

Beaver Coal Co. No. 15 (1091) Well

Slab Fork District, Raleigh County, W. Va.

By Godfrey L. Cabot, Inc., Charleston, W. Va.

Located 4.97 mi. S. of 37°45' and 3.00 mi. W. of 81°15' - NE - Malleens  
Quadrangle.

Elevation 1950.76' L. (2105 in record after completion)

Permit Ral-28

Drilling commenced March 16, 1943; completed June 23, 1943.

Gas well; 39,000 cu. ft.

Fresh water, 0-160', 3 bailers in 2 hours; 268', held full.

10 1/2" casing, 224'; 8 5/8", 523'; 7", 2235'; 2" tubing, 2086'.

Section based on samples from 220 to 3525', examined by J.H.C. Martens. A gap in the samples from 2211 to 2677' makes the location of the top of the Greenbrier Limestone very uncertain. Several small gaps in the samples do not affect the placing of formation boundaries. There does not appear to be any Berea Sandstone but the Berea Horizon is tentatively located at 3379' in the assumption that a very dark shale just above this is the Sambury.

Pottsville Formation, 400+ feet

Top	Bottom	Thickness	
220	251	31	Sandstone, white, fine
251	255	4	Shale, dark-gray
255	268	13	Siltstone, dark-gray, shaly
268	276	8	Sandstone, gray, very fine
276	280	4	Sandstone, light-gray, very fine, 70%; black shale and coal, 30%
280	284	4	Coal, 40%; very fine, light-gray sandstone, 60%
284	294	10	Siltstone and silty shale, gray
294	301	7	Coal
301	307	6	Shale, dark-gray, very silty, 50%; lighter gray siltstone, 50%
307	314	7	Sandstone, nearly white, very fine, 60%; gray shale and siltstone, 40%
314	321	7	Shale and siltstone, dark-gray
321	325	4	Shale, dark-gray to black, silty, 50%; fine, light-gray sandstone, 50%

Top	Bottom	Thickness	
325	331	6	Sandstone, white, fine
331	337	6	Sandstone, light-brown, medium-grained, 90%; coal, 10%
337	338	51	Sandstone, light-gray to brownish, medium-grained
338	394	6	Shale and siltstone, dark-gray, 80%; fine gray sandstone, 20%
394	400	6	Shale, very dark-gray, silty
<u>Murch Clank Group, 1802 feet</u>			
400	407	7	Shale, nearly white, soft, with many yellow siderite spherulites, 70%; dark-gray to black shale, 25%; coal 5% (the coal and black shale are probably basal Pottsville)
407	413	6	Shale, light-gray, with abundant yellow siderite spherulites; also a little white siltstone with siderite spherulites
413	421	8	Shale, light-grayish green, silty and micaceous, with many siderite spherulites
421	434	13	Shale, light-green, soft
434	438	4	No sample
438	444	6	Shale, mostly green, also small amounts of gray, brown and red shale
444	454	10	Shale, green and red, 80%; sandstone, light-green, very fine, 20%
454	460	6	Shale, grayish-red, calcareous
460	470	10	"Redrock" (no sample)
470	481	11	Shale, red, 80%; light-green siltstone, 20%
481	509	28	Siltstone, green, calcareous
509	523	19	Siltstone, gray, fine, slightly calcareous
523	538	10	Shale, gray, silty
538	547	9	Siltstone, green and gray, 60%; red silty shale, 40%
547	555	8	Siltstone, light-green, calcareous
555	563	8	Shale, red
563	571	8	Sandstone, light-gray
571	580	9	Shale, red
580	591	11	Siltstone, light-green, calcareous, 80%; red shale, 40%

Top	Bottom	Thickness	
591	601	10	Sandstone, gray, very fine
601	611	10	Siltstone and silty shale, grayish-green, 70% red shale, 30%
611	620	9	Siltstone, gray
620	626	6	No sample
626	632	6	Sandstone, white, medium-grained (sample out of place?)
631	641	10	Shale, red, 70%; light-gray shale and siltstone, 30%
641	653	12	Sandstone, white, fine; also a little red and gray shale
653	664	11	Sandstone, light-gray, fine, 60%; red and green shale, 40%
664	675	11	Siltstone and silty shale, gray
675	685	10	Shale, gray, silty
685	694	9	Siltstone, and shale, gray
694	744	50	Sandstone, white, fine to medium-grained
744	754	10	Shale, very dark gray, pyritic, 60%; gray siltstone, 40%
754	763	9	Shale, dark-gray to black, with a trace of coal, 60%; gray siltstone, 40%
763	770	7	Shale, red, calcareous
770	780	10	No sample
780	789	9	Sandstone, white, very fine
789	923	134	Shale, dark-gray, mostly silty
923	973	50	Shale, dark-gray to very dark gray; not sharply separated from the shale above but mostly finer and more distinctly laminated
973	983	10	Siltstone, gray
983	1014	31	Sandstone, white, medium-grained
1014	1020	6	Siltstone, gray, 60%; white, medium-grained sandstone, 40%
1020	1054	34	Sandstone, white, medium-grained, 30%; gray siltstone, 1042-1049'
1054	1059	5	No sample
1059	1067	8	Sandstone, white, medium-grained, 50%; grayish- green shale, 50%

Top	Bottom	Thickness	
1067	1099	32	Shale, gray
1099	1103	4	Shale, gray, fossiliferous, 60%; gray limestone, 40%
1103	1149	46	Limestone, gray, shaly, fossiliferous, insoluble residus is so large that much of this might also be called calcareous shale
1149	1279	130	Shale, red; some calcareous material throughout
1279	1291	12	Shale and siltstone, gray
1291	1348	57	Shale, red, slightly calcareous
1348	1391	43	Siltstone, red, sandy, calcareous
1391	1402	11	Shale and siltstone, gray
1402	1414	12	Siltstone, gray
1414	1424	10	Shale, red, 50%; gray siltstone, 50%
1424	1436	12	Shale, grayish-red
1436	1466	30	Dolomite, light-gray, very fine textured and shaly; small amount of white anhydrite, 1445-1466'
1466	1492	26	Shale, gray with some red, partly dolomitic
1492	1500	8	Sandstone, white, very fine
1500	1527	27	Siltstone, gray
1527	1534	7	Sandstone, white, very fine
1534	1547	13	Limestone, dark-gray, shaly, 60%; gray shale and siltstone, 40%
1547	1567	20	Shale, dark-gray, calcareous
1567	1589	22	Shale, red and gray, dolomitic
1589	1611	22	Siltstone, light-gray
1611	1672	61	Shale, red, partly dolomitic
1672	1681	9	Shale and siltstone, gray; also much red shale; sample may be mostly cavings
1681	1766	85	Shale, red
1766	1805	39	Shale, black, silty, pyritic
1805	1815	10	Shale, and siltstone, gray
1815	1857	42	Sandstone, white, very fine
1857	1897	40	Shale, greenish-gray, dolomitic
1897	1907	10	Limestone, dark-gray

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Top	Bottom	Thickness	
1907	1946	39	Siltstone and silty shale, dark-gray
1946	1961	15	Siltstone and shale, very dark-gray, 60%; white, very fine sandstone, 40%
1961	1972	11	No sample
1972	2000	28	Sandstone, white, very fine, 70%; shale of various kinds, 30%
2000	2040	40	Sandstone, white, very fine
2040	2060	20	Shale, dark-gray, to black, calcareous and pyritic (gas, 2042-2046')
2060	2139	79	Limestone, darkgray to black, shaly and fossiliferous
2139	2143	4	Shale, gray, fossiliferous, 70%; gray limestone, 30%
2143	2168	25	Limestone, brownish-gray with nearly white spots, fossiliferous
2168	2183	15	Shaly, gray with a little limestone
2183	2202	19	Shale, gray, 60 to 70%; gray fossiliferous limestone, 40 to 30%
			<u>Greenbrier Limestone, 482 feet</u>
2202	2211	9	Limestone, light grayish yellow, 60%; gray, thinly laminated, fossiliferous shale, 40%
2211	2577	366	No sample
2577	2611	34	Limestone, very light brown with a few colites
2611	2627	16	Limestone, light brownish gray
2627	2647	20	Limestone, very light brown to nearly white, dolomitic
2647	2684	37	Limestone, very light gray, very fine textured, highly dolomitic, a little anhydrite, 2677-2684'
			<u>Maccrady Formation, 53 feet</u>
2684	2707	23	Shale, red, containing a small amount of white anhydrite
2707	2724	17	Siltstone, gray
2724	2737	13	Siltstone, grayish-green, 50%; dark-red, highly dolomitic siltstone, 50%; a few fragments are mostly dolomite with some anhydrite and red hematite

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Pecono Formation, 642 feet

Top	Bottom	Thickness	
2737	2838	101	Siltstone, gray; most samples contain a little very dark gray silty shale
2838	2898	60	Siltstone, gray
2898	2911	13	Siltstone, dark-gray, fine and shaly
2911	2921	10	Siltstone, gray
2921	2931	10	Sandstone, gray, very fine
2931	2949	18	Sandstone, gray, very fine, with a few coarse grains
2949	2954	5	Sandstone, gray to dark-gray, fine; also a little gray shale and siltstone
2954	2984	30	Sandstone, white with some rust stains; medium-grained
2984	3020	36	Sandstone, very light gray, fine - to medium-grained
3020	3169	149	Shale, dark-gray; about 5% of very fine pyritic sandstone, 3169-3169'
3169	3173	4	No sample
3173	3187	14	Shale, dark-gray
3187	3250	63	Siltstone, light-gray, partly sandy, 60 to 70% dark gray shale, 40 to 30%
3250	3298	48	Shale, dark-gray, partly silty, 50 to 60%; gray fine siltstone, 50 to 40%
3298	3318	20	Shale, dark-gray, with small amount of siltstone
3318	3348	30	Shale and siltstone, gray; most of the shale is dark to very dark
3348	3379	31	Shale, very dark gray (Sunbury Shale)
<u>Devonian Shales, 146+ feet</u>			
3379	3418	39	Shale and siltstone, gray
3418	3473	55	Siltstone, gray to light-gray, with small amounts of shale
3473	3487	14	Shale and siltstone, gray
3487	3525	38	Siltstone, gray, with small amount of darker gray shale
3525			Total depth (SLM)