

# School of Mines and Bowling Greens

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Staples Collection. Date: late 1912.

Photograph taken from the edge of the railway line. From front to rear: tennis courts (2), School of Mines, bowling greens, croquet greens (1912), Dougherty's bridge and Dougherty's Creek.

George Chappell photo.

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## The Karangahake School of Mines

The story of the Karangahake School of Mines starts in 1885.<sup>1</sup>

Once established, the students did very well.

### 23 November 1885

Karangahake visited by Staff of Goldfields Classes and Schools of Mines.

Professor Black, Fenton, Goodlet on the 23<sup>rd</sup>, Montgomery on the 26<sup>th</sup>.<sup>2</sup>

Professor JG Black, M.A., D.Sc., in his tour of the country, had this to say about his visit to Karangahake:

I proceeded with Mr. Fenton and Mr. Goodlet to Karangahake. Warden Kenrick, who, as usual, had made all necessary arrangements, accompanied me to Karangahake and presided at the first meeting, which was attended by 150 miners. As there was no room at Karangahake large enough to accommodate such a crowd, Mr. E. K. Davis put his La Monte furnace at our disposal. This building was in course of erection and nearly finished, and through the efforts of Mr. Hazlett, the foreman, it was soon put in a condition suited to the purposes of the classes.

Next day about thirty of the miners took a half-holiday to go through the assaying processes with Mr. Fenton. Mr. Smith, the professional assayer at Karangahake, very kindly put his plant at our disposal for that purpose. This was really a kindness, as we were utterly destitute of balances and crucibles, and it is an unheard-of thing for an assayer to expose his delicate balance and fine crucibles and weights to the rough handling of outsiders; but in the keenness of the interest taken by both Mr. Davis and Mr. Smith this was quite forgotten for the moment.

About 180 miners turned up at the second lecture, and on the third day from 70 to 90 of the miners were engaged in relays all the afternoon assaying with Mr. Fenton, many of them taking an active part in all the processes except the weighing of the fine metals, in which they could not participate owing to the small size of the balance-room.

In the evening at 7 o'clock we found about 220 men assembled for the testing class and lecture, and we found the furnace-room far too small to accommodate them in the usual way. Steps were immediately taken, however, to plank the rafters, and in this way 70 or 80 men had accommodation overhead, and there they remained in perfect silence, looking down on the proceedings at the testing table for four hours.

At this meeting Mr. McLaren, Mining Inspector, presided, and, by his geniality and enthusiasm and knowledge of the men, did good service in explaining from the chair the object of the classes, and urging all to avail

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<sup>1</sup> For some background on the local Schools of Mines see: Karangahake School of Mines, Ohinemuri Regional History Journal 32, September 1988. <https://www.ohinemuri.org.nz/journals/journal-32-september-1988/karangahake-school-of-mines>

Also available in the Appendices.

<sup>2</sup> <https://paperspast.natlib.govt.nz/parliamentary/AJHR1886-I.2.1.4.11>

GOLDFIELDS CLASSES AND SCHOOLS OF MINES. (REPORTS ON)., Appendix to the Journals of the House of Representatives, 1886 Session I, C-04b

themselves of the facilities for technical instruction in their own industry now placed at their disposal.

The meeting here was opened about 7 p.m. and it was after midnight before it broke up. It was indeed, without exception, the most enthusiastic meeting I have ever had on the goldfields. Most of the men had come with paper and pencil, and those who were not themselves taking part in the processes were taking, as well as they could, notes of the proceedings. I was never so impressed as I was that night at Karangahake with the intelligence, perseverance, and energy which the miners can bring to bear on any subject in which they are intensely interested. Here we had many of them analysing and assaying silver ores, with quite sufficient accuracy, by the usual laboratory and furnace processes, while three days before very few of them could identify silver ore when they saw it, much less could they form any idea of the proportion of silver which it contained.

While staying at Karangahake I visited, with Warden Kenrick, Messrs. Gavin, Davis, Fenton, and others, the principal mines in the district—the Woodstock, Diamond, Adeline, Golden Crown, &c. In these visits, as indeed everywhere on the goldfields, the mine managers gave, in the frankest manner, all information about their mines and operations, and thus put me in a position to compare with each other the processes employed in all parts of the colony.<sup>3</sup>

It would take some years before a school was opened in Karangahake.

### **13 November 1899**

#### **KARANGAHAKE SCHOOL OF MINES.**

Mr Hogg, who is acting as secretary to this proposed institution informs me (writes our Paeroa correspondent) that he has received the names of 65 who are desirous of joining the school when started. With such a liberal response as this, and with the aid of the £50 given by the County Council, little difficulty should be found in starting the school, as the Government will largely subsidise any money raised locally.<sup>4</sup>

### **2 June 1900**

#### **KARANGAHAKE SCHOOL OF MINES Paeroa. Friday.**

A well-attended meeting of members of the Karangahake School of Mines was held last night in Montgomery's Hall, for the purpose of electing officers and Council, and to finally fix on a suitable site for the school. The chair was occupied by Mr. C. H. Taylor, who introduced the business, and stated that as the committee appointed in October last had reported on the work done to establish a mining school in the district, and had brought the scheme to a satisfactory starting point it was now for the meeting to appoint officers for the future...

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<sup>3</sup> <https://paperspast.natlib.govt.nz/parliamentary/AJHR1886-I.2.1.4.11>

GOLDFIELDS CLASSES AND SCHOOLS OF MINES. (REPORTS ON)., Appendix to the Journals of the House of Representatives, 1886 Session I, C-04b

<sup>4</sup> <https://paperspast.natlib.govt.nz/newspapers/AS18991113.2.85>

Auckland Star, Volume XXX, Issue 269, 13 November 1899, Page 5

The new committee subsequently met and arranged to proceed with the work of erecting the building at once. The number of paying members and students now enrolled is 48, and they are being added to daily.<sup>5</sup>

### **31 August 1900**

Very satisfactory progress is reported in connection with the Karangahake School of Mines affairs, the sum required by the Government having been subscribed, viz., £150, so that the subsidy promised can now be made use of. The number of students who have made application to be enrolled totals 62, so that there is every prospect of the institution being a great success. The councillors have decided to proceed at once with the erection of a school building, and tenders are being called for the work...<sup>6</sup>

### **31 December 1900**

We understand that the Minister of Mines has approved the appointment of Mr. W. H. Baker, B.Sc, to the Director ship of the Karangahake School of Mines.<sup>7</sup>

### **4 February 1901**

#### **Karangahake School of Mines open**

W H Baker, assistant instructor at the Thames School of Mines, had been elected to be Director of the Karangahake School of Mines which was then opened on Monday 4 February, 1901 by the Hon James McGowan, Minister of Mines. The School of Mines at Karangahake was opened on Monday with a satisfactory attendance of people. There are 50 students on the register.<sup>8</sup>

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<sup>5</sup> <https://paperspast.natlib.govt.nz/newspapers/NZH19000602.2.5>

New Zealand Herald, Volume XXXVII, Issue 11388, 2 June 1900, Page 3

<sup>6</sup> <https://paperspast.natlib.govt.nz/newspapers/NZH19000831.2.70.4>

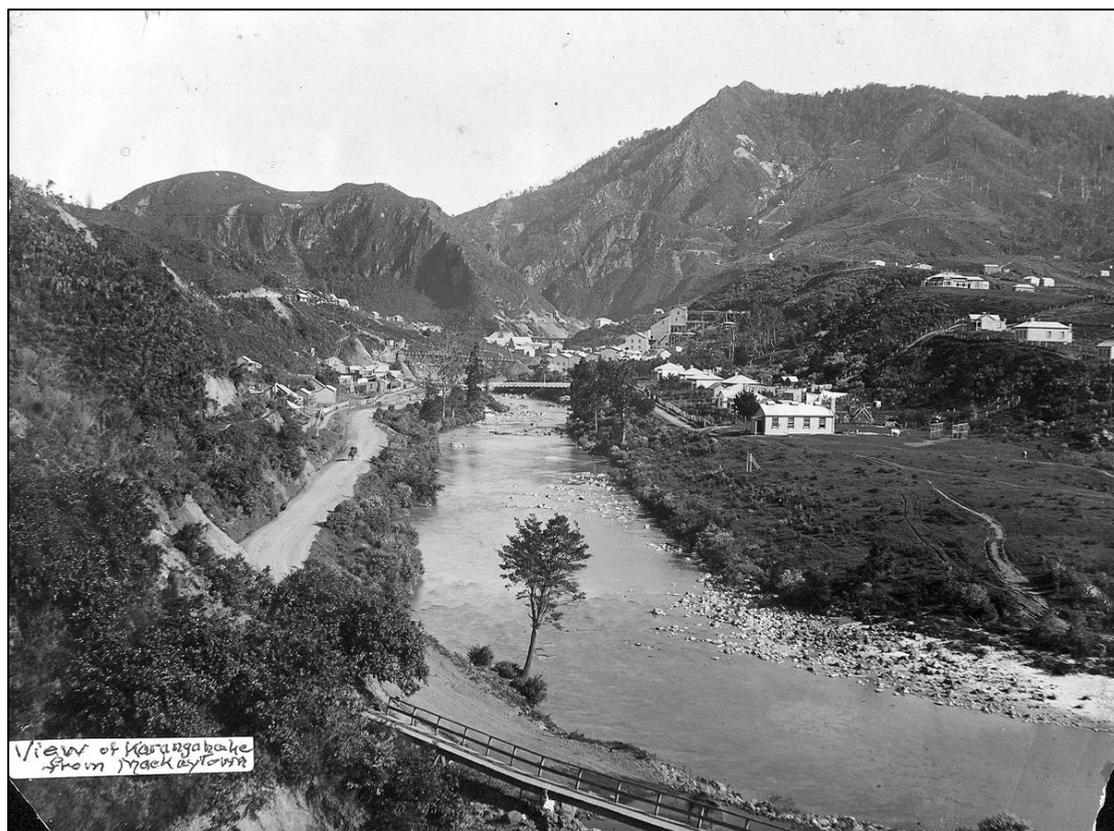
New Zealand Herald, Volume XXXVII, Issue 11465, 31 August 1900, Page 1 (Supplement)

<sup>7</sup> <https://paperspast.natlib.govt.nz/newspapers/THS19001231.2.7>

Thames Star, Volume XXXIX, Issue 9830, 31 December 1900, Page 2

<sup>8</sup> <https://www.ohinemuri.org.nz/journals/journal-32-september-1988/karangahake-school-of-mines>

Karangahake School of Mines. Ohinemuri Regional History Journal 32, September 1988



The newly built School of Mines building is the near building at the end of River Road, beyond the vacant ground that will later become the bowling greens. The building has a single gable, it will be extended (doubled) in 1903.

Over the river in the distance can be seen the suspension bridge between Irishtown and River Road, and beyond that the temporary bridge servicing the railway tunnel excavations. Note also the denuded nature of Taukani and Karangahake mountain.

Staples Collection.

The same image is published as: A New Zealand Quartz Mining Township. Published May 1901.

Auckland Libraries Heritage Collections AWNS-19010503-01-02 A Bregmen

#### KARANGAHAKE SCHOOL OF MINES.

The Director, Mr. R. B. McDuff, writes: —

I have the honour to furnish herewith the first annual report on the Karangahake School of Mines for the year ending the **31st December, 1901.**

At a public meeting held in October, 1899, for the purpose of establishing a school of mines at Karangahake the following gentlemen were appointed to carry out the resolutions passed at the meeting: Messrs. C. H. Taylor, J. R. Noble, W. Goldsworthy, G. N. McGruer, F. Rich, R. Stackpole, jun., and Alexander Hogg. At a committee meeting held at the close of the public meeting Mr. Hogg was appointed secretary, and Mr. W. Goldsworthy and H. W. Guthrie trustees. So untiring in their efforts was this committee that in a little over a year the school was erected and fitted up with all the necessary appliances ready to open at the beginning of the present year.

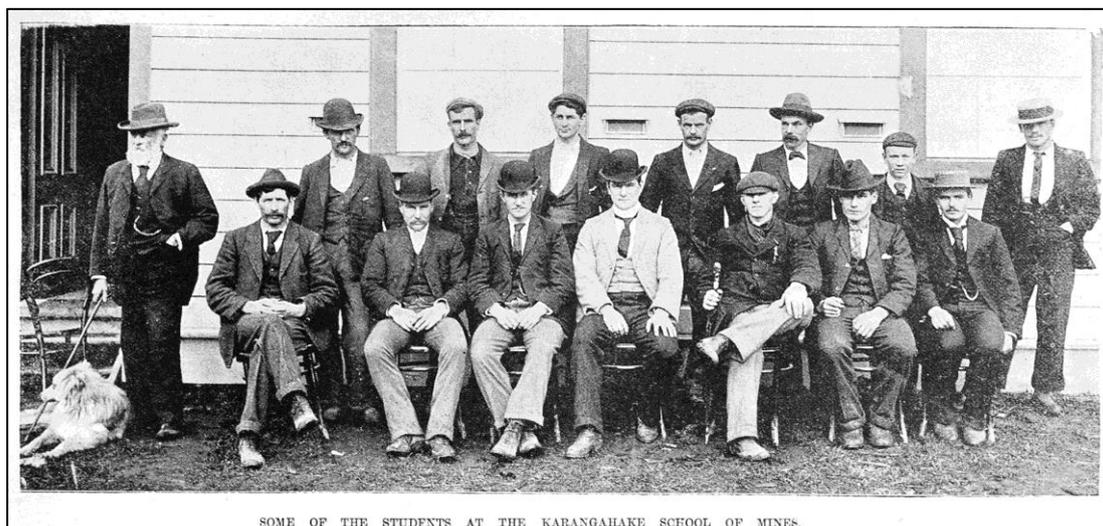
Applications for the position of Director were called, and that of Mr. W. H. Baker, B.Sc, of the Thames School of Mines, was accepted. Mr. Baker took charge at the beginning of the year, and continued up till the end of March, when he resigned, having received the offer of a more lucrative position in

Tasmania. Applications for the directorship resulted in my appointment, and I commenced my duties on the 1st April, 1901.

The school has had a most successful year, the attendance at the lectures being excellent, as is shown in the table appended.

The course of instruction is similar in all respects to that of the Waihi School of Mines, and embraces all the subjects necessary for the Government mine-managers', battery-superintendents', engine-drivers', and assayers' certificates.

The capacity of the assay-room is taxed to its utmost at present, it being only 14 ft. by 10 ft., and, with an attendance of twenty students, working becomes very inconvenient. If the number of students in this class increases—as I am convinced it will do next year—some addition will have to be made to allow the work to be carried out successfully.<sup>9</sup>



Some of the students at the Karangahake School of Mines.

Auckland Weekly News photograph published 29 August 1901. Auckland Libraries Heritage Collections AWNS-1901 08 29-09-02.

## 8 January 1902

### KARANGAHAKE SCHOOL OF MINES.

At Karangahake, Messrs. Hogg (secretary), Stackpole, and Tresize, council of the Karangahake School of Mines, waited upon the Minister [Hon. J. McGowan, Minister for Mines], and asked for financial assistance in the school's operations...

The council also asked for a grant to enable the land enclosing the school to be fenced, and thus prevent the classes from being disturbed by those who made use of the vacant allotment for recreation purposes. Then again, they asked for the enlargement of the assay room. Already the room was crowded. As a large number of the young fellows were finding out that without the necessary education the school afforded they could not obtain employment in batteries so readily, they expected an increase of 25 per cent. in the number of pupils.

<sup>9</sup> <https://paperspast.natlib.govt.nz/parliamentary/AJHR1902-I.2.1.4.3>

THE GOLDFIELDS OF NEW ZEALAND: REPORT ON ROADS, WATER-RACES, MINING MACHINERY, AND OTHER WORKS IN CONNECTION WITH MINING., Appendix to the Journals of the House of Representatives, 1902 Session I, C-03

They also desired the Government to give them supplies of Government publications for use in the school's library...<sup>10</sup>

#### KARANGAHAKE SCHOOL OF MINES.

Mr. R. B. McDuff is the Director of this school.

The following is the annual report of the Council: —**31st December, 1902**

...Examinations. —At the annual Government examinations in connection with the schools of mines throughout the colony, held in December last, thirteen students presented themselves, and the results to hand show the Karangahake School to have headed the honour list for New Zealand, in spite of the fact that several other schools boast a larger attendance and presented a greater number of candidates, and, further, that this school is the youngest in the colony...

Recommendations. —The Council before retiring from office wish to recommend to the new Council that immediate steps be taken to enlarge the school building, the present assay department especially being totally inadequate to accommodate the large class taking this course, the Director having had, perforce, to split the class, thus doubling his work in this particular subject, in order to overcome the difficulty of accommodation. The Council therefore recommends that the Government be approached with the request for a special grant to carry out these additions.<sup>11</sup>

#### **2 September 1903**

The attention of builders is directed to the fact that tenders will be received till 5 p.m. of Saturday, September 12th, for additions to the School of Mines buildings at Karangahake. Plans and specificationis may be seen at Vinson's store at Karangahake.<sup>12</sup>

#### KARANGAHAKE SCHOOL OF MINES.

The Director, Mr. R. B. Macduff, reports as follows: —**31st December, 1903.**

Examinations. —This year was the most successful we have had since the opening of the school. The results of the examinations held by the Mines Department at the end of the year 1902 show that the students have done excellent work, gaining certificates as follows: Eighteen first-class, eleven second-class, five third-class. At the examination for mine-managers and battery-superintendents, held in January, 1903, eight students sat, two for mine-managers and six for battery-superintendents, and all of these students succeeded in passing...

New Building. —Thanks to a grant from the Government, the size of the school has been doubled, and now the school comprises a large lecture-room, a reading-room, chemical laboratory, balance-room, and office, and the whole

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<sup>10</sup> <https://paperspast.natlib.govt.nz/newspapers/NZH19020108.2.69>

New Zealand Herald, Volume XXXIX, Issue 11857, 8 January 1902, Page 6

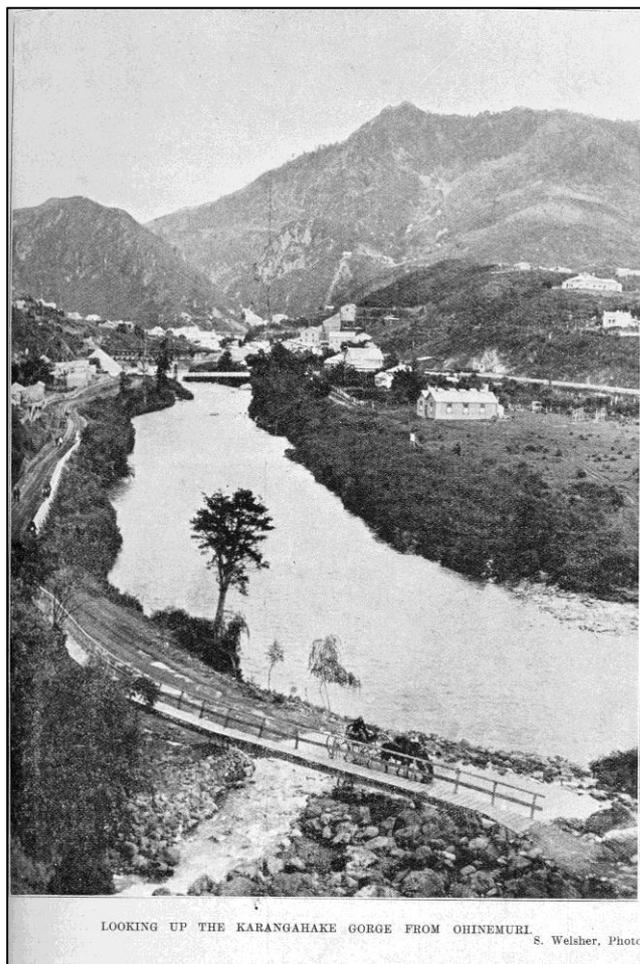
<sup>11</sup> <https://paperspast.natlib.govt.nz/parliamentary/AJHR1903-I.2.1.4.3>

THE GOLDFIELDS OF NEW ZEALAND: REPORT ON ROADS, WATER-RACES, MINING MACHINERY, AND OTHER WORKS IN CONNECTION WITH MINING., Appendix to the Journals of the House of Representatives, 1903 Session I, C-03

<sup>12</sup> <https://paperspast.natlib.govt.nz/newspapers/THS19030902.2.8>

Thames Star, Volume XXXXI, Issue 10493, 2 September 1903, Page 2

school is soon to be lighted with gas, which will also be used for heating purposes in the laboratory.<sup>13</sup>



Auckland Weekly News image published April 1904.

The same vantage point as the previous photograph.

The school building has been doubled in size (now two gables). In the foreground is the foot bridge and vehicle ford over Dougherty's Creek.

Auckland Libraries Heritage Collections AWNS-19040414-03-01 S Welsher.

#### KARANGAHAKE SCHOOL OF MINES.

The Council has... for the year ended the **31st December, 1904.**

Examinations. At the annual class examinations 11 students sat for 26 subjects, from which were obtained 10 first-class, 8 second, and 7 third-class certificates, only one paper failing to obtain a certificate, whilst no failures were recorded. In five subjects students were first in New Zealand—viz., mining, wet and dry assaying (senior), mineralogy, and junior theoretical chemistry. The average number of marks of all the papers sent in by members of the local school was 64.3 per cent, nearly—a much higher percentage than any other school in the colony.

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<sup>13</sup> <https://paperspast.natlib.govt.nz/parliamentary/AJHR1904-I.2.1.4.3>

THE GOLDFIELDS OF NEW ZEALAND: REPORT ON ROADS, WATER-RACES, MINING MACHINERY, AND OTHER WORKS IN CONNECTION WITH MINING., Appendix to the Journals of the House of Representatives, 1904 Session I, C-03

Installation of Gas. During the year gas has been installed throughout the school, making a great improvement.<sup>14</sup>

#### KARANGAHAKE SCHOOL OF MINES.

The Director, Mr. R. B. McDuff, reports as follows: for the year ending the **31st March, 1906 [reporting on 1905]**.

...Extension Classes. In July last year I commenced giving a lecture on metallurgy and on mathematics once a week at Waikino. These classes were so well patronised that the Council asked the Hon. the Minister of Mines to grant a subsidy for the erection of a school at Waikino. The Hon. the Minister, ever ready to assist an educational movement, at once granted the request, and I am pleased to state that the school will be ready to commence operations at the beginning of our third term —9th September, 1906. It is intended to depart from the ordinary course at Waikino and offer a two-years' course in mathematics, assaying, chemistry, mechanical drawing, metallurgy of gold, silver, copper, lead and zinc (including electro-metallurgy), and electricity. It is believed that such a course, assisted by the excellent environment, will enable the school to turn out students capable of upholding the good record of New Zealand metallurgists and the fame of the renowned Waihi Gold-mining Company, whose reduction-works are situated at Waikino.<sup>15</sup>

Mr. R. B. Macduff, Director of the Karangahake School of Mines

to the Under-Secretary, Mines Department, Wellington. Sir, — Karangahake. I have the honour to report as follows on the work done at the Karangahake School of Mines **for the year 1906**:—

Attendance. It gives me great pleasure to report that the attendance has improved considerably during the year, averaging forty-two students, and having fifty-nine students on the roll during the second term. This is the highest average attendance yet reached for this school.

Improvements. During the year a storeroom 16 ft. by 12 ft. has been erected...[we don't see this building until photographs taken from the railway line, the earliest being c.1912. See image on title page. During 1913 the "electrical laboratory was enlarged", which may have been an extension to the storeroom, as seen in an image c. 1915]

Waikino School of Mines. The branch school at Waikino is completed, and is ready to open at the beginning of 1907.

Assistant. The work of teaching so many different subjects last year became too much for me, and the Council appointed one of my students—Mr. C. Harsant—to act as temporary assistant. In December this appointment was made permanent, and the two schools will be now kept open full time.<sup>16</sup>

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<sup>14</sup> <https://paperspast.natlib.govt.nz/parliamentary/AJHR1905-I.2.1.4.3>

THE GOLDFIELDS OF NEW ZEALAND: REPORT ON ROADS, WATER-RACES, MINING MACHINERY, AND OTHER WORKS IN CONNECTION WITH MINING., Appendix to the Journals of the House of Representatives, 1905 Session I, C-03

<sup>15</sup> <https://paperspast.natlib.govt.nz/parliamentary/AJHR1906-II.2.1.4.5>

THE GOLDFIELDS OF NEW ZEALAND: REPORT ON ROADS, WATER-RACES, MINING MACHINERY, AND OTHER WORKS IN CONNECTION WITH MINING., Appendix to the Journals of the House of Representatives, 1906 Session II, C-03

<sup>16</sup> <https://paperspast.natlib.govt.nz/parliamentary/AJHR1907-I.2.2.2.7>



No sign of the bowling greens yet, they arrive 1909. The vacant ground is being grazed by horses. The heap of spoil from the railway tunnel construction has not washed away yet. A Henry Winkelmann photograph, 1906 W1212. Staples Collection.

#### **4 September 1908**

##### ONHINEMURI COUNTY COUNCIL.

The Council agreed to lay on a water supply to the Karangahake School of Mines for the purpose of driving a Pelton wheel...<sup>17</sup>

#### **2 March 1910**

A new departure (says the Karangahake Advocate), and one that should be productive of excellent results, has been made by the Council of the Karangahake School of Mines. It has been decided to offer two scholarships annually to boys attending the public schools of Paeroa, Karangahake, and Waikino. The scholarships will be awarded on the results of an examination to be held at the close of each year by the Director of the School of Mines. The scope of the examination will be kept within the public schools syllabus for 6th standard work. Successful candidates will be granted free tuition at Waikino or Karangahake Schools of Mines for a term of one year, to be

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THE GOLDFIELDS OF NEW ZEALAND: REPORT ON MINES, ROADS, WATER-RACES, AND OTHER WORKS IN CONNECTION WITH METALLIFEROUS MINING., Appendix to the Journals of the House of Representatives, 1907 Session I, C-03

<sup>17</sup> <https://paperspast.natlib.govt.nz/newspapers/NZH19080904.2.65>

New Zealand Herald, Volume XLV, Issue 13846, 4 September 1908, Page 6

increased to two years on a favourable report from the director. The scheme is one that cannot fail to have the hearty support of all concerned, as whilst engendering a healthy rivalry amongst the boys, it will doubtless lead many of them to set their feet firmly on the path to a sound technical education.<sup>18</sup>

### **7 October 1910**

#### **FOOTBRIDGE AT KARANGAHAKE.**

E. J. Kitching applied for a footbridge to be erected at Karangahake over the Ohinemuri River opposite the School of Mines.

Mr Nathan moved that the letter be "received." He did not think the Council would be justified in erecting a bridge at this place, as there was another bridge close handy.

Mr Marrinan said the cost of the bridge would be very small, and he moved that the engineer report as to the cost of a bridge.

This was seconded by Mr Lloyd, who said that there were a number of people who would use the bridge, including some school children.

The motion for the engineer to report was carried.<sup>19</sup>

### **22 December 1910**

Contracts let: erection of a footbridge over the Ohinemuri river at Karangahake, M. Gojack, £104.<sup>20</sup>

Dougherty's swing bridge (suspension bridge) is built early 1911?

Karangahake School of Mines

Mr. W. A. Given, M.A., A.O.S.M., Director of the Karangahake School of Mines— Karangahake, **12th March, 1917.**

...School Equipment. —A late-pattern Braun pulverizer and a 2 horse-power Fairbanks-Morse oil-engine were recently installed in the assay department. The laying of the foundation and the setting-up of this plant were done by the voluntary efforts of the Council members themselves. During the year a large specimen-case was added to the geological-museum equipment, in order to hold a number of specimens kindly presented during the past few years.

Public Assays. —In all 117 public assays were made during the year, a decided increase on the last few years. A number of mineral determinations were also made.<sup>21</sup>

This report dated March 1917 appears to be last published in the AJHRs.

### **27 November 1922**

#### **TENDERS. KARANGAHAKE SCHOOL OF MINES**

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<sup>18</sup> <https://paperspast.natlib.govt.nz/newspapers/OG19100302.2.9>

Ohinemuri Gazette, Volume XXI, Issue 2613, 2 March 1910, Page 2

<sup>19</sup> <https://paperspast.natlib.govt.nz/newspapers/OG19101007.2.24>

Ohinemuri Gazette, Volume XXI, Issue 2702, 7 October 1910, Page 3

<sup>20</sup> <https://paperspast.natlib.govt.nz/newspapers/AS19101222.2.55>

Auckland Star, Volume XLI, Issue 303, 22 December 1910, Page 7

<sup>21</sup> <https://paperspast.natlib.govt.nz/parliamentary/AJHR1917-I.2.1.4.3>

MINES STATEMENT BY THE HON. W. D. S. MacDONALD, MINISTER OF MINES., Appendix to the Journals of the House of Representatives, 1917 Session I, C-02

TENDERS are invited for the Cash purchase of the buildings and contents of the above School of Mines situated at Karangahake, either separately or as a whole.

Approximate Dimensions of Main Building. 42 feet by 33 feet, divided into 5 main rooms, 30 feet by 16 feet 6 ins, 15 feet by 16 feet 6 ins, 14 feet by 16 feet 6 ins, 26 feet by 12 feet 3 ins, and 9 feet by 7 feet, respectively.

Attached to Main Buildings are two rooms, 24 feet 6 ins by 12 feet, and 10 feet by 12 feet 6 ins, respectively.

Main Building, Kauri, lined and ceiled, additions Rimu, all roofed with iron.

Contents: 1 table, 8 feet by 2 feet 8 ins, 8 students' tables, 3 feet 6 ins by 2 feet, one gas radiator. 1 heating stove, 48 feet of 1½in Kauri varying widths, 2 pieces Kauri 8 feet by 1 foot 6 ins by 1½ins, also gas lighting fittings.

Plan of the Buildings may be inspected at the Office of this paper.

Highest or any tender not necessarily accepted.

Tenders close on December 16th, 1922, and are to be addressed to — E. JOHNSON, Secretary Karangahake School of Mines, Waikino.<sup>22</sup>

The Karangahake School of Mines is gone.

### **Post script**

Three concrete lumps (machine mounts/hearths?) were recently removed by the owners of the property at the end of River Road (No.45). A new garage will mark the location of the school. The construction of the new house encountered asphalt, presumably from the tennis courts on which it is located.<sup>23</sup>

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<sup>22</sup> <https://paperspast.natlib.govt.nz/newspapers/HPGAZ19221127.2.19.4>

Hauraki Plains Gazette, Volume XXXIII, Issue 4496, 27 November 1922, Page 3

<sup>23</sup> Personal communications with Eva, landowner, October 2023.

## Karangahake Bowling Greens

The area at the end of River Street (now River Road) lay vacant for many years. In 1899 the Ohinemuri Rifles camped in this area<sup>24</sup>, and it was used for recreational activities.<sup>25</sup>

The School of Mines building was erected late 1900, the school opening on Monday 4 February, 1901.<sup>26</sup>

Bowling greens, and maybe the tennis courts were established in 1909, and croquet lawns in late 1912. A report of 13 June 1910 states: Karangahake Bowling and Tennis Club.

Members of the Karangahake Bowling Club were frequently successful in competitions.

Dougherty's swing bridge (suspension bridge) is built early 1911.

### 15 December 1902

Tennis.

On Saturday afternoon the Paeroa Tennis Club journeyed to Mackaytown for the purpose of having a match with the Karangahake team. The Paeroa team was most hospitably received by the Karangahake team, who provided afternoon tea.<sup>27</sup>

An early mention of Karangahake tennis. It seems likely that the courts were at Mackaytown until 1909 when courts combined with bowling greens were established at River Road.

### 9 May 1904

A start has been made on the Karangahake bowling green, and there is every probability of it being ready for playing on in October.<sup>28</sup>

The Karangahake bowling green mentioned here also appears to be at Mackaytown.

### 16 January 1905

The official opening day of the Karangahake Bowling Club has been fixed for Thursday afternoon next, when it is anticipated that a large number of enthusiasts will be present on the **Mackaytown** green. The Karangahake Brass Band is to be in attendance, and will play a choice programme of music throughout the afternoon. Afternoon tea will be provided by the Ladies of

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<sup>24</sup> Image Auckland Weekly News 03.03.1899. Auckland Libraries Heritage Collections AWNS-1899 03 03-04-02

<sup>25</sup> <https://paperspast.natlib.govt.nz/newspapers/NZH19020108.2.69>

New Zealand Herald, Volume XXXIX, Issue 11857, 8 January 1902, Page 6

<sup>26</sup> <https://www.ohinemuri.org.nz/journals/journal-32-september-1988/karangahake-school-of-mines>

Karangahake School of Mines. Ohinemuri Regional History Journal 32, September 1988

<sup>27</sup> <https://paperspast.natlib.govt.nz/newspapers/OG19021215.2.16>

Ohinemuri Gazette, Volume XII, Issue 1044, 15 December 1902, Page 3

<sup>28</sup> <https://paperspast.natlib.govt.nz/newspapers/OG19040509.2.5>

Ohinemuri Gazette, Volume XIV, Issue 1117, 9 May 1904, Page 2

## Karangahake Bowling Greens

Karangahake. In the evening the club intend holding a smoke concert in the Mackaytown Hotel.<sup>29</sup>

### 3 February 1909

A match will be played between members of the Waikino and Karangahake Tennis Clubs on Saturday on the former's courts.<sup>30</sup>

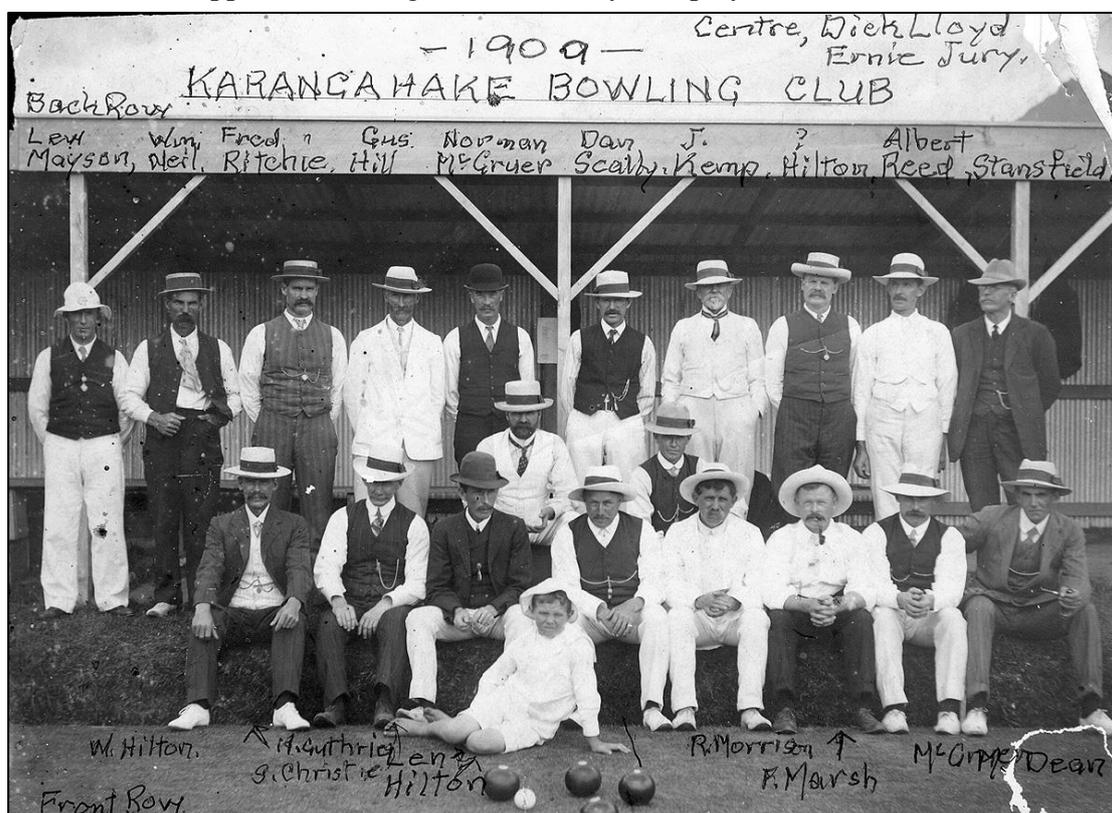
Still at Mackaytown?

### 1 November 1909

BOWLING. OPENING OF GREENS

KARANGAHAKE CLUB. (BY TELEGRAPH. OWN CORRESPONDENT.)  
Paeroa, Saturday.

The official opening of the Karangahake bowling green took place this afternoon, when there was a good attendance of players from the neighbouring clubs. Mr. Hilton (president of the Karangahake Club) welcomed the visitors. Unfortunately, the pleasure of the afternoon was marred by rain, and play had to be stopped when the games were only half played.<sup>31</sup>



Karangahake Bowling Club, 1909. Start of the first season? They are posed in front of the shelter erected near the School of Mines building.

Staples Collection. MM White photograph?

<sup>29</sup> <https://paperspast.natlib.govt.nz/newspapers/OG19050116.2.5>

Ohinemuri Gazette, Issue 1188, 16 January 1905, Page 2

<sup>30</sup> <https://paperspast.natlib.govt.nz/newspapers/NZH19090203.2.8>

New Zealand Herald, Volume XLVI, Issue 13975, 3 February 1909, Page 4

<sup>31</sup> <https://paperspast.natlib.govt.nz/newspapers/NZH19091101.2.91.4>

New Zealand Herald, Volume XLVI, Issue 14206, 1 November 1909, Page 7

### 13 June 1910

#### BOWLING.

**KARANGAHAKE CLUB.** The annual social of the **Karangahake Bowling and Tennis Club** was held in Montgomery's Hall on Wednesday evening last. A strong committee, headed by Messrs. E. Cavis and F. Moran as secretaries, decorated the hall with flags and greenery. A very large attendance of members and friends enjoyed a most successful evening...<sup>32</sup>



1910? The bowling greens and the tennis courts are newly established (1909). No croquet lawns yet, established 1912. No Dougherty's suspension bridge either, installed early 1911.

Note how congested the river bed looks. The groins on the left of the river were installed by the County Council.

Staples Collection.

### 7 October 1910

#### COUNTY COUNCIL.

#### FOOTBRIDGE AT KARANGAHAKE.

E. J. Kitching applied for a footbridge to be erected at Karangahake over the Ohinemuri River opposite the School of Mines.<sup>33</sup>

### 5 November 1910

The monthly meeting of the Ohinemuri County Council was held on Thursday. It was decided to erect a footbridge over the Ohinemuri river, at Karangahake, near the School of Mines.<sup>34</sup>

<sup>32</sup> <https://paperspast.natlib.govt.nz/newspapers/NZH19100613.2.106>

New Zealand Herald, Volume XLVII, Issue 14394, 13 June 1910, Page 7

<sup>33</sup> <https://paperspast.natlib.govt.nz/newspapers/OG19101007.2.24>

Ohinemuri Gazette, Volume XXI, Issue 2702, 7 October 1910, Page 3

<sup>34</sup> <https://paperspast.natlib.govt.nz/newspapers/AS19101105.2.43>

## 22 December 1910

erection of a footbridge over the Ohinemuri river at Karangahake, M. Gojnc, £104.<sup>35</sup>

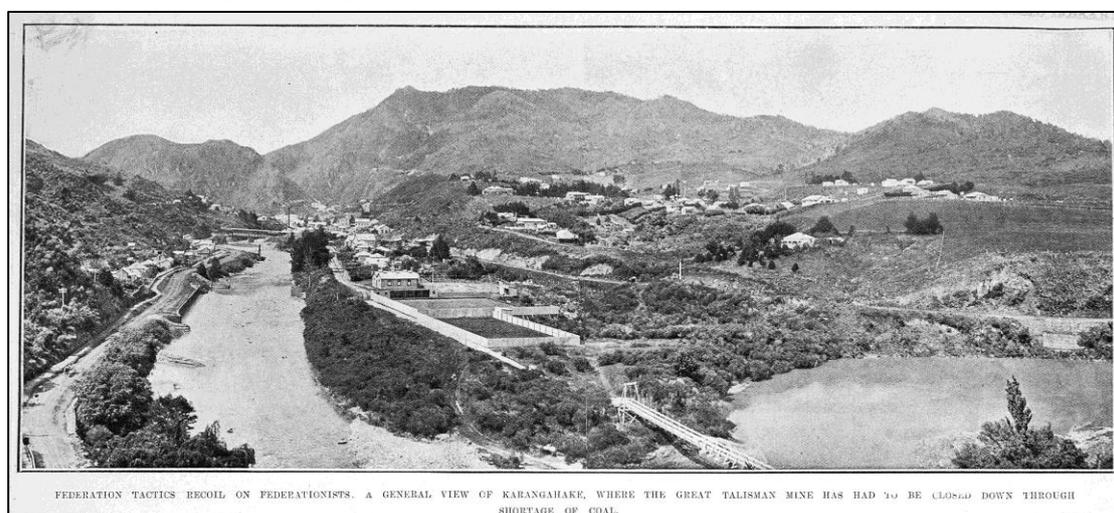
Dougherty's swing bridge (suspension bridge) is built early 1911?

## 26 September 1911

At the annual meeting of the Karangahake Tennis Club, the election of officers resulted as follows:—Secretary, Mr. R. Corbett; general committee, Mesdames Hilton and Christie, Misses Pearce and McCombie, Messrs. Hogg, Chapell [Chappell?], Redpath, and Palmer.<sup>36</sup>

## 4 October 1912

Weather permitting, the Karangahake bowling green will be opened on Saturday, 26th October, and the new croquet lawn should be ready for use about Christmas time. The club has engaged Mr E. Mettam as caretaker to take charge of the green and lawn.<sup>37</sup>



Dougherty's suspension bridge installed early 1911. Croquet lawns established 1912.

Auckland Weekly News photograph published 24 October 1912.

Auckland Libraries Heritage Collections AWNS-19121024-01-01.

## 23 January 1913

LAWN TENNIS. KARANGAHAKE V. PAEROA.

A return match between teams representing the Paeroa and Karangahake Tennis Clubs was played at Karangahake on Saturday last, and resulted in a victory for Karangahake by 126 games to 53.<sup>38</sup>

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Auckland Star, Volume XLI, Issue 263, 5 November 1910, Page 8

<sup>35</sup> <https://paperspast.natlib.govt.nz/newspapers/AS19101222.2.55>

Auckland Star, Volume XLI, Issue 303, 22 December 1910, Page 7

<sup>36</sup> <https://paperspast.natlib.govt.nz/newspapers/AS19110926.2.66>

Auckland Star, Volume XLII, Issue 229, 26 September 1911, Page 6

<sup>37</sup> <https://paperspast.natlib.govt.nz/newspapers/OG19121004.2.6>

Ohinemuri Gazette, Volume XXIII, Issue 3001, 4 October 1912, Page 2

<sup>38</sup> <https://paperspast.natlib.govt.nz/newspapers/NZH19130123.2.8>

New Zealand Herald, Volume L, Issue 15208, 23 January 1913, Page 4

## Karangahake Bowling Greens



Croquet lawn, but no new bowling greens: 1913. Note the vehicles parked beside the school buildings; a two wheeled buggy, a four wheeled horse drawn omnibus, a motor car (Model T?), and several horses.

George Chappell photo. Audrey Young/Alan Beck.

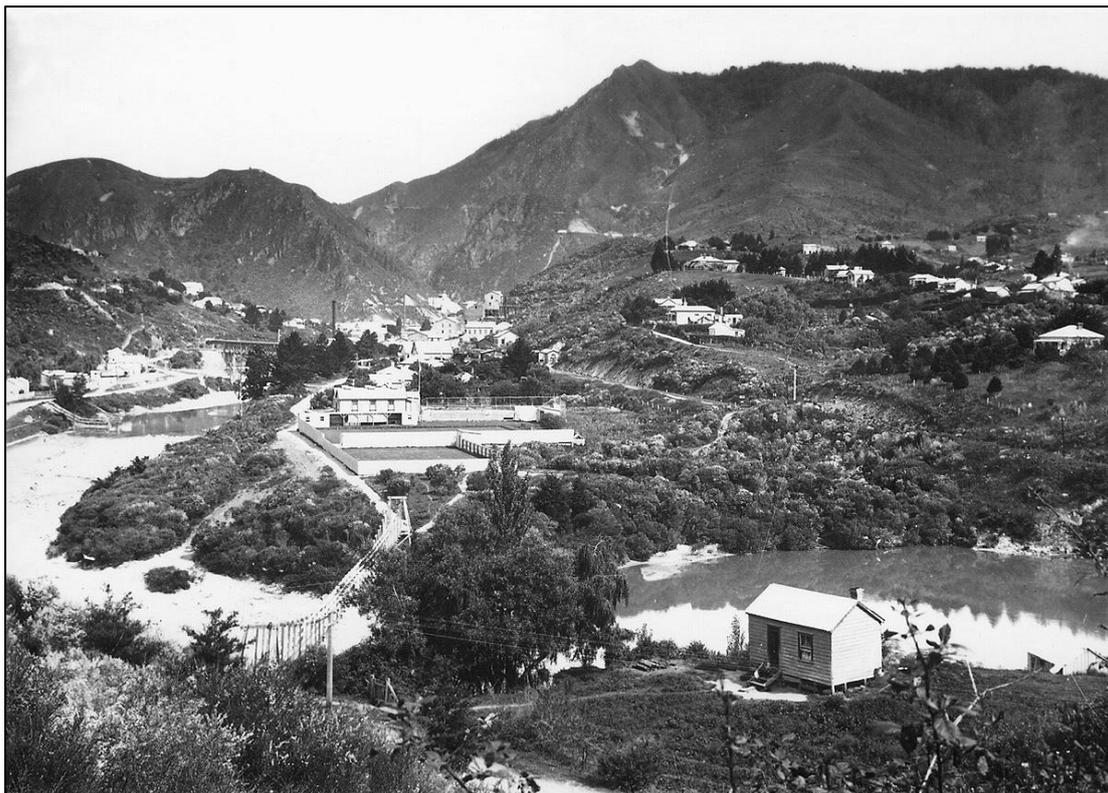
### 26 February 1913

Saturday was an exceptionally busy day on the Karangahake bowling green. A visit was received from the Thames Club, who were entertained at a very dainty luncheon in the club's pavilion, during which President Searle proposed the toast of "Success to Bowls." President Ensoll, of Thames, replied in a very happy speech. During the afternoon the club's team—Hilton (skip), Jury, Waddell and Guthrie—who had just returned after winning the Rotorua tournament, were driven out by motor from Paeroa, and arrived in time to participate in the games. On entering the green they were welcomed by the presidents of Karangahake and Thames Clubs, while the band played, "See the Conquering Heroes Come." Play was then proceeded with, Thames winning by 12 points.<sup>39</sup>

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<sup>39</sup> <https://paperspast.natlib.govt.nz/newspapers/OG19130226.2.25>

Ohinemuri Gazette, Volume XXIV, Issue 3057, 26 February 1913, Page 3



Same photograph as Karangahake from Kitching's Hill, 12.5.1914 Alexander Turnbull Library.

Kitching was the fellow who asked for the bridge to be built.

George Chappell photo. Audrey Young/Alan Beck.

### **18 September 1914**

#### **BOWLING. KARANGAHAKE CLUB ANNUAL MEETING**

The membership had increased, and last year a very successful playing season had been held. It had been found necessary to put down a new green of four rinks, which will be ready for play late in the coming season.<sup>40</sup>

New greens added in late 1914.

### **27 October 1915**

Karangahake Bowling Green was opened on Saturday last. There was a large attendance of members. With a beautiful green in first-class order, a very enjoyable afternoon was spent. As the match was for the Annual Challenge Cup between the two branches of the industry, a large amount of interest was taken in the event, and, needless to say, "the dwellers in the under-world" were hugely pleased at their hard-won victory. This is their second consecutive win.<sup>41</sup>

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<sup>40</sup> <https://paperspast.natlib.govt.nz/newspapers/OG19140918.2.33>

Ohinemuri Gazette, Volume XXV, Issue 3295, 18 September 1914, Page 3

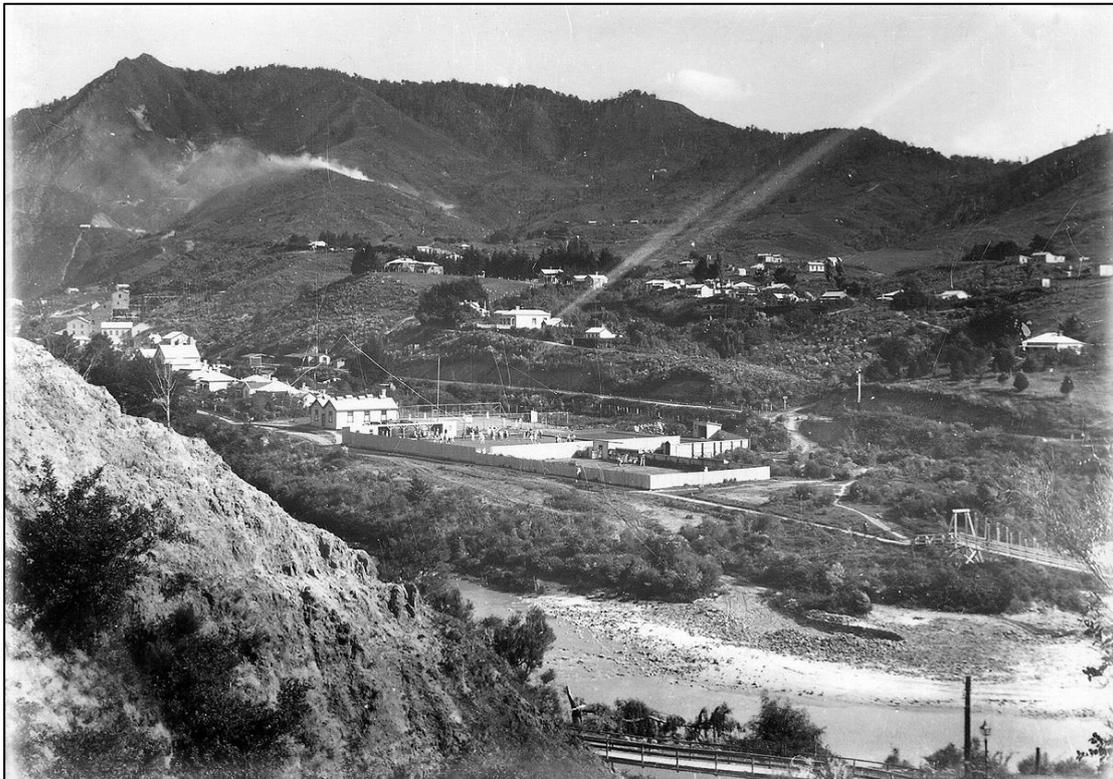
<sup>41</sup> <https://paperspast.natlib.govt.nz/newspapers/OG19151027.2.10>

Ohinemuri Gazette, Volume XXVI, Issue 3450, 27 October 1915, Page 2

## Karangahake Bowling Greens



1915+. The new green is clearly visible at the left of the image, though maybe not being played on yet.  
George Chappell photo. Audrey Young/Alan Beck.



1915+. Photograph taken from above Dougherty's Creek, maybe the same day as the image above.  
The new green can be seen beyond the old. The road which crosses the railway lines, and gives access to the bridge, is the current "anglers access" off the cycle/walkway.  
George Chappell photo. Audrey Young/Alan Beck.

### 3 November 1915

#### KARANGAHAKE CLUB.

The Karangahake bowling green was officially opened on Saturday in fair weather conditions. Visitors were present from Waihi, Waikino, Paeroa, and Te Aroha. Thames was unable to be represented, as a carnival was being held there in aid of the Wounded Soldiers Fund...

...returned thanks on behalf of the visitors, each congratulating the members of the Karangahake Club on the substantial amount raised by them on behalf of the "Wounded Soldiers' Fund."<sup>42</sup>

### 4 April 1917

#### KARANGAHAKE NEWS. FAREWELLING RESIDENTS.

The Karangahake bowling green presented a very busy appearance on Saturday afternoon, the occasion being a farewell given by the members of the club to Messrs. Kitching (president), Pearse (vice-president) and Johnston (secretary.) Visitors from all parts of the Goldfields were present. Eight rinks were occupied and the fine weather added to the afternoon's enjoyment.

Mr. Deane welcomed the visitors and said it was with regret that the club were losing three of their officers. In tracing the history of the club Mr. Deane stated that Mr Kitching had worked assiduously for the benefit of the club and the welfare of bowling generally. It was due to Mr. Kitching's untiring efforts that the club has been placed on a footing equal to most clubs in the Auckland Province...<sup>43</sup>

### 8 February 1919

#### Karangahake Bowling Club.

One of the most successful gatherings ever held on the Karangahake Bowling Club's green took place on Saturday last, the occasion being an "At Home" to Mr. Jury and his team in celebration of their victory in the Dominion Championship Fours. Visitors were present from Auckland, Ponsonby, Hamilton, and all the various Goldfields Clubs, including the Waikino team.

The president (Mr. D. T. Aitken), in a brief but characteristic speech, welcomed the visitors. In his remarks on behalf of the club members he congratulated Mr. Jury and team on their meritorious performance in securing the highest honours in bowling in the Dominion, at the same time making special mention of the achievements of the Waikino team. He called for three cheers for Jury and team, which was heartily responded to by all present. Play was then commenced, eight rinks being occupied.<sup>44</sup>

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<sup>42</sup> <https://paperspast.natlib.govt.nz/newspapers/NZH19151103.2.8.3>

New Zealand Herald, Volume LII, Issue 16065, 3 November 1915, Page 4

<sup>43</sup> <https://paperspast.natlib.govt.nz/newspapers/OG19170404.2.19>

Ohinemuri Gazette, Volume XXVIII, Issue 3752, 4 April 1917, Page 2

<sup>44</sup> <https://paperspast.natlib.govt.nz/newspapers/TO19190208.2.14.2>

Observer, Volume XXXIX, Issue 23, 8 February 1919, Page 10

### 16 October 1919

Waihi will be represented on the occasion of the opening of the Karangahake Bowling Green on Saturday next. The official opening of the local green will be held on Saturday week.<sup>45</sup>

### 1 February 1921

The Thames Star hears on good authority that the local bowling club is going into liquidation next March, when its valuable assets, comprising three acres of nice ground, a large quantity of galvanised iron, sheds, etc., will be disposed of, and the erstwhile famous Karangahake Bowling Club will be relegated to the category of "has beens."

Ichabod.<sup>46</sup>

### 14 February 1921

Saturday was quite a gala day on the Karangahake Bowling Club's green, the occasion being that of the "welcome home" function to Mr E. Jury (skip) and the members of the team which won the Fours Championship at the recent Dominion Tournament, an honour which carries with it the N.Z. Bowling Association's banner. The various goldfields district clubs were represented, and from as far away as Auckland bowlers were at Karangahake to join in the hearty congratulations extended to Jury and his fellow players, who had carried off the coveted trophy in competition with the leading bowlers throughout New Zealand. The numerous guests were most hospitably entertained and during the afternoon a series of friendly games were played. It is interesting to note that this is the second occasion upon which a team skipped by Jury has won the Dominion fours, in addition to having reached the semi-final at another championship gathering. At the recent tournament Jury also fought his way through to the semi final of the Pairs Championship. Such fine performances speak volumes for the skill of the members of this comparatively young club.<sup>47</sup>

### 15 February 1921

BOWLING.

CHAMPION BOWLERS RETURN. RECEPTION AT KARANGAHAKE.

A large gathering of bowlers from all parts of the goldfields, Waikato, and Auckland assembled at the Karangahake Bowling Club green on Saturday afternoon to welcome back to their home club, and offer congratulations to the Dominion champion four, Messrs. Hilton, Bell, Gallagher, and Jury (skip). The clubs who sent representatives were Waihi, Waikino, Paeroa, Te Aroha, Thames, Carlton, and Ponsonby.

The visitors were received on the green by the president, Mr. W. McLean, and members of the Karangahake Club. The occasion was a unique and

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<sup>45</sup> <https://paperspast.natlib.govt.nz/newspapers/WHDT19191016.2.7>

Waihi Daily Telegraph, Volume XVII, Issue 5737, 16 October 1919, Page 2

<sup>46</sup> <https://paperspast.natlib.govt.nz/newspapers/FRTIM19210201.2.24>

Franklin Times, Volume 9, Issue 604, 1 February 1921, Page 5

<sup>47</sup> <https://paperspast.natlib.govt.nz/newspapers/WHDT19210214.2.7>

Waihi Daily Telegraph, Volume XVIII, Issue 6144, 14 February 1921, Page 2

memorable one, for while the visitors came from all parts to congratulate the Karangahake bowlers on winning both the Auckland and Dominion tournaments, they also came to play with their Karangahake friends on their own green for the last time.

Owing to mining operations ceasing at Karangahake many of the members are shortly leaving the district, and the club will be disbanded. It has been in existence, for about 20 years, and the members are all true sports and very hospitable, and their green has for many years been considered one of the best in the Auckland province. The club has a wonderful record, having won a great number of tournaments, including the much-coveted Dominion tournament, which they secured twice. It is the only club in the Dominion to achieve this great honour, and many expressions of regret were voiced by the visitors on Saturday that such a fine club should have to break up and its members depart for other spheres...<sup>48</sup>

### 16 February 1921

With the final closing down of the mining, apart from any tributing which may be continued by the venturesome few, will go the Karangahake Bowling Club, which, during its comparatively brief life, has produced many fine players. Already much of the property of the club has been disposed of, and shortly nothing will remain but the green turf, on which the bowlers and those interested in the kindred sports of lawn tennis and croquet have spent several pleasant seasons in friendly rivalry and contested many hard fought games. —<sup>49</sup>Telegraph.

### 21 November 1923

Karangahake. Tennis.

Owing to the cricket match, Kopuarahi v. Karangahake, being played on Saturday last the opening day of the tennis club was postponed until Saturday next. A working bee was busily engaged on Monday evening clearing the courts, so the opening day should prove an enjoyable outing.<sup>50</sup>

Tennis courts still operating.

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<sup>48</sup> <https://paperspast.natlib.govt.nz/newspapers/THS19210215.2.16>

Thames Star, Volume LVII, Issue 14478, 15 February 1921, Page 2

<sup>49</sup> <https://paperspast.natlib.govt.nz/newspapers/OG19210216.2.15>

Ohinemuri Gazette, Volume XXXII, Issue 4229, 16 February 1921, Page 2

<sup>50</sup> <https://paperspast.natlib.govt.nz/newspapers/HPGAZ19231121.2.2>

Hauraki Plains Gazette, Volume XXXIV, Issue 4628, 21 November 1923, Page 1

## Appendices

### Karangahake School of Mines

Ohinemuri Regional History Journal 32, September 1988.<sup>51</sup>

Alistair M Isdale B A

Tracing the beginning of the Karangahake School of Mines is easy enough because it goes back to that of the Thames School of Mines, with Professor J Black and his assistants, A Montgomery and W Goodlet coming to the Hauraki District in November, 1885, at the behest of the Hon J W M Larnach, Minister of Mines, to start School of Mines in the area. The ebullient Professor Black, who also had a good knowledge, created much enthusiasm.

While Montgomery was lecturing in Thames on 24 November, 1885, Professor Black was reported as giving the first of a series of lectures, with experimental work, at Karangahake, in the furnace house of the La Monte smelting plant, to 120 miners who took the keenest interest.

On 26 November it was reported that Montgomery had taken Black's place at Karangahake, after crowded sessions by Black, with 150, and next day 190, enthusiastically "stopping only for meals, while in the evening, those who could not find anywhere else to listen, climbed up and sat on the rafters, miners coming from Waihi, Owharoa, Waitekauri and Te Aroha, as well as Karangahake. Not only were there demonstrations of matters like assaying, but also instruction of pupils carrying out experiments, and soon some were able to do their own assays."

By 25 December 1885, the Thames School of Mines Association had 400 members, from Thames, Ohinemuri (including Karangahake), Te Aroha, Coromandel and Auckland, three hundred and thirty pounds (\$660) in hand so far, and further applications and money on the way.

By 13 January 1886 the money had swelled to over five hundred pounds (\$1,000), five hundred and nineteen pounds (\$1,038) to be exact, and there were 507 members, 38 being from Karangahake and 15 from Waihi.

Thames School of Mines classes started with temporary premises at the beginning of 1886, taking up permanent quarters in the nucleus of the present School of Mines buildings on 16 August 1886. The Time Table was as follows:-

"Thames: Five months - 1 January to 15 March; 1 July to 15 September.

Karangahake and Waihi: Three months - 16 March to 30 April; 16 September to 31 October.

Waiorongomai and Te Aroha: Two months - 1 to 31 May; 1 to 30 November.

Coromandel: Two months - 1 to 30 June; 1 to 31 December."

Professor Black left A Montgomery to carry on these classes, with the position of Director of the Thames School of Mines.

Around 18 March 1886, it was reported that Karangahake was having School of Mines classes conducted by Mr Montgomery, There was a portable assay plant in a suitable hotel room, hotels being the most substantial buildings in Karangahake after

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<sup>51</sup> Karangahake School of Mines, Ohinemuri Regional History Journal 32, September 1988.  
<https://www.ohinemuri.org.nz/journals/journal-32-september-1988/karangahake-school-of-mines>

## Appendices

the batteries and furnace buildings. An average attendance of 18 pupils learnt wet and dry assaying.

The first annual meeting of the Thames School of Mines Association, at the beginning of February 1887, noted in its first Annual Report that Thames classes were held in the Gresham Hall from 25 January to 6 March, 1886, then Montgomery made a four month tour of lectures and classes at Karangahake, Waihi, Te Aroha, Waiorongomai and Coromandel.

On 8 October, 1887, a severely retrenching Atkinson Government came in until 1891. It immediately abolished the position of a separate Minister of Mines, adding the portfolio to those of the Minister of Lands.

Plans for increasing the number of Schools of Mines were vetoed, and budgets cut for Dunedin, Reefton and Thames Schools, then existing.

On 25 April, 1888, there was news of a move to remove Montgomery from Thames for a month, and local feeling was that to remove the Director of the Thames School of Mines for a month would "do irretrievable injury". He merely went to Coromandel for a month. This would seem to indicate that the system of domiciliary visits to outlying districts was already breaking down, with concentration on Thames, in leaner times.

On 14 July, 1889, there was a farewell function for Montgomery, who was succeeded by the learned and formidable James Park, who was Director of the Thames School of Mines 1889 - 1896. He tried to pick up dropped threads, and on 30 November, 1889, he went to Coromandel, "for the purpose of again commencing the School of Mines in that district".

At Karangahake, before the end of 1889, there was carried out the first field test in the world of the important cyanide extraction process, enthusiastically taken up by Park and his students at the Thames School of Mines, with further developments used all over the world. But there was nothing about any revival of a School of Mines at Karangahake.

On 20 January, 1890, it was noted that at the Thames School of Mines there were eight or nine candidates being examined for mine managers' certificates, originating from Thames, Coromandel, and the "up-country districts", comprising the Ohinemuri and Te Aroha.

In November, 1890, the Coromandel School of Mines had its annual meeting.

In June, 1891, the Thames School of Mines had 100 students, well up from 37 in May, 1890.

In September, 1892, Thames had its most successful year, with an average of 111 students, and Kuaotunu was asking if it could have a branch like Coromandel.

Thames continued to progress during 1893, and put in an experimental cyanide plant, which developed an improved process in 1894, while Government grants increased.

In 1895 a big boom in mining investment, if not production, at Thames, but greatly increased gold production at Coromandel, and steadily increasing production at Waihi, put up Thames attendance still further.

In December, 1895 however, Coromandel was informed by the Mines Department, that its funds would not extend to an instructor for the School of Mines at Coromandel and Kuaotunu, "also stating that as there is an inefficient School of Mines at Thames, the establishment of other Schools in the district would tend to lower the system of

## Appendices

technical training". However, "the idea is to have an instructor, with the idea of finishing at the Thames." It was decided to keep on at Coromandel and Kuaotunu.

At the Thames Annual Meeting on 11 February, 1896, it appeared that Professor Black, lecturing in Thames, had been in favour of establishing offshoots, but Mr Gordon, Inspecting Engineer for the Mines Department, did not agree. He said that one good school was better than 20 bad ones.

In September, 1896, there was talk of a School of Mines at Paeroa. It came to nothing.

In 1897 a School of Mines was established at Waihi, and on 27 October it was noted that at Coromandel, Kuaotunu and Waihi there were from 60 to 80 students.

On 14 December, 1897, it was noted that some efforts were being made to establish a School of Mines at Karangahake. However, the 1895-7 investment boom was breaking, and it then appeared that Waihi had got its School of Mines established just in time. By 1898 there was a depression in the mining investment world. But the mines at Waihi and Karangahake kept steadily increasing production, the cyanide process making big low grade deposits profitable. A large number of non-producing or unprofitable mines were abandoned.

During 1899 the producers continued producing, Karangahake grew. The gold sharemarket was recovering, if not to the hectic boom conditions of 1895-7.

On 6 November, 1899, it was reported that there was quite a movement for a School of Mines at Karangahake, 51 intending students handing in their names. On 2 March, 1900, when the first sod of the Paeroa-Karangahake railway was turned at Karangahake, the population of the town was estimated at 2,000. On 23 June, 1900, it was reported that, at a meeting of the Thames School of Mines Council, there was tabled a subscription list, "in aid of a School of Mines at Karangahake." By 13 August, 1900, the required one hundred and fifty pounds (\$300) had been subscribed for a Karangahake School of Mines, thus qualifying for a promised Government subsidy. There were 62 students applying, "so that there is every prospect of the institution being a great success".

On 29 August, 1900, the news was, "The Council of the Karangahake School of Mines has decided to proceed at once with the erection of a School building." On 14 December it was reported that the Thames School of Mines, having a surplus of geological specimens, had decided to offer "the unrequired surplus to the Karangahake and Waihi" Schools of Mines.

On 28 December, 1900, it was announced in Thames that W H Baker, assistant instructor at the Thames School of Mines, had been elected to be Director of the Karangahake School of Mines which was then opened on Monday 4 February, 1901 by the Hon James McGowan, Minister of Mines. "The School of Mines at Karangahake was opened on Monday with a satisfactory attendance of people. There are 50 students on the register. Mr McGowan promised to subsidise the money collected in connection with the School, or what might be collected in future for that purpose. The classes are not yet established, as the students are making arrangements to follow up various subjects.

On February 27, 1901, it was reported that W H Baker, only recently made Director of the new Karangahake School of Mines, was now appointed Director of the Launceston School of Mines, Tasmania, a "highly remunerative" position which would fully employ his high capabilities. He was to come back to the district to be Director of the Thames School of Mines 1906-23.

## Appendices

On 27 March, 1901, it was announced that R B McDuff, acting assistant at the Thames School of Mines, had been appointed Director of the Karangahake School of Mines. On 20 July, 1901 it was reported that the Karangahake School of Mines had 15 pupils attending 77 classes in various subjects, under Director McDuff. The School was financially "in a thoroughly substantial position".

At the beginning of March 1905, Karangahake School of Mines asked Premier Richard Seddon for surveying instruments and an electrical plant. Seddon was willing re the first, but needed Parliamentary authorisation to put the second on the estimates. In June 1905, at a conference of Directors of northern Schools of Mines, R B McDuff was present for Karangahake.

On 6 June 1905, it was announced, "A subsidiary School of Mines is to be opened at Waikino under the auspices of the Karangahake Council. Mr R McDuff, the popular director, has, with commendable forethought, evolved a scheme which should benefit students and school alike, while the Council has shown considerable enterprise in endeavouring to fill what must have been a long felt want."

On 12 July, 1905, Karangahake reported, "The attendance at the School of Mines is increasing steadily and is greater now than it ever was. The students at the Waikino branch, which is also under Mr McDuff's tuition, are making satisfactory progress." Mr P Hogg of the staff had been appointed to a responsible position in the Vivian Mine, West Australia.

November 17, 1905, saw the Karangahake School of Mines fail to get a Government subsidy for erecting and equipping a branch office at Waikino, as it was too close. However, by mid May, 1906, funds raised locally, with a pound for pound Government subsidy, allowed tenders to be called for a proper School of Mines building at Waikino, to remain under the control of the Karangahake School, whose Mr McDuff would continue to act as Director. During the past twelve months he had been giving "one lecture a week on metallurgy and one on mathematics at Waikino." There would be a two year course, with electricity taught by Mr J G Lancaster from Thames, "Already 40 students have paid their membership fees, so success is assured." The Karangahake School of Mines was adding an electric lighting plant, with steam engine and dynamo. Karangahake Riding had 2,782 in the 1906 census. Waikino had the huge Victoria battery of 1897, with 200 stamps.

At the beginning of August, 1906, it was reported that the electrical classes at the Waihi and Karangahake Schools of Mines had been "so well attended that the Councils of these Schools are considering the advisableness of appointing an extra instructor for these classes."

On 26 March, 1907, it was noted, "The futility of establishing a mining school in Auckland, while there are Schools of Mines at Thames, Waihi and Karangahake is indisputably shown by the lack of students offering themselves at the Auckland institution."

It was noted that for the year ended 31 March 1907, Karangahake School of Mines got two hundred and twenty seven pounds ten shillings (\$455) in Government subsidy, more than Thames with one hundred and fifty pounds (\$300), but the same as Coromandel. Waihi, with its huge gold production and staff, got five hundred and eighty-nine dollars six shillings and sixpence (\$1,178.65).

At the beginning of the second week in October, Mr McDuff, Director of the Karangahake School of Mines, gave a public address on Silting of the River.

## Appendices

In October, 1907, there were questions in the House, whether the Government would consider arranging for an electrical instructor from Waihi or Thames to give instruction at the Karangahake School of Mines. On 19 November, 1907, it was reported that the Mines Department had authorised calling for applications for Electrical Instructor for both Waihi and Thames School of Mines, and the Thames School intimated to Karangahake that their Instructor would visit Karangahake if they paid his expenses.

Towards the end of November, 1907, slump conditions were spreading in the world, but the sharemarket for Ohinemuri gold mines was still active, with the Talisman mine having a record production of gold for November, Crown returns also up again, and the Karangahake Coy shares going up.

Early in December, 1907, for Schools of mines examinations, William Baker of Thames went to Karangahake, Director R B McDuff of Karangahake to Waihi, whose Morgan went to Thames.

On 21 January, 1908, it was noted that A T Ellis had been approved as electrical instructor for the Waihi School of Mines, and Mr A Dodson for Thames. It was the latter who would give lectures at the Karangahake School of Mines.

On 4 February, 1908, results came out of the School of Mines examinations at Karangahake. A Customs Certificate in bullion assaying was obtained by W Young, A G Bush and Neville G Aickin. A pass in Dry Assaying (Senior) was obtained by H Williams, G A Bush, Neville G Aickin and C Harsant. The Junior in Dry Assaying was obtained by Arnold Hill, A S Hill and C A McCombie. Charles Harsant got a pass in Senior Practical Chemistry, and in Junior there were A S Hill and C A McCombie.

Around 18 February, 1908, the Thames School of Mines Honours List included:- R B McDuff, Director, Karangahake School of mines; Richard Ross, Mine Manager for Karangahake Gold Mining Company; K M Barrance, Surveyor, Talisman Consolidated.

On 9 July, 1908, there was a report of the resignation of R B McDuff, Director of the Karangahake School of Mines. Appointed in his place was H W Reid HSASM, who had just been Director of the Zeehan School of Mines, Tasmania.

The beginning of August, 1908, saw July returns for the Crown Mine badly down, just as a deputation in Wellington was trying to get quicker action from the Government on having Karangahake made a Borough. That was not to happen.

On September 4, 1908, it was reported in Thames that the Crown Mine had closed down, putting a large number of diggers out of work, and then out of town.

On 17 August, 1909, there was a mention of the Karangahake School of Mines, which was continuing. But agitation for a Borough had died down. There was a smaller population, and building, which had been active, stopped after August, 1908. The Talisman kept going, but the Karangahake Coy was faltering. The Crown got going again in June-July 1910, but things were not the same as before.

In January, 1911, it was noted that there was a dearth of students sitting for purely mining subjects in Schools of Mines examinations. Thames, Waihi, Reefton (South Island) and Coromandel had only two each. "At Karangahake and Waikino there were none. Particular reasons, amongst others, for the poor attendance arose from the fact that the Mines Department officials got it into their heads that the schools were meant for training mining engineers only, and that the class of men which the schools were

## Appendices

in the first instance meant to attract and assist, viz., the practical miner capable of passing about a fifth or sixth standard degree of education, was being shoved out."

In 1912 there was the big strike, after which things were never quite the same again at Waihi. After 1913, the Crown faded out for all practical purposes, but in 1914 the Talisman reach-its peak production.

The Thames School of Mines recorded on 4 April 1914, the resignation of W A Given as Assistant Lecturer, to go as Director to the Karangahake School.

Talisman was down a little in 1915, and slipping rapidly in 1916 and 1917, and was doing only cleaning up in 1918.

In August, 1918, there was mention of a School of Mines at Waihi, but not at Karangahake.

In 1919 there was a big exodus from Karangahake, which by Christmas/New Year 1920 was "very quiet and like the Deserted Village."

## AJHRs

Reports from the Appendix to the Journals of the House of Representatives.

### KARANGAHAKE SCHOOL OF MINES.

The Director, Mr. R. B. McDuff, writes: —

I have the honour to furnish herewith the first annual report on the Karangahake School of Mines **for the year ending the 31st December, 1901.**

At a public meeting held in October, 1899, for the purpose of establishing a school of mines at Karangahake the following gentlemen were appointed to carry out the resolutions passed at the meeting: Messrs. C. H. Taylor, J. R. Noble, W. Goldsworthy, G. N. McGruer, F. Rich, R. Stackpole, jun., and Alexander Hogg. At a committee meeting held at the close of the public meeting Mr. Hogg was appointed secretary, and Mr. W. Goldsworthy and H. W. Guthrie trustees. So untiring in their efforts was this committee that in a little over a year the school was erected and fitted up with all the necessary appliances ready to open at the beginning of the present year.

Applications for the position of Director were called, and that of Mr. W. H. Baker, B.Sc, of the Thames School of Mines, was accepted. Mr. Baker took charge at the beginning of the year, and continued up till the end of March, when he resigned, having received the offer of a more lucrative position in Tasmania. Applications for the directorship resulted in my appointment, and I commenced my duties on the 1st April, 1901.

The school has had a most successful year, the attendance at the lectures being excellent, as is shown in the table appended.

The course of instruction is similar in all respects to that of the Waihi School of Mines, and embraces all the subjects necessary for the Government mine-managers', battery-superintendents', engine-drivers', and assayers' certificates.

The school-year is divided into three terms: First term, from the first Monday in February to the 30th April; second term, from the 9th May to the 20th August; third term, from the 9th September to the 20th December.

The fees charged are 5s. per term for each subject taken up. In addition to the class fees there is a membership fee of £1 per annum.

No Saturday science class is held for children.

The following improvements have been made in the school during the year: Sixteen lockers for the assaying class; a lecture-bench placed in front of the blackboard; a mineral case provided; and the assay-room ceiled with iron.

The capacity of the assay-room is taxed to its utmost at present, it being only 14 ft. by 10 ft., and, with an attendance of twenty students, working becomes very inconvenient. If the number of students in this class increases—as I am convinced it will do next year—some addition will have to be made to allow the work to be carried out successfully.

One great drawback to the school is the want of a waiting-room for the students; having only one class-room, they are compelled to remain outside until the earlier class is over, which is not very pleasant in the winter months.

Table of Attendances for Year ending 31st December, 1901.

Total individual students 25 31 37 [for terms 1. 2 and 3.].

TABLE OF ATTENDANCES for Year ending 31st December, 1901.

Subject.	First Term.	Second Term.	Third Term.
Mining ... ..	8	11	11
Surveying ... ..	9	12	12
Assaying ... ..	13	16	20
Theoretical chemistry ... ..	10	18	20
Metallurgy ... ..	11	13	11
Mathematics ... ..	4	7	13
Geology ... ..	3	3	4
Mineralogy ... ..	3	3	4
Drawing ... ..	4	4	3
Practical chemistry ... ..	13	18	20
Totals ... ..	78	105	118
Total individual students ... ..	25	31	37

The Hon J McGowan, Minister of Mines, has visited the school, and approved of what has been done; and, on representing that the survey class was working with a primitive theodolite, he kindly sent a new and up-to-date theodolite when he returned to Wellington. This gift was much appreciated by the Council and students.

The annual meeting was held in the school on the 22nd July, when the following officers and Council were elected: President- A. H. Curtis, Esq.; vice-presidents- D. G Waddell Esq., F Rich Esq., C. H. Taylor, Esq.; Council- Messrs. C. H. Taylor, W. Goldsworthy, F. M. Brown, R. Stackpole, jun., C. Trezise, H. W. Guthrie, J. Jackson, R. D. Jones; treasurer— R. D. Jones; secretary— Alexander Hogg.

The number of assays done for the public during the year was eleven, all being for gold and silver. One analysis of coal was also made for a local syndicate, who are prospecting near the township.

The annual examinations on the papers sent by the Mines Department have just been completed, twelve students presenting themselves for the subjects which they had taken up. This number would have been greater had not a slump in mining matters taken place, causing some of the best students to temporarily leave the district.

In conclusion, I must heartily thank our President, Mr. A. H. Curtis, for his handsome gift of seven valuable books to the school library, the Council for their hearty co-operation with me in every plan for the improvement of the school, and the donors of mineral specimens. In this connection the thanks of the school is especially due to Mr. F. B. Allen, of the Thames School of Mines, and Mr. W. H. Baker, of Tasmania.<sup>52</sup>

#### KARANGAHAKE SCHOOL OF MINES.

Mr. R. B. McDuff is the Director of this school.

<sup>52</sup> <https://paperspast.natlib.govt.nz/parliamentary/AJHR1902-I.2.1.4.3>

THE GOLDFIELDS OF NEW ZEALAND: REPORT ON ROADS, WATER-RACES, MINING MACHINERY, AND OTHER WORKS IN CONNECTION WITH MINING., Appendix to the Journals of the House of Representatives, 1902 Session I, C-03

The following is the annual report of the Council: —

It affords the Council great pleasure to present the fourth [second] annual report on the work done and the results obtained during **the year ending the 31st December, 1902.**

Attendance. —During the year the attendance was a slight increase on that maintained for the previous twelve months, being for the three terms 32.3 students, taking an average number of 104 classes. With the improvement in mining matters at present obtaining in this district, even larger attendance can be looked for during the present year.

Equipment. —As stated at the last annual meeting, the equipment of the school for the advantageous study of the subjects embraced in the curriculum was fairly complete, and during the year a few additions —notably a set of bullion rolls for the assay class and some additional text-books— have been added, and the Council have lately received an offer from the Very Rev. Dean Hackett of some further technical works, which will greatly enhance the value of our library. The Council take this opportunity of reminding all members of the institute, whether students or not, that they are entitled to the use of the books of the library at any time, provided the book is not taken away from the building, and, as these works comprise most of the best authorities on any of the mining branches practised in this district, members may gain great help by taking advantage of their privileges in this respect.

Examinations. —At the examination for mine- and battery-managers' certificates held last year six candidates were provided by the school. They sat at Waihi, and the results showed four to have gained first-class certificates, one a partial pass, and one to have failed. Owing to the inconvenience journeying so far in order to sit, the Council forwarded a recommendation to the Board of Examiners that Karangahake be appointed an examination centre in future, and the Board has been pleased to grant this.

At the annual Government examinations in connection with the schools of mines throughout the colony, held in December last, thirteen students presented themselves, and the results to hand show the Karangahake School to have headed the honour list for New Zealand, in spite of the fact that several other schools boast a larger attendance and presented a greater number of candidates, and, further, that this school is the youngest in the colony. This must be most gratifying to the members and students, and especially to the Director (Mr. McDuff), whose painstaking efforts have been a continual source of pleasure to the Council.

The gold medal offered by our President (A. H. Curtis, Esq.) to the student gaining the highest aggregate in any five subjects was won by Mr. R. D. Jones with an aggregate of 376, Mr. F. Cordes being next with 348.

Receipts and Expenditure. —The treasurer's statement shows the total receipts from all sources to have been £322 16s. 6d., while the expenditure totalled £232 12s. 8d., leaving a credit balance at bank and in hand of £90 3s. 10d.

Recommendations. —The Council before retiring from office wish to recommend to the new Council that immediate steps be taken to enlarge the school building, the present assay department especially being totally inadequate to accommodate the large class taking this course, the Director having had, perforce, to split the class, thus doubling his work in this

particular subject, in order to overcome the difficulty of accommodation. The Council therefore recommends that the Government be approached with the request for a special grant to carry out these additions.

Election of Officers and Councillors. —During the year our President, vice-president, and one Councillor left the district, the Council under by-law 11 appointing Mr. T. G. Vinson to fill the vacancy caused by the resignation of Mr. Travers.<sup>53</sup>

#### KARANGAHAKE SCHOOL OF MINES.

The Director, Mr. R. B. Macduff, reports as follows: —

I have the honour to furnish herewith the third annual report on the Karangahake School of Mines **for the year ending the 31st December, 1903.**

Attendance. —The attendance at the classes was not so good as was the case during last year. This was especially noticeable at the end of the year, but can be accounted for by the cessation of work at one of the mines and its battery, so that the average attendance was reduced to twenty three students, taking an average of slightly over three classes per student; but I hope the classes will be better attended next year. There is no lack of young men in the district who could avail themselves of this branch of education were they inclined to do so.

Examinations. —This year was the most successful we have had since the opening of the school. The results of the examinations held by the Mines Department at the end of the year 1902 show that the students have done excellent work, gaining certificates as follows: Eighteen first-class, eleven second-class, five third-class. At the examination for mine-managers and battery-superintendents, held in January, 1903, eight students sat, two for mine-managers and six for battery-superintendents, and all of these students succeeded in passing.

Syllabus. —This was similar to that of former years, but some students did a little advanced work in their respective classes, and with good results. Next year it is intended to add to the syllabus a class in metallurgical chemistry, which shall include qualitative and quantitative analysis of battery-products such as ore, slimes, concentrates, sands, amalgam, slags, &c, as well as the testing of ores for acidity, the causes of loss of KCy during treatment, assay of KCy solutions for gold, silver, zinc, &c. This class should greatly benefit battery hands.

It is also intended to start a separate class in elementary arithmetic, so as to give any one willing a chance to work up enough arithmetic to follow the other classes intelligently.

New Building. —Thanks to a grant from the Government, the size of the school has been doubled, and now the school comprises a large lecture-room, a reading-room, chemical laboratory, balance-room, and office, and the whole school is soon to be lighted with gas, which will also be used for heating purposes in the laboratory.

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<sup>53</sup> <https://paperspast.natlib.govt.nz/parliamentary/AJHR1903-I.2.1.4.3>

THE GOLDFIELDS OF NEW ZEALAND: REPORT ON ROADS, WATER-RACES, MINING MACHINERY, AND OTHER WORKS IN CONNECTION WITH MINING., Appendix to the Journals of the House of Representatives, 1903 Session I, C-03

Governing Body. —The following gentlemen held office during the year: Patron, Mr. E. G. B. Moss, M.H.R.; President, Mr. D. P. Mitchell, M.E.; Vice-presidents, Messrs. F. Rich, B.Sc, G. N. McGruer, and E. Cartwright; Council —Messrs. H. W. Guthrie (Chairman), C. Tresize, T. G. Vinson, G. A. Chappell, A. Tomlinson, T. P. Heron, and R. D. Jones (Secretary and Treasurer). This Council has worked untiringly in their efforts to push the school to the fore.

Library. —During the year the library has been added to, partly by the Council and partly by gentlemen outside the school. In this respect I must heartily thank the Very Rev. Dean Hackett for two standard works on geology and assaying, and Messrs. McGruer and Rich for several books and papers. My thanks must also be extended to the Mines Department for all Government publications.

Mineral Collection. —During last year a good number of mineral specimens and rocks were added to the collection, but want of space has prevented their being displayed; but this has now been overcome, and any gentleman wishing to donate specimens to the school collection will receive the thanks of the Council by forwarding them to the school.

Assays and Analyses. —During the year six assays for gold and silver and sixteen analyses of iron-ore were done, besides the identification of a number of minerals for prospectors. This latter is done free of charge.

In conclusion, I must thank the Council for their co-operation in all matters pertaining to the advancement of the school; likewise all gentlemen who have kindly given books, specimens, &c, and also Mr. V. C. Dette, my laboratory assistant.<sup>54</sup>

#### KARANGAHAKE SCHOOL OF MINES.

The Council has pleasure in presenting this (the sixth annual) [?] report on the work done and results obtained by the school **for the year ended the 31st December, 1904.**

Attendance. The attendance for the year has been slightly below that of the former one, an average of twenty students taking forty-five subjects, or a little over two classes per student.

Examinations. At the annual class examinations 11 students sat for 26 subjects, from which were obtained 10 first-class, 8 second, and 7 third-class certificates, only one paper failing to obtain a certificate, whilst no failures were recorded. In five subjects students were first in New Zealand—viz., mining, wet and dry assaying (senior), mineralogy, and junior theoretical chemistry. The average number of marks of all the papers sent in by members of the local school was 64.3 per cent, nearly—a much higher percentage than any other school in the colony.

President's Medal. Mr. Charles Harsant obtains the President's gold medal, with an average of 74.2 per cent, in five subjects. He was first in the colony in

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<sup>54</sup> <https://paperspast.natlib.govt.nz/parliamentary/AJHR1904-I.2.1.4.3>

THE GOLDFIELDS OF NEW ZEALAND: REPORT ON ROADS, WATER-RACES, MINING MACHINERY, AND OTHER WORKS IN CONNECTION WITH MINING., Appendix to the Journals of the House of Representatives, 1904 Session I, C-03

four out of five subjects. The medal was to be gained by the student who obtained the greatest number of marks when his aggregate was multiplied by his average.

Positions held by Present and Past Students. By attending the school quite a number of students have been enabled to obtain good positions in various parts of the world: the undernoted are a few of them: (1) Mr. E. A. Barry [son of H.P. Barry?], battery-superintendent, Pilgrim's Rest, South Africa; (2) Mr. G. A. Chappell, chief assayer, Talisman Consolidated, Karangahake; (3) Mr. C. Ansley, member, Bewick, Moreing's staff, Avoca, Victoria; (4) Mr. D. Sheehan, mine-manager, Tairua Broken Hills Gold-mining Company (Limited); (5) Mr. J. C. Maynard, assistant engineer, irrigation-works, Johannesburg; (6) Mr. Tasman Hogg, battery-superintendent, Gladstone Gold-mining Company (Limited), Waihi; (7) Mr. Bain Hogg, battery-superintendent, Mildura, Western Australia; (8) Mr. Frederick Cordes, sampler and assayer, Western Africa; (9) Mr. John Christie, assistant assayer, Talisman Consolidated, Karangahake.

In the four years that the school has been in operation 106 class certificates in all have been awarded, and in the first three years, eighteen first-class mine and battery-superintendents' certificates have been obtained; two other students have to pass in one subject only. There have been no failures in the mine-managers, and but two in the battery-superintendents' examinations. Added to which, one student has been successful in obtaining His Majesty's Customs Certificate in bullion-assaying, and another has been granted a second-class stationary-engine driver's certificate.

Electrical Classes. By the kindness of the Thames and Waihi Schools of Mines we were fortunate enough to obtain the services of Mr. Wright as instructor, and the class opened with thirteen students. The balance of electrical appliances ordered from Home should shortly arrive and be the means of adding to the interest already shown.

Auckland School of Mines. The Council notes with pleasure that a school has been formed in Auckland, which should be of great benefit to students at this end of the Island, and hopes to see the day when entrance to the course in mining engineering may also be obtained through the schools of mines, without having first of all to pass a Matriculation Examination.

Conference of Directors. Several suggestions have been forwarded to the Government by the respective directors of schools in this district, amongst them being a recommendation to reduce the number of marks to 70 per cent. in each, or an average of 75 per cent, in all subjects for a scholarship examination; and, secondly, that each school should teach from the same text-books, so as to arrive at a uniform syllabus. The Government adopted the local school's standard in marking for class certificates—viz., 70 per cent, or over for first-class, 55 per cent, or over for second-class, and 40 per cent, or over for third-class.

Installation of Gas. During the year gas has been installed throughout the school, making a great improvement.

In conclusion, the Council feels that too much cannot be said in favour of the work of the Director, Mr. Macduff, and the members feel that much of the

success that has been obtained is due to the individual interest he takes in each student.<sup>55</sup>

#### KARANGAHAKE SCHOOL OF MINES.

The Director, Mr. R. B. McDuff, reports as follows : — I have the honour of submitting the following report on the Karangahake School **for the year ending the 31st March, 1906 [1905]**.

**Attendance.** During the year a marked increase took place in the number of students, the average number being thirty-eight registered students. But in the last term, 1905, forty-eight students were on the roll. This attendance is being maintained.

**Examinations.** At the annual examinations held in December last sixteen first-class, fourteen second-class, and three third-class certificates were obtained by students of this school. In all, thirty-four papers were handed in, and the average marks per paper were 67.76 per cent., or only 2.25 per cent, below first class. This average is the highest on record.

**Laboratory.** A fair amount of public assays and analyses were carried out during the year, they being chiefly for gold and silver; but some were for iron, phosphorus, and zinc. Some coal and oil-shale were also analysed.

**Extension Classes.** In July last year I commenced giving a lecture on metallurgy and on mathematics once a week at Waikino. These classes were so well patronised that the Council asked the Hon. the Minister of Mines to grant a subsidy for the erection of a school at Waikino. The Hon. the Minister, ever ready to assist an educational movement, at once granted the request, and I am pleased to state that the school will be ready to commence operations at the beginning of our third term — 9th September, 1906. It is intended to depart from the ordinary course at Waikino and offer a two-years' course in mathematics, assaying, chemistry, mechanical drawing, metallurgy of gold, silver, copper, lead and zinc (including electro-metallurgy), and electricity. It is believed that such a course, assisted by the excellent environment, will enable the school to turn out students capable of upholding the good record of New Zealand metallurgists and the fame of the renowned Waihi Gold-mining Company, whose reduction-works are situated at Waikino.

**Syllabus.** The syllabus has been somewhat extended to meet the needs of advanced students, and comprises instruction in mining, mathematics, surveying, assaying, chemistry, mechanical drawing, survey map-drawing, geology, mineralogy, metallurgy, metallurgical chemistry, and electricity...

...The annual meeting of subscribers was held on the 12th March, 1906, when the following committee was elected for the ensuing year: Patron, Hugh Poland, M.H.R.; President, H. E. Phillips, Esq.; Vice-presidents, C. H. Tresize, Esq., G. N. McGruer, Esq., H. Croucher, Esq. Council—Messrs. H. W. Guthrie, R. Inglis, J. Nodwell, G. A. Chappell, H. Rochfort, J. Rawlinson, H. Macdonald, and R. R. Lloyd (Secretary). In conclusion, I must heartily thank

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<sup>55</sup> <https://paperspast.natlib.govt.nz/parliamentary/AJHR1905-I.2.1.4.3>

THE GOLDFIELDS OF NEW ZEALAND: REPORT ON ROADS, WATER-RACES, MINING MACHINERY, AND OTHER WORKS IN CONNECTION WITH MINING., Appendix to the Journals of the House of Representatives, 1905 Session I, C-03

all gentlemen who were so kind as to donate books, papers, and specimens to the school; and to the Council for their hearty co-operation in all movements for the welfare of the school.<sup>56</sup>

Mr. R. B. Macduff, Director of the Karangahake School of Mines

to the Under-Secretary, Mines Department, Wellington. Sir, — Karangahake. I have the honour to report as follows on the work done at the Karangahake School of Mines **for the year 1906**:—

**Attendance.** It gives me great pleasure to report that the attendance has improved considerably during the year, averaging forty-two students, and having fifty-nine students on the roll during the second term. This is the highest average attendance yet reached for this school.

**Examinations.** At the annual examinations, held in January and December last, students of this school secured one first-class mine-manager's certificate, one battery-superintendent's certificate, and sixteen first-class certificates in the class examinations. Beside the above, four students passed the examination for engine-drivers' certificates for winding, while another student passed the first-class stationary-engine-driver's examination.

**Laboratory.** Owing to the Council's decision to do free assays for prospectors, no less than 196 assays were made during the year, in addition to a number of assays which were paid for. While the free assays are a boon to prospectors, some scheme of restricting the assays to such will have to be evolved, as I have had samples of South Island quartz handed in by prospectors as being obtained in the Ohinemuri County. Again, the prospectors themselves are often very inconsiderate, and send samples in by tens. Under the above conditions the teaching of assaying to the students must be materially affected; one cannot do assays and teach at the same time.

**Improvements.** During the year a storeroom 16 ft. by 12 ft. has been erected, a Y level ordered, also a staff, and an experimental dynamo is now about to be installed. These latter items were obtained mainly from a special grant of £2 for £1 from the Hon. the Minister of Mines, to whom the Council extend their best thanks.

**Waikino School of Mines.** The branch school at Waikino is completed, and is ready to open at the beginning of 1907. In this school it is intended to devote the time chiefly to the study of assaying, chemistry, mathematics, and metallurgy, especially with a view to training students for the battery-superintendents' examination. The school will be kept open full time.

**Assistant.** The work of teaching so many different subjects last year became too much for me, and the Council appointed one of my students—Mr. C. Harsant—to act as temporary assistant. In December this appointment was made permanent, and the two schools will be now kept open full time.

**Conclusion.** In conclusion, I extend my thanks to the Hon. the Minister of Mines, and to the Secretary, Mining Bureau, for numerous periodicals relating

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<sup>56</sup> <https://paperspast.natlib.govt.nz/parliamentary/AJHR1906-II.2.1.4.5>

THE GOLDFIELDS OF NEW ZEALAND: REPORT ON ROADS, WATER-RACES, MINING MACHINERY, AND OTHER WORKS IN CONNECTION WITH MINING., Appendix to the Journals of the House of Representatives, 1906 Session II, C-03

to mining and metallurgy, and also to all gentlemen who have given papers and specimens to the institution.

R. B. Macduff, Director.<sup>57</sup>

Mr. R. R. Lloyd, Secretary to the Karangahake School of Mines

to the Under-Secretary, Mines Department, Wellington. Sir, — Karangahake, 4th March, 1908. It affords the Council great pleasure to present this, the ninth, annual report on the work done and the results obtained by the Karangahake School and Waikino School **for the year ending 31st December, 1907.**

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Attendance. The attendance for the year has remained about the same as the previous year. The average attendance per term was forty-one, taking an average of eighty-two classes, or two classes per student.

Examinations. At the annual examinations for mine and battery managers, held in January, 1907, two students sat for mine-managers, and both failed. One sat to complete as battery-manager and passed, having secured a partial pass the previous year. At the class examinations held in December last, fourteen students presented themselves, obtaining the following certificates: ten first, thirteen second, and thirteen third. In the practical examinations thirteen first-class certificates were obtained at Karangahake and two at Waikino. Three students also qualified for Customs certificates as bullion-assayers. The gold medal so generously donated by the President, Mr. C. H. Tresize, for the highest aggregate in four subjects was won by C. A. McCombie, who obtained an average of 70.4 per cent, in four subjects; W. Smith was second with 68.75 per cent. in four subjects. This scholar headed the list in these four subjects for the whole of the northern schools.

Electrical Class. This class has not been at all satisfactory during the year, owing to it being without an instructor for a great portion of the time, but with the installation of the dynamo, storage batteries, and additional apparatus, together with the services of Mr. H. Dodson, late of Ramsgate College and Hiram Maxim Laboratory, there is no doubt that the class will prove a success this year.

Additions, etc. During the year a dynamo and petrol-engine were imported from England, the installation of which is nearing completion. A 15-in. Y level and staff were imported from Messrs. W. and E. Gurley, New York. This is a splendid instrument, and will be a great boon to the surveying class, as also will the prismatic compass and Abney level procured for the same class.

The Hon. the Minister of Mines granted a subsidy of £2 to £1 up to an expenditure of £150 to procure the above, together with other appliances required for the schools.

There were also a number of useful works added to the library.

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<sup>57</sup> <https://paperspast.natlib.govt.nz/parliamentary/AJHR1907-I.2.2.2.7>

THE GOLDFIELDS OF NEW ZEALAND: REPORT ON MINES, ROADS, WATER-RACES, AND OTHER WORKS IN CONNECTION WITH METALLIFEROUS MINING., Appendix to the Journals of the House of Representatives, 1907 Session I, C-03

Branch School at Waikino. This was opened in the new building at the beginning of the year, and the attendance has certainly warranted this step. The classes have been under the control of Mr. Gibson, A.O.S.M., for the last six months.

School Scholarship. No student qualified for this during the year.

Auckland School. The Council view with pleasure the proposed erection of a mining school in connection with the Auckland University, and hope that some satisfactory arrangement will be arrived at whereby students from the goldfield schools can pursue their studies and take a degree without having to study dead languages.

Financial. The statement of accounts shows the total receipts for the year to have been £875 0s. 2d., whilst the expenditure was £834 1s. 10d., leaving a credit balance of £40 18s. 4d.

Thanks. The Council desires to thank the Hon. James McGowan, Minister of Mines, for his liberal assistance during the year; the Ohinemuri County Council and others, for donations; Mr. T. E. Ballard, for honorary services in auditing the books of the institution; and Mr. C. Banks, for conducting the drawing classes at Waikino.

General. The Council wish to put on record the appreciation of the work done by the Director and assistant during the year, and also to thank those gentlemen whose donations from year to year have helped the school to its present forward position.

I have, &c, R. R. Lloyd, Secretary.<sup>58</sup>

Mr. F. W. Reid, A.O.S.M., Director of the Karangahake School of Mines

to the Under-Secretary, Mines Department, Wellington. Sir, — Karangahake, 17th April, 1909. I have the honour to submit the following report on the work of the Karangahake School of Mines, and of the branch school at Waikino, **for the year ending 31st December, 1908**: —

As it was in September of last year that I was appointed Director, my information relating to the earlier portion of the period under review is drawn entirely from the school records.

Attendance. —The average number of individual students in attendance for the three terms of the year was forty-four, with a class attendance of ninety. The fact that mining operations at Karangahake were less active than usual during the latter portion of the year militated against the attendance, and was also largely responsible for the comparatively low results obtained at the annual examinations.

Classes. —The number of classes in operation was eight at Karangahake and six at Waikino.

Examinations. —At the annual examinations, held in December, 10 students presented themselves at Karangahake, the passes obtained being 2 second-class and 5 third-class. At Waikino 13 students presented themselves for

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<sup>58</sup> <https://paperspast.natlib.govt.nz/parliamentary/AJHR1908-I.2.2.2.5>

THE GOLDFIELDS OF NEW ZEALAND. (REPORT ON), Appendix to the Journals of the House of Representatives, 1908 Session I, C-03

examination, and obtained 5 first-class, 2 second-class, and 5 third-class certificates. At the examination in bullion-assaying 1 student at Karangahake and 2 at Waikino qualified for the certificate issued by the Customs Department. At the annual examinations for mine-managers, held during March, 1909, one student, Mr. Walter Smith, of the Talisman Mine, succeeded in obtaining a first-class certificate of competency as a mine-manager.

Another student obtained a second-class stationary-engine driver's certificate.

Library. —During the year some valuable additions were made to the library of each school by the purchase of standard works. The leading mining and metallurgical magazines are also regularly obtained, and by the courtesy of the Hon. the Minister of Mines the various publications of the Department are made available for the use of students. In this connection I desire to make special mention of the excellent articles in the Mines Record, which are very helpful and instructive.

Equipment. —The equipment of the schools in respect of apparatus and instruments is fairly good, especially in connection with the surveying classes. The class in electricity has been considerably handicapped owing to the oil-engine for driving the dynamo not proving suitable. A Pelton wheel is now being installed, and will doubtless permit of more systematic work being carried out. Assays. —During the year a large number of assays were made for the public, those for bona fide prospectors being free of charge.

Conclusion. —I desire to express my thanks to the Council and the secretary for their generous support since my arrival, and my appreciation of the excellent work done by Mr. W. Gibson, B.E., at Waikino, as well as by the other members of the teaching staff.

I have, &c, F. W. Reid, Director.<sup>59</sup>

Mr. F. W. Reid, Director of the Karangahake School of Mines

to the Under-Secretary, Mines Department, Wellington. Sir, — Karangahake, 30th April, 1910. I have the honour to present the following report upon the work of the Karangahake School of Mines and the branch school at Waikino **for the year ended 31st December, 1909.**

Attendance. —The average number of individual students in attendance for the three terms of the year was forty-five, with a class attendance of eighty-seven. There were nine classes in operation at each centre.

Examinations. —At the annual examinations 15 students presented themselves at Karangahake and 13 at Waikino. The passes obtained were 5 first class, 16 second class, and 12 third class, in addition to 20 passes in the practical examinations.

Prizes. —The President's medal, presented by Mr. J. Nodwell for competition at Karangahake, was awarded to Mr. G. Hyde. At Waikino the mathematics prize, presented by the Waihi Students' Association, was won by Mr. S. Fuller, and Mr. L. Wilson secured the Council's prize for drawing and mathematics.

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<sup>59</sup> <https://paperspast.natlib.govt.nz/parliamentary/AJHR1909-II.2.2.2.6>

THE GOLDFIELDS OF NEW ZEALAND (REPORT ON)., Appendix to the Journals of the House of Representatives, 1909 Session II, C-03

Equipment. —The Pelton wheel installed for driving the dynamo has given entire satisfaction, and greatly facilitated the work of the electrical class. The assay furnace was rebuilt, and several minor improvements carried out. At Waikino an additional room to serve as laboratory for wet assaying is now in course of erection.

Library. —The students largely availed themselves of the standard works supplied by the Department for their use. These books are a decided acquisition to the library. The Department might with advantage include a few works on the metallurgical treatment of ores, in which most of the students at Waikino are interested. There can be no doubt that this is as integral a part of the mining industry as the exploitation of the mines themselves.

Mineral Collection. —This has been increased by addition of specimens from various sources, but chiefly by a representative collection of Tasmanian ores kindly forwarded by Mr. D. V. Allen, Director Zeehan School of Mines.

Assays. —A large number of assays were made for prospectors and tributers, in the former case free of charge.

Staff. —Mr. C. Banks resigned from the instructorship in drawing at Waikino, his place being taken by Mr. S. Fraser.

I have again to record my appreciation of the zealous work done by the members of the teaching staff, and to express my thanks to the Council and secretary for their assistance and support.

I have, &c, F. W. Reid, Director.<sup>60</sup>

Mr. F. W. Reid, Director of the Karangahake School of Mines

to the Under-Secretary, Mines Department, Wellington. Sir, — Karangahake, 1st April, 1911. I have the honour to present my report upon the work of the Karangahake School of Mines and of the branch school at Waikino **for the year ended 31st December, 1910.**

Attendance. —The average number of students in attendance for the three terms of the year was 47.6, with an average class enrolment of 89. There were nine classes in operation at Karangahake and six at Waikino.

Examinations. —At the annual examinations held in December, 14 candidates presented themselves at Karangahake. Eleven passes were obtained in the practical and 27 in the written examinations, the latter being distributed in the three grades as follows: First class, 12; second class, 10; third class, 5. At Waikino 9 students sat for examination, the results being: practical work, 4 passes; written examinations, 3 first-class, 1 second-class, and 3 third-class passes. Karangahake headed the list in six of the subjects of examination, and Waikino was equal with Waihi for top place in one subject.

The following students completed the examinations entitling them to H.M. Customs certificate for bullion-assaying, viz.: T. R. Hogg, H. T. Harman, and W. J. Mayberry.

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<sup>60</sup> <https://paperspast.natlib.govt.nz/parliamentary/AJHR1910-I.2.1.4.9>

THE GOLDFIELDS OF NEW ZEALAND (REPORT ON)., Appendix to the Journals of the House of Representatives, 1910 Session I, C-03

Prizes. —A prize presented by Mr. D. M. Deane (ex-President of Council) was awarded to G. Hyde, and one presented by Mr. W. Wilson (President of Council) to F. Smale.

Scholarships. —The Council of the School of Mines is now offering two scholarships annually, open for competition to boys attending the public schools of the district. At the examination held in December for the purpose of awarding these scholarships, 9 candidates presented themselves, the successful ones being A. Connelly and R. Morrison.

Equipment. —Additions to the Waikino school, completed early in the year, greatly facilitated the work in practical chemistry and wet assaying. An assay-balance and other apparatus were purchased during the year. Additional electrical apparatus is now on order, and will serve to remove a disability under which the classes in electricity have been labouring. Several standard volumes have been added to the library.

Assays. —During the year 67 assays were made for prospectors and others.

Conclusion. —I desire to express my appreciation of the conscientious work done by the members of the teaching staff, and of the unfailing interest and support of the Council of the school. I have, &c, F. W. Reid, Director.<sup>61</sup>

Mr. W. Gibson, B.E., Director of the Karangahake School of Mines

to the Under-Secretary, Mines Department, Wellington. Sir, Karangahake, 5th March, 1912. I have the honour to present my report upon the work of the Karangahake School of Mines **for the year ended the 31st December, 1911.**

The attendance at the main school showed the number of students to be as follows: First term, 31; second term, 29; third term, 26. The class-attendance was 53 for eight classes, 59 for nine classes, and 51 for nine classes in the successive terms. This shows an average of nearly two classes per student. The attendance of students, with one or two exceptions, was very regular. The regular students showed up most prominently in the annual examinations.

Annual Examinations. —The students of this school did very satisfactory work, as is shown by the certificates gained, which are sixteen first-class, six second-class, and four third-class. The school topped the list in senior practical chemistry, junior dry assaying, senior wet assaying, junior wet assaying, surveying, junior mathematics, and drawing. In the practical examinations the results obtained were: three passed in bullion assaying, one in senior dry assaying, one in junior dry assaying, one in senior wet assaying. Two students, Messrs. G. Hyde and F. Small, are entitled to receive H.M. Customs certificates for bullion assaying. The President's (Mr. K. M. Barrance) prize was won by Mr. G. Hyde, with the highest aggregate in three classes, and the Council's two prizes for the highest aggregate in two classes were won by Messrs. John Shore and A. McLean.

The total number of gold and silver assays put through during the year was 127, of which four were done free of charge for prospectors.

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<sup>61</sup> <https://paperspast.natlib.govt.nz/parliamentary/AJHR1911-I.2.2.3.17>

THE GOLDFIELDS OF NEW ZEALAND (REPORT ON)., Appendix to the Journals of the House of Representatives, 1911 Session I, C-03

In conclusion, I have to thank the members of the Council for their unremitting interest in the school's welfare, and their efforts to make it attractive to students. I have also to thank Messrs. B. C. Hurdsfield, A.M.B., Assistant Director, and H. C. Tempest, electrical instructor, for the zeal and ability they have displayed in their work.

I have, &c, W. Gibson, Director.<sup>62</sup>

Karangahake School of Mines. —

Annual Meeting, 5th March, 1913 [**report for 1912**].

The annual meeting of the Karangahake School of Mines was held on Wednesday, 5th March. In the absence of the patron (Mr. H. Poland, M.P.), Mr. Barrance was voted to the chair.

The report and balance-sheet were read and adopted. The report showed the attendance to be lower than usual, owing to the Waihi strike having greatly affected the attendance at the Waikino branch school. The average number of students was twenty-seven, and the average of attendance was fifty-two.

At the annual examinations held in December fifteen students sat and obtained fourteen first-, four second-, and nine third-class certificates. Two students also passed in the practical examination. Mr. G. E. Hyde was successful in obtaining one of the New Zealand Government scholarships, and an ex-student of the school (Mr. A. H. McClean) also gained a scholarship. Mr. Hyde had an excellent average of 81 per cent, in six subjects. The Council's prizes were won by G. E. Hyde and J. McDonald, and Mr. Hurdsfield's prize was won by Mr. C. Jenkins. The students were top in no less than eight subjects, and Mr. R. Connolly deserves special mention for obtaining 100 per cent, in senior electricity.

During the year eighty-one public assays, mainly of gold, were put through. This includes a number of prospectors' samples, which, if obtained in this county, are done free.

The scholarships offered by the Council to boys of public schools were won by R. Seally and J. Short; one student also obtained his winder's certificate.

During the year several standard works have been added to the library.

The statement of accounts showed the total receipts for the year as £872 8s. 2d.; and the expenditure £591 4s. 2d., leaving a credit balance of £281 4s.

The Chairman, in a few well-chosen remarks, presented the certificates and prizes.

The election of officers for the year resulted as follows: Patron, H. Poland, Esq., M.P.; president, Mr. W. T. S. Wilson; vice-presidents, Messrs. H. Hyde, T. Hogg, and H. Croucher; Councillors, Messrs. Lewin, J. Tait, E. Patten, P. Moran, R. R. Lloyd, R. L. Birks, and Jolly.

The Council desire to thank the Mines Department, Ohinemuri County Council, Waihi Borough Council, and others for assistance and donations, also Mr. J. E. Redpath for honorary services as auditor.<sup>63</sup>

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<sup>62</sup> <https://paperspast.natlib.govt.nz/parliamentary/AJHR1912-II.2.2.2.7>

MINES STATEMENT, BY THE HON. JAMES COLVIN, MINISTER OF MINES., Appendix to the Journals of the House of Representatives, 1912 Session II, C-02

Karangahake School of Mines. —

Mr. W. Gibson, B.E., A.O.S.M., Director of the Karangahake School of Mines, to the Under-Secretary of Mines, Wellington. Sir — Karangahake, 12th March, 1914. I have the honour to present my report of work done at Karangahake School of Mines **during the year 1913.**

The average number of students for each term was thirty-four, and the class attendance was sixty-eight. The Waikino branch did not show any increase, and as prospects are not in any way improved the expense of maintaining the school does not warrant the retaining of the Assistant Director's services on full time.

Examinations.— At the annual December examinations thirteen students presented themselves, and sent in thirty-four papers in the written work, obtaining eleven first-class passes, eight second-class passes, and six third-class, a very satisfactory result considering the broken attendance occasioned by the Huntly strike during the third term. One student, F. E. Smale, qualified for four subjects of the scholarship, and E. D. White, another student, is now entitled to the bullion-assayer's certificate issued by the Department of Trade and Customs. In the practical examinations, there was only one failure, and passes were three in senior chemistry, one in junior chemistry, one in senior wet assaying, and one in junior dry assaying. The president's medal was won by F. E. Smale, and the Council's prizes by E. D. White for chemistry, J. C H McDonald for mathematics and drawing, and S. Shore for junior subjects. All the candidates presented for the winder's electrical examination were successful.

Equipment.— Early in the year the electrical laboratory was enlarged and new apparatus added. These changes have been much appreciated by the lecturer and students, the latter having now increased room and apparatus for carrying on their practical work. More apparatus is on order, and should be to hand at any time.

Conference.— In September, by the courtesy of the Hon. the Minister of Mines, a conference with the Board of Examiners was held at Wellington. The proposals by which it was hoped the status of schools of mines would be raised were, unfortunately, not agreed to by the majority of the delegates.

Library.— The thanks of the staff and the students are due to the Mines Department for the further provision to the lending library of up-to-date works in mining subjects. Additions have also been kindly made by the Council.

I have to acknowledge with thanks the receipt of twenty typical New Zealand fossils from the Geological Survey, and also some splendid representative specimens of Broken Hill district from Mr. H. Marshall, of Karangahake. I wish to express also my hearty appreciation of the zeal and enthusiasm displayed by the members of the staff, and also of the co-operation of the

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<sup>63</sup> <https://paperspast.natlib.govt.nz/parliamentary/AJHR1913-I.2.3.2.12/1>

MINES STATEMENT, BY THE HON. W. FRASER, MINISTER OF MINES., Appendix to the Journals of the House of Representatives, 1913 Session I, C-02

## Appendices

Council in all matters pertaining to the progress of the school. I have, &c, Wm. Gibson, Director.<sup>64</sup>

### Karangahake School of Mines

Mr. W. A. Given, M.A., Director of the Karangahake School of Mines, to the Under-Secretary, Mines Department, Wellington. Sir, — Karangahake, 17th February, 1915.

I have the honour to present my report on the Work of the Karangahake School of Mines **for the year ended the 31st December, 1914.**

Attendance. —The average attendance for the year was twenty-one, and the class attendance forty-eight.

Annual Examinations. —Thirteen students presented themselves at the annual examinations, and obtained eighteen first-class, seven second-class, and four third-class certificates. F. Smale obtained the Government scholarship, having passed his final section. In the practical examinations there were six passes and one failure. The Council's prize for dry assaying and mathematics was won by L. Prendergast. Mr. Cassels-Brown's prize for electricity and mathematics was won by T. Hassett, whilst the prize for the most persevering student was won by E. D. White.

School Library. —The books kindly supplied by the Mines Department are of great use to both students and staff.

Lecture.— In connection with a very successful open night held during the year, my thanks are due to the Government Tourist Department for the loan of a number of splendid geological slides. My thanks are due also to the Director of the Waihi School of Mines for assistance rendered in the same connection.

Laboratory. —In all seventy-eight public assays were put through during the year.

In conclusion, I wish to express my appreciation of the work done by Messrs. E. C. Hindsfield, A.S.M.B., Assistant Director, and H. C. Tempest, electrical instructor, and Master T. Hassett, laboratory assistant. I wish also to thank the school Council for the interest they have taken in the school's welfare, and for the consideration they have shown to me personally. I have, &c, W. A. Given, Director.<sup>65</sup>

No report from Karangahake for 1915.

### Karangahake School of Mines

Mr. W. A. Given, M.A., A.O.S.M., Director of the Karangahake School of Mines, to the Under-Secretary of Mines, Wellington. Sir, — Karangahake, 12th March, 1917.

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<sup>64</sup> <https://paperspast.natlib.govt.nz/parliamentary/AJHR1914-I.2.1.4.10>

MINES STATEMENT, BY THE HON. W. FRASER, MINISTER OF MINES., Appendix to the Journals of the House of Representatives, 1914 Session I, C-02

<sup>65</sup> <https://paperspast.natlib.govt.nz/parliamentary/AJHR1915-I.2.1.4.5>

MINES STATEMENT, BY THE HON. W. D. S. MacDONALD, MINISTER OF MINES., Appendix to the Journals of the House of Representatives, 1915 Session I, C-02

I have the honour to present my report on the work done at the above school of mines **for the year ended December, 1916.**

Attendance. —Twenty students in all attended the school during the year, and instruction was given in all the school subjects. Notwithstanding the fact that several of our best and most promising students had enlisted for active service, the work done at the school compared favourably with that of previous years.

Examinations. —Ten students sat at the annual examinations, obtaining eleven first-class, six second-class, and three third-class passes. Three students sat for the examination for battery superintendents, at which examination one student was successful, while one obtained a partial pass, having failed in one subject only.

Open Nights. —Two open nights were held during the year, one at Karangahake and one at Waikino. Short illustrated lectures were given by Mr. H. C. Tempest, electrical instructor, and myself, on "Electricity in respect to the War" and "Chlorine Gas" respectively. These lectures were well attended, and our efforts were thoroughly appreciated.

School Equipment. —A late-pattern Braun pulverizer and a 2 horse-power Fairbanks-Morse oil-engine were recently installed in the assay department. The laying of the foundation and the setting-up of this plant were done by the voluntary efforts of the Council members themselves. During the year a large specimen-case was added to the geological-museum equipment, in order to hold a number of specimens kindly presented during the past few years.

Public Assays. —In all 117 public assays were made during the year, a decided increase on the last few years. A number of mineral determinations were also made.

In conclusion, I desire to express my appreciation of the work done by the other members of the staff; also of the keen and active interest taken in the school affairs by the members of the Council. I have, &c, W. A. Given, Director.<sup>66</sup>

No further reports found.

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<sup>66</sup> <https://paperspast.natlib.govt.nz/parliamentary/AJHR1917-I.2.1.4.3>

MINES STATEMENT BY THE HON. W. D. S. MacDONALD, MINISTER OF MINES., Appendix to the Journals of the House of Representatives, 1917 Session I, C-02