

to get broken down in places, or otherwise damaged, unless a strict watch is kept. The supply-race from the Kawhaka Creek to the Kapitea Valley is also in good repair, as well as the whole of the works in connection with the reservoir and dam. The following table shows the results of the working of this water-race during last year :—

Month.	Sales of Water.	Amount of Cash received for Sales of Water.	Expenditure.	Amount of Outstanding Moneys at the End of each Month.	Number of Men employed.	Approximate Amount of Gold obtained.	Value of Gold.
	£ s. d.	£ s. d.	£ s. d.	£ s. d.		Oz.	£ s. d.
1886.							
April	758 0 4	1,460 19 7	166 5 7	1,086 15 11	227	1,290	4,302 0 0
May	19 10 8	465 19 5	185 7 3	793 19 2	219	1,047	3,978 12 0
June	488 3 9	962 0 3	119 0 0	470 18 8	218	1,167	4,434 12 0
July	315 7 11	654 1 10	78 18 0	394 3 1	218	1,292	4,909 12 0
August	599 5 0	406 10 5	135 8 0	454 15 1	204	1,185	4,503 0 0
September	643 7 11	862 11 6	113 16 10	377 11 5	213	1,212	4,605 12 0
October	632 8 9	732 9 7	88 2 4	325 13 9	210	1,228	4,666 8 0
November	686 7 5	576 3 8	89 19 7	341 0 6	210	1,160	4,408 0 0
December	562 0 10	781 1 0	149 19 0	347 6 6	211	811	3,081 16 0
1887.							
January	345 12 7	489 6 4	106 7 3	75 9 2	216	807	3,066 12 0
February	673 0 0	450 5 4	87 8 4	91 9 3	216	1,161	4,411 16 0
March	747 9 2	619 18 0	78 6 8	71 16 10	216	1,280	4,864 0 0
Totals	6,470 14 4	8,461 6 11	1,398 18 10	..	2,578*	13,640	51,832 0 0

* Average, 215.

This shows that the sale of water for the past year was £6,470 14s. 4d., while that of the previous year was £9,788 16s. 8d., which shows a falling-off in the sales of water of £3,318 2s. 4d. during last year. This can partially be accounted for by the reduction in the price of water at the beginning of the year, which was reduced from £2 10s. per sluice-head per week to £2; also, by one month's free water being given to all claim-holders who were prepared to pay for water in advance in future. This system has been the means of £1,992 18s. 2d. of arrears for water being paid during the past year. On the 31st March, 1886, the outstanding moneys amounted to £2,064 15s., while on the same date this year they were only £71 16s. 10d. The actual cash received during the year for sales of water was £8,461 6s. 11d., against £10,381 11s. 2d. for the previous year. The expenditure on maintenance during the year has been £1,398 18s. 10d., against £1,454 19s. 5d. of the previous year. The value of free water given to the miners to open up their claims during the year was £1,547 18s. 11d., against £221 3s. 2d. during the previous year. To take the expenditure from the actual receipts, it leaves a profit of £7,062 8s. 2d., which would be about 18½ per cent. on the cost of construction, which was £37,400 2s. 11d.; but, seeing that a large portion of the receipts last year was by the payment of outstanding moneys, the actual difference between the value of water sold and the expenditure would more fairly represent the actual profit, which would be £5,071 15s. 6d., or about 13½ per cent. on cost of construction. The average number of miners employed during the year by the aid of this branch of the water-race was 215, and the approximate amount of gold obtained by them was 13,640oz., representing a value of £51,832. Deducting the value of the water sold during the year from the value of the gold obtained, the average weekly earnings of the miners amount to £4 1s. 1d. per man.

KUMARA SLUDGE-CHANNEL, WESTLAND.

The completion of No. 2 Channel has greatly relieved this channel, and made it far more accommodating to those who are using it. The effect, also, of having two main tailings channels is that the tailings are more distributed; and, the No. 2 Channel being at a higher level, it gains a great deal more room for tailings to be deposited. The dump for tailings from the sludge-channel is a serious drawback, the whole of the available ground being covered, and now depending wholly on the freshes and floods in the Teremakau River to carry away the tailings that accumulate between each flood. This entails a serious expense in shifting and extending the tail-boxes of the several branches to get clear of the tailings. The cost of this alone last year amounted to £2,142. The working of the channel may therefore be said to depend on frequent floods in the river to carry away such a portion of the accumulated *débris* to allow room for further discharge.

With regard to the expenses connected with the maintenance, it is still found that stone pavement is far more economical in the portion of the channel underground; but the manager is of opinion that for paving the extensions and branches at the tail end of the channel the wood pavement is preferable. This is obvious, as the wooden paving blocks are much lighter and more easily handled when they are placed in any position requiring to be shifted. The great source of expense in connection with the maintenance of this channel is the great number of tail-boxes that require to be added to the different branches in order to get clear of the tailings. The whole of the available tailings-site is so filled up that it now depends on floods in the Teremakau to clear the tailings away. This was foreseen long ago, not only by the department, but also by the miners using the channel, and was the means of getting a second channel constructed to relieve this one. This second channel is maintained by the miners themselves, and, as it is at a much higher level, they will be able to work more economically than by the old channel, as there is more fall for the tailings, and a large area over which they can be deposited before they are dependent on the river to wash them away. It is only a question of time—and that time is limited—when the present channel will become useless for the purpose of carrying away tailings. The bed of the river will gradually become filled up. The light material will wash away for a time, but the heavy *débris*