

Wheeling Steel Corporation No. 108 Well

Cross Creek District, Brooke County, W. Va.

By Wheeling Steel Corporation, Wheeling, W. Va.

Located 0.53 mi. W. of 80°35' and 5.27 mi. S. of 40°25' -C- Steubenville Quadrangle,  
0.3 mi. N. of Wheeling Steel Corp. No. 102 Well.

Elevation, 747.0', L.

Permit, Bro-23.

Drilling commenced May 27, 1940; completed Oct. 25, 1940.

Small amount of oil in Berea; well will be used for pressure purposes.

13" casing, 85'; 8 1/2", 341'; 6-5/8", 986'.

Coal was encountered at 200, 225, 296, and 356'.

Nearly complete set of samples examined by J. H. C. Martens.

The top of the Allegheny Formation is probably located less accurately than in the  
No. 102 well of the Wheeling Steel Corporation.

Top Bottom Thickness

| Top | Bottom | Thickness |   |
|-----|--------|-----------|---|
|     |        |           | <u>Pleistocene Alluvium, 75 feet</u>  |
| 0   | 75     | 75        | Sands and gravel  |
|     |        |           | <u>Conemaugh Formation, 132+ feet</u>   |
| 75  | 80     | 5         | Siltstone, gray, slightly calcareous  |
| 80  | 100    | 20        | Sandstone, light-gray, fine, slightly calcareous, 80%;<br>gray soft clay, 20%                 |
| 100 | 110    | 10        | Sandstone, brown, fine, siderite, 60%; gray soft clay, 40%                                    |
| 110 | 126    | 10        | Sandstone, gray and brown, fine, sideritic  |
| 120 | 140    | 20        | Shale, dark-gray, partly calcareous; a few fossil shell fragments                             |
| 140 | 207    | 67        | Shale and siltstone, grayish-green, micaceous; contains many<br>siderite spherulite, 140-186' |
|     |        |           | <u>Allegheny Formation, 163 feet</u>  |
| 207 | 217    | 10        | Sandstone, nearly white, fine, calcareous; contains muscovite,<br>chlorite and siderite       |
| 217 | 220    | 3         | Coal (depth in driller's record is 225-228')  |
| 220 | 242    | 22        | Siltstone, dark-gray, fine, shaly, micaceous  |
| 242 | 265    | 23        | Sandstone, white, medium-grained, with crystal faces on many<br>of quartz grains              |
| 265 | 275    | 10        | Siltstone, light-gray, with many siderite spherulites   |

| Top | Bottom | Thickness |  |
|-----|--------|-----------|--|
| 275 | 298    | 23        | Shale, gray, silty, micaceous; a little coal, 275-284'                             |
| 298 | 301    | 3         | Coal (Middle Kittanning)   |
| 301 | 310    | 9         | Limestone, light-gray, with some brown, very fine textured                         |
| 310 | 315    | 5         | Sandstone, light-gray, very fine; contains siderite concretions<br>and spherulites |
| 315 | 341    | 26        | Shale, dark-gray to black; contains a few siderite concretions                     |
| 341 | 347    | 6         | Siltstone, gray, shaly, micaceous  |
| 347 | 350    | 3         | Sandstone, white, fine, 50%; gray shaly siltstone, 50% (gas at<br>349')            |
| 350 | 356    | 6         | Shale, gray, silty   |
| 356 | 360    | 4         | Coal (gas at 356'; Clarion Coal)   |
| 360 | 370    | 10        | Shale, light-gray, soft, with a few siderite spherulites                           |

Pottsville Formation, 310 feet

|     |     |    |  |
|-----|-----|----|--|
| 370 | 400 | 30 | Sandstone, white, medium-grained   |
| 400 | 417 | 17 | Sandstone, light-gray and brown, fine, calcareous, sideritic   |
| 417 | 424 | 7  | Sandstone, white, medium-grained, with crystal faces on many<br>of quartz grains                             |
| 424 | 435 | 11 | Sandstone, light-gray, fine; contains siderite, muscovite,<br>and chlorite                                   |
| 435 | 450 | 15 | Sandstone, white, medium-grained   |
| 450 | 458 | 8  | Shale, gray, silty; contains siderite concretions  |
| 458 | 468 | 10 | Shale, nearly, white, silty, with yellow siderite spherulites,<br>70%; dark-gray shale, 30%                  |
| 468 | 481 | 13 | Siltstone and shale, gray; a little coal, 468-475'   |
| 481 | 486 | 5  | Clay, light-gray, soft   |
| 486 | 490 | 4  | Shale, light-gray, soft  |
| 490 | 508 | 18 | Siltstone, gray, shaly, micaceous  |
| 508 | 540 | 32 | Shale, gray, mostly very silty   |
| 540 | 549 | 9  | Siltstone, gray, shaly   |
| 549 | 555 | 6  | Sandstone, light-gray, very fine   |
| 555 | 570 | 15 | Sandstone, white, medium-grained, with much rust stain;<br>crystal faces on many quartz grains (gas at 570') |
| 570 | 657 | 87 | Sandstone, white, medium-grained, nearly all quartz, with<br>crystal faces on many grains                    |

| Top                                  | Bottom | Thickness |   |
|--------------------------------------|--------|-----------|---|
| 657                                  | 680    | 23        | Sandstone, light-gray, fine, with a few thin dark carbonaceous streaks  |
| <u>Greenbrier Limestone, 90 feet</u> |        |           |   |
| 680                                  | 685    | 5         | Shale, gray and green, soft, 70%; brown, very fine textured, highly dolomitic limestone, 30%  |
| 685                                  | 690    | 5         | Limestone, nearly white, 80%; soft gray and green shale, 20%  |
| 690                                  | 702    | 12        | Limestone, nearly white to light-brown  |
| 702                                  | 710    | 8         | Limestone, brown  |
| 710                                  | 716    | 6         | Limestone, brown, partly sandy  |
| 716                                  | 768    | 52        | Sandstone, nearly white, medium- to fine-grained, highly calcareous; contains many rounded and frosted grains; dolomitic, 752-768'                        |
| 768                                  | 770    | 2         | No sample   |
| <u>Pocono Formation, 568 feet</u>    |        |           |   |
| 770                                  | 780    | 10        | Sandstone, light-gray, fine, micaceous, noncalcareous   |
| 780                                  | 946    | 166       | Sandstone, nearly white, fine- to medium-grained; contains a high proportion of quartz; crystal faces on some grains; mostly broken up small              |
| 946                                  | 976    | 30        | Sandstone, light-gray, fine   |
| 976                                  | 1015   | 39        | Shale and siltstone, gray; samples mostly contaminated by large amount of rusty iron  |
| 1015                                 | 1051   | 36        | Siltstone, gray, 70 to 90%; gray, silty micaceous shale, 30 to 10%  |
| 1051                                 | 1252   | 201       | Shale and siltstone, gray; the shale and siltstone are present in approximately equal amounts and there is no sharp distinction between them              |
| 1252                                 | 1297   | 45        | Siltstone, gray; much of this could about as well be called very fine sandstone   |
| 1297                                 | 1328   | 31        | Shale, dark-gray; except for the interval 1319-1326', which is nearly all shale, there is 30% or more of lighter gray micaceous siltstone (Sunbury Shale) |
| 1328                                 | 1338   | 10        | Sandstone, white, fine, calcareous; darker pyritic streak at top (traces of oil, 1331-1338')  |
| 1338                                 |        |           | Total depth   |