

This same band was seen to outcrop at the extreme eastern end of the island, where it caps a detached rock mass known as Eastern Head. Here it would appear to be about 2 feet thick. It was traced westward from this point for nearly three miles, leaving about a mile or so, where it passed beneath swampy land, or through dense woods unexplored. There can be no manner of doubt that it continues unbroken through the entire extent of the island, from Bell Rock to the Eastern Head, a total distance of six and a quarter miles. The area occupied by this ore-bed should therefore approximately reach about six and three quarter miles. It will be seen that while there is no doubt about the continuity of the ore-bearing belt, it varies considerably in thickness, as is also the case with all the other bands, but judging from the numerous surface outcrops, and the masses of loose ore turned up here and there in cultivating the soil, I should be inclined to think it averages between three and four feet of good ore throughout.

The third and fourth ore beds are confined to the upper shales, above the quartzite, the former occupying an area of about one and a half square miles, the latter, of a little over a quarter of a square mile. The outcrops of these two bands have been thoroughly traced out by Mr. Chambers and they are all contained within the Company's leases, except a mere corner of the lower band. They are both perfectly parallel to each other, forming a gentle curved line, and are separated by about 150 feet of strata. The lower band, No. 3, ranges in thickness from 4 to 12 feet, averaging about 6 feet 6 inches. The upper band, No. 4, ranges from 3 feet 6 inches to 6 feet 6 inches averaging about 5 feet 6 inches. According to a rough estimate made by Mr. Chambers, the two together are believed to contain about (40,000,000) forty million tons of ore. Several thin irregular layers occur between the two main bands, as well as above the upper and below the lower one, but those are not considered of much economic importance. Most of the associated strata are more or less impregnated with iron, though not sufficiently rich to be considered as ore.

The general character of all these deposits is pretty much the same, though varying somewhat in the percentage of metallic iron they contain. The uppermost, No. 4 band, is the richest, averaging 56 per cent. of metal. No. 3 averages about 50 per cent. But one analysis of No. 2, that I am aware of, has been made, which gave 48 per cent. of metal. No. 1 has not been analysed as yet. They are all a variety of brown hematite ore, of a dull colour, with a somewhat steely lustre on a fresh fracture, and having a peculiar fine granular structure. The bands are all distinctly stratified, conforming in every respect with the associated strata. Fossil shells, Lingula, are abundant on the top of No. 1, and are found more rarely in all the others. The ore partakes of the same cleavage as the sandstone of the section, being, if anything, even more jointed. It breaks out in rhomboidal junks of all sizes, often nearly square, more frequently oblong. It thus affords