

The pumping plant at the Queen of Beauty shaft, which is now Government property, has been at work during the greater part of the year under the control of the Thames Drainage Board, and maintained the drainage of the goldfield, which was for so many years effected by the old Big Pump, now pretty well worn out. The cessation of pumping at the old Big Pump shaft places this latter free for other purposes. Its position is such as fits it for sinking deeper for the purpose of winning a very much lower level than anything yet attempted at Thames, and, in my opinion, the question of the existence or otherwise of payable reefs below the "barren zone" at Thames will never be satisfactorily settled until this is done and a long crosscut driven from the shaft-bottom at right angles to the general strike of the reefs. As is well known, boring operations have, owing to the nature of the ground to be drilled through, failed to give satisfaction. Had the money so spent been devoted to materially deepening the shaft in question and crosscutting therefrom, it is more than likely that some indication of the possibilities of the Thames Goldfield (at, say, 1,000 ft. deep) would have been obtained, and in any case so much would have been done in the desired direction, even allowing for the necessity of further expenditure for exploration purposes. The matter is one which is worth the consideration of those interested in the development of the goldfield.

The Monowai Mine, at Waiomo (referred to in my last report as having been taken over by a local syndicate, who propose to specially treat the refractory ore met with in the mine), has not yet resumed milling operations, but the development-work in the mine itself is being vigorously proceeded with.

At Tapu, work has been carried on at the Mahara Royal and Sheridan Mines. The results have been of a somewhat disappointing character, as the ore-values have been only about sufficient to meet expenses. Further prospecting for the purpose of proving the presence and value of lodes in parts of the property hitherto unexplored is proposed.

The drainage difficulty at Coromandel, fully referred to in my last report, has had a somewhat serious effect upon the working operations of the three mines affected — viz., the Old Hauraki, the Bunker's Hill, and the Hauraki Freeholds, at all of which operations below the level of free drainage have had to be suspended. Mining consequently has been confined to the upper levels, and, so far as the Bunker's Hill and the Hauraki Freeholds Mines are concerned, work was stopped as a result of the difficulty, and protection obtained pending other arrangements being made. There is no question whatever in my mind as to the desirability of an amalgamation of these three properties. It has been conclusively demonstrated that one drainage plant properly placed will unwater all three mines, and, owing to their close proximity, the mines could be worked more economically as one concern than it was possible to do under the conditions which have hitherto existed. Gold to the value of £887 13s. 6d. is reported as having been won during the year from the mines affected.

Prospecting, including operations on the Tokatea Big Reef, has had considerable attention during the year, but so far nothing of a particularly encouraging character has resulted. With respect to the Tokatea Big Reef and any prospecting operations which may have been undertaken or may be attempted in the future, the opinion of the late Mr. F. Hodge, M.E., on this point may be quoted. Mr. Hodge wrote, "It is a well-known fact that the Big Tokatea Reef is not payable down to the datum-line of sea-level. In width it varies from 20 ft. to 60 ft. It is assumed by many that it would, in depth, be proved to contain highly payable gold-ore, and the most economical way of testing the accuracy or otherwise of this theory would be by diamond bores." In my report of last year the foregoing quotation was given and the matter referred to at some length. If, as the late Mr. Hodge said, the reef is *known* to be valueless down to sea-level, it appears to be a waste of money and energy to prospect it for gold-values near the outcrop. As diamond bores have not, owing to the nature of the country, hitherto been a success on the northern goldfields, it might be more satisfactory to prove this reef (which is known to be of very large extent) by means of an incline shaft sunk on the reef itself. As remarked in last year's report, the matter is one which requires to be treated in a thorough and systematic manner.

The output of gold from the Royal Oak Mine, Tokatea, for 1905 had a value of £2,040 18s. 3d. During the early part of the year the company worked the mine in the usual manner, but later on the work was conducted on the tribute system. The results of mining have been getting poorer, and the gold won during 1905 was less than one-fourth of the production of the preceding year. From present evidences the outlook for the future is anything but promising.

At the Four-in-Hand Mine, near Kennedy Bay, the low-level tunnel from Waikoromiko Creek valley has been continued, but at the end of the year was estimated at some 230 ft. from the Four-in-Hand Reef. From the upper workings 112 tons of ore gave a return of £456 10s., or equivalent to an average value of £4 1s. 6d. per ton, or 3s. 4d. per ton in advance of the average for the previous year. Should the reefs maintain their size and value down to the level of the new tunnel, a very valuable property will be proved, and give encouragement towards developing the mine at a lower level still, there being ample height for this between the level of the tunnel now being driven and the bed of the Waikoromiko Creek to allow of a fairly extensive mine being opened out level-free.

In the locality of Kuaotunu mining-work has been carried on much on the usual lines; there are no fresh developments of importance to report. The principal mine is the Waitaia, which employs twenty men and produced gold during the year having a value of £2,484 2s. 3d. from 635 tons of ore, giving an average value of £3 18s. 2·9d. per ton, or £1 10s. 0·5d. per ton less than the average of the preceding year. Nothing has yet been done in the direction of opening up the mine at a lower level. The Handsworth, Great Mercury, and Otama Mines have been worked on a small scale during the year.

At Guntown, four men have been employed at the Kapowai Mine, and a return of £2,469 12s. 3d. was obtained from 1,240 tons of ore, the average value being £1 19s. 9·9d. per ton. The Big Beetle Mine was also worked on tribute for a short time, 73 tons of stone yielding gold to the value of £133 13s., or equal to £1 16s. 7·4d. per ton. This property, together with two others, is being prospected