

Defense Plant Corporation No. 1 Well

Franklin District, Marshall County, W. Va.

By Pittsburgh Plate Glass Company, New Martinsville, W. Va.

Located 0.04 mi. S. of 39°45' and 0.87 mi. W. of 80°50' -NC- New Martinsville

Quadrangle

Elevation, 689' L.

Permit, (Mars-131)

Drilled in 1942.

Top	Bottom	Thickness	
200	230	30	Limestone, light-brown to gray; also a little gray and green shale; considerable amount of sand and gravel, probably from alluvial deposits of Ohio River above
230	240	10	Siltstone, gray, micaceous
240	260	20	Limestone, brown to light-brown; also large amount of gray shaley siltstone
260	275	15	Sandstone, light-gray, very fine, micaceous and calcareous; there is a large amount of limestone and some shale in the samples
275	335	60	Limestone, brown to light-brown; also considerable amounts of gray siltstone and shale, and a little coal; much alluvial sand and some pebbles from above
335	345	10	Siltstone, gray, micaceous
345	350	5	Sandstone, light-gray, fine, micaceous
350	1322	972	No samples
1322	1352	30	Sandstone, light-gray to white, fine
<u>Greenbrier Limestone, 60 feet</u>			
1352	1381	29	Sandstone, white, medium-grained 60%; clay and shale of various colors, probably cavings, 40%; a very few fragments of nearly white limestone, perhaps from Greenbrier (one sample)
1381	1412	31	Limestone, nearly white, 5%; light brownish gray, fine, highly calcareous sandstone, 10%; white, medium-grained sandstone, 15%; clay and shale of various colors, 70% (one sample)

Top Bottom Thickness

Pocono Formation, 593 feet

Top	Bottom	Thickness	
1412	1442	30	Sandstone, white, coarse; also a little shale of various colors and a very few pieces of light-brown to white limestone (one sample)
1442	1450	8	Sandstone, white, coarse
1450	1495	45	Sandstone, medium to coarse-grained
1495	1525	30	Sandstone, white, medium-to fine-grained
1525	1530	5	Sandstone, white, coarse
1530	1535	5	Sandstone, white, medium-grained; a little coal and black shale
1535	1635	100	Sandstone, white to very light gray, medium- to fine-grained
1635	1675	40	Shale and siltstone, gray; proportion of siltstone increases toward bottom of interval
1675	1775	100	Siltstone, gray; in a general way this becomes coarser and more sandy toward bottom of interval
1775	1780	5	Sandstone, light-gray, very fine; only slightly coarser than the siltstone above and below
1780	1795	15	Siltstone, gray; sample from 1790-1795' has much shale cavings
1795	1875	80	Sandstone, white to light-gray, very fine; also includes considerable amounts of siltstone and a little gray shale
1875	1915	40	Siltstone and shale, gray; samples mixed with considerable amount of material from above
1915	1925	10	Siltstone, light-gray
1925	1955	30	Siltstone and shale, gray (samples in this interval contain large amounts of cavings or recirculated material, so it is difficult to determine true nature of rock drilled through)
1955	1975	20	Siltstone, gray, micaceous; relatively free from cavings
1975	2000	25	Shale, dark-gray, mostly silty; also some gray siltstone
2000	2005	5	Sandstone, white to very light-brown and very light-green, very fine, 50%; light-gray siltstone, 40%; gray, silty shale, 10% (Berea Sandstone?)

Top Bottom Thickness

Devonian Shales, 3325 feet

2005	2010	5	Siltstone, gray (sample is mostly cavings of gray clay, etc.)
2010	2065	55	Siltstone, light-gray to grayish-green
2065	2105	40	Siltstone, green, gray and red, shaly (large amount of gray and red clay cavings)
2105	2130	25	Siltstone, grayish-red, shaly
2130	2145	15	Siltstone, gray, shaly
2145	2155	10	Siltstone, grayish-red, shaly
2155	2165	10	Siltstone, light-gray, sandy
2165	2175	10	Siltstone, light-green to light-gray
2175	2215	40	Siltstone and silty shale, gray to grayish-green; also some very fine sandstone (samples are mostly cavings)
2215	2235	20	Siltstone and shale, gray to grayish-green
2235	2240	5	Sandstone, nearly white, fine, calcareous
2240	2245	5	Siltstone and shale, gray
2245	2250	5	Sandstone, light-gray, very fine
2250	2280	30	Siltstone and shale, gray to grayish-green
2280	2290	10	Sandstone, light-green, very fine; also some shale and siltstone
2290	2300	10	Siltstone, grayish-red
2300	2310	10	Siltstone and shale, green, grayish-red, etc. (samples are mostly cavings)
2310	2320	10	Shale and siltstone, gray? (samples mostly cavings)
2320	2325	5	Siltstone, grayish-green
2325	2340	15	Sandstone, nearly white, fine
2340	2380	40	Siltstone and shale, gray, green, and red (samples mostly cavings)
2380	2400	20	Sandstone, light-gray to white, very fine; also much shale and siltstone
2400	2420	20	Nearly all cavings
2420	2440	20	Siltstone and shale, grayish-green with a little red
2440	2460	20	Sandstone, light-gray, very fine
2460	2470	10	Sandstone, light-gray, very fine, 80%; gray, silty shale, 20%
2470	2510	40	Shale and siltstone, gray to grayish-green (samples mostly cavings)

Top	Bottom	Thickness	
2510	2530	20	Siltstone, grayish-red, micaceous
2530	2570	40	Siltstone, gray, grayish-green, and grayish-red, shaly
2570	2640	70	Probably gray shale and siltstone; samples are mostly cavings
2640	3290	650	Siltstone, gray to grayish-green; also some gray shale and cavings of red, gray, and green clay, limestone, sandstone and coal; the large amount of contamination of the samples renders it impossible to describe accurately the sediments drilled through in this interval
3290	3300	10	Shale, gray, 50%; light-gray siltstone, 50%; much less cavings than in samples from above
3300	3310	10	Sandstone, light-gray to white, very fine, grading into siltstone, 60%; gray shale, 40%
3310	3410	100	Shale, gray, 60 to 70%; lighter gray-siltstone, 40 to 30%
3410	3430	20	Siltstone, light-gray, 70%; gray to dark-gray shale, 30%
3430	3520	90	Shale and siltstone, gray; there is considerable variation in individual samples, but average amounts of the two rocks are about the same; the shale contains some thin streaks of dark-gray to brownish color
3520	3680	160	Siltstone, gray to grayish-green, 40 to 60%; gray shale, 60 to 40%; about the same as 3450-3520'
3680	4170	490	Shale, gray to dark-gray, 50 to 80%; gray siltstone, 50 to 30%; not sharply separated from the interval above but texture is finer and average color darker; individual fragments show every gradation from shale to siltstone and some plainly show the interstratification of shale and siltstone
4170	4930	560	No samples
4930	4990	60	Shale, gray; about 10% of very dark gray shale fragments
4990	5010	20	Shale, gray; same as interval above except that amount of very dark gray shale increases to 20 or 30%
5010	5260	250	Shale, gray; about 10 to 20% of very dark gray shale, at least a part of which is finely interstratified with the lighter shale as shown by fragments consisting of shale of both colors; a few small spores are present in some of the dark shale.