A miner named William Nicholl has also been sluicing in Diamond Gully, for the purpose of tracing the source of gold found in the creek. The results are encouraging.

## KARANGAHAKE.

Talisman Consolidated (Limited) (J. Rickard, Mine-manager).

No. 12 Level (200 ft. below Waitawheta adit-level).—The north drive has been extended to a point 1,332 ft. north of the Talisman shaft. This progress has disclosed a few shoots of payable ore, but the average for the whole distance traversed is low.

No. 13 Level (400 ft.).—The south drive was extended to a point 2,016 ft. south of shaft. The reef varies in width from 3 ft. to 10 ft., and for a horizontal length of 280 ft. the Dubbo ore-shoot gave good values. These values were followed upwards by No. 16 rise, and they persisted for 130 ft. above the level.

No. 6 winze was sunk to a depth of 135 ft. (the random of proposed No. 14 level). The vein for the distance sunk runs from 4 ft. to 5 ft. in width, and gives high values. From bottom of winze, drives have been put out north and south, showing good ore for the whole of the distance, the lode varying in width from 3 ft. to 5 ft. No. 12 winze is now 212 ft. below No. 13 level, and 62 ft. below the random of No. 14 level. The widths and values for the distance sunk during the year have been very satisfactory.

The drives off No. 12 and No. 6 winzes at the random of No. 14 level show an ore-body of good

quality for a horizontal length of practically 1,000 ft.

An effort was made to sink the Talisman shaft during the latter half of the year, but after getting it down 31 ft. deeper, the water became too strong, and further sinking was stopped until No. 12 winze should get deep enough to take some of the water now making in the shaft.

The Woodstock shaft has been sunk 20 ft., and the first set of Cornish pump-workings is now practically in place. The boilers and engine for actuating the new pump are erected, and practically ready for work.

A new change-house, 30 ft. by 70 ft., has been erected at the mouth of the Woodstock No. 5 level,

and will be equipped with hot and cold shower-baths and steam-heat for drying clothes.

During the ensuing year it is intended that the south drive off No. 12 winze shall be extended until the Dubbo ore-shoot is intersected. The north drive off No. 6 winze will also be carried into the Talisman section, and from this drive a crosscut will be put out to the No. 14 level chamber in Talisman shaft. (When this is finished the whole of the drives mentioned will constitute the No. 14 level.)

It is also intended that the Woodstock shaft shall be sunk to the level of No. 14 level, with a view

of finally making a connection with same.

The only new treatment machinery installed during the year are two grinding-pans for fine grinding of the concentrates. These concentrates were formerly sent to London for realization, but are now being successfully treated here. An average of 360 men have been employed.

New Zealand Crown Mines (Limited) (G. N. McGreur, Mine-manager).

The following shows the footage of development-work in this mine on the Welcome and Crown reefs:—

Welcome Reef.—From five levels above Waitawheta level and four levels (from main shaft) (450 ft.) below same, 1,586 ft. driving, 861 ft. rising, 76 ft. sinking, 491 ft. crosscutting and stoping produced 13,265 tons of ore.

Crown Reef.—From Nos. 1, 2, 3, and 4 levels above Waitawheta, 1,553 ft. driving, 1,022 ft. rising, 44 ft. sinking, 596 ft. crosscutting produced, with stoping, 6,677 tons of ore. Talisman section: In Nos. 1 and 2 crosscuts 380 ft. of crosscutting was done.

The total tonnage treated at the mill was 20,835 tons, and the yield of gold was £45,030 10s. 6d., which shows an average recovery of £2 3s. 3d. per ton.

During the year the following improvements have been carried out:

Mine.—At the Waitawheta main adit-level the electric light has been installed for a length of 1,700 ft. along the level, and a horse is now used here for trucking purposes. In the main shaft the north skipway has been equipped from the brace down to No. 5 level, and both cages are now being run for general winding.

Mill.—All the machinery in the mill is now being driven by a 250-horse-power electric motor, which is working very satisfactorily. A transformer has been installed in the power-house, which enables the electric power to be used for working small motors, and a 9½-horse-power motor now drives all the fitting-shop machinery. Electric power is also used for hoisting ore from the tram-line to the top of the mill buildings.

## Dominion Mine (H. J. Hyde, Mine-manager).

The eastern low level has been extended a further distance of 302 ft. in hard country. A considerable amount of water is issuing from the face, which the manager considers is an indication that the reef sought for is near at hand. The western low level is being continued for the purpose of intersecting the lode followed down by a winze, and in which good value is said to have been obtained for a width of 7 ft. in the upper level. The crosscut is now in a distance of 300 ft., and should, according to survey, intersect the lode sought for in another 150 ft. of driving. The country penetrated is of a very favourable nature.

## Karangahake Mine (H. James, Mine-manager).

Work was suspended in this mine in the early part of 1911, as the prospecting-work in the Taukam section did not turn out as anticipated.