

This spot is 4,350 feet above sea level, but could be reduced 150 feet, say, by a short tunnel, in length perhaps 600 feet, or reduced more by a longer one. So from 3,650 feet at the mine to 4,200 feet at the divide of land is a rise of 550 feet in ten miles, an adverse grade for coal bound for the coast, 1 in 86, or 1.15 per cent. And from there on is a water grade, namely, all down hill, enabling the use of long trains with one locomotive and one ordinary crew of train hands.

The whole route will be less than 200 miles in all from mine to mouth of Naas (Nasoga Gulf).

Careful enquiries as to prevalent gales and winds; depth of channels; rise and fall of tides; wharf facilities for rapid loading into ships without grinding the coal to dust; all facts discovered point to Nasoga Gulf as the most suitable harbour.

Alice Arm has an adverse grade from the Naas.

Stewart, on the Portland Canal is too far inland to be convenient for shipping in a hurry, and this route would call for a very long tunnel under the Bitter Greek Glaciers, and heavy terminal constructions on the mudflats to reach deep water at low tide are a necessity.

By tapping the length of the Naas valley will give return loads to your railroad, as this valley is being acquired, settled and farmed, and large interests are concerned there to build up its trade and population.

On the subject of geology, the year's development has thrown much more minute light, as more time was given to take directions of dips, strikes, movements and irregularities, and to classify the characters of the strata exposed.

In describing the coal seams exposed and worked upon, Mr. Campbell-Johnston says:—

SEAMS.

The "BENOIT" seam lies directly under the main sandstone, close to the junction of Beirnes Creek and the Skeena River. It crosses the creek and was seen last year at low water in the bed. This year the water was very high, so that no coal was apparent here. Therefore deep cuts through the gravel beds were driven to get to solid rock formation. These in length towards and parallel to the seam measured 184 feet with 12 feet deep at face, and necessitated a great width like a railway cutting to prevent the sides fall-