

Cal-

Godfrey L. Cabot No. 1 (7818) Well.

Washington District, Calhoun County, W. Va.

By Hope Natural Gas Company, Clarksburg, W. Va.

Located 4.44 ^{mi} W. of 81°00', and 1.3 mi. S. of 38°45' -NE- Otter Quadrangle.

1.8 mi. N.E. of Minera on western branch of Big Run.

Elevation 889' L.

Permit, Cal-473

Drilling commenced, Oct. 12, 1938; completed, Nov. 17, 1938.

Fresh water at 20 feet; no salt water recorded.

10" casing, 127'; 8 1/4", 882'; 6 5/8", 1805'; all left in.

Casing not cemented. No coal was encountered.

Dry hole. Record from Smith, Dec. 20, 1938.

Record Based on Examination of Samples.

Top	Bottom	Thickness	
0	18	18	Sandstone, green, fine, containing much mica and chlorite; weathered mostly to brown clayey sand in top 7 feet (water at 20 feet)
18	25	7	Shale, red and yellow, soft
25	30	5	Siltstone, green; also some red, green and yellow shale
30	45	15	Shale, red, green and yellow, very soft, calcareous
45	98	43	Sandstone, green, very fine, almost as siltstone in upper part; contains biotite, muscovite, chlorite, pyrite, and in some samples spherulitic siderite; a little limestone (probably from nodules) in samples from 45 to 93 feet
98	109	11	Sandstone, light-green, fine, micaceous; similar to last but a little coarser and lighter colored
109	114	5	Limestone, light-brown
114	124	10	Sandstone, light-green, pyritic, shaly
124	220	96	Clay and soft shale, red, calcareous; a little yellow shale and small limestone nodules in some samples; some green shale and siltstone from 200 to 205'
220	235	15	Sandstone, green, very fine, micaceous
235	240	5	Shale, red, soft, silty
240	245	5	Sandstone, green, fine, micaceous

Top	Bottom	Thickness	
245	255	10	Sandstone, green, fine, shaly, micaceous; with about equal amount of soft red shale
255	280	25	Shale, red, soft, calcareous
280	290	10	Siltstone, green
290	320	30	Sandstone, white with specks of green, coarse; crystal faces on some quartz grains
320	349	29	Clay, red and yellow, calcareous; a little green shale at bottom
349	384	35	Sandstone, light-green, medium- to ^{co} fin-grained; with streaks of darker green siltstone
384	391	7	Limestone, light-gray to brownish, with large amount of red and green shale
391	405	14	Shale, red and green, soft; with gray limestone; similar to 384 to 391' but less limestone
405	419	14	Clay, red, calcareous
419	436	17	Siltstone, green, micaceous
436	490	54	Clay, red and yellow, calcareous; more red at top and more yellow toward bottom; contains small limestone nodules
490	511	21	Sandstone, very light greenish gray, medium-grained; contains, kaolin, muscovite, biotite and chlorite
511	537	26	Clay, light-gray and red
537	599	62	Shale, green, with large amount of green, micaceous siltstone and in upper half fine, green sandstone
599	700	101	Sandstone, very light-gray, medium-grained; from 599 to 646' broken in large chips, below that mostly pounded finer; contains mica, chlorite, and kaolin
700	714	14	Shale, gray, containing siderite spherulites; with large amount of sandstone, probably from above
714	739	25	Shale, gray to green, very silty, micaceous, contains brown siderite, partly as spherulites
739	756	17	Sandstone, light-gray, very fine, interbedded with gray shale; sandstone contains very small siderite spherulites
756	807	51	Sandstone, very light gray, with green and black specks, medium-grained; contains small amounts of mica, chlorite, kaolin and pyrite

Top	Bottom	Thickness	
807	885	78	Sandstone, very light gray, medium- to coarse-grained; has some micaceous streaks finer and darker than the rest of the rock; not sharply separated from the sandstone either above or below
885	973	88	Sandstone, very light gray, medium grained; contains a little mica chlorite, kaolin and pyrite; there is a little coal in several samples but not enough to indicate presence of any important seam; between 938 and 955' there are some streaks of dark-gray, silty, micaceous shale
973	988	15	Shale, gray
988	1120	132	Sandstone, light-gray, fine- to medium-grained; contains muscovite, biotite, chlorite, pyrite, siderite, and kaolin; two samples (1040 to 1057') have about ten per cent of black shale and a little coal; drillers record shows black slate, 1045 to 1055'
1120	1155	35	Shale, gray, with about an equal amount of sandstone, which is partly dark-gray and shaly and partly light-gray like the sandstone above
1155	1211	56	Shale, gray, very silty, micaceous; a large proportion of the fragments are coarse enough to be called siltstone; contains siderite, partly in spherulites
1211	1235	24	Sandstone, gray, shaly, micaceous; the sandstone has a relatively low quartz content; it contains muscovite, biotite, chlorite, pyrite, siderite, kaolin and carbonaceous matter; samples also contain much dark-gray, silty shale
1235	1307	72	Shale, dark-gray; with streaks of micaceous siltstone and very fine sandstone
1307	1365	58	Shale, dark-gray, silty, micaceous; with large amount of interbedded light-gray very fine sandstone
1365	1397	32	Sandstone, gray, very fine shaly, micaceous; has dark-gray streaks of siltstone and silty shale
1397	1433	36	Shale, dark-gray; with large amount of lighter gray siltstone containing siderite spherulites

Top Bottom Thickness

1433	1493	60	Siltstone, light-and dark-gray in thin laminae; contains mica, chlorite, and siderite, the ^{or} last partly in spherulites
1493	1517	24	Sandstone, lightgray, very fine, micaceous, sideritic; differs only slightly from preceding in being of a slightly coarser texture and more uniformly light color
1517	1618	101	Shale, dark-gray, silty; siderite spherulites are abundant in fragments of shale that are lighter colored and finer textured than most
1618	1656	38	Sandstone, nearly white, with large proportion of quartz; coarse in lower part and medium-grained in upper part of interval; contains very small amounts of mica and kaolin
1656	1668	12	Sandstone, nearly white, fine with a few coarse grains
<u>Mauch Chunk Group, 105 feet.</u>			
1668	1673	5	Shale, gray and green, dolomitic
1673	1693	20	Shale, gray and green, calcareous; mostly smooth and fine textured, but some coarser and silty; a little red shale (most in sample 1673-1680), this is probably not cavings because there has been no red shale in many samples above this
1693	1710	17	Shale, grayish-green; with considerable amount of brownish-gray limestone
1710	1744	34	Limestone, brownish-gray, mostly very fine textured but contains some fossil shells which are more coarsely crystalline than the rest; also some gray to grayish-green shale, perhaps cavings ("Little Lime")
1744	1768	24	Sandstone, white, very fine, slightly calcareous; a few colites in sandy limestone from 1744 to 1752; these are probably from about the contact of the sandstone with the overlying limestone
1768	1773	5	Shale, dark-gray, soft, fissile ("Pencil Cave")
<u>Greenbrier Limestone, 163 feet.</u>			
1773	1783	10	Limestone, dark-gray
1783	1820	37	Limestone, light-brown (nearly neutral-gray when dry), mostly very fine textured
1820	1832	12	Limestone, light-gray, slightly brownish, colitic and sandy; some of coarser sand grains are well rounded

Top	Bottom	Thickness	
1832	1844	12	Limestone, light-gray, slightly brownish, oolitic
1844	1865	21	Sandstone, light-gray, slightly brownish, fine, highly calcareous; contains a few oolites
1865	1895	30	Sandstone, very light-gray, medium-grained, highly calcareous; sand is poorly sorted with larger grains well rounded; contains a few oolites
1895	1911	16	Limestone, light-gray, slightly yellowish or brownish, somewhat dolomitic; contains some sand like that in sandstone above
1911	1925	14	Limestone, brownish-gray, dolomitic, with very little sand
1915	1936	11	Limestone, brownish-gray, dolomitic; contains a little more sand than the limestone above and a few indistinct oolites but is otherwise similar; detrital material is poorly sorted and particles vary all the way from medium-grained sand to silt; larger sand grains well rounded
<u>Poccano Formation (A), 152+ feet.</u>			
1936	1940	4	Shale, red; varies from bright-red through grayish-red to gray
1940	2088	148	Shale and siltstone, gray to grayish-green, most samples slightly calcareous
	2088		Total depth