

Transcontinental Railway Report.

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posed to keep the route as far as possible in a line with Lake Abitibi, and not to deflect it south to North Bay, as was the object of the G.T.P.R. Co. The Commission had, at the time of making the report, only two of the survey parties sent out by the G.T.P.R. Co.

The Commission has a well-organized transportation staff, with headquarters at Ottawa, equipped and in a position to deliver all needed supplies required by the parties, all along the line, and is in a position to move its supplies into the interior with comparative ease and certainty, although the cost of transportation is, in some sections, heavy. The transportation through New Brunswick and the eastern end of the province of Quebec, extending as far as the western boundary of district B has been accomplished mostly by teams, and very little trouble has been experienced in these districts, except that arising from the unusually heavy snowfall of the past winter. A great deal of difficulty was met with in getting supplies up to the north waters of the Ottawa and Gatineau rivers. It was late before the supplies were started, after having secured the necessary canoes, boats and men. The men were overtaken by ice in some cases, before they had reached the distributing caches aimed at. The winter transportation up the Gatineau has been conducted by teams as far as the forks to a large cache there, from which point it has been distributed to the different parties by packers and dog teams. Dog teams have also been employed to advantage up through North Temiskaming to the east of Lake Abitibi. In order to get supplies up to the north and west of Lake Abitibi 46 miles of road had to be cut out. Although the winter was one of unusual severity, there were no disasters of any moment, with the exception of the death of W. Leamy, transport officer up the Temiskaming route. He went on ahead of his party, looking for the best way for moving his supplies on, and it is supposed that he broke through the ice and was drowned. The distance from the end of the railway track at Maniwaki to where the supplies are taken by teams to the forks of the Gatineau, is about 115 miles. From there to the south line is about 20 miles, and from the south line to the north line is about 50 miles. As there is no road or trail at all from the forks northward, the difficulty of transporting supplies by dog teams and packers can be appreciated. One of the greatest obstacles encountered in the transporting of supplies into the interior is the slush upon the lakes. After the lakes freeze up the weight of the first heavy fall of snow sinks the ice; consequently the water overflows it and saturates the snow, which is turned into slush, and will not freeze except when broken up. This slush will usually not bear the weight of a man, and is sometimes several feet in depth. Each successive fall of snow has the same result, and the lakes are sometimes rendered almost impassable. The purchase of supplies, etc., were made by the purchasing department, under the charge of A. L. Ogilvie.

So far as the Commissioners were aware, all its employees are British subjects and, with but few exceptions, Canadian born. "We feel confident," the report continues, "that we will have a full home supply of both skilled and common labor for the purposes of the work. During the rather hasty marching of our forces, we took on a few engineers, instrument men and laborers, who proved to be undesirable. This was to be expected. These have been about all weeded out, and we are confident that we have in our employ to-day, as fine a body of engineers, assistants and men as can be found upon any public work. We have laid down the rule—

and will adhere to it—that promotion must be made on merit alone, and in the matter of merit the judgment of the engineers will prevail in their department."

As to the work accomplished it is reported that the exploratory surveys in districts A and B had been completed, and the parties withdrawn. The Commission is now possessed of sufficient information to enable a decision to be arrived at as to whether the line via Fredericton and St. John River Valley or the one across the centre of New Brunswick should be adopted. It will be some little time before sufficient information is obtained to enable a decision to be arrived at as to whether the line north or south of Lake Abitibi will be preferable, although about all the information desirable for that purpose in the eastern portion of district B has been secured. It was proposed to commence location surveys in districts A and B as soon as the local conditions would permit, probably the first week in May. It was expected that location surveys in districts A, B and F would be completed so that tenders might be called for in the early autumn.

It was deemed advisable before tenders were invited that there should be prepared general specifications covering all works, forms and conditions under which tenders will be asked for, forms of contract that will be insisted upon. After some correspondence with the G.T.P.R., it was decided that there should be uniform specifications on the eastern and western divisions of the line. These specifications were prepared and have been approved by the company. They have been submitted to the Minister of Railways, who has also approved of them, although his sanction is not necessary. A copy of the specifications is appended to the report.

The Commissioners have, as far as possible, familiarized themselves with the country. They have visited Quebec, Edmundston, Grand Falls, Woodstock, Fredericton, Boiestown, St. John, Norton, Chipman, Minto, Moncton and Halifax, and also spent several days in Winnipeg, studying with the Chief Engineer the conditions there, and at the same time, visited Selkirk and Port Arthur. It will be necessary in the near future to decide upon the questions involved in connection with the terminals at Quebec and Winnipeg. The report continues:—

"The Commission feels that it should make special reference to the work which has been accomplished in connection with the surveys from Moncton to Chaudiere. It has been asserted and believed for many years that a line could not be secured across the centre of New Brunswick, with grades equal to the Intercolonial Ry., or any grades which at the time of the building of the I.C.R. would have been considered reasonable; also that it was impossible to secure such a line around the corner of the State of Maine, except by such an enormous expenditure as would make it prohibitive. It was also asserted that it would be necessary to use 1% or heavier grades the remainder of the way to Chaudiere. On the other hand, it was claimed that these difficulties did not exist; that the surveys which had apparently established them had not followed the right direction, or had not exhausted the possibilities of the territory traversed. In taking up this part of the work, the Commissioners decided to have an exhaustive and minute examination made of this country, and to acquire and present such information as would definitely settle and determine these conflicting contentions. We deemed it best to ascertain beyond doubt which was right and which was wrong in order that the public mind would be set at rest. To this end we directed our engineers to make the most exhaustive and careful explorations and surveys, so that having before them all that had been written or said they would be able to make complete and decisive reports. The first of the surveying

parties were placed in the field on Sept. 27, 1904, and continued at work through the whole winter (the most rigorous and with the heaviest snowfall in that part of the country within the memory of living man), and as a result we are in a position to state that we have secured a line from Moncton to Chaudiere with a maximum grade of 0.4 opposed to eastbound freight and 0.6 opposed to westbound freight, and with a maximum curvature of 6° and these only used in a few places. This line runs all the way through a valuable country, part of which is settled and the remainder is most desirable for settlement, and the opening of which will be of great advantage to the country. The probable length of this line, when finally concluded, if the cross country route in New Brunswick is adopted, will be shorter than the I.C.R. between the same points, but how much we cannot say until our location surveys have been completed. If, however, the grades in existence upon the I.C.R. were employed, a saving of at least 90 miles over the I.C.R. by the cross-country route would be effected, and nearly as much by the river route. The value of the road on the lines we have secured, and with the grades and curvatures we have obtained may best be understood by a comparison with the I.C.R. with its grades and curves, and in this connection we refer to the calculations contained in the report of the Assistant Chief Engineer, M. J. Butler, from which I will draw a few conclusions. The same motive power that will haul 660 tons on the I.C.R. will by the line secured haul 1,260 tons going east and 990 tons going west. If we take the workings of the two roads with 10 daily I.C.R. freight trains each way, we find that in 313 working days upon the I.C.R. there would be 4,131,600 pay tons of freight carried, and to haul this number of trains there would be 3,089,310 train miles per year. The cost of this, as per the report of the I.C.R. for 1903, would equal \$3,016,711. The Transcontinental Ry. would only have to run (via the centre route) 1,825,415 train miles per year to move the same quantity of freight, and which, at the same cost per train mile as the Intercolonial, would amount to \$1,782,518.72. It will thus be seen that the annual operating cost of the I.C.R. for the said quantity of freight is \$3,016,711.21, while that of the Transcontinental will only be \$1,782,518.72, a saving in favor of the Transcontinental of \$1,237,192.47, which capitalized at 4% per annum equals \$30,854,812.25; that is, we claim that the Transcontinental, with its lower grades and curves, the road being equally well constructed with the I.C.R., will be over \$30,000,000 more valuable. With increased business the difference would be much greater. If, however, we give the Transcontinental 10 fully loaded trains per day (of its own) instead of confining it to what would be equal in tons to 10 fully loaded trains upon the I.C.R., the difference would be much greater still and the net annual saving would amount to \$2,157,544.52, which capitalized at 4% per annum would give \$53,938,613 as the increased value of the Transcontinental low grade line over the I.C.R. If the grades are increased to the I.C.R. standard the distance would be reduced on the Transcontinental to 403.7 miles. Taking the same 10 trains per day comparison, there would be an annual saving in favor of the latter road of \$548,937.52, which being capitalized at 4% per annum, equals \$13,723,438, which represents the increased value of the Transcontinental Ry. over the I.C.R. for the handling of that amount of traffic. As the traffic increases, the difference increases. These calculations have all been made upon the centre line through New Brunswick. They can easily be applied to the other route. There are sundry other comparisons in the report of Mr. Butler which should be re-