

on the south shore. These rocks have been generally described in the Geology of Canada as sandstones, conglomerates, stratified traps and amygdaloids. In referring to them more minutely, the following rock-varieties may be distinguished as belonging to the upper group of the series:—

*Granular Melaphyre.*—A large number of the rocks of this series which have hitherto been described as traps and greenstones, belong to this species. The simplest variety of it is seen at the north-west end of Michipicoten Island, and consists of two minerals only, a felspar and a greenish black mineral. The felspar is the principal constituent, possesses a red, almost pink, colour, which it loses on ignition, and being readily fusible and but slightly decomposed by acids, is most probably oligoclase, or closely allied to that species in composition. The dark coloured mineral is easily fusible and has the appearance of augite. Some of it appears soft and decomposed, and has most probably been converted into delessite. These two minerals are combined into a small grained, distinctly compound rock, which does not effervesce with acids, and whose red colour is visible at a considerable distance. It is very seldom however that this rock is observed with such a bright colour, or with constituents so distinctly separated. Much more frequently the felspar has a dark reddish-brown colour, and the grains of augite or delessite have a very indistinct contour. This is the case with some of the melaphyres of Mamainse and Gros Cap. When the brown coloured felspar predominates, and the augitic or chloritic constituent becomes scarcer and even more indistinct, rock-varieties are developed belonging to the species Porphyrite, hereafter to be described. When, on the other hand, the dark greenish constituent gains the upper hand, and is recognisable as consisting almost exclusively of delessite, it gives rise to the variety of melaphyre next described.

*Delessitic Melaphyre.*—This rock has a greenish-gray colour, and consists of a granular mixture of felspar and delessite, with small portions of magnetite and undecomposed augite. In some instances mica is also found as a constituent. The delessite, besides occurring in small grains, often forms larger rounded particles and amygdules, without however imparting to the rock a very marked amygdaloidal structure. The rocks enclosing the cupriferous beds of the Pewabic and Quincy Mines, and that from the Quincy adit are examples of this variety, and have already been