

the east side of the river. The section shows the great structural break and the lapse of time that must have occurred between the deposition of the two series of rocks.

The following section was measured :—

Glacial drift.....	40 feet
Unconformity.....	
Sandstone with beds of reddened shales.....	30 "
Unconformity.....	
Vertical black slates.....	20 "
River bed.....	90 feet

The reddened shales in the section probably correspond to the lignite beds of the section higher up, and indicate the previous combustion of the lignite. The slates stand in a vertical attitude, while the Tertiary beds, resting unconformably on the upturned and truncated edges of the slates, dip at a low angle to the east. The tilted surface of the Tertiary beds had been previously bevelled before the deposition of the glacial material, showing considerable lapse of time between the two periods. The Tertiary rocks are again exposed on the Peel river for a distance of about four miles and will be referred to later.

For the last mile the Wind river flows through a cañon 100 feet deep cut in upturned black slates and shales.

A small creek, which enters the Wind river a mile and a half from the mouth, cuts a deep and narrow gorge through heavy beds of black argillite. The creek has a beautiful waterfall with a sheer drop of fifty feet. The argillites are here seen to dip at a very low angle to the southwest, while at the contact with the Tertiary beds about a mile away they are almost vertical. The texture of these argillites is exceedingly fine-grained, and the largest particles in the rock are crystals of pyrite, which mineral also occurs in vugs and well defined veins. These rocks are also exposed on the Peel river for several miles above the north of the Wind river, and in them the upper cañon of the Peel is cut.

On the bars of the Wind river, two miles above the mouth of the Little Wind river, a great deal of float lignite coal occurs. This is probably derived from the Cretaceous rocks, through which the river flows for some miles above this. The lignite in the Tertiary rocks at the mouth of the Wind river has already been mentioned.

GOLD.

Some coarse colours of gold were panned out from a shovelful of dirt scraped from the rim rock at the mouth of Little Wind river.