

**NOTE: - NO METES & BOUNDS  
DESCRIPTION OF PREMISES  
ON RECORD.**  
**60 AC.**

**CARL HAZLETT TO THOMAS  
MARKEY D.B. 256 P. 407  
3.20 S  
2.28 W  
69.75 AC.**

MINIMUM ERROR OF CLOSURE 1:2000  
SOURCE OF ELEVATION DECK OF NEW CONCRETE BRIDGE OVER  
LITTLE GRAVE CREEK 1.70 MI. DOWNSTREAM. EL. 216.30

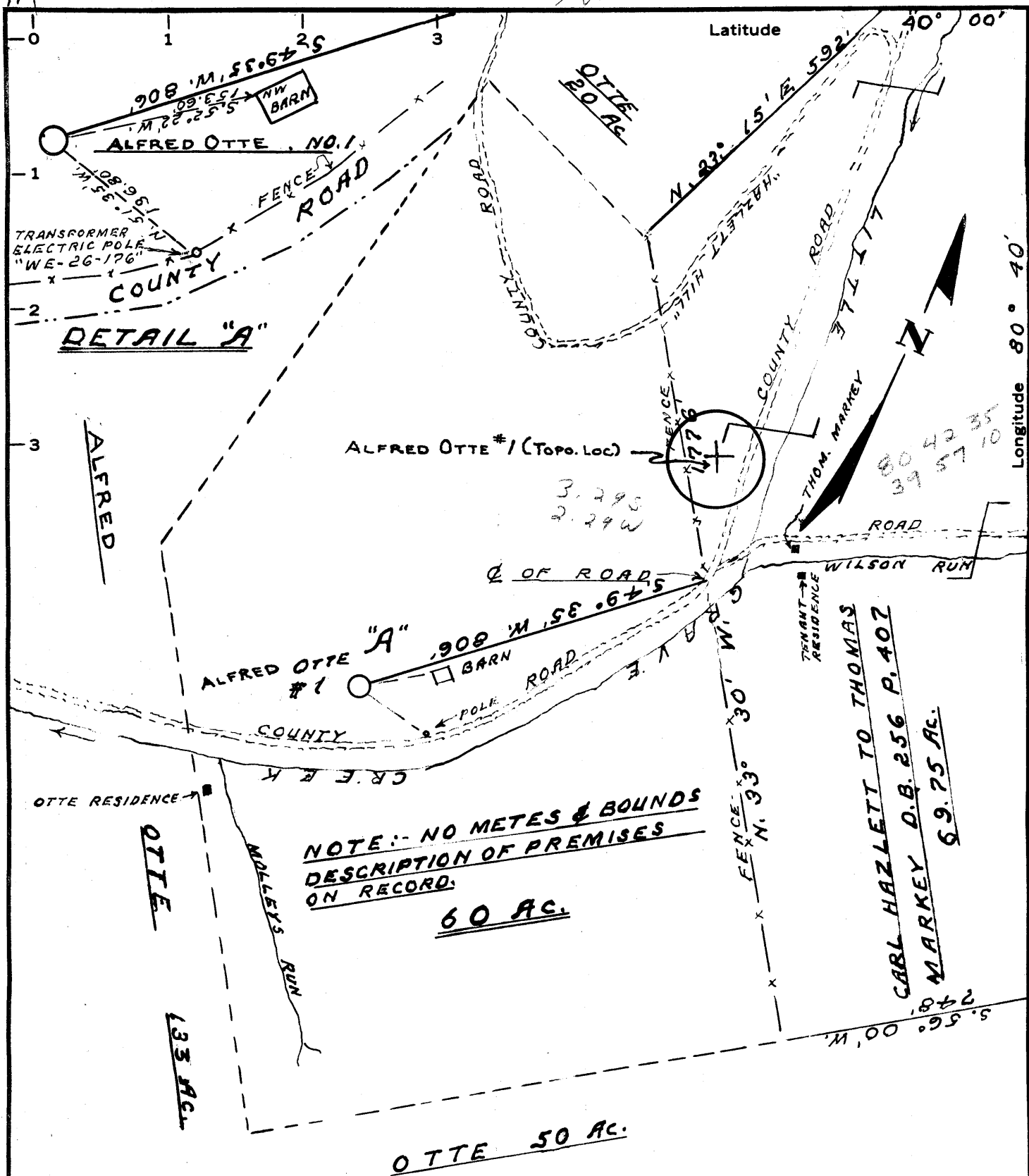
Drill Deeper   
Abandonment   
ISSUED 2-8-72

"I, THE UNDERSIGNED, HEREBY CERTIFY THAT THIS MAP IS CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF AND SHOWS ALL THE INFORMATION REQUIRED BY PARAGRAPH 6 OF THE RULES AND REGULATIONS OF THE OIL AND GAS SECTION OF THE MINING LAWS OF WEST VIRGINIA."

Company FACE BOWER CONSTRUCTION Co.  
Address ROOM 305 NELSON BLDG,  
CHARLESTON - W. VA.  
Farm ALFRED OTTE  
Tract \_\_\_\_\_ Acres 60 Lease No. \_\_\_\_\_  
Well (Farm) No. 1 Serial No. \_\_\_\_\_  
Elevation (Spirit Level) 792.20  
Quadrangle NW 1/4 OF  
CAMERON  
County MARSHALL District UNION  
Engineer Gordon W. Sammons  
GORDON W. SAMMONS  
Engineer's Registration No. 509  
File No. \_\_\_\_\_ Drawing No. \_\_\_\_\_  
Date NOV-16-1965 Scale 1" = 300'

STATE OF WEST VIRGINIA  
DEPARTMENT OF MINES  
OIL AND GAS DIVISION  
CHARLESTON  
**WELL LOCATION MAP**  
FILE NO. MARS 529-P

+ Denotes location of well on United States Topographic Maps, scale 1 to 62,500, latitude and longitude lines being represented by border lines as shown.  
- Denotes one inch spaces on border line of original tracing.



MINIMUM ERROR OF CLOSURE 1:2000  
 SOURCE OF ELEVATION DECK OF NEW CONCRETE BRIDGE OVER LITTLE GRAVE CREEK 1.70 MI. DOWNSTREAM, EL. 216.30

New Location   
 Drill Deeper   
 Abandonment

"I, THE UNDERSIGNED, HEREBY CERTIFY THAT THIS MAP IS CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF AND SHOWS ALL THE INFORMATION REQUIRED BY PARAGRAPH 6 OF THE RULES AND REGULATIONS OF THE OIL AND GAS SECTION OF THE MINING LAWS OF WEST VIRGINIA."

Company PACE BOWER CONSTRUCTION Co.  
 Address ROOM 305 NELSON BLDG, CHARLESTON - W. VA.  
 Farm ALFRED OTTE  
 Tract \_\_\_\_\_ Acres 60 Lease No. \_\_\_\_\_  
 Well (Farm) No. 1 Serial No. \_\_\_\_\_  
 Elevation (Spirit Level) 792.70  
 Quadrangle MOUNDSVILLE - CAMERON NW 1/4  
 County MARSHALL District UNION  
 Engineer Gordon W. Sammons  
 Engineer's Registration No. 509  
 File No. \_\_\_\_\_ Drawing No. \_\_\_\_\_  
 Date NOV-16-1965 Scale 1" = 300'

STATE OF WEST VIRGINIA  
 DEPARTMENT OF MINES  
 OIL AND GAS DIVISION  
 CHARLESTON

**WELL LOCATION MAP**  
 FILE NO. MARS-529 051

+ Denotes location of well on United States Topographic Maps, scale 1 to 62,500, latitude and longitude lines being represented by border lines as shown.

— Denotes one inch spaces on border line of original tracing.



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STATE OF WEST VIRGINIA OIL & GAS DIVISION  
DEPARTMENT OF MINES DEPT. OF MINES  
OIL AND GAS WELLS DIVISION 2

- Rotary
- Spudder
- Cable Tools
- Storage

Oil or Gas Well Dry  
(KIND)

Quadrangle Cameron  
Permit No. Mars-529

WELL RECORD

Company <u>Pace-Bower Construction Company</u>	Casing and Tubing	Used in Drilling	Left in Well	Packers
Address <u>305 Nelson Bldg, Charleston, West Virginia</u>	Size			Kind of Packer
Farm <u>Alfred Otte</u> Acres <u>60</u>	16			Size of
Location (waters) <u>798.70 K.B.</u>	10	15'	15'	Depth set
Well No. <u>1</u> Elev. <u>792.70 G.L.</u>	8 1/4			Perf. top
District <u>Union</u> County <u>Marshall</u>	6 3/4			Perf. bottom
The surface of tract is owned in fee by <u>Alfred &amp; Wilhemena Otte</u> Address <u>Glendale, W. Va.</u>	5 3/16			Perf. top
Mineral rights are owned by <u>Same</u> Address _____	4 1/2	1280	1280	Perf. bottom
Drilling commenced <u>December 3, 1965</u>	X			
Drilling completed <u>December 12, 1965</u>	2			
Date Shot <u>Not Shot</u> From _____ To _____	Liners Used			
With _____				
Open Flow <u>/10ths Water in _____</u> Inch	Attach copy of cementing record. <u>15 sacks by contractor</u>			
<u>/10ths Merc. in _____</u> Inch	CASING CEMENTED <u>13" SIZE 15 No. Ft. 12/2/65</u> Date			
Volume <u>3,000,000-4,000,000 Natural</u> Cu. Ft.	Amount of cement used (bags) <u>4 1/2" at 1280 with 300 sacks.</u>			
Rock Pressure <u>365</u> lbs. <u>10</u> Minutes hrs.	Name of Service Co. <u>Lawson Cementing Company-12/13/65</u>			
Oil <u>Show in Cow Run</u> bbls., 1st 24 hrs.	COAL WAS ENCOUNTERED AT <u>202-206 FEET</u> INCHES			
WELL ACIDIZED (DETAILS) <u>Not Acidized</u>	<u>284 to 289</u> FEET INCHES FEET INCHES			
WELL FRACTURED (DETAILS) <u>See completion data.</u>	FEET INCHES FEET INCHES			

RESULT AFTER TREATMENT (Initial open Flow or bbls.) Dry hole - gas drowned out by water. Hole Size: 0-15 = 17"  
 ROCK PRESSURE AFTER TREATMENT \_\_\_\_\_ HOURS 15-560 = 11"  
 Fresh Water \_\_\_\_\_ Feet Salt Water \_\_\_\_\_ Feet 560-1375 = 8 3/4"  
 Producing Sand gas show in 3rd Salt Depth \_\_\_\_\_ 1375-1627 = 7-7/8"

Formation	Color	Hard or Soft	Top	Bottom	Oil, Gas or Water	Depth	Remarks
<b>LITHOLOGY BASED ON GAMMA RAY AND SAMPLES:</b>							
Soil			0	20			
Sand			20	27			
Shale			27	33			
Sand			33	46			
Shale			46	81			
Lime W/Shale			81	202			
Coal			202	206		202-204	Logs
Lime W/Shale			206	284			
Coal			284	289		282-289	Logs
Shale	Gray		289	365			
Shale	Red & Gray		365	495			
Shale	Gray		495	574			
Sand			574	591			<u>Cow Run</u>
Shale			591	636			
Sand			636	640			
Shale			640	755			
Sand			755	761			
Shale			761	862			
Sand			862	873			
Shale			873	1000			
Sand			1000	1026			1st Salt Sand
Shale			1026	1030			
Sand			1030	1033			1st Salt Sand
Shale			1033	1036			
Sand			1036	1050			1st Salt Sand
Shale			1050	1088			
Sand			1088	1104			2nd Salt Sand
Shale			1104	1161			

(over)

FEB 22 1972

Formation	Color	Hard or Soft	Top 2	Bottom	Oil, Gas or Water	Depth Found	Remarks
Sand			1161	1201	3,000-4,000	Ø1161-1201	3rd Salt Sand
Shale			1201	1208	<u>MCF</u>		
Sand			1208	1230		Ø1208-1228	3rd Salt Sand
Shale			1230	1265			
Sand			1265	1279			Maxon
Shale			1279	1298			
Big Lime			1298	1326			
Big Injun			1326	1582		Ø1386-1396	Log
Shale			1582	1624			
				T.D. 1624	Driller		
				T.D. 1627	Logger		
<b>CHRONOLOGICAL SEQUENCE OF EVENTS:</b>							
12/3/65	Commenced drilling.						
12/3/65	Run 15' of 13" casing and cemented with 15 sacks (contractor).						
12/5/65	Cored Cow Run section from 560 to 610 (50') - recovered 34' of 3/2" core (Oilfield Research, Inc.)						
12/7/65	Cored Injun sand from 1375-1420 (45') - recovered 45' of core.						
12/8/65	Cored Injun sand from 1420-1458 (38') - recovered 29' of core.						
12/9/65	Cored Injun sand from 1458-1485 (27') - recovered 27' of core.						
12/9/65	Cored Injun sand from 1485-1512 (27') - recovered 27' of core.						
12/10/65	Cored Injun sand from 1512-1526 (14') - recovered 14' of core.						
12/10/65	Cored Injun sand from 1526-1553 (27') - recovered 27' of core.						
12/12/65	Completed drilling - Drillers T.D. <u>1624.</u>						
12/12/65	Logged well (Schlumberger):						
	Gamma Ray, Density, Caliper, Induction, Neutron.						
	1" & 5" -- 0 to 1627 (Loggers T.D.)						
12/13/65	Permanent "Baker" bridge plug set at 1280.						
12/13/65	1280' of 4 1/2" casing run and cemented with 300 sacks (Lawson Cementing).						
12/16/65	Perforated 4 1/2" casing (Birdwell):						
	25 Holes 1165-1177						
	2 Holes 1216						
	Hole Size 0.465"						
12/16/65	Fractured 3rd Salt sand (Dowell):						
	16,000# - 20/40 Sand						
	2,000 Gals. - HCl Acid						
	250 Gals. - Mud Acid						
	456 BBLs. - Water						
	<u>Average liquid injection rate:</u>			<u>Adjusted injection rate:</u>			
	27.1			28.1			
	<u>Maximum pressure:</u>			<u>Average Pressure:</u>		<u>Shut in pressure:</u>	
	2400#			1657		Immediate - 950; 7 Min. - 800	
12/65	"Baker: plugs set at 1100 & 1196. Top plug at 1100 drilled out and well allowed to flow both water and gas. Gas drowned out by water and well shut in at surface.						
	<u>DRY HOLE</u>						
	<div style="display: flex; justify-content: center; align-items: center;"> <div style="text-align: right; margin-right: 10px;"> 1624  591  <u>1033</u> </div> <div>expl. fr.</div> </div>						

1298 1326  
799 733  
419 527

Date February 7, 1972

APPROVED \_\_\_\_\_, Owner

By \_\_\_\_\_ Vice President  
(Title)