

GENERAL REMARKS.

The seams lie at easy angles, and a shaft not exceeding 1,200 feet in depth should cut them all on the property of the Inverness Company. Taking a point within a few yards of the shore the 7 feet seam should, so far as my information goes, be reached by a shaft 400 feet deep, and yield to the use of the shaft a belt of coal 2,000 feet wide.

The 14 feet seam similarly should be reached by a shaft 1,000 feet deep, and give use-coal for a distance of 4,200 feet to its crop.

These figures also serve to show the depths to which shafts would have to be sunk in order to follow these seams under the sea, in the Ross-Fraser, H. Grahame, and the 14 feet and underlying seams in the Chipman sea areas.

In like manner as the outcrop of the 14 feet seam approaches the shore on its course towards the south-west it becomes accessible for sub-marine mining at lesser depths. So that to the south of McIsaacs Lake a shaft about 250 feet would permit its being followed over great part of the Chipman area, and by doubling the depth of the shaft the lower seams could be followed over all the area. This increased facility of access under the sea will, it is understood, be accompanied by lessened area of land underlaid by coal. (*See Appendix B.*)

Mr. Robb, in the report of progress of the Geological Survey, 1873-1874, p. 182, speaks of the Broad Cove Coals as of excellent quality, and as giving off less smoke than is usual with bituminous coals. He also gives several analyses. From my own observation of them while being burned under boilers I believe that they should prove good steam producers. (*See Appendix C.*)

Near the centre of the shore of this coal field there is a lagoon, known as McIsaacs Lake, which has been favorably reported on by several engineers as capable, at a small expense, of being made into a good shipping harbor. At Lingan and Glace Bay, in the Sydney coal district, experiments of this nature have been successfully carried out by coal companies, and I have no doubt that by moderate expenditures, equal facilities could be provided here. I am unable to give fuller details on this point as I have not seen the plans or estimates of the engineers. A shipping port at the mines would place this coal field in a very commanding position to secure the Quebec and Montreal markets. (*See Appendix D.*)

A survey made for the Provincial Government some years ago by Mr. Tremaine, C. E., showed that very favorable routes can be found for a railway from the mines to Whyhogomah, on the waters of the Bras D'or Lake, an arm of the sea entering the Island from the eastern side, and to connect with the railway now being built across the Island.

The respective distances from Broad Cove to Whyhogomah would be 23 miles, and to connect with the Cape Breton Railway 7 miles. By this connection shipping places would be secured at Whyhogomah, Port Hawkesbury and Caribou Cove, the latter points being admirably situated for competing with Sydney and Pictou for the coastal and gulf trade. (*See Appendix E.*)

At Lake Ainslie, Skye Glen, Orangedale and Whyhogomah are deposits of iron ore, and for their development the Broad Cove Coal Field is most favorably situated. (*See Appendix F.*)

Trusting that these remarks may be of service to you,

I remain, yours truly,

E. GILPIN, M. E.