

at the 640ft. level. Nothing less than two 20in. pumps would be of any service, and it is questionable whether these would be sufficient when the ground came to be opened up, as their lifting capacity, with 90ft. travel per minute, is only equal to 1,141 gallons of water per minute.

If 1,141 gallons of water had to be lifted from a depth of 2,000ft. it would require a steam-engine capable of being worked up to 864-horse power. The consumption of fuel to generate steam for any type of engines to be capable of pumping this quantity of water to a depth of 2,000ft. would be considerable; and if such a project is ever put in operation those connected with it should be equally as careful in getting the most economical engines as the proprietors of an ocean-going steamer would be, as the price of coal supplied at the Thames will always form a great element in the cost of working. The present pumping plant costs about £323 per month to work from the 500ft. level. Last year the wages amounted to about £1,265, and fuel and other expenses to £2,609. It will be seen by this that cost of fuel alone must be about £50 per week:

Another scheme is spoken of as likely to be successful in causing fresh developments to be made, and that is by extending the Moanataiari tunnel, and, instead of continuing it on a straight course, to carry it further to the northward, cutting through the different lodes which are known to exist on the upper levels. This tunnel is now constructed for a distance of 3,077ft. in the Moanataiari Company's ground, and would still have to be constructed for a considerable distance before it would be within any other company's boundary. If the tunnel were carried on a straight course, it would go through the Fame and Fortune ground, and head towards Karaka Creek. By extending it in a more northerly direction the Miners' Union state that it would cut the Golden Age, Reuben Parr, 23rd of June, Orlando, Watchman, Star of the South, Success, Sons of Freedom, Dixon's, and other reefs. It is estimated that the cost of extending this tunnel 2,000ft. would be £4,000, and to connect it with the surface by two uprisings would cost an additional £3,000. The tunnel would go through ground held by different companies, who would be the parties benefited by such a scheme. The President of the Miners' Union submitted to me a plan showing the direction in which it was proposed to extend the tunnel; but he had no definite scheme, beyond the fact that the construction of such a work would be likely to lead to new discoveries, and revive the mining industry on this field.

To take the several localities in the Thames County where mining operations are carried on, there has been an increased yield of gold over last year in every locality with the exception of Grahamstown, Waiotahi Creek, Una Hill, and Te Tapa; but as most of the principal mines are in the two former localities, a falling-off in the returns from these mines causes a great depression in mining generally throughout the whole of the district.

*Tapu.*—There have been two claims in this district where gold has been obtained, namely, Sheridan's and Bell's. These comprise an area of about 25 acres. The average number of men employed during last year was seven, who obtained 73 tons of quartz, which yielded 219oz. 12dwt. of gold. The yield of gold for the previous year from this district was 164oz. 15dwt., which is 44oz. 17dwt. less than last year.

*Waiomo.*—There is a considerable area of ground held in many claims in this district, but very little work has been done during last year. Some very refractory ore was shown me from the Monowai Mine, which contained a good deal of sulphide of zinc, and said to be rich in silver and gold. However, this can only be proved by assay, as no fine gold was seen in any of the ore shown me. The lode is said to be from 6ft. to 18ft. in thickness, and has been tested on three levels. The proprietors of this mine have erected a stone-breaker, four McKay pans, a settler, and a berdan to treat the ore. This mode of treatment is not likely to save a high percentage of the bullion. There is also a large lode passing through the Mount Zeehan Mine, from which ore containing rich assay-value has been taken. The proprietors of this mine intend to pulverise the ore with stamps, and treat the dust in a cyanogen solution. No gold was obtained from this district last year, but high expectations are formed of it being a gold-producing locality for several years to come.

*Tararu.*—There are several parties prospecting in this locality, and great hopes are formed by those residing in the district of rich lodes being discovered further back. This is also borne out by the formation of the country, and the lodes running back into the range. The Sylvia Mine is the farthest up the creek, and similar ore can be found still farther back; but, as there is no road at present over which the quartz could be conveyed to be tested in bulk at the crushing batteries, except some rich ore is found on or near the outcrops, these lodes will never be properly tested. During last year there was 3,500 tons of quartz crushed from this locality, which yielded gold and bullion equivalent in value to about 3,866oz. gold, while for the former year the yield of gold from this locality was only 515oz. 16dwt.

*Shellback.*—There are several mining-claims in this locality, but very little work has been done during last year. Three mining companies hold about 44 acres of ground, on which five men have been employed; these have obtained 71 tons of quartz, yielding 104oz. 16dwt. of gold, while for the previous year only 35oz. 11dwt. of gold was obtained.

*Kuranui.*—The yield of gold from this locality has been considerably more than it was for the previous year. There were three gold-producing claims in this locality last year, comprising an area of about 36 acres, on which fifty-one wages-men and eighteen tributers were employed. The gold obtained by these last year amounted to 3,765oz., while for the former year the yield was only 2,301oz., and forty-five men were then employed.

*Moanataiari.*—The yield of gold from this locality last year is a little more than for the previous year; but, taking the number of men employed in the respective years, the yield of gold per man is the same—nearly 44oz. During last year there were ten gold-producing mines in this locality, comprising an area of 169 acres, on which 188 men were employed. These obtained 16,808 tons of stone, which yielded 8,209oz. 16dwt. of gold, while for the previous year there were 177 men employed in connection with the mines, the yield of gold amounting to 755oz. 10dwt.

*Grahamstown.*—There was a considerable falling-off in the yield of gold from this locality last year, both in quantity and the yield per man employed. During last year there were only three gold-producing claims, comprising an area of about 61 acres, on which 115 men were employed. There were 11,891 tons of quartz crushed, which yielded 5,150oz. 16dwt. of gold, being equal to