

The machine proprietors on this creek have entered into an arrangement to bring sufficient water for all purposes, both winter and summer, from a creek called the Puru, which can be done at a reasonable cost.

The Hon. the Minister of Public Works.

I am, &c.,

HENRY C. GILLESPIE.

Mr. W. SOUTER to the Hon. J. D. ORMOND.

ANSWERS to questions on proposed water supply.

1. 16 stampers, 3 Berdans, 3 Wheeler's pans and concentrator for crushing quartz and grinding tailings, 16 horse-power steam.
2. About a half sluice head; cost, none.
3. The low level would supply me. One 5-inch pipe and turbine.
4. I would make use of water.
5. The money value per stamper £22 10s. per annum, if constant crushing could be obtained.
6. Waiotahi Creek, quality bad; not constant since end of October to date, 31st January.
7. Yes, to a considerable extent, according to foulness of water and quality of quartz.
8. Yes, to the extent of 2 dwt. per ton; Waiotahi Creek generally.
9. From 8 to 10 dwt., according to size of reef, and from 6 to 8 dwt. with water as motive power.
10. Yes, as from a number of the mines the cost of conveying quartz to the mines is from 5s. to 8s. per ton, while the mills could be erected contiguous to the claims, thus saving the expense of carriage.
11. Yes, for motive power; but a small quantity must be cleaned for tables.

I am, &c.,

WILLIAM SOUTER,

Proprietor of Souter's Battery.

The Hon. the Minister of Public Works.

Messrs. BROWN, CAMPBELL, and Co., to the Hon. J. D. ORMOND.

SIR,—

Auckland, 7th March, 1872.

In reply to your circular of the 24th January, on the subject of water supply to the Thames Gold Fields, we beg to give subjoined answers to the several questions 1 to 11, given in the circular.

Yours &c.,

The Minister of Public Works, Auckland.

BROWN, CAMPBELL, and Co.

1. 40 head of stampers for crushing quartz, and 3 Berdans for grinding tailings, driven by a 40 horse-power high-pressure engine; when there is sufficient water power available, driven by a 40 horse-power Schiels' patent turbine water-wheel; also, 2 pyrites concentrators, driven by a 3 horse-power water-wheel.
2. Two sluice heads of water, at 20s. each per annum.
3. Twelve sluice heads would be sufficient for all our present requirements, and the low level would give sufficient fall.
4. Certainly, provided we had no other supply, and could get it at a reasonable rate.
5. A water power that would supersede steam would make a saving to us of about £1,000 per annum.
6. Our present source of supply is from the Tararu Creek, and is of superior quality when clean. It is constant for crushing purposes and for the supply of steam boilers, but there has not been sufficient for a full power for our battery since the latter end of October, 1871, excepting during occasional freshes, and then only for a very short time.
7. Yes, considerably; but by far the greatest saving would be in the adoption of appliances for the recovery of the quicksilver used and the concentrating of the pyrites, which can be done best by pure water.
8. Yes, to an unlimited extent in the Tararu district.
9. This depends on the quality of the stuff crushed for the mines; the difference between crushing with steam and crushing with water is about (2) two dwt.
10. To about 25 per cent. Many pieces of ground now remain abandoned on account of the difference between the price of crushing by steam and water. Many cannot crush at all for want of a power which the water would give.
11. Yes, but not to the same advantage, except for motive power.

Mr. W. DRAKE to the Hon. J. D. ORMOND.

SIR,—

Middle Star Mine Office, 5th February, 1872.

I have the honor to forward the following answer to Circular from Public Works Office, dated Auckland, 24th January, 1872, for your information.

1. The Middle Star Battery, situated in Madman's Gully, a left-hand branch north-west of the Moanataiari Creek, 700 feet above level of the sea, contains a steam quartz-crushing plant of 8 stamp-heads, with an 8 horse-power engine, working up to 12 nominal.
2. Sixty gallons per minute; original outlay for race, &c., from £50 to £60 pounds sterling; to keep said race and tanks in repair per annum, about £20; at a yearly rental to Government, £1 sterling.
3. The high level of the "proposed water supply" is 200 feet below the Middle Star Battery, but the low-level adit of the above mine, in course of entrance to the workings, would enable us to make use of the water from high level (500 feet) by the removal of the machinery to a convenient site, and use the water as a motive power, by turbine—with greatly increased battery accommodation. The high level must necessarily be adopted.