

by Pleistocene terracing processes. The Patuxent-Black Creek contact undulates a few feet above and below water level. (For sketch map of Neuse River, see Fig. 4, p. 96.)

From Smithfield to Blackman's Bluff the river is bordered by low Pleistocene terraces, and as the observations were made at a time when the water was 8 or 10 feet higher than its normal stage, none but Pleistocene materials were seen for this distance. Had the water been low it is probable that Cretaceous beds would have been revealed at the base of some of the sections.

At Blackman's Bluff 117½ miles above New Bern only Black Creek beds were exposed, but it is possible a low-water stage would have revealed Patuxent beds at the base.

All the remaining Neuse River sections described below were prepared from observations made at medium to low water stages.

At 115¾ miles above New Bern and 1 mile above Cox's Bridge, the following section occurs:

SECTION 1 MILE ABOVE COX'S BRIDGE, RIGHT BANK.

Pleistocene:

	FEET.
Yellowish clay, becoming sandy towards base, containing occasional pebbles and small boulders of quartz and crystalline rock, especially near the base, and also a few rather large pieces of silicified wood	10
Gravel band	½
(Unconformity.)	

Cretaceous (Patuxent formation):

Dark gray, very compact, micaceous, arkosic sand.....	2
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Coors Mill Branch enters from the left bank a short distance above milepost 111 and just above Quaker Bridge. Coors mill is located about ½ mile up this branch, just where it leaves the higher land to cross the river flood plain. The foundation of the mill is built upon a crystalline phyllite rock which was observed rising to a height of 10 feet above the bed of the stream, and, as indicated by the occurrence of large angular quartz fragments, a short distance away on a higher terrace level at a height of 30 or 40 feet above the stream bed, the basement rocks probably penetrate upward entirely through the deposits of the Coastal Plain at this place. This is interesting as showing the great unevenness of the buried Piedmont surface in this region.

At Tollers Bridge, milepost 106, there was exposed at low water about 3 feet of light-drab, finely arenaceous and micaceous clay, of the