



MINIMUM ERROR OF CLOSURE 1/400  
 SOURCE OF ELEVATION Well No. 1, Tract 1, C.K. McCullough - Elev 779

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 Rudder Oil & Gas Co.  
 Address Box 2118, Parkersburg, W.Va.  
 Farm C.K. McCullough  
 Tract 2 Acres 109.97 Lease No. \_\_\_\_\_  
 Well (Farm) No. 1 Serial No. \_\_\_\_\_  
 Elevation (Spirit Level) 1015  
 Quadrangle West Union - SC  
 County Tyler District Centerville  
 Engineer Parker E. Patore  
 Engineer's Registration No. 485  
 File No. \_\_\_\_\_ Drawing No. \_\_\_\_\_  
 Date Jan 23, 1964 Scale 1" = 30 P.

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

**WELL LOCATION MAP**  
 FILE NO. T44-383

+ 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.



STATE OF WEST VIRGINIA  
DEPARTMENT OF MINES  
OIL AND GAS DIVISION 28

Rotary   
Spudder   
Cable Tools   
Storage

Quadrangle West Union

Permit No. TYL-383

WELL RECORD

Oil or Gas Well oil  
(KIND)

Company Rudder Oil and Gas Company  
Address P. O. Box 126, Belpre, Ohio  
Farm James-McCullough Acres 107  
Location (waters) Long Run  
Well No. 1 Elev. 1015  
District Centerville County Tyler  
The surface of tract is owned in fee by C. K. McCullough  
Address Central Station, W. Va.  
Mineral rights are owned by C. K. McCullough et al  
Address Central Station, W. Va.

Casing and Tubing	Used in Drilling	Left in Well	Packers
Size			Kind of Packer
16			
13	15	15	
10	571		Size of
8 1/2	1144		
7		1835	Depth set
5 3/8			
4 1/2		2086	Perf. top 1975
			Perf. bottom 2040
			Perf. top 2004
			Perf. bottom 1976

Drilling commenced February 19, 1964  
Drilling completed March 26, 1964  
Date Shot From To  
With  
Open Flow /10ths Water in Inch  
/10ths Merc. in Inch  
Volume show Cu. Ft.  
Rock Pressure lbs. hrs.  
Oil show bbls., 1st 24 hrs.  
WELL ACIDIZED

CASING CEMENTED 4 1/8 SIZE 2086 No. Ft. 4,264 Date  
Lawson Cementing Co. 27 saks, 6 gel  
COAL WAS ENCOUNTERED AT -0- FEET INCHES  
FEET INCHES FEET INCHES  
FEET INCHES FEET INCHES

WELL FRACTURED Halliburton Co. 4/15/64; 5/2/64; 5/7/64; 5/23/64  
29,000 Wat, 30,000 20/40; 34,800 Wat, 50,000 20/40; 19,760 Wat, 6,000 20/40;  
RESULT AFTER TREATMENT 1 barrel oil 10,400 Wat, 5,000 20/4  
ROCK PRESSURE AFTER TREATMENT 300 lbs 48 hours  
Fresh Water Feet Salt Water Feet

Formation	Color	Hard or Soft	Top	Bottom	Oil, Gas or Water	Depth	Remarks
<b>DRILLER'S LOG</b>							
Red rock		soft	0	12			
Sand		hard	12	120			
Red rock		soft	120	140			
Slate		soft	140	152			
Red rock		soft	152	159			
Slate		soft	159	198			
Red rock		soft	198	215			
Slate		soft	215	220			
Red rock		soft	220	290			
Sand		hard	290	315			
Red rock		soft	315	355			
Slate		soft	355	365			
Lime		hard	365	375			
Black Slate		soft	375	395			
Red Rock		soft	395	432			
Slate		soft	432	450			
Red rock		soft	450	488			
Slate		soft	488	502			
Sand		hard	502	560			
Slate		soft	560	565			
Sand		hard	565	572			
Slate		soft	572	585			
Red rock		soft	585	605			
Slate		soft	605	627			



Formation	Color	Hard or Soft	Top 28	Bottom	Oil, Gas or Water	Depth Found	Remarks
Lime		hard	627	665			
Slate & red rock		soft	665	675			
Slate		soft	675	730			
Lime		hard	730	735			
Slate & red rock		soft	735	738			
Red Lime		hard	738	762			
Red rock		soft	762	775			
Slate		soft	775	810			
Red rock		soft	810	846			
Slate & shells		soft	846	852			
Sand		hard	852	867			
Slate & red rock		soft	867	878			
Blue lime		hard	878	889			
Red rock		soft	889	905			
Broken sand		hard	905	915			
Slate		soft	915	967			
Red rock		soft	967	1005			
Slate		soft	1005	1008			
Red rock		soft	1008	1015			
Slate & shells		soft	1015	1058			
Slate & pink rock		soft	1058	1062			
Slate & shells		soft	1062	1097			
Lime & sand		hard	1097	1113			
Sand		hard	1113	1125			
Black slate		soft	1125	1140			
Sand		hard	1140	1165			
Slate		soft	1165	1175			
Gritty lime		hard	1175	1185			
Slate & shells		soft	1185	1199			
Lime & sand		hard	1199	1245			
Slate & shells		soft	1245	1363			
Sand Salt sand		hard	1363	1415			
Slate & shells		soft	1415	1423			
Sand Salt sand		hard	1423	1535	water	@ 1430	
Slate		soft	1535	1585			
Sand		hard	1585	1595			
Slate		soft	1595	1640	1864		
Sand		hard	1640	1665	1015		
Slate & shells		soft	1665	1690	849		
Sand		hard	1690	1709			
Lime		hard	1709	1722			
Sand		hard	1722	1740			
Slate		soft	1740	1765			
Sand		hard	1765	1779			
Slate		soft	1779	1782			
Sand		hard	1782	1835			
Little Lime		hard	1835	1855			
Sand		hard	1855	1858			
Slate P.C.		soft	1858	1864			
Big Lime		hard	1864	1939			
Sand		hard	1939	1967			
Lime		hard	1967	1983			
Sand B.I.		hard	1983	2045	show oil @	1986	
Slate & shells		soft	2045	2075	show gas @	2006	
					" "	2020	
					" "	2040	

Date DECEMBER 4, 19 64

APPROVED Rudder Oil and Gas Company, Owner

By Neal Rudder  
President (Title)