MEMORANDUM

ON

IRON ORES IN THE COUNTY OF PICTOU, NOVA SCOTIA,

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THESE Ores, from their variety, richness, accessibility, and proximity to large deposits of coal already extensively worked, are in my opinion the most valuable at present known on the Eastern Coast of North America. They were examined and in part described by me as early as 1855, and I have since revisited the localities on several occasions, and have kept myself informed as to the new discoveries which have been made.

The areas referred to in this Memorandum, amounting to about 20 square miles, are believed to include the whole or nearly the whole of the more important Pictou County deposits, as follows:—

1.—SPATHIC ORE.

This is a bed of crystalline *Spathic iron* or Siderite, occurring in the Lower Carboniferous series, near Sutherland's River in the County of Pictou. As described by Mr. G. M. Dawson, who prosecuted works of exploration in it last year, it is a conformable bed, occurring in the Lower Carboniferous red sandstones, and varying from 6 feet 6 inches to 10 feet 6 inches in thickness. It is accompanied with smaller bands of the same mineral, and is associated with limestone and gypsum. This ore is a true Spathic Iron, granular and crystalline in texture, and, when unweathered, of a light grey colour. It affords from 42 to 43 per cent. of iron, and contains from 2 to 8 per cent. of manganese. This bed is only 4 miles distant from the "Vale" colliery.

(See annexed reports by Messrs. G. M. Dawson, Walter Shanly, K. Blackwell, and E. Gilpin, also Tables of Analyses.)

2.—RED HEMATITE.

This ore-bed where most largely developed attains a thickness of about 30 feet, and in places where it has been opened up by exploratory works, it has been found to afford from 10 to 30 feet