

of medium texture, but, judging from the hand specimens, one cannot be certain that they are not massive gneiss. Tender grey mica schists, with rusty partings, were the only rocks met with along the third stretch, and also along the fourth, as far as the Duck Deer Rapids, above which gneiss was found for a few miles. In the neighbourhood of the upper extremity of the fourth stretch fine-grained greenish-grey calcareous diorite, with specks of iron pyrites, was found two miles below the Iroquois Portage and again one mile above the junction of the Black River at the end of this stretch. Compact dark-green diorite with conchoidal fracture occurs on the fifth or last stretch at twelve, and again at nine miles below Abittibi Lake. It holds occasional spots of white chalcedony, and the joints are lined with thin partings of calcspar. In some parts the rock is cut by numerous reticulating silicious strings containing grains of iron pyrites. These diorites are probably a westward continuation of similar varieties described by the late Mr. McOuat as extending westward, past the south side of Abittibi Lake, and which he mentions as occurring at the first (or Couchiehing) falls about seven miles below the lake. (See Report of Geological Survey for 1872, page 128.) Along the fifth stretch at the Two Portages, and at three other places in the twelve miles above them, Mr. Cochrane found grey argillaceous schists, slightly calcareous and having thin partings of calcspar in the joints.

*Drift.* It has been already mentioned that drift clays similar to those of the main Moose River extend up the Abittibi as far as the Sextant Rapids at the end of the first stretch. Marine shells were observed in these clays for some miles from the junction of the two rivers. At Moose Factory, I was informed that some years ago a party of Indians had found some large bones in the bed of the Abittibi in this part of its course. From the description, I judged them to be those of an extinct elephant. I have already referred to the discovery of the jaw of a mastodon where the Missinaibi and Mattagami Rivers join to form the main Moose River.

Some loose pieces of lignite were found on the west bank of the Abittibi a short distance above Big Cedar Creek, about twenty-three miles from the mouth.