

The sequence of increasing yearly outputs from New Zealand coal-mines was broken in 1938, for during that year 55,711 tons less were produced than in 1937. From the Northern District mines there was a decrease of 15,781 tons and from the Southern District a decrease of 49,091 tons, but the output for 1938 from West Coast mines increased by 9,161 tons over that of 1937.

In the Northern and West Coast districts more men were employed at coal-mining, the increases being 63 men and 115 men respectively, but there were 32 men less employed in and about Southern District mines during 1938 than in 1937.

In the Northern District the output per man, 494 tons, is 32 tons per man less than during 1937, and, in the West Coast District the output per man was 475 tons, or 23 tons per man less than for the previous year. In the Southern District the output per man showed a decrease of 34 tons, being 499 tons per man compared with 533 tons per man in 1937.

The extension of the main or No. 1 drive in the new Hikurangi Coal-mine was, during the early part of the year, severely handicapped by the inflow of water through the thick porous limestone stratum. In June work in this drive was stopped and development then confined to extending, in coal, the No. 2A dip and to the driving of working-places east and west off No. 2A dip. When these workings reached a predetermined spot a place will be driven, in stone, to the rise and will connect with the face of the main drive. The outlook for the mine was very hopeful until, early in November, another serious setback occurred by a large inflow of water at the face of the No. 2A dip which had just reached an upthrow fault. Through this break in the measures the water rushed in at the rate of about 50,000 gallons per hour and quickly flooded all the coal workings and filled the No. 2A dip to within 60 ft. vertically of its brow. The pumps had been covered by the water, but others were brought into use. By the end of the year the water had been lowered about 60 ft. vertically and there still remained 100 ft. vertically to go to reach the break at the face of No. 2A dip. The water which had been lying in the main drive was drained away by the inflow, at the lower level, into No. 2A dip, so work at extending the main drive was resumed. By the end of the year 218 ft. remained to be driven in stone to connect this drive with the coal workings off No. 2A dip.

At the Kamo Mine the stowing of the old workings, under the Government railway, in the No. 2 section was completed in September, 1938. In the No. 4 section, from which at the end of the year all the output was produced, the daily tonnage increased to 200 tons, 84 men being employed. An upthrow fault of about 40 ft. displacement was met to the north, and to the east two faults were met, one being a downthrow of 20 ft. displacement. It was then decided to retreat from that area as the displaced seam could be worked to better advantage from the new No. 3 section, where the main-dip drive has reached the coal seam after being driven 930 ft. from the surface at a grade of 1 in 3.

At the Egmont Tatu Mine a 16 ft. downthrow fault was met in the main-dip drive, and some months elapsed before the extension of the dip was decided upon. In the meantime the extraction of pillars near the outcrop was commenced. The dip drive had just reached the top of the coal-seam on the downthrow side of the fault when the company ceased operations in August, 1938.

From the Pukemiro and Rotowaro Mines most of the output was from pillar-extraction. A new section of workings has been opened up at the Glen Afton Colliery in a portion of the MacDonald State Coal Reserve.

From solid and pillar workings in the MacDonald Mine the output was 217 tons less than during 1937.

Alterations were made in the Renown Mine main-haulage system, and an auxiliary haulage was installed for the No. 2 north section.

At the Rotowaro carbonization plant 39,412 tons of coal were carbonized in 1938, or 524 tons more than in 1937. From the raw coal 22,500 tons of carbonettes were produced; 62,700 gallons of light oil, and 74,790 gallons of heavy oil, together with 36,800 gallons of creosote and 982 tons of pitch.

At the Sockburn plant the output of briquettes, 5,889 tons, was 210 tons less than the output for 1937.

From Messrs. Briquette Ltd.'s plant at Auckland 1,085 tons of briquettes were produced in 1938.

At the new State coal-mine in the Grey District, now called the Strongman Mine, the main drive did not reach the upper coal-seam until early in 1939, for at the close of 1938 there were still $7\frac{1}{2}$ chains to be driven. An air-driven Korfman coal-cutting machine has been purchased for use in this mine. A large concrete bath and change-house is nearing completion near the mine-entrance, and a steel storage-bin and screening-plant is being built at Rapahoe.

At Blackball two dips are being driven in stone to connect with the seam some chains to the dip of the old No. 2 dip workings. The large amount of water flowing into these dips makes progress very slow. It is intended to use electrically-driven coal-cutters in this mine and to convey coal from the faces by belt conveyers.

At the Wallsend Mine an air-driven Korfman coal-cutter is now in use, but development is at present confined to the rope-road extension section and to places east and west off the Slant dip.

In the Dobson Mine development is steadily extending in the Nos. 3 and 4 west sections, the No. 3 east section, and to the dip of the No. 4 west section. The coal-cutter and other machines used in these sections are driven by compressed air and, to improve results, an 8-in-diameter pipe-line has been laid from the surface.

Of the twenty producing co-operative mines in the Grey District the output from nine of them was solely from the extraction of pillars. The production from six mines was from solid work only and from the remaining five mines partly from solid work and partly from pillar-extraction.

With the exception of the Kaitangata Mine and some mines in the Ohai District, there has been very little development work done lately in the Southern District.

About a mile south of the Kaitangata No. 2 Mine a dip is being driven in stone at a grade of 1 in $2\frac{1}{2}$ to intersect a seam proved in the Kaitangata No. 2 Mine. This drive is down 850 ft. and is expected to cut the seam before the 1,000 ft. mark is reached.