

HISTORY OF EXPLORATION.

The earliest important explorations in the district were made by Duncan Sinclair and A. G. Forrest in 1866-7, under instructions from the provincial government. Sinclair ran a chain and transit line from Montreal river, below the forks, for 105 miles westward, through the southern parts of what are now Powell, Bannockburn, and Montrose townships. The exploration was made to locate a suitable colonization road to the west. Forrest made a survey of Montreal river. Thirty years later, in 1897, Alexander Niven surveyed the boundary between Algoma and Nipissing districts. His work served as a base-line from which township lines were run east and west. The last of these was run in 1910, so that the country is now completely subdivided, affording good control for surveys of the lakes and streams. Some additional information was added in 1911 by a trial line of the Timiskaming and Northern Ontario railway, which was run from Gowganda to Porcupine and passed through Doon, Midlothian, and Montrose townships.

Geological investigation of the district was of an exploratory nature only until 1917. In 1875, Robert Bell¹ in the course of an extensive reconnaissance traversed most of the Montreal River waters, taking notes of the rocks seen on the way. In 1897, E. M. Burwash, who was attached to Niven's party as geologist, examined the geology along the district line, and along Sinclair's line from its intersection with Niven's line some 5 miles east, to Mt. Sinclair². In 1911, J. G. McMillan, geologist with the party surveying the Timiskaming and Northern Ontario trial line, mapped parts of Doon, Midlothian, and Montrose townships.³

In 1917, A. G. Burrows, under instructions from the Ontario Bureau of Mines, examined the four townships of Cairo, Powell, Alma, and Baden. His work was detailed and included the mapping of the smaller lakes and streams with the micrometer and prismatic compass, and the locating of the various geologic boundaries. His results have been published in the 27th report of the Ontario Bureau of Mines.

The writer's work, which has occupied the summers of 1917-8, has completed the topographic and geologic mapping of the northern halves of Kimberley, Yarrow, Doon, and Midlothian townships; the western half of Powell township; Bannockburn, Argyle, Montrose, and Hincks townships; and the southern halves of Cleaver and McNeil townships. The southern boundary of the district examined thus coincides with the northern boundary of the detailed map of the Gowganda area, completed in 1911 by W. H. Collins. The outlines of the geographical knowledge afforded by the surveys of the township lines and other early surveys have been filled in by micrometer and prismatic compass surveys of the routes of travel. Lakes and ponds not on direct routes were located by rapid chain or pace and compass traverses from known points, and sketched with the aid of a Brunton compass. A thorough examination was made of all rock exposures on the shores of the lakes and streams, and the geological nature of the intervening country was determined by chain or pace and compass traverses spaced about a half-mile apart.

¹ Geol. Surv., Can., Rept. of Prog., 1875-6, pp. 299-302.

² Burwash, E. M., Ann. Rept. Bureau of Mines, Ont., 1896.

³ McMillan, J. G., "Geology of the area along the Timiskaming and Northern Ontario Railway trial line between Gowganda and Porcupine." Toronto, 1912.