

*Galena Mine.*—This mine is owned and worked by the Battery Company. The return from 396 tons of quartz treated has been 193oz. 16dwt. of gold. There has been 175 fathoms of reef stoped, and 300ft. driving done.

*Waiorongomai Mine.*—This mine has been chiefly worked by parties of tributors, and 78 tons yielded 41oz. 19dwt. gold.

*May Queen.*—This mine has been lately purchased by the Battery Company, and 50ft. has been driven on the reef; which has proved payable.

*Canadian Mine.*—Operations in this mine have been confined to driving on the reef from the Colonist low level; and 60 tons of quartz yielded 20oz. of gold.

*Success Claim.*—This claim, which is situated to the eastward of the main reef, and was formerly known as the Waitoke Extended, has been worked since August last. A considerable amount of work has been done by the owners: 36 tons of quartz has been crushed for a yield of 36oz. of gold, and 10 tons of quartz of better quality is stacked at the mine ready to be sent to the battery. The reef worked varies from 6in. to 18in. in thickness.

Sundry crushings of parcels from small claims yielded 120oz. 2dwt. 12gr. of gold.

#### *Tui District.*

*Champion Lode Mine.*—The work done in this mine has been in opening a reef about 5ft. in width running in a north-easterly direction. The workings are for the most part near the surface. About 100 tons of ore is stacked ready for treatment. Various parcels, amounting in the aggregate to 150 tons, have been forwarded to England for sale. Mr. C. A. Cornes, one of the owners, informs me that a return from 75 tons was valued at £11 10s. to £12 10s. per ton. Another reef running parallel to the first has been found with a good show of sulphide of silver in the stone.

*Surprise Mine.*—A considerable amount of prospecting has been done in this mine, and a large reef, about 6ft. in thickness, discovered, which contains a quantity of galena and carbonate of lead. There is also another larger reef to the southward of the first, which also shows sulphides of silver. The reefs in this mine run nearly east and west.

The mines at Tui Creek may be expected to add to the returns of next year, for if the furnaces to be erected at Waiorongomai are successful in the treatment of those complex ores, quartz may be sent there from those mines for treatment.

The future prospects of the field rest on the prosecution of works to develop the reefs in a systematic manner, and on reducing the expenditure for working, and also on improved methods for the treatment of the ores.

Messrs. Firth and Clarke (the Battery Company, at Waiorongomai) have during the past year taken steps to become acquainted with the best methods of ore-treatment: Mr. J. C. Firth and the battery-manager, Mr. H. H. Adams, visited the principal mining centres in California, Nevada, and other parts of the United States; and the effect of their observations has been to convince them that the most economical and practical method of treating ores such as are found at Te Aroha is by calcining—the ores to be roasted in a furnace after being crushed in a battery, and then to be ground with suitable chemicals in pans for the purpose of amalgamation. A much greater percentage of the assay-value of the ore is thus saved—more than sufficient to compensate for extra cost of treatment.

The Battery Company has erected a small furnace at Waiorongomai, capable of roasting 15cwt. of crushed ore at one charge; and the samples already operated on have given such satisfactory results that they intend to erect extensive furnaces capable of treating ores in large quantities. A special claim of 110 acres has been applied for by the company. This will comprise the whole of the line of the main reef from Waiorongomai Township to the New Find Mine, and there is every prospect of being successful in obtaining capital from England to work the ground in a systematic manner. It is intended to drive two tunnels, one on each side of the reef, from the level of the battery northward to the New Find Mine. The reef will be cut through at stated distances. This method will test its value and be the means of thorough ventilation. The scheme is certainly one that recommends itself as being a thoroughly practical way of prospecting a large extent of known gold-bearing reef; and, although at the commencement of the tunnels there is not much of the reef overhead, when it has been driven a mile and a half there will be at least 2,000ft. of “backs” on the reef, and if any runs of gold are found there are vast quantities of quartz to be obtained between the tunnel and the surface. It is also intended to lay a tramway from the entrance of the tunnel to the platform at the battery. The water-power at the battery will be employed in compressing air to work rock-drills to be used in driving the tunnel.

This company is in treaty for the purchase of the New Find, Canadian, and Colonist Mines, and will be able to work lower-grade quartz in the reefs than the companies now holding the ground can, on account of the cost of crushing. It is intended to lease the tramway from the Piako County Council, and work will be continued from those portions of the mines at present opened during the time the tunnel is being driven along the reef. Mr. Peter Ferguson has marked out a special claim of extended area lying to the eastward and northward of the Battery Company claim and the New Find and Colonist Mines. He states that this claim will be worked by a company, which will also own the splendid reducing-battery erected by his party. There are numerous reefs running through this ground, and also a portion of the main reef lying to the northward of the Colonist Mine, so there is every probability of payable quartz being obtained if the reefs are prospected in a systematic manner; and, as they are mostly at a great height above the battery, tunnelling only will be required to work them.

The excellent returns from the quartz sent to England by the owners of the Champion Lode Mine at the Tui Creek should cause them to make provision for working the mine and treating the ores locally. They are in treaty with English capitalists to form a company to work the mine and erect machinery. The reefs at Tui Creek are of a different character from any previously worked