

work this area an additional 5-yard stripping shovel with 46 ft. boom, four 18-yard muck wagons, two blast-hole drillers, and three 21-yard bottom dump coal vehicles have been placed in commission, and the mine has now been equipped on a mechanized scale that will bear comparison with anything overseas.

The construction of the Stockton aerial ropeway will complete the equipment of the area, and when this is put in commission a considerable expansion in production will be possible. Drilling operations beyond "F" Block, both the systematic close boring on the "G" Block adjoining this section and the scout boring of the further afield Bayne area, have already indicated that several millions of tons of coal can be won by opencast mining with a ratio of coal to overburden well within economic limits.

In the Waikato, mining operations have been completed at Kimihia No. 1 area, 1,045,200 cubic yards of overburden having been removed for the recovery of 250,586 tons of coal. Attention has now been directed towards Kimihia No. 5 area, where stripping operations have been carried out by use of the 5-yard shovel, carryalls, and Athey wagons. Good progress has been made, 555,800 cubic yards of overburden having been removed, and production of coal has now commenced.

Operations terminated at Kemp's Opencast Mine, Glen Massey, after 2,313,149 cubic yards of overburden had been removed for the recovery of 239,314 tons of coal, the ratio of 9.7 cubic yards of overburden to 1 ton of coal being the highest as yet recorded in New Zealand. Neither the coal recovered at this mine nor that from the Kimihia No. 1 area could have been obtained by underground mining methods. As a replacement to Kemp's, a new opencast, the Hillcrest Opencast Mine, was commenced at Glen Massey, and by May of this year operations were completed, 380,000 cubic yards having been stripped for a recovery of 54,282 tons of coal.

At Rotowaro, Thompson's and Barker's Opencast Mines continued in satisfactory operation, though coal-production at the latter mine was seriously affected by the shortage of railway wagon transport.

A commencement was made with stripping operations at the Victory Mine (Devlin's) during the year and has been continued during the present year to the production stage.

Other large producing opencast mines in the Waikato district, which, in contrast to those cited above, are privately operated, were the Kopuku Opencast at Kopuku and the Summit Opencast at Rotowaro.

Boring operations in the Waikato to locate further large-scale opencast mines have been continued. Very satisfactory results have been obtained at Weaver's Crossing where some 4,000,000 tons of coal have been proved, but development work has been disappointing in the Callaghan's Dip area.

In Taranaki operations were continued at Waitewhena, and the No. 2 area has now been abandoned after producing 146,564 tons of coal, which entailed the stripping of 660,076 cubic yards of overburden. Work is now concentrated on the No. 5 area while preparations are being made to open up the No. 5 Extended area.

At Garvey Creek, in the Reefton Coalfield, work continued on the South-east Opencast. Many difficulties have had to be met as the conditions are unusual in that the opencast is situated on the crest of a steep ridge through which runs a vertical coal-seam. So far a block of 3,000 tons of coal has been stripped but there has been no production. Work will shortly commence on two additional blocks in the Garvey Creek field, one to be known as the Morris Creek Opencast and the other as the North-west Opencast.

At Wangaloa operations have continued satisfactorily during the year and recent work has shown that opencast operations can be extended to the north farther than was originally expected. The use of tournapulls has been adopted at this mine during the year with a considerable measure of success.