



Company COLUMBIAN CARBON CO.
 Address BOX 1240 - CHARLESTON - W. VA.
 Farm THE PUTNAM CO.
 Tract _____ Acres 1190 Lease No. C-1556
 Well (Farm) No. 5, 6, 7 & 8 Serial No. _____
 Elevation (Spirit Level) 5- 924.1 7- 824.5
6- 996.5 8- 710.8
 Quadrangle KENNA (8)
 County JACKSON District 5-6- RIPLEY
7-8- WASH.
 Engineer J. M. [Signature]
 Engineers Registration No. 772
 File No. _____ Drawing No. _____
 Date MAY 1, 1941 Scale 1" = 1320'

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

WELL LOCATION MAP
 FILE NO. JAC-144-147 INCL. _____
 WELLS 5-8 INC

+ 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.

WEST VIRGINIA DEPARTMENT OF MINES
OIL & GAS DIVISION
WELL RECORD

Permit No	Jac-146	Gas Well
Company	Columbian Carbon Co.	Casing & Tubing
Address	box 1240, Charleston, W.Va.	16 25'6" 25'6"
Farm	The Putnam Co. Acres 1190	13 $\frac{1}{2}$ 826' 751'5"
Location	Rockheap Branch	105/8 2025'2" 2025'2"
Well No.	GW-491 Elev. 829.1 DF	7" 5064'7" 5064'7"
District	Washington Jackson County	2 3/8 5182'7" 5182'7"
Surface	A.J. Whetherhold, Dunbar, W.Va. 828 Lightner Ave.	No Packer
Mineral	The Putnam Co. et al (Contact Col. Carbon Co-addresses)	
Commenced	6-6-41	
Completed	9-3-41	
Volume	6,367 MCF	
Rock Pressure	880 lbs 13 days	
Salt Water	1475' 1-10" Blr. pr. hr.;	
	1495' Hole Full	

Red Rock	0	15	White Slate	3940	4000
Sand	15	25	Brown Shale	4000	4150
Slate	25	40	Slate & Shells	4150	4185
Red Rock	40	75	Brown Shale	4185	4230
Slate	75	110	White Slate	4230	4683
Red Rock	110	130	Brown Shale	4685	4915
Slate	130	155	White Slate	4915	4940
Red Rock	155	170	Brown Shale	4940	4955
Slate	170	193	Black Shale	4955	4998 SLM
Sand	193	256	Corniferous Lime	4998 SLM	5107 SLM
Slate	256	330	Oriskany Sand	5107 SLM	5132
Sand	330	398	Lime Break	5132	5138
Slate	398	445	Oriskany Sand	5138	5143
Sand	445	460	Lime	5143	5152
Slate	460	480	Oriskany Sand	5152	5160
Red Rock	480	530	Lime	5160	5161
Slate	530	555	TOTAL DEPTH		5161 DIM
Red Rock	555	570	PAYS:		
Slate	570	618	5112-25; 5137-43; 5157-59		
Red Rock	618	632			
Slate	632	705	CEMENT RECORD: 6-18-41- Mudded 10 $\frac{1}{2}$ "		
Sand	705	715	casing.		
Slate	715	785	7-15-41- Cemented 8 5/8"		
Lime	785	800	casing. Ran 92 Sacks		
Sand	800	840	Alpha cement mixed with		
Slate	840	850	2 sacks Aquagel. 42'		
Sand	850	895	cement in hole		
Slate	895	990	8-20-41- Cemented 7"		
Sand	990	1045	casing. Ran 10 sacks		
Slate & Shells	1045	1105	Superior cement. 38'		
Sand	1105	1140	cement in pipe.		
Slate & Shells	1140	1170			
Sand	1170	1205			
Slate	1205	1275			
Sand	1275	1285			
Slate	1285	1335			
Sand	1335	1345			
Slate & Shells	1345	1400			
Sand	1400	1410			
Slate	1410	1430			
Salt Sand	1430	1762			
Slate	1762	1767			
Big Lime	1767	1845			
Sand - <i>lower</i>	1845	1863			
Lime	1863	1921			
Big Injun Sand	1921	1990			
Slate	1990	1992			
Sand - <i>square</i>	1992	2000			
Black Lime	2000	2018			
Slate	2018	2040			
Slate & Shells	2040	2100			
White Slate	2100	2378			
Brown Slate	2378	2385			
Berea Shells	2385	2750 Sh. Gas			
White Slate	2750	3614 2386			
Brown Shale - <i>AA</i>	3614	3675			
Slate & Shells	3675	3915			
Brown Shale	3915	3940			