

in areas in which he, the Alderman, had an interest. That was the nearest approach to proof offered, and, of course, it counted for little. The Record regrets exceedingly that Prof. Woodman, in his latest report, is not at all optimistic. If the Record called for proof in the first place, it also calls for further proof in the second case. While not prepared to accept the statement that our ores are limitless, neither is the Record prepared to accept Prof. Woodman's opinion, that the deposits are small. The professor, with all his ability, is not able to form a correct opinion in hasty flights through the counties. Some real heavy practical work is necessary before it can be determined whether or not Nova Scotia has large bodies of iron ore of commercial value. Here is part of Prof. Woodman's last report. Such figures as are used below; analysis averages, distances, etc., are preliminary:

"The iron-bearing zone of the Cobequids does not extend as a definite unit east of Debert river. Many small veins of ankerite and allied minerals may be found across Colchester county, and into western Pictou; but they are isolated, and of no commercial importance. Nowhere is there a zone of fracturing filled in a way like that of the Londonderry district.

At Kempton, northeast of Truro, and on the south flank of the Cobequids, is a local shear zone in which occur vein deposits of 'bottle' and dense limonite, also red, and specular hematite. The total length of the fissuring is several miles; but the productive part appears to be confined to a mile at the west end, in Upper Kempton. The wall-rock—a quartzite, has been slightly replaced; but for the most part the deposits are mere veins, and depend for their size upon the original open spaces. Hence it cannot be expected that there are very large bodies; although 'float' of very pure ore up to 3 feet in thickness has been found. There may be enough to contribute to existing furnaces with some profit, if the present waggon haul of several miles to the railway can be overcome. The best of the specular hematite near the Munro shaft, Upper Kempton, runs as high as 68.62 Fe. An average of several samples of limonite with small amounts of hematite, taken from the western openings is 57.69. It would, however, be impossible at present to ship ore of this high grade, since wall rock is too much intermixed.

The limonite contact pockets and the carbonate ores of Pictou county are still under observation. In the Devonian of Antigonish and Guysborough counties are many occurrences of specular hematite, specimens of which are of very high grade, hence have caused undue optimism on the part of interested parties. Most of these were examined, and almost without exception were found to be veins of small extent, and no promise. The Burns mine at Erinville, Guysborough county, is the only deposit that showed evidence of more than a very limited tonnage, a few thousand tons having been taken out at various times. Transportation to tide-water was too expensive. The ore here is a very soft coarsely specular hematite of high grade, but containing an excess of sulphur. The body is in the form of a pocket, and the ore becomes lean and spathic toward the walls. A sample of the best obtainable on a large dump gave:—

Fe.....	67.88
Insol.....	1.25
Sul.....	1.148

In Richmond county, Cape Breton, a large number of occurrences of hematite and limonite were investigated. A few showed magnetite. Some of the deposits are veins associated with the contacts of intrusive rocks; others are at unconformities between the Lower Carboniferous conglomerate and various pre-Cambrian formations; still others, as also in some parts of Cape Breton county, are in felsite. In all these conditions are unfavorable to expectation of large quantities. In the conglomerate contact bodies there is in some places possibility of pockets of a few thousand tons, and it may pay to open up for shipment to existing smelters those situated close to transportation; but none are of such promise as to warrant placing a high selling valuation on the properties.

A few occurrences are interbedded hematites, little prospected; but having some promise, as in part of the Loch Monod district. None are situated close to transportation at present. An interesting deposit is that of the Micmac mine, between Robertson and Soldier coves, a few miles southeast of St. Peters. It is a contact body of magnetite and hematite in limestone, lying at, and near the contact of, the Windsor series and the Devonian below. Since 1882 some little work has been done on these prospects. The sulphur and phosphorus are high; but this contact is well worth exploring for a mile to the east across the Indian reserve. An average of all the samples available to date gives:—

Fe.....	44.74
Insol.....	7.80
Phos.....	0.625
Sul.....	0.720

The veins in felsite, mentioned above, may be typified by those south of Arichat, Richmond county, and those at Gabarus, Cape Breton county; the mineral being usually specular hematite. It should be unnecessary to say that there can be no hope for workable bodies under such conditions.

In various parts of Cape Breton county, notably along the range of the Boisdale hills, are deposits of hematite similar to the magnetite of Barachois, previously described (Report of the Supt. of Mines, 1906, pp. 30-31). At the Curry property—half way between East Bay and Boisdale—is a pocket of this type, locally long known as the Mosely mine. Its longest axis is northeast, parallel to the strike of the crystalline limestone in which it lies. The ore is of good grade, but the tonnage is limited. Slight traces can be found northeastward for some distance, but for the most part the replacement has been too incomplete to give a high iron content. At the Campbell farm, three miles to the northeast and on the strike of the Curry ore, an impure replacement of limestone and quartzite gave 42.51 Fe. A general sample of the large dump at the Curry mine gave:

Fe.....	56.790
Insol.....	12.750
Phos.....	0.008
Sul.....	0.022

Along the south side of the Coxheath hills, and only a few miles west of Sydney, are a number of untested contact deposits of limonite, lying at the base of the Lower Carboniferous limestone and against the pre-Cambrian. The location of these is favourable to cheap mining and transportation, as they are of easy access to the Sydney furnaces; and well worth explor-