

~~CONFIDENTIAL~~

P-W

ARKLA EXPLORATION #77 N.MEX.-ARIZ.  
LAND CO.  
NE SE 27-16N-22E Navajo Count. 328

sl

COUNTY Navajo AREA 4 mi SE Woodruff LEASE NO. N Mex. Ariz Land Co.

WELL NAME ARKLA EXPLORATION CO #77NEW MEXICO ARIZONA LAND CO. (Mineral stral test)

LOCATION NE SE SEC 27 TWP 16N RANGE 22E FOOTAGE 3463' FNL 521' FEL

ELEV 5253.03GR 5260 KB SPUD DATE 10-7-65 STATUS 10-16-65 TOTAL DEPTH 1000'

CONTRACTOR

CASING SIZE	DEPTH	CEMENT	LINER SIZE & DEPTH	DRILLED BY ROTARY
<u>9 5/8</u>	<u>42</u>	<u>35 sx</u>	<u>na</u>	<u>x</u>
<u>7</u>	<u>615</u>	<u>200 sx</u>		

DRILLED BY CABLE TOOL \_\_\_\_\_  
 PRODUCTIVE RESERVOIR P&A  
 INITIAL PRODUCTION \_\_\_\_\_

FORMATION TOPS	DEPTHS	SOURCE		REMARKS
		L.L.	E.L.	
<u>Coconino</u>	<u>100'</u>		<u>x</u>	
<u>Supai</u>	<u>630'</u>			
<u>Salt</u>	<u>685'</u>			

ELECTRIC LOGS	PERFORATED INTERVALS	PROD. INTERVALS	SAMPLE LOG
<u>Radioactive Log/GR</u>	<u>NA</u>	<u>NA</u>	<u>Az Bu Mines</u>
			<u>SAMPLE DESCRP.</u>
			<u>SAMPLE NO. 1363</u>
			<u>CORE ANALYSIS</u>
			<u>DSTs</u>

REMARKS \_\_\_\_\_

APP. TO PLUG x  
 PLUGGING REP. x  
 COMP. REPORT x

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

BOND CO. U. S. Fidelity & Guaranty Co. BOND NO. 12176-13-601-605

BOND AMT. \$ 25,000 CANCELLED 9-24-69 DATE 8-24-65

FILING RECEIPT 9426 LOC. PLAT x WELL BOOK x PLAT BOOK x

API NO. 02-017-05148 DATE ISSUED 10-4-65 DEDICATION \_\_\_\_\_

PERMIT NUMBER 328

(over)

**CONFIDENTIAL**

Release Date 4-16-66

## 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 <b>ARKLA EXPLORATION COMPANY</b>		Address <b>P.O. Box 669 - HOLBROOK, ARIZONA</b>	
Federal, State or Indian Lease Number or name of lessor if fee lease <b>NMA</b>		Well Number <b>77</b>	Field & Reservoir <b>STRAT TEST</b>
Location <b>3463' ENL, 521' FEL</b>		County <b>NAVAJO</b>	
Sec. TWP-Range or Block & Survey <b>27-16N-R22E</b>			
Date spudded <b>10-7-65</b>	Date total depth reached <b>10-15-65</b>	Date completed, ready to produce	Elevation (DF, RKB, RT or Gr.) feet <b>5260 KB</b>
Total depth <b>1000</b>	P.B.T.D.	Single, dual or triple completion?	If this is a dual or triple completion, furnish separate report for each completion.
Producing interval (s) for this completion <b>NONE</b>		Rotary tools used (interval)	Cable tools used (interval)
Was this well directionally drilled? <b>N/A</b>	Was directional survey made? <b>N/A</b>	Was copy of directional survey filed?	Date filed
Type of electrical or other logs run (check logs filed with the commission) <b>JET GRN</b>			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	<b>13 3/4</b>	<b>9 5/8</b>	<b>32.75</b>	<b>42</b>	<b>35</b>	<b>NONE</b>
INTER	<b>8 3/4</b>	<b>7</b>	<b>20</b>	<b>615</b>	<b>200</b>	<b>NONE</b>

### 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		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'ated 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 DISTRICT GEOLOGIST of the ARKLA EXPLORATION 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.

Date 1-4-66

Signature Warren E. Carr

Permit No. **328**

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*
SPUD IN MOENICOP			
COCONINO	100	630	
T/PSU	630	685	
T/SALT	685	TD IN SALT	



\* 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 ARKLA EXPLORATION COMPANY			Address P.O. Box 669, HOLBROOK, ARIZONA		
Federal, State, or Indian Lease Number, or lessor's name if fee lease. NMA		Well No. 77	Field & Reservoir W.C.		
Location of Well 3463' FNL, 521' FEL		Sec-Twp-Rge or Block & Survey Sec 27-16N-22E		County NAVAJO	
Application to drill this well was filed in name of ARKLA EXPLORATION COMPANY		Has this well ever produced oil or gas No	Character of well at completion (initial production): Oil (bbls/day)      Gas (MCF/day)      Dry?		
Date plugged: 10-16-65	Total depth 1000	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		
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
9 5/8	42		42	CIRCULATED CEMENT AND PIPE	
7	615		615	CIRCULATED CEMENT AND PIPE	
Was well filled with mud-laden fluid, according to regulations?			Indicate deepest formation containing fresh water.		
NAMES AND ADDRESSES OF ADJACENT LEASE OPERATORS OR OWNERS OF THE SURFACE					
Name	Address		Direction from this well:		
NMA	ALBUQUERQUE, NEW MEXICO		SURROUNDING		
ARKLA EXPLORATION COMPANY	HOLBROOK, ARIZONA		SURROUNDING		
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 <u>DRILLING SUPERINTENDENT</u> of the <u>ARKLA EXPLORATION COMPANY</u> (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 10-19-65		Signature <i>James M. ...</i>			
<b>CONFIDENTIAL</b>			STATE OF ARIZONA OIL & GAS CONSERVATION COMMISSION Plugging Record File One Copy		
Release Date <u>4-16-66</u>		OCT 29 1965 RECEIVED STATE OF ARIZONA OIL & GAS CONSERVATION COMMISSION			
Permit No. <u>328</u>	Form No. 10				

APPLICATION TO ABANDON AND PLUG

FIELD WILDCAT  
OPERATOR ARKLA EXPLORATION COMPANY ADDRESS P.O. Box 669, HOLBROOK, ARIZONA  
Federal, State, or Indian Lease Number  
or Lessor's Name if Fee Lease NEW MEXICO ARIZONA LAND COMPANY WELL NO. 77  
SURVEY \_\_\_\_\_ SECTION 27 COUNTY NAVAJO  
LOCATION 3463' FNL 521' FEL - SECTION 27-16N-22E

TYPE OF WELL MINERAL STRATIGRAPHIC TEST TOTAL DEPTH 1000  
(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 9 5/8" - 42' CIRCULATED CEMENT AND PIPE  
7" - 615' CIRCULATED CEMENT AND PIPE

2. FULL DETAILS OF PROPOSED PLAN OF WORK  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

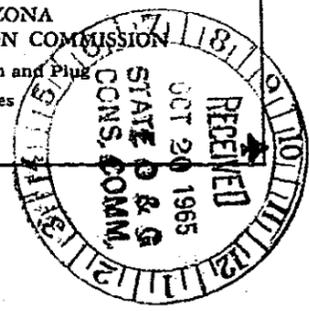
If well is to be abandoned, does proposed work conform with requirements of Rule 202? YES. If not, outline proposed procedure above.

DATE COMMENCING OPERATIONS 10-16-65  
NAME OF PERSON DOING WORK JAMES S. BALDRY ADDRESS Box 669, HOLBROOK, ARIZONA  
CORRESPONDENCE SHOULD BE SENT TO JAMES S. BALDRY  
Name  
DRILLING SUPT.  
Title  
Box 669, HOLBROOK, ARIZONA  
Address  
OCTOBER 16, 1965  
Date

*Verbally approved*

Date Approved 10-21-65  
STATE OF ARIZONA  
OIL & GAS CONSERVATION COMMISSION  
By: John V. Sammeter  
328  
Permit No.

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



CONFIDENTIAL

Release Date 4-16-66

Permit # 328

NMA #77

3-15-66 JWA



11/12

ARKLA EXPLORATION COMPANY

Drilling Record

WELL NAME: N.M.A. COPE TEST #77

WELL LOCATION: 3463' FHL 521' FEL  
SEC 27 - 16' - 22E  
NAVADO COUNTY ARIZONA

WELL ELEVATION: 5260' K.B.

CONTRACTOR: SOUVRENER DRILLING COMPANY

SPUD DATE: 1:00 PM 10-7-65

SIZE HOLE DRILLED: 13 3/4" to 44"

TYPE DRILLING FLUID: GEL

SURFACE CASING:  
Size 9 5/8" WT. 32.75 #, No. Sacks Cement 35  
Cementing Depth: 42'

SIZE HOLE DRILLED: 8 3/4"

TYPE DRILLING FLUID: FLO SAL. (A)

INTERMEDIATE CASING:  
Size 7" WT. 20 #, No. Sacks Cement 100  
Cementing Depth 615'

SIZE HOLE DRILLED OR CORED:  
6 1/2" from 615' to 1000' (B)  
" from " to "  
" from " to "  
" from " to "

DRILL STEM TESTS:  
NONE

NO. BITS USED: 2

ELECTRIC LOGS RAN:  
Type JET GRN from 1000' to 0'  
McCULLOUGH GRN from 1000' to 0'

ABANDONMENT PLUGS:  
No. Sacks Cement 125 from 1000' to 450'  
from " to "

WAS CASING RECOVERED?  
Depth Shot \_\_\_\_\_'  
No. Feet Recovered \_\_\_\_\_'  
No. Feet Not Recovered 615'

DATE DRILLING RIG RELEASED: 10-15-65 1:00PM

COMPANY REPRESENTATIVE: JAMES S. BALDRY

SPECIAL NOTES: Unusual drilling problems encountered, etc.  
(A) LOST MUD WHILE DRILLING  
(B) DRILLED TO 634-SET WHIPSTOCK #1 AND CORED AND DRILLED TO 741-  
STRAIGHTENED HOLE TO 654-SET WHIPSTOCK #2 AND CORED AND DRILLED TO 731  
STRAIGHTENED HOLE AND CORED AND DRILLED VERTICAL HOLE TO 1000 T.D.

328

DO NOT REMOVE FROM FILE

328

3

DETAILED CORE AND FIELD  
DESCRIPTION

WELL NAME: NMA # 77

LOCATION: SEC. 27-T16N-R22E

ELEVATION:

CORE V

689-694.13 (5.66) .45 SALT LT ORNG TRS ORNG MAT-(BISCUIT-690.45) 1.95 SH 20%  
SALT 1.30 SALT 30% SH ANHY INCLS 1.96 SH 50% SALT.

694.13-712 ( ) 90 SALT 40% SH 1.0' SALT VLT MLKY 5% SH- CORE 97=STATS 96  
STATS-96-.50 SALT LT MLKY TRS SH TRS RED K6.5%-50-97 SALT-.27  
LT MLKY GOOD RED & CLOUDY-K14.5%-23 SALT 30% SH?-GOOD RED K14.5%  
97-.50 SALT 30% SH TRS WHT MAT. - GOOD RED - TRS & CLOUDY K14.5%  
.50-98 SALT 30% SH TRS WHT MAT. FAIR RED - K11%-98-.50 SH 30%  
SALT SL TRS RED-TRS WHT MAT. K8.5%-50-99 SALT LT ORNG TRS SH &  
WHT MAT SLT TRS RED K6% (TOP PAY ZONE 698.5) 99-.50 SALT LT ORNG  
ANHY INCLS VLS TRS RED K3.5%-50-700 SALT LT ORNG 5% ORNG MAT-  
K2.5%-700-.50 SALT LT ORNG TRS ORNG MAT. SMALL ANHY INCLS VEL TRS  
RED - K2%-50-01 SALT 10% ANHY & ORNG MAT-K2.5-01-.50 SALT 10%  
SH SL TRS RED K3%-50-02 SALT LT ORNG 5% SH & ORNG MAT-SL TRS RED  
K3.5%-02-.50 SALT LT MLKY ANHY INCLS - SL TRS RED - K3.5%-50-03  
SALT LT MLKY ANHY PTNG SL TRS RED-K3.5%-03-.50 SALT LT MLKY ANHY  
INCL BL TRS RED K4%-50-04 SALT LT MLKY ANHY INCLS SL TRS CLOUDY  
& RED K5%-50-05 SALT LT MLKY ANHY INCL SL TRS CLOUDY & RED K5%  
05-.50 SALT LT MLKY TRS ORNG MAT-TRS RED & CLOUDY-K8.5%-50-06  
SALT LT MLKY GRAN SMALL ANHY INCLS-CLOUDY SL TRS RED K13%-  
06-.50 SALT -.40 LT MLKY-SMALL ANHY INCLS RED & CLOUDY K11%-10  
SALT 20% SH TRS RED K11%-50-07 SALT 20% SH TRS RED K6%-07-.50  
SALT 20% SH TRS VLT GRN SH? TRS RED K5%-50-08 SALT 10% SH TRS  
RED & CLOUDY-K6% 08-.50 SALT 5% SH RED - TRS CLOUDY K14% .50-09  
SALT RED-TRS GRN SH HOT RED & CLOUDY K26% 09-.50 SALT RED TRS GRN  
SH HOT RED TRS CLOUDY-K33%-50-10 SALT RED TRS GRN SH HOT RED TRS  
CLOUDY K31%-10-.50 SALT VLT ORNG LT MLKY ANHY INCLS-CLOUDY TRS  
RED K22.5-.50-11 SALT GRAN ANHY INCLS SMALL - CLOUDY TRS RED-K11%  
11-.50 SALT LT ORNG SMALL ANHY INCLS SL TRS RED & CLOUDY K7%-  
.50-.75 SALT ORNG K4.5% (K5 711.75) 1.25 SALT 50% SH.

3-15-66

328

DO NOT REMOVE FROM FILE

LITHOLOGIC DESCRIPTION

WELL NAME: AEC - #77 MMA  
LOCATION: SEC 27-16N-22E  
ELEVATION: 5260 KB

SPUD OCTOBER 3, 1965 9 5/8 @ 41' W/50 SX. SHUT DOWN FOR REPAIRS-START THURSDAY OCTOBER 7-65

0-10' SH-RED-SLTY 50%-SD-FN GRAIN RD-SUB-RD- ANG.  
10-20' SAME GYPY.  
20-30' SH-RED GREEN CONG SH-10% GYP-ORG AND WH.  
30-40' SH-BRN SLTY-SH GREEN 20%-GYPY.  
40-50' SH-BROWN.  
50-60' SAME-TRC GREEN SH.  
60-70' SAME.  
70-80' SD-REDDISH ORG-FG INTSTL CLY CONSOLIDATED.  
80-90' SAME - MACACEOUS W/SH-RED CLYEY-40%.  
90-00' SH AS ABOVE - DOLO-GRY GRM F XLYM ONSE 20%.  
100-10' DOLO AS ABOVE 70% COCO SD 10%-SH RED 20%.  
10-20' AA, AA 20% AA 10%.  
20-30' COCO SD 60% SDY RED SH 40%.  
30-40' COCOMINO SD 100% MED-LARGE G-PYRITIC GYPY.  
50-300' AA  
300-10' SD WH-PYRITIC MG-RD-SUB RD CLEAR-TRC SH.  
10-20' AA  
20-30' BEC MORE CG.  
30-40' AA  
40-50' AA TRC RED SH.  
50-60' SH RED-SH GREEN LIMY 30% SD AS ABOVE.  
60-70' SD AS ABOVE.  
70-80' AA BEC PYRITIC.  
80-90' AA DEC IN PYRITE.  
90-00' SD WH-F-MG-RD-SUB RD UNCONSOLIDATED.  
400-10' AA SLIGHT PINKISH TINT.

3-28  
DO NOT REMOVE FROM FILE

10-20' AA MG-BEC LIGH RANGE.  
20-30' AA ORANGE.  
30-40' AA  
40-50' AA  
50-60' AA PEC ORG SD.  
60-70' AA DEEP ORG.  
70-80' SD AS ABOVE-LIGHT ORG.  
80-90' AA  
90-00' AA  
500-10' SD-ORG-MG-R-SUB RD UNCONSOLIDATED.  
10-20' AA TRC RED SH.  
20-30' SAME-BEC DEEPER ORANGE.  
30-40' SD AS ABOVE WH-AND ORANGE.  
40-50' AA PEC ORG SD.  
50-60' SD WH-30%-SD-ARG-RED AND RED SH-70%.  
60-70' SH-RED-SLT ST SDY RED.  
70-80' AA WH-SD-20% TRC EARTHY GRY DOLO.  
80-85' AA BEC MORE SDY 10% AA.  
85-90' SH-RED-SLTY-SD-ORG-RED-FG- ARG.  
90-95' SD SH-FG-SIL, 40% SILT ST RED SDY 60%.  
95-00' SD AS ABOVE AND ORG AA.  
600-05' SD-RED ARG MUD STARTING TO BALL.  
05-10' AA  
10-15' RED SH CLYCY-ANH-WH.  
15-20' SH-SLTY RED-GREEN TRC ANHY.  
20-25' AA MOSTLY RED AA AA.  
25-30' AA AA 10%.  
30-35' AA 60% AA 40%.  
35-40' AA 40% AA 60%.

328

40-45' AA  
 45-50' ANHY-WH 100%.  
 50-55' AA 90% RED SLTY SH 10%.  
 55-60' ANHY.  
 60-65' SH RED 80% ANHY 20%.  
 65-70' AA 90% AA 10%.  
 70-75' AA 30% ANHY AND GYP 70%.  
 75-80' AA 20% GYP ANHY PK-WH 80%.  
 80-85' ANHY WH.  
 85-90' ANHY SH SALT.

CORE 690-716

690-91 SALT 70% SH RED 30% (SH HAS V FRACS FILLED W/ORNG AND WH SALT.);  
 691-694 SALT 80% SH RED 20% (GREEN SH STREAK @ 691½); 694-96 SALT WH  
 90% SH RED IMP 10%; 696097 SALT 90% SH RED IMP (KCL INCL); 97-97.5  
 BIXCUIT; 97/5-701.35 SALT AS ABOVE W/ FAIR AMT OF KCL INCL; 701.35-  
 702.3 SALT SMOKEY W/KCL INCL (701.8)(702.3) ANHY RINGS; 702.3-702.75  
 PK SALT W/ORNG BLEBS; 702.75-705 SAME SMOKEY SALT ORG IN APPEARANCE  
 ANHY BANDS @ 702-703.6-704.15; 705-05.3 DNSE SMOKY SALT; 705.3-709  
 KCL TYPE; 709-710.65 CMI SMLKEY ORG SALT W/ORNG BLEB; 710.65- BISCUIT;  
 710.65-710.75 BISCUIT; 710.75-715.2 SALT 70% SH 30% SH STRINGERS;

WS #1 - 716-41

715.3-717 SALT WH 70% SH RED 30%; 717-28.3 SALT PINKISH WH 90% SH 10% IMP;  
 728.3-5 BISCUIT; 728.5-33 SALT 30% INCL. SH 70% RED; 733-34.5 SALT 80%  
 SH RED 20%; 734.5-.7 ORANGE SALT W/ANHY STRINGER; 735.7-41 SALT 90%  
 10% SH RED IMP. (BLOW OUT @ 730-TOOK GAS SAMPLE)

WS #2 HOLE STRAIGHTENER - 634-653

634-35½ SH RED W/GYP INCL; 635½-638.9 ANHY GRY DNSE; 638.9-642.3 SH  
 RED W/ANHY FILLED FRACS; 642.3-653 ANHY GRY DNSE.

WS #2 - 689-716

689-90 (1') SH RED 80% PITHY IN APPEARANCE SALT WH 20%; 90-93.5 (3½)  
 SH RED 40% SALT 60%; 93.5-95.5 (2) SALT WH 90% - 10% SH IMP; 95.5-98  
 (2½) SEMI KCL TYP; 98-702 (4') MILKY ORANGE SALT @ 2' .2 ANHY STRINGER;  
 702-705.55 (3.55) WH MILKY SALT @ 1.25-2.75 DEEP ORANGE BLEBS ANHY STRINGER  
 @ .35-2.85; 705.55-709.55 (4') KCL TYPE; 709.55-711.35 (1.8) SEMI MILKY  
 SALT (1.5-.8) DEEP ORG; 711.35-711.45 (.1) BISCUIT; 711.45-715.95 (4.5)  
 SH 80% SALT INCL 20%.

328  
 DO NOT REMOVE FROM FILE

Ws #2 CORE #2 - 716-31 - REC 15'

716-23 SALT-85% SH 15%; 723-25 SALT 100% PINK; 725-27.5 SALT WH;  
727.5-729 PINK SALT BISQUIT @ 729-729.4 HOT; 729.4-731 SH 80% SALT 20%.

V HOLE CORE #1 - 653-90 - REC 32'

653-54.5 MISSING; 654.5-660 GREY-BLK DNSE ANHY; 660-666 SH RED;  
666-67 1/2 SH AND ANHY GYP STRINGERS (RED-GREY); 667 1/2-671 1/2 SH RED W/  
FEW GREEN STREAKS; 671 1/2-679 ANHY DRK GREY DNSE; 679-83 ANHY LIGHT GREY W/  
SALT INCL; 683-86 MISSING; 686-86 1/2 RED SH CRUMBLY W/SALT INCL;  
686 1/2-90 SALT WH-LIGHT ORANGE CAST (BISQUIT @ 689'-10");

V HOLE - CORE #2 - 690-720

690-91 SH RED 90% SALT INCL 10%; 691-700 SALT 80% SH 20% RED BLEBS @  
696-697-698-99-700; 700-702 SALT ORANGE W/ORG BLEBS; 702-03 WH SALT  
W/RED AND ORG BLEB 10% SH IMP; 703-707 1/2 MILKY SALT SCATTERED ORG BLEBS AND  
ANHY RINGS; 707 1/2-711 TYPE KCL; 711-712.2 MILKY SALT WSCATT DEEP ORG BLEBS;  
712.2-712.6 MILKY SALT; 712.6-.8 BISQUIT; 712.8-20 SALT WH 70% SH-30%.

- 720-30' SALT 90% SH RED 10%.
- 30-40' SALT 80% SH RED 20% TRC ANHY.
- 40-50' AA 80% AA 10% AA 10%.
- 50-60' AA 90% ANHY 10%.
- 60-70' AA 30% SH AND SILT 30% ANHY 40%.
- 70-80' AA 40% AA 40% AA 20%.
- 80-90' AA 90% ANHY 10%.
- 90-00' AA 10% AA 80% AA 10%.
- 800-10' AA 70% AA 30% TRACE.
- 10-20' AA 60% AA 40% AA.
- 20-30' AA 20% AA 80%.
- 30-40' AA 70% AA 30%.
- 40-50' AA 70% AA 30%.
- 50-60' AA 30% AA 70%.
- 60-70' AA 80% AA 10% ANHY 10%.
- 70-80' AA 10% AA 90%.
- 80-90' AA 90% SH GREEN SDY 10%.
- 90-00' AA 100% TRC ANHY.
- 900-10' AA 90% AA 10% AA.

328

DO NOT REMOVE FROM FILE

- 10-20' SALT 100% TRS ANHY.
- 20-30' AA 80% AA 20%.
- 30-40' AA 100%.
- 40-50' SALT 10% SLT ST-SDY-RED 90%.
- 50-60' AA, AA AND GREEN TRC GYP.
- 60-65' ANHY WH 100%.
- 65-70' GROWNISH GYP-DRK GRY VF XYLN DOL-PCS DRK CARBONACEOUS SH.
- 70-80' BROWNISH GRY DRK GRY 20% -(SD GREEN SLTY 80%) TRC ANHY.
- 80-90' SD GREEN SLTY 50% SM RED SLTY 50%.
- 90-00' SM AND SALT.

328

DO NOT REMOVE FROM FILE



# PERMIT TO DRILL

This constitutes the permission and authority from the  
OIL AND GAS CONSERVATION COMMISSION,  
STATE OF ARIZONA,

To: ARKLA EXPLORATION COMPANY  
(OPERATOR)

to drill a well to be known as

ARKLA EXPLORATION CO. #77 NEW MEXICO ARIZONA LAND CO.  
(WELL NAME)

located NE/4SE/4 3463' FNL 521' FEL

Section 27 Township 16N Range 22E, Navajo County, Arizona.

The \_\_\_\_\_ of said  
Section, Township and Range is dedicated to this well.

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

Issued this 4<sup>th</sup> day of October, 1943.

OIL AND GAS CONSERVATION COMMISSION

By [Signature]  
EXECUTIVE SECRETARY

PERMIT N<sup>o</sup> 328

RECEIPT NO. 9426

State of Arizona  
Oil & Gas Conservation Commission  
Permit to Drill

FORM NO. 27

**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 **ARKLA EXPLORATION COMPANY** DATE **SEPTEMBER 24, 1965**

Address **P.O. Box 669** **HOLBROOK** **ARIZONA**  
City State

**DESCRIPTION OF WELL AND LEASE**

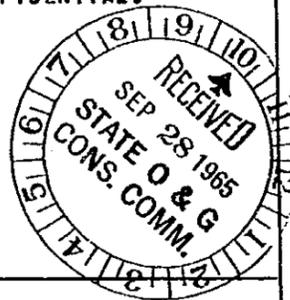
Federal, State or Indian Lease Number or name of lessor, if fee lease <b>NEW MEXICO ARIZONA LAND COMPANY</b>	Well number <b>77</b>	Elevation (ground) <b>5253.03</b>
Well location and acreage dedicated to the well (give footage from section lines) <b>3463' FNL, 521 FEL</b>		Section--township--range or block & survey <b>27 16N 22E</b>
Field & reservoir (if wildcat, so state) <b>MINERAL STRATIGRAPHIC TEST</b>	County <b>NAVAJO</b>	
Distance, in miles, and direction from nearest town or post office <b>4 MILES SE WOODRUFF, ARIZONA</b>		
Nearest distance from proposed location to property or lease line: <b>NOT APPLICABLE</b> feet	Distance from proposed location to nearest drilling, completed or applied—for well on the same lease: <b>NOT APPLICABLE</b> feet	
Proposed depth: <b>1250'</b>	Rotary or cable tools <b>ROTARY</b>	Approx. date work will start <b>OCTOBER 2, 1965</b>
Number of acres in lease: <b>NOT APPLICABLE</b>	Number of wells on lease, including this well, completed in or drilling to this reservoir: <b>NOT APPLICABLE</b>	
If lease, purchased with one or more wells drilled, from whom purchased:	Name	Address

Status and amount of bond <b>\$10,000.00 STATEWIDE</b>	Organization Report On file Or attached <b>ON FILE</b>	Filing Fee of \$25.00 Attached <input checked="" type="checkbox"/>
-----------------------------------------------------------	--------------------------------------------------------------	-----------------------------------------------------------------------

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)

**ALL INFORMATION CONCERNING THIS WELL SHOULD BE KEPT CONFIDENTIAL.**

Verbal approval 9-28-65 *JRS*



\*Fill in Proposed Casing Program on reverse side

CERTIFICATE: I, the undersigned, under the penalty of perjury, state that I am the... **LANDMAN** ...of the... **ARKLA EXPLORATION 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.

*John Y. Jamnister*  
Signature  
**September 28, 1965**  
Date

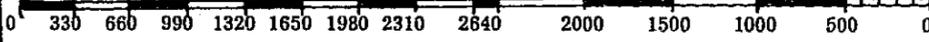
Permit Number: **328**  
Approval Date: **10-4-65**  
Approved By: *John Y. Jamnister*  
Notice: Before sending in this form be sure that you have given all information requested. Much unnecessary correspondence will thus be avoided.  
See Instruction on Reverse Side of Form

STATE OF ARIZONA  
OIL & GAS CONSERVATION COMMISSION  
Application to Drill, Deepen or Plug Back and Plat  
File Two Copies

Form No. 3

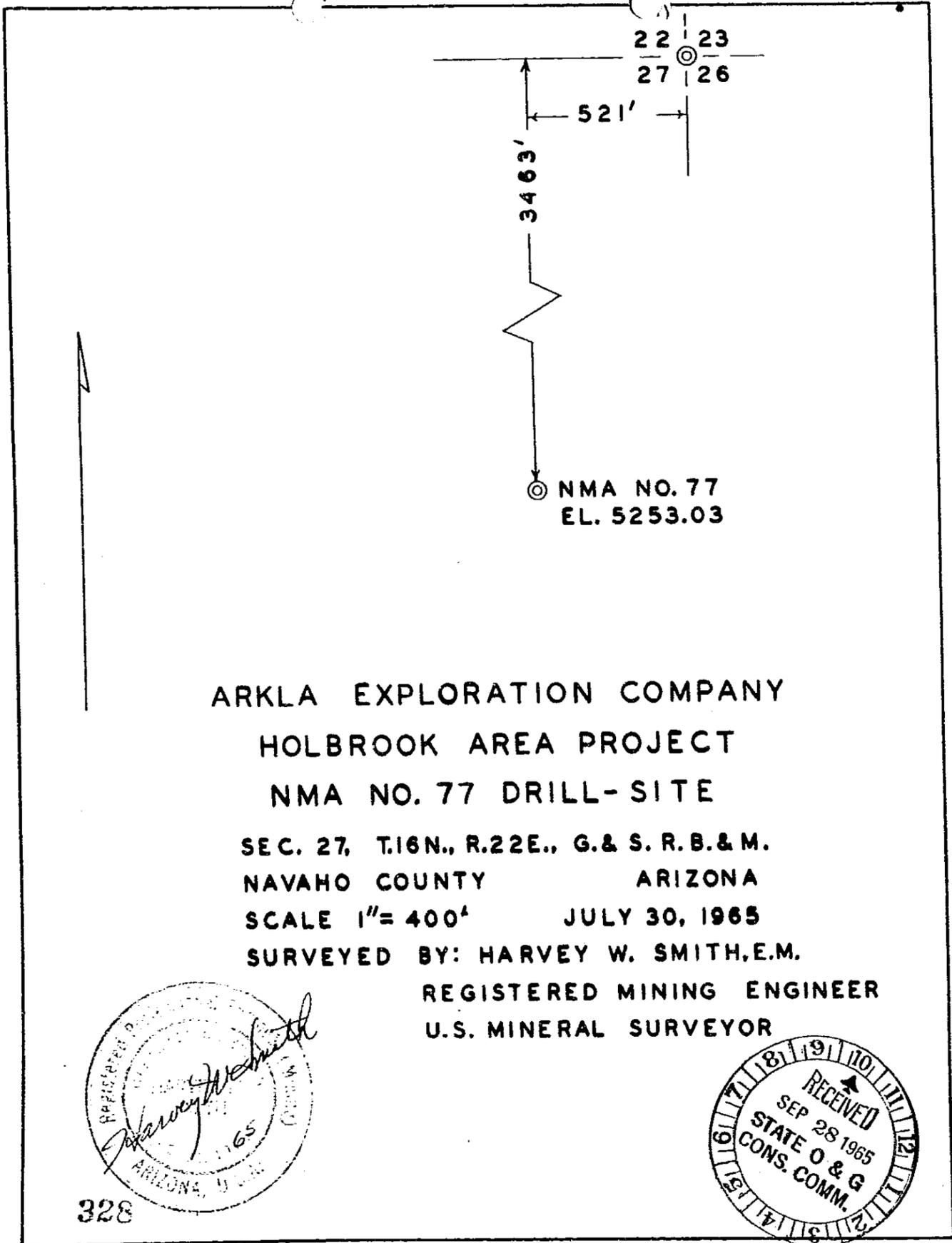
1. Operator shall outline the dedicated acreage for both oil and gas wells on the plat.
2. A registered professional engineer or land surveyor registered in the State of Arizona or approved by the Commission shall show on the plat the location of the well and certify this information in the space provided.
3. All distances shown on the plat must be from the outer boundaries of the Section.
4. Is the Operator the only owner in the dedicated acreage outlined on the plat below? YES  NO
5. If the answer to question four is "no," have the interests of all the owners been consolidated by communitization agreement or otherwise? YES  NO  If answer is "yes," Type of Consolidation \_\_\_\_\_
6. If the answer to question four is "no," list all the owners and their respective interests below:

Owner	Land Description																
<div style="display: flex; justify-content: space-between;"> <div style="width: 55%;"> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 25%; height: 100px;"></td> <td style="width: 25%;"></td> <td style="width: 25%;"></td> <td style="width: 25%;"></td> </tr> <tr> <td style="height: 100px;"></td> <td></td> <td></td> <td></td> </tr> <tr> <td style="height: 100px;"></td> <td></td> <td></td> <td></td> </tr> <tr> <td style="height: 100px;"></td> <td></td> <td></td> <td></td> </tr> </table> </div> <div style="width: 40%; padding-left: 10px;"> <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>Ray B. Jones</u></p> <p>Position <u>LANDMAN</u></p> <p>Company <u>ARKLA EXPLORATION COMPANY</u></p> <p>Date <u>SEPTEMBER 27, 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 _____</p> <p>Certificate No. _____</p> </div> </div>																	



**PROPOSED CASING PROGRAM**

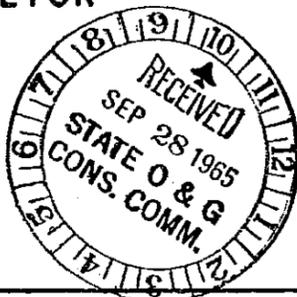
Size of Casing	Weight	Grade & Type	Top	Bottom	Cementing Depths	Sacks Cement
9 5/8"	32#	J USED			60'	10 OR CIRC
7"	20#	J USED			850'	125



ARKLA EXPLORATION COMPANY  
 HOLBROOK AREA PROJECT  
 NMA NO. 77 DRILL-SITE

SEC. 27, T.16N., R.22E., G. & S. R. B. & M.  
 NAVAHO COUNTY ARIZONA  
 SCALE 1" = 400' JULY 30, 1965

SURVEYED BY: HARVEY W. SMITH, E.M.  
 REGISTERED MINING ENGINEER  
 U.S. MINERAL SURVEYOR







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

September 24, 1969

Mr. Charles C. Campbell  
Executive Vice President  
Rebsamen and East  
Tower Building  
Little Rock, Arkansas 72201

Re: U. S. Fidelity & Guaranty Company  
Bond No. 12176-13-601-65

Dear Mr. Campbell:

Records of this office indicate that on 9-24-69 Arkla Exploration Company fulfilled their obligations to the Commission as to the requirements pertaining to the wells covered by the captioned bond. We authorize termination of this bond effective this date.

Yours truly,

John Bannister  
Executive Secretary

jf

cc: Arkla Exploration Company

328

Operator Arkla Exploration Company

Bond Company U.S. Fidelity & Guaranty Co. Amount \$10,000<sup>25,000</sup>

Bond No. 12176-13-601-65 Date Approved 8-30-65

Permits covered by this bond:

323

324

326

327

328

329

331

333, 334, 335, 337, 340,  
342, 343

357

358

359

360

361

362

363

364

Bond ites H  
filed in permit  
#364

**CANCELLED**  
DATE 9-21-69



OFFICE OF

**Oil and Gas Conservation Commission**

STATE OF ARIZONA

ROOM 202

1624 WEST ADAMS

Phoenix, Arizona 85007

PHONE: 271-5161

August 11, 1969

Mr. Warren E. Carr  
Chief Geologist  
Arkla Exploration Company  
P. O. Box 1439  
Oklahoma City, Oklahoma 73101

Dear Scooter:

We have received a letter from Rebsamen and East who are the brokers on the Arkla bond. They indicate that your company wishes to have the bond released. We have gone through the files and find that things are in pretty good order; however, we require samples on each of the wells listed on the attached pages. Jim Scurlock indicated that he was under the impression that there were a number of samples in Holbrook that should be delivered to this Commission.

I talked with John today and he reviewed the Arkla situation and informed me that although we would release the bond when the various sample requirements are met, we would still look to Arkla Exploration Company at an indefinite future date for additional mineral information and substantiating logs covering those depths you tested.

I believe that the delivery of this information is a gentleman's agreement between the responsible parties of Arkla and the Executive Secretary of this Commission.

Yours truly,

James A. Lambert  
Administrative Assistant  
JAL:jf  
Enc.

cc: Rebsamen and East, Little Rock, Arkansas

328

Arkla Exploration Company #55 NMA  
NE/4 NE/4 Section 3-T15N-R22E  
Navajo County  
Permit #343

Arkla Exploration #15 NMA  
SW/4 NW/4 Section 5-T16N-R23E  
Navajo County  
Permit #357

Arkla Exploration #25 State  
SE/4 NW/4 Section 18-T16N-R23E  
Navajo County  
Permit #358

Arkla Exploration Company #10 NMA  
SW/4 SE/4 Section 27-T16N-R23E  
Navajo County  
Permit #359

Arkla Exploration #23 NMA  
NE/4 NE/4 Section 21-T18N-R23E  
Navajo County  
Permit #360

328

Arkla Exploration Company #33 New Mexico  
NW/4 SW/4 Section 21-T17N-R22E  
Navajo County  
Permit #331

Arkla Exploration #7 New Mexico  
NW/4 SW/4 Section 24-T17N-R22E  
Navajo County  
Permit #334

Arkla Exploration Company #6 NMA  
SE/4 SW/4 Section 5-T17N-R23E  
Navajo County  
Permit #337

Arkla Exploration Company #24 NMA  
NE/4 SW/4 Section 18-T18N-R23E  
Navajo County  
Permit #340

Arkla Exploration #16 NMA  
NW/4 NW/4 Section 13-T16N-R23E  
Navajo County  
Permit #342

328

Operator Arkla Exploration Company

Bond Company U.S. Fidelity & Guaranty Co. Amount \$10,000<sup>25,000</sup>

Bond No. 12176-13-601-65 Date Approved 8-30-65

Permits covered by this bond:

323

324

326

327

328

329

331

333 334 335 337, 340,  
342, 343

357

358

359

360

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

328



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

August 11, 1969

Mr. Charles C. Campbell  
Executive Vice President  
Rebsamen and East  
Tower Building  
Little Rock, Arkansas 72201

Re: U. S. Fidelity & Guaranty Company  
Bond #12176 13 601 65

Dear Mr. Campbell:

This Commission requests a certain curative matter be furnished on various wells drilled under the U. S. F. & G. bond posted by Arkla Exploration Company. We will advise your office by mail when this Commission is willing to release the captioned bond.

Yours truly,

James A. Lambert  
Administrative Assistant

JAL:jf  
Enc.

328

*Rebsamen  
and  
East*  
INCORPORATED

**INSURANCE - BONDING**

TOWER BUILDING, LITTLE ROCK, ARKANSAS 72201 • FR 2-71-1

August 6, 1969

State of Arizona  
Oil & Gas Conservation Commission  
Room 202, 1624 West Adams  
Phoenix, Arizona 85007

Re: Arkla Exploration Company, Shreveport, Louisiana  
U. S. Fidelity & Guaranty Co. Bond 12176 13 601 65

Gentlemen:

We have been advised by the Arkla Exploration Company that they no longer need the above captioned bond covering blanket drilling for oil or gas in the State of Arizona. In accordance with this, we kindly request your release of surety and termination of the bond to be effective the anniversary date of August 25, 1969.

Your advice will be appreciated. Thank you.

Sincerely,

*Charles C. Campbell*

Charles C. Campbell  
Executive Vice President

CCC/cac

cc: Arkla Exploration Company

328



*James H. ...  
Commissioner  
Oil & Gas Conservation Commission  
Phoenix, Arizona*

October 21, 1965

Arkla Exploration Company  
P.O. Box 669  
Holbrook, Arizona

Re: Arkla Exploration Co. #7 State  
Permit 323

Arkla Exploration Co. #1 State  
Permit 324

Arkla Exploration Co. #3 State  
Permit 326

Arkla Exploration Co. #77 N.M. Arizona Land  
Permit 328

Gentlemen:

We are returning Well Completion Reports for the #1, #3,  
and #7 State holes. These should be signed, dated, and re-  
turned to this office.

We are also enclosing approved copy of your Application to  
Plug the #77 hole. We would remind you that a Well Comple-  
tion Report for this hole should be filed within 60 days  
from date of completion, or before December 16, 1965.

Your cooperation is very much appreciated.

Yours very truly,

John Bannister  
Executive Secretary  
nr  
enc

October 5, 1965

Arkla Exploration Company  
P.O. Box 669  
Holbrook, Arizona

Attention: Mr. Ray E. Jones

Re: Arkla Exploration #77 New Mexico-Arizona Land Co.  
NE/4SE/4 27-16N-22E, Navajo County, Arizona  
Permit 328

Arkla Exploration #28 New Mexico Arizona Land Co.  
SW/4NE/4 24-16N-22E, Navajo County, Arizona  
File 327

Gentlemen:

Enclosed is Permit to Drill No. 328, approved copy of Application to Drill the #77 hole, and Receipt 9426 for the filing fee.

Until the proposed <sup>casing</sup> plugging program is submitted, the Application to Drill the #28 hole cannot be approved nor can the Permit to Drill be issued. Enclosed is Receipt 9425 for the filing fee on this hole.

Just as soon as the proposed casing program is submitted for the #28 hole, we will issue the Permit to Drill.

Yours very truly,

John Bannister  
Executive Secretary  
nr  
enc



**ARKLA EXPLORATION**  
C O M P A N Y

P.O. Box 669, HOLBROOK, ARIZONA

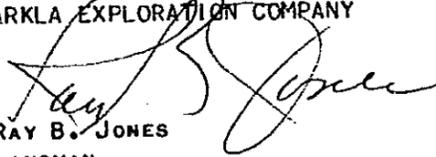
SEPTEMBER 27, 1965

MR. JOHN BANNISTER  
OIL & GAS CONSERVATION COMMISSION  
STATE OFFICE BUILDING  
PHOENIX, ARIZONA

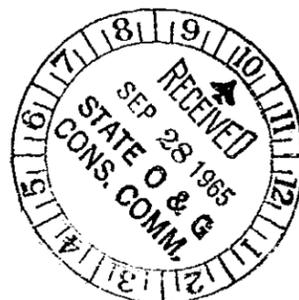
DEAR MR. BANNISTER:

WOULD YOU PLEASE CALL ME COLLECT AT 524-3935 WHEN THIS  
APPLICATION IS APPROVED.

VERY TRULY YOURS,  
ARKLA EXPLORATION COMPANY

  
RAY B. JONES  
LANDMAN

RBJ/sk  
ENCLOSURES



328