

REPORT ON THE AURIFEROUS DEPOSITS OF THE HINEMAIA VALLEY, TAUPO DISTRICT, AUCKLAND.

By ALEXANDER MCKAY, F.G.S., Government Geologist.

For the past twenty-five years there have been reports of the finding of gold in the Taupo district, and despite the fact that throughout this long period up till the present time nothing more tangible than a few colours has been found, residents and prospectors finding their way into this part hold firmly to the conviction that for gold-mining the district will yet become important.

Tokaanu, at the south-west corner of Lake Taupo, is so placed as to be a convenient centre from which prospecting may be carried on west and north-west round the sources of the northern tributaries of the Wanganui River, or in the valleys of the lesser streams falling into the lake; or south-east among the older rocks of the Kaimanawa Mountains; or east of the lake along the valleys of the several rivers falling into Lake Taupo; or on the northern shore of the lake towards Western Bay. In all these directions prospecting for gold has been prosecuted, in some cases with persistent diligence, and always without sufficient results. West of Lake Taupo and in the neighbourhood of Tuhua Mountain, prospecting has been carried on for a considerable number of years. Slate country occurs in this part of the district, but to a very limited extent. Gold, however, is obtained, but at such considerable distances that it cannot well be considered as having its source in reefs occurring in the slate.

In some of the streams falling into Lake Taupo from the west, the colour of gold is found, the wash being of a volcanic character. Beyond the water-parting and on the fall leading into the Wanganui, the gold is reported as occurring in a conglomerate that rests immediately on fossiliferous clay marls, generally spoken of as "papa." The nature of this conglomerate I was not able to determine, but I take it to be the trachyte breccia and tuff of Hector and Hochstetter, which thus appear to yield traces of gold.

From Tokaanu, during the past season, it was intended to penetrate into this country, but at the time when this could be done the weather was so bad as to render such an expedition at the time impracticable and certainly unadvisable; beside which suspicion and jealousy would, in any case, have prevented anything like prospecting for gold on Native lands.

In the Kaimanawa Range there are numerous reefs in sandstones and dark slates that are probably of Devonian age. These have often been prospected, and in numerous instances a little gold has been obtained or reported as having been obtained. I saw a collection of such rocks at Tokaanu, but this did not impress me strongly as to the auriferous character of the country from whence they came. Many of the so-called quartz leaders proved to be thin veins of calcite in a greenish slaty rock. Heavy bodies of quartz are reported to exist, and one very large reef of quartz is spoken of. It appears, however, that interest in the prospecting of these reefs has died out, and during last January I could only learn about what had been: there seemed to be no proposal or preparation being made to further prospect these mountains. It must be admitted that prospecting in these rocks in the Tararua, Ruahine, and Kaimanawa Mountains has been disappointing; and, while it is yet quite possible that a payable or even a rich reef may be struck, it is also true that such are usually found early in the search.

Quartz-reefs also occur in an isolated volcanic hill close to the northern shores of Lake Taupo. In this, tunnelling has been carried on intermittently for some years, but was suspended for a time; its continuance was resumed during the past two years. Thermal quartz charged with iron pyrites was found, but as yet not in a regular lode; and so far, it would seem, no attempt has been made to ascertain the auriferous character of this quartz.

During the past two years the chief interest has centred in the district to the east of Lake Taupo. The various rivers on this side of the lake take their rise in the sedimentary formations of the Kaimanawa Mountains, or from the igneous rocks that form the mountain-ranges where lie the north-east sources of the Hinemaia River and other streams to the north-east, as far as the Napier-Taupo Road.

Whether borne by one or other of these rivers or derived from the heavy breccias that lie upon the pumice deposits cannot be determined, but on the shore of Lake Taupo was found a boulder of quartz which, tested in Auckland, gave a rich, almost a fabulous, return of gold. The Natives searched this beach above high-water and below for other boulders of quartz, hoping that these also would be rich in gold. It does not appear that any others rich in gold were found, and the mystery of the whence of this rich boulder of quartz has exercised the minds of Natives and Europeans alike.

About three years ago Mr. Archie Campbell commenced prospecting along the terraces bounding the lake on this side, and, as would appear, got indications of gold that led him to suspect the source of the gold lay further to the east in the direction of the Upper Hinemaia River. Having obtained permission of the Native owners to prospect on their lands he at length reported having found gold at several places, and especially on the first southern branch of the Hinemaia. Having so far succeeded, the Natives retracted their permission to prospect, while at the same time Campbell believed that he had hit upon a deposit that would pay to work for gold. The Natives, through some of their chiefs, applied to the Government for an examination of the district by an expert; and being at the time about to proceed upon a trip through the interior part of the North Island I was directed to make the examinations required. Accordingly, as instructed on the 11th January, 1899, I had an interview with Mr. A. Campbell, prospector, with reference to the work done by him within the watershed of the Hinemaia, and I had also an interview at Taupo with the three Natives who forwarded to the Government the request that an expert be sent to examine the district within which Mr. Campbell reported the presence of gold. I found the Natives who had met to discuss the question distrustful of Mr. Campbell, and mutually jealous of each other—anxious to exclude