

The cost of digging per cubic yard amounted to 1.27 grains, which is the highest cost recorded by the company since commencing operations, and leaves only a very narrow margin of profit. Owing to the company's inability to secure replacement parts, especially buckets and pins, working-costs increased. Digging-time decreased by 20 per cent., and scarcity of suitable labour added to the company's difficulties.

Blackball Creek Dredge, Blackball.—Repairs and maintenance of this dredge accounted for a considerable portion of available working time on day shift, but notwithstanding these delays and frequent changes of crew, the dredge dug a very satisfactory yardage and operations resulted in a good return on the capital invested.

Barrytown Dredge, Barrytown.—This dredge during the year dug 70.31 acres of solid ground and 4.49 acres of tailings, and the yardage of wash treated amounted to 2,291,000 cubic yards, not including the tailings, for a recovery of 1.29 grains per cubic yard. The dredge worked for 72.98 per cent. of the possible dredging-hours of 7,296 hours in ground of an average depth of 20 ft.

Westland County

Maori Gold-dredge, Callaghans.—This dredge worked up to the end of September and dredged 219,100 cubic yards before the whole plant yielded to the difficult conditions in which it had worked. For some weeks before cessation of operations parts of the top structure showed signs of collapse, and finally the pontoon was badly holed and the dredge sank. After temporary repairs had been effected and the dredge refloated, an examination disclosed that nothing less than a new dredge would be required to work out the remainder of the claim; consequently, the company went into liquidation and sold all plant and machinery.

Rimu Dredge, Rimu.—Out of a possible working period of 7,296 hours, the dredge worked 71.4 per cent. of digging-time. An area of 31.05 acres was dug of an average depth of 27.6 ft. and a total of 1,383,993 cubic yards of wash and overburden was treated. The yield per cubic yard averaged 12.92d., and operating-costs, excluding export taxes and realization costs, totalled 9.57d. per cubic yard. Total operating-costs, including the above-mentioned taxes, ran to 11.71d. per cubic yard. On the gold bullion produced, the company paid as export tax a total of £11,125, or about £358 for each acre dug. Throughout the year the dredge was engaged digging its way along the northern limits of the channel to the western end of the property. Dredge digging-time during the year was adversely affected by two major mishaps—viz., the blockage of the Kanieri Electric, Ltd.'s, water-race by a large slip and the parting of the bucket line due to pin failure. In addition to the foregoing, it was found necessary to overhaul and rebuild the digging-ladder point, which was badly strained on account of the tight nature of the ground.

Kanieri Dredge (Gold-mines of New Zealand, Ltd.), Kanieri.—A yardage of 2,313,000 cubic yards of solid ground was dredged and treated in addition to 75,879 cubic yards of tailings from 43.2 acres of ground in 5,964 hours, representing 81.75 per cent. of the total possible dredging-time. The depth of ground averaged 33 ft., and a recovery of 2.92 grains per cubic yard was effected.

Arahura Dredge (Gold-mines of New Zealand, Ltd.), Arahura.—A total of 3,238,000 cubic yards of ground was dredged from ground averaging 74 ft. in depth, the recovery being 2.63 grains per cubic yard. The total area dredged was 27.09 acres. Hours worked were 6,137, representing 84.12 per cent. of the possible working-time.

Gillespie's Beach Dredge, Weheka.—This dredge had another difficult year, chiefly on account of labour shortage, but despite all drawbacks a profit on the year's work was made. Owing to the dredge encountering a high sand-bank at the northern end of the claim and the difficulties of tailings disposal, a 6 in. sand-pump had to be installed to relieve the sand wheels and tailings elevator, which was incapable of removing the wet sands from the gold-saving tables in sufficient quantity to enable the stern of dredge to be kept free. The sand-pump proved to be successful, and in consequence the dredging difficulties disappeared so far as disposal of tailings was concerned.

ALLUVIAL MINING

Buller County

Addison's Flat Gold-mining Co., Ltd., Addison's Flat.—The company resumed operations for the year in a new paddock in February. During the year an ample supply of water with a head pressure of 108 lb. per square inch in two pipe-lines was available continuously. Seven men were constantly employed at sluicing operations and approximately 15 acres of ground averaging 8 ft. in depth were worked. The ground yielded just under 6d. per cubic yard and the cost of treatment was just under 4d. per cubic yard. The ground in places was badly cemented and had to be broken by explosives, thereby adding greatly to the cost of treatment.

Inangahua County

Waitahu Sluicing Co., Ltd., Waitahu.—In the early part of the year a manager was appointed to the claim and an attempt was made to resume operations. The main water-race was cleaned out and pipe-line repairs were effected where necessary and preparations made to open out a paddock by ground sluicing, but owing to inability to obtain suitable labour operations were again suspended.

Mount David Sluicing Claim, Blackwater.—Despite the fact that water-race repairs and pipe-line adjustments were completed by the end of 1943, no attempt was made to work the claim during the past year.

Grey County

Moonlight Sluicing Claim, Blackball.—Before closing down towards the end of the year owing to scarcity of suitable labour the company sluiced 150,800 cubic yards of dirt, mostly overburden from a section of the claim that was previously worked and yielded payable returns.

Golden Sands Claim, Barrytown.—Despite difficulties caused by flood damage to the claim and plant, the company operated continuously during the year on three shifts when labour was available. The ground worked was payable, despite the fact that an enormous amount of buried timber had to be handled in overburden overlying the auriferous black sand.

MISCELLANEOUS MINERALS

Asbestos.—The Hume Pipe Co. (Australia), Ltd., holders of a mineral lease in Block I, Flora Survey District, Takaka County, confined its operations to prospecting and sampling in bulk material won from drives and crosscuts driven at different levels on the property. Exploratory underground work amounted to 1,460 ft., and out of this distance 445 ft. was driven on asbestos-bearing rock which yielded 17 tons of fibre for the treatment of 386 cubic yards in the mill, which was only worked for sampling purposes. The gross value of this product was £20 per ton. Sales of fibre for the year were 12 tons 5 cwt., and stock on hand is 141 tons 1 cwt.

Estimates of the quantity and quality of fibre available cannot be made until the planned prospecting campaign is completed in 1945, when it is anticipated that sufficient data will have been accumulated to enable details to be worked out for the design and installation of a modern treatment plant of a capacity of 2,000 tons per week.

Electric power is now available at the works from the Cobb hydro-electric plant and a good road completed to the plant site, consequently mining and treatment costs can be kept within reasonable limits.

Mica.—Owing to the unfavourable weather experienced in South Westland, especially at the higher altitudes, an access track commenced in February could not be completed, but negotiations are in hand to continue the work. During the year Radio Corporation, Wellington, entered into an arrangement with the licensee of mining privileges on the Matakaitaki Range to work his area, but had to abandon the attempt to work at the 4,000 ft. level on account of heavy falls of snow. Prospecting was carried out at approximately 1,700 ft. above sea-level and the northward continuation of Sweeney's outcrops located, which were worked by quarrying for the last three months of the year, and about 700 lb. of sheet mica was recovered and sent to the company's Wellington factory. This quantity yielded 292½ lb. of what is described as usable mica, and the removal of approximately 400 cubic yards of rock was necessary to obtain the amounts of mineral mentioned.