

## PORTLAND CANAL DISTRICT.

REPORT OF HERBERT CARMICHAEL, GOVERNMENT ASSAYER.

Portland canal is the most northerly inlet on the coast of British Columbia, and forms the boundary between that province and Alaska. This International boundary, the position of which was definitely decided upon some few years ago, has now, in this portion of it at least, been laid out on the ground, and its position clearly marked by monuments or by a cutting through the forests where such occur. The settlement of this boundary has relieved claim owners of much uncertainty as to which country their claims lie in, and should stimulate development on both sides of the line. The canal, or fiord, communicates with the open sea at Dixon entrance, and from that point runs nearly due north a distance of 55 miles to its head. It possesses few and indifferent anchorages, since the shores on either side are precipitous mountains with, in places, peaks which rise almost perpendicularly to heights of 6,000 feet. About 35 miles from the head of the canal, on the east side, is Maple bay (marked Maple point on the chart), a small bay affording good shelter but with rather deep anchorage. The two rivers, the Bear and the Salmon, at the head of Portland canal, are separated by a high bare ridge of mountain that forms the International boundary line, trending off to the west. On the east side of the valley of Bear river a mountain range extends in an east and west direction, the highest peak of the range, mount Disraeli, being a snow-clad pinnacle 7,000 feet high. The valley of the river is about a mile wide, composed of gravel and sand dotted with cottonwood and alder trees. It extends easterly in a straight line, with a gradual rise, for ten miles, until an elevation of 400 feet is attained. From this point the river and creeks rise more rapidly, becoming mountain torrents. With very little work a good waggon road could be made up the valley for ten miles or more. An excellent bridge, some 1,300 feet long, has been built across Bear river by the Provincial Government. This bridge has been of great aid in opening up the district, there being now a fairly good waggon road for six miles from tide-water, and further work is being done which will enable waggons to reach a point four miles farther up the valley.

Communication up Portland canal is maintained weekly by a steamer from Prince Rupert. There is an hotel at Stewart, at the head of the canal. Attention was first drawn to Portland canal when, on the 4th of May, 1898, a party of 64 persons from Seattle landed at the head to look for placer diggings at the source of the Naas river. Some 21 of the party went over the divide from Bear river and down the Naas river and struck "colours," but no pay placers. Some of the men still believe that if the "grub" had held out they would have found diggings worth staying with. Two or three of the party wintered on the canal and staked in the spring of 1899 what is now the *Roosevelt* claim, on Bitter creek, while the *Stewart* claim, on American creek, was staked in 1902, and the principal claims on Glacier creek in 1905-06. That part of the district included in the watershed of Glacier creek was examined by the Government Assayer in 1906, and since then the results following development work have been distinctly encouraging, the older properties having opened up ore bodies of a good shipping grade, while new claims have been located on very promising surface showings.

The country rock on the east side of Bear river is an argillite\* traversed by felsitic dykes, and in this argillite rock fissures can be traced for miles. These fissures are for the most part

\* This is a fine-grained, iron gray rock having a distinct schistose structure. It is rusty along the joint planes. The microscopic section shows fine parallel lines of minute grains of magnetite in a very fine granular base of a dull gray colour. There are also present a few larger grains of pyrite and of feldspar. It seems to be a very fine-grained sediment, perhaps altered by proximity to some igneous intrusion. It might be called a ferruginous argillite.