

*Section No. 8.*

This section, which was placed under Mr. C. E. Macnaughten, extended from the Carillon rapids down through the Lake of Two Mountains and the Ste. Anne rapids as far as the head of Lake St. Louis, and also to the head of Rivière des Prairies, a direct distance of about 25 miles, but which required with trial routes over 50 miles of surveying.

Lake of Two Mountains being a relatively large body of water, though it was not necessary to cover it entirely with soundings, very large areas on different courses had to be investigated, requiring a large amount of triangulation. Many low-lying islands and areas of low lands around the lake had to be traversed and contoured for a possible regulation and maintenance of the lake to a higher elevation than the ordinary level. An alternative route north of Ile Bizard was also surveyed.

From Carillon to Rigaud bay the river is half a mile wide, and the soundings were made from shore to shore. From north of Jones island to Ste. Anne de Bellevue a width of 1,500 feet was sounded, and an alternative line of the same width was examined south of Jones island.

Bench marks were established on both shores and the levels thoroughly checked. The highest water contour line on record on Lake of Two Mountains was traced on both shores and simultaneous gauge readings taken at many points at different stages of the lake.

At the end of August, 1905, Mr. Macnaughten had completed his field work, and he was directed with his assistants to proceed to Pembroke to make the survey of the Upper and Lower Allumette channels, as mentioned further in this report.

*Section No. 7—Engineer, E. E. Perrault, in charge.*

From the mouth of the Gatineau river, opposite Ottawa, to Carillon rapids, a distance of 66 miles.

The soundings between Ottawa and the head of the Carillon rapids at Hawkesbury did not present any difficulty, on account of the favourable configuration of both shores and the low currents in the river. Along this stretch, however, there are large tracts of low lands generally submerged at high water, which required considerable work in traversing and in the determination of contours for any rational raised water surface which might be projected. Owing to the width of the river at L'Orignal lake, the soundings there occupied considerable time.

Through the Grenville rapids a sufficient number of soundings were taken, and both shores from Hawkesbury to the Carillon dam were carefully cross-sectioned. Bench marks were established and gauges maintained for continuous record of water levels.

Field work on this section was completed at the end of September, 1905. The rodmen, chainmen and labourers were discharged, and the two principal engineers transferred to Ottawa for work on the general plans. The second assistant engineer Mr. E. S. Miles, was transferred to section No. 4 for work on the Culbute channel.

## OTTAWA DISTRICT.

This district embraced sections 6, 5 and 4 of the Ottawa river and covered the territory between the head of Des Joachims rapids and the mouth of the Gatineau river, below the Chaudière falls at Ottawa, a distance of about 140 miles.

The length of the river valleys to be surveyed, however, was nearly 200 miles, on account of the river dividing into two main branches at different points.

The district was divided into three main sections and placed under the direction of Mr. E. J. Rainboth.