

Laurentian rocks. These dykes affect to a great extent the geographical features of the country. Those which have become decomposed or have yielded to glacial action give rise to rivers and narrow lakes, which lie on their course. Falls and rapids, on the contrary, can be observed where hard dykes cross the courses of streams.

Veins of two classes cut the lower and upper formations; but with the exception of those which contain calspar as gangue and are apt to carry iron pyrites, blende, galena, and copper, no mineral of any value occurs in Canada in the Lower Laurentian formation.

*Upper Laurentian.*—The Upper Laurentian, divided by Hunt into Norian and Arvonian, is much more limited in geographical extent than the Lower formation. It is chiefly composed of series of Labradorite and Anorthosite rocks, and contains different metallic ores in paying quantities: for instance, iron ore, graphite, apatite are commonly found in that formation, with pyroxene and hypersthene rocks.—As we have said, the Upper Laurentian has been divided into two; the first and the oldest division received the name of Norian and is characterised by a group of gneissoid rocks, which appear to be identical with the Norwegian norites, and which are composed in great proportion of plagioclase feldspars, chiefly labradorite, with a little pyroxene or hypersthene and often titanite iron. The Norian group lies unconformably on the Lower Laurentian, and has a thickness varying from three thousand to four thousand yards.