

PRODUCTION OF GOLD.

The following comparative statements show the quantity and value of gold entered for exportation for the last two calendar and financial years:—

Name of District.	Year ended 31st December, 1904.		Year ended 31st December, 1903.		Increase for 1904.	Decrease for 1904.
	Quantity.	Value.	Quantity.	Value.		
Auckland ...	Oz. 223,010	£ 791,529	Oz. 232,681	£ 832,334	...	Oz. 9,671
Marlborough ...	473	1,890	972	3,845	...	499
Nelson ...	5,049	20,141	7,962	31,710	...	2,913
West Coast ...	122,310	489,177	125,241	501,090	...	2,981
Otago ...	169,478	684,764	166,458	668,852	3,020	...
Totals ...	520,320	1,987,501	533,314	2,037,831	3,020	16,014*

Name of District.	Year ended 31st March, 1905.		Year ended 31st March, 1904.		Increase for 1905.	Decrease for 1905.
	Quantity.	Value.	Quantity.	Value.		
Auckland ...	Oz. 222,652	£ 815,499	Oz. 233,271	£ 834,070	...	Oz. 10,619
Marlborough ...	166	662	1,279	5,073	...	1,113
Nelson ...	6,461	25,814	8,222	32,819	...	1,761
West Coast ...	119,545	478,050	126,184	504,845	...	6,639
Otago ...	170,388	688,551	171,489	690,141	...	1,101
Totals ...	519,212	2,008,576	540,445	2,066,948	...	21,233†

* Total net decrease, value £50,330. † Total net decrease, value £58,372.

QUARTZ-MINING.

NORTH ISLAND.

The Northern District continues to be the chief field for quartz-mining—in fact, the gold-mining industry of this part of the colony is exclusively confined to the mining of quartz and the extraction therefrom of the precious metals—silver being also incorporated in the quartz—as distinguished from the more varied methods of gold-mining practised in the South Island, where alluvial gold is extensively worked in addition to the gold contained in quartz reefs.

As usual, the Waihi Gold-mining Company's mine is responsible for the largest output of quartz, which for the year amounted to 259,978 tons. Of this amount 141,200 tons was treated with cyanide, direct from the stampers, the balance of 118,778 tons being passed over amalgamating-tables prior to treatment by cyanide. The production of bullion and the values of concentrates and slag-tailings shipped amounted to £673,101 8s. 4d., which represents an ore-value of £2 11s. 9³/₄d. per ton. Dividends to the amount of £297,544 4s. were paid during the year. The gross sum so paid now totals £1,552,687 11s. 6d.

At the mine the erection of the large new pumping plant (referred to in last report) has been completed, and is successfully at work. A new pair of winding-engines, having cylinders 18 in. diameter by 3 ft. stroke, geared 2 to 1 to a drum 9 ft. in diameter, have been erected at No. 1 shaft. This increase of pumping and winding power will enable the management to further develop the property to a considerable extent. Underground the development-works keep pace with requirements, so that there is always an ample area of ground opened up to allow of an output of ore being steadily maintained, equal in amount to the combined crushing-capacity of the several mills. These latter contain an aggregate of 330 heads of stamps, as under:—

Waihi Mill, Waihi	..	..	..	..	..	..	90
Union Mill, Waihi	..	..	..	..	..	..	40
Victoria Mill, Waikino	..	..	..	..	..	..	200
Total	...	...	...	...	...	...	330

Extensive additions have been made, at the mills, in plant connected with the treatment of ores, and include coal-hoppers, additional boiler-power, vats for sands and slimes, turbine, elevator-wheel, and tube mills. These latter are used for grinding concentrates, which, after being ground, are subjected to treatment by cyanide solution and aeration (compressed air being used) for the recovery of gold and silver. The adoption of the process of tube-mill grinding and subsequent treatment enables the extraction of bullion from concentrates to be carried out at the mills, and obviates the necessity for their shipment to smelting-works outside the colony.