

Such is the history of the Humphrey's Gully Company. They expended all their capital without procuring a supply of water sufficient to make their mining venture a profitable investment. The company at first opened out a face in a portion of the lease by employing wages-men, but since November, 1889, the claim has been let on tribute, the tributers paying the company 66 per cent. of the gross yield of gold; and in return for this the company maintained the water-race, and found pipes and sluice-boxes for the working of the ground. During the present year the ground is let to tributers, who are paying the company 70 per cent. of the gross yield of gold.

During the year ending the 10th February last the quantity of gold obtained was about 812oz., representing a value of £3,164 11s. 6d. Of this amount, £1,054 17s. 2d. went to the tributers, and £2,109 14s. 4d. to the company, while the expenditure by the company on maintenance of the race and general repairs was about £1,284 5s. 9d., thus leaving a profit on the working of £825 8s. 7d. When the small supply of water there has been to carry on sluicing operations, and that only intermittently, is taken into consideration, it will be seen that this will become a valuable mining property if a constant supply is obtained from the Arahura River, where there is practically an unlimited quantity of water to be got at all seasons of the year—at least, a continuous supply of 400 sluice-heads of water can be got from this source.

Since the company commenced operations gold to the value of about £30,000 has been obtained, and only a very small area of the ground yet worked. In order to make this property valuable an expenditure of about £50,000 is required. This will be ample to bring in a large supply of water from the Arahura River and to find additional plant, and open up the ground in a thoroughly systematic manner. The company has had a survey made for a water-race to the Arahura River, which is about 4 miles 63 chains further than the commencing-point of the present water-race, and their engineer estimated the cost of construction at £23,000. This, however, is not the only cost. The new portion of the race should have a carrying-capacity of 100 sluice-heads, and the portion of the race that is constructed, which is eleven miles in length, will have to be enlarged so as to have a carrying-capacity of about 120 sluice-heads, so as to utilise the whole of the water from the creeks from which the present supply is taken. And in enlarging this portion of the water-race a siphon would have to be substituted for the present flume, of 60 chains in length, which is now decayed to such an extent that to attempt to repair this would cost more than a new siphon, and the latter will be a far more permanent work. The company has had a line lately surveyed for the purpose of getting a siphon constructed in lieu of the flume referred to.

Recently Mr. D. Ziman has been making an examination of this company's property, and, it is said, has arranged for its purchase, and is to find the necessary capital to bring a large supply of water from the Arahura River and open up the ground in a systematic manner. When this is done it will be one of the best mining properties in the colony. The ground is not rich, but it is easily run away, and contains a little gold all through it. There is a large area for the deposit of tailings which goes down to the Arahura River, and, as that river has been proclaimed a channel into which tailings, mining *débris*, and wash-water of every description from mining claims can be deposited or flow, there will be little or no trouble in the future in getting clear of all the tailings from the sluicing operations. To take the average return of the gold obtained by the tributers, it shows that they got about 2oz. per shift of eight hours, which is equal in value to £8 for the labour of three men.

This property has been highly spoken of by all the geological experts who have visited it, and, although their calculations as regards its richness far exceeds my estimate, both as regards the quantity of ground that can be run away with a sluice-head of water and the average yield per cubic yard, it shows that there is an immense quantity of auriferous deposits here, and a valuable property. Mr. A. McKay, the Mining Geologist, who examined this place two years ago, agrees with me that there is a very large field, which will give good returns if worked in a systematic manner, and in his report on the same, published in 1892-93, pages 161, 162 of the Mines Report, he quotes previous reports of Mr. S. H. Cox, formerly Assistant Geologist, and Sir James Hector, the Director of the Geological Survey of New Zealand, to bear out some of the points in regard to its auriferous character, of which the following are extracts:—

*"Humphrey's Gully Beds.*—These, underlain by the blue clays of the Miocene marine series, form the greater part of Humphrey's Gully Range. The gravels are 300ft. to 400ft. or more in thickness, and cover a considerable area between the Arahura and Kanieri Rivers. The same gravels appear at Fox's, in Stony Hill, underlying the auriferous surface deposits at that place, and they may be present in other parts of the district. They chiefly deserve mention on account of their auriferous character in the Humphrey's Gully Range. The Humphrey's Gully Sluicing Company have opened a heavy face in these gravels, and since the commencement of operations have passed a vast amount of material through their tail-race, with results that should have satisfied and paid the company had not the initiatory costs been very great. The vast quantity of auriferous gravel that is present here and in other parts of the range might very well maintain many more enterprises such as the Humphrey's Gully Sluicing Company, and it seems that the only reason why such other companies have not been started is the costly nature of the water-supply, which would have to be brought on to the ground at a high level; but in spite of this I have no doubt that all available water will eventually be utilised on one or other part of the auriferous gravels of this age, and the overlying deposits in this part of the district. The gravels extend east to the sources of Caledonian Creek, and the area covered by them may be estimated as from four to five miles in length, and from one mile to one mile and a half in width. Morainic matter, or fragments of moraines undisturbed, overlie the gravels forming the mass of the range, but these are reckoned auriferous also and sluiced with the gravels that underlie. Three to four miles above Humphrey's a sluicing-claim has been opened out in the partly reassorted glacier drift on the lower slope of the range, while a mile lower down the river there are workings in the Humphrey's Gully beds themselves.