

There are twenty stamps of 700 lb. each, erected on the square-frame plan, and driven with horizontal belts, a mortar-box to each five heads, and a Challenge feeder to each box; and one berdan for grinding blanketings, &c. Concentrators: Blanket-strakes. There are fourteen steel cyanide-vats, 22 ft. in diameter, with 4 ft. sides; and two zinc-boxes with twelve compartments in each. The average quantity of quartz crushed daily is $17\frac{1}{2}$ tons, with ten stamps running ninety-six blows per minute, with a drop of 6 in. to 7 in., each stamp having a capacity of $1\frac{3}{4}$ tons per day. The number of days worked during the year was 289, and the quantity of quartz crushed was 5,580 tons. The gold produced was 3,242.3 oz., and the silver 8,347 oz., of a total value of £14,644 5s. 11d. The value recovered per ton was £2 12s. 6d. The silver recovered by cyanide was 5,782.5 oz., valued at £643 6s. 10d.; and the gold, 336.2 oz., valued at £1,422 2s.—a total value of £2,065 8s. 10d. The silver recovered by amalgamation was 2,564.5 oz., valued at £285 10s.; and the gold, 2,906.1 oz., valued at £12,293 8s. 3d.—a total value of £12,578 17s. 1d. The cost of mining per ton was £1 1s. 7d.; the carriage of quartz amounted to 1s. $5\frac{1}{2}$ d. per ton; and the milling cost 8s. 4d. per ton. There was an average of eighty-five men employed during the year. The milling treatment is wet crushing and amalgamation, the tailings from the copper plates being treated by the cyanide process.

Waitekauri District.

Young New Zealand Mine (Area, 14 acres 1 rood 12 perches; owners, Young New Zealand Gold-mining Company, No Liability; mine-manager, J. M. Haslett).—This is one of the oldest mines in the Waitekauri district, and has changed owners on several occasions during the past twenty years. The present owners are engaged in extending the low-level cross-cut to test the reefs at a greater depth. Mr. J. M. Haslett, the present manager of the mine, has supplied the following information:—

“The main reef has, in the past, been opened and worked for a distance of over 300 ft., and has been stoped out to the surface some 80 ft. above. A monkey shaft or winze has also been put down 43 ft., proving the reef to that depth, when sinking had to be stopped on account of the presence of water. During the past year most of the time has been devoted to driving a low-level adit to cut this reef 130 ft. below the upper level. The adit is now in a distance of 565 ft., and is to be extended about another 150 ft. before it is expected to cut the reef. During last May and June a parcel of 20 tons of quartz was taken from the upper workings, and treated by G. Fraser and Sons, of Auckland, for an assay-value of about £4 per ton; and again in August another 16 ft. was sunk in the floor of the upper level, and another parcel of 9 tons was taken from that locality. 1 ton of this was sent to the Thames School of Mines, and it gave an assay-value of £5 2s. 7d. per ton. The other 8 tons was treated by Messrs. Fraser and Sons, and gave an assay-value of £4 16s. 4d. All these results were satisfactory, although the expenses of carting and treating exceeded the returns; but when the reef is cut the directors intend to erect a small battery on the property, and thus reduce the expenses to a minimum. At present the driving is in very hard ground, and progress is slow, but the prospects are very encouraging. A fine body of stone has been met with, the reef running about 2 ft. thick, and the ore is not very difficult of treatment.”

Waitekauri Company's Mines.—Vigorous operations were carried on by this company in the different properties owned by them. Developments at the low levels at the Golden Cross section are of a very favourable character, and the quartz coming to hand has improved in value. In the other mines at Komata and Waitekauri some valuable quartz has come to hand. The crushing-mill of forty stamps, which was adapted for dry crushing, is being altered to a wet-crushing mill. Experiments were made with ten stamps by using cyanide solution in the boxes. This method has proved so satisfactory that the remaining thirty stamps will shortly also be used in wet crushing. The general manager, Mr. G. Davey, has given the following account of the operations carried on in the mine during the year:—

“The name of the mine is the Waitekauri Gold-mining Company (Limited), and it is owned by the company of the same name. It is situated in the Hauraki district, Waitekauri, Province of Auckland. The mine-managers are as follows: Golden Cross section, W. H. Burch; Komata section, B. J. Maclean; Old Waitekauri Mine, William Christie. The mine comprises the following claims, viz.: Golden Cross section—Golden Cross Special Claim, 100 acres; Cræsus Special Claim, 100 acres; Tunnel Special Claim, 100 acres; Socket Special Claim, 99 acres 2 roods 6 perches; Tunnel Extended Special Claim, 99 acres 3 roods; Junction Special Claim, 54 acres 2 roods 37 perches: total, 554 acres and 3 perches. Komata section—Te Ao-Marama Special Claim, 79 acres 3 roods 36 perches; Crosscut Special Claim, 100 acres; Crosscut Extended Special Claim, 50 acres: total, 247 acres 3 roods 36 perches. Old Waitekauri Mine, 9 acres 2 roods 23 perches. Grand total, 811 acres 2 roods 22 perches.

“Golden Cross section: There are two shafts in this section of the mine: No. 1 shaft is 410 ft. below surface, and No. 2 is 204 ft. below surface. The greatest depth of workings below the sill of No. 1 shaft is 400 ft., and below the sill of No. 2 shaft 180 ft. There are six levels—(1.) Corbett's level, a drive in the side of the hill 22 ft. below the level of the sill of No. 1 shaft: this is not connected or worked from the shaft. (2.) No. 1 level north and south of No. 1 shaft. (3.) No. 2 level north and south of No. 1 shaft. (4.) No. 3 level north of No. 1 shaft. These three latter levels are connected with No. 1 shaft by cross-cuts. (5.) No. 1 level north and south of No. 2 shaft. (6.) No. 2 level north and south of No. 2 shaft. These two levels are connected with No. 2 shaft by cross-cuts. The reef consists of a dark-coloured quartz, carrying a large quantity of manganese, and impregnated more or less with very fine iron-pyrites. Its width varies considerably, the greater portion being from 12 ft. to 15 ft. in width. Development work carried on in this section of the mine has been as follows: Sinking Nos. 1 and 2 shafts; driving No. 1 level, No. 1 shaft; driving No. 2 level from No. 1 shaft; opening up and driving No. 3 level, No. 1 shaft; driving No. 2 level, No. 2 shaft. In addition to this, several rises and winzes have been carried through between the various levels to open up the reef.