

ANNEXURE A.

SUMMARY OF REPORTS BY INSPECTORS OF MINES.

NORTHERN INSPECTION DISTRICT (WILLIAM BARCLAY, Inspector of Coal-mines).

In compliance with the Coal-mines Act, I have the honour to submit the following report:—

OUTPUT OF COAL.

The total output of coal from Northern District mines for the year was 762,717 tons, as against 778,498 tons raised in 1937, a decrease of 15,781 tons. Of this total, 696,468 tons were raised in the Waikato field (716,765 tons in 1937), 44,838 tons in North Auckland (41,694 tons in 1937), and 21,411 tons in Taranaki (20,039 tons in 1937).

The average number of men employed below and above ground in production of the yearly output was 1,541, as against 1,478 in 1937, the output of coal per person engaged in the industry being 494.8 tons and 526.7 tons for 1938 and 1937 respectively.

The number of mines in operation decreased by four, these being small mines in North Auckland which closed owing to the thinning or poor quality of the remaining coal, making further work unprofitable. A small mine in the Huntly district and one in the Te Kuiti district were not worked for similar reasons.

Extensive stone-driving was carried out during the year at the Waro and Kamo Mines, and development of outlying areas of coal from the outcrop are being undertaken at the MacDonald, Rotowaro, and Wilton Mines. Generally speaking, mine-development has been kept well ahead of actual requirements.

The large mines were inspected monthly during the year, and several visits paid to each of the smaller mines.

Work at the mines has been regular throughout the year, with the exception of occasional stoppages due to shortage of wagons, breakdowns of plant, &c.

SUMMARY OF OPERATIONS OF EACH COLLIERY FOR THE YEAR 1938.

North Auckland District.

Kamo Coal-mine (Kamo Collieries Ltd., Owners).—No. 4 Stone Dip: This dip was extended through the Old Kamo Mine workings and into 8 ft. of solid coal beyond the Old Kamo boundary. An upthrow of 40 ft. to 50 ft. caused interruption, and an inclined stone-drive 120 ft. long located the seam on the other side of the fault. These workings were abandoned in September owing to thinning of seam, with faulting and stone intrusions. A fault encountered on the east side was proved by driving to be a downthrow of 20 ft. The recovered seam is here 8 ft. thick and a dip driven in the coal to the east has allowed the development of eight working-places. Another fault has been met with by the dip in this direction, and the further extension of the seam will be proved by boring from the surface. A depth of 200 ft. of the Old Kamo Shaft was cleared out and repaired to be used as an intake airway for this section.

No. 2 Section: Stowing of old workings in the top and bottom seams, particularly under the railway reserve to the north of Kamo Station, was proceeded with and was completed in September, stoppings being erected at west end of Puriri and other connecting drives. When stowing, provision was made, by using bulky stowing material in the bottom seam, for the free drainage of water, to prevent in-rouding and danger to workings to the dip.

No. 3 Stone-drive: This drive was continued to a distance of 930 ft. from the surface at a grade of 1 in 3, and it is estimated that 50 ft. of driving is required to connect with the coal area, previously proved by boring, to the south-east of No. 1 mine workings. A sump has been driven at the face to handle surface water when the coal has been struck, and the face is connected by crosscut to a return airway, which has also been driven from the surface at a grade of 1 in 1. The coal has been proved, by boring, to lie 6 ft. below the drive at the face.

Waro Colliery (Hikurangi Coal Co., Ltd., Owners).—No. 1 Main Stone-drive: During the year this drive was advanced to a total distance of 1,224 ft. from the surface, the grade being increased from 1 in 4 to 1 in 2½ at 937 ft. from the surface. At 1,147 ft. on 8th June, work was suspended owing to a continued heavy inflow of water at the face, making further driving impossible at the time. Work was continued early in December, three shifts being employed at the face, which was now drained by No. 2A dip, and a further 77 ft. has been driven. It is estimated that a distance of 318 ft. has still to be driven on the grade to connect with the coal-seam proved by No. 2A dip.

No. 2A Dip: This dip was driven in the coal-seam 900 ft. from point of commencement at crosscut leading from No. 1 main dip. Sixteen levels were turned off the dip in the coal-seam to the east and two to the west opposite Nos. 9 and 10 levels east. The average grade of the dip has been 1 in 4.7, with local flattenings within 2 chains of present face. A fault was met with at 230 ft. from the crosscut, but was driven through and the seam (6 ft. 6 in.) recovered. The remainder of the distance was driven in undisturbed coal of good quality averaging 7 ft. thick. The face of the dip is 270 ft. beyond the No. 5 bore and is some 365 ft. from the line of projection to No. 2 bore. An analysis of the coal in September is as follows: Water, 5.10; fixed carb., 46.46; vol. hydrocarbons, 44.68; ash, 3.76: total, 100.00.

In spite of haulage difficulties, a daily output of 70 tons had been developed from this section by the beginning of November. At 3 a.m. on 11th November an inrush of water occurred at the face of No. 2A dip, where a step up fault of 5 ft. displacement had been met. The usually impervious roof cover of 10 ft. to 12 ft. sandstone lying between the coal and limestone had been disturbed in the vicinity of the fault, the roof conditions necessitating heavy timbering at the face, and it was through this broken roof that the water evidently drained. The face was standing at 48 ft. beyond No. 16 level east. The 20,000 gallons per hour which had been making at the face of No. 1 main stone-drive ceased at once, leaving the face dry, so it is assumed that the water lying in caves in the limestone between this dip and the face of No. 2A at a much lower level caused the inrush.

Water rose in 2A dip to No. 3E level. The water was held at this level by a 30,000-gallons-per-hour pump, and preparations at once made to install two pumps of a total capacity of 50,000 gallons per hour at No. 2A dip, and a large Pulsometer pump at the face of No. 2 main stone-drive to discharge this water to the surface.

By the end of December the water in No. 2A dip has been lowered 165 ft. on the slope equal to a vertical reduction of 64 ft.

Hikurangi No. 2A Coal-mine (Lease from Hikurangi Coal Co., Ltd.; Lawson and Party).—Coal production at this mine ceased during the year, and the area was abandoned.