

70ft. to 100ft., and no fall for that amount of tailings. Open work then stopped, and tunnelling commenced, and is being continued a long way—2,000ft.—under the hills. The height of wash taken out is about 5ft., and consists of very fine quartz wash. The tunnel is driven in nearly level, but not on the bottom. There is gold above the present workings to a great height, and below to an unknown depth, but at present there is no way of working or washing, the whole of the gold-bearing material. The width of the lead is supposed to be 200ft., but the length is unknown. There is another claim ahead of this which is being worked in the same way. There is only a small supply of sluicing water in the locality. Parker has sometimes three or four heads.

The Deep Lead Gold-mining Company, Waipori.—(8/9/93): This company has not travelled over much country since my last report, but the ground has been tested to a greater depth—viz., 65ft. from the surface, where the returns have been about 20oz. per week. The wash at the bottom of the old channel is very remarkable when compared with the gold-bearing wash throughout the Waipori field. Large angular blocks of dark schist-rock, closely and very tightly packed with other stones and clay, take the place of the fine quartz gravel found all over the field. The gold is also a heavy and rounded sample, not at all like that found in other claims in the locality. I have not seen any similar gold-bearing wash in Otago. The gutter or channel is very uneven in width and depth; it is also rough, and very crooked. Some parts of the bottom, when cleaned out, form large pot-holes, 10ft. and 12ft. below the general level of the gutter. The 50ft. of stuff on the top of the wash consists of layers of hard clay of various colours, sand, and fine gravel, some of which contain fine gold. The south side of the gutter stands well when nearly vertical, but the north side is in places very bad standing-ground, when it breaks down and slopes to a great distance back. The giant nozzle, with a good pressure, makes slow progress in bringing down the vertical face, and still slower in reducing the coarse bottom-wash—in fact, the latter has all to be picked down and broken up by hand-labour. The tailings are now being sluiced directly toward the creek from the claim, and will soon fill up the old channel-bed in the immediate neighbourhood of the claim and township. A considerable strip of the company's ground has been previously worked to a depth of from 12ft. to 14ft., and from 3 to 4 chains wide, following the direction of the creek. The deep lead or gutter follows the valley in a zigzag form.

The Jutland Dredge.—(9/9/93): This dredge has turned over a considerable area of ground during the past twelve months; it is estimated at 14 acres, which will average 12ft. deep. The yield of gold is not as good as it was some time ago. It is at present yielding only 1gr. to the cubic yard.

The Upper Waipori Dredge.—(22/9/93): The larger dredge only has been working for some time past, but the area of ground worked during the past twelve months is considerable. The dredge is now approaching the narrow part of the flat, immediately below where the second dredge worked for a time. The manager thinks the run of payable ground will leave the present creek-bed a little distance ahead of where the dredge is now working and pass through a low saddle in the terrace, a few chains on the south side of the present stream. This terrace-saddle is composed of fine quartz wash, similar to that found in the creek-flats, and should be as easily dredged. The manager showed me a very rich specimen of quartz and gold found in the tail-box. The unworn appearance of this specimen and other small bits of mixed gold and quartz found suggest the existence of a rich reef at no great distance from the spot, and well worth looking after.

The O.P.Q. Quartz-mine.—(8/9/93): This mine has been idle for some time, but quite lately a party of working-men took it up, and they are now driving a new adit, which will be, when completed, about 600ft. or 700ft. long. The men expect to strike part of the lode at about 300ft. in. At the time of my visit the adit was driven 40ft., and fairly well timbered. The men do not expect to find rich stone, but they think that it will be good enough to enable good workers to make small wages, should the stone yield from 5dwt. to 7dwt. to the ton, as it did when previously worked. The lode was then from 6ft. to 7ft. wide.

Bella Quartz-mine, Waipori.—(22/9/93): This lode was discovered four years ago last June. During the first two years and a half the surface stone to a depth of 30ft. was crushed, and yielded about 900oz., or $\frac{1}{2}$ oz. to the ton. An adit was then put in 362ft., when it struck the line of reef, but no stone. Four hundred feet was then driven along the line, and a 15in. lode was met with. This is now being stoped. There are five men employed, one shift each day. A five-stamp battery is driven by a turbine-wheel, and crushes 50 tons of stone per week when running full time. The workings are very wet and dirty. The country is very hard, and the reef has well-defined walls. The air is good. The head-race is five miles long, and carries three heads of water. This party has not sent me any statement of stone crushed and yield of gold during 1893, as required by section 308, subsection (10), of "The Mining Act, 1891." I have delayed sending in my returns in the hope of getting them to send with this.

I have, &c.,

J. Gow, Inspector of Mines.

The Under-Secretary, Mines Department, Wellington.

No. 18.

MR. A. AITKEN, Manager, Waimea-Kumara Water-race, to the UNDER-SECRETARY of MINES, Wellington.

SIR,—

Kumara, 22nd May, 1894.

I have the honour to forward the following report on the Waimea-Kumara Water-races, for the year ended 31st March, 1894:—

WAIMEA WATER-RACE.

The total sales of water from this race during the year were £828 15s. 8d., and the total expenditure on maintenance for the same period was £919 9s. 4d., leaving a debit balance of £90 13s. 8d. on the year's transactions.