Practical Assaying and Metallurgy.—The students were instructed in the wet and dry methods of assaying, use and composition of fluxes, fuels, reagents, &c., smelting, valuing, and refining of gold and silver bullion, amalgamation, retorting, &c.; also in the various methods of extracting gold and silver from their ores, such as battery-work, amalgamation, concentration, cyaniding, and chlorination. This class has been very popular, and the instruction given is of great importance to those who wish to qualify as assayers or battery superintendents. Up to the present there has not been a great demand for assayers here, although some of the students have obtained good positions.

Practical and Theoretical Chemistry.—As in the previous year, these two subjects were taken together, and the classes were fairly well attended. The theoretical chemistry was mostly confined to the non-metallic elements, and the chemistry of gold, silver, and mercury. Instruction was given in the preparation of reagents and salts, testing for acids and metals, separation and detection of metals and mineral substances, besides assays and analyses by gravimetric and volumetric methods.

Land- and Mine-surveying.—This work was nearly all theoretical, owing to the want of instruments. Some practical work was done in levelling, forming, and grading; also in plan-work and drawing working sections. Instruction was given in chaining, tabulation of traverses, calculation of areas, heights, and distances, plotting, levelling, and laying out roads and races. With a good theodolite, level, and staff the attendances to this class would be greatly increased, and proper instruction cannot be given without the instruments.

Mining and Mathematics.—The instruction given includes mining geology, logarithms, plane trigonometry, strength of materials, timbering, pumping, and pit-work, hauling and winding, ventilation, explosives, water-power, &c. This class is mostly attended by miners and those wishing to qualify as mine-managers and engine-drivers. Considering that most of the students live a considerable distance from the school, the attendance has been very good, Many are unable to attend regularly, owing to the different shifts, and therefore they miss some of the work done at the class. This is partly the reason they do not attempt the examination-papers.

Boatman's School.—This school started with eleven members, but after doing a little work the average attendance went down to about five, so that the class had to be discontinued.

Reefton School.—There has been but little done in the way of adding improvements to the school. A new muffle furnace has been erected, and the inside fittings of the laboratory have been altered for the convenience of the classes. The crushing of all the samples is done with pestle and mortar, and the assay sample is finely ground on a bucking-plate and muller. This method is very slow and tedious, and a good crushing and sampling machine is much needed. The stock of chemicals and apparatus is very poor, and we have been unable to test a lot of the work sent. We have only the one balance, which has to be used for both assay and chemical work, so that another is urgently needed, as in many cases very poor material has to be tested, and accurate assays and analyses must be made. The support given to the school has been much better than that of the previous year; but, as the committee had to pay off the back debts, there was little left at their disposal for improvements to the school.

The Laboratory.—In this department a large amount of work has been done, no less than 973 assays and analyses being made, besides experiments, determinations of minerals, &c. This shows an increase of 744 on that of the previous year, which is evidence of the amount of prospecting being done in the district. These tests are made up as follows: Fire-assays, 882; amalgamation tests, 67 (weight of stone, 460 lb.); bullion assays and smeltings, 8; analyses, 2; cyanide tests, 2; tin assays, 3; platinum, 1; scheelite, 2; galena, 3; chrome, 2; copper, 3. Most of the samples tested by amalgamation were quartz containing free gold. The greater number of the fire-assays were quartz samples. There were also a great many cements, gravels, and black sands tested. Many tests were made for the General Exploration Company on the cements and gravels extending along the coast at Charleston and Addison's. On all these samples, which are poor in gold, and where 1 dwt. per ton would pay to work, large assays from 1,000 gr. to 2,000 gr. had to be made in order to obtain correct returns.

There has been a considerable amount of prospecting done throughout the district during the past year, and the want of a small testing plant has been frequently spoken about by prospectors and investors. I consider a small testing plant would be a great boon to this district, and would not only assist the prospector and mining companies, but would give our students practical work in the various processes for the extraction of gold and silver. The plant should be capable of treating up to 2 tons at least by wet- or dry-crushing, concentration, amalgamation, chlorination, or cyaniding. A small roasting-furnace would also be required. Experiments on a practical scale could then be made on quartz samples, cements, tailings, and concentrates, and I am quite sure would be productive of some good to the whole of the West Coast.

Annual Examinations.—The annual examinations for students were held in December, 1896. The papers being set by a Government Board of Examiners, only a few of our students competed, and in the subjects taken show good work. The following are the results:—

Student.	Practical Assaying (Senior).	Practical Assaying (Junior).	Practical Assaying (Junior, Dry).	Pumping and Winding.	Land- and Mine-surveying.
T. O. Bishop ...	97	90	90	...	70
N. Lawn ...	..	...	...	62	...
J. Sutherland ...	95	91	90	..	...
S. Lawn ...	...	...	81	...	...
N. S. Lawn ...	...	...	95	...	...