

III. REPORT OF DOMINION ANALYST AND CHIEF INSPECTOR OF EXPLOSIVES.

Dominion Laboratory, Wellington, 16th June, 1920.

LABORATORY REPORT.

The total number of samples examined during the year was 3,591, being approximately a hundred more than in 1918. These were forwarded by various Government Departments as follows :—

Customs	197	Public Health—	
Defence Forces	17	Auckland	11
Explosives Branch of Laboratory	301	Christchurch	63
Justice (Police)	96	Wellington	2,206
Labour	8	Public Works	31
Mines—		Railways	14
Geological Survey	99	Tourist Resorts	15
Head Office	75	Other Departments	5
Inspectors	110	Public bodies and Crown Commissioners	22
Prospectors	95	Research (Laboratory)	132
Post and Telegraph	60	Miscellaneous samples	34
		Total	3,591

WAR.

With the cessation of hostilities and the consequent evacuation of the camps, examination of foodstuffs and other supplies for the Defence Department ceased. Water-supplies, however, have been occasionally tested for the military hospitals. The Imperial Government purchase of scheelite was continued half-way through the year, and fifty-seven consignments, representing 110 tons, were assayed for tungstic acid prior to shipment.

CUSTOMS.

This Department submitted a larger number of samples, some of them of a complex nature. The samples are of assistance in deciding classification for tariff purposes, and call for no special comment.

JUSTICE.

Quite a number of samples were received in connection with the fatal poisoning of two passengers on board the s.s. "Moana." The symptoms were those of cyanide poisoning, and potassium cyanide was found in the remains of some lemon-squash that the two passengers had been drinking immediately before death.

In another case arsenical sheep-dip was indicated as the probable cause of death.

Several samples of liquor were examined, four being underproof.

MINES.

The samples forwarded by the Geological Survey included nineteen coals, four of which came from Te Kuiti, on the south of the Waikato basin, and twelve from Collingwood. Nineteen clays, many of them representative of large deposits, were submitted for examination. Other samples were sand from Hyde, suitable for the manufacture of sodium silicate; barite from St. Bathans (a new locality for this mineral); a leathery mineral from Awakino not previously described, but identified by Dr. J. Henderson as pilolite; copper-ore from Makaretu, and oil from Waitangi bore, Gisborne. Full particulars of these will be found in the detailed report.

Of considerable interest is a mineral from the Teviot-Molyneux Sluicing Claim, Roxburgh, collected by Professor J. Park, which contained small percentages of bismuth and selenium.

The Head Office of the Department forwarded coal-samples from bores in the State Coal Reserve, Greymouth, and in the Waikato field. Numerous analyses of mine-airs were made for the Inspecting Engineer.

Prospectors' samples disclosed little of value, except perhaps some copper-ore from Takaka and an adjoining district, Puramahoi, both of which would seem to merit further prospecting.

Fine clear rock-crystal was also obtained from the same locality, and a specimen has been sent to London for valuation.

POST OFFICE.

Samples examined for the Post Office comprised beeswax, benzine, fuse wire, inks, paint, potassium bichromate, sal-ammoniac, switch-springs, tar.

PUBLIC HEALTH.

Samples submitted by the Public Health Department comprised black-currant jelly, bread, butter, chow-chow pickles, calves-foot jelly, chutney, clover cream, cochineal, cocoa, coffee and chicory essence, coffee, cordials, cornflour, cream, custard-powder, "Egflayke," glaxo, honey, ice-cream, jams, lime-water, lincolnish, meals, meat-paste, milks, minced meats, mustard, Nicholas's Aspro, oils, "Ceresit" paint, pork-sausages, port wine, sheep-dip, sweets, tomatoes (canned), tincture of iodine, vinegars, wallpaper, whisky, and whitebait.

Of the butters examined, two were over the standard in water and several others were rancid. Many cordials were found to be wrongly labelled; two contained salicylic acid; quite a number were artificially coloured contrary to regulation. The ice-cream was not up to the standard in fat. The jam, jelly, and pickles examined were satisfactory.