

## PETROLEUM OIL

The outstanding feature in connection with the search for oil during the year was the great activity in deep drilling operations. In every case the results were negative, but, notwithstanding this, further exploratory work is still being carried out on certain areas. The following wells have been sunk since the passing of the Petroleum Act, 1937: Totangi, 5,700 ft.; Morere, 6,643 ft.; Midhurst, 10,925 ft.; Devon No. 1, 9,412 ft.; Devon No. 2, 6,300 ft.; Kumara S.F.L. No. 1, 5,450 ft.; Kumara S.F.L. No. 2, 2,980 ft.; Marton, 6,877 ft.; Mount Stewart, 3,395 ft.; Kawhaka No. 1 (West Coast), 2,795 ft. It is a disappointment that the energy and skill displayed by the operators have not been rewarded with some measure of success. Very large sums of money have been expended by the three principal licensees, and the most modern equipment in the world has been utilized.

From the wells at Moturoa on Petroleum Prospecting License No. 7 held by New Zealand Petroleum Co., Ltd., 86,173 gallons of crude petroleum oil were obtained during 1942.

The Dominion's total production of crude petroleum oil to 31st December, 1942, is estimated at 3,264,090 gallons.

## COAL-MINING

There were 137 coal-mines operating in the Dominion in 1942. Fifty-six of these mines are situated on freehold property and produced 1,061,961 tons, or 40 per cent. of the total output. The remaining 81 mines are situated on Crown lands and produced 1,618,080, or 60 per cent. of the total output of 2,680,041 tons.

The annual production of coal since 1938 has been as follows:—

Year.		Tons.	Year.		Tons.
1938	..	2,222,088	1941	..	2,639,507
1939	..	2,342,639	1942	..	2,680,041
1940	..	2,516,099			

During 1942 the quantity of coal imported was 90,865 tons, or 12,694 tons more than in the previous year, whereas exports (54,700 tons) were 3,479 tons less than in 1941.

The output for the year under review of 2,680,041 tons is a new record for the Dominion, and represents an increase of 40,534 tons, or 1.5 per cent. on the 1941 production. During 1942 production was severely retarded by serious floods on the west coast of the South Island and by the strike which occurred in the Waikato coal-fields in the month of September.

For the first five months of the current year (January to May inclusive) production is 55,000 tons higher than for the corresponding period in the year 1942.

Since the outbreak of war, coal-production has increased by 337,401 tons per annum, or 14.40 per cent. It is specially worth noting that whereas in pre-war years a substantial proportion of annual production was dumped and wasted, there has been virtually no waste for some years; in fact, some of the old dumps have been opened up and any remaining serviceable slack lifted and utilized by consuming units.

The output per miner employed underground last year was 732 tons, an increase of 6 tons over the 1941 production, and the second highest output ever attained in the history of coal-mining in the Dominion. Similarly, the production per man on the pay-roll—*i.e.*, both underground and surface workers—was 536 tons, an increase of 8 tons over the previous year. This is also the second highest figure ever attained—the record being 566 tons in 1916.

The productive capacity of the coal-mines which are developed or in process of development is sufficient to satisfy the reasonable needs of consumers, although it is recognized that the progressive rise in consumption is steadily reducing the margin. The chief factor operating adversely against higher production is that of transport—*i.e.*, the problem of getting the coal from the colliery itself to the consumers' bins. Bad harbour conditions at the west coast ports and inadequate shipping and railway wagons cause, both directly and indirectly, great losses in potential production. The loss of over five hundred fit and experienced miners to the Armed Forces in the early stages of the war, and their replacement by less fit and inexperienced men, has had its effect on colliery efficiency, the proportion of unskilled to skilled workmen at present being much higher than ever before.

The difficulties experienced recently by certain gasworks have not been wholly due to shortage of New Zealand coals, as some people might imagine. These difficulties have been occasioned by the abnormal demand for gas for military institutions and for industries overtaking the productive capacity of the gasmaking plant. Furthermore, these gasworks have always relied upon a proportion of Newcastle coal for efficient operation, and coal from this source is not coming forward as regularly as in past years. There is no coal in the Dominion which is as efficient in gasworks equipped with continuous vertical retorts as certain classes of Newcastle coal.

Notwithstanding the difficulties which have arisen since the outbreak of war, it is at least heartening to know that in this Dominion, which has made very great contributions in man-power to the Armed Forces in proportion to the population, and which relies almost wholly on overseas sources for the supply of colliery equipment, a far greater measure of success has been attained in the handling of problems associated with coal-mining and in meeting coal consumers' needs than in any other part of the British Commonwealth of Nations.

Arising out of the strike, the Government decided in October, 1942, to take control of the Waikato Collieries for the duration of the war, and a Control Board was set up consisting of representatives of the Government, the colliery owners, and of the workers. The functions of the Control Board are defined in the regulations, and its activities are steadily increasing as the organization develops. For the first eight months under control, compared with a similar period prior to control, the output of coal has increased by 42,125 tons, or 8.37 per cent.

Although much criticism was levelled at the Government for taking this step, it is of interest to learn that the procedure is being followed in other countries of the United Nations and reflects the determination of democratic peoples to organize the operation of critical war production on a basis which is not only fair and just, but also most likely to achieve maximum output.