

of winch; 1 day, aerial breakdown; $\frac{1}{2}$ day, union meeting; $\frac{1}{2}$ day, shortage of railway wagons; 9 days, Christmas holidays; 1 day, Good Friday; 1 day, Easter Monday; 1 day, May Day; 1 day, Labour Day.

Employees.—The number of employees engaged in and about the mine was 88, made up as follows: Hewers, 24; deputies, shiftmen, and truckers, 24; others, 40.

Earnings.—The coal-hewers' daily net earnings were £2 2s. 6d., an increase of 4s. 8d. a day over the previous year.

Daily Output.—The average daily output was 115 tons 18 cwt., and the coal-hewers' average daily output was 6 tons 4 cwt.

Deficiencies.—There were no payments under the minimum wage clause during the year.

Accidents.—While there were numerous accidents of a minor nature during the year, there were no fatal accidents, neither were there any that could be classed as serious.

Mine Workings.—After the north-west headings had crossed the 40 ft. upthrow fault and had been extended another 9 chains the seam flattened in grade. Then it dipped in the main heading, which afterwards entered very faulted country, but the companion heading continued normally and is skirting the troubled area. For about $\frac{1}{2}$ chain the north-west heading was driven altogether in stone, as the seam was missing as if in a "wash out." Later, however, the measures met in this heading showed definite faulting. After continuing in this faulted zone for 165 ft. the measures dipped abruptly and another fault was met, and the heading was stopped. The back heading and a third heading which is also skirting the troubled area are being extended. The places to the north off the north-west heading have met the upthrow fault which was crossed in the main drive, but the throw of the fault had increased.

The No. 1 panel headings have been continued beyond the panel area. Development in line with the main tunnel has been undertaken back towards the 40 ft. fault (here reduced in displacement to 22 ft.) and also to the dip, where a total distance on this bearing of upwards of 14 chains has been driven. This pair of headings is advancing satisfactorily, with places opening out to the south and north; but the area to the south will, for a time, be restricted by the Cunningham fault, while places driven to the north are steepening. It appears that this pair of headings is at present skirting a depression which lies to the north and probably extends to the trouble experienced in the north-west heading. The seam in the No. 1 panel (prior to the troubled areas being encountered) was opening out well, being from 7 ft. to 8 ft. in thickness with very moderate inclination and fairly good roof. The troubled areas, with considerably increased grades and wet places, required extra pumping and haulage gear, and a second boiler and another compressor had to be installed. The enlarging of the return aircourse which had been driven small through the fault, and the reconditioning of the airway where excessive floor heave had taken place, has involved a considerable amount of deadwork.

Preparations are now being made to brush and recondition the lower part of the main tunnel heading and pierce this fault to connect with the south-west headings now being driven in line beyond the fault.

During the year the loco-type boiler was transported from Mangapahi and installed at Tatu Mine, and although this gave improved power, the extra haulages and pumps necessary to deal with the troubled conditions soon exceeded the compressor capacity, and a high-speed Diesel-driven compressor had to be installed to meet the continually changing underground conditions.

The accommodation problem at Tatu and Ohura has been acute and has resulted in a shortage of men.

In April inflammable gas was discovered in the mine and preparations made for the installation of electric safety-lamps. The places exuding gas were sealed off until the safety-lamps were available.

With the increasing output, overtime had to be worked on the aerial ropeway, but towards the end of 1942 some of the one hundred ropeway buckets made by Price's Foundry, Thames, arrived, and these extra buckets have enabled the ropeway to be clothed more uniformly, and eliminated overtime and, to some extent, ropeway troubles.

During the year a number of aerial towers have been repaired, while two of the wooden ones have been replaced by steel towers. Repairs to screening plant and to ropeway engine have been carried out, the mine rolling-stock has been more than doubled, and a tippler has been erected in the mine bin.

Mine Buildings.—In addition to shelters and the roofing of upper bins and temporary workshop, the following permanent buildings have been erected: Mine bath-house and lamp cabin at the mine, and mine store, and a house-coal bin of 20-ton capacity.

Housing. A further six residences, making a total of eight, have been erected in Ohura, and assistance given to seven workmen to purchase residences.

A township at Tatu has been surveyed, sections bulldozed, and roads formed, and the contractor has fourteen of the twenty residences which he has to build well advanced. The eleven Public Works Department three-roomed hutments will soon be available for single men.

Surveys of the Mangaparo siding have been completed, and bulldozing will soon commence.

The survey of the aerial ropeway and the proposed Heao Saddle tunnel has also been completed.

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GEORGE SMITH, District Manager.