

This latter appears to be of considerable depth (about 400 ft.) between the Shotover shaft and the Big Pump shaft; but is estimated at, approximately, 140 ft. at the Prince Imperial shaft. According to the section, the Big Pump shaft was sunk through this poor zone and into what is considered productive ground below; but as the pumping-level is above the base of this poor zone there are at present no facilities for proving that the shaft has really penetrated payable ground. Boring has been resorted to in order to ascertain the existence or otherwise of payable reefs below the lower zone of poor country, but so far the work done has not been sufficient to satisfactorily settle the question one way or the other.

The Waiotahi Mine (Thames), although not a large mine, is a consistent gold-producer and dividend-paying property; some other claims and sections of mines are worked on tribute, whilst a few holders of small claims continue to add a little to the gold-output of the district. The most comprehensive mining-work undertaken at Thames during the year has been the extension of the Moanatairi tunnel towards the Alburnia claim. This will prove a considerable area of ground below the hill country, as the Moanatairi tunnel is some 600 ft. below the bottom of the New Alburnia shaft, the latter being 500 ft. deep. It will therefore be seen that the work now in progress will effectively prospect the ground to a depth of fully 1,100 ft. below the crown of the hills, and in the event of payable quartz being met with will enable mining to be done at a fairly cheap rate owing to the absence of any necessity for winding and pumping appliances for some years to come.

The Tararu Creek Mine is still idle, and the Monowai Mine at Waiomo has closed down owing to the difficulty of successfully dealing with the ore, which is of a very refractory nature.

At Tapu the Mahara Royal Mine appears to have entered upon a new lease of life. A new adit has been driven from the level of the battery and has cut the reef. This is stated to fork outwards towards the surface into four branches, all of which are expected to join at depth, two having already been found to have done so. As some of these branches are of considerable width, there appears every probability of a large reef at a lower level which may be worked economically. For the purpose of exploiting this, the winding plant formerly used at the Golden Point Mine, Tapu, has been purchased. The gold from the reef here is easily saved by amalgamation, and the concentrates by means of a Wilfley table. The crushings during the year gave a value of £1 14s. 2d. per ton in gold obtained by amalgamation. I have no information as to the value of the concentrates. The sands are said to be worth only 4s. per ton, and are therefore not considered rich enough to warrant treatment by cyanide. A company has recently been formed to work ground at Tapu explored by Mr. D. Sheridan. This company will be known as the Sheridan Gold-mining Company. Operations were commenced by the company in November. The working of the two properties named appears to give some hope as to the future possibilities of the Tapu locality.

At Coromandel some very favourable returns have been obtained from the Hauraki and the Bunker's Hill Mines. At my last visit to this district work was in progress at the surface levels of the Hauraki Mine by tributaries, and by the company's men at the 160 ft. level, principally on blocks of quartz previously left. The mine had been unwatered (after the recent stoppage of operations) down to the 220 ft. level, but the shaft is about 400 ft. deep altogether, and comparatively little work appears to have been done at the lowest level. It is thought that when the water is pumped out and work resumed at the lower levels there should be a good future for this property.

The Bunker's Hill Mine adjoins the Hauraki Mine, the pumping for both mines being done under a mutual agreement at the Hauraki shaft. By arrangement, a certain amount of work is being done in the area of the Hauraki Freeholds Company. I was informed that there is a possibility of operations being resumed by the last-named company.

Some small properties are being worked between the Upper Township and the crown of the Tokatea Hill. Excellent picked stone has been obtained at the Harbour View Mine. At the Golden Spark Mine adjoining, the work done in cutting the lode by a level tunnel has placed this property in a position which would appear to fully warrant expectations of the mine becoming a gold-producer at an early date. Prospecting operations are also in progress in different places on the Coromandel side of Tokatea Hill.

A large outcrop of quartz, locally known as the "Big Blow" is to be seen on the road leading from Coromandel Upper Township to the top of Tokatea Hill. This outcrop extends on the line of strike for a considerable distance, and is spoken of by Mr. Francis Hodge, M.E., as the "mother-reef" of the district. Mr. Hodge thinks that, notwithstanding the admittedly low grade of ore contained in this "Big Blow" at the outcrop, it will be found to increase in value at greater depth, and suggests that it should be systematically tested by a series of diamond bores. He has kindly furnished me with a drawing for reproduction showing how the reef could be won from the Kapanga shaft at depths of 1,000 ft., 1,500 ft., and 2,000 ft. respectively, also the various claims at present held in which the large reef is considered to exist. In explanation of this drawing, Mr. Hodge writes as follows:—

"I beg to hand you a report in support of the transverse section (with locality-plan) showing proposed crosscuts from Kapanga shaft. The transverse section gives the depths at which diamond bores may be conducted, and likewise crosscuts from the Kapanga line of main shaft to cut the Tokatea Big Reef. From the locality-plan it can be seen at a glance that the belt on the line of section has been proved in passing various claims to be rich in developing various reefs outside of the Tokatea Big Reef. In the upper tufaceous sandstone gold-bearing rocks I estimate (from eighteen years' experience of the Coromandel Goldfield) that the Tokatea Big Reef is the mother of a permanent reef traversing the Coromandel Goldfield, which is running a few degrees south-east and west of north. It is a well-known fact that this Tokatea Big 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 this Big Reef would in depth be proved to contain highly payable gold-ore, and the most economical method of testing the accuracy or otherwise of this theory would be by diamond bores.

"A line drawn from the Union Beach, or Coromandel Harbour at sea-level, to the Tokatea or Royal Oak Mine passes principally through tufaceous sandstones, diorite porphyry, compact felsite, very finely grained and hard and soft bands of calcareous slates with calcite veins.