

Waihi Consols Mine.—This company's operations are confined to sinking the shaft, which is down a depth of 160 ft., and is penetrating a tight class of country. It is intended to sink to a depth of 500 ft. before opening out. Two steam-pumps are used for pumping the water. Fourteen men are employed.

Waihi Gladstone Mine.—This mine was protected for some time, but seven men are now employed in the development of the reef at a depth of 200 ft. No returns.

Waihi Extended.—Operations in this mine have been limited, the work being chiefly extending a cross-cut with a view to intersecting a reef. From two to four men have been employed.

Waihi South.—There has been very little work done in this mine during the year.

Waihi Beach Claims.—The work done on these claims during the year has been very limited. Negotiations were carried on for some time between the owners of the property, with a view to amalgamating the holdings and raising capital to work the mines. In the Waihi Beach claim a reef 3 ft. 6 in. in width is exposed, on which a little prospecting has been done, and tests taken from here are said to have given good results. In the Ocean View Extended a reef 5 ft. in width has been driven on for a distance of 100 ft.

WAITEKAURI.

Waitekauri Mine.—This company are vigorously opening up the reefs at the low levels in the Golden Cross section of the mine, and it must be most gratifying to the shareholders to find that a highly remunerative class of ore is obtained at the low level. The reef varies from 6 ft. to 40 ft. in width, and is chiefly worked from what is termed the No. 1 and No. 2 shafts, on which substantial pumping and winding plants are erected. Four levels have been opened out from the No. 1 shaft: No. 1 level, at a depth of 130 ft. and the reef driven on at this level for a distance of 1,160 ft.; No. 2 level opened out a depth of 230 ft., and the reef driven on 880 ft.; No. 3 level, at 330 ft., and the reef driven on 350 ft.; and No. 4 level, at a depth of 400 ft., and the crosscut driven 36 ft. Two levels have been opened out from No. 2 shaft; No. 1 level at 80 ft., and No. 2 level, at a depth of 180 ft. Also Corbett's level has been driven on the reef a distance of 960 ft. Stopping operations have been carried on during the year on the reef over Corbett's and Nos. 1, 2, and 3 levels, from which 22,840 tons of quartz have been obtained, which when treated gave 73,450 oz. 3 dwt. of bullion, value £66,584 3s. 4d. At the Waitekauri battery ten heads of stamps have been changed from the dry to wet crushing, and as the percentage of gold obtained from the ore treated by the wet crushing is even better than at first anticipated, the other thirty heads will be changed from the dry to the wet crushing within the next two months, thus doing away with the dust nuisance, and a considerable expense will be saved in the roasting of the ore. The company have done a large amount of development work in the Komata and Waitekauri sections of their property, and in both sections I am informed they are opening up payable blocks of ground. There are 280 men employed on the property.

Waitekauri Cross Gold-mining Company's Mine.—This company has done a large amount of prospecting during the year at the main adit-level in the Taranaki section of the property, but the work is more confined now to opening-up the reef at a depth, and for this purpose an underlie shaft is being sunk in the hanging-wall portion of the reef, which is dipping at an angle of 67 degrees. The shaft is 10 ft. by 5 ft., and is divided into two compartments: in one is fixed a permanent ladderway, and in the other two steel-rail tramways are fixed for the skips to run on for hauling the stuff up. At the top of the shaft a self-tipping arrangement is placed in position whereby the quartz, &c., is tipped out of the skip into the truck without any further handling. The winding is done by means of an electric hoist, which is fixed in an underground chamber, cut out at the head of the shaft. The electric motor is a compound four-pole ironclad type machine of forty brake horse-power. The winding-drum are arranged in tandem, each capable of raising 1 ton (plus the weight of the rope) up an incline of 60 degrees at the rate of 300 ft. per minute. A triplex-action pump has also been provided, which is geared to run at four distinct speeds to suit the different depths and volumes of water met with. It is capable of lifting 2,400 gallons per hour from a depth of 300 ft. Water having been met with in the shaft at 180 ft., and making at the rate of 500 gallons per hour, the management has decided to open out a level at that depth and will drive north and south on the reef to prove its value at that depth. The station at which the power for driving the above-mentioned machinery is generated is situated at Marototo, about two miles from the mine. The power is generated by two compound dynamos, which are driven by belts of massive fly-wheels on each side of a 3 ft. Pelton wheel, which is driven by water with a head of 210 ft. An elaborate switch-board contains all the necessary measuring-instruments, switches, safety-fuses, lightning-arresters, and magnetic cut-outs. The current is conveyed to the mine by two pairs of copper cables on flued insulators, fixed on cross arms to the poles erected for their support. A distributing switch-board is placed in position at the mine for the control of the current to the different circuits for hoist, pumps, lamps, &c. Telephone communication is also established between the generator and the mine. Eighteen men are employed. No returns.

Alpha Mine.—A considerable amount of work has been done in the development of this mine. The reef is cut in six different levels that have been driven in from the side of the hill. The levels are connected by passes from No. 5 level upwards for a distance of 400 ft. and a rise is being put up on the reef from No. 6 to No. 5 level. This will be used for conveying the quartz down from the upper levels to No. 6 level; then it will be trucked direct to the mill, a distance of about 500 ft. The reef varies in width from 4 in. to 4 ft., and tests taken from time to time have given excellent results. The crushing-plant will be completed in about two months' time and will have all the latest appliances necessary for the treatment of the class of ore met with in this company's mine. The plant will consist of twenty stamps of 900 lb., rock-breaker, six vats (twenty-two feet