

There has been about 2,728 feet of drives and cross-cuts constructed and cuttings made on surface to prospect the outcrops of lodes. There are several other claims taken up which are not mentioned in this list. The work yet done is wholly of a prospecting character.

Annexed is a plan showing the position of claims taken up.

*Coromandel.*

The quartz-mining industry in the Coromandel district is becoming more important every year. New finds are being discovered and worked. Ground that for years had been abandoned has again been taken up, and some very good stone discovered. Although it is the first auriferous-quartz field discovered in the colony, comparatively little prospecting has been done since it was opened, about twenty-nine years ago. A large quantity of gold has been found near the surface and at shallow depths. In very few instances has the ground been worked or prospected at the deep levels. The Tokatea Company followed a lode down to a considerable depth, and constructed an adit-level for about 3,000ft., which was somewhere about 800ft. below the saddle, and in this level they left a lode under foot which they could not work advantageously on account of water. After a little prospecting no further work was done at this depth. The range on which the Tokatea Company's ground is situate, and, indeed, within the area held by that company, is nothing but a network of leaders, stringers, and veins all apparently branching off from the main lode running through the range, better known in the locality as the Main Buck Reef. This reef is known to contain gold, as it has been tested in several places, but the stone proved of very low grade. Still, when some hundreds of leaders and veins of quartz are found branching off, and containing rich patches of gold, there is a fair prospect of getting good shoots in the main lode. The Tokatea Range is so full of auriferous-quartz veins and leaders that it becomes a question whether it would not pay for working in many places to quarry it out in a face and treat the material in a wholesale manner, as is done by Messrs. Hansen and Comer at the Thames; but to carry on extensive operations it would necessitate a large crushing plant being erected. There are thousands of tons of mullock on the surface that would pay well to crush if a large plant were erected on the flat, and the material sent down by an aerial tramway. By these means the Buck Reef before alluded to would be likely to give fair returns for working. Sample parcels from it at different points have been tested, which gave from 3dwt. to 13dwt. of gold to the ton.

The question of providing cheap motive-power to drive mining machinery should be taken into consideration in this district. There is a good supply of water in the Waiau and Makarau Rivers, that could be utilised to generate electricity, which could be conveyed to any place where it was most convenient to erect a large crushing plant. It is now an established fact that electricity can be used economically to drive mining machinery. It is used by the Phoenix Company at Skipper's to drive a crushing-battery of thirty head of stamps, besides an air-compressor and rock-breaker, and one of the dredges at work in the Shotover River, at the Sand-hills, is driven by electricity, and works admirably. The advantage of using it as a motive-power cannot be overestimated, as it can be generated at the place where water is available to drive the dynamos, and transmitted by copper wires to the place where it is most convenient to erect machinery for either the reduction of quartz or other purposes.

Hitherto the mines on the Tokatea Ranges have been held by two or three companies, and for several years these have been principally worked on tribute, some of the tributers paying as much as 25 per cent. of the gross yields to the companies who hold the ground; but it is gratifying to find that recently these tributes have been reduced to 10 per cent. Where high tributes are exacted it does not pay the tributers to send low-grade quartz to the battery: they generally pick the stone after it is taken to the surface, and nothing but the best is crushed; quartz only giving 1oz., or even 2oz., to the ton in many instances is considered worthless, and thrown amongst the mullock, or left on the surface. It will be seen from the tabulated statement showing the result of working the mines on tribute on the Tokatea Range, that during last year 23 tons 4cwt. 50lb. of quartz was crushed, which yielded 780oz. 13dwt. of gold, being an average of about 33oz. 12dwt. 22gr. to the ton. This quantity of gold was got by twenty-seven tributers, which gives an average of 28oz. 18dwt. per man for the year.

*Kapanga Company.*—This company's mine is situate on the flat at the foot of the Tokatea Range, and worked more systematically than any other mine in the district. The company, being an English one, sent a manager out from England to conduct the operations on purely commercial principles. So far, the value of gold obtained from the mine has exceeded the expenditure on working it; but the shareholders have yet had little or no return for their capital invested. The workings last year were confined to what is known as Scotty's Lode, at the intermediate level between the 300ft. and 420ft., and also on the 420ft. level; and on the Kapanga Lode, at the 300ft. level. Most of the gold, however, was obtained from Scotty's Lode, which varies from 4in. to 18in. in thickness, and lies at an inclination of from 40° to 60°. The two lodes run in a parallel direction, but Scotty's is lying at a much less inclination than the Kapanga, and it is expected that these two lodes will meet before the 600ft. level is reached, where probably a rich patch of gold will be got. Some very rich specimen-stone is got from Scotty's, yielding as much, in some instances, as from 2oz. to 5oz. of gold to the pound of stone. The Kapanga Lode is from 6in. to 18in. in thickness, heavily mineralised. Occasionally colour of gold is seen, and the manager has great hopes that another shoot of rich gold-bearing stone will be met with before long.

The main shaft has now been sunk to a depth of 572ft.; but the inflow of water became so great that sinking had to be abandoned until larger pumps and heavier pumping machinery were acquired. It is proposed to procure a new pumping-engine, and to use the present one for winding purposes, the present winding-engine, which is a portable one, being too small for the work.

The last annual balance-sheet of this company, for the period ending the 5th July, 1890, shows that there were 1,900 tons of quartz and 1,488lb. of picked stone crushed, which yielded 3,408oz. 12dwt. of melted gold, representing a value of £10,072 19s. 11d. The work done during this period is represented by 1,022ft. of driving on lodes, 329ft. of uprisings, 106ft. of winzes, cleaning out the