

£7,207 4s. 10d. was expended in development-work. Stopping has been continued on levels Nos. 4, 5, 6, 8, 9, and 10; several blocks have become exhausted, including the Progress blocks from No. 10 upwards, also the big block on No. 4, and the big block close to the shaft on No. 9. Other stopes have been opened to replace these, notably the intermediate levels on No. 6 and the big east-end block on the same level. Equipment and general alterations have been unimportant both at the mine and the battery, with the exception of an overshot water-wheel, 16 ft. in diameter, recently erected at the Progress cyanide-works to utilise the waste water from the mill Pelton wheel in pumping up the cyanide-solutions. A Wilfley slime-table was under construction at the end of the year for the purpose of testing its efficiency in extracting the pyritic particles from the ordinary slime, as compared with the canvas tables in use. The 65-stamp mill ran 322·5 days, crushing exactly 60,000 tons of quartz, yielding 18,147 oz. 11 dwt. of bullion by amalgamation, equal to 6 dwt. 1·18 gr. per ton. The value of the bullion amounted to £75,408 9s. 4d., or £1 5s. 1·63d. per ton. The yield by amalgamation shows a very considerable falling-off as compared with previous years, and unfortunately a corresponding diminution in the working-cost is not shown, but rather an increase. The pyritic concentrates and slimes put through the chlorination-works was 1,105 tons, yielding 2,717 oz. 4 dwt. 18 gr. of gold, valued at £11,238 4s. 7d., equal to 3s. 8·95d. per ton milled. In the cyanide-works, 37,000 tons of coarse sands were treated, yielding 4,032 oz. 17 dwt. 21 gr. of base bullion, valued at £10,204 14s. 7d., the cost of treatment amounting to 1s. 10·06d., and the profit to 3s. 8·13d. per ton. Many attempts have been made to treat the slime particles experimentally, but results have not afforded sufficient success to warrant the erection of a special plant for the purpose. A general summary of the aggregate working-cost, yields, and resulting profits in milling 60,000 tons, cyaniding 37,000 tons, and chlorinating 1,105 tons during 1905 is as follows: Total working-cost, £53,977 18s. 9d., or 17s. 11·911d. per ton; profit, £44,325 11s. 6d., or 14s. 9·303d. per ton: total, £98,303 10s. 3d., or £1 12s. 9·214d. per ton.

*Keep-it-Dark* (Owners, Keep-it-Dark Gold-mining Company (Limited); Benjamin Sutherland, Mine-manager).—Work at this mine has been continuous, while in point of equipment and general working, efficiency and productive capacity are well maintained. Stopping on Nos. 4 and 5 levels is nearing exhaustion as the faces reach the upper levels, and the open ground is kept well filled in as the faces recede. In extending No. 5 level west, recent development proved a new make of payable stone 6 ft. in thickness for a distance of 100 ft., while work on this level was confined to this driving. Regarding No. 6 level, the extent of lode here is practically unexplored, notwithstanding the fact that the reef has been driven on for a distance of 200 ft., the face still continuing to show a strongly defined ore-body 4 ft. in width, the increase of quantity and average values being computed as factors indicating increased production in the deeper levels. Indications of change in the strike and underlie being strongly defined at depth on part of No. 6, a winze is now in progress to determine the formation and simplify connection with No. 7. Crosscutting is in active progress (50 ft.) from No. 7 chamber, and in laying off the work ample provision has been made for suitable siding accommodation. The stone mined and milled was 12,730 tons, yielding by amalgamation 3,391 oz. 4 dwt. 12 gr. of melted gold, of the value of £13,653 15s. 2d., equal to about 5 dwt. 8 gr. per ton. The total working-cost, including mining, hoisting, development, and general repairs, was £7,092 14s. 7d., or an average of about 11s. 1½d. per ton milled, while the general expenses attached to the battery were £1,562 4s. 3d. This amount includes new copper plates, all renewals of crushing plant, concentrators, and general repairs to head and tail races—an average of 2s. 4d. per ton. The Wilfley concentrators continue to give good results, and the profits derived from two shipments of concentrates were satisfactory. The extraction by cyanide shows a slight decrease on the previous year, the yield of bullion being 1,629 oz. 18 dwt. 9 gr., valued at £5,697 19s. 11d., or slightly over 8s. 11½d. per ton. This cost, which is a substantial reduction, is attributed to the reduced percentage of cyanide used and the introduction of caustic soda as a more effective solvent in the treatment of antimonial ores. In comparing the total values won during the year 1905 against the year 1904, there is a decrease of £1,316 14s. 8d. With the exception of short intervals necessary to effect slight repairs to the crushing plant, the mill has worked full time.

*New Inkerman Mines*.—During the first six months of the year the company mined 3,330 tons of stone, yielding 573 oz. 16 dwt. 13 gr. by amalgamation and 148 oz. 19 dwt. 12 gr. by cyanide, giving a total value of £2,811 8s. In July last all works were shut down in good working-order, and subsequently sold to the Consolidated Goldfields of New Zealand (Limited).

*The United Gold-mining Company*, in the Merrijigs district, has suspended all mining operations.

*New Scotia*.—This company was reconstructed during the year, and had for its objective the proving of the lode at depth below No. 1 level, off the inclined shaft. Excessive water being a serious item (well known to have existed in the original workings), precautions were taken to guard against the water in the upper level soaking through the upper formation as sinking proceeded. However, in spite of all efforts made to assure success during sinking operations, together with the very unfavourable promise in the bullion-values of the stone mined, operations were ultimately abandoned and the property finally put up for sale. Mining in the Merrijigs district is now practically non-existent.

*Victoria and Inglewood* (Owner, P. N. Kingswell).—With the object of effecting a holing into the old Victoria workings, driving has been carried on over three shifts per day, but connection was not accomplished at the close of the year. In this extended driving, ventilation is well maintained by the aid of a small water-driven exhaust-fan, which operates on a continuous pipe-line. On the No. 5 or battery level, stone for milling purposes was chiefly stoped from the incline shaft, the lode in this block being well defined and yielding good average values. Battery and cyanide plants are kept in good working-order. Stone milled—1,730 tons—yielded by amalgamation 918 oz. 1 dwt., valued at £3,648 17s. 7d.; while the sand treated by cyanide—1,505 tons—yielded 736 oz. 18 dwt. 2 gr., valued at £2,032 10s. 11d.

*Big River*.—The hoisting-shaft has been sunk to a total depth of 1,000 ft. from the battery level and 1,200 ft. from the brace. The reef-formation having been duly intersected on No. 8 level, stopping