-16-69
14.84	134.035	13:22	8-16-69
14.97	134.035	13:30	8-16-69
15.10	134.035	13:38	8-16-69
15.24	134.035	13:46	8-16-69
15.37	134.035	13:54	8-16-69
15.51	134.035	14:02	8-16-69
15.64	134.023	14:10	8-16-69
15.77	134.023	14:18	8-16-69
15.91	134.023	14:26	8-16-69
16.04	134.023	14:34	8-16-69
16.17	134.023	14:42	8-16-69
16.31	134.023	14:50	8-16-69
16.44	134.023	14:58	8-16-69
16.57	134.023	15:06	8-16-69
16.71	134.023	15:14	8-16-69
16.84	134.023	15:22	8-16-69
16.98	134.011	15:31	8-16-69
17.11	134.011	15:39	8-16-69
17.24	134.011	15:47	8-16-69
17.38	134.011	15:55	8-16-69
17.51	134.011	16:03	8-16-69
17.64	134.011	16:11	8-16-69
17.78	134.011	16:19	8-16-69
17.91	134.011	16:27	8-16-69
18.04	134.011	16:35	8-16-69
18.18	134.011	16:43	8-16-69
18.31	134.000	16:51	8-16-69
18.45	134.000	16:59	8-16-69
18.58	134.000	17:07	8-16-69
18.71	134.000	17:15	8-16-69
18.85	133.988	17:23	8-16-69
18.98	133.988	17:31	8-16-69
19.11	133.988	17:39	8-16-69
19.25	133.988	17:47	8-16-69
19.38	133.988	17:55	8-16-69
19.51	133.988	18:03	8-16-69

51555

LEASE NAVAJO WELL NO. 11

19.65	133.988	18:11	8-16-69
19.78	133.988	18:19	8-16-69
19.92	133.988	18:27	8-16-69
20.05	133.988	18:35	8-16-69
20.19	133.988	18:43	8-16-69
20.32	133.988	18:51	8-16-69
20.45	133.988	18:59	8-16-69
20.58	133.988	19:07	8-16-69
20.72	133.988	19:15	8-16-69
20.85	133.988	19:23	8-16-69
20.99	133.988	19:31	8-16-69
21.12	133.988	19:39	8-16-69
21.25	133.988	19:47	8-16-69
21.39	133.988	19:55	8-16-69
21.52	133.988	20:03	8-16-69
21.65	133.988	20:11	8-16-69
21.79	133.988	20:19	8-16-69
21.92	133.988	20:27	8-16-69
22.05	133.988	20:35	8-16-69
22.19	133.988	20:43	8-16-69
22.32	133.988	20:51	8-16-69
22.46	133.988	20:59	8-16-69
22.59	133.988	21:07	8-16-69
22.72	133.988	21:15	8-16-69
22.86	133.988	21:23	8-16-69
22.99	133.988	21:31	8-16-69
23.12	133.988	21:39	8-16-69
23.26	133.988	21:47	8-16-69
23.39	133.988	21:55	8-16-69
23.52	133.988	22:03	8-16-69
23.66	133.988	22:12	8-16-69
23.79	133.988	22:20	8-16-69
23.93	133.988	22:28	8-16-69
24.06	133.988	22:36	8-16-69
24.19	133.988	22:44	8-16-69
24.33	133.988	22:52	8-16-69
24.46	133.988	23:00	8-16-69
24.59	133.988	23:08	8-16-69
24.73	133.988	23:16	8-16-69
24.86	133.988	23:24	8-16-69
25.00	133.988	23:32	8-16-69
25.13	133.988	23:40	8-16-69
25.26	133.988	23:48	8-16-69
25.40	133.988	23:56	8-16-69
25.53	133.988	0:04	8-17-69
25.66	133.988	0:12	8-17-69
25.80	133.988	0:20	8-17-69
25.93	133.988	0:28	8-17-69
26.06	133.988	0:36	8-17-69
26.20	133.988	0:44	8-17-69
26.33	133.988	0:52	8-17-69

51556

LEASE NAVAJO WELL NO. 11

26.47	133.988	1:00	8-17-69
26.60	133.988	1:08	8-17-69
26.73	133.988	1:16	8-17-69
26.87	133.988	1:24	8-17-69
27.00	133.988	1:32	8-17-69
27.13	133.988	1:40	8-17-69
27.27	133.988	1:48	8-17-69
27.40	133.988	1:56	8-17-69
27.53	133.988	2:04	8-17-69
27.67	133.988	2:12	8-17-69
27.80	133.988	2:20	8-17-69
27.94	133.988	2:28	8-17-69
28.07	133.988	2:36	8-17-69
28.20	133.988	2:44	8-17-69
28.34	133.988	2:52	8-17-69
28.47	133.988	3:00	8-17-69
28.60	133.988	3:08	8-17-69
28.74	133.988	3:16	8-17-69
28.87	133.988	3:24	8-17-69
29.01	133.988	3:32	8-17-69
29.14	133.988	3:40	8-17-69
29.27	133.988	3:48	8-17-69
29.41	133.988	3:56	8-17-69
29.54	133.988	4:04	8-17-69
29.67	133.988	4:12	8-17-69
29.81	133.988	4:20	8-17-69
29.94	133.988	4:28	8-17-69
30.07	133.988	4:36	8-17-69
30.21	133.988	4:44	8-17-69
30.34	133.988	4:53	8-17-69
30.48	133.988	5:01	8-17-69
30.61	133.988	5:09	8-17-69
30.74	133.988	5:17	8-17-69
30.88	134.000	5:25	8-17-69
31.01	134.000	5:33	8-17-69
31.14	134.000	5:41	8-17-69
31.28	134.000	5:49	8-17-69
31.41	134.000	5:57	8-17-69
31.54	133.988	6:05	8-17-69
31.68	134.000	6:13	8-17-69
31.81	134.000	6:21	8-17-69
31.95	134.000	6:29	8-17-69
32.08	134.000	6:37	8-17-69
32.21	134.000	6:45	8-17-69
32.35	134.000	6:53	8-17-69
32.48	134.000	7:01	8-17-69
32.61	134.000	7:09	8-17-69
32.75	134.000	7:17	8-17-69
32.88	134.000	7:25	8-17-69
33.02	134.000	7:33	8-17-69
33.15	134.000	7:41	8-17-69

51557

LEASE NAVAJO WELL NO. 11

33.28	134.000	7:49	8-17-69
33.42	134.000	7:57	8-17-69
33.55	134.000	8:05	8-17-69
33.68	134.000	8:13	8-17-69
33.82	134.000	8:21	8-17-69
33.95	134.000	8:29	8-17-69
34.08	134.000	8:37	8-17-69
34.22	134.000	8:45	8-17-69
34.35	133.988	8:53	8-17-69
34.49	133.988	9:01	8-17-69
34.62	133.988	9:09	8-17-69
34.75	133.988	9:17	8-17-69
34.89	133.988	9:25	8-17-69
35.02	133.988	9:33	8-17-69
35.15	133.988	9:41	8-17-69
35.29	133.988	9:49	8-17-69
35.42	133.988	9:57	8-17-69
35.55	133.988	10:05	8-17-69
35.69	133.988	10:13	8-17-69
35.82	133.988	10:21	8-17-69
35.96	133.988	10:29	8-17-69
36.09	133.988	10:37	8-17-69
36.22	133.988	10:45	8-17-69
36.36	133.988	10:53	8-17-69
36.49	133.988	11:01	8-17-69
36.62	133.988	11:09	8-17-69
36.76	133.988	11:17	8-17-69
36.89	133.988	11:25	8-17-69
37.02	133.988	11:33	8-17-69
37.16	133.988	11:42	8-17-69
37.29	133.988	11:50	8-17-69
37.43	133.988	11:58	8-17-69
37.56	133.988	12:06	8-17-69
37.69	133.988	12:14	8-17-69
37.83	133.988	12:22	8-17-69
37.96	133.988	12:30	8-17-69
38.09	133.988	12:38	8-17-69
38.23	133.988	12:46	8-17-69
38.36	133.988	12:54	8-17-69
38.50	133.988	13:02	8-17-69
38.63	133.988	13:10	8-17-69
38.76	133.988	13:18	8-17-69
38.90	133.988	13:26	8-17-69
39.03	133.988	13:34	8-17-69
39.16	133.988	13:42	8-17-69
39.30	133.988	13:50	8-17-69
39.43	133.988	13:58	8-17-69
39.56	133.988	14:06	8-17-69
39.70	133.988	14:14	8-17-69
39.83	133.988	14:22	8-17-69
39.97	133.988	14:30	8-17-69

51558

LEASE NAVAJO WELL NO. 11

40.10	133.988	14:38	8-17-69	
40.23	133.988	14:46	8-17-69	
40.30	133.988	14:50	8-17-69	OFF BOTTOM

DINEH-BI-KEYAH FIELD

Operator: Mountian States Petroleum Corporation

Bond Company: Indian lands, evidence of bond posted with BIA

Amount: $325,000*

Bond No.: Letter of Credit Bond No. 315 Date approved: 5/27/94

* Pursuant to commission motion of October 31, 1997, no bond required with State of Arizona upon evidence of bond posted with the BIA.

Permits covered by this bond posted with the BIA:

377	445
384	446
385	484
386	506
388	618
389	691
390	692
396	693
416	695
417	696
419	719
421	720
422	721
431	722
443	723

State of Arizona
Arizona Geological Survey
416 W. Congress, Suite 100
Tucson, Arizona 85701
(520) 770-3500

Jane Dee Hull
Governor

Larry D. Fellows
Director and State Geologist

December 1, 1997

Ms. Stacey Roberts
Kerr-McGee Corporation
P.O. Box 25861
Oklahoma City, OK 73125

506

Re: Kerr-McGee Corporation
$25,000 Oil Drilling Blanket Bond #2971100-2620
Safeco Insurance Company of America

Dear Ms. Roberts:

Mountain States Petroleum has provided evidence of its bonding with the BIA for the Dineh-bi-Keyah Field in Arizona, and our records show that Kerr-McGee Corporation has no outstanding drilling or plugging obligations in Arizona.

As a result, this letter constitutes written permission by the Oil and Gas Conservation Commission to terminate liability under the referenced bond. A copy of the bond is enclosed for your information.

Please advise if we may be of further service.

Sincerely,

Steven L. Rauzi

Steven L. Rauzi
Oil & Gas Program Administrator

Enclosure

Operator KERR-McGEE CORPORATION

Bond Company SAFECO INSURANCE COMPANY OF AMERICA Amount $25,000

Bond No. 2971100-2620 Date Approved FEBRUARY 18, 1994

CANCELLED

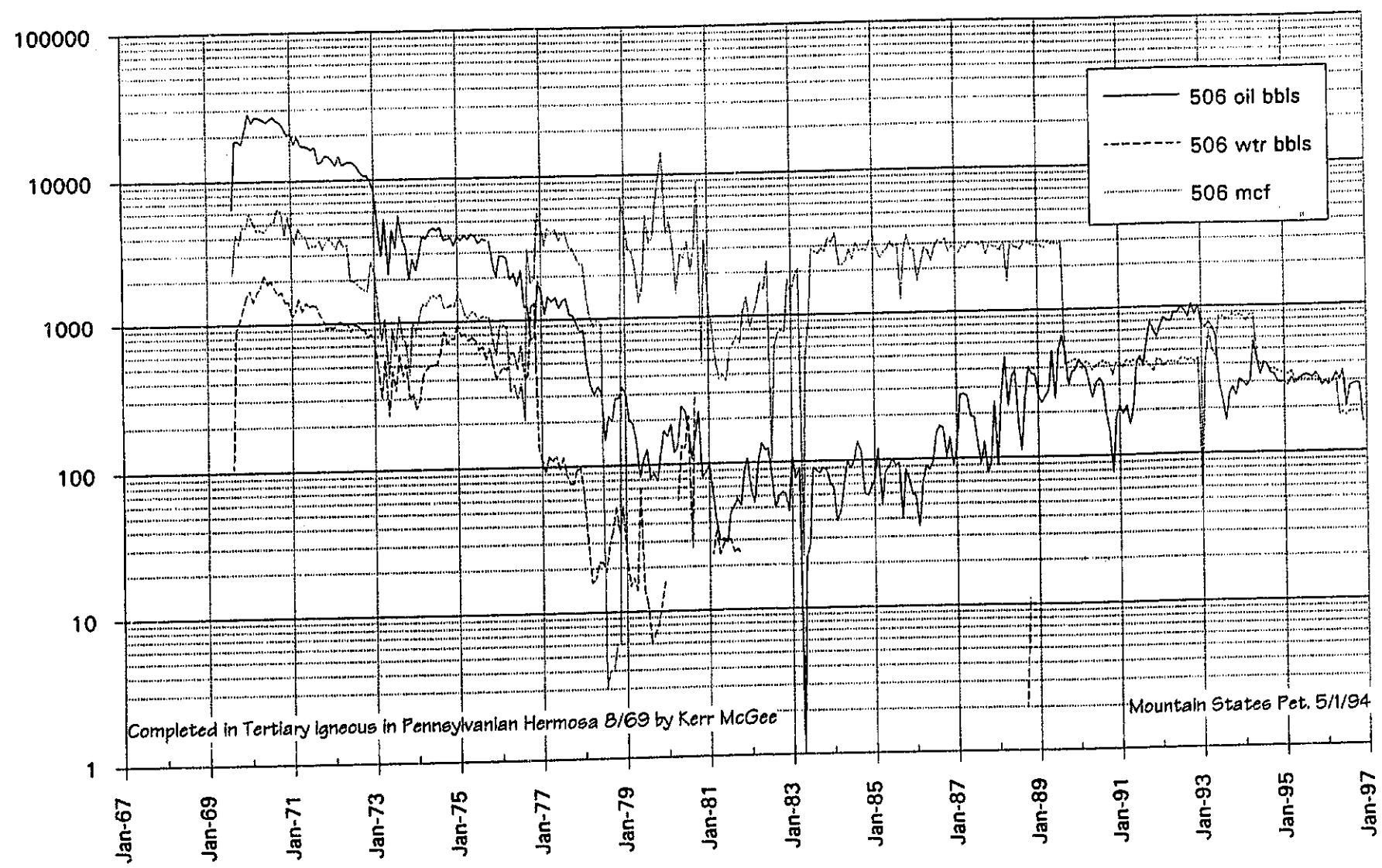
ACTIVE DATE

Permits covered by this bond:

377	445
384	446
385	484
386	506
388	618
389	691
390	692
396	693
416	695
417	696
419	719
421	720
422	721
431	722
443	723

MONTHLY PRODUCTION AT 11 NAVAJO (506), ARIZONA: AUG 1969 - DEC 1996

nw se 32-36n-30e, Dineh-bi-Keyah Field, Apache County



State of Arizona
Arizona Geological Survey
845 North Park Avenue, #100
Tucson, Arizona 85719
(602) 882-4795

Fife Symington
Governor

Larry D. Fellows
Director and State Geologist

June 8, 1994

Ms. Judy Burkhart
Mountain States Petroleum Corporation
P. O. Box 1936
Roswell, New Mexico 88201

Dear Ms. Burkhart:

This will acknowledge receipt of your letter of June 6, which included a change of operator form for each of the 31 Kerr-McGee Corporation wells at the Dineh-bi-Keyah Field sold to Mountain States Petroleum Corporation. Our records indicate that the Navajo #B-1 was plugged and abandoned by Kerr-McGee Corporation in October 1993.

Please note that our records indicate a different API number than the one you have recorded on your forms for the following wells:

Well	API #
Navajo 01	02-001-20001
Navajo 03X	02-001-20011
Navajo 04	02-001-20009
Navajo 10	02-001-20042
Navajo 14	02-001-20040
Navajo 15	02-001-20041

Sincerely,

Steven L. Rauzi

Steven L. Rauzi
Oil & Gas Program Administrator

506

UNITED STATES DEPARTMENT OF THE INTERIOR
MINERALS MANAGEMENT SERVICE
ROYALTY MANAGEMENT PROGRAM

CHANGES TO REPORTER INFORMATION

OLD INFORMATION:

MMS OPERATOR CODE: X0217

COMPANY NAME: KERR MCGEE CORPORATION

NEW INFORMATION:

MMS OPERATOR CODE: X0274

COMPANY NAME: MOUNTAIN STATES PETROLEUM CORP

CONTACT NAME: RUBY WICKERSHAM

STREET ADDRESS: 213 E FOURTH

CITY: ROSWELL

STATE: NM ZIP CODE: 88201-

PHONE: 505 (AREA CODE) 623-7184

COMPLETE IF APPLICABLE:

☐ I AM NO LONGER AN OPERATOR OF INDIAN OR FEDERAL PROPERTIES. PLEASE REMOVE MY NAME FROM YOUR MAILING LIST.

COMPANY SOLD TO: _____ EFFECTIVE DATE: _____

AZ OIL & GAS CONSERVATION COMMISSION

JUN 8 1994

LEASES / AGREEMENTS AFFECTED: NAVAJO #11 (506)

Dineh Bi Keyah Field - Apache County, Arizona

Lease #: 14-20-0603-8823 API #: 020012010600S1

COMMENTS: This property was sold to Mountain States Petroleum Corp. and they became operator effective May 1, 1994.

SIGNATURE: Judy Burkhart

DATE: 5/13/94

MAIL TO:
MINERALS MANAGEMENT SERVICE
ROYALTY MANAGEMENT PROGRAM
P.O. BOX 25165 MS:3122
DENVER, CO 80225

FORM MMS – RPD/PRB/INFO FORM (REVISED 4/93)

506

P. O. BOX 1936 505 623-7184

MOUNTAIN STATES PETROLEUM CORPORATION
213 EAST FOURTH STREET
ROSWELL, NEW MEXICO
88202

June 6, 1994

Arizona Geological Survey
845 North Park Avenue, #100
Tucson, Arizona, 85719

AZ OIL & GAS
CONSERVATION COMMISSION
JUN 8 1994

Attention: Steven L. Rauzi,
Oil & Gas Program Administrator

Re: Dineh-bi-Keyah Field
Apache County, Arizona

Dear Sir;

In followup of our May 24, 1994, letter to you relative to the change of operator from Kerr McGee to Mountain States Petroleum Corporation for the captioned field; please find enclosed a copy of the notices sent to the Minerals Management Service.

We hope this will supply the information you requested and apologize for any inconvenience we may have caused. If you have any questions or are in need of anything further please contact the undersigned. Thank you.

Sincerely,

Judy Burkhart

Judy Burkhart,
Secretary

Enclosures

506

P. O. BOX 1936 505 623-7184

MOUNTAIN STATES PETROLEUM CORPORATION
213 EAST FOURTH STREET
ROSWELL, NEW MEXICO
88202

May 24, 1994

Arizona Geological Survey
845 North Park Avenue, #100
Tucson, Arizona 85719

Attention: Steven L. Rauzi,
Oil & Gas Program Administrator

Re: Dineh-bi-Keyah Field
Apache County, Arizona

Dear Sir;

Please be advised that effective May 1, 1994, Mountain States Petroleum Corporation replaced Kerr-McGee as Operator of the captioned field and it's respective wells.

Listed on the attached sheet are the well names and API #'s of each well in this field, including shut-in, producing, and abandoned wells.

Please change your records to reflect that Mountain States Petroleum Corporation, Post Office Box 1936, Roswell, New Mexico, 88202-1936, (505) 623-7184, is now the operator of these properties and as such will be filing all required monthly production reports.

If you have any questions or are in need of anything further in this matter please contact the undersigned. Thank you.

Sincerely,

Judy Burkhart

Judy Burkhart,
Secretary

Attachment

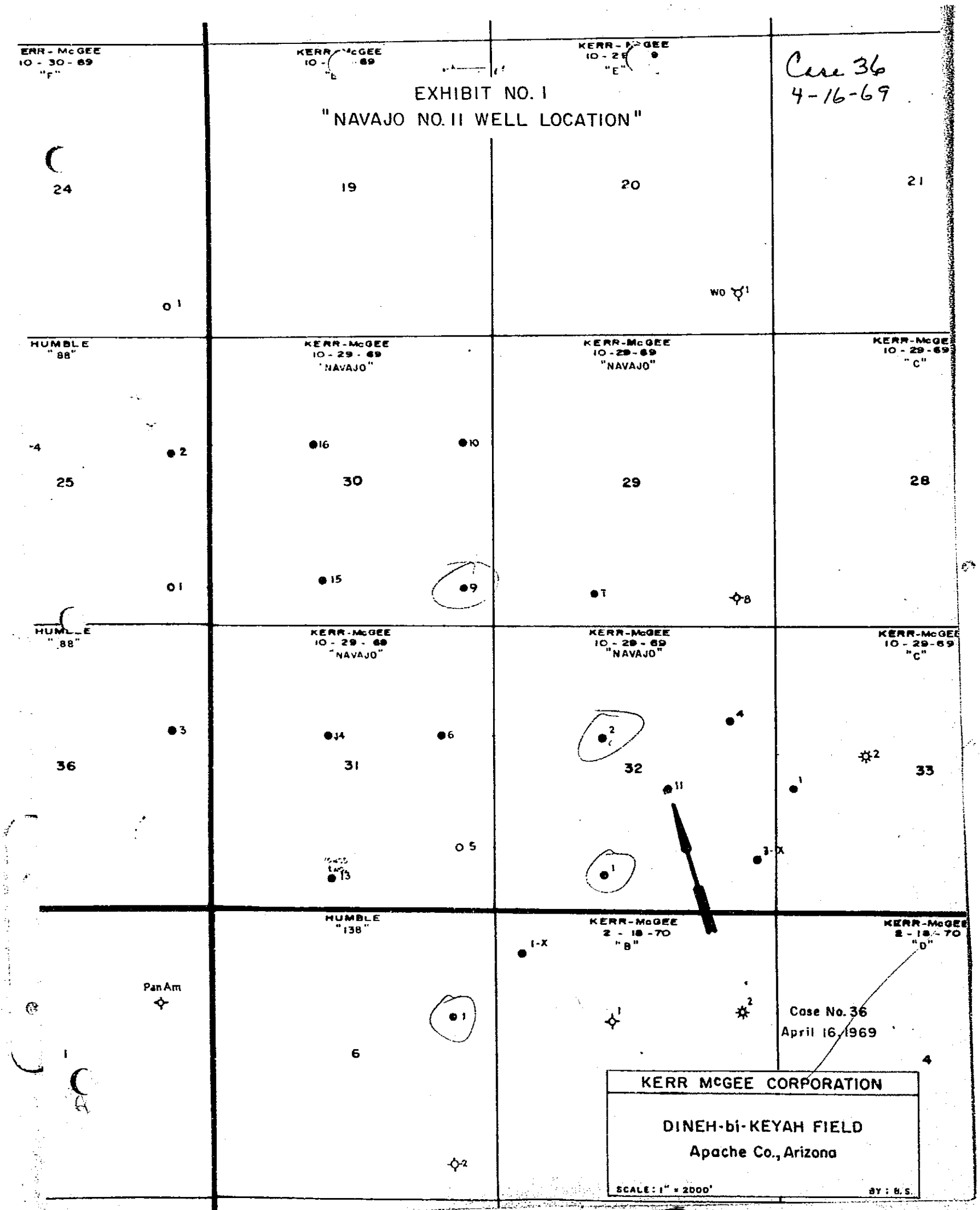
CONSERVATION COMMISSION
MAY 31 1994

506

3 Ken McGee 11 Navajo (PN506)
NW SE 32, 36N-30E
10/89

Case 36
4-16-69

EXHIBIT NO. I
"NAVAJO NO. II WELL LOCATION"



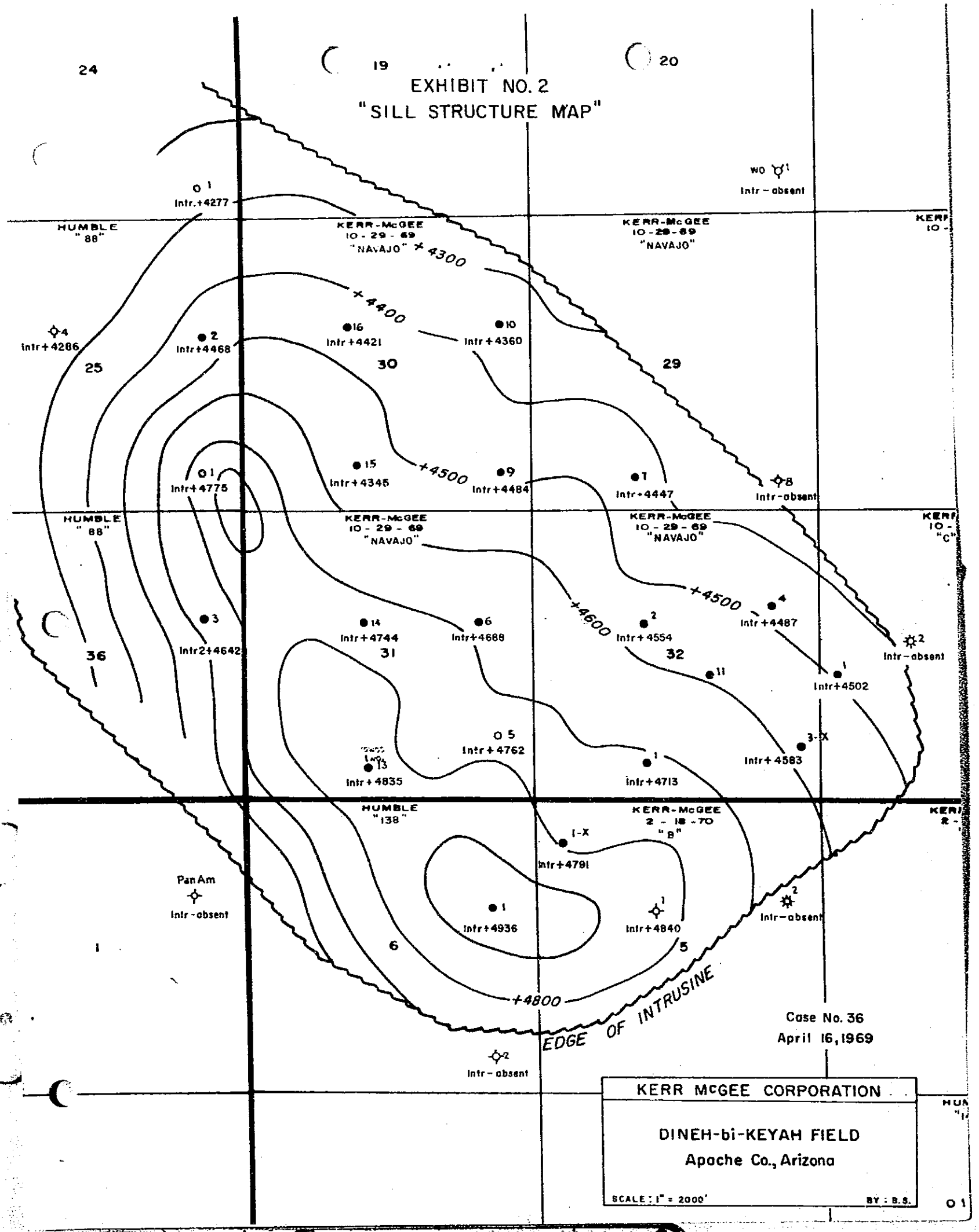


EXHIBIT NO. 2
"SILL STRUCTURE MAP"
24
19
20
25
30
29
36
31
32
6
5
HUMBLE "88"
KERR-McGEE 10-29-69 "NAVAJO"
HUMBLE "138"
KERR-McGEE 2-18-70 "B"
Pan Am
Intr-absent
+4300
+4400
+4500
+4600
+4800
EDGE OF INTRUSINE
Case No. 36
April 16, 1969
KERR McGEE CORPORATION
DINEH-bi-KEYAH FIELD
Apache Co., Arizona
SCALE: 1" = 2000'
BY: B.S.

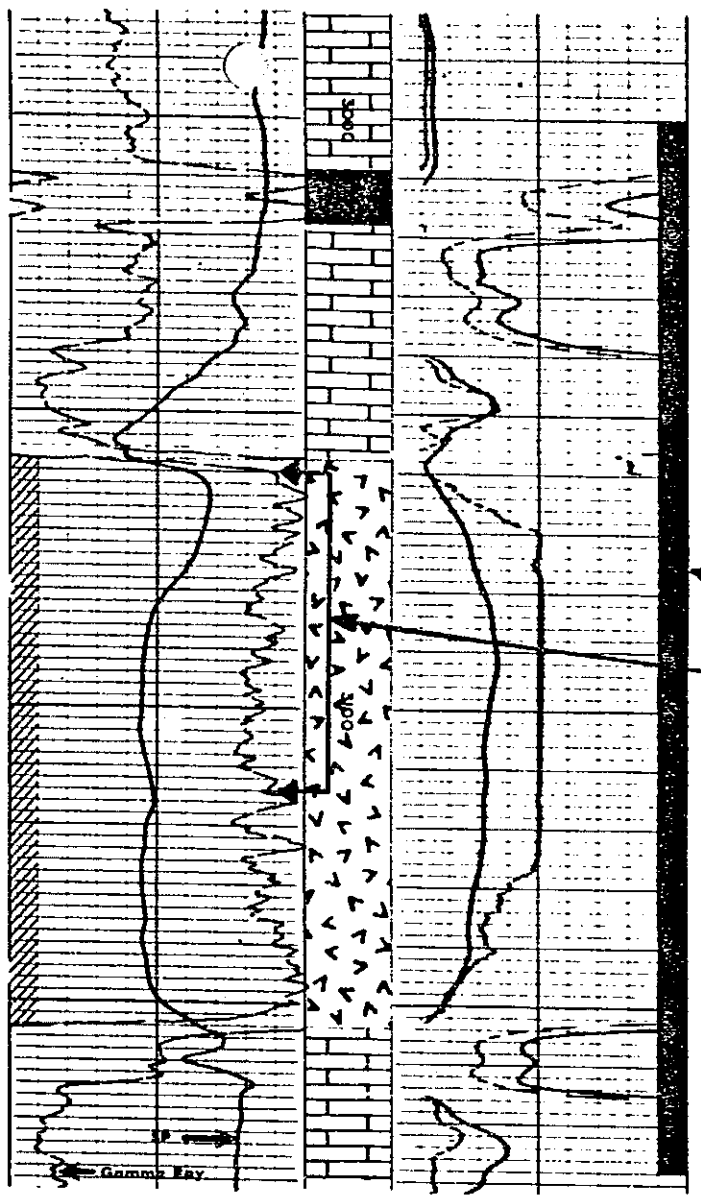


EXHIBIT NO. 3
"LOG & COMPLETION
FOR TYPICAL WELL"

KERR-McGEE

NAVAJO NO. 2

CORE 3000-3178

Pf 3060-3114

IPP 2856 BOPD

March 2 to 12, 1967

Perforated 3060' to 3114' with 2 JSPF. Pumped 500 gals 10% acetic acid into formation.

Recovered 105 barrels load oil and acid water in 6½ hours swabbing. Recovered only four barrels during last two hours swabbing off bottom. Had 35 barrels acid water and load oil to recover. Shut in overnite.

Swabbed nine barrels of oil. Loaded hole with oil and fraced well with 22,000 gallons crude oil and 20,000# of 20-40 sand.

Ran tubing to 3084'. Swabbed back 865 barrels load oil in three days.

Ran Reda pump. Produced 2857 barrels of oil in 24 hours. Fluid standing 1100' above pump.

EXHIBIT NO. 4

CA-20

CORE LABORATORIES, INC.
Petroleum Reservoir Engineering
DALLAS, TEXAS

Page No. 1

CORE ANALYSIS RESULTS

Company KERR-McGEE OIL COMPANY Formation HERMOSA File RP-3-2181
Well NAVAJO #2 Core Type D/C Date Report 2-26-67
Field WILDCAT Drilling Fluid CHEM JEL Analysts STRICKLIN
County APACHE State ARIZ. Elev. Location SEC. 32-T36N-R30E

Lithological Abbreviations

SAND-SD, SHALE-SH, LIME-LM, DOLOMITE-DOL, CHERT-CH, GYPSUM-GYP, ANHYDRITE-ANHY, CONGLOMERATE-CONG, FOSSILIFEROUS-FOSS, SANDY-SDY, SHALY-SHY, LIMY-LMY, FINE-FN, MEDIUM-MED, COARSE-CSE, CRYSTALLINE-XLN, GRAIN-GRN, GRANULAR-GRNL, BROWN-BRN, GRAY-GY, VUGGY-VGY, FRACTURED-FRAC, LAMINATION-LAM, STYLOLITIC-STY, SLIGHTLY-SL/, VERY-V/, WITH-W/

SAMPLE NUMBER	DEPTH FEET	PERMEABILITY MILLIDARCYS K_A	POROSITY PER CENT	RESIDUAL SATURATION PER CENT PORE: OIL	RESIDUAL SATURATION PER CENT PORE: TOTAL WATER	SAMPLE DESCRIPTION AND REMARKS
1	3024-25	<0.01	10.3	0.0	93.2	IGNEOUS.
2	3027-28	<0.01	8.0	0.0	90.0	IGNEOUS.
3	3030-31	<0.01	7.7	0.0	92.3	IGNEOUS.
4	3034-35	<0.01	6.4	0.0	84.5	IGNEOUS.
5	3037-38	<0.01	7.7	0.0	92.5	IGNEOUS.
6	3040-41	0.03	5.9	0.0	69.5	IGNEOUS.
7	3060-61	<0.01	9.4	14.9	40.4	IGNEOUS.
8	3061-62	<0.01	17.1	0.0	92.0	IGNEOUS V/F.
9	3062-63	0.01	10.6	0.0	72.6	IGNEOUS V/F.
10	3063-64	<0.01	12.7	0.0	69.4	IGNEOUS V/F.
11	3064-65	1.58	17.4	6.9	52.9	IGNEOUS V/F.
12	3065-66	4.80	16.1	10.0	47.2	IGNEOUS V/F.
13	3066-67	.55	12.9	1.6	62.8	IGNEOUS V/F.
14	3067-68	3.1	12.6	9.6	58.0	IGNEOUS V/F.
15	3068-69	0.29	11.9	7.6	63.0	IGNEOUS V/F.
16	3069-70	1.08	12.5	0.0	57.5	IGNEOUS V/F.
17	3070-71	0.19	12.2	0.0	56.6	IGNEOUS V/F.
18	3071-72	0.37	11.7	1.7	58.1	IGNEOUS V/F.
19	3072-73	0.22	11.6	0.0	60.4	IGNEOUS V/F.
20	3073-74	0.37	13.5	12.6	43.0	IGNEOUS V/F.
21	3074-75	0.75	13.9	12.2	40.3	IGNEOUS V/F.
22	3075-76	2.7	14.0	13.6	36.4	IGNEOUS V/F.
23	3076-77	0.30	13.5	9.7	46.0	IGNEOUS V/F.
24	3077-78	1.86	12.8	10.2	39.1	IGNEOUS V/F.
25	3078-79	1.00	14.0	15.7	38.6	IGNEOUS V/F.
26	3079-80	2.28	14.0	12.1	38.6	IGNEOUS V/F.
27	3080-81	0.71	14.0	10.7	40.0	IGNEOUS V/F.
28	3081-82	0.60	14.6	13.0	37.7	IGNEOUS V/F.
29	3082-83	0.29	14.0	11.4	38.5	IGNEOUS V/F.
30	3083-84	0.71	13.8	11.6	37.7	IGNEOUS V/F.

SERVICE 1-A.

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EXHIBIT NO. 4

CA-20

CORE LABORATORIES, INC.
Petroleum Reservoir Engineering
DALLAS, TEXAS

CORE ANALYSIS RESULTS

Company KERR-McGEE OIL COMPANY Formation HERMOSA File RP-3-2181
Well NAVAJO #2 Core Type D/C Date Report 2-26-67
Field WILDCAT Drilling Fluid CHEM JEL Analysts STRICKLIN
County APACHE State ARIZ. Elev. Location SEC.32-T36N-R30E

Lithological Abbreviations

SAND-SD, SHALE-SH, LIME-LM, DOLOMITE-DOL, CHERT-CH, GYPSUM-GYP, ANHYDRITE-ANHY, CONGLOMERATE-CONG, FOSSILIFEROUS-FOSS, SANDY-SDY, SHALY-SHY, LIMY-LMY, FINE-FN, MEDIUM-MED, COARSE-CSE, CRYSTALLINE-XLN, GRAIN-GRN, GRANULAR-GRNL, BROWN-BRN, GRAY-GY, VUGGY-VGY, FRACTURED-FRAC, LAMINATION-LAM, STYLOLITIC-STY, SLIGHTLY-SL/, VERY-V/, WITH-W/

SAMPLE NUMBER	DEPTH FEET	PERMEABILITY MILLIDARCYS KA	POROSITY PER CENT	RESIDUAL SATURATION PER CENT PORE OIL	RESIDUAL SATURATION PER CENT PORE TOTAL WATER	SAMPLE DESCRIPTION AND REMARKS
31	3084-85	0.22	13.0	11.8	37.7	IGNEOUS V/F.
32	3085-86	1.45	11.2	8.0	32.1	IGNEOUS.
33	3086-87	5.6	12.1	11.5	37.2	IGNEOUS.
34	3087-88	.62	15.5	9.7	34.8	IGNEOUS.
35	3088-89	3.9	12.9	9.3	39.5	IGNEOUS.
36	3089-90	3.3	13.0	10.0	30.8	IGNEOUS.
37	3090-91	5.6	11.4	11.4	36.8	IGNEOUS.
38	3091-92	1.04	11.7	10.3	35.0	IGNEOUS.
39	3092-93	1.24	11.4	9.7	29.8	IGNEOUS.
40	3093-94	2.07	12.2	10.6	30.3	IGNEOUS.
41	3094-95	2.9	12.4	9.7	33.0	IGNEOUS.
42	3095-96	6.8	12.5	9.6	32.8	IGNEOUS.
43	3096-97	3.7	12.4	11.3	36.2	IGNEOUS.
44	3097-98	14.9	12.0	1.7	41.7	IGNEOUS.
45	3098-99	1.86	10.9	1.8	36.7	IGNEOUS.
46	3099-3100	4.1	15.6	10.3	30.8	IGNEOUS.
47	3100-01	25.3	14.6	11.0	27.4	IGNEOUS.
48	3101-02	4.5	13.8	11.6	36.2	IGNEOUS.
49	3102-03	20.0	14.0	10.0	35.0	IGNEOUS.
50	3103-04	4.1	13.6	10.3	29.4	IGNEOUS.
51	3104-05	3.7	15.3	10.5	26.2	IGNEOUS.
52	3105-06	.83	13.0	12.3	33.0	IGNEOUS.
53	3106-07	19.5	15.8	10.1	38.0	IGNEOUS.
54	3107-08	3.9	14.2	9.9	31.0	IGNEOUS.
55	3108-09	11.1	14.3	12.6	30.8	IGNEOUS.
56	3109-10	4.3	14.5	11.0	28.2	IGNEOUS.
57	3110-11	2.28	13.1	10.7	23.7	IGNEOUS.
58	3111-12	5.8	13.4	10.4	32.0	IGNEOUS.
59	3112-13	13.4	10.9	7.3	24.0	IGNEOUS.
60	3113-14	2.7	12.3	12.2	37.4	IGNEOUS.
61	3114-15	.83	13.9	10.1	31.0	IGNEOUS.
62	3115-16	.62	13.2	9.1	26.5	IGNEOUS.
63	3116-17	1.04	13.0	9.3	28.5	IGNEOUS.
64	3117-18	.33	12.5	9.6	32.8	IGNEOUS.
65	3118-19	.83	11.9	10.1	37.8	IGNEOUS.
66	3119-20	.069	10.8	7.4	42.6	IGNEOUS.

SERVICE 1-A.

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EXHIBIT NO. 4

CA-20

CORE LABORATORIES, INC.
Petroleum Reservoir Engineering
DALLAS, TEXAS

CORE ANALYSIS RESULTS

Company KERR-McGEE OIL COMPANY Formation HERMOSA File RP-3-2181
Well NAVAJO #2 Core Type D/C Date Report 2-26-67
Field WILDCAT Drilling Fluid CHEM JEL Analysts STRICKLIN
County APACHE State ARIZ. Elev. Location SEC.32-T36N-R30E

Lithological Abbreviations

SAND-SD SHALE-SH LIME-LM	DOLOMITE-DOL CHERT-CH GYPSUM-GYP	ANHYDRITE-ANHY CONGLOMERATE-CONG FOSSILIFEROUS-FOSS	SANDY-SDY SHALY-SHY LIMY-LMY	FINE-FN MEDIUM-MED COARSE-CSE	CRYSTALLINE-XLN GRAIN-GRN GRANULAR-GRNL	BROWN-BRN GRAY-GY VUGGY-VGY	FRACTURED-FRAC LAMINATION-LAM STYLOLITIC-STY	SLIGHTLY-SL/ VERY-V/ WITH-W/

SAMPLE NUMBER	DEPTH FEET	PERMEABILITY MILLIDARCYS KA	POROSITY PER CENT	RESIDUAL SATURATION PER CENT PORE OIL	RESIDUAL SATURATION PER CENT PORE TOTAL WATER	SAMPLE DESCRIPTION AND REMARKS
67	3120-21	0.10	12.6	9.5	29.3	IGNEOUS.
68	3121-22	.81	12.8	10.9	32.0	IGNEOUS.
69	3122-23	5.8	16.7	9.6	31.2	IGNEOUS.
70	3123-24	.83	15.0	9.3	32.0	IGNEOUS.
71	3124-25	.124	12.8	9.4	32.1	IGNEOUS.
72	3125-26	.40	13.8	8.7	32.6	IGNEOUS.
73	3126-27	0.69	11.9	7.6	37.0	IGNEOUS.
74	3127-28	0.69	12.6	7.1	38.1	IGNEOUS.
75	3128-29	1.38	12.8	7.0	33.6	IGNEOUS.
76	3129-30	.29	14.2	9.2	32.4	HAIRLINE V/F.
77	3130-31	.50	14.9	8.1	30.2	HAIRLINE V/F.
78	3131-32	.30	12.9	10.1	37.2	HAIRLINE V/F.
79	3132-33	1.65	12.5	13.6	38.4	IGNEOUS.
80	3133-34	.75	11.2	0.0	43.7	IGNEOUS.
81	3134-35	0.97	15.2	5.9	42.7	IGNEOUS.
82	3135-36	1.52	15.0	8.10	32.0	IGNEOUS.
83	3136-37	13.4	13.5	11.2	31.1	IGNEOUS.
84	3137-38	0.10	13.5	3.7	52.6	IGNEOUS.
85	3138-39	0.21	13.2	11.4	40.9	IGNEOUS.
86	3139-40	.36	14.0	10.0	35.0	HAIRLINE V/F.
87	3140-41	0.83	11.3	13.3	40.7	HAIRLINE V/F.
88	3141-42	0.07	11.1	0.0	57.6	HAIRLINE V/F.
89	3142-43	0.37	10.9	6.4	53.2	HAIRLINE V/F.
90	3143-44	0.83	12.0	14.2	37.5	IGNEOUS.
91	3144-45	0.53	13.0	13.1	34.6	IGNEOUS.
92	3145-46	0.23	14.5	1.4	45.5	IGNEOUS.
93	3146-47	0.19	11.7	1.7	53.0	IGNEOUS.
94	3147-48	.28	9.9	2.0	62.6	IGNEOUS.
95	3148-49	.17	13.7	5.1	48.9	IGNEOUS.
96	3149-50	.30	12.4	1.6	49.2	IGNEOUS.
97	3150-51	.23	9.9	2.0	66.7	IGNEOUS.
98	3151-52	.14	10.6	2.0	64.4	IGNEOUS.
99	3152-53	.17	11.3	1.8	62.9	IGNEOUS.
100	3153-54	.14	11.6	1.7	64.6	IGNEOUS.
101	3154-55	.19	12.1	4.1	62.0	IGNEOUS.
102	3155-56	.14	11.0	1.8	77.2	IGNEOUS.
103	3156-57	.17	10.8	1.9	82.4	IGNEOUS.

SERVICE I-A.

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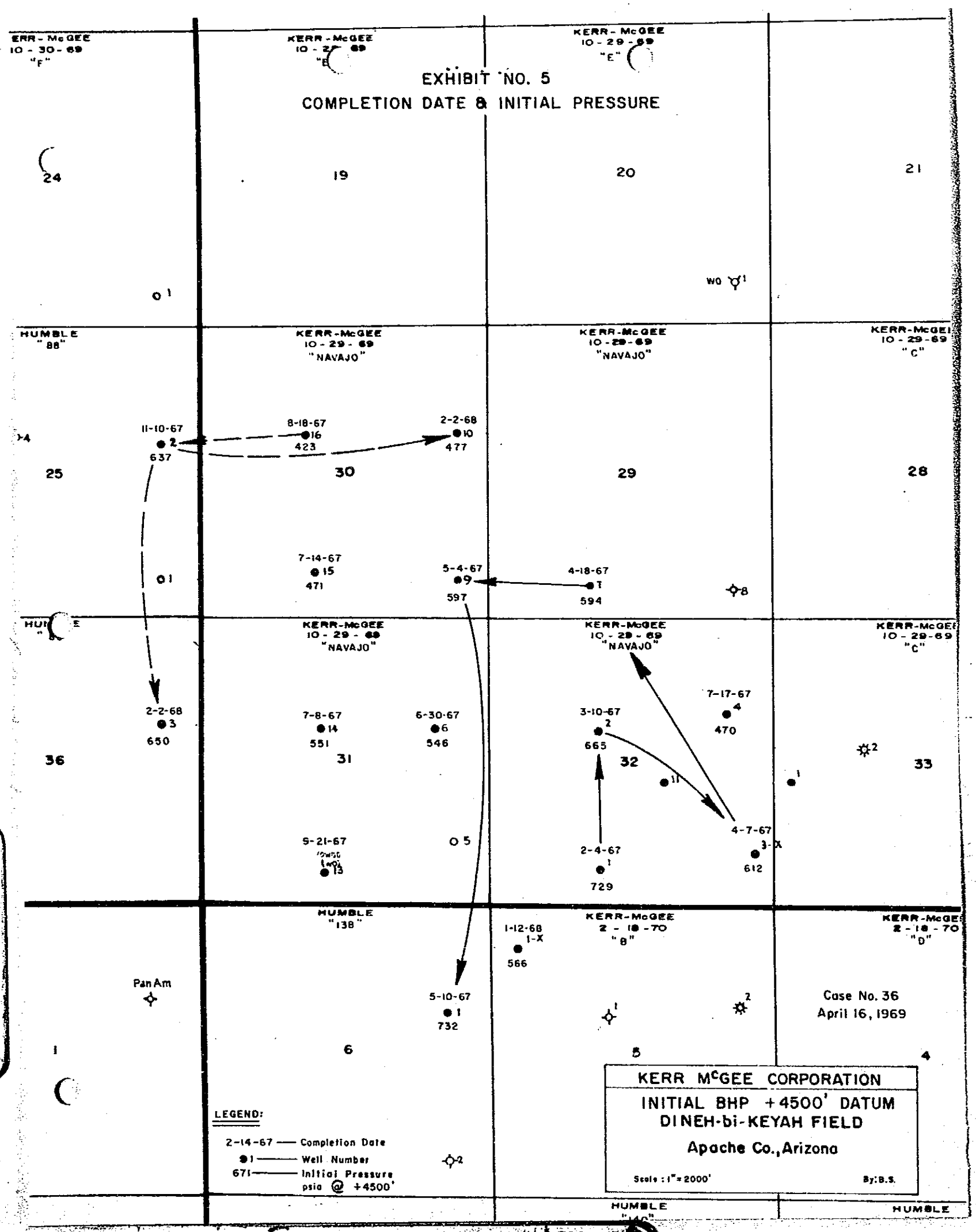
EXHIBIT NO. 5
COMPLETION DATE & INITIAL PRESSURE
KERR-McGEE 10-30-69 "F"
KERR-McGEE 10-29-69 "E"
24
19
20
21
HUMBLE "88"
KERR-McGEE 10-29-69 "NAVAJO"
KERR-McGEE 10-29-69 "C"
11-10-67 2 637
8-18-67 16 423
2-2-68 10 477
25
30
29
28
7-14-67 15 471
5-4-67 9 597
4-18-67 7 594
2-2-68 3 650
7-8-67 14 551
6-30-67 6 546
36
31
5-21-67 13
7-17-67 4 470
3-10-67 2 665
32
33
2-4-67 1 729
4-7-67 3-X 612
HUMBLE "138"
KERR-McGEE 2-18-70 "B"
KERR-McGEE 2-18-70 "D"
1-12-68 1-X 566
Pan Am
5-10-67 1 732
1
6
5
4
Case No. 36
April 16, 1969
LEGEND:
2-14-67 — Completion Date
1 — Well Number
671 — Initial Pressure psia @ +4500'
KERR McGEE CORPORATION
INITIAL BHP +4500' DATUM
DINEH-bi-KEYAH FIELD
Apache Co., Arizona
Scale: 1" = 2000'
By: B.S.
HUMBLE
HUMBLE

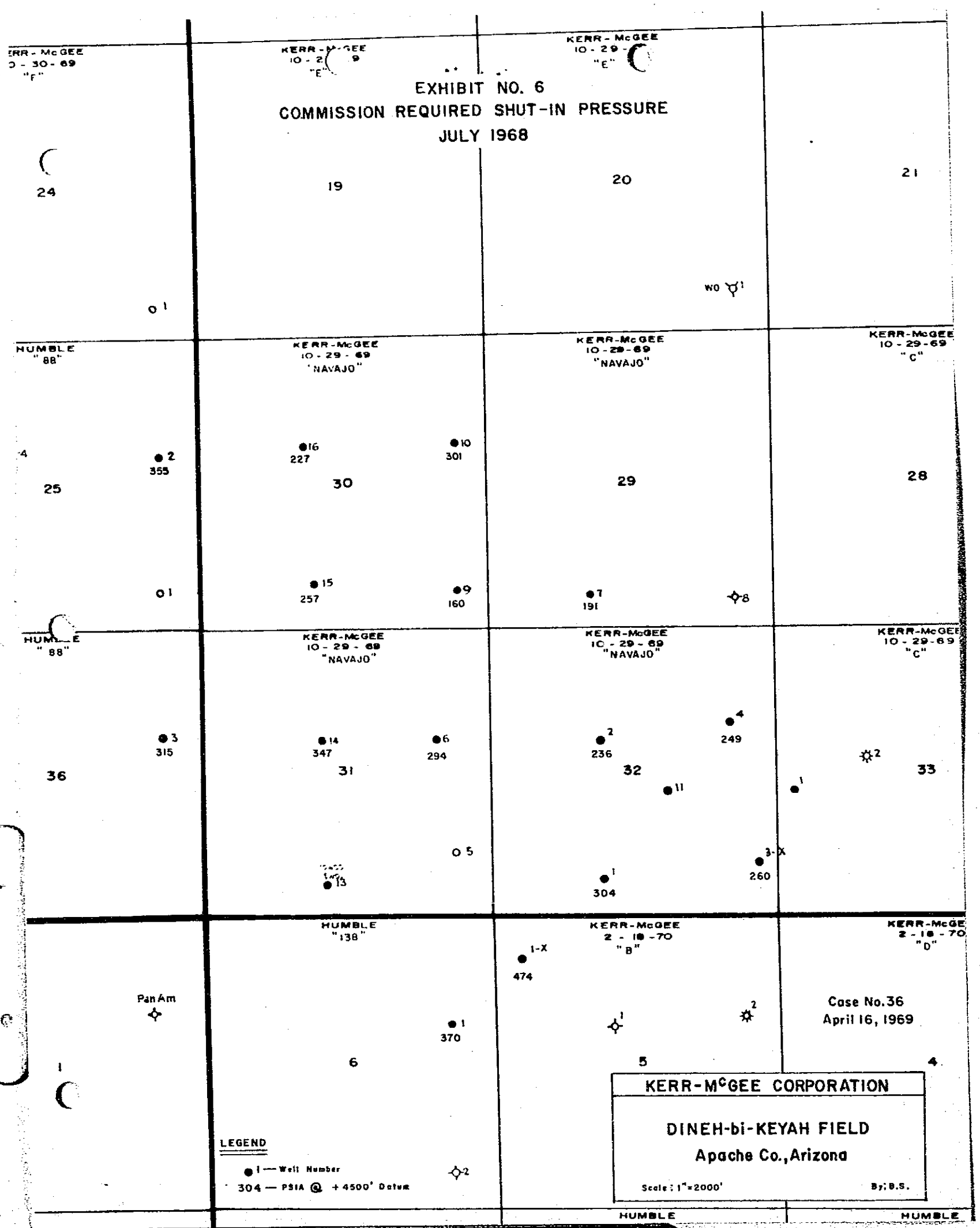
EXHIBIT NO. 6
COMMISSION REQUIRED SHUT-IN PRESSURE
JULY 1968
KERR-McGEE
10-29-69
"E"
19
20
21
24
25
30
29
28
36
31
32
33
HUMBLE
"88"
KERR-McGEE
10-29-69
"NAVAJO"
KERR-McGEE
10-29-69
"C"
HUMBLE
"138"
KERR-McGEE
2-18-70
"B"
KERR-McGEE
2-18-70
"D"
Pan Am
6
5
4
1
Case No.36
April 16, 1969
KERR-McGEE CORPORATION
DINEH-bi-KEYAH FIELD
Apache Co., Arizona
Scale: 1"=2000'
By: B.S.
LEGEND
1 — Well Number
304 — PSIA @ +4500' Datum
HUMBLE
HUMBLE

EXHIBIT NO. 7

PRODUCTION BY WELLS
Dineh bi Keyah Field
Apache County, Arizona

Well Name & No.	Current Daily Average Production (1) Barrels Per Day Oil	Barrels Per Day Water	Percent Water	MCFD Gas	GOR	Cumulative Production to April 1, 1969 (2) Barrels Oil	Barrels Water	MCF Gas
Kerr-McGee Corporation								
Navajo #1	454	9	1.9	54	118	431,938	4,428	21,600
Navajo #2	931	93	9.1	68	73	1,198,412	45,595	59,309
Navajo #3X	1,510	226	13.0	192	127	1,067,401	73,242	80,580
Navajo #4	1,570	502	24.2	47	30	1,256,274	212,838	48,092
Navajo #6	56	2	2.8	10	184	56,959	1,589	8,304
Navajo #7	260	152	36.9	21	81	496,928	97,325	19,138
Navajo #9	596	135	18.5	68	114	765,381	109,803	43,763
Navajo #10	51	121	70.2	10	200	54,628	51,631	5,040
Navajo #13	(Shut down June 28, 1968)					2,076	1,468	642
Navajo #14	81	4	5.0	40	494	75,115	1,559	23,855
Navajo #15	40	4	9.5	7	175	36,753	2,611	5,360
Navajo #16	35	5	12.6	6	167	36,391	3,226	3,972
Navajo "B" #1X	732	8	1.1	70	96	469,024	7,303	34,141
Company Totals or Average	6,316	1,261	16.6	593	94	5,947,280	612,618	353,796
Humble Oil & Refining Co.								
Navajo #138-1	454	8	1.7	100	220	440,643	2,976	125,996
Navajo # 88-2	273	121	30.7	12	45	281,596	33,506	22,551
Navajo # 88-3	63	32	33.7	74	1,165	42,567	4,839	72,971
Company Totals or Average	790	161	16.9	186	235	764,806	41,321	221,518
Field Totals or Average	7,106	1,422	16.7	779	108			

Footnotes:

(1) Current Production for Kerr-McGee from March, 1969, reports (Commission Forms 16 & 5) and for Humble from February, 1969, Commission Production report.

(2) For Humble wells, cumulative production is to March 1, 1969.

KERR-McGEE CORPORATION
626 AMARILLO PETROLEUM BUILDING
P. O. BOX 250 • AMARILLO, TEXAS 79105

PHONE
806 376-7256

December 16, 1977

State of Arizona
Oil and Gas Conservation Commission
1645 West Jefferson, Suite 420
Phoenix, Arizona 85007

Re: Kerr-McGee Corporation's Navajo Wells
No. 4 and 11 Workovers, Dineh-Bi-Keyah
Field, Section 32, T36N-R30E
Apache County, Arizona.

Dear Sirs:

Please find attached two (2) copies of "Sundry Notices and Reports on Wells" for the above mentioned wells.

If any further information is needed, please call me collect at (806) 376-7256.

Sincerely,
Kerr-McGee Corporation

Larry D. McRae
District Manager, Engineering
Southwest District - North America

LDM/LD/dj
Attachments (4)

384

RECEIVED
DEC 2 1977
O & G CONS. COMM.

KERR-McGEE CORPORATION
626 AMARILLO PETROLEUM BUILDING
P. O. BOX 250 • AMARILLO, TEXAS 79105

PHONE
806 376-7256

November 5, 1973

Oil and Gas Conservation Commission
State of Arizona
4515 North Seventh Avenue
Phoenix, Arizona 85013

Attention: Mr. W. E. Allen
Director

Dear Mr. Allen:

In regards to your letter of September 18, 1973, requesting reserve information for the Dineh-bi-Keyah Field and Pinta Dome Field, please be advised that I have referred your letter to our Oklahoma City office and have determined that due to company policy, we are unable to furnish the information at this time.

Yours truly,

KERR-McGEE CORPORATION

Warren E. Richardson
District Manager
Southwestern District

WER/mm

RECEIVED
NOV 5 1973
O & G CONS. COMM.

506

OFFICE OF
Oil and Gas Conservation Commission
STATE OF ARIZONA
4515 NORTH 7TH AVE.
PHOENIX, ARIZONA 85013
PHONE: (602) 271-5161

September 18, 1973

Mr. Warren E. Richardson
Kerr-McGee Corporation
P. O. Box 250
Amarillo, Texas 79105

Dear Mr. Richardson:

Will you please supply this Commission with any information that you might have regarding the recoverable reserves in the Dineh-Bi-Keyah Field and also in the Pinta Dome Field?

This information will be considered confidential if you so desire.

Thank you for your cooperation.

Very truly yours,

W. E. Allen, Director
Enforcement Section

WEA/rlb

X-Chrono

October 24, 1969

Mr. Bill P. Stauss
Production Division
Kerr-McGee Corporation
Kerr-McGee Building
Oklahoma City, Oklahoma 73102

Re: Kerr-McGee #11 Navajo 8823
T36N, R30E, G & SRM
Sec. 32: NW/4 SE/4
Apache County
Permit #506

Dear Bill:

Understand you have some more results of the testing on the #11 Navajo well. If so, could you please give us your latest rundown on this.

Best regards,

Jim Scurlock
Geologist

JS:jd

506

KERR-McGEE CORPORATION
KERR-McGEE BUILDING • OKLAHOMA CITY, OKLAHOMA 73102

September 19, 1969

RECEIVED SEP 22 1969 STATE O & G CONS. COMM.

Mr. John Bannister
Oil and Gas Conservation Commission
Room 202 - 1624 W. Adams
Phoenix, Arizona

Kerr-McGee Navajo No. 11
Interference Test Data

This will transmit the following data for your information:

1. Twelve-hour shut-in pressure build-up tests on the Navajo No's 1, 2, 3X, 4 and 9 - two copies each well.

2. Arizona Form 7 with SIP's calculated for each of the above wells - two copies.

3. No. 11 stabilized pressure survey conducted by Tefteller, Inc. prior to the shut-in of Well No's 1, 2, 3X and 4 - two copies.

4. Pressure surveys 1 through 4 conducted by Sperry-Sun reflecting the bottom-hole pressure in the Navajo No. 11 during the interference test - one copy each.

The subject test was conducted in August, 1969, utilizing the Navajo No. 11 to monitor reservoir pressure and the No's 1, 2, 3X and 4 to initiate a drawdown signal as offsetting producers. A schedule of events is as follows:

TEST SCHEDULE

August 9, 1969 (Saturday)

6:00 AM - Recovered No. 11 load and shut-in well
9:30 AM - Rods out of No. 11
10:30 AM - Amerada Pressure Bomb on bottom to record 24 hours of stabilized pressure.

August 10, 1969 (Sunday)

12:15 PM - Amerada Bomb out of hole
Pressure stable @ 132 psig @ 2845' (+4561) throughout entire 25-3/4 hour period.
12:45 PM - Amerada Bomb on bottom
1:40 PM - Shut-in Navajo No's 1, 2, 3X and 4.
Conduct 12-hour shut-in pressure build-up tests.
5:55 PM - Amerada Bomb out of hole
6:35 PM - Sperry-Sun Pressure Gauge on bottom @ 2845' (+4561)

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August 11, 1969 (Monday)

1:40 AM - Turn on Navajo No. 4
1:40 PM - Turn on Navajo No. 3X

August 12, 1969 (Tuesday)

1:40 AM - Turn on Navajo No. 2
1:40 PM - Turn on Navajo No. 1

August 14, 1969 (Thursday)

6:30 AM - Pulled Sperry-Sun Pressure Gauge - End Run No. 1
8:10 AM - Sperry-Sun Gauge on bottom

August 15, 1969 (Friday)

9:00 PM - Pulled Sperry-Sun Gauge - End Run No. 2
10:30 PM - Sperry-Sun Gauge on bottom

August 17, 1969 (Sunday)

2:50 PM - Pulled Sperry-Sun Gauge - End Run No. 3
4:30 PM - Sperry-Sun Gauge on bottom

August 18, 1969 (Monday)

2:00 PM - Pulled Sperry-Sun Gauge 192-1/3 hours after official test began (192 hours required) with the shutting-in of Navajo No's 1, 2, 3X and 4. Shut-in Navajo No. 9 to conduct 12-hour shut-in pressure build-up test. Start official potential test on Navajo No. 11.

August 19, 1969 (Tuesday)

2:00 AM - Turn on Navajo No. 9

Except for minor fluctuations where bottom-hole conditions were interrupted by pulling and re-running the pressure gauge, only one interference point was noted on the Sperry-Sun data. At approximately 5:10 AM on August 12, 1969, an inflection point, although quite subtle, occurred on the Navajo No. 11 bottom-hole pressure plot. This occurrence was 34-1/2 hours after the Sperry-Sun

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instrument reached bottom on the first run and 27-1/2 hours after the Navajo No. 4 had been returned to production. Based on radial flow calculations, which may not be applicable to this type of reservoir, this drawdown would be caused by the Navajo No. 4. We could not identify from this data any other well which may have contributed to interference with Well No. 11. It is probable that a critical examination of future individual well performance may provide the best information to evaluate the effects of Well No. 11.

As you will note, shut-in pressure build-up tests are reported on more wells than are required by Order No. 24. Kerr-McGee desired to have this additional information, and it is also reported for the information of the Commission

Sincerely yours,

KERR-McGEE CORPORATION

Bill P. Stauss
Production Division

BPS:md
Enclosures

cc: Humble Oil & Refining Company

506

X-Chang
X Lambert

August 27, 1969

Mr. Otto Barton
Kerr-McGee Corporation
P. O. Box 250
Amarillo, Texas 79105

Re: Kerr-McGee #1 Navajo
SE/4 SW/4 32-36N-30E, Apache County
Permit #377 X

Kerr-McGee #2 Navajo
SE/4 NW/4 32-36N-30E, Apache County
Permit #378 X

Kerr-McGee #3 Navajo
SE/4 SE/4 30-36N-30E, Apache County
Permit #396 X

Dear Mr. Barton:

Commission Order No. 24 dated August 16, 1967, established a bottom hole pressure test for the captioned wells within the Dineh bi Keyah Field. This procedure this year was to have been done in conjunction with the testing procedure connected with Case No. 36 applying to the #11 well. Please submit the completed Form 7's on these wells. We enclose a few for your convenience.

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Yours truly,

James A. Lambert
Administrative Assistant

JAL:jf
Enc.

506

August 11, 1969

Mr. C. D. Williams
Kerr-McGee Corporation
215 Petroleum Center Building
Farmington, New Mexico 87401

Re: Kerr-McGee #11 Navajo 8832
T36N, R30E, G & SRM
Sec. 32: NW/4 SE/4
Apache County
Permit #506

Dear Mr. Williams:

Please advise this office in sufficient time to have a Commission representative present at the well site when the testing program is started. We refer to the testing program outlined in Commission letter dated June 12, 1969, that was promulgated as a result of Case No. 36.

Yours truly,

James A. Lambert
Administrative Assistant

JAL:jf

506

KERR-McGEE CORPORATION

215 Petroleum Center Building
Farmington, New Mexico 87401

August 5, 1969

Arizona Oil and Gas Conservation Commission
1624 West Adams
Phoenix, Arizona 85007

In re Kerr-McGee's Navajo No. 11
NWSE Sec 32, T36N, R30E
Dineh-bi-Keyah Field
Apache County, Arizona
Permit No. 506

Attention Mr. John Bannister

Gentlemen

Please find enclosed two copies of Form 9-331, report of total depth and fracture treatment for captioned well. We are presently installing a pump on the well to recover the remainder of load oil. It is anticipated total load will be recovered within the next four to eight days. After full recovery of load, we will pull the pump and start the interference tests as required by Commission Order No. 21A.

We also wish to advise that Kerr-McGee's Production Division is establishing a new office in Amarillo, Texas to administer production operations in the Southwest and Rocky Mountain areas. This will include operations in the State of Arizona. The undersigned will move to Amarillo as District Manager, Otto Barton will be Production Superintendent, Carl Sweatfield will be Drilling Superintendent, Bill Morris will be Chief Clerk, and a District Engineer is yet to be designated. The address of the new office will be Kerr-McGee Corporation, Post Office Box 250, Amarillo, Texas 79105.

Please include this address on your mailing list for receiving all Orders, Notices of Hearing, and monthly reports issued by the Oil and Gas Conservation Commission, State of Arizona. All correspondence presently sent to Kerr-McGee at Sunray, Texas should, in the future, be mailed to the Amarillo address.

The office at 215 Petroleum Center Building, Farmington, New Mexico will continue to be maintained. Joe Breeden will move from Sunray to Farmington as Field Superintendent and will be in charge of field operations in the Dineh-bi-Keyah Field.

Very truly yours

C. D. Williams

Enclosures

CDW/lm

RECEIVED
AUG 6 1969
STATE O & G
CONS. COMM.

X-Chrono
X-Lambert

July 31, 1969

Mr. C. D. Williams
Kerr-McGee Corporation
215 Petroleum Center Building
Farmington, New Mexico 87401

Re: Kerr-McGee #1 Navajo 8832
T36N, R30E, G & SRM
Sec. 32: NW/4 SE/4
Apache County
Permit #506

Dear Mr. Williams:

We have been advised that samples from the captioned well were in the Four Corners Sample Cut as of July 21, 1969. Our last report from you was dated July 17, 1969. Please advise this office drilling progress. A copy of the drilling log will suffice for our needs.

Yours truly,

James A. Lambert
Administrative Assistant

JAL:jf

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X-Chrono
X-Lambert

July 8, 1969

Mr. C. D. Williams
Kerr-McGee Corporation
215 Petroleum Center Building
Farmington, New Mexico 87401

Re: Kerr-McGee #11 Navajo 8832
T36N, R30E, G & SRM
Sec. 32: NW/4 SE/4
Apache County
Permit #506

Dear Mr. Williams:

We note by your Application to Drill that you expected to start work on the subject well on July 1, 1969. Please advise us the spud date and any pertinent information pertaining to this well. It is incumbent upon you to keep this Commission advised of the progress of your work. A copy of the drilling log will suffice for our needs.

We call attention to the fact that we are willing to keep information you furnish us confidential; but, the Commission should be so informed in writing.

Yours truly,

James A. Lambert
Administrative Assistant

JAL:jf

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KERR-McGEE CORPORATION
KERR-McGEE BUILDING • OKLAHOMA CITY, OKLAHOMA 73102

June 27, 1969

CARTER G. DUDLEY
ASSISTANT SECRETARY

Arizona Oil and Gas
Conservation Commission
Room 202
1624 West Adams
Phoenix, Arizona 85007

Attention: Mr. James A. Lambert

Dear Sir:

Pursuant to your request, we have completed and enclose herewith a current Organization Report on KERR-McGEE CORPORATION.

Very truly yours,

Carter G. Dudley

Carter G. Dudley

CGD:sl

cc: Mr. J. I. Fisher

Enclosure

RECEIVED
JUL 2 1969
STATE O & G
CONS. COMM.

506

KERR-McGEE CORPORATION
215 Petroleum Center Building
Farmington, New Mexico 87401

June 23, 1969

Arizona Oil and Gas Conservation Commission
1624 West Adams
Phoenix, Arizona 85007

Attention Mr. James A. Lambert

In re Kerr-McGee No. 11 Navajo 8832
Sec 32, T36N, R30E, G & SRM
Apache County
Permit No. 506

Gentlemen

This will acknowledge receipt of your letter of June 20, 1969, with approved Application for Permit to Drill our Navajo No. 11 and the request to furnish information on the Organization Report of Kerr-McGee.

This letter is being forwarded to our Oklahoma City office for further handling since the information for the Organization Report originates in Oklahoma City.

Very truly yours

C. D. Williams
Production Superintendent

CDW/lm

RECEIVED
JUN 24 1969
STATE O & G
CONS. COMM.

506

X-Chrono
X-Lambert

June 20, 1969

Mr. C. D. Williams
Kerr-McGee Corporation
215 Petroleum Center Building
Farmington, New Mexico 87401

Re: Kerr-McGee #11 Navajo 8832
T36N, R30E, G & SRM
Sec. 32: NW/4 SE/4
Apache County
Permit #506

Dear Mr. Williams:

Enclosed is the approved Application for Permit to Drill, a copy of the plat, and our Permit To Drill No. 506.

Also enclosed are miscellaneous instruction sheets pertaining to samples and reports required by this office.

We notice that the most recent Organization Report we have for Kerr-McGee is dated July, 1967. Please advise this office if that Report is still current and if it is not, please submit a new Organization Report including all changes.

Yours truly,

James A. Lambert
Administrative Assistant

jf

Enc.

506

KERR-McGEE CORPORATION
215 Petroleum Center Building
Farmington, New Mexico 87401

June 19, 1969

Arizona Oil and Gas Conservation Commission
1624 West Adams
Phoenix, Arizona 85007

Attention Mr. John Bannister

In re Application for Permit to Drill
Navajo No. 11
NWSE Sec 32, T36N, R30E
Dineh-bi-Keyah Field
Apache County, Arizona

Gentlemen

Please find enclosed two copies of Form No. 3, Application for Permit to Drill our Navajo No. 11 well, two copies of survey plat, and a draft for $25.00 to cover the filing fee.

This is the well covered by Commission Order No. 21A whereby permission to drill an additional well to the Lower Hermosa formation in the NW¼SE¼ of Section 32, T36N, R30E as an exception to Commission Order No. 21 was granted.

Your approval of this application is respectfully requested.

Very truly yours

C. D. Williams
Production Superintendent

CDW/lm
Enclosures

CC: Navajo Tribe Minerals Department
Window Rock, Arizona

RECEIVED
JUN 20 1969
STATE O & G
CONS. COMM.

OFFICE OF
Oil and Gas Conservation Commission
STATE OF ARIZONA
ROOM 202
1624 WEST ADAMS
Phoenix, Arizona 85007
PHONE: 271-5161

June 12, 1969

Kerr-McGee Corporation
Kerr-McGee Building
Oklahoma City, Oklahoma 73102

Re: Case No. 36

Attention: Mr. John Fisher

Gentlemen:

Pursuant to Commission Order 21A dated May 21, 1969, a meeting was held in the Commission offices at 1624 West Adams Street, Phoenix, Arizona, at 1:00 p.m. on June 11, 1969.

Present at this meeting and representing Kerr-McGee Corporation were Mr. John I. Fisher and Bill P. Stauss. Present and representing Humble Oil Company were Kenneth H. Larsen and J. K. Lytle. Present and representing the Oil and Gas Conservation Commission were John Bannister, James R. Scurlock and James Lambert. Also present and representing the Commission in his capacity as engineer was Ewell Walsh of Farmington, New Mexico.

The purpose of this meeting was to establish a testing program for Kerr-McGee Corporation's proposed well, the Kerr-McGee No. 11 Navajo, to be located in the NW/4 SE/4 of Section 32, Township 36 North, Range 30 East, Apache County, Arizona, and being a part of the Dineh-bi-Keyah Field.

As a result of this meeting, the following testing program has been established as satisfactory to this Commission. The program outlined below will be strictly adhered to and no deviation therefrom will be permitted.

TESTING PROGRAM

1. After the Kerr-McGee No. 11 Navajo Well has reached total depth, completed, and after load oil has been recovered (the initial potential test will be delayed until the first day of full production from this well),

506 KERR McGEE 11

this well will be shut in until its bottom hole pressure has stabilized to within no more than a five pound pressure increase or less over a 24-hour period.

2. After the Kerr-McGee No. 11 Well has stabilized as set forth in Section 1 above, Kerr-McGee Nos. 1, 2, 3X and 4 Navajo Wells will be shut in for a continuous twelve hour period.

3. After the initial twelve hour shut in period as outlined in Section 2 above, Kerr-McGee No. 4 Well shall be put on production.

4. Twelve hours after Kerr-McGee No. 4 Navajo Well has been put on production, the Kerr-McGee No. 3X Navajo Well will be put on production.

5. Twelve hours after Kerr-McGee No. 3X Navajo Well has been put on production, the Kerr-McGee No. 2 Navajo Well will be put on production.

6. Twelve hours after Kerr-McGee No. 2 Navajo Well has been put on production, the Kerr-McGee No. 1 Navajo Well will be put on production.

7. Continuous bottom hole pressure readings shall be recorded in the Kerr-McGee No. 11 Navajo Well for a maximum period of 192 hours from the time that Kerr-McGee Nos. 1, 2, 3X and 4 Navajo Wells are shut in, as outlined in Section 2 above, or until there is evidence of interference in the Kerr-McGee No. 11 Navajo Well, whichever is the lesser time.

   Should there be evidence of interference in this well prior to the 192 hours specified maximum time, Kerr-McGee Corporation will immediately notify the Commission at its Phoenix address. Should the Executive Secretary of the Commission be satisfied that there is evidence of interference, he may authorize a cessation of these tests. Should the Executive Secretary not be satisfied as to evidence submitted, test will continue for the full maximum 192 hours, as herein specified.

8. Upon completion of the tests as specified in Section 7 above, Kerr-McGee Corporation may commence the full production of the Kerr-McGee No. 11 Navajo Well.

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Commission Order No. 24 dated August 16, 1967 establishes bottom hole pressure testing for certain key wells within the Dineh-bi-Keyah Field. Inasmuch as Kerr-McGee Nos. 1 and 2 Navajo Wells are designated in said order as key wells, the shut in time as above specified in Section 2 of the testing procedure may be used by Kerr-McGee Corporation for its stabilization period for the purpose of compliance with said Order No. 24.

The bottom hole pressure test as called for in said Order No. 24 as to the Kerr-McGee No. 3 Navajo Well and as to the Humble No. 1-138 Navajo Well, shall be conducted as soon as possible after the completion of the above set forth testing schedule.

Should you have any questions, please advise immediately.

Yours truly,

John Bannister
Executive Secretary

/vb

cc - Humble Oil Company
Att'n. J. K. Lytle

Ewell Walsh

Commissioners

U.S.G.S. - Farmington
Att'n. Phil McGrath

The Navajo Tribe
Att'n. P. K. Hurlbut

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