MINING AND QUARRY ACCIDENTS

In metalliferous mines, at which 1,645 men were ordinarily employed, no person was killed and five persons seriously injured.

At stone-quarries under the Stone-quarries Act, employing 1,559 men, seven persons were seriously injured. There were three fatal accidents.

In coal-mines, where 4,997 persons were ordinarily employed, six persons were killed and twenty-five persons seriously injured.

MINERALS OTHER THAN GOLD

These minerals continue to be of increased importance, and interest in the prospecting, development, and exploitation of any mineral of value in the United Nations' war effort has been maintained during the year despite difficulties due to shortage of skilled man-power and of mining equipment.

Scheelite.—This mineral still occupies pride of place in the list of critical minerals of strategic importance contained in New Zealand, and accordingly every effort has been made to maintain and stimulate production. To this end the Mines Department itself took over two of the principal mines in the Glenorchy district, the main producing field. The occurrence of scheelite here, as elsewhere in New Zealand, is notoriously erratic, and the attempt has been made by the Department to pursue an energetic prospecting and development programme to open up fresh reserves of ore and thereby allow of an increased and balanced production of scheelite. This, the first attempt to carry out a systematic and comprehensive development programme in the field for a considerable number of years, is due entirely to the exigencies of war, and was not warranted in pre-war years owing to the patchy nature of the ore and the widely fluctuating price for scheelite.

Many difficulties inseparable from mining operations in a relatively isolated district with lack of housing accommodation have been encountered, but a satisfactory development programme has been commenced and is being continued. It is to be regretted that the results of development to date have not been as satisfactory as could be wished for in disclosing fresh ore reserves, but some progress has been made in this direction, and development is still continuing. During 1942 a total of 16 tons of scheelite concentrates was won from what must be regarded as purely development work. In the present year attention has also been directed to stoping out portions of the pillars left in the old workings, and production for the first five months of 1943 amounts to 16 tons of concentrates, and it appears reasonable to anticipate that production can be maintained at this rate during the remaining portion of the year.

In addition to the Department's activities, there has been an increase in the number of small independent parties in the district, from whose operations it is reasonable to expect some increase in the production of scheelite.

Some production of scheelite is also reported from Macrae's Flat, but Glenorchy still continues to be the most important producer. Prospecting operations at the Golden Bar Mine, in the Wakamarina district, were continued by the Department, but results have been disappointing and operations have now ceased. The Mines Department has now completed a thorough investigation of the Marlborough field and proved that no production of any consequence can be expected from this field. In all, the equivalent of 70½ tons of 65 per cent. tungstic acid content concentrates were produced in 1942, as against a production of 71 tons of similar grade in 1941. Mainly as a result of operations by the State, production for 1943 should show a marked increase.

Mercury.—A further 5 tons of mercury were produced by Mercury Mines, Ltd., from the Puhipuhi deposits, but active production was suspended for many months owing to a huge landslip at the mine. Despite difficulties in securing the necessary equipment, progress in removing the landslip has been made, and production of mercury has now recommenced.

Development work at the Department's Ascot Mine at Karangahake has been suspended and all the available ore is being stoped out. It is expected that a small tonnage of ore will result from these operations, which will make a slight contribution to the production of an essential metal.

Mica.—While the examination of the mica deposits in South Westland by an organized party was disappointing in not revealing an extensive field, work has been continued at the discovery claim with encouraging results.

It is interesting to note that owing to war conditions specifications of mica have been drastically reduced, and in the United States of America the heaviest demand at present is for 1½ in. by 2 in., 2 in. by 2 in., and 2 in. by 3 in. Mica of this grade is regarded as critical or strategic. Accordingly, in addition to New Zealand demands, there would appear to be also an overseas market in America. A thorough investigation of the deposits has been as yet impossible because of difficult access and climatic conditions, but it is hoped to improve access by construction of a track which will allow of the transport of material so that adequate accommodation for prospectors may be provided.

Phosphate.—During the year the Clarendon phosphate deposits were investigated in some detail by officers of the Geological Survey, and as a result of their examination a low-grade phosphate deposit previously unknown and entirely separate from deposits worked prior to the last war was located. This deposit may be extensive, and drilling operations are at present being conducted by the Mines Department on behalf of the Department of Agriculture to determine the available tonnage. At the same time testing-work is being carried out at the Thames School of Mines to determine the best method of beneficiating this material and producing a concentrate whose phosphatic content is of commercial grade. The results both of the drilling programme and of the testing-work have not been without promise and are certainly sufficiently encouraging to justify further investigation. In addition, the Mines Department is also drilling in the vicinity of the old workings on behalf of the British Phosphate Commission.

Serpentine.—Owing to the value of this mineral to the fertilizer industry, the production of serpentine is now of some importance. During 1942 some 31,000 tons were obtained from quarries in