It is to be regretted that the determination of this company to put mercury production on a sound basis in New Zealand and increase the supply of an essential war material has not met with a greater measure of success. Many difficulties have had to be faced; adverse weather conditions, the high ratio of overburden to ore, the general patchy nature of the ore-body, difficulites in securing earth-moving equipment, and, overriding all, the collapse in the price of mercury following resumption of marketing by the international mercury cartel. Despite the erection of a modern and efficient treatment plant and the introduction of both modern mining and metallurgical practice, it has been impossible under the circumstances to continue operations on an economic basis.

Manganese.—There was no production of manganese-ores during 1945, but a tributor at Mirandite Products, Ltd's, mine at Clevedon was engaged during the year mining and getting out a parcel of 500 tons of ore for shipment to Australia. Recently shipment has been made of 410 tons of this parcel and the balance is expected to follow at an early date. The ore, while of good grade, is limited in quantity and access and transport are difficult.

Copper.—A discovery of copper-ore was made some time ago at Pakotai, near Whangarei, in North Auckland, and during 1945 this ore-body has been opened up and a parcel of 500 tons of ore obtained. This parcel now awaits shipment to a smelter at Port Kembla, in Australia, and the result of the shipment will determine the average grade and the value of the ore. Both copper and gold are contained in this ore, but the extent of the deposit cannot be determined until further prospecting work is carried out, and this is in part dependent on the result of the shipment.

Iron-ore.—At North Auckland and at Onekaka, 6,067 tons of iron-ore were obtained from deposits, the majority coming from North Auckland. This iron-ore is used for gas purification, in the manufacture of stock-licks, and in the cement industry.

Uranium.—The search for uranium-ore in New Zealand has been proceeding for some considerable time by officers of the Department of Scientific and Industrial Research. Uranium occurs in New Zealand generally in minute concentration, the most important potential source of uranium being some of the sands and gravels of the west coast that are at present being dredged for their gold content.

The uranium content of these gravels is actually very low. In one dredging area it has been estimated that the bank material (*in situ*) contains 0·0005 per cent. monazite and 0·0003 per cent. hyacinth. The monazite at this locality has been analysed and proved to contain 1·15 per cent. U_3O_8 and 4·93 per cent. ThO_2, so that the overall content is minute in the extreme.

These uranium-bearing materials are concentrated to a certain extent incidental to the normal processes of gold recovery, and research work is being carried out to determine whether improved concentration can be effected on the dredge to such a stage that the material might be further treated and concentrated at a special treatment plant ashore. Research work into this latter aspect of the problem is now being carried out at the Thames School of Mines. Whether such work can be considered on the economic plane or not is at present indeterminate as it is impossible to assess the value of uranium under the system of control (of uranium-ores) exercised overseas.

The mining and treatment of uranium-ores in New Zealand is now controlled by the provisions of the Atomic Energy Act, 1945.

Mica.—Mining operations were continued by Radio Corporation of New Zealand, Ltd., at its mica-mine in South Westland and 882 lb. of dressed mica, valued at £882, were produced. The mica obtained has been invaluable in permitting the company to fulfil important war contracts when mica was unobtainable from overseas, but production costs have been high and the future of mica production in New Zealand under peacetime conditions is doubtful.

So far it has been impossible to complete the pack-track to the high-level deposits owing to the difficulties in obtaining a contract party.