

P-W

Great Western Drlg. 2 El Paso-Navajo  
NE/4NE/4 S17 T41N R25E Apache Coun 295

s1

COUNTY Apache AREA Mexican Water LEASE NO. Nav 14-20-603-732

WELL NAME Great Western Drl #2 El Paso-Navajo

LOCATION NE NE SEC 17 TWP 41 RANGE 25E FOOTAGE 660' FNL 660 FEL  
ELEV 4849 GR 4860 KB SPUD DATE 10-25-64 STATUS 11-21-64 TOTAL DEPTH 6457'  
COMP. DATE 11-25-64?

CONTRACTOR

CASING SIZE 10 3/4 DEPTH 161' CEMENT 150 sx LINER SIZE & DEPTH NA DRILLED BY ROTARY x  
DRILLED BY CABLE TOOL \_\_\_\_\_  
PRODUCTIVE RESERVOIR \_\_\_\_\_  
INITIAL PRODUCTION P&A

FORMATION TOPS	DEPTHS	SOURCE		REMARKS
		L.L.	E.L.	
Glen Canyon	Surface		x	
Chinle	620			
DeChelly	1850			
Organ Rock	1910			
U. Cutler	2430			
L. Cutler	3120			
Hermosa	4000			
Ismay	4730			
Desert Creek	4840			
Akah	4960			
Barker Creek	5116			
Molas	5526			
Miss.	5657			
Ouray	6028			
Elbert	6166			

ELM PERFORATIONS	6443 PERFORATED INTERVALS	PROD. INTERVALS	SAMPLE LOG Am Strat
GRN, Collar Perforation	NA	NA	SAMPLE DESCRP.
			SAMPLE NO. <u>1279*</u>
			CORE ANALYSIS _____
			DSTs _____
			Tuc. 2015

REMARKS \_\_\_\_\_ APP. TO PLUG x  
PLUGGING REP. x  
COMP. REPORT x

WATER WELL ACCEPTED BY \_\_\_\_\_

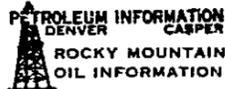
BOND CO. U. S. Fidelity & Guaranty Co. BOND NO. 67428 (Reinstated 10-13-64)  
DATE See File 245  
BOND AMT. \$ 2,500 CANCELLED 9-14-65 See File 245 ORGANIZATION REPORT 9-11-64  
FILING RECEIPT 9394 LOC. PLAT x WELL BOOK x PLAT BOOK x  
API NO. \_\_\_\_\_ DATE ISSUED 10-19-64 DEDICATION E/2 NE/4

PERMIT NUMBER 295

(over)



ARIZONA  
APACHE CO.  
WILDCAT (W)



Twp 41n-25e  
Section 17  
ne ne  
660 s/n 660 w/e

OPR: Great Western Drilling

WELL #: 2 El Paso-Navajo

ELEV: 4849 Gr

TOPS: Log-32494

Barker Creek 5116  
Molas 5526  
Mississippian 5657  
Ouray ls 6028  
Elbert 6166  
McCracken 6443

DSTS. & CORES:  
Crd 6336-54, rec 15  
dolo, very sandy. Crd  
6354-58, rec 3 dolo,  
very sandy, highly  
fract. DST 6257-6330,  
SI 1 hr, open 2 hrs, SI  
1 hr, rec 2150 WCM, FP  
586-1015#, SIP 2737-  
242#.

SPUD: 10-25-64      COMPL: 11-25-64

TD: 6457      PB:

CSG: 10-3/4" @ 173 w/150

PERF:

PROD. ZONE:

INIT. PROD: D&A

Contr: Arapahoe

ARIZ-468021

### WELL COMPLETION OR RECOMPLETION REPORT AND WELL LOG

DESIGNATE TYPE OF COMPLETION:

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

DESCRIPTION OF WELL AND LEASE

Operator **Great Western Drilling Company** Address **Box 1659 Midland, Texas**

Federal, State or Indian Lease Number or name of lessor if fee lease **El Paso Navajo** Well Number **2** Field & Reservoir **Wildcat**

Location **Section 17** County **Apache**  
**660' from North Line 660' from East Line**

Sec. TWP-Range or Block & Survey **17- 41N-25E G & SRM**

Date spudded **10-26-64** Date total depth reached **10-21-64** Date completed, ready to produce **4849 GR** Elevation (DF, RKB, RT or Gr.) **feet** Elevation of casing hd. **none** **feet**

Total depth **6457** P.B.T.D. **6457** Single, dual or triple completion? **none** If this is a dual or triple completion, furnish separate report for each completion.

Producing interval (s) for this completion **none** Rotary tools used (interval) **Top to bottom** Cable tools used (interval) **none**

Was this well directionally drilled? **NO** Was directional survey made? **NO** Was copy of directional survey filed? **NO** Date filed

Type of electrical or other logs run (check logs filed with the commission) **Gamma - Ray Neutron** Date filed

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	15	10 3/4	34	161	150	none

TUBING RECORD

LINER RECORD

Size	Depth set	Packer set at	Size	Top	Bottom	Sacks cement	Screen (ft.)
in.	ft.	ft.	in.	ft.	ft.		

PERFORATION RECORD

ACID, SHOT, FRACTURE, CEMENT SQUEEZE RECORD

Number per ft.	Size & type	Depth Interval	Amt. & kind of material used	Depth Interval

INITIAL PRODUCTION

Date of first production **none** Producing method (indicate if flowing, gas lift or pumping—if pumping, show size & type of pump:)

Date of test	Hrs. tested	Choke size	Oil prod. during test	Gas prod. during test	Water prod. during test	Oil gravity
			bbls.	MCF	bbls.	* API (Corr)

Tubing pressure	Casing pressure	Cal'ed rate of Pro-duction per 24 hrs.	Oil	Gas	Water	Gas-oil ratio
			bbls.	MCF	bbls.	

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

CERTIFICATE: I, the undersigned, under the penalty of perjury, state that I am the **Administrative Coordinator** of the **Great Western Drilling Company** (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.

**12-4-64**  
Date

*O. H. Crews*  
Signature **O. H. Crews**

Permit No. **9394**

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

DETAIL OF FORMATIONS PENETRATED

Formation	Top	Bottom	Description*
Don Canyon bench	surface	620	sandstone, red w/ thin shale interbeds
Chiles	620	1850	shale, red, silty
De Chilly	1850	1910	sandstone, red & white
Organ Rocks	1910	2430	shale, red w/ thin sh interbeds
U. Cutler	2430	3120	shale, red & red sand stringers
L. Cutler	3120	4000	sand & shale, red. Some gypsum hydrate
Nemosa	4000	4730	lime, silty, w/ thin shale interbeds
Sanay	4730	4840	lime, white & black shale stringers
Swat Creek	4840	4960	lime, buff-white w/ " " "
Akad.	4960	5116	lime, sl. shly, slightly shaly
Barker Creek	5116	5526	lime, w/ variegated shale interbeds
Molan	5526	5657	variegated red shales
Mississippian	5657	6028	Lime, white - buff
Ouray	6028	6166	lime w/ thin green sh interbeds
Elbert	6166	6443	lime w/ green shale interbeds & sh stringers
McCracken	6443	6455 T.D.	Sand, grey, glauc. fine gr. w/ thin green shale interbeds.



\* 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.

**PLUGGING RECORD**

Operator <b>Great Western Drilling Company</b>		Address <b>P.O. Box 1659 Midland, Texas</b>		
Federal, State, or Indian Lease Number, or lessor's name if fee lease. <b>El Paso Navajo</b>		Well No. <b>2</b>	Field & Reservoir <b>Wildcat</b>	
Location of Well <b>660 from North Line, 660 from East Line, Section 17-41-25</b>			Sec-Twp-Rge or Block & Survey	County <b>Apache</b>
Application to drill this well was filed in name of <b>Great Western Drilling Co.</b>	Has this well ever produced oil or gas <b>no</b>	Character of well at completion (initial production): Oil (bbls/day)      Gas (MCF/day)      Dry? <b>yes</b>		
Date plugged: <b>11-24-64</b>	Total depth <b>6457</b>	Amount well producing when plugged: Oil (bbls/day)      Gas (MCF/day)      Water (bbls/day)		
Name of each formation containing oil or gas. Indicate which formation open to well-bore at time of plugging	Fluid content of each formation	Depth interval of each formation	Size, kind & depth of plugs used. Indicate zones squeeze cemented, giving amount cement	
<b>none</b>				

**CASING RECORD**

Size pipe	Put in well (ft.)	Pulled out (ft.)	Left in well (ft.)	Give depth and method of parting casing (shot, ripped, etc.)	Packers and shoes
<b>10 3/4</b>	<b>151</b>	<b>none</b>	<b>151</b>		

Was well filled with mud-laden fluid, according to regulations? **yes**      Indicate deepest formation containing fresh water. **none**

**NAMES AND ADDRESSES OF ADJACENT LEASE OPERATORS OR OWNERS OF THE SURFACE**

Name	Address	Direction from this well:
<b>none</b>		

In addition to other information required on this form, if this well was plugged back for use as a fresh water well, give all pertinent details of plugging operations to base of fresh water sand, perforated interval to fresh water sand, name and address of surface owner, and attach letter from surface owner authorizing completion of this well as a water well and agreeing to assume full liability for any subsequent plugging which might be required.

Use reverse side for additional detail.

CERTIFICATE: I, the undersigned, under the penalty of perjury, state that I am the Administrative Coordinator of the Great Western Drilling Company (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.

12-4-64  
Date

O. H. Crews  
Signature

Permit No. 3994

Form No. 10

STATE OF ARIZONA  
OIL & GAS CONSERVATION COMMISSION  
Plugging Record  
File One Copy

6 295



APPLICATION TO ABANDON AND PLUG

FIELD Wildcat  
OPERATOR Great Western Drilling Company ADDRESS P.O. Box 1659 Midland, Texas  
Federal, State, or Indian Lease Number El Paso Navajo WELL NO. 2  
or Lessor's Name if Fee Lease  
SURVEY G & SRM 41-25 SECTION 17 COUNTY Apache  
LOCATION 660 from North Line, 660 from East Line, Section 17

TYPE OF WELL Dry TOTAL DEPTH 6457  
(Oil, Gas or Dry Hole)  
ALLOWABLE (If Assigned)  
LAST PRODUCTION TEST OIL \_\_\_\_\_ (Bbls.) WATER \_\_\_\_\_ (Bbls.)  
GAS \_\_\_\_\_ (MCF) DATE OF TEST \_\_\_\_\_  
PRODUCING HORIZON \_\_\_\_\_ PRODUCING FROM \_\_\_\_\_ TO \_\_\_\_\_

1. COMPLETE CASING RECORD Well was spudded 10-26-64  
151' of 10 3/4 H - 40 casing was cemented at 161' with 150 sacks.

2. FULL DETAILS OF PROPOSED PLAN OF WORK Cement plugs will be placed as follows:  
30 sacks (5978 - 6078)  
30 sacks (5607 - 5707)  
30 sacks (3950 - 4050)  
45 sacks (1800 - 1950)  
30 sacks ( 350 - 250)  
5 sacks at surface

If well is to be abandoned, does proposed work conform with requirements of Rule 202? yes If not, outline proposed procedure above.

DATE COMMENCING OPERATIONS 11-24-64

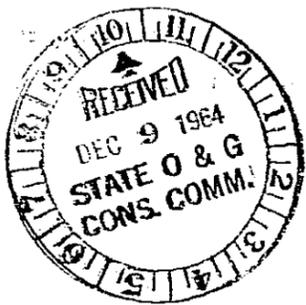
NAME OF PERSON DOING WORK Great Western Drilling Co. ADDRESS P.O. Box 1659 Midland, Texas

CORRESPONDENCE SHOULD BE SENT TO O. H. Crews  
Name  
Administrative Coordinator  
Title  
P.O. Box 1659 Midland, Texas  
Address  
December 4, 1964  
Date

Date Approved Nov 16, 1964  
STATE OF ARIZONA  
OIL & GAS CONSERVATION COMMISSION  
By: Johnny Sammeter

STATE OF ARIZONA  
OIL & GAS CONSERVATION COMMISSION  
Application to Abandon and Plug  
File Two Copies  
Form No. 9

Permit No. 295



(faint, illegible text)

(faint, illegible text)



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.

5. LEASE DESIGNATION AND SERIAL NO.  
**Navajo 14-20-603-731**

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

**Navajo**

7. UNIT AGREEMENT NAME

**None**

8. FARM OR LEASE NAME

**El Paso Navajo**

9. WELL NO.

**2**

10. FIELD AND POOL, OR WILDCAT

**Wildcat**

11. SEC. T., R., M., OR BLK. AND SURVEY OR AREA

**Sec 17, T-41-N, R-25-E  
G & SEM**

12. COUNTY OR PARISH

**Apache**

13. STATE

**Arizona**

**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  GAS WELL  OTHER  **Wildcat**

2. NAME OF OPERATOR  
**Great Western Drilling Company**

3. ADDRESS OF OPERATOR  
**P.O. Box 1659 Midland, Texas**

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.\* See also space 17 below.)  
At surface  
**660' from North and 660' from East Lines of Section 17,  
41-N, 25-E,  
(Same)**

14. PERMIT NO.

15. ELEVATIONS (Show whether DF, RT, CR, etc.)

**GR 4849**

12. COUNTY OR PARISH

**Apache**

13. STATE

**Arizona**

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

NOTICE OF INTENTION TO:

TEST WATER SHUT-OFF

FRACTURE TREAT

SHOOT OR ACIDIZE

REPAIR WELL

(Other)

PULL OR ALTER CASING

MULTIPLE COMPLETE

ABANDON\*

CHANGE PLANS

SUBSEQUENT REPORT OF:

WATER SHUT-OFF

FRACTURE TREATMENT

SHOOTING OR ACIDIZING

(Other)

REPAIRING WELL

ALTERING CASING

ABANDONMENT\*

(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.)\*

**Cement plugs were placed through open ended drill pipe as follows:**

**30 sacks (5978 - 6078)**

**30 sacks (5607 - 5707)**

**30 sacks (3950 - 4050)**

**45 sacks (1800 - 1950)**

**30 sacks ( 350 - 250)**

**5 sacks and a marker at the surface.**

**A cleanup will be made when weather permits.**



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

SIGNED *O. H. Crews* **O. H. Crews** TITLE **Administrative Coordinator** DATE **December 1, 1964**

(This space for Federal or State office use)

APPROVED BY \_\_\_\_\_ TITLE \_\_\_\_\_ DATE \_\_\_\_\_

CONDITIONS OF APPROVAL, IF ANY:

\*See Instructions on Reverse Side

295

Flow Time	1st	Min.	2nd	Min.	Date	11-22-64	Ticket Number	189184 S
Closed In Press. Time	1st	Min.	2nd	Min.	Kind of Job	STRADDLE OPEN HOLE	Halliburton District	FARMINGTON
Pressure Readings	Field		Office Corrected		Tester	WHITESIDES	Witness	MR. WEYON
Depth Top Gauge	6252	Ft.	110	Blanked Off	Drilling Contractor	ARAPAHOE DRILLING COMPANY		
BT. P.R.D. No.	256		12	Hour Clock	Elevation	--	Top Packer	6257'
Initial Hydro Mud Pressure	3024		2940		Total Depth	6422'	Bottom Packer	6330'
Initial Closed in Pres.	2737		2743		Interval Tested	6257' - 6330'	Formation Tested	Mc Crackin
Initial Flow Pres.	382	1	401*		Casing or Hole Size	7 7/8"	Casing Perfs.	Top Bot.
Final Flow Pres.	557	2	569*		Surface Choke	1"	Bottom Choke	5/8"
Final Closed in Pres.	586	1	534		Size & Kind Drill Pipe	4 1/2" H-90	Drill Collars Above Tester	2 1/2" - 720'
Final Hydro Mud Pressure	1015	2	1011		Mud Weight	9	Mud Viscosity	51
Depth Cen. Gauge	2421		2368		Temperature	140	Anchor Size & Length	1D 2 1/2" X 15'
BT. P.R.D. No.	3024		2898		Depth Meas. From Rotary Table		Depth of Tester Valve	5247 Ft.
Initial Hydro Mud Pres.	6318	Ft.	ves	Blanked Off	Cushion	--	Depth Back Pres. Valve	-- Ft.
Initial Closed in Pres.	140		12	Hour Clock	Recovered	2150	Feet of water cut mud.	
Initial Flow Pres.	3028		2971		Recovered		Feet of	
Final Flow Pres.	2739		2770		Recovered		Feet of	
Final Closed in Pres.	497	1	530*		Recovered		Feet of	
Final Hydro Mud Pressure	698	1	572		Recovered		Feet of	
Depth Bot. Gauge	1014	2	1039		Oil A.P.I. Gravity		Water Spec. Gravity	
BT. P.R.D. No.	2393		2396		Gas Gravity		Surface Pressure	psi
Initial Hydro Mud Pres.	3028		2935		Tool Opened	7:30 P.M.	Tool Closed	11:45 P.M.
Initial Closed in Pres.	6418	Ft.	ves	Blanked Off	Remarks	Opened tool for a 15 minute first flow with		
Initial Flow Pres.						a good blow throughout test. Closed tool for a 60		
Final Flow Pres.						minute initial closed in pressure. Reopened tool		
Final Closed in Pres.						for a 120 minute second flow. Closed tool for a 60		
Final Hydro Mud Pressure						minute final closed in pressure. Charts indicate		
						some plugging during 1st flow & 1st part of 2nd. flow.		
						Lower packer did not seal. * QUESTIONABLE		

FORMATION TEST DATA

12

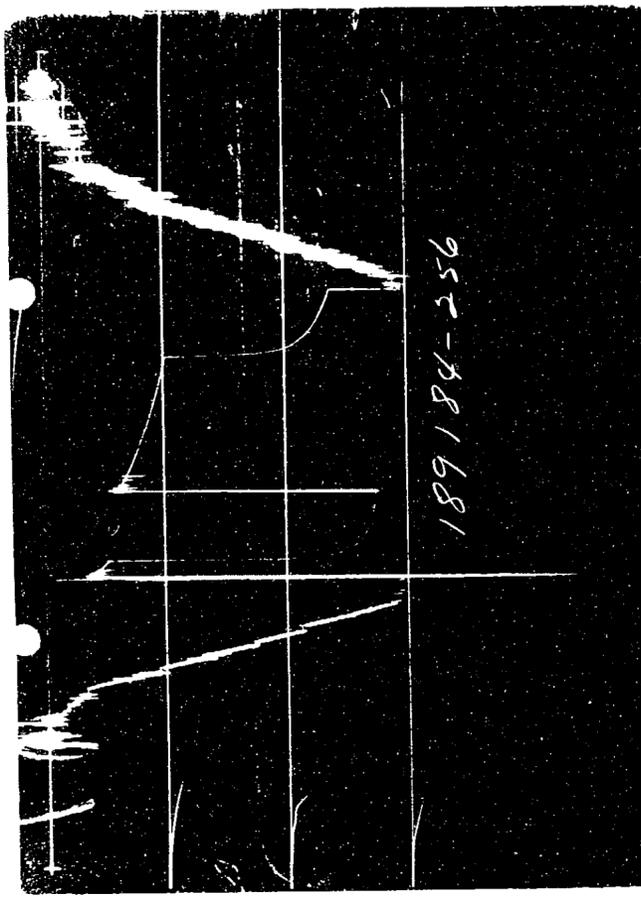
NAVAJO  
 Lease Name  
 Well No. 2  
 Test No. 1  
 FIELD WINDCUT  
 COUNTY APACHE  
 STATE ARIZONA  
 GREAT WESTERN DRILLING COMPANY  
 Lease Owner/Company Name  
 DENVER  
 Owner's District

Gauge No.		256		Depth		6252'		Clock		12 hour		Ticket No.		189184	
First Flow Period			Initial Closed In Pressure			Second Flow Period			Final Closed In Pressure						
	Time Defl. .000"	PSIG Temp. Corr.	Time Defl. .000"	Log $\frac{t+\theta}{\theta}$	PSIG Temp. Corr.	Time Defl. .000"	PSIG Temp. Corr.	Time Defl. .000"	Log $\frac{t+\theta}{\theta}$	PSIG Temp. Corr.					
P <sub>0</sub>	.000	401*	.000		534	.000	569	.000		1011					
P <sub>1</sub>	.0188	421*	.041		2388	.131	718	.0396		1930					
P <sub>2</sub>	.0376	456*	.082		2398	.262	792	.0792		2075					
P <sub>3</sub>	.0564	485	.123		2618	.393	858	.1188		2147					
P <sub>4</sub>	.0752	513	.164		2658	.524	917	.1584		2204					
P <sub>5</sub>	.0940	534	.205		2685	.655	966	.1980		2244					
P <sub>6</sub>			.246		2704	.786	1011	.2376		2277					
P <sub>7</sub>			.287		2718			.2772		2306					
P <sub>8</sub>			.328		2727			.3168		2329					
P <sub>9</sub>			.369		2736			.3564		2352					
P <sub>10</sub>			.410		2743			.3960		2368					
Gauge No.		140		Depth		6318'		Clock		12 hour					
P <sub>0</sub>	.000	530*	.000		572	.000	754*	.000		1039					
P <sub>1</sub>	.018	524*	.0408		2428	.1317	741	.0401		1960					
P <sub>2</sub>	.036	576*	.0816		2434	.2634	818	.0802		2104					
P <sub>3</sub>	.054	529	.1224		2646	.3951	884	.1203		2176					
P <sub>4</sub>	.072	550	.1632		2685	.5268	941	.1604		2231					
P <sub>5</sub>	.090	572	.2040		2714	.6585	991	.2005		2274					
P <sub>6</sub>			.2448		2731	.7900	1039	.2406		2307					
P <sub>7</sub>			.2856		2747			.2807		2333					
P <sub>8</sub>			.3264		2757			.3208		2359					
P <sub>9</sub>			.3672		2764			.3609		2379					
P <sub>10</sub>			.4080		2770			.4010		2396					
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REMARKS:		* Questionable													

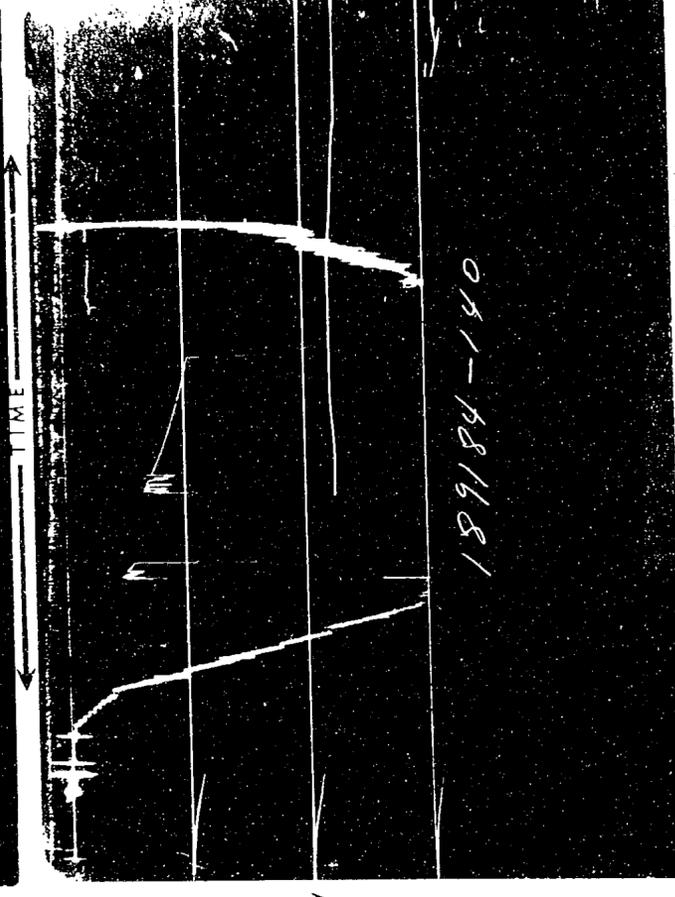
**SPECIAL PRESSURE DATA**

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	Time Defl. .000"	PSIG Temp. Corr.	Time Defl. .000"	Log $\frac{t+\theta}{\theta}$	PSIG Temp. Corr.	Time Defl. .000"	PSIG Temp. Corr.	Time Defl. .000"	Log $\frac{t+\theta}{\theta}$	PSIG Temp. Corr.					
P <sub>0</sub>	.000	1117*	.000		826	.000	1083*	.000		1125					
P <sub>1</sub>	1040	826	.0204		2520	.065	924	.0199		2032					
P <sub>2</sub>			.0408		2645	.130	961	.0398		2158					
P <sub>3</sub>	PLUGGING		.0612		2707	.195	1001	.0597		2228					
P <sub>4</sub>			.0816		2742	.260	1044	.0796		2282					
P <sub>5</sub>			.1020		2766	.325	1086	.0995		2323					
P <sub>6</sub>			.1224		2782	.390	1125	.1194		2354					
P <sub>7</sub>			.1428		2796			.1393		2382					
P <sub>8</sub>			.1632		2807			.1592		2405					
P <sub>9</sub>			.1836		2814			.1791		2426					
P <sub>10</sub>			.2040		2820			.1990		2443					
Gauge No.		Depth		Clock		hour									
P <sub>0</sub>															
P <sub>1</sub>															
P <sub>2</sub>															
P <sub>3</sub>															
P <sub>4</sub>															
P <sub>5</sub>															
P <sub>6</sub>															
P <sub>7</sub>															
P <sub>8</sub>															
P <sub>9</sub>															
P <sub>10</sub>															
Reading Interval		6		20		6		Minutes							
REMARKS: * Questionable															

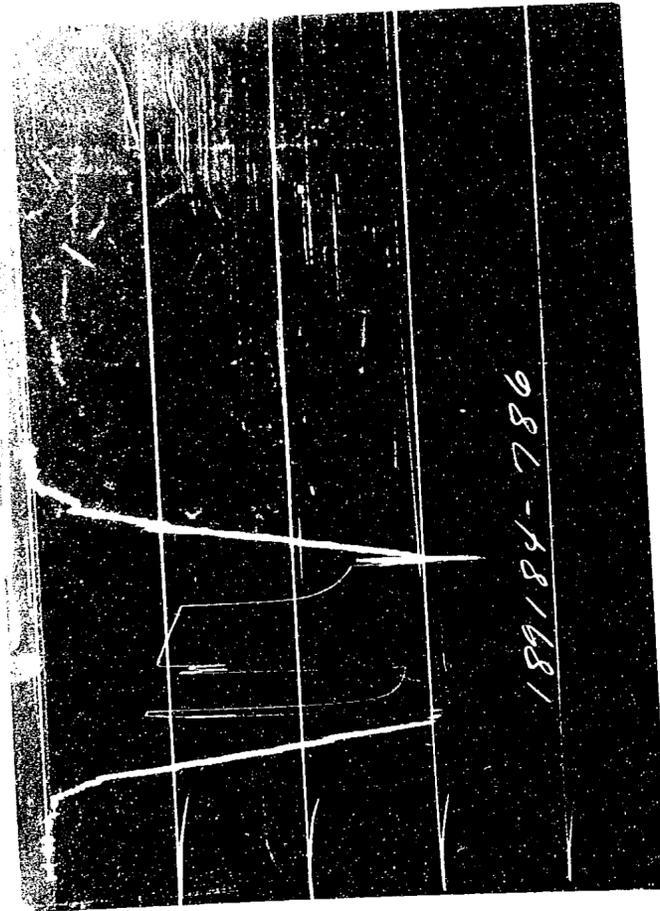
SPECIAL PRESSURE DATA



189184-256



031-1881681

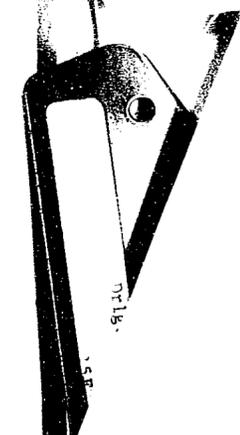


189184-786

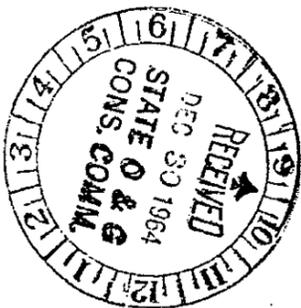
← PRESSURE →

↑ TIME ↓

↑ TIME ↓



# 295



**Your.....**

**Formation Testing Service Report**

GREAT WESTERN DRILLING CO. & W. A. MONCRIEF  
#2 EL PASO-NAVAJO  
NE NE SECTION 17, T41N - R25E  
APACHE COUNTY, ARIZONA

CORE #1 (6340-6358) Cut 18' Rec 15', barrel jammed.

6340-6343 gray-green, fine, dense, crys-gran, sucrosic, extremely sdy,  
dolo, large sd grains interbedded, stylolitic.  
6343-6344 gray-brown, fine, dense, crys-gran, sucrosic, extremely sdy,  
stylolitic, dolo with shale partings.  
6344-6346 gray-green, fine, dense, crys-gran, sucrosic, extremely sdy,  
stylolitic, dolo.  
6346-6352 brown, fine, dense, crys-gran, sucrosic, sdy, dolo, vert frac.  
6352-6355 brown, fine, extremely dense, gran, sucrosic, stylolitic, sdy,  
dolo, vert frac.

CORE #2 (6358-6362) Cut 4' Rec 3'.

6358-6361 dark gray-dark brown, fine, extremely dense, gran, sucrosic,  
dolo, banded with light gray, vert frac.

295

5

1/2 90

DST #1

DST 6257-6330 (Elbert) Tool open 15 min. first flow with good blow throughtout test; closed tool 60 min. initial shut in; Reopened tool 120 min. 2nd flow period; Closed tool for 60 min. final closed in pressure charts indicate some plugging during 1st flow & 1st part of 2nd flow. Lower packer did not seal. Pressures Questionable Recovered 2150' Water-cut-mud

	IHP	2971
	ISIP	2770 in 60 min.
	(IFP	530*
1st	(	
flow	(FFP	572
2nd	(IFP	574
flow	(	
per.	(FFP	1039
	FSIP	2396 in 60 min.
	FHP	2935

\* Questionable

295

Form 9-331  
(May 1963)

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

SUBMIT IN TRIPlicate\*  
(Other instructions on re-  
verse side)

Form approved.  
Budget Bureau No. 42-R1424.

5. LEASE DESIGNATION AND SERIAL NO.  
**Navajo 14-20-603-731**

6. IF INDIAN, ALLOTTEE OR TRIBE NAME  
**Navajo**

7. UNIT AGREEMENT NAME  
**none**

8. FARM OR LEASE NAME  
**El Paso Navajo**

9. WELL NO.  
**2**

10. FIELD AND POOL, OR WILDCAT  
**Wildcat**

11. SEC., T., E., M., OR BLEK. AND  
**Sec 17, T-41-N, R-25-E  
G & SHM**

12. COUNTY OR PARISH  
**Apache**

13. STATE  
**Arizona**

**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  GAS WELL  OTHER  **Wildcat**

2. NAME OF OPERATOR  
**Great Western Drilling Company**

3. ADDRESS OF OPERATOR  
**P.O. Box 1639 Midland, Texas**

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.\*  
See also space 17 below.)  
At surface  
**660' from North and 660' from East Line of Section 17, 41-N,  
25-E  
(Same)**

14. PERMIT NO.

15. ELEVATIONS (Show whether DF, RT, GR, etc.)  
**4849 GR**

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

NOTICE OF INTENTION TO:

TEST WATER SHUT-OFF   
FRACTURE TREAT   
SHOOT OR ACIDIZE   
REPAIR WELL   
(Other)

FULL OR ALTER CASING   
MULTIPLE COMPLETE   
ABANDON\*   
CHANGE PLANS

SUBSEQUENT REPORT OF:

WATER SHUT-OFF   
FRACTURE TREATMENT   
SHOOTING OR ACIDIZING   
(Other)

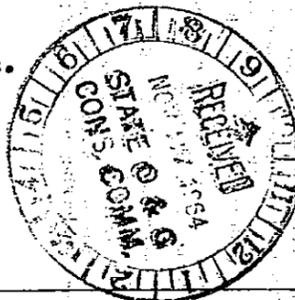
REPAIRING WELL   
ALTERING CASING   
ABANDONMENT\*

(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 perti-  
nent to this work.)\*

**A depth of 6,457' was reached November 21, 1964. A straddle test was made  
(6,257-6,330') open 2 hours. Recovered 2,150' water cut mud. I S I P one hour  
(2,737). F S I P one hour (2,421). No shows. The well was logged and permission  
requested and granted to set cement plugs as follows:**

**30 sacks of cement (5,978-6,078)  
30 sacks of cement (5,607-5,707)  
30 sacks of cement (3,950-4,050)  
45 sacks of cement (1,800-1,950)  
30 sacks of cement ( 350- 250)  
5 sacks and a marker at the surface.**



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

SIGNED O. H. Crews **O. H. Crews** TITLE **Administrative Coordinator**

DATE **November 25, 1964**

(This space for Federal or State office use)

APPROVED BY \_\_\_\_\_ TITLE \_\_\_\_\_ DATE \_\_\_\_\_  
CONDITIONS OF APPROVAL, IF ANY:

\*See instructions on Reverse Side

**APPLICATION FOR PERMIT TO DRILL, DEEPEN OR PLUG BACK**

APPLICATION TO DRILL  DEEPEN  PLUG BACK

NAME OF COMPANY OR OPERATOR

DATE October 12, 1964

Great Western Drilling Company Midland Texas  
Address City State

P. O. Box 1659

**DESCRIPTION OF WELL AND LEASE**

Name of lease <u>El Paso Navajo</u>	Well number <u>2</u>	Elevation (ground)
Well location (give footage from section lines) Section—township—range or block & survey <u>660 from the north and east line of 17 41 N 25 E</u>		
Field & reservoir (if wildcat, so state) <u>Wildcat</u>	County <u>Apache</u>	

Distance, in miles, and direction from nearest town or post office  
10 miles from Mexican Water

Nearest distance from proposed location to property or lease line: <u>660</u> feet	Distance from proposed location to nearest drilling, completed or applied—for well on the same lease: <u>5,280'</u> feet
---	---

Proposed depth: <u>6,800</u>	Rotary or cable tools <u>Rotary</u>	Approx. date work will start <u>Immediately</u>
---------------------------------	--	--

Number of acres in lease: <u>4,436</u>	Number of wells on lease, including this well, completed in or drilling to this reservoir: <u>First</u>
---	--

If lease, purchased with one or more wells drilled, from whom purchased: Name Address

Status of bond  
One well

Remarks: (If this is an application to deepen or plug back, briefly describe work to be done, giving present producing zone and expected new producing zone)

\* Fill in Proposed Casing Program on other side

CERTIFICATE: I, the undersigned, under the penalty of perjury, state that I am the Administrative Coordinator of the Great Western Drilling Company (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.

October 12, 1964 Date O. H. Crews Signature

Permit Number: 295  
 Approval Date: 10-19-64  
 Approved By: John Vannister  
 Notice: Before pending in this form be sure that you have given all information requested. Much unnecessary correspondence will thus be avoided.  
 See Instruction on Reverse Side of Form

**STATE OF ARIZONA OIL & GAS CONSERVATION COMMISSION**  
 Application to Drill, Deepen or Plug Back  
 Form No. P-1 File two copies  
 Effective Feb. 28, 1962.

INSTRUCTIONS

READ CAREFULLY AND COMPLY FULLY

For the purpose of this determination attach hereto a neat, accurate plat, map or sketch of this lease, section, block or lot locating thereon the proposed site for this location. Plat shall be drawn to a scale which will permit the facile observation of all pertinent data. Show distances of the proposed well from the two nearest lease and section lines, and from the nearest wells on the same lease completed in or drilling to the same reservoir. If the location requested is not in conformance with the applicable well-spacing rules, show all off-setting wells to the proposed well, and the names and addresses of all adjoining lease or property owners.

In event plat is filed for the purpose of designating the drilling and producing unit, or proration unit, on which the proposed well is to be drilled, the boundaries of such unit shall be shown, also the boundaries of all other such units attributed to other wells on the same lease completed in or drilling to the same reservoir. The acreage contained within each unit shall also be shown.

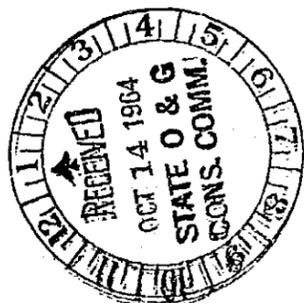
Do not confuse survey lines with lease lines. The sketch or plat should show your entire lease if possible. If it is not practical to show the entire lease and the plat shows only a section, block or lot out of your lease, you should clearly show that same is only a part of the lease.

Designate scale to which plat or sketch is drawn. Also designate northerly direction on the sketch or plat.

PROPOSED CASING PROGRAM

Size of Casing	Weight	Grade & Type	Top	Bottom	Cementing Depths	Sacks Cement
13 <sup>3</sup> / <sub>8</sub>	54.5	H-40	Surface	± 175	circulated	150
1 <sup>1</sup> / <sub>2</sub>	9.6	J-55	0	± 6800	± 6800	150

Form No. P-1



COMPANY GREAT WESTERN DRILLING COMPANY

Well Name & No. El Paso Navajo #2

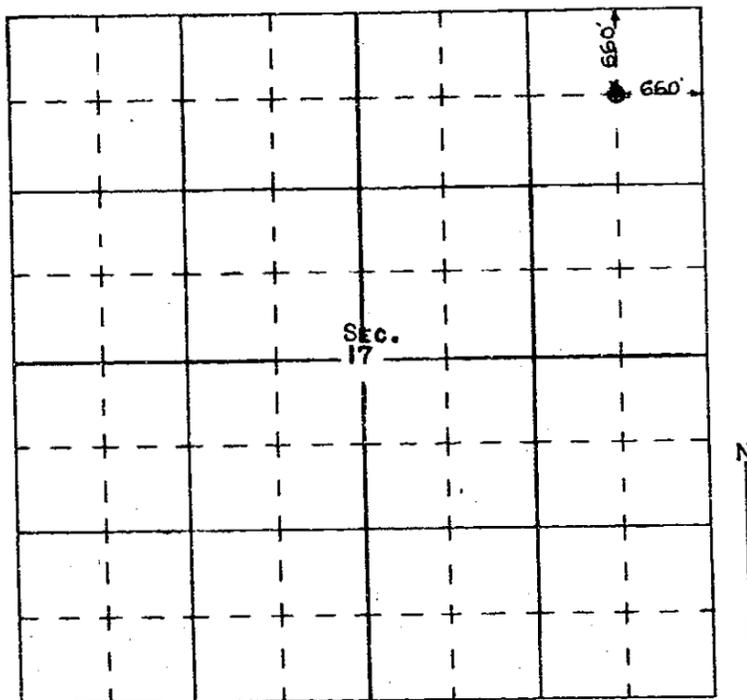
Lease No. Navajo 14-20-603-732

Location 660 FEET FROM THE NORTH LINE AND 660 FEET FROM THE EAST LINE

Being in NE  $\frac{1}{4}$  NE  $\frac{1}{4}$

Sec. 17, T4N., R25W., ~~NE  $\frac{1}{4}$  NE  $\frac{1}{4}$~~  EAST GILA AND SALT RIVER MERIDIAN, APACHE COUNTY, ARIZONA.

Ground Elevation

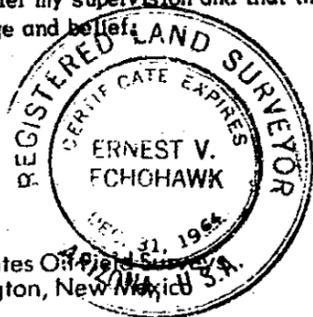


Scale -- 4 inches equals 1 mile

Surveyed AUGUST 5, \_\_\_\_\_, 1964

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.

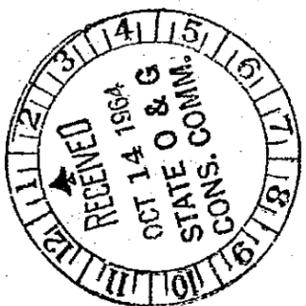
Seal:



*Ernest V. Echohawk*

Ernest V. Echohawk  
Registered Land Surveyor

~~Reg. #3545~~  
ARIZONA REG. No. 2311



DETACH AND RETAIN FOR YOUR FILES

ITEMS

No 38780

For permit to drill the El Paso Navajo Number 2,  
Apache County, Arizona.

25.00

Midland National Bank, Midland, Texas

GREAT WESTERN DRILLING CO.  
509 NORTH LORRAINE MIDLAND, TEXAS

295

ND.  
KNOW ALL MEN BY THESE PRESENTS

BOND SERIAL NO. 67428

That we: GREAT WESTERN DRILLING COMPANY

of the County of: MIDLAND in the State of: TEXAS

as principal, and UNITED STATES FIDELITY & GUARANTY COMPANY

of BALTIMORE, MARYLAND  
AUTHORIZED TO DO BUSINESS WITHIN the State of Arizona.

as surety, are held and firmly bound unto the State of Arizona in the penal sum as indicated, lawful money of the United States, for which payment, well and truly to be made, we bind ourselves, and each of us, and each of our heirs, executors, administrators or successors, and assigns jointly and severally, firmly by these presents.

The conditions of this obligation is that whereas the above bounden principal proposes to drill a well or wells for oil, gas or stratigraphic purposes in and upon the following described land situated within the State, to wit:

NE/4, SECTION 17, TOWNSHIP 41 NORTH, RANGE 25 EAST. APACHE COUNTY  
(May be used as blanket bond or for single well)

NOW, THEREFORE, if the above bounden principal shall comply with all of the provisions of the laws of this State and the rules, regulations and orders of the Oil and Gas Conservation Commission, especially with reference to the requirements of A.R.S. 27-516, providing for the proper drilling, casing and plugging of said well or wells, and filing with the Oil & Gas Conservation Commission all notices and records required by said Commission, in the event said well or wells do not produce oil or gas in commercial quantities, or cease to produce oil or gas in commercial quantities, then this obligation is void; otherwise, the same shall be and remain in full force and effect.

Penal sum of - - TWO THOUSAND FIVE HUNDRED AND NO/100 DOLLARS, (\$2,500.00)

Witness our hands and seals, this 13th day of OCTOBER 1964.

GREAT WESTERN DRILLING COMPANY

By: R.L. Ecker  
President Principal

Witness our hands and seals, this 13th day of OCTOBER 1964.

UNITED STATES FIDELITY & GUARANTY COMPANY

Lee Durrell  
Lee Durrell, Attorney-in-fact. Surety

(If the principal is a corporation, the bond should be executed by its duly authorized officers, with the seal of the corporation affixed. When principal or surety executes this bond by agent, power of attorney or other evidence of authority must accompany the bond.)

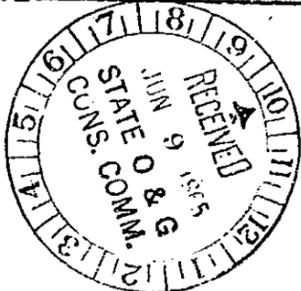
Approved  
Date 10-19-64  
STATE OF ARIZONA  
OIL & GAS CONSERVATION COMMISSION  
By: John Bannister

STATE OF ARIZONA  
OIL & GAS CONSERVATION COMMISSION  
Bond  
File Two Copies  
Form No. 2

Permit No. 205

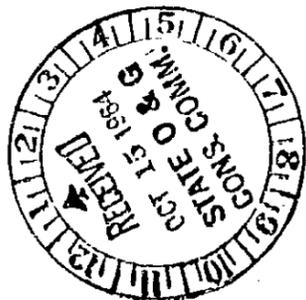
**CANCELLED**

DATE 9-14-65



7

----- ( ) ( ) ( ) ( ) ( ) ( )



300



(CERTIFIED COPY)

GENERAL POWER OF ATTORNEY

No. 71552

Know all Men by these Presents:

That UNITED STATES FIDELITY AND GUARANTY COMPANY, a corporation organized and existing under the laws of the State of Maryland, and having its principal office at the City of Baltimore, in the State of Maryland, does hereby constitute and appoint Lee Durrell

of the City of Midland its true and lawful attorney in and for the State of Texas

for the following purposes, to wit:

To sign its name as surety to, and to execute, seal and acknowledge any and all bonds, and to respectively do and perform any and all acts and things set forth in the resolution of the Board of Directors of the said UNITED STATES FIDELITY AND GUARANTY COMPANY, a certified copy of which is hereto annexed and made a part of this Power of Attorney; and the said UNITED STATES FIDELITY AND GUARANTY COMPANY, through us, its Board of Directors, hereby ratifies and confirms all and whatsoever the said Lee Durrell

may lawfully do in the premises by virtue of these presents.

In Witness Whereof, the said UNITED STATES FIDELITY AND GUARANTY COMPANY has caused this instrument to be sealed with its corporate seal, duly attested by the signatures of its Vice-President and Assistant Secretary, this 26th day of September, A. D. 19 58

UNITED STATES FIDELITY AND GUARANTY COMPANY.

(Signed) By Williford Gragg Vice-President.

(SEAL)

(Signed) Frieda Walter Assistant Secretary.

STATE OF MARYLAND BALTIMORE CITY.

On this 26th day of September, A. D. 19 58, before me personally came Williford Gragg, Vice-President of the UNITED STATES FIDELITY AND GUARANTY COMPANY and Frieda Walter, Assistant Secretary of said Company, with both of whom I am personally acquainted, who being by me severally duly sworn, said that they resided in the City of Baltimore, Maryland; that they, the said Williford Gragg and Frieda Walter were respectively the Vice-President and the Assistant Secretary of the said UNITED STATES FIDELITY AND GUARANTY COMPANY, the corporation described in and which executed the foregoing Power of Attorney; that they each knew the seal of said corporation; that the seal affixed to said Power of Attorney was such corporate seal, that it was so affixed by order of the Board of Directors of said corporation, and that they signed their names thereto by like order as Vice-President and Assistant Secretary, respectively, of the Company. My commission expires the first Monday in May, A. D. 19 59

(Seal) (Signed) Harriett M. Little Notary Public.

STATE OF MARYLAND, BALTIMORE CITY.

I, James F. Carney, Clerk of the Superior Court of Baltimore City, which Court is a Court of Record, and has a seal, do hereby certify that Harriett M. Little, Esquire, before whom the annexed affidavits were made, and who has thereto subscribed his name, was at the time of so doing a Notary Public of the State of Maryland, in and for the City of Baltimore, duly commissioned and sworn and authorized by law to administer oaths and take acknowledgments, or proof of deeds to be recorded therein. I further certify that I am acquainted with the handwriting of the said Notary, and verily believe the signature to be his genuine signature.

In Testimony Whereof, I hereto set my hand and affix the seal of the Superior Court of Baltimore City, the same being a Court of Record, this 26th day of September, A. D. 1958

(SEAL) (Signed) James F. Carney Clerk of the Superior Court of Baltimore City.

COPY OF RESOLUTION



That Whereas, it is necessary for the effectual transaction of business that this Company appoint agents and attorneys with power and authority to act for it and in its name in States other than Maryland, and in the Territories of the United States and in the Provinces of the Dominion of Canada and in the Colony of Newfoundland.

Therefore, be it Resolved, that this Company do, and it hereby does, authorize and empower its President or either of its Vice Presidents in conjunction with its Secretary or one of its Assistant Secretaries, under its corporate seal, to appoint any person or persons as attorney or attorneys-in-fact, or agent or agents of said Company, in its name and as its act, to execute and deliver any and all contracts guaranteeing the fidelity of persons holding positions of public or private trust, guaranteeing the performances of contracts other than insurance policies and executing or guaranteeing bonds and undertakings, required or permitted in all actions or proceedings, or by law allowed, and

Also, in its name and as its attorney or attorneys-in-fact, or agent or agents to execute and guarantee the conditions of any and all bonds, recognizances, obligations, stipulations, undertakings or anything in the nature of either of the same, which are or may by law, municipal or otherwise, or by any Statute of the United States or of any State or Territory of the United States or of the Provinces of the Dominion of Canada or of the Colony of Newfoundland, or by the rules, regulations, orders, customs, practice or discretion of any board, body, organization, office or officer, local, municipal or otherwise, be allowed, required or permitted to be executed, made, taken, given, tendered, accepted, filed or recorded for the security or protection of, by or for any person or persons, corporation, body, office, interest, municipality or other association or organization whatsoever, in any and all capacities whatsoever, conditioned for the doing or not doing of anything or any conditions which may be provided for in any such bond, recognizance, obligation, stipulation, or undertaking, or anything in the nature of either of the same.

I, **H. G. Sachse**, an Assistant Secretary of the UNITED STATES FIDELITY AND GUARANTY COMPANY, do hereby certify that the foregoing is a full, true and correct copy of the original power of attorney given by said Company to **Lee Durrell**

of **Midland, Texas**, authorizing and empowering **him** to sign bonds as therein set forth, which power of attorney has never been revoked and is still in full force and effect.

And I do further certify that said Power of Attorney was given in pursuance of a resolution adopted at a regular meeting of the Board of Directors of said Company, duly called and held at the office of the Company in the City of Baltimore, on the 11th day of July, 1910, at which meeting a quorum of the Board of Directors was present, and that the foregoing is a true and correct copy of said resolution, and the whole thereof as recorded in the minutes of said meeting.

In Testimony Whereof, I have hereunto set my hand and the seal of the UNITED STATES FIDELITY AND GUARANTY COMPANY on **October 13, 1964.**  
(Date)

*H. G. Sachse*  
Assistant Secretary

September 14, 1965

Great Western Drilling Co.  
P.O. Box 1699  
Midland, Texas

Attention: Mr. R.W. Pearman

Re: Great Western Drilling Co. #2 El Paso well  
NE/4NE/4 17-41N-25E, Apache County, Arizona  
File 295

U.S. Fidelity & Guaranty Co. Bond 67428

Gentlemen:

We are in receipt of your letter of September 10, 1965 concerning the captioned well and bond.

This well has been completed in accordance with our Rules and Regulations and, accordingly, this letter constitutes the authority of this Commission to cancel the captioned bond effective September 14, 1965.

If we may be of further help to you at any time, will you please advise.

Yours very truly,

John Bannister  
Executive Secretary  
mf

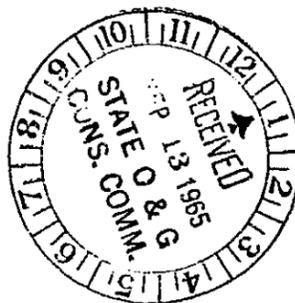
cc: U.S. Fidelity & Guaranty Co.  
Baltimore, Maryland



R. C. TUCKER, PRES.

September 10, 1965

PHONE MU 2-5241  
ADDRESS REPLY TO:  
BOX 1659  
MIDLAND, TEXAS



Mr. John Bannister  
Oil & Gas Conservation Commission  
Room 202 - 1624 West Adams  
Phoenix, Arizona 85007

Re: Plugging Bond  
Apache County, Arizona  
Permit 295

Dear Mr. Bannister:

In October of 1964 we furnished your office with United States Fidelity and Guaranty Company Bond No. 67428 prior to drilling operations in Section 17, Apache County, Arizona.

Such operations have been completed, proper plugging has been done and it is our desire to drop this bond.

It will be appreciated if you will grant this permission by letter to us in order that we may substantiate this request to our bonding company.

Yours very truly,

GREAT WESTERN DRILLING COMPANY

*R. W. Pearman*  
R. W. Pearman

RWP/ct

#295



December 18, 1964

Great Western Drilling company  
P.O. Box 1659  
Midland, Texas

Attention: Mr. O.H. Crews, Administrative Coordinator

Re: Great Western Drilling Co. El Paso Navajo #2 well  
NE/4NE/4, S17-T41N-R25E, Apache County, Arizona  
Our file 295

Gentlemen:

Enclosed is approved copy of Application to Abandon and Plug captioned well.

The Plugging Record failed to show "Size, kind and depth of plugs...". May we assume the well was plugged exactly as shown on your proposed plan in the Application?

In addition, while we have received copies of the perforation record, we have not received copies of the electric logs, DST, and cores, which our Rules and Regulations require be filed within sixty days of the completion of the well.

Yours very truly,

James R. Scurlock  
Geologist  
MR  
enc

November 30, 1964

Great Western Drilling Co.  
P.O. Box 1659  
Midland, Texas

Attention: Mr. O.H. Crews

Re: Great Western Drilling Co El Paso Navajo #2 well  
NE/4NE/4 S17-T41N-R25E, Apache County, Arizona  
Our file 295

Gentlemen:

Enclosed are a supply of the forms necessary to complete  
our records in accordance with the Rules and Regulations.

We would also appreciate copies of any logs taken by you.

Surely sorry you didn't bring this one in.

Yours very truly,

J.R. Scurlock  
Geologist

MF

enci: Application to Abandon and Plug  
Plugging Record  
Well Completion Report



November 25, 1964

R. C. TUCKER, PRES.

PHONE MU 2-5241  
ADDRESS REPLY TO:  
BOX 1659  
MIDLAND, TEXAS

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

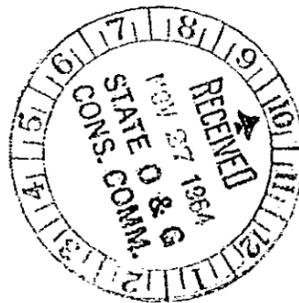
Gentlemen:

Please send State plugging forms required for  
the Great Western Drilling Company, El Paso Navajo  
Number Two.

Yours very truly,

*O. H. Crews*  
O. H. Crews

OHC:jb



October 20, 1964

Great Western Drilling Co.  
P.O. Box 1659  
Midland, Texas

Attention: Mr. O.H. Crews, Administrative Coordinator

Re: Great Western Drilling Company El Paso Navajo #2  
S17, T41N, R25E, Apache County, Arizona  
Our File 295

Gentlemen:

Enclosed are approved copies of Application to Drill the captioned well, Bond 67428, and receipt 9394 for the application fee.

Please be assured of our desire to cooperate with you, and if this office may be of assistance to you, please advise.

Yours very truly,

John Bannister  
Executive Secretary

nr  
enc