

The ground sluiced during the year has been poor, and the result has been disappointing, but there is a very large area of ground in the district still unprospected, and the claims now being worked may strike wash of a more payable character at any time.

There is one claim at Callaghan's worked by Menzoni and party that yields fair returns, but they use no water from the Government race as they have private dams and water-races. This claim has been worked for the last thirty years, and the owners have done well during all that time. There is a probability that this claim will be worked more energetically in the future than has been the case in the past, and that the owners will at an early date use water from the Callaghan's race. They have recently taken up more ground for the purpose of extending sluicing operations. None of the other parties working in the locality have struck the same run of auriferous wash.

*Kumara Race.*—The total sales of water from the Kumara race for the year amounted to £2,711 14s. 5d., and the expenditure for maintenance and repairs during the same period was £2,174 3s. 11d., showing a credit balance of £537 10s. 6d. on the year's transactions.

The average number of miners supplied with water from this race during the year was 70.66, and the approximate quantity of gold obtained by them was 4,671 oz., having a value of £18,216 18s.

The sales of water are £177 8s. 10d. less than during the preceding year, and the yield of gold 49 oz. less, having a value of £191 2s.

The decrease in the sales of water and the amount of gold obtained is not large, and may fairly be accounted for by the increasing poverty of the ground and the abandonment of several of the claims on account of their non-payable character.

The expenditure on maintenance and repairs during the year was much larger than it has been for many years, being £333 3s. 11d. more than last year. The head-race tunnel, which from the time of its construction has given a great deal of trouble, and has been a great source of expense, had to be retimbered, as it was in an unsafe condition for a considerable portion of its length. About a hundred and eighty sets of timber were put in, and a total length of 720 ft. completely renewed. In doing this work the tunnel was enlarged, as that portion was, for some reason, much smaller than the rest of the tunnel. The work done was executed in a substantial manner with heart of red-pine and silver-pine timber, and the whole was securely lathed and close-lined with heart-timber. A great portion of the work was done during the night, so that it would not interfere with the supply of water to the field, and this method of doing the work considerably increased the cost. It would have been running too much risk to leave this work undone for any longer time, as an accident to this tunnel would stop all sluicing in Kumara.

The work done has considerably increased the carrying capacity of the tunnel, and there would now be no difficulty in supplying 150 sluice-heads.

That the best of the ground in Kumara, so far as at present known, has been worked is without doubt the case, but there is still a large area of ground unworked that, with improved and better methods of working, will pay, and extensive sluicing operations will be carried on in Kumara for a great many years to come, even if no new discoveries are made. Improvements in the methods of sluicing are still being made on the field, and larger quantities of wash are being sluiced away. Larger supply-pipes are being used, and the width of sluice-boxes is being increased, with the result that more material is washed away and more gold saved, and blockages in tail-races and channels are not of such frequent occurrence as formerly.

Besides the sales of water above referred to, water to the value of £469 15s. 7d. was supplied to claims having a succession of poor washings. In all cases where water was given to poor claims, full inquiries were made as to the necessity for so doing, and the claims would have been abandoned if assistance had not been given. When water was plentiful, and running to waste down the creeks, extra water was supplied to claims using the race-water, and water was supplied for prospecting. Water was also supplied to the wheels on No. 5 Channel and the Deep Level Prospecting Company, besides water for washing down with and water for fire purposes in the Borough of Kumara.

Large quantities of water were also supplied for flushing the channels: No. 2 Channel, ten sluice-heads; No. 3 Channel, 23 sluice-heads; No. 4 Channel, ten sluice-heads.

For two working-days only were the dams empty, and on one other day the supply was short, during the whole of the year. The water-supply for Kumara is now all that could be desired, and the miners have no reason to complain on that score. The raising of the by-wash at the Loop-line dam has increased the storage capacity by 30,000,000 cubic feet, or about eight days' full supply, without any water running in during that time; but, as the races supplying the dam bring in a considerable quantity of water during the driest weather, the capacity of the dam may be fairly stated as having been increased to the extent of ten days' full supply.

The catch-water race to carry water from the watershed of the lower dam into the Loop-line dam has now been completed and acts well, and the Loop-line dam now fills much faster and with less rainfall than formerly. The Kumara water-supply will never run short, except during a very long period of dry weather or during a very hard winter when all the water is frozen up.

*No. 5 Main Tail-race.*—This main tail-race has now been completed, and a shaft has been sunk at the head for the conveyance of flush-water into it. The Kapitea Hill Race has been extended to the proposed pipe-line for No. 5 Main Tail-race, and a race has been cut from that point to the flush-water shaft, so that water can be supplied at once for washing down any *débris* that may be put into the main tail-race while the private tail-races are being driven.

One party is prepared to start at once driving a private tail-race connected with the main tail-race, and several other parties are also preparing to do likewise. A contract has been entered into for the supply of the necessary pipes for conveying water under pressure to the several claims about to be opened up, and about August next sluicing should be in full swing in the No. 5 Main