

In my last report I referred to assays, made by Mr. R. Aitken, of the water and sediment flowing out of the Kuranui Tunnel, which showed the value of the bullion flowing out daily to be worth over £30. As will be seen in Mr. Park's report, which follows, several samples were analysed during last year, which showed that Mr. Aitken's tests were worthless. In testing the water last year 1-gallon samples were operated on, which gave no bullion, and a test of a 21-gallon sample gave no better results. This shows that, in making assays known, the assayer should be careful about giving information as to values until he had checked the results by further tests.

The School of Mines at the Thames may be said to be the principal one in the colony, and the only one where the teaching is carried on continuously throughout the year, with the exception of a very short vacation. The interest taken in this school, the increased number of adults in attendance, and the good work done, cannot fail to be a great benefit to the mining community, and to greatly assist in the future development of our mineral resources. A large percentage of the miners of this field can now analyse ores, and ascertain the percentage of metals they contain.

The following is the report of Mr. James Park, F.G.S., Lecturer and Instructor of the Thames School of Mines, for the year ending the 31st March, 1891:—

"I have the honour to report that the progress and efficiency of the school during the year just ended has been most gratifying and satisfactory. The attendance shows a large increase, the number of individual students for the February term being 112, as against 81 for the corresponding period last year. The school is now acknowledged on all sides to be a useful institution, and the practical character of the instruction is especially attractive and valuable to miners and those engaged in the metallurgy of gold and silver. As an evidence that the school is becoming more widely known, it is pleasing to note that the number of students from places outside the Hauraki goldfields has increased from two in former years to ten this year from the following places: Auckland, Whangarei, Waikato, Miranda, Tauranga, and Lake Wakatipu.

"The number of students attending the different classes is shown in the following table:—

Name of Class.	1890.			1891.
	First Term.	Second Term.	Third Term.	First Term.
1. Practical assaying and metallurgy	20	21	36	29
2. Practical chemistry and laboratory practice	13	18	17	22
3. Theoretical chemistry ... ..	...	...	...	22
4. Mineralogy and blow-pipe determination	6	7	6	5
5. Geology	6	7	6	5
6. Mining	20	22	29	29
7. Surveying	20	22	26	27
8. Mathematics	12	5	...	...
9. Mechanical drawing	8	8	11	11
<i>Saturday Lectures.</i>				
10. Geology and physical geography of New Zealand	46	44	...	...
11. Agricultural chemistry ... ..	...	...	42	...
12. Theoretical chemistry ... ..	...	...	...	61
Total attendance at all classes	151	154	173	211
Total number of individuals	81	83	98	112
Number of individuals exclusive of Saturday classes	35	39	56	51

"For two terms last year the mathematics class was conducted by Mr. R. D. Duxfield, M.A., one of the advanced students of the school. At the end of the May quarter Mr. Duxfield left the Thames, and, as it was necessary to continue this important subject, but impossible for me to do so as a separate class, as it overlapped my assaying classes, I incorporated it with the surveying class. This arrangement has been found to give the most satisfactory results, for, while as a separate class the average attendance was only two or three, at the present time the instruction is imparted to a large class numbering thirty students, to whom a knowledge of higher mathematics is absolutely necessary.

"At the beginning of the February term of the present year I commenced a class on theoretical chemistry for the benefit of the students of the practical chemistry class, as I found it necessary for the practical work in the laboratory to go hand-in-hand with a theoretical understanding of this important subject. The chemistry classes are highly appreciated, the attendance during the last term being larger than at any other period.

"The mining and surveying classes still continue to be the most popular and best attended. They are conducted with the object of enabling miners to prepare themselves for the Government examination for certificates as mine-managers. During the past year I have sent nine men up for examination, eight of whom have secured certificates.

"At present candidates for admission to the school are not required to possess any fixed standard of education, and so far no difficulties have resulted from this method. The attendance at the school is quite voluntary, and this fact is found to exert a certain selective influence, in so far that only the more intelligent and enterprising present themselves as candidates for membership.

"The following is a list of the subjects taught at the school during the year just ended: (1) Practical assaying and metallurgy, (2) practical chemistry and laboratory practice, (3) theoretical