

P-M

Cactus Drilling Corp #1 Navajo 305  
NW/4SW/4 S19 T39N R26E, Apache Cour

sl

COUNTY Apache AREA 6 mi N. Rock Point LEASE NO. Nav. 14-20-0603-8151

WELL NAME Cactus Drilling Corporation #1 Navajo

LOCATION NW/ SW SEC 19 TWP 39N RANGE 26E FOOTAGE 960 FWL 1658 FSL  
ELEV 5363 GR 5375 KB SPUD DATE 1-27-65 STATUS \_\_\_\_\_ TOTAL DEPTH 6197'  
COMP. DATE 2-25-65 DEPTH 6188 AmS.

CONTRACTOR

CASING SIZE 13 3/8 DEPTH 138' CEMENT 140 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.	
Organ Rock	2535		x	
Cedar Mesa	3068			
Hermosa	3932			
Ismay	4640			
Lower Ismay	5035			
Mojas	5250			
Miss.	5335			
Elbert	5680			
McCracken	5890			
Granite Wash.	5985			
Pre-Cambrian	6005			
Aneth	6040			

ELECTRIC LOGS IE, Sonic	PERFORATED INTERVALS NA	PROD. INTERVALS NA	SAMPLE LOG Am Strat SAMPLE DESCRP. _____ SAMPLE NO. _____ CORE ANALYSIS _____ DSTs <u>x</u>
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REMARKS \_\_\_\_\_ APP. TO PLUG \_\_\_\_\_  
PLUGGING REP. \_\_\_\_\_  
COMP. REPORT \_\_\_\_\_

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

BOND CO. The Aetna Casualty & Surety Co. BOND NO. 18S 45-545BC  
DATE \_\_\_\_\_ ORGANIZATION REPORT 1-21-65  
BOND AMT. \$ 2,500 CANCELLED 3-18-66  
FILING RECEIPT 9404 LOC. PLAT x WELL BOOK x PLAT BOOK x  
API NO. \_\_\_\_\_ DATE ISSUED Feb 2-65 DEDICATION W/2 SW/4

PERMIT NUMBER 305

(over)

DRILL STEM TEST

NO.	FROM	TO	RESULTS
1	5390	5640	Tool open 5 min. shut in 1/2 hr. tool open 1 hr. final shut in 1/2 hr. Rec. 1140' salt water & dlq mud; 180' dlq mud salt water est. IIR 2791; ISIP 2349; IFF 321; FFP 72, FSIP 1961, Temp. 120

CORE RECORD

NO.	FROM	TO	RECOVERY	REMARKS

REMEDIAL HISTORY

DATE STARTED - COMPLETED	WORK PERFORMED	NEW PERFORATIONS

ADDITIONAL INFORMATION

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

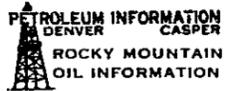
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\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

300  
ARIZONA  
APACHE CO.  
WILDCAT (W)



Twp 39n-26e  
Section 19  
NW SW  
1658 n/s 960 e/w

OPR: Cactus Drilling

WELL #: 1 Rock Point

ELEV: 5375 KB

TOPS: Log ~~XXXXX~~  
Organ Rock 2535  
Cedar Mesa 3068  
Hermosa 3932  
Ismay 4640  
Lower Ismay 5035  
Molas 5250  
Mississippian 5335  
Elbert 5680  
McCracken 5890  
Aneth 6025  
preCambrian 6122

DSTS. & CORES:  
No cores. DST 5390-  
5640, SI 30 mins, open  
1 hr, SI 30 mins, rec  
1140 salt wtr & mud,  
180 sli salt wtr cut mud,  
820 salt wtr, FP 321-  
72#, SIP 2349-1961#,  
IHP 2791#.

SPUD: 1-27-65      COMPL: 2-25-65  
TD: 6197      PB:  
CSG: 13-3/8" @ 125 w/140

PERF:

PROD. ZONE:

INIT. PROD: D&A

Contr: Own

ARIZ 8-561150

**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 **Cactus Drilling Corporation** Address **Box 2146 Farmington, New Mexico**

Federal, State or Indian Lease Number or name of lessor if fee lease **14-20-0603-~~8115~~ 8151** Well Number **1** Field & Reservoir **Wildcat**

Location **Rock Point #1(960 FWL, 1658 ESL)** County **Apache County, Arizona**

Sec. TWP-Range or Block & Survey **Sec. 19 T39N. R26E**

Date spudded **1-27-65** Date total depth reached **2-24-65** Date completed, ready to produce **5363 Gr.** Elevation (DF, RKB, RT or Gr.) **5363 Gr.** feet Elevation of casing hd. flange **5363 Gr.** feet

Total depth **6197** P.B.T.D. **6197** Single, dual or triple completion? **Single** If this is a dual or triple completion, furnish separate report for each completion.

Producing interval (s) for this completion **0-6197** Rotary tools used (interval) **0-6197** Cable tools used (interval)

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) **Sonic Gamma Ray W/ Caliper. IES Induction** Date filed **2-15-65**

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
	17 1/4"	13 3/8"	48#	138'	140	None

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

PERFORATION RECORD			ACID, SHOT, FRACTURE, CEMENT SQUEEZE RECORD	
Number per ft.	Size & type	Depth Interval	Am't. & kind of material used	Depth Interval

INITIAL PRODUCTION

Date of first production **February 25, 1965** 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 bbls.	Gas prod. during test MCF	Water prod. during test bbls.	Oil gravity ° API (Corr)

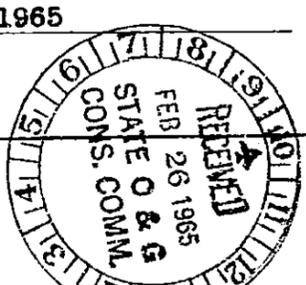
Tubing pressure	Casing pressure	Cal'd rate of Production per 24 hrs.	Oil bbls.	Gas MCF	Water bbls.	Gas-oil ratio

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 Asst. Drilling Supt. of the Cactus Drilling 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.

Date **February 25, 1965**

Signature *[Handwritten Signature]*



Permit No. **305**

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*
Organ Rock	2535		Drill Stem Test from 5390 to 5640 tool open five minutes initial shut in one half hour tool open one hour. Final shut in was one half hour. Recovered 1140 Ft. Salt Water and Drilling Mud, 180 Ft. Drilling Mud slightly salt water cut, 820 Ft. Salt Water. IHP-2791 ISIP-2349 IFP-321 FFP-72 FSIP-1961 Temp.-120
Cedar Mesa	3068		
Hermosa	3932		
Ismay	4640		
Lower Ismay	5035		
Molas	5250		
Mississippian	5335		
Elbert	5680		
Mc/Cracken	5890		
Granite Wash	5985		
Pre-Cambrin	6005		
Aneth Dolomite	6040		

\* 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>Cactus Drilling Corporation</b>			Address <b>F.O. Box 2146 Farmington, New Mex.</b>		
Federal, State, or Indian Lease Number, or lessor's name if fee lease. <b>14-20-0603-8151</b>		Well No.	Field & Reservoir <b>Wildcat</b>		
Location of Well <b>960' FWL &amp; 1658' FSL</b>		Sec-Twp-Rge or Block & Survey <b>Sec. 19-T39N-R26E</b>		County <b>Apache</b>	
Application to drill this well was filed in name of <b>Rock Point #1</b>	Has this well ever produced oil or gas <b>No</b>	Character of well at completion (initial production): Oil (bbbls/day)      Gas (MCF/day)      Dry? <b>None      None      Yes</b>			
Date plugged: <b>2-25-65</b>	Total depth <b>6197</b>	Amount well producing when plugged: Oil (bbbls/day)      Gas (MCF/day)      Water (bbbls/day) <b>None      None      None</b>			
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>No oil or gas.</b>		<b>5700-5550</b>	<b>72 sacks Class "C" West</b>		
<b>All formations were open to well bore.</b>		<b>5400-5300</b>	<b>29 sacks Class "C" "</b>		
		<b>4000-3900</b>	<b>29 sacks Class "C" "</b>		
		<b>2000-1800</b>	<b>58 sacks Class "C" "</b>		
<b>10 sacks in the top with a marker</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>13 3/8"</b>	<b>120'</b>	<b>None</b>	<b>120'</b>		
Was well filled with mud-laden fluid, according to regulations? <b>Yes</b>				Indicate deepest formation containing fresh water. <b>None</b>	
NAMES AND ADDRESSES OF ADJACENT LEASE OPERATORS OR OWNERS OF THE SURFACE					
Name	Address			Direction from this well:	
<b>Superior</b>	<b>Drawer "G" Cortez, Colorado</b>			<b>West</b>	
<b>Mobil</b>	<b>Box 3371 Durango, Colorado</b>			<b>South West</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 <b>Asst. Drlg. Supt.</b> of the <b>Cactus Drlg. Corp.</b> 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 <b>3-14-66</b>	Signature <i>C. O. Rogers</i>				
Permit No. <b>305</b>			STATE OF ARIZONA OIL & GAS CONSERVATION COMMISSION Plugging Record File One Copy Form No. 10		

APPLICATION TO ABANDON AND PLUG

FIELD Wildcat  
 OPERATOR Cactus Drilling Corporation ADDRESS Box 2146 Farmington, New Mexico  
 Federal, State, or Indian Lease Number or Lessor's Name if Fee Lease 14-20-0603-8151 WELL NO. 1  
 SURVEY \_\_\_\_\_ SECTION 19 T39N-R26E COUNTY Apache  
 LOCATION 960 Ft. FWL 1658 Ft. FSL Sec. 19 T39N-R26E  
Rock Point #1  
 TYPE OF WELL Dry TOTAL DEPTH 6197  
 (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 \_\_\_\_\_

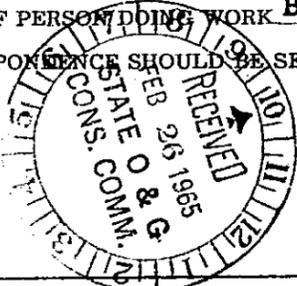
1. COMPLETE CASING RECORD We set 138 Ft. of 13 3/8" 48# Casing Cemented with 140 sack s of Regular with 3% CG.

2. FULL DETAILS OF PROPOSED PLAN OF WORK

The above well was plugged from 5700 up to 5550  
5400 up to 5300  
4000 up to 3900  
2000 up to 1800  
10 Sacks in the Surface with a Marker

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 February 25, 1965  
 NAME OF PERSON DOING WORK BJ Service Inc. ADDRESS Farmington, New Mexico  
 CORRESPONDENCE SHOULD BE SENT TO Cactus Drilling Corporation Box 2146 Farmington



Name C.O. Rogers  
 Title Asst. Dir. Supt.  
 Address \_\_\_\_\_  
 Date February 25, 1965

Date Approved 3-1-65  
 STATE OF ARIZONA  
 OIL & GAS CONSERVATION COMMISSION  
 By: John Bamister  
305

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

Permit No. 305

71305

GEOLOGICAL SUMMARY

FORMATION DATA

Formation	Sample	Schluenger	Sub Sea Datum
At Surface-Tri			
Lavaite-Angite			
Glen Canyon Group	0	0	+ 5363 ground elev.
			+ 5375 Kelly bushing
De Chelly-Perm		1850	+ 3525
Organ Rock-Perm		2535	+ 2840
Cedar Mesa-Perm	3120	3068	+ 2307
Hermosa-Perm DN	3942	3934	+ 1441
Ismay-Perm DN	4670	4639	+ 736
White Chert Zone	4670	---	+ 705
Desert Creek DN	4770	4770	+ 605
Lower Hermosa DN	5035	5035	+ 341
Molas Shale-P DN	5265	5271	+ 104
Mississippian	5345	5332	+ 43
Elbert-Dev	5680	5678	- 303
McCracken-Dev	5890	5890	- 515
McC Gran Wash	5985	5972 - 5977	- 597
Base McC G W	6040	6026 - 6040	- 651
Smith Dol-Dev	6080	6026 - 6046	- 651
Tapeats Congl-C	6110	6098	- 723
Pre-Cambrian	6140	6122	- 747
Total Depth	6197	6188	- 813

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See letter in file from Tulandry

Electrical Log Analysis

Depth	R <sub>deep</sub>	GR	At	Porosity	SW	Rw
3963-3972	42	32	68.5 Vm=19000	11.5	78	0.4
4253-4258	11	42	71.5 Vm=18000	12.0	100	0.18
4640-4650	200	40	55.5 Is	7.0	100	0.18
4990-4998	80	28	53.5 Is	5.0	100	0.18
5060-5070	125	32	55.5 Is	7.0	55	0.15
5139-5144	58	16	60.0 Is	10.0	30	0.06
5399-5406	150	12	53.5 Is	5.0	48	0.65
5609-5614	7.5	16	60.0	12.5	65	0.045
5609-5614	7.5	16	60.0 from DST Rv	12.5	92	0.114
5937-5950	7.0	16	62.0	5.0	100	0.09
6070-6088	90.0	32	57.0 Dolomite	11.0	25	

Drilling Time

Minutes per five (5) feet

1050-1200-	6	4	4	3	4	5	5	6	6	6	6	5	5	4	3	4	5	5	4	4	3	3	4	4	4	3	2	2	2	2	3	
1200-1350-	2	3	2	3	2	3	2	3	2	2	2	2	2	2	2	2	3	3	3	3	2	3	3	3	2	2	1	2	1	2	2	2
1350-1500-	2	2	2	2	2	2	2	2	2	2	2	1	1	1	1	2	2	1	2	1	2	1	2	1	2	2	1	2	3	3	3	
1500-1650-	1	1	1	1	1	2	1	2	1	2	1	4	3	4	3	2	1	2	2	2	2	2	2	3	4	3	4	2	2	2	2	
1650-1800-	2	3	2	3	3	3	2	3	2	1	4	4	2	2	2	2	2	2	2	2	2	2	2	5	5	4	5	5	5	5	5	
1800-1950-	1	2	1	2	1	2	1	2	1	2	1	1	1	2	2	3	2	1	2	1	1	2	2	1	2	1	2	1	1	2	2	
1950-2100-	5	2	3	2	2	1	2	1	2	1	1	1	1	2	2	3	2	1	2	1	1	2	2	1	2	1	2	1	1	2	2	
2100-2250-	1	2	1	2	2	2	2	2	2	2	2	2	2	4	4	5	1	2	3	5	2	3	2	2	2	3	3	2	3	2	2	
2250-2400-	2	2	2	2	2	2	2	2	2	2	2	2	2	1	1	1	1	1	1	2	2	1	2	1	2	1	2	1	2	1	2	
2400-2550-	1	2	1	2	1	2	2	2	2	2	2	2	2	3	3	3	2	3	3	2	1	2	4	3	3	3	2	2	7	10	10	
2550-2650-	9	7	6	10	10	7	7	8	8	8	8	8	8	9	9	9	9	10	10	9												
2650-2750-	9	8	11	11	11	11	10	9	10	10	10	11	10	8	11	12	13	14	11	19	16											
2750-2850-	13	13	11	15	16	14	12	13	9	11	16	19	14	8	9	11	15	14	15	14	15	16										
2850-2950-	13	14	13	13	13	22	19	18	17	13	13	14	17	19	14	15	20	19	18	22	21	22	22									
2950-3050-	18	15	21	21	18	18	19	19	17	17	19	17	17	8	9	11	11	11	15	14	14	20	21	22	15							
3050-3150-	23	24	23	23	22	24	28	17	8	9	11	11	11	11	11	15	14	14	20	21	22	15										
3150-3250-	12	10	12	11	15	17	20	17	17	20	15	17	19	20	18	19	16	19	16	19	17	15										
3250-3350-	17	25	29	29	28	24	21	21	25	28	25	28	33	35	33	32	30	28	25	27												
3350-3450-	25	22	27	33	12	13	12	13	19	17	13	15	12	14	16	20	17	16	16	16	16											
3450-3550-	14	17	18	18	17	17	17	15	17	13	13	19	20	23	22	16	19	19	19	19	17											
3550-3650-	18	17	20	20	21	20	23	13	14	13	13	12	12	13	14	15	13	15	13	15	14											
3650-3750-	16	14	15	17	20	17	13	15	16	19	20	23	17	17	13	16	20	20	16	10	11											
3750-3850-	18	18	19	20	22	18	20	20	21	14	9	10	12	15	17	15	17	15	18	22	18	21										
3850-3950-	13	15	15	12	14	13	17	13	13	16	15	14	17	19	20	22	25	27	32	31	39	41										
3950-4050-	29	34	21	33	21	21	27	25	21	18	19	20	22	25	24	29	26	33	36	36	36											
4050-4150-	34	37	37	38	40	38	34	29	23	23	29	28	25	24	29	26	33	36	36	36												
4150-4250-	34	38	37	31	30	27	31	32	30	27	29	28	25	24	33	33	34	41	38	34	36	41										
4250-4350-	22	28	23	27	31	32	30	27	29	28	25	24	33	33	34	41	38	34	36	41												
4350-4450-	?	?	?	?	?	?	?	?	?	?	?	?	?	?	?	?	?	?	?	?	?											
4450-4550-	43	41	45	48	53	49	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50											

#305

WELL LOG

WELL NO. 1 Well Joint

Section 18, Township 39 North, Range 26 East, Apache County, Arizona  
1050' PSL and 950' PSL (FM SW - approx)

Elevation: Ground level = 5163', KB = 5373'

Total depth: 6197' Sch. (197' driller)

Surface Pipe: 13 3/8" @ 120'

Spud: January 27, 1965

Total depth reached on February 23, 1965, @ 6pm

Electrical logs run on February 24, 1965, including:

Induction-Electrical Log (IES)

Integrated Sonic-Gamma Ray-Caliper (SGR/C)

Contractor: Cactus Drilling Company

Mud Servicing Company: Magoobar Mud Company

Water Hauling: New Mexico Tankers - [unclear]

Drill Stem Testing: Halliburton

Electrical Logging: Schlumberger

Cementing: Surface and plugging: B J Service Inc.

Mud Logging Unit: Core Lab

Geologist: Weldon C. Julander, Consultant, Farmington, New Mexico

BIT RECORD

No.	Depth used	Size	Type
1	0 - 140	11"	HTC GSC3
2	140 - 1332	7 7/8"	HTC X3A
3	1332 - 2550	7 7/8"	HTC X3J
4	2550 - 3086		XIG
5	3086 - 3367		XIG
6	3367 - 3585		CSC3
7	3585 - 3795		Reed YTLJ
8	3795 - 3990		HTC CSC3
9	3990 - 4205		XVJ
10	4205 - 4356		OWIJ
11	4356 - 4365 (Lost circ @ 4356-65)		W7CJ (lost cone)
12	4365 - 4482	400 bbls)	X7
13	4482 - 4570		X7
14	4570 - 4645		X7
15	4645 - 4679		W7R2J
16	4679 - 4720		Reed YHG
17	4720 - 4771		YHWGJ
18	4771 - 4867		YHG
19	4867 - 4977		YHGJ
20	4977 - 5051		YHWGJ
21	5051 - 5170		HTC X7J
22	5170 - 5280		X7J
23	5280 - 5426		Reed YHG
24	5426 - 5574		YHG
25	5574 - 5640		YHGJ
26	5640 - 5725		YHGJ
27	5725 - 5767		YHGJ
28	5767 - 5811		HTC X7R
29	5811 - 5860		Reed YHWGJ
30	5860 - 5908		HTC X7RJ
31	5908 - 5930		Reed YHWG
32	5930 - 5960		YHWGJ
33	5960 - 6024		YHWG
34	6024 - 6102		YHWGJ
35	6102 - 6197 (TD)		YHWGJ

TOTSO

Slope - Hole deviation

Degrees		
1/2	@	1332'
1/2	@	2550'
3/4	@	3086'
1	@	3367'
1	@	3795'
1/2	@	4205'
1 1/4	@	4645'
1 1/4	@	5426'
1 1/4	@	5930'

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Drilling Time continued

4650-4655-	48	46	42	53	58	40	43	44	50	36	44	44	47	53	40	44	53	57	56	31
4650-4750-	23	31	37	44	57	55	48	50	66	66	63	70	57	73	30	33	41	42	31	31
4750-4850-	36	48	62	69	5	41	33	35	35	36	46	53	56	40	34	35	35	42	31	62
4850-4950-	43	49	53	37	39	31	30	31	31	29	29	32	43	54	24	59	40	44	60	41
4950-5050-	44	42	41	45	57	39	24	25	17	23	26	33	36	36	35	29	29	41	61	49
5050-5150-	33	31	31	33	14	27	35	34	40	68	72	48	43	41	44	43	47	47	42	18
5150-5250-	66	49	29	53	30	33	31	31	28	25	29	32	42	28	23	26	30	38	36	36
5250-5350-	55	38	47	42	41	57	46	29	34	41	33	27	29	37	37	28	34	36	34	32
5350-5450-	30	28	31	26	20	41	37	39	32	29	28	24	24	28	36	40	26	30	22	32
5450-5550-	30	25	23	26	21	20	21	17	19	21	17	20	25	25	20	30	30	32	42	47
5550-5650-	55	62	60	57	47	38	21	25	32	14	25	24	26	25	19	34	36	37	36	38
5650-5750-	38	41	37	23	31	28	52	65	85	80	55	52	56	40	52	41	36	26	32	48
5750-5850-	56	82	71	90	41	62	67	62	65	87	77	74	60	68	52	68	75	64	62	90
5850-5950-	84	83	59	65	85	60	64	66	72	62	64	67	40	59	92	103	45	54	35	52
5950-6050-	53	85	40	42	43	49	40	51	47	67	82	72	75	57	56	41	48	48	50	59
6050-6150-	45	47	33	42	42	33	45	48	57	65	43	37	27	36	27	34	35	46	48	56
6150-6197-	40	40	43	41	40	54	69	49	76	TD										

General

In the Mississippian section from 5585 to 5625 a dolomite zone was encountered, consisting of granular, medium uniform crystalline, yellowish-tannish, with fair inter crystalline porosity. No shows were found either in staining of the samples or by mud logging unit or by a cut under the mineral light using carbon tet. However it was desired to test this porosity zone so the following Drill Stem Test was taken:

DST No. 1 (Mississippian) from 5390' to 5440' (250' of anchor)  
 open 5 min, shut in 30 min, open 1 hr, shut in 90 min;  
 immediate strong steady blow throughout test;  
 recovered 1440' of drilling mud

1140' 180' of water cut drilling mud  
 400' of slightly mud cut salt water. vs 820' Salt Water

IFP 321# )  
 PFP 401# ) 5 min

ISIP 2349#/ 30 min

IFP 468# )  
 PFP 928# ) 90 min

FSIP 2791#/ 90 min

Final Hy Press 2791#

Total solids 46397 PPM       $\rho_w = 0.163 @ 69^{\circ}$

The following methods were employed on this hole to determine the presence of oil and/or gas:

1. Sample study under microscope for porosity and staining.
2. Sample study under mineral light using carbon tet for a yellow cut.
3. Detection of gaseous odor from fresh samples.
4. Continuous analysis of mud for detection of hydrocarbons by the Mud Logging Unit.
5. Drill Stem Test.
6. Study and evaluation of Electrical Logs.

No shows of oil or gas, of any kind or quantity, were found throughout the entire hole using the above mentioned detection methods. Accordingly the well was plugged and abandoned in accordance with requirements of the U. S. G. S., and the Arizona Oil Conservation Commission.

Weldon C. Julander  
 Petroleum Geologist  
 Box 44  
 Farmington, New Mexico

*Weldon C. Julander*

#305

January 22, 1971

Weldon C. Julander  
632 Guaranty Bank Bldg.  
Denver, Colorado 80202  
303-222-8501

Mr. Edward A. Koester  
Arizona Oil & Gas Conservation Commission  
4515 North 7th Avenue  
Phoenix, Arizona 85013

Re: Cactus Drilling Company  
No. 1 Rock Point

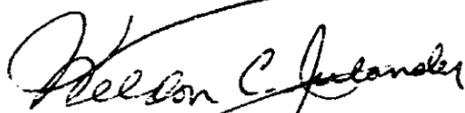
Dear Ed:

In answer to your letter of January 19, 1971, I am enclosing a three-page copy of my Operations Report on the No. 1 Rock Point. The enclosed report is the best information which I can provide you as it was made at the time of drilling and immediately thereafter, so I submit it to you for your consideration.

You will note on Page 2 (Formation Tops) where we encountered McCracken Granite Wash at sample top drilling depth 5985' to 6040', thereby indicating 55' of granite wash lying on top of Aneth Dolomite of Devonian Age. In reviewing the Electric Log, both the SGR/C and the IES, I now would conclude that the granite wash material was encountered at a depth of 5972' to a depth of 6046', thereby being a 74' granite wash section resting on top of the Aneth Dolomite. This indicates tremendous unconformity which I have seen indicated in other wells in Arizona with said unconformity lying on top of the Aneth Dolomite. You will note on Page 3 the correct information on the one and only drill stem test ran on this well.

Regards to you and Jim Scurlock.

Very truly yours,



Weldon C. Julander

WCJ:mo  
enclosure

305

6

#305

January 19, 1971

Mr. Weldon C. Julander  
632 Guarantee Bank Building  
Denver, Colorado 80202

Dear Weldon:

The Arizona Bureau of Mines with the help of the staff of this Commission is preparing a bulletin covering the best available information on all wells drilled for oil and gas or helium in Arizona, which we hope will be available some time this year.

In checking the Cactus Drilling Company #1 Rock Point in 19-39N-26E, Apache County, Arizona, I find you witnessed the electric log of this well so assume you were the well site geologist on it; however, we find a difference of opinion regarding the tops as picked by Amstrat and those shown on the final completion report filed with this Commission. There is also some difference in pressures.

For convenience in replying I enclose the conflicting data and we would appreciate learning what information you have on your files on this well, particularly that at the bottom of the hole. You will note that the printed information suggests a fault with Pre-Cambrian overlying the Aneth formation.

Jim Scurlock joins me in sending our best regards and we hope you are kept real busy this coming year.

Sincerely,

Edward A. Keester  
Staff Geologist

EAK: rps  
enc.

2-23-65 - John Bannister

Re: Cactus Drilling Co. #1 Navajo well  
Permit 305

Going to plug as follows:

Set surface with 10 sax cement  
mud laden fluid between plugs

1800-2000 '  
3900 - 4000 '  
5300-5400 '  
5550-5700 '

In granite at 6020'. Will probably TD at 6040'

Has received permission from USGS and verbal permission  
from this Commission.

## DESIGNATION OF OPERATOR

### Indian Affairs

The undersigned is, on the records of the Bureau of ~~Indian Affairs~~, holder of lease  
**Indian**

DISTRICT ~~OFFICE~~ OFFICE: **Navajo Tribal Council, Window Rock, Arizona**  
SERIAL NO.: **Contract No. 14-20-0603-8151**

and hereby designates

NAME: **Cactus Drilling ~~Company~~ CORPORATION**  
ADDRESS: **P. O. Drawer 71, San Angelo, Texas**

as his operator and local agent, with full authority to act in his behalf in complying with the terms of the lease and regulations applicable thereto and on whom the supervisor or his representative may serve written or oral instructions in securing compliance with the Operating Regulations with respect to (describe acreage to which this designation is applicable):

<sup>N</sup>  
**SW4 SW4 Section 19-39E-26E**  
**Apache County, Arizona**

It is understood that this designation of operator does not relieve the lessee of responsibility for compliance with the terms of the lease and the Operating Regulations. It is also understood that this designation of operator does not constitute an assignment of any interest in the lease.

In case of default on the part of the designated operator, the lessee will make full and prompt compliance with all regulations, lease terms, or orders of the Secretary of the Interior or his representative.

The lessee agrees promptly to notify the supervisor of any change in the designated operator.

**SKELLY OIL COMPANY**

By: W. F. Bailey

(Signature of lessee)

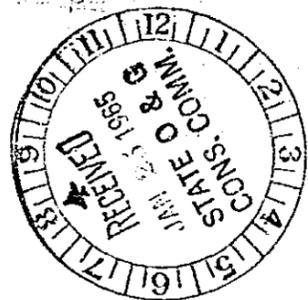
**Attorney in Fact**

**Oil Center Building**  
**Tulsa, Oklahoma**

(Address)

**October 28, 1964**

(Date)



2

UNDY NOTICES AND REPORTS ON WELLS

1. Name of Operator Cactus Drilling Corporation

2. OIL WELL  GAS WELL  OTHER  (Specify) New Well

3. Well Name Rock Point #1  
 Location 960' FWL 1658' FSL  
 Sec. 19 Twp. 39N Rge. 26E County Apache Arizona.

4. Federal, State or Indian Lease Number, or lessor's name if fee lease Navajo Lease No.  
14-20-0603-8151

5. Field or Pool Name Wildcat

6. Check Appropriate Box to Indicate Nature of Notice, Report, or Other Data

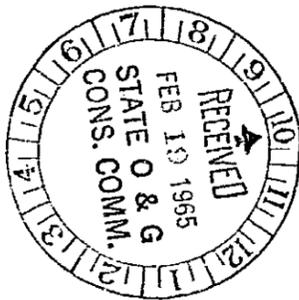
NOTICE OF INTENTION TO:		SUBSEQUENT REPORT OF:	
TEST WATER SHUT-OFF <input type="checkbox"/>	PULL OR ALTER CASING <input type="checkbox"/>	WATER SHUT-OFF <input type="checkbox"/>	MONTHLY PROGRESS <input type="checkbox"/>
FRACTURE TREAT <input type="checkbox"/>	DIRECTIONAL DRILL <input type="checkbox"/>	FRACTURE TREATMENT <input type="checkbox"/>	REPAIRING WELL <input type="checkbox"/>
SHOOT OR ACIDIZE <input type="checkbox"/>	PERFORATE CASING <input type="checkbox"/>	SHOOTING OR ACIDIZING <input type="checkbox"/>	ALTERING CASING <input type="checkbox"/>
REPAIR WELL <input type="checkbox"/>	CHANGE PLANS <input type="checkbox"/>	(OTHER) <u>Well History</u>	ABANDONMENT <input type="checkbox"/>
(OTHER) _____			<input checked="" type="checkbox"/>

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

7. 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.)

We drilled the above well down to 5640 and at this point we ran a Drill Stem Test, and tested from 5390 to 5640. Tool was open 5 minutes, Initial Shut In was 1/2 Hr. Tool open 1 Hr. Final Shut In 1/2 Hr. Recovered 1140 Ft. Salt Water and drilling Mud, 180 Ft. Drilling Mud slightly salt water cut, 820 Ft. Salt water. I.H.P.-2791# ISIP-2349# IFF-321# FFP-72 FSIP-1961#  
 Temp. -120'  
 After Drill Stem Test we resumed drilling at 5640.

Formation tops that have been picked from the samples are as following.  
 Hormosa-3942  
 Ismay---4630  
 Desert Creek-4770  
 Mississippi-5300  
 Devonian-5680



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

Signed C. J. Rogers Title Asst. Dir. Supt. Date 2-18-65

STATE OF ARIZONA  
 OIL & GAS CONSERVATION COMMISSION  
 Sundry Notices and Reports On Wells  
 File Two Copies  
 Form No. 25

Permit No. 305

SUNDRY NOTICES AND REPORTS ON WELLS

1. Name of Operator Cactus Drilling Corporation  
 2. OIL WELL  GAS WELL  OTHER  (Specify) New Well  
 3. Well Name Rock Point #1  
 Location 960 FWL and 1658 FSL  
 Sec SW/4 SW/4 19 Twp. 39N Rgc. 26E County Apache Arizona.  
 4. Federal, State or Indian Lease Number, or lessor's name if fee lease Navajo Lease No. 14-20-0603-8151

5. Field or Pool Name Wildcat

6. Check Appropriate Box to Indicate Nature of Notice, Report, or Other Data

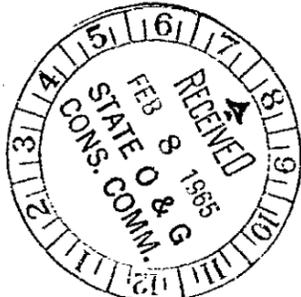
NOTICE OF INTENTION TO:		SUBSEQUENT REPORT OF:	
TEST WATER SHUT-OFF <input type="checkbox"/>	PULL OR ALTER CASING <input type="checkbox"/>	WATER SHUT-OFF <input type="checkbox"/>	MONTHLY PROGRESS <input type="checkbox"/>
FRACTURE TREAT <input type="checkbox"/>	DIRECTIONAL DRILL <input type="checkbox"/>	FRACTURE TREATMENT <input type="checkbox"/>	REPAIRING WELL <input type="checkbox"/>
SHOOT OR ACIDIZE <input type="checkbox"/>	PERFORATE CASING <input type="checkbox"/>	SHOOTING OR ACIDIZING <input type="checkbox"/>	ALTERING CASING <input type="checkbox"/>
REPAIR WELL <input type="checkbox"/>	CHANGE PLANS <input type="checkbox"/>	(OTHER) <u>Well History</u>	ABANDONMENT <input type="checkbox"/>
(OTHER) <input type="checkbox"/>			<input checked="" type="checkbox"/>

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

7. 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.)

The above Well was spudded January 27, 1965 at 9:00 A.M.  
 We Drilled a 11" hole to 140 Ft., and then reamed this out to 17 1/4", we then ran 13 3/8" Casing and it was set at 138 Ft.  
 Casing was Cemented with 140 Sacks of Regular Cement with 3% CC followed with 25 Sacks of Cement and 4 Sacks of Calseal with 3% CC, circulated out approximately 6 Sacks.

We waited on Cement 12 Hours, and then pressured up to 600 Psi for 1/2 Hr.  
 Casing held OK.  
 We reduced the hole to 7 7/8" at this depth and resumed drilling.



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

Signed [Signature] Title Asst. Drlg. Supt. Date Feb. 5, 1965

Permit No. 305

STATE OF ARIZONA  
 OIL & GAS CONSERVATION COMMISSION  
 Sundry Notices and Reports On Wells  
 File Two Copies  
 Form No. 25

12

**APPLICATION FOR PERMIT TO DRILL, DEEPEN, PLUG BACK, OR RE-ENTER**

APPLICATION TO DRILL  DEEPEN  PLUG BACK  RE-ENTER OLD WELL

NAME OF COMPANY OR OPERATOR

DATE

Cactus Drilling Corp.

January 21, 1965

Address

City

State

Box 2146

Farmington

New Mexico

DESCRIPTION OF WELL AND LEASE

Federal, State or Indian Lease Number or name of lessor, if fee lease

Well number

Elevation (ground)

14-20-0603-8151

5363 Approx.

Well location and acreage dedicated to the well (give footage from section lines)

Section--township--range or block & survey

NW 1/4 of SW 1/4 Sec. 19-T. 39N-R26E Track 147 Assignment 76 Block #2

Field & reservoir (if wildcat, so state)

County

Wildcat

Apache County, Arizona

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

Approx. 6 Miles North of Rock Point, Arizona

Nearest distance from proposed location to property or lease line:

Distance from proposed location to nearest drilling, completed or applied—for well on the same lease:

~~880 FEET~~ 960' FWL, 1658 FSL feet

None on this Lease

feet

Proposed depth:

Rotary or cable tools

Approx. date work will start

6500

Rotary

January 25, 1965

Number of acres in lease:

Number of wells on lease, including this well, completed in or drilling to this reservoir:

2560 Sections 17, 18, 19, and 20

None This will be No. 1

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

Name

Address

Status and amount of bond

\$2500.00

Organization Report

On file Or attached Attached

Filing Fee of \$25.00

Attached Will Follow

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)

We propose to Drill The above Well to test the Devonian Formation for possible Oil or Gas production.

Our Total Depth will be around 6500 Ft.

\*Fill in Proposed Casing Program on reverse side

CERTIFICATE: I, the undersigned, under the penalty of perjury, state that I am the Asst. Drlg. Supt. of the Cactus Drilling 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.

Signature

January 21, 1965

Date

Permit Number:

305

Approval Date:

2-2-65

Approved By:

John Kammister

Notice: Before sending 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 and Plug

File Two Copies

Form No. 3



- Operator shall outline the dedicated acreage for both oil and gas wells on the plat.
- 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.
- All distances shown on the plat must be from the outer boundaries of the Section.
- Is the Operator the only owner in the dedicated acreage outlined on the plat below? YES \_\_\_\_\_ NO X
- If the answer to question one is "no," have the interests of all the owners been consolidated by communitization agreement or otherwise? YES X NO \_\_\_\_\_ If answer is "yes," Type of Consolidation Farm-Out
- If the answer to question two is "no," list all the owners and their respective interests below:

Owner	Land Description
	<p style="text-align: center;"><b>CERTIFICATION</b></p> <p>I hereby certify that the information above is true and complete to the best of my knowledge and belief.</p> <p>Name: <u>W. Rogers</u></p> <p>Position: <u>Asst. Drlg. Supt.</u></p> <p>Company: <u>Cactus Drilling Corp.</u></p> <p>Date: <u>January 21, 1965</u></p> <p>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.</p> <p>Date Surveyed: _____</p> <p>Registered Professional Engineer and/or Land Surveyor: <u>James P. Lease</u></p> <p>Certificate No. <u>1849</u></p>

**PROPOSED CASING PROGRAM**

Size of Casing	Weight	Grade & Type	Top	Bottom	Cementing Depths	Sacks Cement
8 5/8"	24#	J-55	800'		0-800'	400
5 1/2"	14#			6500'	6500'	250

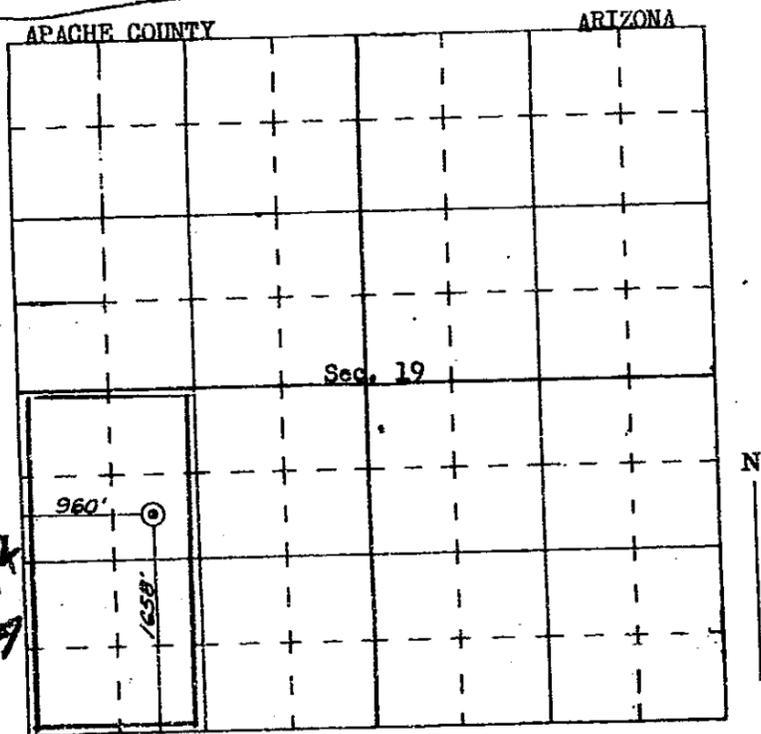
COMPANY CACTUS DRILLING COMPANY

LEASE ROCK POINT WELL NO. 1

SEC. 19 T. 39 NORTH R. 26 EAST, G. & S.R.M.

LOCATION 1658 FEET FROM THE SOUTH LINE AND 960 FEET FROM THE WEST LINE

ELEVATION 5363.0



*80 acre dedication  
2 1/2 SW/4*

SCALE—4 INCHES EQUALS 1 MILE

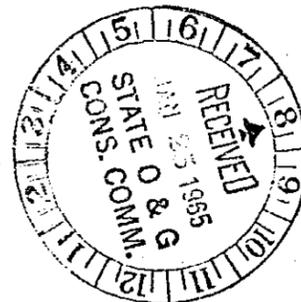
THIS IS TO CERTIFY THAT THE ABOVE PLAT WAS PREPARED FROM FIELD NOTE OF ACTUAL SURVEYS MADE BY ME UNDER MY SUPERVISION AND THAT THE SAME ARE TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.



SEAL:

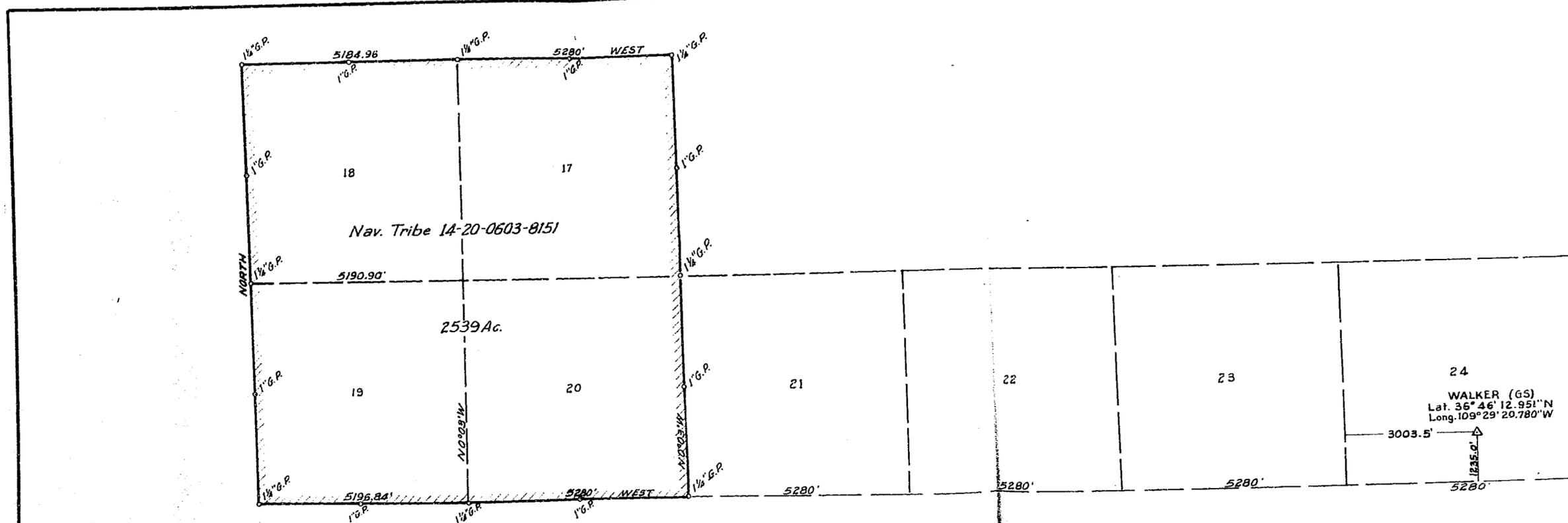
*James P. Leese*  
Registered Land Surveyor,  
James P. Leese  
Arizona Reg. No. 1849

SURVEYED January 20, 1965



SAN JUAN ENGINEERING COMPANY, FARMINGTON, N. M.

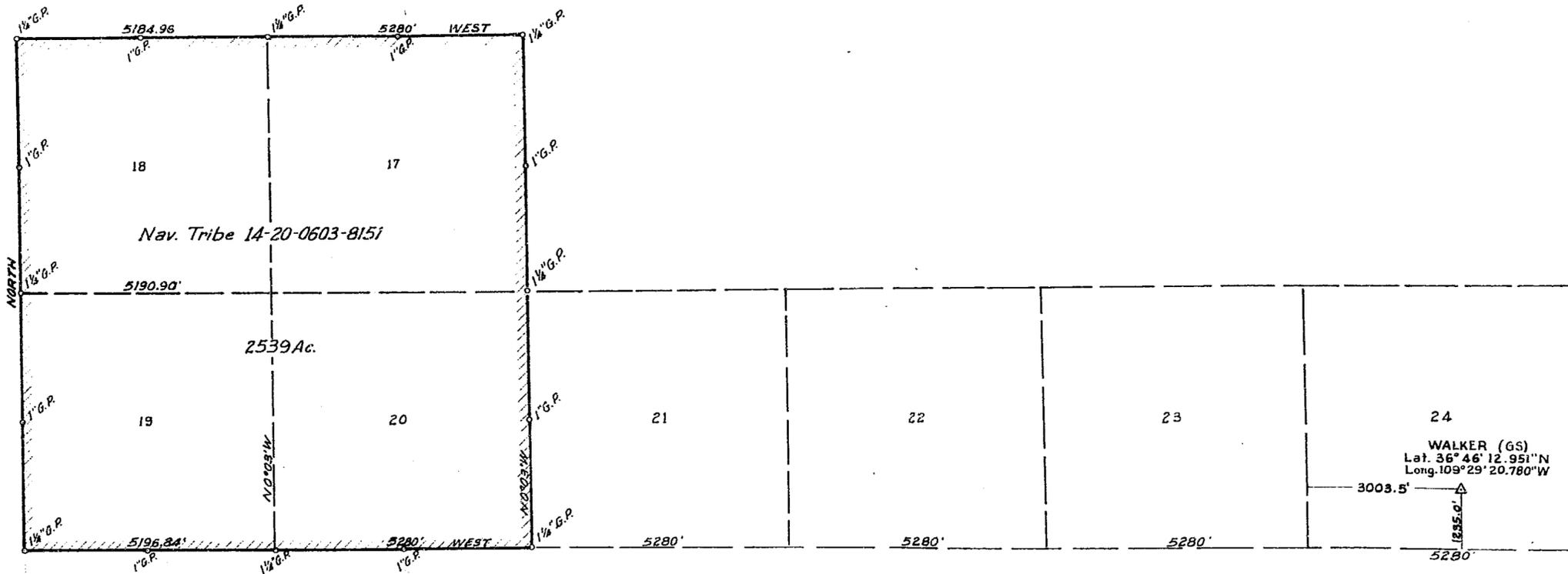
305



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.

*James P. Leese*  
**JAMES P. LEESE**  
 Reg. Land Surveyor  
 Arizona Reg. No 1849

Tract Survey  
 FOR  
**CACTUS DRILL**  
 Sec's. 17, 18, 19, 20, T. 3  
 Apache County,  
 SCALE: 1" = 2000'  
 San Juan Engineer  
 P.O. Box  
 Farmington, N.M.



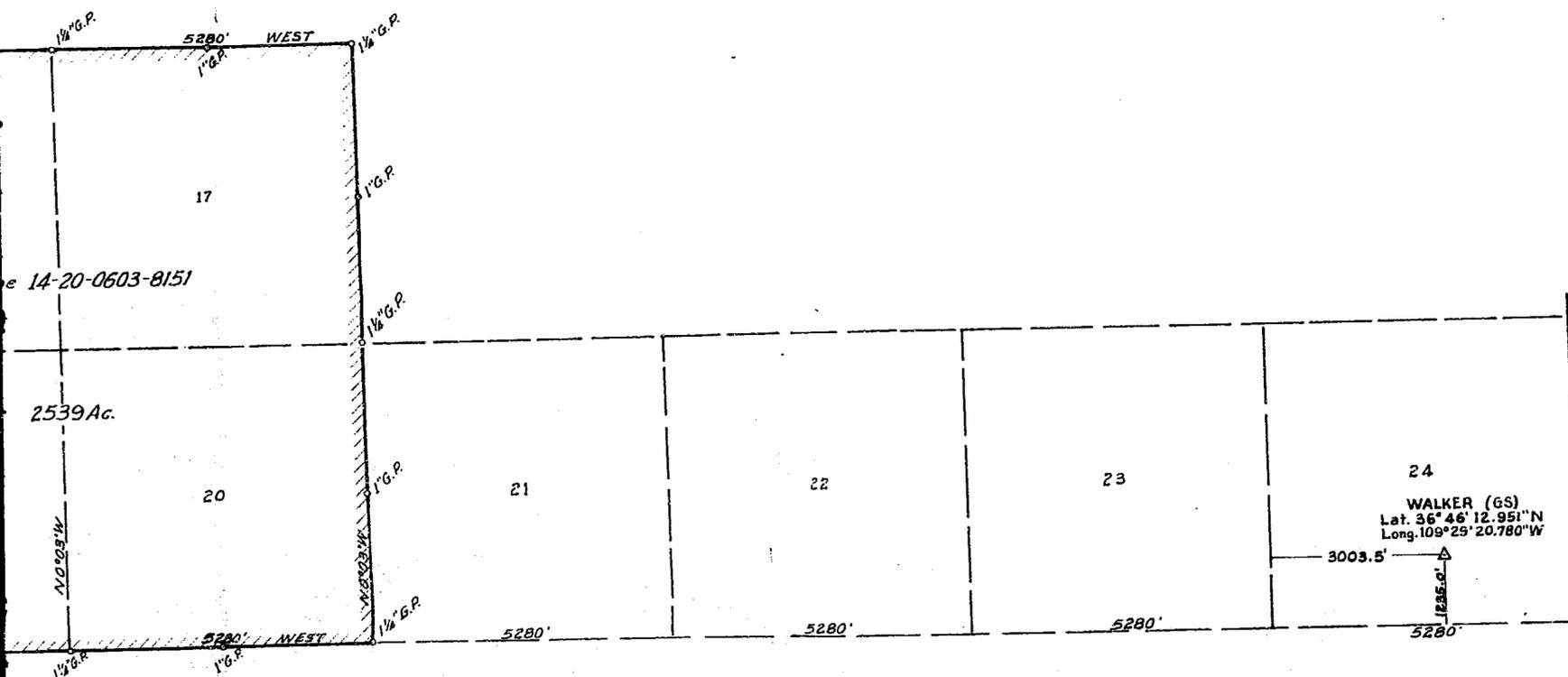
N



This is to Certify that the Above Plot 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.

*James P. Leese*  
**JAMES P. LEESE**  
 Reg. Land Surveyor  
 Arizona Reg. No 1849

Tract S  
 FOR  
**CACTUS DRIVE**  
 Sec's 17, 18, 19, 20, 21  
 Apache County  
 SCALE: 1" = 2000'  
 San Juan Engi.  
 P.O. B.  
 Farmington, N.M.



*Tract Survey*  
FOR  
**CACTUS DRILLING CORP.**  
*Sec's 17, 18, 19, 20, T39N, R26E,*  
*Apache County, Arizona*  
SCALE: 1" = 2000'      DATE: 1-18-1965  
*San Juan Engineering Company*  
P.O. Box 752  
Farmington, New Mexico

305

CACTUS DRILLING CORP.  
 T39N R26E S19  
 ARCO Exploratic  
 Production Techns. Bty



ARCO Exploration and  
Production Technology  
2300 West Plano Parkway  
Plano TX 75075-8499

July 6, 1992

Larry D. Fellows  
Director and State Geologist  
Arizona Geological Survey  
845 North Park Ave., #100  
Tucson, Arizona 85719

*file copy in each  
well file SR file PIN 305*

Dear Mr. Fellows,

Following the agreement set forth in the Arizona Geological Survey sample policy I am forwarding (1) the results of Rock-Eval analysis Aneth Shale cuttings samples from eight wells in the Black Mesa basin and (2) vitrinite reflectance data collected for the Amerada Hopi #1 well. We waive the rights to the six month confidentiality period.

Thank you for your cooperation.

Sincerely,

Jeff Corrigan

cc: Steve Rauzi

Table 1. Rock-Eval data for Aneth Shale from sampled Black Mesa cuttings.

Sample ID	Depth Interval (ft)	TOC (weight %)	S1 (mg/g rock)	S2 (mg/g rock)	HI (mg HC/g TOC)	OI (mg CO <sub>2</sub> /g TOC)
<b>Amerada Hopi 1 (310)</b>						
92R1477	7350-7370	0.08	0.07	0.10	125	362
92R1478	7370-7390	0.09	0.06	0.07	78	378
92R1479	7390-7410	0.07	0.04	0.01	14	514
92R1480	7410-7430	0.10	0.08	0.06	60	360
92R1481	7430-7450	0.11	0.10	0.04	36	327
92R1482	7450-7470	0.16	0.10	0.07	44	213
92R1483	7470-7490	0.13	0.06	0.02	15	246
92R1484	7490-7510	0.16	0.06	0.01	6	144
92R1485	7510-7540	0.11	0.06	0.02	18	318
92R1486	7540-7560	0.26	0.13	0.41	158	135
<b>Cactus Navajo 8515 (325)</b>						
92R1487	5540-5560	0.09	0.09	0.12	133	289
92R1488	5560-5580	0.04	0.11	0.03	72	563
92R1489	5580-5600	0.06	0.10	0.08	133	550
<b>Cactus Navajo 8816 (345)</b>						
92R1490	5540-5560	0.08	0.06	0.00	0	313
92R1491	5560-5580	0.08	0.05	0.01	13	362
92R1492	5580-5600	0.09	0.06	0.04	44	289
92R1493	5600-5620	0.07	0.05	0.02	29	429
<b>Cactus Navajo -C2 (305)</b>						
92R1494	4460-4480	0.08	0.06	0.04	50	425
92R1495	4480-4500	0.07	0.07	0.04	55	378
<b>Tenneco 1 Navajo (242)</b>						
92R1496	6870-6890	0.05	0.06	0.03	58	725
92R1497	6890-6910	0.07	0.09	0.09	123	434
92R1498	6910-6930	0.06	0.06	0.03	48	473
92R1499	6930-6950	0.08	0.06	0.04	51	464
92R1500	6950-6970	0.15	0.09	0.13	89	217
92R1501	6970-6990	0.19	0.09	0.16	85	218
92R1502	6990-7010	0.21	0.12	0.30	144	132
92R1503	7010-7030	0.32	0.17	0.64	202	88
92R1504	7030-7050	0.15	0.08	0.09	62	287
<b>ARCO Hopi 9-1 (312)</b>						
92R1505	6280-6300	0.11	0.14	0.18	173	323
92R1506	6300-6320	0.14	0.12	0.09	66	203
92R1507	6320-6340	0.08	0.07	0.01	12	306
92R1508	6340-6360	0.04	0.05	0.03	72	808
92R1509	6360-6380	0.13	0.08	0.01	8	220
92R1510	6380-6400	0.14	0.10	0.02	15	226
92R1511	6400-6420	0.13	0.07	0.07	56	277
92R1512	6420-6440	1.14	0.35	3.06	269	26
92R1513	6440-6460	0.31	0.15	0.59	192	115
92R1514	6460-6480	0.28	0.19	0.56	195	105
<b>Moore, Moore &amp; Miller (221)</b>						
92R1515	6540-6560	0.16	0.08	0.14	90	215
92R1516	6560-6580	0.08	0.04	0.02	24	331
92R1517	6580-6600	0.08	0.06	0.04	48	380
92R1518	6600-6640	0.11	0.07	0.03	29	323
92R1519	6640-6660	0.17	0.07	0.03	18	178
92R1520	6660-6700	0.21	0.06	0.14	67	93
92R1521	6700-6710	0.21	0.09	0.42	202	98
92R1522	6710-6730	0.26	0.08	0.39	150	223
<b>Texaco 1-A Hopi (307)</b>						
92R1523	5650-5670	0.05	0.14	0.08	154	705
92R1524	5670-5690	0.09	0.09	0.05	53	348
92R1525	5690-5710	0.09	0.08	0.05	53	316
92R1526	5710-5730	0.13	0.15	0.09	72	237
92R1527	5730-5750	0.13	0.07	0.06	48	204

ARCO OIL + GAS CO.

PLANO

TEXAS

U.S.A.

Fax No. 010 1 214 754 6807

VITRINITE REFLECTANCE DETERMINATIONS SERIES 92R 1462 - 1486  
ATTN. CHARLIE LANDIS ✓

SAMPLE No.	R.O. AVER.	No. of READINGS	CONF.	U.V.	COMMENTS
92R1462	0.39	20	C	Y-Y/O SPORES.	—
92R1463	0.43	4	C	Y SPORES	PHYT. DEGRADED
92R1464	0.43	10	C	Y SPORES	PHYT. V. DEGRADED
92R1465	N.D.P.	—	—	—	RED SILTY SST. HAEMATITE
92R1466	N.D.P.	—	—	—	RED SANDY SILT.
92R1467	N.D.P.	—	—	—	RED SILT.
92R1468	N.D.P.	—	—	—	RED MARL
92R1469	N.D.P.	—	—	—	Mxd. LIME. HAEMATITE
92R1470	N.D.P.	—	—	—	10% SST. 90% SH. HAEMATITE
92R1471	N.D.P.	N.D.P.	—	Y-Y/O CARB.	20% HAEMATITE CLOS.
92R1472	N.D.P.	—	—	—	RED SST.
92R1473	N.D.P.	—	—	—	RED SILTY SST.
92R1474	N.D.P.	—	—	Y/O CARB.	HAEMATITE
92R1475	N.D.P.	—	—	Y/O CARB.	70% HAEMATITE MARL
92R1476	N.D.P.	—	—	—	50% LST. HAEMATITE
92R1477	N.D.P.	—	—	Y/O CARB.	70% LST. + 30% RED SHALES
92R1478	N.D.P.	—	—	Y/O CARB.	70% LST.; 30% RED SHALES
92R1479	N.D.P.	—	—	L.O. CARB.	10% LST.; 90% RED SILTY SHALES
92R1480	N.D.P.	—	—	Y/O CARB.	30% MARLY LST. 70% RED SHALES

SAMPLE No.	R.O. NAME	No. of READING	CONF.	U.V.	COMMENTS
92R1481	N.D.P.	—	—	Y/O-L.O. CARB.	10% ST.; 50% LST.; 40% RED SHALE
92R1482	N.D.P.	—	—	Y/O CARB.	MARLY LST. HAEM. SPECKS
92R1483	N.D.P.	—	—	Y/O CARB.	90% MARLY LST. 10% RED SHALE
92R1484	N.D.P.	—	—	Y/O CARB.	MARLY LST. HAEMATITE TRENDS
92R1485	N.D.P.	—	—	Y/O CARB.	LST. HAEMATITE TRENDS
92R1486	N.D.P.	—	—	Y/O CARB.	SHALY LST. HAEM. TR. CLAUONITE

SORRY. I CAN'T REALLY DO ANYTHING WITH THIS LOT. THE FIRST FEW SAMPLES ARE O.K. BUT WHEN WE GET INTO THE RED RED THE PHYTOLITHS DISAPPEAR. EVEN WHEN THE HAEMATITE DECREASES IN THE FINAL FEW SAMPLES, THE SUCCESSION IS ALMOST WHOLLY LIMESTONE WHICH IS BARRON.

ANOTHER APOLOGY FOR THE HANDWRITING BUT THE SECRETARY IS ON HOLIDAY TODAY. I WILL COMPUSERVE THE DATA, FOR WHAT IS WORTH, LATER THIS WEEK

BEST WISHES

MICK JONES.

BOND

KNOW ALL MEN BY THESE PRESENTS

BOND SERIAL NO. 185 45,54520

That we: CACTUS DRILLING CORP.

of the County of TOY GREEN in the State of TEXAS

as principal and THE ETNA CASUALTY AND SURETY COMPANY

of HARTFORD, CONNECTICUT

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:

To drill a single well on property described as follows: The Northwest Quarter (1/4)  
(May be used as blanket bond or for single well)  
of the Southwest Quarter (1/4) of Section Nineteen (19), Township 39 North, Range 26 East,  
G & SRM Survey. The location is 16 feet from the South line and 960" from the West line.

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 Twenty-Five Hundred and No/100 - - - - - (\$2,500.00) - - - - - Dollars.

Witness our hands and seals, this 25th day of January, 1965.

CACTUS DRILLING CORP.

By: \_\_\_\_\_  
(Title) Principal

Witness our hands and seals, this 25th day of January, 1965.

THE ETNA CASUALTY AND SURETY COMPANY

By: W. N. Pitts, 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 special power of attorney or other evidence of authority must accompany the bond.

Approved	<b>STATE OF ARIZONA</b> <b>OIL &amp; GAS CONSERVATION COMMISSION</b> Bond File Two Copies 1 Copy to be filed with Permit No.	<b>RECEIVED</b> OIL & GAS CONSERVATION COMMISSION JAN 28 1965 PERMIT NO. 305
Date		
DATE <u>3-18-66</u>		
Form No. 2		

Permit No. 305

C  
O  
P  
Y

June 28, 1965

Cactus Drilling Corporation  
P. O. Drawer 71  
San Angelo, Texas

Gentlemen:

As you requested in your letter of June 24, 1965, we are  
returning the thermofax copy of your bond.

Thank you very much for your cooperation.

Yours very truly,

John Bannister  
Executive Secretary  
cb

305

March 18, 1966

Cactus Drilling Corporation  
P.O. Drawer 71  
San Angelo, Texas

Attention: Mr. H.G. Brewer, Production Department

Re: Cactus Drilling Corp. #1 Navajo 8151 well  
NW SW 19-39N-26E, Apache County, Arizona  
File 305  
Aetna Casualty & Surety Co. Bond 18S 45-545BC

Cactus Drilling Corp. #1 Navajo 8515 well  
NW NW 14-36N-22E, Apache County, Arizona  
Our File 325  
Aetna Casualty & Surety Co. Bond 18S 47-632BC

Gentlemen:

Inasmuch as captioned wells have been completed, and all required data has been filed with this office, in accordance with our Rules and Regulations, this letter constitutes authority from this Commission to terminate the captioned bonds.

Very truly yours,

John Bannister  
Executive Secretary  
MB

cc: Aetna Casualty & Surety Co.  
3033 N. Central Ave.  
Phoenix, Arizona

March 8, 1966

Cactus Drilling Corporation  
P.O. Drawer 71  
San Angelo, Texas

Re: Cactus Drilling Corp. #1 Navajo 8151 well  
NW SW 19-39N-26E, Apache County, Arizona  
File 305  
Aetna Casualty & Surety Co. Bond 18S 45-545BC

Cactus Drilling #1 Navajo 8515 well  
NW NW 14-36N-22E, Apache County, Arizona  
File 325  
Aetna Casualty & Surety Co. Bond 18S 47-632BC

Gentlemen:

In reviewing our files we notice that captioned wells have been completed and all required information, with the exception of the Plugging Record on the #1 Navajo 8151 well, has been submitted in accordance with our Rules and Regulations.

If you desire it, and so request in writing, this Commission will release the individual bond covering your operations on the #1 Navajo 8515 well; and as soon as the Plugging Record is received on the #1 Navajo 8151 well, the bond would be released on that well.

Very truly yours,

John Bannister  
Executive Secretary  
nr

February 23, 1965

Cactus Drilling Corporation  
P.O. Box 2146  
Farmington, New Mexico

Attention: Mr. C.O. Rogers

Re: Cactus Drilling Corp. #1 Navajo Well  
NW/4NW/4 S19-T39N-R26E, Apache County, Arizona  
Permit 305

Gentlemen:

This is to confirm verbal approval by telephone to plug and abandon the captioned well. Enclosed are Application to Abandon and Plug and Plugging Record forms.

Also enclosed is the Well Completion Report form. It should be submitted with duplicate copies of all logs taken as soon as possible, or within sixty days, of completion of the well.

Will you also inform us where we may pick up any samples or cores taken by you?

We were disappointed that this couldn't be made a producing well. If this office may be of any assistance to you in the future, please let us know.

Yours very truly,

John Bannister  
Executive Secretary

nr  
enc

February 2, 1965

Cactus Drilling Corporation  
P.O. Box 2146  
Farmington, New Mexico

Attention: Mr. C.O. Rogers

Re: Cactus Drilling Corp. #1 Navajo well  
NW/4SW/4 S19-T39N-R26E, Apache County, Arizona  
Permit 305

Gentlemen:

We are enclosing approved copy of Application for Permit to Drill, Receipt 9404 for filing fee, and thermofax copy of your approved bond.

We are extremely interested in the progress of your well. For your convenience of keeping us informed periodically we are enclosing Form 25, Sundry Notice and Reports on Wells.

If this office may be of assistance to you at any time, please do not hesitate to contact us.

Yours very truly,

*John Bannister*

John Bannister  
Executive Secretary  
mr  
enc

January 26, 1965

Cactus Drilling Corporation  
P.O. Box 2146  
Farmington, New Mexico

Attention: Mr. C.O. Rogers

Gentlemen:

This is to confirm our telephone conversation of today with Mr. Peevce Rogers in the absence of Mr. C.O. Rogers.

We cannot approve your Application to Drill the #1 Navajo well in Apache County until we have received your bond to cover this well. The bond was not included with your Application which we received yesterday. Drilling operations cannot begin until the Application is approved.

Also, please be advised that we have designated the W/2SW/4 as the 80 acres required to fulfill spacing requirements. We hope this will be satisfactory and of course it can be altered if you wish.

Yours very truly,

J.R. Scurlock  
Geologist  
mr

305