

*Karangahake.*

There are only two mines on this field where mining operations have been actively carried on during the past year—namely, the Crown and the Woodstock. There are two other claims—the Earl of Glasgow and Diamond—in which prospecting operations are being carried on, besides ten sundry parties who are working on the field. The total quantity of ore treated last year was 5,200 tons, which yielded 12,791oz. bullion.

*Crown Company.*—This company have now their plant at full work; and the ore, although not so rich as was at first anticipated, is of a highly payable character. The mine, which is situate in the gorge of the Waitawhita Creek, is well opened out, and shows that there is a large quantity of payable ore. The lode the company is working is what is known as the Welcome Reef, which has an average thickness of about 5ft. About 2,000ft. of levels have been constructed. Two cross-courses were met with in driving the levels, the first one being 460ft. in from the mouth of the adit and the next one at 530ft. These shifted the lode a little, but did not affect it in either thickness or value. The heave of the lode in the cross-courses is rather more at the upper level than what it is at the lower one, and the country at the lower level appears to be more of a settled nature than overhead.

Gold appears in the outcrop of the reef, which can be traced for 100ft. over No. 3 level. The lode on the level, as it gets into the hill, is somewhat broken and disturbed; but at 400ft. in from the mouth of the No. 4 level an uprise has been put up for 60ft., showing very good stone. This shows that the broken and disturbed country will not go very far down.

On the north side of the creek the outcrop of the reef continues to a much greater height than on the south side, and has been prospected at several levels with very satisfactory results, the character of the ore in the lode being somewhat similar from top to bottom. The country rock is of a hard and compact nature, which makes the construction of levels and uprises a slow undertaking when done by hand-drilling. The company are erecting a complete plant of rock-boring machinery, in order to carry on operations more expeditiously. This plant consists of a 40-horse power air-compressor and four rock-drills. The compressor is to be driven by a water-motor, and the water-supply used for working the old plant in the Waitawheta Gorge will be utilised for this machinery.

According to the company's balance-sheet of the 31st May, 1893, the capital of the company has been increased from £65,000 to £100,000 in 100,000 shares of £1 each, of which 75,770 shares are fully paid up, with the exception of £70 10s. arrears of calls.

## Expenditure—

	£	s.	d.
The purchase of the property cost ... ..	35,000	0	0
Value of paid-up shares given to the Cassel Company for patent-rights in connection with cyanide process ... ..	15,154	0	0
Reconstruction expenses ... ..	227	10	8
Value of plant acquired from old company ... ..	666	16	0
Removal and re-erection of plant, water-races, &c. ... ..	18,321	15	1
Value of stores on hand ... ..	549	3	7
Cash in bank ... ..	5,288	6	11
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	£75,207	12	3

The results of working the mine for the year ending 31st May, 1893, were as follows: There was 226 tons of ore treated, which gave bullion to the value of £3,612 8s. 8d.; and the expenditure at the mine during the same period was £6,768 17s., and at the Home office £584 17s. 6d., making the total expenditure £7,353 14s. 6d.: thus showing a loss on the year's transactions of £3,741 5s. 10d.; but against this, 1,143 tons of ore had been got from the mine and stacked at the mouth of the adits, which would show that this ore was debited with a cost of about £3 5s. 5d. per ton.

The total quantity of ore treated at the old mill was 614 tons, which yielded bullion to the value of £8,270. The total quantity of ore treated up to the 13th March last was 4,674 tons, yielding bullion to the value of £27,318; deducting the quantity of stone crushed previously, and the value of the bullion, it would show that 4,060 tons has been crushed, and treated by the new plant, which yielded bullion, to the value of £19,048, which would give the average value of the ore to be about £4 14s. 3d. per ton. Taking the whole of the ore extracted from the mine, it gives an average value of about £5 16s. 11d. per ton. Taking the quantity of gold in the ore, which, according to assay, was 7,010oz., the quantity extracted was 6,603oz. or 94 per cent. The quantity of silver according to assay was 8,588oz., and the quantity extracted was 7,169oz., being 83.4 per cent.; by taking the assay value of the whole of the bullion, which was £29,007, and the value of that extracted, namely £27,318, it shows that a saving of 94 per cent. of the assay value has been obtained. The percentage of cyanide used for treatment was 0.12. Taking the year ending the 31st March last, there was 4,544 tons of ore crushed, and treated by the cyanide process, which yielded 11,130oz. 15dwt. of bullion; while the average number of men employed throughout the year was 112.

*Woodstock Company.*—There is some very good ore in this company's claim, but it has not yet been opened up on anything like a large scale. During the past year there has been sixteen wages-men and two tributers employed. The company have been carrying on the operations on their own behalf on No. 2 lode, which averages about 4ft. in thickness. This lode has been opened out at the No. 3 level, which is 150ft. below the ore above it, and about 250ft. above the bed of the Waitawheta Creek. The lode has been driven on for a distance of 150ft., carrying good ore for the whole of the way. A winze was sunk on this lode from the No. 2 level to a depth of 70ft., and it varied in thickness from 3ft. to 5ft., giving an average assay value of £6 per ton. There were 568 tons of ore treated for the company last year, which yielded 1,517oz. bullion; and 51 tons by tributers, which produced 71oz. bullion.