

HYDRAULIC AND ALLUVIAL MINES.

Maraewhenua and Livingstone Diggings.—These were visited in April, 1898, and an examination made as to the extent of auriferous ground on the Hospital and Municipal Reserves, which the miners in the district desire to be thrown open for mining purposes. This was duly reported upon. It was pointed out to me that there were 102 miners on the field, and that, unless some arrangement were come to as to working the gold-bearing portion of the reserves, many men would have to leave the district owing to the claims on the present diggings becoming worked out. At the time of my visit water was very scarce, and in consequence of this over half the men in the locality were compulsorily idle.

Manuka, via Milton.—(27/4/98): Messrs. Stewart and Sons are working an alluvial claim. The wash is from 30 ft. to 45 ft. thick, and of a fine character generally. Area of claim, 6 acres; 2 acres yet to work. Their water-race is fourteen miles in length, and takes its water from Nuggety Gully (rights to eight heads and small gullies; rights to two heads, which are crossed by the race). Actual water-supply is about 30 per cent. less than above, and the pressure at the nozzle is that due to height of face.

Waipori Deep Lead.—(22/2/99): Last year this undertaking was in liquidation. It has been purchased by Mr. W. J. Farrell (a gentleman well known in connection with the reefs of the Macetown District), and is managed by Mr. J. C. Nicholson, who has had considerable experience in hydraulic mining. At present the upper wash is being worked, by hydraulic sluicing and elevating, down to a false bottom; but at my visit I did not see the work going on, the men all being engaged temporarily on a dam at the head of the pipe-line.

Golden Key Mine, Waipori.—(22/2/99): This mine, situate about a mile on the Lawrence side of the O.P.Q. Mine, is working a deep lead of alluvial wash of considerable richness. The shaft is 50 ft. deep, 6 ft. 4 in. long, and 3 ft. 8 in. wide, divided in two compartments, one of which is fitted with good iron ladders. The wash is raised through the other compartment in buckets, a steam-winch supplying the power. A small Worthington pump deals with the water. Ten men at present employed. Ventilation and timbering are fairly satisfactory. No rules or signal-code posted.

Local Industry Co-operative Gold-mining Company (Limited), Lawrence (J. C. Arbuckle, secretary.—(13/9/98): The company are now working a claim in Gabriel's Gully, near to Rocky Point, by means of hydraulic-sluicing and -elevating. The ground at present being operated on is somewhat shallow, and overlaid by tailings from workings higher up the gully. The latter contains a little fine gold, but the gold in the wash is from medium fine to coarse. One sluicing-nozzle and one elevator are at work. The elevator has a lift of 22 ft.; sluice-box is 110 ft. long, and fitted with angle-iron, rifles, and coconut-matting.

Blue Spur and Gabriel's Gully Consolidated Gold-mines (Limited), Lawrence (J. Howard Jackson, C.E., manager).—(13/9/98): The work at this company's mine is conducted in a first-class manner. The face of cemented wash varies from 40 ft. to 100 ft. in depth, and continues to be worked in the manner described in my report of last year. Forty persons are employed. Owing to the dry season last summer, and the frost and the snow of the winter, there has been a good deal of broken time during the year; consequently returns are somewhat below the average. Every care appears to be taken to insure safety.

Beaumont (Beaumont Local Co-operative Gold-mining Company).—(14/6/98): In consequence of a fatal accident to William Thomas Moyle, on the 10th June, I visited this company's claim, a description of which was sent in after my visit of the 9th March, 1898. See remarks under head of "Accidents." (14/9/98): Since my visit to this claim in June (to inquire into a fatal accident reported elsewhere), the elevator has been re-erected. I had previously expressed the opinion that the original appliances were inadequate for saving the fine gold, and this was subsequently admitted by the management. In consequence of recommendations made by me the sluice-boxes have been doubled in length and a set of side-tables fixed, the result being very satisfactory to the company, as gold which is too fine to be caught by the methods previously used is now saved. Twelve employés.

Island Block Gold-mining Company (Limited), Island Block.—(19/1/99): Operations here are hydraulic-sluicing and -elevating. The surface is flat, and the wash averages 42 ft. deep. From 25 ft. to 30 ft. of the top part of the wash is poor, and at my visit an area of this was being stripped off, and being passed over the sluice-boxes to catch any gold which it may contain. Occasionally the wash at the bottom is in gutters formed in the bed-rock (mica-schist), which is ordinarily of a rather rough character. One sluicing-nozzle and one elevator are at present employed, with an additional elevator for pumping purposes only. The sluice-boxes are approximately 160 ft. long. At the head they have a fall of 8 in. in 12 ft., gradually reduced $\frac{1}{4}$ in. in each 12 ft. length to $5\frac{1}{2}$ in. per box-length (12 ft.). The boxes are fitted with longitudinal bars and cross-rifles, underlaid by coconut-matting. The first 12 ft. length is also provided with flexible netting between the bars and matting. When working on the bottom, the total height of elevator is 65 ft. The water supply is from the Tallaburn and Fruad Creeks—principally the latter—with a storage reservoir for each creek. The races are six miles and a half long, and terminate at an altitude of 700 ft. above the workings. This should give a pressure of 300 lb. per square inch, but, owing to the irregular way in which the various sizes of pipes (varying from 22 in. to 15 in. diameter) are laid, there is a good deal of unnecessary friction, and the actual pressure, as shown by a new standard gauge, was only 225 lb. per square inch. The pipe-line is two miles and a quarter long. Fourteen men are ordinarily employed. With the power available in the water-supply, if the pipe-line were systematically re-arranged, the question of working this flat by electrically-driven dredges, instead of by hydraulic-sluicing and -elevating, might, I think, be worthy of consideration.

Hercules Sluicing Claim, Roxburgh, (Mr. John Ewing).—(25/2/99): A description of this claim appeared in my report of last year. At this visit, I found the work going on much in the