These results allow of being expressed in the following manner:—

Chloride of sodium	392·594
Chloride of potassium	4·448
Iodides and bromides	not estimated
Sulphate of soda	1·269
Carbonate of soda	18·604
Carbonate of magnesia	15·831
Carbonate of lime	3·961
Carbonate of iron	2·386
Silica	6·418
	445·511

N.B.—The difference in these totals arises from the elimination of some oxygen in the case of the column giving the smaller one.

The mineral water just collected by the Survey, from Waipiro, Poverty Bay, No. 1586, has not been fully examined: it has been, however, ascertained to be a very saline one, chloride of sodium being its predominating salt. It is interesting as occurring associated with the petroleum of that district.

[Extract from "Tenth Annual Report on the Colonial Museum and Laboratory," p. 46.]

No. 1660 is a mineral water from Aorangi, Hawke's Bay, forwarded by Sir Donald McLean. It belongs to the alkaline class of mineral waters, its character and composition being as follows: Colour, pale yellow; tasteless; odourless; weakly saline.

The results of its analysis are calculated in grains upon the gallon:—

Chloride of sodium	1·87
Sulphate of soda	1·08
Carbonate of soda	1·81
Carbonate of lime	1·76
Carbonate of magnesia	·81
Carbonate of iron	·94
Silica	1·56
Organic matter	3·92
	13·75

The carbonates are calculated as mono-carbonates, but there is carbonic acid present in the water in excess of that required to pass them to this condition.

[Extract from "Twelfth Annual Report on the Colonial Museum and Laboratory," pp. 35–46.]

In this division only the mineral waters, Nos 1820, 1849 (15 samples), and 1907, require notice here; and No. 1891, a water used for locomotive purposes.

No. 1820 is from Waiwera, and exhibits character as annexed: Quite clear and colourless; distinctly alkaline—reaction to litmus paper; in taste, weakly saline.

From the appended result of its analysis, the water appears to belong to that class of mineral water known as the alkaline, and therefore resembling that from Puriri, Auckland, No. 1404, analyzed in this Laboratory in 1873, and reported in the Eighth Annual Report of the Colonial Museum and Laboratory. These results are stated as upon the gallon, in grains:—

Chloride of sodium	116·715
Chloride of potassium	·091
Chloride of lithium	traces
Iodide of magnesium	traces
Sulphate of soda	·383
Bi-carbonate of soda	87·573
Bi-carbonate of lime	10·692
Bi-carbonate of magnesia	·954
Bi-carbonate of iron	·686
Alumina, phosphatic	traces
Silica	2·464
	219·558

This water is shown, therefore, to be similar to several of the famous Continental mineral waters—for instance, that from Vichy, in France, and Fachingen, in Nassau, both of which are largely used medicinally.

The next is a series of waters, fifteen in number, collected from different hot springs of the Rotorua District by Captain Mair, at the instance of His Excellency the Governor; they are collated under the Laboratory number 1849. In the following statement of analytical results obtained thereon, they are treated of, for convenience, in the same order as that in which their field numbers run, which numbers are retained. The accompanying description of the springs whence these waters were taken, as also the statements as to their temperature at the time of sampling, are extracted from notes thereon by Captain Mair.

No. 1 is the water from Te Tarata, or the spring which forms the great White Terrace of Rotomahana. This is a true geyser, having a large crater-shaped basin 90 feet in diameter, the lip of which is about 70 feet above the level of the lake.