



- 1. Clay, sandy with gravel; Illinoian till; 10% well graded sand, 20% well graded gravel, occasional cobbles. Coarse sand and gravel portions consist of both sub-angular shale particles and sub-rounded quartz grains. Shale fragments are both red and gray. Occasional coal inclusions. Soil color is generally red brown, moist, speedy moisture test results in 11.3, 15.7, and 10% moisture for 3 samples range from grade to CL to SC. Blow count for the horizon varies from 28 to 93 blows per foot with numerical average of 53 blows per foot. This strata correlation can vary to a SC with 10% medium plastic fines and a gray color. Field tests indicate that the strata is generally impermeable.
- 2. Wisconsin (?) Drift - Well graded sand, gravelly with 20-30% medium plastic fines (S'-SC) 30% well graded gravel 10% cobbles and boulders, Red Brown, very compact, blow count varies from 17 to 166 blows per foot with an average of 111 blows per foot.
- 3. SC - Well graded sand, gravelly with 20-30% medium plastic fines, 20-30% well graded gravels - Illinoian till, 20% cobbles and boulders, Red brown to gray Moist to wet, compact sandstone and shale fragments compose part of the sand and gravel portion of the soil.
- 4. Alluvium - Silt, fine sandy, 20% qtz. sand, moist to wet, brown to gray. Standard Penetration Test gives 3 - 12 blows per foot, correlation includes gray CL strata and old channels with cobbles and boulders. One speedy moisture test sample shows 26.1% moisture content.
- 5. Upland soil - Clay, silty, with 20% well graded sand, 10-20% occasional shale fragments, Yellow brown to red brown, impermeable, moist, one speedy moisture content of 18%. Blowcount ranged from 9 - 12 blows per foot with an average of 11 blows per foot.
- 6. Very weathered and decomposed shale, Hamilton brown, basically a clay shale with fractured filled with clay. The strata will excavate as an SC soil and after compaction should breakdown further into a CL soil. Some bedding is indicated in spoon samples. Material is moist and frequently has a water table on top of the material. Some portions of the strata have zones which are very permeable although the strata is frequently impermeable. One speedy moisture sample shows 26% moisture. Detailed standard penetration test data should be obtained from the log of this horizon.
- 7. Gray shale, black when wet, some calcareous sections, soft to moderately soft, broken; clay seams, fossiliferous in part. See water testing report sheet for strata permeabilities.
- 8. Black shale, hard solid to moderately broken, some broken with areas of calcite deposition, some calcareous portions. Water testing results can be obtained from the water testing sheet of the report.
- 9. Conolony Limestone formation, Gray limestone ranging from a shaly limestone to a limestone breccia. Calcite deposition fills some of the seams and shows evidence of breakage and reorientation; Other seams and arties are open or clay filled. Water testing results show a large leakage potential.

PA-497  
BRIAR CREEK WATERSHED  
COLUMBIA COUNTY, PENNA.

U. S. DEPARTMENT OF AGRICULTURE  
SOIL CONSERVATION SERVICE

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