

“Komata section (Te Ao-Marama): The sinking of the shaft has been continued during the year. The greatest depth of workings in this part of the mine is 190 ft. The shaft is now 12 ft. below this level. There are four principal levels—(1) The gully drive, a drive in the side of the hill; (2) the hopper level, a drive in the side of the hill at the same level as the sill of the shaft; (3) No. 1 level, 100 ft. below the level of the sill of the shaft; (4) No. 2 level, 190 ft. below the level of the sill of the shaft. Development work has been carried out during the year as follows: Sinking the shaft to No. 2 level; driving No. 2 level on Nos. 1 and 2 reefs; driving a cross-cut to the west of No. 2 reef at No. 2 level to prospect the ground. A winze has also been sunk from No. 1 level to No. 2 level.

“Old Waitekauri Mine: The work done in this section during the year has been as follows: Sinking a winze below Queen level on a shoot of ore; putting up a rise above this level, and connecting it with the Smithy level; cleaning up, repairing, and extending the Smithy level; putting up a rise above Smithy level, and opening out a new level (called ‘Upper level’) 90 ft. above Smithy level.

“Mine machinery: At the Golden Cross section we have the following machinery at work: No. 1 shaft: One Hirnant air-compressor, worked by steam, 12 in. cylinder, with 2 ft. stroke, nominal horse-power 15. This compressor is used for working the Tangye pumps, boring-machines, and for ventilation purposes. One Tangye winding-engine, double drum, 25 nominal horse-power. One horizontal high-pressure engine, 18 in. cylinder, 3 ft. stroke, and 30 nominal horse-power, for working the pumps. The pumps are of the Cornish type, and consist of one 14 in. forcing-set, 175 ft. of column, discharging at the adit-level, 130 ft. below the surface, and one sinking-set, 14 in. draw-lift, 110 ft. of column, discharging to the forcing-set. There is also one 6 in. Tangye pump at this shaft, which can be used as an auxiliary to the other pumps if required. The engines at this shaft are worked from one multitubular boiler of 30 nominal horse-power, and one Babcock and Wilcox boiler with Scott’s patent furnace of 30 nominal horse-power.—No. 2. shaft: One Fowler winding-engine, double drum, of 25 nominal horse-power. One horizontal tandem compound non-condensing engine, with 13 in. high-pressure cylinder and 20 in. low-pressure cylinder, 3 ft. 6 in. stroke, 35 nominal horse-power. The pumps are of the Cornish type, and consist of one 14 in. draw-lift, with 115 ft. of column, discharging at the adit-level, 80 ft. below surface. There is also at the shaft one 4 in. Tangye pump, which is used for sinking shaft. The engines are worked from one Babcock and Wilcox boiler similar to the one at No. 1 shaft.—Low-level tunnel: At this tunnel there is one Hirnant air-compressor, 10 in. air-cylinder with 18 in. stroke, belt driven from 5 ft. 10 in. Pelton wheel. This is for working rock-drills in the tunnel. These drills are of the ‘Sluggier’ make.—Tram roads: There are four miles and a half of tram-road connecting the mine with the forty-stamp mill.—Milling machinery (dry and wet crushing): One forty-stamp mill of 1,000 lb. weight each stamper and a crushing-capacity of 1.60 tons dry and 2 tons wet per stamp-head per twenty-four hours. The full forty head of stamps were employed daily. The number of days during the year on which this mill was worked was 306. The ten-stamp mill of 600 lb. weight each stamper and a crushing-capacity of 0.70 ton per stamp-head per twenty-four hours. The full ten head of stamps were employed daily. The number of days during the year on which this mill was worked was 306. One No. 5 Krupp mill, but this is not in use. There are also three stone-breakers—one No. 4 Gates crusher, one Wheeler with 12 in. jaws, and one from Price, of Thames, with 9 in. jaw. Eleven kilns of 250 tons capacity each and two of 200 tons capacity each, nineteen wooden cyanide-vats of 30 tons capacity each, ten steel vats of the same capacity, and three wooden cyanide-vats of 25 tons capacity each, five sumps (four wood and one iron), three wooden mixing-tanks, and eight zinc filter precipitating boxes. The power for the milling plant is water, with an auxiliary steam-power.—Water-power: Two 6 ft. 8 in. Pelton wheels to work the forty-stamp mill. Head of water, 195 ft.; length of wrought-iron pipe 2,000 ft., 28 in. in diameter. One 6 ft. Pelton wheel to work the ten-stamp mill. Head of water, 162 ft.; length of wrought-iron pipe 835 ft., of 10 in. diameter. One 4 ft. Pelton wheel for working the vacuum-pump of the cyanide-vats, one 3 ft. Pelton wheel for working the dynamo for electric light, and one 5 ft. Pelton wheel for Gates crusher. Also, one water-wheel, 36 ft. in diameter, 9 ft. wide, high breast, driven for working lathes, &c., in the machine-shop.—Auxiliary steam-power: One Tandem compound condensing-engine, by Yates and Thom, of 40 nominal horse-power, worked from two Babcock and Wilcox boilers of 30 nominal horse-power each, for the forty-stamp mill, and one high-pressure horizontal engine (double cylinder) of 14 nominal horse-power, worked from one multitubular boiler of 14 nominal horse-power, for the ten-stamp mill.—Water-races: One for forty-stamp mill, three miles and a quarter long, of ten sluice-heads capacity. One for ten-stamp mill, 123 chains long, of five sluice-heads capacity. One for low-level tunnel, 63 chains long, of five sluice-heads capacity. Three for working water-wheel, of a total of twenty-nine sluice-heads.

“The total quantity of quartz crushed for the twelve months was 22,840 tons, yielding 73,450 oz. of bullion, value £66,585 3s. 4d., extracted by the cyanide process. Cost of mining and milling per ton (approximate), £1 15s. Average number of men employed during the year, 280, all wages-men.”

*Waitekauri Union Mine* (Area, 625 acres; owner, the Waitekauri Union Claims, Limited; general manager, N. D. Cochrane).—The chief work in this mine during the year was driving a low-level prospecting tunnel. The following information about the company and mine-workings was furnished by Mr. N. D. Cochrane, general manager:—

“The chief work at the western group of claims has been the extension of the low level, the face of which is now in a distance of 1,716 ft. Hard bars of andesite continued to be occasionally intersected, varied with decomposed andesite, dacite, and breccias. The latter were less frequent as the tunnel advanced, and the face was left standing in a good class of sandstone or grey andesite. Work was continued till the end of the year, when want of capital caused a stoppage, pending a reconstruction of the company, which is at present being arranged. It is to be regretted that a suspension of operations took place at the time it did, as a few months’ more driving with the