

A. L. Cottrill No. 1 (7685)

Glenville District, Gilmer County, W. Va.

By Pittsburgh and West Virginia Gas Company, Pittsburgh, Pa.

Located 3.4 mi. W. of 80°45' and 3.58 mi. S. of 39°00' -NEa Glenville Quadrangle;

2.5 mi. N. E. of Glenville.

Elevation, 1102' L.

Drilled under permit, (Gil-351).

Drilling commenced Feb. 23, 1939; completed, March 20, 1939.

15" wood conductor, 11'; 10" casing, 155'; 8 1/4", 783'; 6 5/8", 1760'.

Dry hole.

Record based on examination of samples.

Top	Bottom	Thickness	
0	20	20	Clay, brown, containing limonite concretions
20	58	38	No samples
58	104	46	Shale, mixed gray, red and yellow, calcareous; also some fine sandstone
104	122	18	Clay, red, calcareous
122	182	60	Shale, grayish-green, mostly silty; contains some calcareous material, apparently as streaks and nodules rather than evenly distributed
182	200	18	Siltstone, green, micaceous, slightly calcareous; contains some black specks of carbonaceous material
200	235	35	Sandstone, green, very fine
235	335	100	Clay and soft shale, red, calcareous; considerable yellow mixed with the red down to 275'
335	355	20	Siltstone, green, with considerable amount of red clay and some green shale; sample 335 to 340' is more than half red clay
355	366	9	Clay, red and yellow, 70%; green siltstone, 30%
366	386	20	Shale, green and gray; upper half very silty
386	395	9	Clay, red, calcareous
395	418	23	Clay, red, 60%; light-gray, very fine textured limestone, 40%
418	448	30	Shale, green, silty, micaceous; considerable limestone and some red shale, probably both from above

Top	Bottom	Thickness	
448	459	11	Shale, dark-gray, fossiliferous; contains abundant fragments of crinoid stems and fragments of other fossils
459	480	21	Siltstone, grayish-green
480	488	8	Sandstone, light-grayish green, fine
488	525	<sup>3</sup> 37	Shale, green, mostly silty
525	541	16	Shale, light-gray with a little green
541	554	13	Limestone, brown and light-gray, very fine textured
554	564	10	Shale, gray
564	572	8	Shale, black, with a little coal
572	600	28	Shale, gray, soft; with some fine textured gray to brown limestone
600	630	30	Sandstone, nearly white, medium-grained; contains muscovite, biotite, chlorite, kaolin and pyrite
630	650	20	Shale, black, silty, micaceous
650	666	16	Clay, red and gray
666	776	110	Shale, grayish-green; interstratified with green, micaceous siltstone; samples contain some limestone, which probably occurs as concretions
776	806	30	Shale, gray; top half fine and soft, bottom half harder, silty and calcareous
806	830	24	Sandstone, light grayish green, fine, micaceous
830	866	36	Sandstone, white, coarse; contains some mica and kaolin
866	900	34	Shale, gray to grayish-green, silty, micaceous; some fragments contain siderite spherulites
900	923	23	Shale, dark-gray to black, mostly silty; with a little coal (coal probably between 900-911)
923	936	13	Shale, gray, soft; mostly resembles fire-clay
936	981	45	Sandstone, white, medium-grained; contains small amounts of mica, chlorite and kaolin
981	992	11	Shale, dark-gray to black, with traces of coal
992	1053	61	Shale, mixed light- and dark-gray; many siderite spherulites in lighter part
1053	1085	32	Siltstone, black, shaly; contains much mica, carbonaceous matter and siderite

Top	Bottom	Thickness	
1085	1110	25	Sandstone, light-gray, very fine; a little coal in upper part of interval
1110	1235	125	Shale, and siltstone, dark-gray, micaceous; a little light-gray, very fine sandstone from 1177 to 1210; fragments of siderite concretions in several samples
1235	1256	21	Shale, black, fissile; a little coal 1244 to 1256'
1256	1310	54	Shale, dark-gray, very silty, with siderite concretions
1310	1378	68	Sandstone, white, medium-grained; contains small amounts of kaolin, mica, and chlorite (gas at 1358, 12/10 water in $\frac{1}{2}$ " )
1378	1402	24	Siltstone, gray, shaly; a little light-gray, fine sandstone near bottom
1402	1465	63	Shale, dark-gray, silty; contains siderite concretions
1465	1491	26	Sandstone, white, very fine
1491	1500	9	Siltstone, gray
1500	1517	17	Shale, black, fissile
1517	1533	16	Sandstone, white except for some dark shaly streaks, very fine
1533	1549	16	Shale, light- and dark-gray, partly silty; light part contains many siderite spherulites
1549	1558	9	Sandstone, light-gray, very fine
<u>Mauch Chunk Group, 160 feet.</u>			
1558	<del>1597</del>	<del>39</del>	Shale, red and green, calcareous; throughout this interval there is 60 to 70% red and the rest green
1597	1638	41	Shale, grayish-red, gray and green; calcareous; similar to interval above but colored not so bright; a little limestone from 1637 to 1638'
1638	1648	10	Limestone, light-gray, very fine textured, somewhat dolomitic; also some red and green shale and white to green siltstone
1648	1657	9	Shale, red, calcareous
1657	1666	9	Shale, gray, calcareous
1666	1692	26	Limestone, dark-brown, gray when dry; with 30 to 40% of gray shale ("Little Lime")
1692	1708	16	Sandstone, nearly white, very fine hard; with about equal amount of gray and green shale

Top	Bottom	Thickness	
1708	1718	10	Shale, gray; with much limestone (Pencil Cave)
<u>Greenbrier Limestone, 159 feet.</u>			
1718	1733	15	Limestone, gray to brown, fossiliferous; contains a few oolites but is not made up of them to any great extent
1737	1773	36	Limestone, brownish-gray; mostly very fine textured, but contains a little more coarsely crystalline calcite in fossils (gas show at 1745)
1773	1787	14	Limestone, dark-brown, nearly neutral gray when dry
1787	1805	18	Limestone, light-gray, sandy, with a few oolites near top
1805	1829	24	Limestone, brownish-gray, containing a little sand
1829	1842	13	Limestone, light-gray, very fine textured
1842	1849	7	Sandstone, white with yellow stain, very fine, not calcareous (this sample may be out of place since it contains no limestone and the one immediately below contains no sandstone); gas 1847 to 1849, 8/10 water in 1"; SIM; 1849
1849	1854	5	Shale, dark-gray; with large amount of dark-brown limestone which looks like that from 1866 to 1892; this sample is probably out of place
1854	1877	22	Limestone, nearly white, sandy; samples do not contain any of the dark shale and limestone like that in sample labelled 1849 to 1854
<u>Pocoho Formation, 29+ feet.</u>			
1877	1906	29	Shale, grayish green, silty
	1906		Total depth