In one group of subjects—namely, theoretical chemistry, practical chemistry, and wet assaying (which is really a branch of practical chemistry)—the results here, as in other schools of mines, are poor, and reveal the presence of a weak spot. The reason for this weakness is referred to elsewhere in a paragraph written before the examination results had come to hand. The remedy is not so obvious; but this may be said that the cure rests not so much with the teaching staff, or even with the pupils, as with a higher authority.

The examination results as a whole, however, represent much hard work on the part of our students, and if one makes allowance for the various disadvantages under which many labour they may be considered to have done very well; but the attainment of a still higher standard is much to be desired. In order to facilitate this end, further aids to teaching in the way of apparatus, models, and accommodation are very necessary, especially if the attendance should increase, as seems likely, beyond last year's average (fifty-one).

Last year the school sent up ten candidates for mine-managers' and battery-superintendents' certificates, with the result that three obtained first-class mine-managers' certificates, one a first-class coal-mine manager's certificate, one passed as a battery-superintendent, and two obtained partial passes as mine-managers equivalent to second-class certificates. Several students also were successful in obtaining winding engineers' certificates.

Laboratory.—During the year a cupel-machine was added to the laboratory equipment, and new benches of a substantial character constructed. Forty public assays for gold and silver were made, besides three for gold alone, one bullion assay, one amalgamation assay, six copper assays, one zinc assay, three iron assays, and an analysis of a mineral supposed by the sender to be scheelite, but which turned out to be barytes or heavyspar—in all, ninety-four determinations. In addition, a number of mineral specimens were examined and named for various inquirers free of charge. As in former years, a good deal of special work was done in the laboratory by the more advanced students and by the staff. I quote the following results, which are of more or less outside interest:—

(1.) Fibrous white mineral from the Waihi Extended shaft (depth, about 430 ft.): Hardness equals 2·5 to 3; specific gravity equals 2·17; B.B. swells up and fuses at about 2·5; gelatinizes with HCl. Analysis gave (excluding 3·02 per cent. of moisture): Loss on ignition (combined with water), 14·35 per cent.; silica, 53·43 per cent.; alumina, 21 per cent.; calcic oxide, 10·41 per cent.: total, 99·20 per cent. The mineral is therefore a zeolite, and is near laumontite in composition and most physical characteristics. The specimen analysed appeared to be somewhat decomposed, which explains the low hardness and rather high percentage of silica.

(2.) Rock-analyses (partial):—

—	H_2O lost at 100° C.	Loss on Ignition.	SiO_2.	Al_2O_3.	FeO.	CaO.	MgO.	MnO.
1	1·12	1·65	59·65	17·06	6·58	6·14	4·30	Very strong traces.
2*	2·34	3·68	59·38	16·06	6·26	4·30	2·61	Strong traces.
3	...	...	72·25	13·71	1·84	2·52	1·91	Strong traces.
4	...	...	70·34	15·75	1·86	2·94	Traces	Strong traces.
5	...	...	70·37	15·82	2·17	1·70	Traces	Strong traces.
6	...	...	73·08	13·50	2·73	1·07	0·15	Traces.

* NOTE.—The analysis of No. 2 was made on a sample dried at 100° C.

No. 1 was a dark andesite from the Waihi West C shaft; depth about 300 ft. No. 2 was a dark-grey andesite, with reddish decomposed feldspar crystals, from the Waihi Company's No. 1 shaft; depth about 500 ft. The rock contained a carbonate (no doubt $CaCO_3$) and a little iron-pyrites. No. 3 was spherulitic rhyolite from Katikati Heads. No. 4 was a coarsely crystallized rhyolite from the hills east of Waihi. No. 5 was a rhyolite with interrupted flow structure (wilsonite) from a quarry about two miles west of Waihi. No. 6 was a light-coloured, close-grained rhyolite from quarry near Silverton Road, Waihi.

(3.) Clarendon phosphate rock: Moisture lost at 100° C., 1·05 per cent.; silica, 0·68 per cent.; carbonate of lime, 5 per cent.; calcium-phosphate (with some aluminium-phosphate and traces of iron-phosphate), 88·91 per cent.; undetermined, 4·41 per cent. The percentage of phosphoric oxide, as determined by careful assay of the calcuim-phosphate precipitate, was 35·745, corresponding to 78·04 per cent. of $Ca_3(PO_4)_2$, so that the percentage given above is too high.

(4.) Analysis of barytes, forwarded from Nelson (Denniston): Barium-sulphate, 98·33 per cent.; strontium-sulphate, doubtful trace; calcium-sulphate, traces; magnesia, trace; alumina and ferric oxide, 1·69 per cent.; moisture lost at 100° C., 0·04 per cent.; loss on ignition, 0·19 per cent.: total, 100·25 per cent.

Mineral Collection.—As in former years, a considerable number of rock and mineral specimens have been obtained locally for the school collection, which is still, for the want of suitable accommodation, in great part packed away in boxes or on high shelves. Various friends have presented the school with a number of interesting specimens, chiefly of gold-ores. Among these donors may be mentioned the Hon. the Minister of Mines, who forwarded several good specimens of the phosphate rock recently discovered at Clarendon, Otago. The analysis of a portion, quoted above, shows that it was of very good quality. It need hardly be said that mineral specimens, &c., are always acceptable at institutions like ours, and it is to be hoped that Inspectors of Mines, whose constant visits to mines give them exceptional facilities for collecting, will not fail to take the hint, and forward as many specimens as possible to the various schools of mines throughout the colony.