



Plate 5: Possible Location of former well.
(Note: see Figure 6 for 1919 mapped location.)

CONCLUSIONS

The stacked nature of historic AC horizons encountered in STP 4 and Deep Test 1 indicate a series of alternating flood deposits scouring the floodplain, followed by short periods of stability allowing the floodplain to re-vegetate. This natural process was accelerated post 1914 following construction of the hydro-electric race which effectively narrowed the floodplain, thereby increasing flow velocity in this part of the stream. Thus, the buried AC horizons are not cumelic A horizons which form as a result of long term landform stability, but are rather the product of short term floodplain undergrowth, organic debris, and trash scoured from upstream floodplain segments and re-deposited on the floodplain surfaces downstream. The presence of modern plastic in the 3AC horizon supports this conclusion.

The intact overbank alluvium (BC and Bw horizons encountered in STPs 2 and 3 and Deep Test 1) indicates a slower rate of vertical aggradation, with longer periods of landform stability, allowing pedogenic structure to develop in the soil column. However, a true cumelic A horizon is not developed in this area.

RECOMMENDATIONS:

The profile of Deep Test 1 indicates that modern historic deposits extend to 55-70 cmbs. Horizon 3C represents a high-energy flood deposit which created a disconformity, or gap, in the stratigraphic sequence by scouring the existing surface horizon. Hence, preservation of *in situ* archaeological deposits is unlikely in the 3C horizons.

The highest probability for the preservation of undisturbed archaeological deposits lies below 130 cmbs in the 4Bw and 4 Bwg horizons, although no artifacts were recovered during the field investigations. No archaeological sites were identified during the field investigation; therefore the project will have no effect on archaeological historic properties listed or eligible for listing in the NRHP.

Although there is potential for archaeological deposits to be present in the lower packages of the terrace profile, current project plans call for this area to be used for staging equipment and materials and will not require subsurface disturbance, therefore it is improbable that archaeological deposits (if present) would be effected.

BIBLIOGRAPHY

- Dorsey Map c. 1950s: *Major Events in Wooddale History*. Copy provided by Mr. John Biggs III, 3 Fox Hill Road, Wooddale.
- Fenneman, NM, *Physiography of the Eastern United States* McGraw Hill, New York, 1938.
- Price, Francis A. Map 1919: Property of Charles G. Rupert, Wooddale, Newcastle County, Delaware. Provided by Mr. John Biggs III, 3 Foxhill Lane, Wooddale.
- Schnek, W, Plank, M, Srogi, L, *Bedrock Geologic Map of the Piedmont of Delaware and Adjacent Pennsylvania*, Delaware Geologic Survey, Geologic Map Series NO.10, 2000.
- Wilhelm, Robert E. *Red Clay Valley Rails*. Historic Red Clay Valley, Inc. Wilmington, DE. 1992.