

Boone County Coal Corporation No. 14 Well

Logan District, Logan County, W. Va.

By Boone County Coal Corporation, Sharples, W. Va.

Located 2.19 mi. W. of 81°51' and 5.39 mi. S. of 38°00' -NC- Logan Quadrangle, and 2 1/2 mi. W. of Sharples.

Elevation, 1879.65'.

Permit, Logan-57.

Drilling commenced, May 1, 1939; completed July 5, 1939.

Shot at 3149 to 3171 on July 5, 1939.

Gas well.

Fresh water at 495', 38.3 gallons per hour.

Salt water at 1598 to 1625', 92.6 gallons per hour; salt water at 1723' filled 600' of hole.

Casing, 10", 20'; 8 1/4", 1812'9"; 6-5/8", 2466'4"; 3" tubing, 3194'5".

Coal was encountered at 110 feet, thickness 24 inches; at 419 feet, thickness 48 inches; at 634 feet, thickness, 24 inches; at 824 feet, thickness 48 inches; at 912 feet, thickness 24 inches.

Top Bottom Thickness

Mauch Chunk Group, 348+ feet

Top	Bottom	Thickness	Description
2077	2083	6	Shale, gray, red and green; small amount of dolomitic limestone
2083	2109	26	Shale, red, soft, dolomitic
2109	2115	6	Siltstone, gray, dolomitic
2115	2122	7	Sandstone, light-gray, very fine, dolomitic
2122	2127	5	Siltstone, gray, shaly, micaceous, 70%; gray fossiliferous limestone, 30%
2127	2132	5	Shale, red, dolomitic
2132	2140	8	Sandstone, light-gray, very fine, somewhat dolomitic
2140	2150	10	Shale, gray, very soft; many fragments fall to pieces when water is added; contains much pyrite and some limestone fragments
2150	2172	22	Shale, grayish-red, calcareous; probably contains some dolomite as well as calcite
2172	2176	4	Shale, dark-gray, soft
2176	2180	4	Sandstone, light-gray, fine, slightly calcareous
2180	2184	4	Sandstone, white, fine, 60%; dark-gray, pyritic and carbonaceous shale, 40%
2184	2190	6	Sandstone, white, very fine
2190	2200	10	Siltstone, green

Top	Bottom	Thickness	
2200	2210	10	Shale, red, silty
2210	2215	5	Siltstone, green
2215	2238	23	Shale, red, with some gray and yellow; some limestone near top
2238	2243	5	Siltstone, gray, shaly
2243	2260	17	Shale, gray, 60%; brown limestone, 40%
2260	2280	20	Shale, red with some gray and green; highly calcareous
2280	2306	26	Siltstone, gray and light-green, 50%; very soft gray shale, 50%
2306	2367	61	Sandstone, nearly white except for rust stain, fine
2367	2410	43	Limestone, dark-gray to brownish, fossiliferous; contains a little blue-gray chert and many small specks of pyrite
2410	2425	15	Limestone, brownish-gray, 60%; gray to grayish-green, soft, thinly laminated shale, 40% (Pencil Cave)
<u>Greenbrier Limestone, 200 feet</u>			
2425	2450	25	Limestone, dark brownish gray, fossiliferous, with small amount of chert; all samples contain some soft gray and green shale and sample from 2445 to 2550' is about half shale
2450	2510	60	Limestone, light-gray, very fine textured; little evidence of fossils
2510	2525	15	Limestone, light-gray, sandy; some oolites from 2520 to 2525'
2525	2565	40	Limestone, light-gray, mostly somewhat brownish when wet, very fine textured
2565	2585	20	Limestone, light-gray, dolomitic; a little more crystalline in appearance than the limestone above
2585	2610	25	Limestone, light-gray, with some light-red, somewhat dolomitic; contains scattered oolites, but none of it is a distinctly oolitic limestone
2610	2625	15	Limestone, light-gray, dolomitic Limestone, light-gray, dolomitic
<u>Macerady Formation, 80 feet</u>			
2625	2705	80	Siltstone, red, shaly, micaceous, non-calcareous
<u>Pocono Formation, 474 feet</u>			
2705	2770	65	Siltstone, gray, shaly, micaceous; texture of individual fragments varies from that of very fine sandstone to silty shale, but the predominant material is best described as siltstone
2770	2820	50	Siltstone, gray, shaly, micaceous; similar to last but mostly a little finer textured; some samples contain up to 30 or 40% of shale; contains very small amounts of calcareous material
2820	2960	140	Shale, gray, mostly with small amount of siltstone
2960	3030	70	Shale, gray, 60%; lighter gray siltstone, 40%

Top Bottom Thickness

3080	3115	35	Siltstone, gray, 60 to 80%; gray shale, 40 to 20%; some fine to very fine sandstone is included with the siltstone
3115	3144	29	Shale, dark-gray to black, distinctly laminated (Sunbury Shale)
3144	3174	30	Sandstone, light-gray to nearly white, fine to very fine; mostly stained brown with rust; contains small amount of carbonate mineral, probably dolomite; considerable pyrite in top 5 feet (Berea Sandstone; gas at 3145' and 3171 to 3174')

Devonian Shales, 20+ feet

3174	3194	20	Shale, gray with nearly equal amount of siltstone and very fine sandstone
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3194			Total depth
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WEST VIRGINIA DEPARTMENT OF MINES
OIL AND GAS DIVISION

WELL RECORD

Permit No. **Log-57**

Oil or Gas Well **Gas**
(Kind)

Company Boone County Coal Corpn.	Casing and Tubing	Used in Drilling	Left in Well	Packers
Address Sharples, W. Va.	Size			
Farm Boone County Coal Corpn Acres 6500	16.			Kind of Packer Comb.
Location (waters) Beech Creek	13.			Well & Anchor
Well No. 14 Elev 1679.65	10.	22'-00"	22'-00"	Size of 3x5-5/8"
District Logan County Logan	8 3/4.	1512'-09"	1312'-09"	Depth set 2609'-08"
The surface of tract is owned in fee by Boone County Coal Corpn Address Sharples, W. Va.	6 5/8.	2466'-04"	2466'-04"	Perf. top 3138'-04"
Mineral rights are owned by Boone County Coal Corpn. Address Sharples, W. Va.	5 3/16.			Perf. bottom 3159'-0
Drilling commenced May 1, 1939	3.	3194'-05"	3194'-05"	Perf. top 3182'-05"
Drilling completed July 5, 1939	2.		Case	Perf. bottom 3194'-0
Date shot July 5, 1939 Depth of shot 3148.20" to	Liners Used			
Open Flow /10ths Water in 3171'-01" Inch				
/10ths Merc. in _____ Inch				
Volume _____ Cu. Ft.	CASING CEMENTED _____ SIZE _____ No. FT. _____ Date			
Rock Pressure _____ lbs. _____ hrs.	8-1/4" 1312'-09" mudded to surface			
Oil None bbls., 1st 24 hrs.	COAL WAS ENCOUNTERED AT _____ FEET _____ INCHES			
Fresh water _____ feet _____ feet	110 FEET 24 INCHES			
Salt water 1598 to 1625 feet _____ feet	419 FEET 43 INCHES 634 FEET 24 INCHES			
	824 FEET 46 INCHES 912 FEET 24 INCHES			

Formation	Color	Hard or Soft	Top	Bottom	Oil Gas or Water	Depth Found	Remarks
Clay	Yellow	Soft	0'	22'			
	22'-00" of 10" drive pipe used						
Sand	Light	Soft	22	75			
Clay	Black	Soft	75	110			
Coal	Black	Soft	110	112			Coalburg
Clay	Black	Soft	112	202			
Sand	White	Soft	202	225			
Slate&Shells	Dark	Soft	225	251			
Sand	White	Soft	251	281			
Slate	Dark	Soft	281	350			
Lime	White	Hard	350	419			
Coal	Black	Soft	419	423			Chilton
Slate	Dark	Soft	423	436			
Sand	White	Hard	436	550			
	Fresh water 38.3 g.p.h. at 495'						
Slate&Shells	Light	Soft	550	600			
Sand	White	Hard	600	634			
Coal	Black	Soft	634	636			Williamson
Slate	Dark	Soft	636	654			
Sand	White	Hard	654	685			
Slate	Dark	Soft	685	798			
Sand	White	Hard	798	824			
Coal	Black	Soft	824	828			#2 Gas S.L.M.
Sand	White	Hard	828	912			
Coal	Black	Soft	912	914			Eagle
Slate&Shells	Dark	Soft	914	954			
Sand	White	Hard	954	987			
Slate	Dark	Soft	987	1208			
Sand	White	Hard	1208	1233			
Slate	Dark	Soft	1233	1243			
Sand	White	Hard	1243	1292			
Slate	Dark	Soft	1292	1304			
1st Salt Sand	White	Hard	1304	1485			
	8-1/4" casing with steel shoe set in 1/2 barrel of red clay at 1312'-09" S.L.M.						
Lime	Black	Soft	1485	1495			
Slate	Dark	Soft	1495	1515			
Lime	Black	Hard	1515	1550			
Slate	Dark	Soft	1550	1568			

Formation	Color	Hard or Soft	Top	Bottom	Oil, Gas or Water	Depth Found	Remarks
	t Sand White	Hard	1568	1934			
	Salt water at 1598' to 1625' - 92.6 g.p.h.						
	Salt water at 1723' filled 600' of hole						
Slate	Black	Soft	1934	1935			
Sand	Dark	Hard	1935	1965			
Slate	Blue	Soft	1965	1973			
Red Rock	Red	Soft	1973	1983			
Line Shells	Dark	Hard	1983	1990			
Red Rock	Red	Soft	1990	2014			
Line	Dark	Hard	2014	2026			
Red Rock	Red	Soft	2026	2071			
Slate	Blue	Soft	2071	2096			
Line	Black	Hard	2096	2142			
Slate	Dark	Soft	2142	2154			
Red Rock	Red	Soft	2154	2173			
Sand	White	Hard	2173	2204			
Red Rock	Red	Soft	2204	2206			
Line	Light	Hard	2206	2216			
Red Rock	Red	Soft	2216	2219			
Line	Light	Hard	2219	2298			
Maxton Sand	White	Hard	2298	2365 $\frac{1}{2}$			
Line	Black	Hard	2365 $\frac{1}{2}$	2394			
Slate	Dark	Soft	2394	2397			
Line	Black	Hard	2397	2458			
Big Line	White	Hard	2458	2632			
6-5/8" casing with steel shoe set in 2/3 barrel of red clay at 2466'-04"							
Gas showing at 2483' to 2486'							
Gas at 2558'							
Big Injun	Red	Hard	2632	2705			
Gas at 2703'							
Slate&Shells	Dark	Hard&Soft	2705	3127			
Gas at 2709'							
Coffee Shale	Black	Soft	3127	3143-11"			
Berea Grit	Light	Hard	3143-11"	3174-01	S.L.M.		
Gas at 3145'-01"							
Gas at 3171' to 3174'							
Slate	Dark	Soft	3174-01	3194-05			
Total depth - 3194'-05" S.L.M.							

Date July 11, 1939, 19

APPROVED BOONE COUNTY COAL CORP., Owner

By _____
General (Title) **Manager**