

Allen Hardman No. 1 (7912) Well

located on map
checked intervals

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Center District, Calhoun County, W. Va.

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

Located 2.84 mi. W. of 81° 05' and 4.34 mi. S. of 39° 00' -

NE - Arnoldsburg Quadrangle; 2.5 mi. W.N.W. of
Broasterville.

Elevation, 881' L.

Permit Cal - 526

Drilling commenced Oct. 16, 1939; completed, Nov. 17, 1939.

Shot Nov. 20, 1939, at 1841-1850'

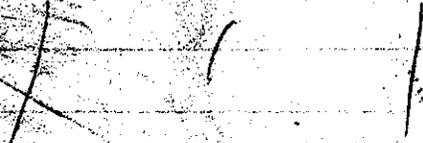
gas well; volume 143,000 cu. ft.

Fresh water at 50'; salt water at 1595'.

10" casing, 255'; 8 1/4", 931'; 6 5/8", 1779'; all left in; not
cemented.

No coal was encountered.

Top Bottom Thickness



HARDMAN #1 (7912)

CALHOUNE

CAL 526

Allen Hardman No. 1 (7912)

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Top	Bottom	Thickness	<u>Pennsylvanian, 482 feet (shown by samples)</u>
1238	1255	17	Sandstone, white, medium-grained; contains mica, chlorite and, kaolin
1255	1260	5	Sandstone, light-gray, shaly, micaceous
1260	1286	26	Shale, dark-gray
1286	1303	17	Sandstone, nearly white, fine; contains considerable mica, chlorite and kaolin; about 10% of black, highly carbonaceous shale, 1286 to 1292'
1303	1322	19	Sandstone, white, medium-grained, with mica, chlorite kaolin, siderite and thin streaks of carbonaceous material
1322	1328	6	Shale, dark-gray, calcareous
1328	1335	7	Shale and siltstone, light- to dark-gray
1335	1350	15	Siltstone, gray, micaceous; lower half is almost coarse enough for sandstone
1350	1358	8	Shale, dark-gray, with fragments of pyrite and siderite concretions
1358	1446	88	Siltstone and shale, dark-gray, micaceous; contains siderite concretions
1446	1458	12	Siltstone and shale, light-gray; contains siderite spherulites

Top Bottom Thickness

- 1454 1499 41 Shale, dark-gray, silty, micaceous
- 1499 1507 8 Shale, brownish-gray, silty, with siderite spherulites
- 1507 1515 8 Shale and siltstone, gray and brown, micaceous
- 1515 1653 138 Sandstone, white, medium-grained, nearly all quartz with crystal faces on many grains (oil, 1576'; water, 1595'); most of the samples have some rust stain, but the one from the depth where water was encountered is pure white, presumably because it was less consolidated and did not wear the bit so much
- 1653 1663 10 Siltstone, gray, shaly
- 1663 1669 6 Sandstone, white, coarse, poorly sorted.
- 1669 1720 51 Sandstone, white, medium-grained, nearly all quartz
Mauch Chunk Group, 38 feet
- 1720 1722 2 Shale, gray
- 1722 1743 21 Limestone, brown; a little gray shale, 1736 to 1743'
- 1743 1746 3 Limestone, light-brown, 70%; green sandy shale, and fine gray sandstone, 15% each
- 1746 1752 6 Siltstone, gray and green, grading into very fine sandstone and silty shale; also some light-brown limestone

Top	Bottom	Thickness	
1752	1758	6	Shale, gray and green, partly sandy ("Pencil Core") <u>Greenbrier Limestone, 150 feet</u>
1758	1843	85	Limestone, light-brown, with small amount nearly white; oolites from 1761 to 1778' and 1816 to 1823'
1843	1874	31	Sandstone, light-brown, ^{to} grayish-yellow, medium-grained, highly calcareous; larger quartz grains are well rounded and frosted; contains rather scarce oolites (gas at 1843')
1874	1879	5	Sandstone, light-brown, calcareous and dolomitic
1879	1890	11	Limestone, light-brown, dolomitic; samples contain some sand, probably mostly from above
1890	1904	14	Limestone, dark-brown, dolomitic
1904	1908	4	Limestone, light-brown, very sandy, dolomitic
			<u>Pocono Formation, 57+ feet</u>
1908	1931	23	Sandstone, gray and green, fine, 80%; gray shale, 20%; small amount of red dolomitic sandstone which is apparently at the top of the Pocono or base of the Greenbrier; driller's record gives "slate" at 1908 to 1910' and 1915 to 1920' but the shale and sandstone are so mixed in the samples that it is not possible to check on this
1931	1952	21	Shale and siltstone, gray
1965			Total depth