

THE PIAKO COUNTY TRAMWAY AT WAIORONGOMAI

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Abstract: *This tramway, the main engineering feature of the goldfield, was difficult and expensive both to construct and to maintain, but without it mining was impossible. Involving three inclines and three levels, with a short trestle joining it to the battery, it served most of the mines, most of which were above it and linked by chutes or short tramways. It was neither cheap nor easy to operate, partly because of the topography and the weather.*

To construct it required much more financial assistance from the county council and the government than originally envisaged. Surveying the route took five months, and construction was prolonged as the cost escalated. Once in use it was found to need modifications and over the years many repairs were required. Miners claimed its charges were exorbitant, and because of the high cost of running it some wanted it leased, which did happen for a time. Whatever form of ownership and whoever was the tramway manager, it was never cheap to run and complaints about costs continued; and government financial assistance was obtained periodically, and reluctantly.

After the First World War, the county was convinced to retain the rails and even to make more repairs, but the latter ceased after 1924 and the line was abandoned and became unusable. Not even the minor revival of mining during the Depression convinced local or central government to repair it, and in the early 1940s many rails were stolen.

There were many accidents during its operation, but only one fatality.

INTRODUCTION¹

Josiah Clifton Firth, whose Battery Company was a major beneficiary of the Piako County tramway,² described it as ‘one of the most difficult engineering feats which had ever been projected in this part of the colony’ and ‘one of the greatest engineering works which had ever been carried out in the island’.³ The *Te Aroha News* called it as ‘one of the biggest undertakings of its kind in New Zealand’.⁴ It was the main engineering feature of the goldfield. Its construction, a contemporary account enthused, meant overcoming ‘almost overwhelming difficulties.... So great were the

¹ For plans and photographs of tramway, see Appendix.

² See paper on the Battery Company.

³ *Waikato Times*, 18 August 1883, p. 2, 11 October 1883, p. 2.

⁴ *Te Aroha News*, 15 September 1883, p. 2.

obstacles met with in forming the permanent way on the side of a nearly perpendicular spur that it is a matter for surprise that so great a work was ever attempted'. As some of the ballast had come from the mines, this same account considered that it might, 'with some degree of truth, be asserted that the Te Aroha tramroad is paved with gold, the writer having picked stone out of the same in which gold could be seen'.⁵

In active use for nearly 40 years before being abandoned, it would have been reused had mining revived. Its history revealed the difficulties of constructing capital works in such rugged terrain, subject to bad weather that regularly caused damage and consequent expense. As mining declined and the finances of the district depended on agriculture, there was pressure to spend money more productively rather than on a failed goldfield. But if the line was abandoned, the goldfield must end, for small local syndicates doing most of the mining lacked the funds needed either to restore it or to replace it with aerial tramways. Consequently, financial subsidies were extracted from an unwilling local body and a rather more willing Mines Department in the hope that good gold would be found. With only one battery operating, public money was seen as mainly benefiting the private interests of its owners, creating concern about the influence of Firth in particular, who was seen as controlling the goldfield through owning the battery and, by 1887, most of the mines. Opposition to Josiah Clifton Firth created personal animus to his battery manager and, for a time, tramway manager, Henry Hopper Adams,⁶ who was blamed for the bad construction and expensive running costs, even though he had not designed the line.

HOW THE TRAMWAY OPERATED

The first description by the Inspecting Engineer of the Mines Department, Henry Andrew Gordon, was written in March 1883. (He sent plans and specifications, which were passed on to the Public Works Department but destroyed in the Hope Gibbons fire of 1959.) From the battery terminus, the Fern Spur incline,

12 chains in length, has a grade of 1 in 2, which is intended to be used as a self-acting line, having a drum and brake at the head of

⁵ *Brett's Auckland Almanac, Provincial Handbook, and Strangers' Vade Mecum for 1884*, ed. Thomas W. Leys (Auckland, 1884), p. 120.

⁶ See paper on his life.

incline; from this point the line is carried on such grades as a Locomotive Engine can be used for 63 chains, from thence commences another incline [on Butler's Spur] 18 chains in length, having various grades the worst of which is 1 in 2. This incline is likewise to be made self acting having a drum and brake at the head; from this point, there is a horse tramway going 12 chains to the Southward, and 53 chains to the Northward, on a grade of 1 in 34; from the end of the latter there is another self acting incline [the May Queen] 24 chains in length, which brings the tramway up to such a height, that the whole of the mines on the mountain can be connected with it. The total length of tramway is 2 miles 22 chains, and I estimate the cost of same including trucks (36 in number), ropes, drums etc. to be £11,000.

He concluded that it would 'give great facilities for developing the mines, and in getting the quartz brought to the crushing batteries at a low rate of carriage'. It would make the field 'a payable one, even if the quartz is of a very poor quality', and with 'a good crushing plant' would 'give such an impetus to mining' that the mines would be 'well tested'.⁷

The tramway attained a height of 1,420 feet above the battery, and the horse-grades, according to the warden, Harry Kenrick,⁸ writing one month later, were 65, 63, and 49 chains long.⁹ A newspaper reported the first and last horse grades as being 1 in 45 and the middle one 1 in 200; one of Firth's sons said the steepest one was 1 in 30 and the radius of the sharpest curve was 66 feet.¹⁰ The three inclines had an approximate gradient of 1 in 3, and were designed to take three trucks at a time.¹¹ As most claims were higher than the line, it was intended to link them with either ore chutes or aerial tramways.¹² The gauge was 2 feet 9 inches, and most of the iron rails were 40 pounds per yard in weight, with some on Fern Spur and the top level

⁷ H.A. Gordon to Under-Secretary, Mines Department, 13 March 1883, Mines Department, MD 1, 07/1014, ANZ-W.

⁸ See paper on his life.

⁹ Harry Kenrick to Under-Secretary, Gold Fields, 19 April 1883, *AJHR*, 1883, H-5, p. 15.

¹⁰ *Thames Star*, 24 February 1883, p. 6; William Thornton Firth to Prescott, Scott and Company, San Francisco, 24 April 1883, W.T. Firth Letterbook 1883-1900, MSC 19, Hamilton Public Library.

¹¹ *Waikato Times*, 3 June 1882, p. 2; Helen McCracken, *Piako County Tramway: A history* (Tauranga, 1995), p. 5.

¹² Harry Kenrick to Under-Secretary, Gold Fields, 19 April 1883, *AJHR*, 1883, H-5, p. 15.

being 24 pound ones.¹³ According to an inspection made in 1918, all the rails to the foot of the May Queen incline were 40 pound ones, while those on the incline and on to the end of the line were 30 pound ones.¹⁴ Being made of wrought iron, the rails lasted in ‘unusually good condition’ for more than a century.¹⁵ They were linked by Ibbotson Joints, invented by Albert B. Ibbotson of Florence, Italy, and Frederick J. Talbot, of Sheffield, England, and granted an American patent, US 190863A, in May 1877.¹⁶ These joints gave ‘a great deal of extra strength to the rail join’, but being ‘fiddly to fit, frustrating to keep in place and frequently didn’t work’ they were ‘a rare feature’ in New Zealand.¹⁷ The heaviest load that could be drawn uphill was estimated to be 15 tons, and the heaviest that could be taken down was estimated at 35 tons.¹⁸

John Samuel Hill was tramway manager from 1902 to 1904 and from 1909 to 1916.¹⁹ In interviews made in 1975, two of his sons recalled how the tramway was worked. To control the trucks on each incline, two men were needed. As there was a passing loop in the middle, they ‘had to be careful with the length of rope and the slack to make sure trucks pulled off the loop to pass’. At the terminus, trucks went across a 30-foot trestle, turned round over the battery hopper, and were emptied.²⁰ It was worked from the battery upwards.

¹³ H.A. Gordon to Under-Secretary, Gold Fields, 25 May 1883, *AJHR*, 1883, H-5, p. 1; J.F. Downey to Under-Secretary, Mines Department, 25 July 1932, Mines Department, MD 1, 21/2/4, ANZ-W.

¹⁴ Matthew Paul, Inspector of Mines, 25 July 1918, Mines Department, MD 1, 21/2/4, ANZ-W.

¹⁵ Warren Geraghty (Department of Conservation) to Philip Hart, 31 March 2008, email.

¹⁶ ‘Ibbotson Joints’, details of patent application and including plans of them, Google.

¹⁷ Department of Conservation information panel, n.d. (c. 2007); Warren Geraghty to Philip Hart, 31 March 2008, email.

¹⁸ William Thornton Firth to Prescott, Scott and Company, San Francisco, 24 April 1883, W.T. Firth Letterbook 1883-1900, MSC 19, Hamilton Public Library.

¹⁹ *Auckland Weekly News*, 6 November 1902, p. 22: Piako County Council; Piako County Council, Minutes of Meeting of 20 July 1904, Matamata-Piako District Council Archives, Te Aroha; Testimonial by R.S. Hanna, Piako County Clerk, 16 June 1916, J.S. Hill Papers, in possession of Eric Hill, Cambridge.

²⁰ Les and Russ Hill, interviewed by David Bettison, 13 June 1975.

Sufficient full trucks were left at the top of the [Fern Spur] incline the night before to bring up the empties at the battery site. One man went to the bottom and one to the top of the incline. The one below hooked on the empty and the one above the full. Normally one truck only was attached. The hawser at the top had to go over the top of the truck around the end and back to the hawser to stop the truck tipping. There had to be enough slack on the full truck before being sent off to get it to roll just to the brink of the incline. The top man put the rope around his waist to operate the brake, leaning his weight on the rope and pushing against a fixed post. A good speed was often worked up and at times two brakemen were needed. Runaway trucks were always a danger! The horse was with the top man and he pulled up to six empties up the centre flat [from Fern Spur to Butler's Incline] at a time. The bottom man walked up the incline to go with the horse as the top man took the top path to the head of [the second, or Butler's Spur, incline].

He stated that 'a hawser pulled the trucks over' the Army Creek bridge 'and through the tunnel', which was not mentioned by anyone else, and could only have operated while Hill was the manager.

The only danger was a runaway truck, as full trucks coming down the flat came down under gravity with a brakeman on the back. The brake on the trucks was a block between the two wheels moved upwards against the back wheels. The track on the second flat (above the second incline) was flat and both full and empty trucks were horse pulled - hence the stable....

About twenty or thirty trucks could be working on the line at once. Miners left the full trucks braked at loading bays beside the track. The tramway operators moved them onto the track.... If an empty rope came up the incline it was clear something was wrong!

Each truck was labeled so battery workers knew from which mine the ore came.²¹ The stable at the top of Butler's Incline incorporated a smithy, and another, 50 feet by 20, was at the foot of the May Queen incline; both housed two horses.²² When loaded trucks was taken to the top of the May Queen and Fern Spur inclines, a man rode 'on the rear buffer of the truck

²¹ Les Hill, interviewed by David Bettison, July 1975.

²² Edwin Henry Hardy, evidence to Warden's Court on 28 July 1908, Te Aroha Warden's Court, Mining Applications 1908, 13/1908, BBAV 11289/17a, ANZ-A.

with one foot upon the brake-lever to regulate the speed'.²³ Runaway trucks were a problem between Butler's Incline and Fern Spur, for trucks 'often' broke away and travelled 'along the line at a considerable speed for a distance of nearly 1/2 a mile before being pulled up'.²⁴

The self-acting grades or inclines were 'worked by means of two wires, revolving on drums'.²⁵ This made it possible for a single loaded truck with a gross weight of under two tons descending the longest one, Butler's Incline, to raise the steel rope weighing two and a half tons 'to which the empty truck leaving the bottom was attached. The two separate drums of wire rope fixed to a common shaft functioned as a differential windlass with the down cable initially having a considerable advantage over the up cable'.²⁶ When constructing this incline, Adams explained that

the drums round which the wire ropes are wound are only 2 1/2 feet in diameter to start with, but when the wire is all wound up the diameter is increased to 6 feet; the full trucks have therefore a power of raising more than their own weight in unwinding the rope from a 6 feet drum to winding one on a 2 1/2 drum.²⁷

As the trucks were side tipping they were 'a great improvement on those used on the Thames tramways. The body of the truck tips on three cast-iron pivots instead of [a] wooden axle. The trucks contain 32 cubic feet water measurement'.²⁸ Each truck could take one and a third tons, and the line was capable of taking 100 trucks down daily.²⁹ Being constructed to carry quartz and mining material, not passengers, there were no automatic safety catches or other methods of stopping runaway trucks.³⁰

²³ *Te Aroha News*, 23 June 1926, p.5.

²⁴ R.S. Hanna, County Clerk, to Minister in Charge of Public Works, 11 March 1910, Piako County Council, Letterbook 1908-1910, p. 650, Matamata-Piako District Council Archives, Te Aroha.

²⁵ *Thames Star*, 1 November 1882, p. 2.

²⁶ Explanation provided by Owen Wilkes, Department of Conservation archaeologist, Hamilton, May 2001.

²⁷ *Waikato Times*, 8 May 1883, p. 2.

²⁸ Waiorongomai Correspondent, *Thames Advertiser*, 17 July 1883, p. 2.

²⁹ Report of Tramway Committee, printed in *Waikato Times*, 11 October 1883, p. 2; George Wilson to Under-Secretary, Department of Mines, 8 April 1884, *AJHR*, 1884, H-9, p. 21.

³⁰ Editorial, *Te Aroha News*, 7 December 1889, p. 2.

Other features were two tunnels. The highest curved through a small ridge on the northern side of Canadian Gully. The longest, near the foot of Butler's Spur, and also curved, was driven 200 feet through unstable ground, requiring 69 sets of timber; it was 12 feet by 8.³¹ The main bridge was across Army Creek, about one chain high, 114 feet long, and curved.³² At the terminus was a blacksmith's shop.³³

COSTS OF CONSTRUCTION AND OPERATION

The rugged topography coupled with technical difficulties meant that the tramway was expensive to construct, operate, and maintain. The original estimate of the cost of construction, £8,685 12s 6d, was soon revised to £14,000.³⁴ The final cost of £18,647 14s 5d included rolling stock; the government provided £12,000 and rails worth £1,014.³⁵ The grant was twice the amount originally intended.³⁶ When costs were first calculated, the county council had only £1,600 available, but as five or six mining companies each offered £800, it hoped that these contributions plus goldfields revenue and government assistance would be sufficient.³⁷ The Army, Premier, New Find, and Waitoki Companies provided a total of

³¹ Matthew Paul to Under-Secretary, Mines Department, 15 April 1919, Mines Department, MD 1, 21/2/4, ANZ-W.

³² Matthew Paul, Inspector of Mines, to Under-Secretary, Mines Department, 25 July 1918, Mines Department, MD 1, 21/2/84, ANZ-W; Specifications for repairing tramway, October 1921, Inspector of Mines, Huntly, BBDO 18634, A902, MM138, ANZ-A; Les and Russ Hill, interviewed by David Bettison, 13 June 1975.

³³ Inspector of Mines to Under-Secretary, Mines Department, 17 May 1934, Inspector of Mines, Huntly, BBDO 18634, A902, MM138, ANZ-A.

³⁴ R.H.D. Fergusson (Chairman of Piako County Council) to Minister of Mines, 24 May 1882, Mines Department, MD 1, 1907/1014, ANZ-W; *Waikato Times*, 3 June 1882, p. 2; H.A. Gordon to Under-Secretary, Mines Department, 25 May 1883, *AJHR*, H-5, p. 2; Appendix, p. 9.

³⁵ H.A. Gordon to Under-Secretary, Mines Department, 20 May 1884, *AJHR*, 1884, H-9, p. 1; Memorandum for Under-Secretary, Mines Department, 9 July 1919, Mines Department, MD 1, 21/2/4, ANZ-W; for the cost of trucks, brakes, and other items, see A. & G. Price, Letterbook 1886-1888, p. 204; Journal 1881-1887, pp. 223, 253, 270, 272, 277, 293, A. & G. Price Archives, Thames; *Te Aroha News*, 18 June 1887, p. 2.

³⁶ *AJHR*, 1883, H-5, Appendix, p. 9.

³⁷ *Waikato Times*, 3 June 1882, p. 2.

£3,500 in return for their quartz being conveyed 'at sixpence per ton less than the same quantity for non-contributing companies'. In addition, other mines contributed £500.³⁸ Extra costs were incurred, such as connecting with hoppers near the mines.³⁹ Originally, the council had requested the loan of light rails and sleepers,⁴⁰ but the loan of the rails became a permanent, if unintended, gift. In May 1883, being unable to pay for or to return the old rails that had been provided, it promised to do so 'when circumstances will permit, care being taken that as little inconvenience as possible will be caused to the Government'.⁴¹

A LOCOMOTIVE

At first, it was intended to use a locomotive between Fern Spur and the base of Butler's Incline. The July 1883 council meeting accepted the recommendation of its tramway committee that purchasing one was 'imperatively necessary', Firth stating that without it

they would not be able to work the tramway in a satisfactory manner. If a locomotive were not purchased they should require no less than about 24 wagons, involving an additional expense of nearly £400. Then the cost of maintaining the permanent way for horses would be considerable. There were also the heavy items of horse feed, horse flesh, and drivers. The amount which they would require to expend under these heads would be equal to the cost of a locomotive; and the considerations in favour of a locomotive were numerous. The line would not want so much repairing; fuel, in the shape of good and flammable wood, was abundantly at hand, and a locomotive would do the work of a dozen horses.⁴²

In October 1883, for £700 A. & G. Price of Thames provided '1 Locomotive Engine, Horizontal Boiler, 2.6" Cylinders 9in stroke with a

³⁸ R.H.D. Fergusson to Under-Secretary, Mines Department 12 May 1883, Mines Department, MD 1, 1907/1014, ANZ-W.

³⁹ Piako County Council, *Waikato Times*, 12 February 1885, p. 2.

⁴⁰ Piako County Council, Minutes of Meeting of 31 March 1882, Matamata-Piako District Council Archives, Te Aroha.

⁴¹ Piako County Council, *Waikato Times*, 17 May 1883, p. 2.

⁴² Piako County Council, *Te Aroha News*, 21 July 1883, p. 2; *Waikato Times*, 24 July 1883, p. 2.

Working pressure of 120 lbs per Square inch'. The firm would 'erect and work it' for one week.⁴³ The first locomotive built by the firm,⁴⁴ being geared up to about 16 horsepower it could work on a gradient of 1 in 30. The horizontal boiler was riveted to a heavy iron frame, set on four steel springs; the six inch cylinders were geared 2 to 1, and the four very heavy driving wheels, 24 inches in diameter, were connected to the sides with flat rods. There was screen and lever brake gear, and a saddle water tank covered a large part of the boiler. It was expected to pull from 70 to 80 tons.⁴⁵

In May 1884, Gordon reported that this 'specially constructed' locomotive was 'now lying at the side of' the river. 'The sharp curves, and the short distance that the locomotive could be worked on, will debar it working more economically than the present method, which is with horses; besides, the sharp curves would render it liable to have more accidents'.⁴⁶ Never used, it was sold to the Kauri Timber Company and then the Public Works Department and until being scrapped in 1917.⁴⁷

PLANNING THE CONSTRUCTION

At the council meeting of 28 April 1882, Firth successfully moved that three engineers, James Stewart, Alexander Aitken, and George Henry Arthur Purchas, should report on 'the best line for a main tramway' and 'the best system of connecting Branch tramways (whether wire or otherwise) with the main line, and the probable cost'. Firth and Henry Ernest Whitaker⁴⁸ were elected to instruct them.⁴⁹ Stewart had had a long career

⁴³ A. & G. Price, Journal 1881-1887, p. 282, 15 October 1883, A. & G. Price Archives, Thames.

⁴⁴ Bob Stott, *Prices of Thames* (Porirua, 1983), p. 44.

⁴⁵ A. & G. Price, Letterbook 1885-1886, pp. 28, 86, 100, A. & G. Price Archives, Thames; *Thames Star*, 17 October 1883, p. 2. For photographs of this engine, see C.W. Vennell, *Men of Steel: The story of A. and G. Price Ltd., Auckland and Thames, 1868-1968* (Auckland, 1968), p. 29; Bob Stott, *Bush Tram to the Mill* (Dunedin, 1981), p. 14; Paul Mahoney, *The Era of the Bush Tram in New Zealand* (Wellington, 1998), p. 85.

⁴⁶ H.A. Gordon to Under-Secretary, Mines Department, 20 May 1884, *AJHR*, 1884, H-9, p. 2.

⁴⁷ Stott, p. 44.

⁴⁸ See paper on Harry and Charles: Henry Ernest Whitaker and Charles Stanislaus Stafford.

as a civil engineer, in particular as an inspector of steamers and as a railway engineer. Arriving in the colony in 1859, he devised the first water supply for Auckland. In the 1860s and 1870s, he was in charge of constructing the Auckland to Mercer railway, and in 1874 became District Engineer and placed in charge of all railway works in the province. Three years later he was given control of all road works north of Auckland. Retrenched in 1881 after having been District Engineer for nine years, he re-entered private practice. He designed the Thames Valley and Rotorua railway, the Waiorongomai tramway, and, with his partner Ashley Hunter, constructed and electrified the Auckland tramways.⁵⁰ Aitken was the Thames County Engineer,⁵¹ and Purchas the Piako County Engineer.⁵² Late in May, after five days inspecting, Stewart and Aitken reported that they were ‘very well pleased’ with the proposed route.⁵³

1. We have kept in view the desirability of making the lines self acting, as far as possible, and with a working capacity of 2000 tons per week....

3. The self acting inclines can only be applied to grades steeper than about 1 in 7, and in direction, straight, or moderately curved. Hence this application is exceedingly limited in a country like the one under consideration, where the workings extend for two or three miles, without very great variation in level.

4. We have had in view the necessity of keeping the main line of tramway at as low a level as possible, in order to be below all the levels likely to be put in on the gold bearing reefs, and with a view of a high maximum capacity of the works. We determined to have no part of the main line unfit for locomotive power, or laid out on a heavier grade than 1 in 33, and as much easier than that as we could accomplish.

⁴⁹ Piako County Council, Minutes of Meeting of 28 April 1882, Matamata-Piako District Council Archives, Te Aroha.

⁵⁰ See *Cyclopedia of New Zealand*, vol. 2, pp. 316-317; *Observer*, 19 February 1881, p. 236, 5 March 1881, p. 255; *New Zealand Herald*, 29 October 1883, p. 6; *Auckland Weekly News*, 14 November 1896, p. 18, 4 February 1909, p. 36, 19 February 1914, p. 22; F.W. Furkert, *Early New Zealand Engineers* (Wellington, 1953), pp. 271-272; *The Centennial History of the Auckland Institute and Museum 1867-1967*, ed. A.W.B. Powell (Auckland, 1967), p. 55.

⁵¹ See *Thames Advertiser*, 5 April 1876, p. 3, County Council, 16 May 1878, p. 3, 15 November 1880, p. 2, 5 January 1885, p. 3.

⁵² See *Cyclopedia of New Zealand*, vol. 7, p. 58.

⁵³ *Waikato Times*, 20 May 1882, p. 2; *Thames Advertiser*, 27 May 1882, p. 3.

5. As the average gradient of the Waiorongomai stream alongside the proposed works may be taken to be about 1 in 15 it will be seen that any tramway with the above limit of gradient, intended to deliver quartz at its lower end, must be combined with one or more self acting inclines, and, as it is most desirable to have the locomotive grade in one length, it follows that one of these inclines must be at the lower end.

6. A careful examination of the country, and study of the levels have led us to place this incline rising about 380 feet, with a grade of one in two, above the level of the Battery now being erected at the lower end. From thence the line will be graded up the valley, at the rate of 1 in 50, to a point a little way above the Battery now being erected by Mr J[ohn] Cook. This length will be about 2 miles 10 chains. Communication will be made with this main line, from the mines, by two self acting branch inclines, one at the head of the line, and the other a little above halfway. The former of these inclines will be about 2500 feet long with a grade of 1 in 2.8, and the latter 1500 feet long with a grade of 1 in 2.9.⁵⁴

This main line would have ended above John Cook's battery site, beside the Waiorongomai Stream at the foot of what became known as the May Queen Spur and (below this) the New Era incline.⁵⁵ Cook never erected a battery, but the New Era battery would be constructed on this site in the late 1880s.⁵⁶ Instead of this long grade with two lengthy branch inclines, the branch up Butler's Spur (Butler has not been identified, but presumably was the contractor) became part of the main line, and the next incline went up the May Queen Spur, with the tramway ending on a level grade.

7. The tracing accompanying⁵⁷ shows the arrangement above described, in an approximate manner only however, as it will require a most thorough exploration of the route to locate the several works in the best positions....

8. It is anticipated that the various mines will have no difficulty in arranging to send their quartz to the heads of either of the two self acting branches.

9. The estimate hereto appended, is based on the use of rails, 40lb per yard, to be given by the Government. Formation 9 feet width

⁵⁴ James Stewart, Alexander Aitken, and G.H.A. Purchas to Chairman, Piako County Council, 24 May 1882, Mines Department, MD 1, 07/1014, ANZ-W.

⁵⁵ See G.H.A. Purchas, plan of John Cooke's water right and machine site, Waiorongomai, 6 May 1882, Te Aroha Museum.

⁵⁶ See paper on Peter Ferguson and his New Era Company.

⁵⁷ Not retained in the records of either the Piako County Council or the Mines Department.

in the solid. Gauge 2 feet 6 inches, curves not less than 1 1/2 chains radius. The line to be ballasted and boxed to the level of the upper surface of the sleepers, so that horse power may be used without disadvantage at first. Locomotive power may be applied as soon as necessary and engines can be constructed to carry on an enormous traffic over the line as above described. The trucks are intended to be of 1 1/2 tons capacity and the inclines fitted to brake down three of these at one time.

10. There is an abundance of timber of the best quality for bridges and sleepers, all along the line; and excellent ballast is obtainable in any quantity.

11. In view of the necessity of the most careful location of the works, and the difficulty of finding ground suitable for the terminals of the line and inclines (excepting the lower terminal of the locomotive grade) we advise exploration surveys to be proceeded with as soon as possible.

12. It is possible that with favorable weather, the works as herein described, may be done within four months from the date of commencement.⁵⁸

Their estimate of costs, including £1,000 for contingencies, was £8,685 12s 6d. It revealed that it was planned to have two separate sets of rails on the inclines;⁵⁹ as constructed, these had three rails apart from four rails in a diamond shape in the middle to enable trucks to pass.

After Stewart presented this report to the May council meeting, it was accepted and he was authorized to make surveys and drawings, call tenders, and supervise its construction. A committee of Firth, Whitaker, and the council's chairman, Robert Henry Duncan Fergusson,⁶⁰ was appointed to arrange terms with Stewart and take 'preliminary steps' towards its construction 'without delay'.⁶¹

⁵⁸ James Stewart, Alexander Aitken, and G.H.A. Purchas to Chairman, Piako County Council, 24 May 1882, Mines Department, MD 1, 07/1014, ANZ-W.

⁵⁹ 'Estimated Cost of Tramways at Waiorongomai, Te Aroha Gold Field', appended to Stewart, Aitken, and Purchas to Chairman, Piako County Council, 24 May 1882, Mines Department, MD 1, 07/1014, ANZ-W.

⁶⁰ See *Waikato Times*, advertisement, 5 April 1878, p. 3, 16 March 1882, p. 3, 9 November 1882, p. 3, 2 January 1883, p. 2; Cambridge Correspondent, *New Zealand Herald*, 13 July 1883, p. 6; *Auckland Star*, 17 January 1907, p. 5.

⁶¹ Piako County Council, Minutes of Meeting of 26 May 1882, Matamata-Piako District Council Archives, Te Aroha.

SURVEYING THE LINE

In late May, within days of construction being approved, Purchas commenced surveying the route.⁶² Soon more surveyors were employed, but during July their work was ‘greatly impeded by bad weather’.⁶³ At the council meeting held that month, Whitaker ‘explained the matter of delay at some considerable length, attributing the same to the bad weather and the difficult nature of the ground for engineering purposes’.⁶⁴ At the end of August, Stewart said that the survey had been ‘seriously delayed’ by the ‘tediousness of the work, caused by the inclemency of the weather and the nature of the country’. Purchas was ‘laying out the side lines and staking out’, and another local surveyor, Henry Crump,⁶⁵ was doing the levelling. Stewart would ‘shortly call for tenders, on conditions which will allow of improvements being effected as the work proceeds’.⁶⁶ He hoped the first plans would be ready within ten days.⁶⁷

The steep hillside meant ‘that a very small variation in positions affects the work heavily, and the lines have to be gone over repeatedly in order to get the best position’.⁶⁸ It had been intended to have a gradient of 1 in 40, but when Stewart checked the levels ‘an error was discovered, which reduced the gradient to 1 in 30’, which was ‘a fair working gradient’ because traffic would be ‘all down hill’. Level places had been found for the terminals and the junctions of the inclines.⁶⁹ After working long hours, the survey was completed later than intended because of ‘the range of the engineering difficulties’ to be overcome.⁷⁰ Kenrick later noted the

⁶² Piako County Council, Minutes of Meeting of 26 May 1882, Matamata-Piako District Council Archives, Te Aroha; *Waikato Times*, 30 May 1882, p. 2.

⁶³ Piako County Council, Minutes of Meeting of 28 July 1882, Matamata-Piako District Council Archives, Te Aroha.

⁶⁴ Piako County Council, *Waikato Times*, 1 August 1882, p. 2.

⁶⁵ See advertisement, *Te Aroha News*, 9 June 1883, p. 1; *Thames Advertiser*, 23 August 1894, p. 2; ‘Thames Gossip’, *Observer*, 1 September 1894, p. 23.

⁶⁶ *New Zealand Herald*, 30 August 1882, p. 3.

⁶⁷ *Waikato Times*, 29 August 1882, p. 2.

⁶⁸ Piako County Council, *Waikato Times*, 29 August 1882, p. 2.

⁶⁹ Piako County Council, *Waikato Times*, 3 June 1882, p. 2, 29 August 1882, p. 2.

⁷⁰ *Thames Advertiser*, 27 September 1882, p. 3; *Waikato Times*, 3 October 1882, p. 2.

‘exceptional difficulties’ created by the ‘heavily-timbered and rugged nature of the country’.⁷¹

CONSTRUCTING THE LINE

After Stewart spent five months preparing plans and supervising the surveying,⁷² six tenders, ranging from £7,091 1s 8d to £10,937 16s 10d, were considered in November. By then, the tramway committee had revised upwards its estimates of the cost. To construct the ‘main line and the three inclines’ was now £10,614, and the ‘upper horse tramway’ running from the top of the May Queen incline would cost an extra £2,250, and a £400 ‘Commission on the whole’ had to be paid. As the total of £13,264 was beyond the council’s means, it decided to do the work in two stages. On Stewart’s advice, James Darrow and David Foughey’s tender of £7,211 10s was accepted. Darrow, a battery manager at Thames in the 1870s, was now a contractor.⁷³ Foughey was a farmer at nearby Shaftesbury⁷⁴ who later became John Squirrell’s son-in-law.⁷⁵ Only the ‘A’ contract for 68 chains from the battery to the top of Butler’s Spur was to be built at first, at a cost of £5,250.⁷⁶

The great object has been to save time, and bring the work within the resources available. The accepted tender omits the main line from its intersection with Butler’s spur incline northwards, and the upper self-acting line. Under the original scheme, a horse-grade was to be made from the head of the upper self-acting line northwards to the Waiorongomai, below the Premier, and

⁷¹ Harry Kenrick to Under-Secretary, Mines Department, 19 April 1883, *AJHR*, 1883, H-5, p. 15.

⁷² *Te Aroha News*, 7 July 1883, p. 2.

⁷³ See *Cyclopedia of New Zealand*, vol. 2, pp. 893-894; *Tauranga Electoral Roll, 1882*, p. 7.

⁷⁴ See Register of Land Orders by Messrs Grant and Foster, Te Aroha, Order dated 5 September 1881, Lands and Survey Department, LS 22/2, ANZ-W; Thames Hospital, Register of Patients 1884-1901, folio 60, YCAH 14075/1a, ANZ-A; *Cyclopedia of New Zealand*, vol. 2, pp. 832-838.

⁷⁵ See paper on John Squirrell.

⁷⁶ *Thames Star*, 1 November 1882, p. 2; Piako County Council, Minutes of Meeting of 22 November 1882, Matamata-Piako District Council Archives, Te Aroha; Piako County Council, *Waikato Times*, 23 November 1882, p. 2; Piako County Council, *Waikato Times*, 25 November 1882, p. 3; *Thames Star*, 28 November 1882, p. 2.

southwards to the Diamond Gully. This is now done away with, and, in its stead, the horse grade from the head of Butler's spur self-acting incline, in place of terminating at Diamond Gully, is to be continued to the Waiorongomai. This grade, being more than 300 feet lower than the grade which has been done away with, will give considerably more work to the claims to the north of Diamond Gully requiring connection, but will relieve the Council from the necessity of some £4000 to £5000 additional expenditure.

The *Te Aroha Mail* considered the council had 'acted wisely in reducing the plan' so that it would be cheaper and could start 'more expeditiously'.⁷⁷ This initial contract was to be finished in three and a half months, a fine of £10 per day being 'imposed for delay after that' or 'for finishing prior to the contract date'.⁷⁸ While this first contract was underway, the tramway committee revised the final sections to reduce the cost and improve the 'arrangements'. There would only be 'a very small' cost to connect claims to the line.⁷⁹ Stewart anticipated that it would be ready to start work by the end of July 1883.⁸⁰

The *Te Aroha Mail* was frustrated by the delays. In October it criticized 'bungling and delay in inviting tenders', which was 'not only unbusinesslike, but very unfair to those investors who not unreasonably looked for earlier returns'.⁸¹ Once the first contract was let, the 'council in accepting a portion only of the contract' threw 'a wet blanket over the operations of northward claims owners, who feel themselves left out in the cold for another six or nine months or until they can make their own connections with the intended line'.⁸² The upper section, of approximately one and a half miles, would be constructed only when the first contract had been completed, the council trying 'to save time, and bring the work within the resources available'.⁸³ The *Thames Advertiser* reported that 'all whom

⁷⁷ *Te Aroha Mail*, n.d., reprinted in *Thames Star*, 27 November 1882, p. 3.

⁷⁸ *Thames Star*, 1 November 1882, p. 2.

⁷⁹ Piako County Council, *Waikato Times*, 21 December 1882, p. 2.

⁸⁰ Harry Kenrick to Under-Secretary, Mines Department, 19 April 1883, *AJHR*, 1883, H-5, p. 15.

⁸¹ *Te Aroha Mail*, n.d., reprinted in *Thames Star*, 31 October 1882, p. 2.

⁸² *Te Aroha Mail*, n.d., reprinted in *Thames Star*, 27 November 1882, p. 2.

⁸³ *Te Aroha Mail*, n.d., reprinted in *Thames Star*, 27 November 1882, p. 3; *Waikato Times*, 25 November 1882, p. 3.

we have met, who appeared competent to judge, agree in saying that the work cannot be done in the time' specified.⁸⁴ Its local correspondent noted that 'a great deal of dissatisfaction has been, and will yet be, expressed at the disgraceful and shameful way that public money has been given away to useless surveyors'.⁸⁵

Early in December, the contractors made 'an early start' with 70 men. The local newspaper expected that more pick and shovel men would be employed in the new year.⁸⁶ One correspondent wrote that they were 'getting on very well with their work, and if the fine weather continues ... there will be no fear but that their job will be finished to time - at a good profit to themselves, which no one here will begrudge them'.⁸⁷ Because the contractors told the council that, because they wanted the men constructing the tramway to be 'as good as possible', miners should be permitted to work on it; it asked the warden to protect their claims.⁸⁸

Newspapers reported steady progress, if slower than anticipated. During February, there was good progress in making the formation and sleepers and rails were ready to be laid. Other contracts were let to complete the line, which was anticipated would be finished in May.⁸⁹ By February, over 150 men were reported to be working on the first contract.⁹⁰ Another reporter counted 130 workers, 'a sufficient guarantee surely that the work will be completed within the contract time, unless some unforeseen difficulties should be met with'.⁹¹ But the weather affected the work; late that month, 'a great amount of damage has been sustained on the earthwork of the tramways through the heavy rainfall', and the horse grade at the foot of Butler's Incline would 'have to be done over again, at great expense to the contractors'.⁹² Two weeks later, the slips there were 'mostly removed, and damage done by the heavy rain' was being repaired.⁹³

⁸⁴ *Thames Advertiser*, 7 November 1882, p. 3.

⁸⁵ Te Aroha Correspondent, *Thames Advertiser*, 16 December 1882, p. 3.

⁸⁶ *Te Aroha Mail*, n.d., reprinted in *Thames Star*, 11 December 1882, p. 3.

⁸⁷ Te Aroha Correspondent, *Thames Advertiser*, 16 December 1882, p. 3.

⁸⁸ Piako County Council, *Waikato Times*, 21 December 1882, p. 2.

⁸⁹ *Waikato Times*, 1 February 1883, p. 2; *Thames Star*, 8 February 1883, p. 2, 24 February 1883, p. 6.

⁹⁰ *Waikato Times*, 27 February 1883, p. 3.

⁹¹ *Auckland Weekly News*, 10 February 1883, p. 20.

⁹² Te Aroha Correspondent, *Waikato Times*, 24 February 1883, p. 2.

⁹³ *Waikato Times*, 8 March 1883, p. 2.

Thereafter, construction progressed satisfactorily.⁹⁴ By late March, as one of Firth's sons wrote, people were 'weary of the delay in the construction'.⁹⁵

In April, Daniel Henry Bayldon, another surveyor,⁹⁶ began laying off a branch tramway heading south from the top of the May Queen incline to connect with the ore chute from the New Find. 'The Diamond Gully, Eureka, and several others are expected to use the same line, which will be constructed at their joint cost'.⁹⁷ A correspondent hoped that those who had the contracts to lay the permanent way would be as 'equally energetic' as Darrow and Foughey had been, for it was necessary to finish the heavy work before winter.⁹⁸

Adams successfully tendered to lay the permanent way and to supply the rolling stock and other gear needed. By early April, his donkey engine was ready to be placed at the top of Fern Spur to haul material up.⁹⁹ Compared with using horses, it reduced the cost by over three-quarters.¹⁰⁰ 'A number of men have already been set to work at different parts of the lines to get everything in readiness for laying sleepers and rails on the first horse grade'. The engine would then be moved to the next inclines. If the weather was good, the whole line should be completed in less than three months.¹⁰¹ But less than a week later heavy rain caused the almost total suspension of work because a large landslip to the north of the Army Creek bridge

destroyed a large portion of the first horse grade, which was already completed. The slip extended from the line up [to] the bridle track near the sawpit, the whole of the surface and the timber slipping bodily for a width of about 2 chains; in fact, the mass of rubbish is so great that there is every reason to believe no attempt will be made to remove it from the line, and it is the opinion of those connected with the work that it will be the best method to drive a tunnel through the solid rock for a distance of 200 feet

⁹⁴ *Waikato Times*, 20 March 1883, p. 3.

⁹⁵ William Thornton Firth to Hugh Craig, 22 March 1883, W.T. Firth Letterbook 1883-1900, MSC 19, Hamilton Public Library.

⁹⁶ See *Cyclopedia of New Zealand*, vol. 7, p. 49.

⁹⁷ *Thames Star*, 12 April 1883, p. 2.

⁹⁸ Te Aroha Correspondent, *Waikato Times*, 3 April 1883, p. 2.

⁹⁹ *Waikato Times*, 10 April 1883, p. 2.

¹⁰⁰ *Te Aroha Mail*, n.d., reprinted in *Thames Advertiser*, 3 May 1883, p. 2.

¹⁰¹ *Waikato Times*, 10 April 1883, p. 2.

to protect the tramway from future slips.¹⁰² Which meant extra cost.

After Stewart resigned as supervisor early in 1883 because of other commitments,¹⁰³ Adams was appointed as engineer in charge, allegedly through Firth's influence,¹⁰⁴ according to James Mills, a carpenter and a future mayor.¹⁰⁵ In early May, the *Te Aroha Mail* predicted that the tramway would be completed within three months.¹⁰⁶ The *Waikato Times* agreed that 'the utmost activity' was being displayed, for by the beginning of the month the rails were laid almost to the Army Creek bridge and two gangs were about to drive the tunnel at that level from both ends.¹⁰⁷ A week later, its local correspondent reported that Adams was 'pushing on the works with all possible speed'. Six sets of timber, '11 feet high, 8 feet wide at bottom, and 6 feet at the top in the clear', had been placed in the tunnel, which was

being reduced to a size sufficient to admit of trucks passing through in order that the material for the remainder of the tramway may be got through without delay. After communication is effected the tunnel will be stripped to the full size. At the other end of the tunnel they are driving through the slip, and the mass of rubbish which has to be removed causes great delay in forwarding the work. The grade on the Butler's spur self-acting section is being straightened, a tunnel timbered in a similar manner to a winze on the underlay of a reef has to be made for several chains of the distance.¹⁰⁸

(As there was no tunnel on Butler's Incline, this must refer to timbering the sides of the cuttings.)

By late May, good progress had been made with the tunnel and straightening Butler's Incline. Adams had as many men working on this section 'as could be profitably employed'.¹⁰⁹ One optimistic observer wrote, on 18 May, that the tramway was 'making good progress' and was expected

¹⁰² Te Aroha Correspondent, *Waikato Times*, 17 April 1883, p. 2.

¹⁰³ *Te Aroha News*, 3 November 1883, p. 2.

¹⁰⁴ *Waikato Times*, 28 May 1885, p. 2.

¹⁰⁵ See paper on his life.

¹⁰⁶ *Te Aroha Mail*, n.d., cited in *Thames Star*, 7 May 1883, p. 2.

¹⁰⁷ *Waikato Times*, 1 May 1883, p. 2.

¹⁰⁸ Te Aroha Correspondent, *Waikato Times*, 8 May 1883, p. 2.

¹⁰⁹ *Waikato Times*, 22 May 1883, p. 2.

to be finished in six weeks time.¹¹⁰ Judging from a snippet in a gossip column, much of the work was being done by Irishmen: ‘The Kerry section of the tram is going ahead quick, isn’t it, Dan? Yes, and it would be better, Jack, if you gave the Cashilgregry men more beef and less cabbage’.¹¹¹

The first issue of the latest local newspaper, the *Te Aroha News*, published on 9 June, reported that the rails were by then four chains up Butler’s Incline. Another fortnight of good weather would see this work finished, and earthworks completed to the end of the tramway and the line ballasted from the tunnel to the battery. Twelve men were enlarging the tunnel to its full size; having completed 40 feet, they expected to complete the remaining 170 in five weeks. The brake gear for Fern Spur would be ready in three weeks. Contracts had been let to lay rails from the top of Butler’s Incline south to the Werahiko mine and north to the foot of the May Queen incline, which required building a small bridge over Diamond Gully. On the highest horse grade a contract was let for the last major bridge, over Canadian Gully, which would shorten the original route by four chains.¹¹² All the timber had been cut for sleepers, brakes, and trucks, and it was likely that all the line would be working in two months time.¹¹³ By the middle of June, the Inverness mine was planning to take the first quartz down Butler’s Incline ‘by means of the trolley now used in laying rails up the spur’.¹¹⁴

Council meetings were normally held at Cambridge, but in June it was decided to hold the next one at Te Aroha because, as most councillors were ‘practically in ignorance of the extent and importance of the tramway’, they would be able to appreciate its ‘desirableness’.¹¹⁵ Probably Firth was the councillor who considered such enlightenment necessary, for his battery could not start crushing until it was completed, and he made regular visits to check on progress.¹¹⁶

At the June council meeting, Adams provided details of work done since his previous report on 9 May:

¹¹⁰ William Thornton Firth to Hugh Craig, 18 May 1883, W.T. Firth Letterbook 1883-1900, MSC 19, Hamilton Public Library.

¹¹¹ ‘Waiorongomai’, *Observer*, 9 June 1883, p. 180.

¹¹² *Waikato Times*, 5 June 1883, p. 2; *Te Aroha News*, 9 June 1883, p. 2.

¹¹³ *Te Aroha News*, 9 June 1883, p. 2.

¹¹⁴ *Thames Advertiser*, 14 June 1883, p. 3.

¹¹⁵ *Waikato Times*, 21 June 1883, p. 2.

¹¹⁶ For example, *Waikato Times*, 23 June 1883, p. 2.

Holing in small tunnel; the completion of trestling to connect tram with hopper of battery; the completion of laying permanent way from top of Fern Spur to bottom of Butler's Spur; the completion of hauling all rails, material, &c, by the engine to the top of Fern Spur, and the removal of engine to Butler's Spur, where it is now being used to lay road up Butler's Spur; the completion of laying and ballasting permanent way up Fern Spur grade. Since my former report I have taken charge of all the works from top of Butler's Spur to extreme end of tramway, and I have the following works in course of construction, viz:- Main trucks being made at a cost for labour of £3 each; brake gear¹¹⁷ on top of Fern Spur grade, at a cost for labour of £29; enlarging small tunnel to full size, and ballasting road at a cost of £2 5s per foot of drive; laying permanent way up Butler's spur grade at a cost of 2s 2d per lineal yard; excavations on Butler's Spur, which are nearly completed; the procuring of 2000 sleepers, more or less, at a cost of £6 per hundred; altering horse grade from the top of Butler's Spur, at Bluff, at 1s 6d per cubic yard: this alteration is made to straighten road; small bridge across Diamond Gully, at a cost of £22; horse grades from top of Queen of May Spur to Premier and Diamond Gully are being done at a cost of 1s 2d per cubic yard; getting and squaring timber for brake gear on Butler's Spur at 8s per 100 ft; building bridge across Canadian Gully¹¹⁸ at 25s per running foot, by means of which the road is straightened, and shortened about four chains. These are all the works at present, and with fine weather I fully expect to have the tramway in working order on or before the 15th September, 1883.¹¹⁹

(The 'Bluff' near the top of Butler's Incline is not now identifiable).

At the end of June, the *Te Aroha News* prematurely announced that the line was almost finished. 'Unavoidable delays have taken place and far greater cost than was at first calculated on has been incurred', construction having been 'most seriously retarded by numerous slips'.¹²⁰ The weather continued to be a problem, in July preventing work 'being pushed ahead as fast as could be desired'.¹²¹ Not till the middle of July was Butler's Incline nearly completed, for reasons explained by a Waiorongomai correspondent:

¹¹⁷ Contemporary spelling, as here, was often 'break gear'.

¹¹⁸ Incorrectly recorded as Premier Gully.

¹¹⁹ *Waikato Times*, 23 June 1883, p. 2.

¹²⁰ *Te Aroha News*, 30 June 1883, p. 2.

¹²¹ *Waikato Times*, 19 July 1883, p. 3.

The defective manner in which the grade has been originally planned and constructed has been the chief cause of the delay and expense in completing the work, a worse place for the self-acting grade could not have been chosen; some people support the Engineer's opinion that the grade as it was constructed would have worked well enough, but if these people and the engineer had ever seen a truck of mullocky quartz being lowered down No. 9 section of the Moanataiari Tramway [at Thames], they would learn a little about tramways, and know that the half of the quartz would be lost in transit. Portions of Butler's spur self-acting grade, as fixed by the engineer, were nearly three times as steep as the said section.¹²²

In late July councillors inspected the work, and afterwards the tramway committee reported that, although work had been 'greatly impeded by continuous bad weather', good progress had been made:

The Fern Spur incline is finished, rails laid, and heavy framing for a brake erected at its summit. The first railway grade is nearly completed, rails laid, and road ballasted. Butler's Spur, with a few days fine weather, will have the rails laid to its summit. On the second railway grade the formation is completed, the sleepers are ready, the rails are at the foot of Butler's Spur, and wait only for fine weather. The costly and heavy work of driving the tunnel under the slip on the first grade has been pushed on by Mr Adams night and day, and is expected to be completed by July 27th. The May Queen incline formation, and the upper horse-grade is finished with the exception of one tunnel, which will be completed about August 15th.

The work had given it 'the highest satisfaction'. Firth, its chairman, stated that, although 'the council had been beset with the greatest financial and other difficulties', with 'unanimous effort, they had succeeded in pulling through. They had had to procure a bank overdraft for which the members of the council had had to make themselves personally responsible. A variety of circumstances, over which the council had no power, had added considerably to' their liabilities. The reconstruction of Butler's Incline and 'the great slip' near its foot, 'together with other unavoidable contingencies' had meant 'a very large expenditure'.¹²³ The tunnel to avoid the landslip had cost £1,000, and at the end of the month further costs were incurred

¹²² Waiorongomai Correspondent, *Thames Advertiser*, 17 July 1883, p. 2.

¹²³ *Waikato Times*, 24 July 1883, p. 2.

when landslips caused by bad weather covered both ends. Adams reported that rumours of it being swept away were untrue, and the damage to Butler's Incline was 'not so great as might have been expected'.¹²⁴

As soon as these slips were cleared, at a cost of £150, the last rails were laid on Butler's Incline, and three shifts took rails up it for the remainder of the permanent way. More heavy rain meant considerable delays.¹²⁵ Slower progress was made in laying the rails than planned, but Adams was 'doing all man can do'. In mid-August, laying the rails and ballasting the May Queen incline along with erecting the bridge and driving the tunnel at Canadian Gully were completed.¹²⁶ By then, Adams was forecasting a completion date of the end of September.¹²⁷ Then, early in September, wet weather caused the embankment on Butler's Incline 'to move bodily down the gully'.¹²⁸ The tramway committee's September report stated that during the past month 'the weather has been very bad, very greatly impeding progress, postponing completion, and increasing cost'. Nevertheless, all the rails had been laid, ballasting was progressing rapidly, and the brake frames were completed and being fixed into position. It was hoped to have the tramway working before the October meeting.¹²⁹ Late in September, all 34 trucks were at the top of Fern Spur, 'ready to be forwarded to the mines'.¹³⁰ The first and 'very successful' trial of the Fern Spur incline by bringing down trucks of ballast was 'witnessed by a number of people'.¹³¹ By the end of the month, the only work remaining to be done was 'completing of the brake gear points and crossings'.¹³² In early October, the wire ropes were fitted to the upper two self-acting grades, and late that month the locomotive arrived by steamer, ready to be 'taken up and fitted without delay'.¹³³

¹²⁴ *Waikato Times*, 31 July 1883, pp. 2, 3; see also *Te Aroha News*, 28 July 1883, pp. 2, 3.

¹²⁵ *Te Aroha News*, 4 August 1883, p. 2; *Waikato Times*, 7 August 1883, p. 2, 18 August 1883, p. 2.

¹²⁶ *Te Aroha News*, 11 August 1883, p. 2, 18 August 1883, p. 2, 25 August 1883, p. 2.

¹²⁷ *Waikato Times*, 18 August 1883, p. 2.

¹²⁸ *Thames Advertiser*, 7 September 1883, p. 3.

¹²⁹ *Waikato Times*, 15 September 1883, p. 2.

¹³⁰ *Te Aroha News*, 22 September 1883, p. 2; for number of trucks, see 18 August 1883, p. 2.

¹³¹ *Te Aroha News*, 22 September 1883, p. 2.

¹³² *Te Aroha News*, 29 September 1883, p. 2.

¹³³ *Te Aroha News*, 6 October 1883, p. 2, 27 October 1883, p. 2.

MEETING THE EVER-INCREASING COST

On 5 June 1882, the engineers' report, plan, and specifications was sent to the Minister of Mines, accompanied by a request for financial assistance. Fergusson gave 'a few of the reasons' for this request:

... 2. An expenditure of Thirteen or Fourteen thousand pounds is now being proceeded with for batteries, water races &c - This large sum together with from 7 to 8 thousand pounds already expended on leases surveys wages opening the various mines and other expenses in connection with mining makes the large sum of upwards of £20,000 (being entirely of private Capital) invested in developing the Goldfield.

3. The Council have spent all Goldfield Revenue received by them together with all local revenue received from the Aroha Riding in making and maintaining goldfield roads and tracks which have been the means of assisting in developing the field to its present state.

4. The Council anticipating the department's argument in favor of private capital going still further and constructing or partly constructing the tramway beg respectfully to draw the attention of the Minister of Mines to the following arguments against such a course.

5. If private Capital is invested a charge for cartage of quartz will have to be made to provide profit interest on Capital invested and for a sinking fund - such charge would have to be large.

6. The Te Aroha Goldfield certainly gives promise from numerous tests made and from the large quantities of very rich quartz already obtained from some of the mines of being a substantial and permanent Goldfield. But looking at past experience on other fields there may be expected to exist an immense quantity of low grade quartz - This low grade quartz can only afford low transit charges - The execution of the proposed Railway by private capital means leaving all such low grade quartz untouched thus depriving thousands of working men of profitable employment.

7. This course would greatly retard the present and ultimate success of the field thereby causing a great injury to the revenues and prospects of this part of the Colony.

The government benefited through increased prices from selling nearby Crown land, and its railway from Hamilton to the Waihou River would be a success because of the 'immense quantities' of coal required by a substantial goldfield. After being reminded of the government's 'known desire ... to foster and encourage all new goldfields to the utmost legitimate extent in their power', it was told that £2,000 was 'the utmost limit' that the

council felt justified in providing, leaving £7,000 to be found.¹³⁴ The government responded that its request would be considered before parliament rose.¹³⁵ When £6,000 was allocated, seven months later, the council did not complain about the reduced amount.¹³⁶

In January 1883, the county clerk informed the Minister for Public Works that the work was 'being rapidly pushed forward', and requested a progress payment of £3,000.¹³⁷ The response was that, although the government had set aside the money, it had not authorised the council to commence the work, and would not consider any contribution until the Inspecting Engineer reported.¹³⁸ Fergusson immediately sent a telegram to the Minister that contractors were owed a 'large amount' which council was 'totally unable to pay' until the £3,000 applied for on 25 January was paid. 'Please wire money at once so as to prevent stoppage of this most important work'.¹³⁹ The council also prompted politicians to assist. Frederick Alexander Whitaker, an investor in local mines and in land in Te Aroha township,¹⁴⁰ as well as Member of Parliament for Waipa and brother of Henry Ernest Whitaker, sent a private telegram: 'Try & get something done

¹³⁴ Robert Fergusson to Minister of Mines, 5 June 1882, Mines Department, MD 1, 07/1014, ANZ-W.

¹³⁵ Oliver Wakefield (Under-Secretary, Gold Fields) to Robert Fergusson, 26 June 1882, Mines Department, MD 1, 07/1014, ANZ-W.

¹³⁶ Oliver Wakefield to Thomas Dick, 13 February 1883, Mines Department, MD 1, 07/1014, ANZ-W; Piako County Council, Minutes of Meeting of 28 July 1882, Matamata-Piako District Council Archives, Te Aroha.

¹³⁷ Charles Tuck (Clerk, Piako County Council) to Minister for Public Works, 25 January 1883, Mines Department, MD 1, 07/1014, ANZ-W.

¹³⁸ Oliver Wakefield to Thomas Dick, 13 February 1883, and memorandum by Dick, 14 February 1883; Oliver Wakefield to Robert Fergusson, 15 February 1883; Oliver Wakefield to William Rolleston, 21 February 1883; Oliver Wakefield to Robert Fergusson, 27 February 1883, Mines Department, MD 1, 07/1014, ANZ-W.

¹³⁹ Robert Fergusson to Minister for Public Works, 20 February 1883 (telegram), Mines Department, MD 1, 07/1014, ANZ-W.

¹⁴⁰ *New Zealand Gazette*, 30 December 1880, p. 1796, 28 April 1881, p. 476, 23 March 1882, p. 490, 27 April 1882, p. 647, 17 August 1882, p. 1131, 27 September 1883, p. 1369; Te Aroha Warden's Court, Register of Applications 1880-1882, folios 47-48, nos. 132, 133, BBAV 11505/3a; Rent Register 1881-1900, folio 408, BBAV 11505/1a, ANZ-A.

re advance asked for by Piako County Council forthwith matter must come to a standstill if not done quick'.¹⁴¹

As Fergusson explained in another telegram, he

had believed the application would be acceded to as £6000 was voted for this purpose last session - Council commenced the work thoroughly believing the money would be paid when applied for and have incurred heavy liabilities to meet which they depend at present solely upon the money rated £1800 have been already paid by county out of county funds which naturally somewhat embarrassed them. Sincerely trust you will see your way out of the difficulty the matter is so pressing that I would ask you to reply urgent.¹⁴²

As William Rolleston, the Minister of Mines, did not understand either the estimated cost or the nature of the work, he wanted this progress payment to be made on condition that no further assistance would be required. He was afraid that 'they may think Govt is contracting an unlimited liability', and told his under-secretary that he would 'agree to any proposal which puts the matter on a business footing'.¹⁴³ Ministers agreed that, should Gordon report that the work could be done within the £6,000 estimate and that construction was satisfactory, a subsidy of £2 to £1 would be given as a progress payment.¹⁴⁴ With the council early in March pleading for immediate assistance because it had another £2,000 to pay, Gordon was instructed to investigate.¹⁴⁵ He estimated the cost, including rolling stock, at £11,000; the council would spend all its goldfield revenue on it, and raise a special rate of a shilling in the pound. The government approved an immediate payment of £2,000, the remainder to be paid when Gordon had

¹⁴¹ F.A. Whitaker to Oliver Wakefield, 21 February 1883 (telegram), Mines Department, MD 1, 07/1014, ANZ-W.

¹⁴² Robert Fergusson to Oliver Wakefield, 26 February 1883 (telegram), Mines Department, MD 1, 07/1014, ANZ-W.

¹⁴³ William Rolleston to Oliver Wakefield, 28 February 1883, Mines Department, MD 1, 07/1014, ANZ-W.

¹⁴⁴ Oliver Wakefield to William Rolleston, 1 March 1883, Mines Department, MD 1, 07/1014, ANZ-W.

¹⁴⁵ Robert Fergusson to Minister of Mines, 8 March 1883 (telegram); Oliver Wakefield to H.A. Gordon, 8 March 1883, Mines Department, MD 1, 07/1014, ANZ-W.

certified that the work was satisfactory, which he did at the end of March.¹⁴⁶

Responding to a telegram from Henry Whitaker at the beginning of April ('Anxiously waiting news re Aroha tramway and subsidy please wire what done'),¹⁴⁷ the under-secretary agreed to pay the additional £1,000 immediately, but warned that the total amount available was £6,000 and 'any further payments will only be made upon satisfactory evidence being first given that full financial arrangements have been made to complete the whole work'. The government would not recognize any liability for work done without its prior authority.¹⁴⁸

In mid-May, a telegram from Fergusson sought the balance of £3,000: 'Money urgently required to make further payments to contractors'.¹⁴⁹ The county clerk wrote that councillors had always expected to receive the £6,000 'unencumbered with any conditions', and that the Members of Parliament for Waipa and Waikato, John Blair Whyte and Frederick Alexander Whitaker, had confirmed that their understanding was correct. To help meet the cost, the Army, Premier, New Find and Waitoki Companies gave £3,550 in return for cheaper cartage, and contributions from 11 other companies had raised another £500. He sought £2,000 immediately, which Rolleston, over the doubts of his under-secretary, ordered paid at once.¹⁵⁰ At the end of the month, Fergusson asked for £1,000, which was also paid.¹⁵¹

¹⁴⁶ H.A. Gordon to Oliver Wakefield, telegrams on 8 March 1883, 9 March 1883; memorandum of Oliver Wakefield, 12 March 1883; H.A. Gordon to Oliver Wakefield, 28 March 1883, Mines Department, MD 1, 07/1014, ANZ-W.

¹⁴⁷ H.E. Whitaker to Oliver Wakefield, 4 April 1883 (telegram), Mines Department, MD 1, 07/1014, ANZ-W.

¹⁴⁸ Oliver Wakefield to Robert Fergusson, 4 April 1883; note also Oliver Wakefield to William Rolleston, 4 April 1883, Mines Department, MD 1, 07/1014, ANZ-W.

¹⁴⁹ Robert Fergusson to Oliver Wakefield, 17 May 1883 (telegram), Mines Department, MD 1, 07/1014, ANZ-W.

¹⁵⁰ Charles Tuck to Oliver Wakefield, 12 May 1883; Oliver Wakefield to William Rolleston, 17 May 1883; memorandum by William Rolleston, 18 May 1883, Mines Department, MD 1, 17/1014, ANZ-W.

¹⁵¹ Robert Fergusson to Oliver Wakefield, 31 May 1883; memorandum of 16 June 1883, Mines Department, MD 1, 07/1014, ANZ-W.

At the end of August, the council's new chairman, James Palmer Campbell,¹⁵² who had no investments in the goldfield, asked Rolleston to pay the £2 for £1 subsidy. As the total cost had risen to £17,095 1s 10d, he considered the government's share to be £11,399 7s 11d and asked for £5,399 7s 11d.¹⁵³ Rolleston instructed his under-secretary to reply that the request would be considered; 'Meantime no promise can be given that the whole amount asked for will be available'.¹⁵⁴ To strengthen the council's case, Campbell explained that the tramway was 'absolutely necessary to the opening of what, the Council had just reason to expect, would be an exceedingly prosperous Goldfield':

The Council anticipated that the work would have been finished some months ago, but in consequence of the great engineering difficulties encountered, and the bad weather experienced, which caused several landslips and washed away some of the bridges and embankments, much delay has been occasioned and considerable additional expense thereby incurred.

On account of the difficulties encountered as above related the cost has been increased by several thousand pounds and is about £5000..0..0 in excess of the original estimate....

As it was essential that the work should be of a thoroughly good and permanent character the Council has exerted every means in its power to ensure the proper surmounting of the engineering and other difficulties which from time to time arose during the progress of the works, in which endeavour the Council has been eminently successful, and the Tramway (which is over three miles in length, and includes two locomotive and one horse-grade [correctly one locomotive grade and two horse grades] giving access to all claims upon these three levels,) is now nearing completion.

While it is satisfactory to the Council to be able to report the successful carrying out of this extensive work, it is also necessary to point out that the expenditure has been far in excess of the original estimate, owing partly to circumstances already pointed out, and partly to the extremely broken nature of the mountain range upon which the claims are situate, and to the tunnelling that has had to be done in order to avoid probable damage from land slips during the construction of the line, and to prevent any

¹⁵² See *New Zealand Herald*, 1 March 1926, p. 10.

¹⁵³ J.P. Campbell to William Rolleston, 30 August 1883 (telegram), Mines Department, MD 1, 07/1014, ANZ-W.

¹⁵⁴ William Rolleston to Oliver Wakefield, 31 August 1883, Mines Department, MD 1, 07/1014, ANZ-W.

interruption of traffic, from the same cause, when the tramway is opened.

The financial resources of the County have therefore been taxed to the utmost and the ordinary revenue has proved insufficient to meet the large drain made upon it in connection with this work. The following statement will show the amount already expended upon the permanent way and rolling stock, with the amount required to complete same.

Amount already paid on Tramway Account	-	10222	2	1
Amount now due for work done, but not yet paid	-	3343	17	7
Contracts entered into to complete Tramway	-	<u>3533</u>	<u>2</u>	<u>2</u>
Total Cost		£17099	1	10

Of this amount the Council has already paid from its own resources the large sum of £4222..2..1, which as before stated has been a severe strain upon the County Revenue, and some assistance will be absolutely necessary to enable the Council to meet its present liabilities, and the further amount required to finish the work, amounting together to £6876..19..9.

As the Te Aroha Goldfield promises to be one of the richest fields in the Colony, it is a matter of more than local interest that all works necessary for the speedy development of its resources, should at once be completed, and the Tramway is the one work without which success is impossible.

Upon the basis of two pounds to one the Government contribution would be £11399..7..11, of which sum the Council has already received £6000..0..0, leaving a balance of £5399..7..11, and I have therefore the honor as Chairman of the Piako County Council to request that that amount may be granted to the said Council in aid of the work which is now approaching completion, and which will prove a great benefit to the whole of the Upper Thames, Piako, and Waikato Districts.

I would desire to point out that the Government still retain in their lands a large area of land in the immediate vicinity of the field, the value of which will be much enhanced by the development of the Te Aroha mines.¹⁵⁵

Rolleston showed this letter to the Premier,¹⁵⁶ but no response was sent and no money was paid. Henry Whitaker had been in Wellington from 25 June to 12 August lobbying for assistance,¹⁵⁷ and 'obtained a verbal

¹⁵⁵ J.P. Campbell to William Rolleston, 8 September 1883, Mines Department, MD 1, 07/1014, ANZ-W.

¹⁵⁶ Note by William Rolleston, 19 September 1883, Mines Department, MD 1, 07/1014, NA.

¹⁵⁷ Statement of Vouchers Paid, p. 7, appended to H.A. Gordon to Oliver Wakefield, 3 December 1883, Mines Department, MD 1, 07/1014, ANZ-W.

promise', presumably from Rolleston, 'that the amount applied for would in all probability be paid'.¹⁵⁸ In November, Campbell requested that Gordon inspect the tramway as soon as possible because of the council's 'heavy liabilities'.¹⁵⁹ After visiting, Gordon warned the government 'to be careful' when considering these applications, for another tramway was 'projected' to connect with another battery 'proposed to be erected higher up Waiorongomai Creek & similar applications may from time to time be made. Unless matter is pressing it might be well not to give definite answer to Council's application until I return to Wellington when I can explain more fully how the matter stands'.¹⁶⁰ His full report, written on 3 December, revealed that £1,889 9s 1d of the cost was for 'numerous items which cannot be termed as belonging to the construction of the tramway proper', and the council had ignored receiving rails to the value of £1,014. Should the government subsidize the total cost, it owed £4,158 3s 7d, with some extra accounts still coming to hand. Although costing 'much more than what it ought to have done', the tramway was

fairly constructed and will be a great benefit to the district, and will be the means of opening up a very large field, but the present rate of charges for conveying the quartz to the battery viz 3/6 per ton will not pay for the expense of working, and maintaining the battery. I cannot see the use of the locomotive engine which the Council intends to put on to haul the trucks on the lower 70 chains of the line, as the curves are too sharp, and the tramway is not constructed at the present time fit for an engine to work on, in fact it is very questionable if ever the locomotive will be used.¹⁶¹

He appended full details of costs, which the council claimed was £17,633 14s 5d, but which Gordon, after deducting expenses such as the locomotive, the £100 voted to Adams, and £181 9s 1d claimed by councillors as expenses, reduced to £15,744 5s 4d. By then adding the rails, the total

¹⁵⁸ Charles Tuck to Minister of Mines, 24 October 1884, Mines Department, MD 1, 07/1014, ANZ-W.

¹⁵⁹ J.P. Campbell to William Rolleston, 15 November 1883 (telegram), Mines Department, MD 1, 07/1014, ANZ-W.

¹⁶⁰ H.A. Gordon to Oliver Wakefield, 3 December 1883 (telegram), Mines Department, MD 1, 07/1014, ANZ-W.

¹⁶¹ H.A. Gordon to Oliver Wakefield, 3 December 1883, Mines Department, MD 1, 07/1014, ANZ-W.

cost for the 'Tramway proper' came to £16,758 5s 4d.¹⁶² Gordon also obtained the amount allocated to the council by the Receiver of Gold Revenue: between 4 December 1880 and 24 November 1883 it had received £4,190 6s 7d.¹⁶³

On the basis of these figures, the Mines Department calculated that it was liable for £3,884 16s 10d.¹⁶⁴ On 17 January 1884, Rolleston told Campbell that although 'a considerable portion of the whole expenditure' was 'such as could not properly be met on the subsidy principle', he was prepared, 'on receiving an assurance that no further claim' would be made, to make 'a final contribution' of £3,000.¹⁶⁵ Campbell replied that his council had 'anticipated all along that they would receive a subsidy of two-thirds for one-third of Total Expenditure on Tramway & made financial arrangements accordingly'. Since Gordon's visit there had been extra payments for improvements, and while it did not expect assistance for these, it did consider the government 'should redeem their implied if not expressed promise to contribute two-thirds of the original expenditure'. He was 'not prepared to give any assurance of the nature referred to in your Telegram'.¹⁶⁶ Rolleston responded that the government had never promised any specific amount, the £3,000 being the total amount available for all the works needed for the mines. No further application would be accepted unless the proposed work was reported upon by Gordon and approved; future funding would go to other mining districts.¹⁶⁷

Firth told Rolleston that his decision would 'lead to serious consequences. On strength of assurance that two pounds for one would be granted large advances have been obtained from the bank the larger portion

¹⁶² Appendix A to H.A. Gordon to Oliver Wakefield, 3 December 1883, Mines Department, MD 1, 07/1014, ANZ-W.

¹⁶³ Return of Te Aroha Goldfield Revenue allocated to the Piako County Council, appended to H.A. Gordon to Oliver Wakefield, 3 December 1883, Mines Department, MD 1, 07/1014, ANZ-W.

¹⁶⁴ Memorandum to Oliver Wakefield, 28 December 1883, Mines Department, MD 1, 07/1014, ANZ-W.

¹⁶⁵ William Rolleston to J.P. Campbell, 17 January 1884 (telegram), Mines Department, MD 1, 07/1014, ANZ-W.

¹⁶⁶ J.P. Campbell to William Rolleston, 17 January 1884 (telegram), Mines Department, MD 1, 07/1014, ANZ-W.

¹⁶⁷ William Rolleston to J.P. Campbell, 18 January 1884 (telegram), Mines Department, MD 1, 07/1014, ANZ-W.

of which must be repaid at once beside which other payments are due to contractors which cannot be longer deferred'. He asked him to reconsider, pointing out that Hauraki mining received little assistance.¹⁶⁸ Rolleston's official response was that he had 'carefully guarded Govt against pledges. I am sure you will see that I cannot deal with the vote except in such a way as to meet all Districts fairly'.¹⁶⁹ A 'personal letter' revealed that the government was unwilling to provide more assistance for Firth's private business venture:

Thanks for your delayed telegram just received - As to my phrase "respective claims of different districts" I am afraid you don't understand how very far I have gone at present to meet the necessities of the Aroha Tramway. Please remember

(1) That the undertaking as connecting with a private battery company and really being largely a private enterprise was originally thought doubtful as having a claim on the subsidy vote and therefore was made the subject of a special vote -

(2) The special vote was especially hedged with proviso that it was final & County itself demurred to my not paying it over in a lump sum divested of all conditions

(3) My paying it over as I did on terms of progress payments did not in any way imply that the Government would continue indefinitely payments on the 2/3d principle - it having been expressly stipulated that the £6000 was a final payment on the original estimate of the work....

(5) If the rails are given by the Government the total sum will be upwards of £10000.

(6) You seem to think that expenditure made without previous authority carries with it an inherent right to a subsidy of 2 to 1. Whether this work be good or bad, necessary or unnecessary and without relation to other claims - My vote is now overrun & what can I do?

The fact is that I have strained a great deal to do what I have done, & I seem likely to be all the more abused. The only occasion on which I gave anything approaching to "an understanding" (I am glad you withdraw the word "pledge") was when I had been much pressed by F A Whitaker & I said "Well, whatever may be done you cannot expect anything like the amount asked for - £3000 is the utmost limit the vote could stand. I am now being pressed on all sides for aid to legitimate undertakings of a

¹⁶⁸ J.C. Firth to William Rolleston, 18 January 1884 (telegram), Mines Department, MD 1, 07/1014, ANZ-W.

¹⁶⁹ William Rolleston to J.C. Firth, 18 January 1884 (telegram), Mines Department, MD 1, 07/1014, ANZ-W.

permanent & public character - "Tracks & minor works on Gold Fields" is a designation which scarcely covers the Aroha Tramway - However I have done my utmost & can do no more. I hope the County will see its way to complete its financial arrangement as I am bound to go on with the consideration of other claims.¹⁷⁰

Others agreed that the tramway was of sole benefit to a private battery. 'A Shareholder' asked, at the end of May, whether the tramway was a bona fide asset belonging to the county. It had been subsidized with public money to enable quartz to be taken to the battery cheaply, but making the same charge for ore being carted any distance was, he claimed, Firth's way of handicapping any batteries that might be erected closer to the mines than his own plant.

The County Council voted Mr Adams, the Battery Company's servant, £100 donation for the able way he had conducted his work, and left unpaid storekeepers and carters who had been furnishing goods and labour. The Battery and tramway should be under totally different management, and while there are men to be found who will contract to work the tramway, charging only 3s per truck,

and keeping the line in repair, 'why should the extra charge be extorted from the different mining companies to keep alive mismanagement?'¹⁷¹ 'Justice' also claimed that 'plenty of men' would take the tramway on contract and charge only three shillings per truck. The council should 'employ as soon as possible a man who has been accustomed to building mining tramways' to make a report on its working, 'get rid of the engine which Mr Firth took such pains to make you purchase', for 'it can never be of use here, and let the conveyance of quartz by contract'.¹⁷² This was the general view: a motion was carried at a Waiorongomai meeting in May that the tramway be let on contract.¹⁷³

The pressure that Rolleston noted from Frederick Whitaker continued, for on 19 January he received a joint telegram from him and his parliamentary colleague, Whyte, asking that the two-thirds subsidy be

¹⁷⁰ William Rolleston to J.C. Firth (Private), 19 January 1884, Letterbook 1882-1884, pp. 235-238, William Rolleston Papers, vol. 5, MS 77-248, Alexander Turnbull Library.

¹⁷¹ Letter from 'A Shareholder', *Te Aroha News*, 31 May 1884, p. 7.

¹⁷² Letter from 'Justice', *Te Aroha News*, 31 May 1884, p. 7.

¹⁷³ *Te Aroha News*, 12 May 1884, p. 7.

adhered to: 'three thousand pounds quite inadequate'.¹⁷⁴ Three days later, Campbell wrote that from £5,000 to £6,000 was needed, but after discussions with Firth he accepted £3,000 on condition the government gave an assurance that the council was under no liability for the rails.¹⁷⁵ Rolleston declined to give this, for providing the rails had nothing to do with him.¹⁷⁶

PRAISE FOR ADAMS AND THE COMPLETED TRAMWAY

On 10 October, the council received the tramway committee's report:

(1) That the tramway is now complete with the exception of some small details; (2) that the locomotive is finished, and is expected to be on the first engine grade about the 15th October; (3) that the various companies are on the point of completing their connections with the tramway; (4) that in order to render the working of the tramway effective and economical, several sharp curves will require to be replaced by short tunnels, which can be done as soon as funds will allow; (5) that the Tramway Committee record their high appreciation of the very valuable services rendered by Mr H.H. Adams as engineer in completing the tramway; (6) that the committee recommends that the charge for carrying quartz from any of the mines to the battery be fixed at 3s 6d per truck, each truck having been ascertained to contain one and a third tons; (7) that a further and final sum of about £1500 will be required beyond the amounts already passed.

Including this sum, it was estimated that the total cost would be £17,500. Firth proposed votes of thanks to various people who had assisted the successful completion of 'the vast and difficult work', in particular Adams, who had ensured that everything was done in an 'excellent way'. The councillors supported his motion and granted a bonus of £100 'as a recognition of his services to the council'. Campbell then warned that it was 'very necessary' that the machinery was 'properly taken care of'. If leased, 'it

¹⁷⁴ F.A. Whitaker and J.B. Whyte to William Rolleston, 19 January 1884 (telegram), Mines Department, MD 1, 07/1014, ANZ-W.

¹⁷⁵ J.P. Campbell to William Rolleston, 22 January 1884 (telegram); J.P. Campbell to William Rolleston, 1 February 1884, 2 February 1884 (telegrams), Mines Department, MD 1, 07/1014, ANZ-W.

¹⁷⁶ William Rolleston to Oliver Wakefield, 4 February 1884, Mines Department, MD 1, 07/1014, ANZ-W.

was reasonable to think that the lessee would try and make as much out of his lease as possible, and might not care how he knocked the machinery about'. As the line 'would require to be kept in good order and carefully supervised for the first three months', he proposed that Adams be appointed supervisor. Firth, in his capacity as Adams' employer, consented to his taking on this additional task. 'A competent man would want about £200 or £300 a-year, but they could have Mr Adams for £50, as a sort of perquisite, as the Battery Company would continue to pay him his regular salary'.¹⁷⁷ The local newspaper considered Adams had done 'all that mortal man can do, labouring under great difficulties and disadvantages' in supervising the construction, and the completed work reflected 'the greatest credit' on both Stewart and Adams.¹⁷⁸ It also noted that the delayed completion had been 'little less than slow poison to the mining community'.¹⁷⁹

At the December banquet provided by the Battery Company to celebrate the first month's crushing, one of its directors, James McCosh Clark,¹⁸⁰ proposed a toast to the council. Praising its progressiveness, he said councillors had 'not only exhausted all their resources in moving the Government to the construction of the tramway, but they also pledged their credit'. He hoped those portions of the county 'pinched for this purpose' would receive some of the goldfield revenue. 'Had the Council not recognised the difficulty of the situation in which the young goldfield was placed, it would have been seriously retarded'. Campbell responded:

The Council had entered with considerable trepidation upon the work of constructing the tramway, for they were embarrassed by lack of funds, but believing it to be indispensable for the development of the goldfield, they had undertaken it, trusting to Providence. They had many unforeseen difficulties to cope with and overcome, with the result that the work involved an expenditure of £18,000, instead of £10,000, as originally contemplated. Every member of the Council had loyally united in carrying out the undertaking, and Patetere and other districts requiring roads and bridges were content to wait its completion, believing that the result would vindicate its prudence.

¹⁷⁷ *Waikato Times*, 11 October 1883, p. 2.

¹⁷⁸ *Te Aroha News*, 3 November 1883, p. 2.

¹⁷⁹ *Te Aroha News*, 18 August 1883, p. 2.

¹⁸⁰ See paper on the Battery Company.

Firth gave 'well-deserved praise' to Stewart and Adams: his statement that the tramway was 'a monument' to their 'engineering skill and indomitable pluck' was cheered.¹⁸¹

DEFECTS DISCOVERED

On 23 October, two years after the field was discovered, ore was sent to the battery.¹⁸² Within a week, 100 tons had been conveyed, and it was expected that up to 80 trucks a day would be sent down by the first week of November. 'After a few days working, and a little alteration, it will be in full swing'.¹⁸³ In general, the line was working well: the inclines were 'working admirably, particularly the two lower'. The May Queen incline 'was found not to work so well as was expected, owing to some malformation' which was 'rectified for the present' by Adams and would be 'permanently remedied during the Christmas holidays'.¹⁸⁴ Some connections were still being made, such as a tramline three chains long at the very end of the line, from the Vulcan mine to the Premier hopper.¹⁸⁵ Miners were able to bring up goods much more quickly 'and without the knocking about they would get by being packed up on horses'.¹⁸⁶

At the end of November, the council was informed by Firth that although the tramway was 'working very well', on one incline there was 'a considerable amount of wear and tear on the rollers' which would be solved by replacing the wooden rollers by iron ones bossed with rope. Adams reported only 'a few minor alterations' having been needed before everything worked 'most satisfactorily', with the exception of the May Queen incline, which he had to alter 'considerably' before he 'could get it to work. In consequence of this, and some few other alterations', the pay-sheet for the month was 'heavier' than anticipated. He was sending down 60 tons per day, and could send more. It was agreed to construct ten additional trucks.¹⁸⁷

¹⁸¹ *Te Aroha News*, 8 December 1883, p. 3.

¹⁸² H.H. Adams to Tramway Committee, 15 November 1883, printed in *Waikato Times*, 29 November 1883, p. 3.

¹⁸³ *Te Aroha News*, 27 October 1883, p. 2.

¹⁸⁴ *Waikato Times*, 3 November 1883, p. 2.

¹⁸⁵ *Thames Star*, 22 November 1883, p. 2.

¹⁸⁶ *Te Aroha News*, 17 November 1883, p. 2.

¹⁸⁷ *Waikato Times*, 29 November 1883, p. 3.

On 12 December, it was reported that the tramway was ‘working up to expectations, and, were it needed, could easily bring down enough dirt to keep another 40-head mill going’. On Butler’s Incline, however, the brakesman was ‘at a disadvantage, he being unable to see the truck he is lowering for the greater part of the distance, owing to the undulations of the section. The wear and tear on rollers here is heavy, owing to the great weight of the rope’.¹⁸⁸ As this meant extra costs, three days later a *Te Aroha News* editorial called for improvements. ‘We are not inclined to be censorious, being well aware that there are many difficulties in the initiation of a new undertaking, and the present cost of working the tramway must not be taken as a criterion of what the cost will be when the things have fallen properly into their places’. But the council could not continue to employ 20 men to bring down 40 trucks a day. As ‘considerable delay’ was ‘frequently occasioned by empty trucks waiting for the full ones to pass on the lower horse grade’, it recommended constructing loop-lines ‘at advantageous points on the grade’. It seemed ‘strange’ that three men worked each brake, for other incline tramways required only one man. It suggested cutting staff by a half or a third by obtaining additional trucks and sending 15 to 20 down each grade at a time; ‘the men could then be moved on to the next grade and so on’.¹⁸⁹ Gordon discovered that the brakes and gearing required two men.¹⁹⁰ A local correspondent considered there was over-staffing, for the men were not working ‘one half of their time’ because of lack of work. ‘Were there five times the number of stampers on the flat to be supplied there might be some reason for it: as it is the thing is preposterous’. It should ‘be possible to find these men other employment on alternate days’. More trucks were required, for the battery hoppers were nearly empty. As quartz was treated as fast as it arrived, any stoppage meant ‘an almost simultaneous stoppage of the battery for want of quartz’.¹⁹¹

Criticisms of the construction were muted at first, but increased once the tramway was in operation. In April 1884, Kenrick wrote that ‘experience has shown that the tramway might have been more

¹⁸⁸ Special Reporter, *Thames Star*, 12 December 1883, p. 2.

¹⁸⁹ Editorial, *Te Aroha News*, 15 December 1883, p. 2.

¹⁹⁰ H.A. Gordon to Under-Secretary, Mines Department, 20 May 1884, *AJHR*, 1884, H-9, p. 2.

¹⁹¹ Te Aroha Correspondent, *Auckland Weekly News*, 22 December 1883, p. 13.

economically constructed'.¹⁹² One ratepayer attacked both Stewart and Adams: when Stewart's supervision was 'not satisfactory, the Battery Company's manager was dubbed engineer and employed to do the work by rule of thumb'. The work was a 'continued bungle and series of mishaps'.¹⁹³ After the tramway had been working for nearly a year a mine manager, Edward Kersey Cooper,¹⁹⁴ stated that new wire ropes were needed for the two upper inclines, for the ones used were 'far too cumbersome, and occasioned far too much wear and tear. The windlasses too ought to be moved nearer to the top of the spurs'.¹⁹⁵ A month later he claimed the tramway had been 'most imperfectly constructed, particularly as regards the incline grades'. He repeated that the windlasses were in the wrong places, for the steel ropes 'cut through rollers and a distance into the sleepers and the earth between them'.¹⁹⁶

High costs very soon became a matter of controversy, but the tramway was unavoidably expensive. A 1906 report by the general manager of the Komata Reefs Company noted that the length and winding nature of the horse grades combined with the inclines meant that haulage would be 'very expensive' unless the tonnage was 'sufficiently large to keep continually going'. On the basis of 40 tons conveyed each day, he estimated the cost of upkeep at about three shillings per ton.¹⁹⁷ In November 1883, the council, after a month of charging 3s 6d per truck, raised it to 4s 6d until more quartz was conveyed. In subsequent years it was reluctant to make any reductions; indeed in both 1884 and 1917 it specified that charges could be increased if running expenses were not met.¹⁹⁸ That there were constant and costly repairs was indicated by testimonials written for the retiring tramway manager, John Samuel Hill, in 1916. During his seven years he

¹⁹² Harry Kenrick to Under-Secretary, Mines Department, 19 April 1884, *AJHR*, 1884, H-9, pp. 19-20.

¹⁹³ Letter from 'Ratepayer', *Waikato Times*, 12 September 1885, p. 3.

¹⁹⁴ See paper on his life.

¹⁹⁵ *Te Aroha News*, 30 August 1884, p. 2.

¹⁹⁶ Letter from E.K. Cooper, *Te Aroha News*, 27 September 1884, p. 2.

¹⁹⁷ F.C. Brown, 'Report on the Mining Property owned by Hardy's Mines Ltd and situated at Waiorongomai', 1 March 1906, Mines Department, MD 1, 23/4/54, ANZ-W.

¹⁹⁸ 'Te Aroha Tramway', *Waikato Times*, 29 November 1883, p. 3; *AJHR*, 1884, H-9, p. 21; Conditions laid down in Warden's Court on 23 June 1884, Mines Department, MD 1, 21/2/4, ANZ-W; Piako County Council, License for a Tramway, 18 September 1917, Matamata-Piako District Council Archives, Te Aroha.

‘on many occasions had to remake large portions’, often blasting rock to remove slips or make a new rail-bed.¹⁹⁹

THE FIRST YEAR OF WORKING

During the 1883 Christmas holiday, several repairs were made, especially altering the May Queen incline and reconstructing the foot of Butler’s Spur.²⁰⁰ A hollow in the centre of the May Queen incline was raised by ten feet and a flat part of Butler’s Incline removed, but other improvements were required elsewhere.²⁰¹ Although in January the locomotive was to be sent up the hill immediately,²⁰² this never happened. Also in January, the tramway committee reported that, ‘considering the extraordinary difficulties which had to be grappled with’, the line was working well. Expenses had ‘been heavier than will now be necessary’, as the number of employees ‘been reduced to the lowest number consistent with efficiency’. Wages would now be eight shillings per day ‘for competent hands’. Four plough horses would be purchased and a small crane and weighing machine placed at the foot of the tramway for goods being sent up the line for a minimum charge of one shilling per parcel and per hundredweight.²⁰³

Reducing the wages provoked a brief strike;²⁰⁴ after its defeat only 14 men were re-employed.²⁰⁵ The new rate of pay was supposed to be coupled with shorter working hours.²⁰⁶ According to ‘*Miner*’, the men’s wages were being cut because the construction and control of the tramway were in ‘glaringly incompetent hands’. It should have been built for £10,000, the £500 allocated ‘to rectify *some* of the former stupid mistakes’ would provide only ‘a very trifling improvement’, and some mistakes were totally beyond

¹⁹⁹ Testimonials by R.S. Hanna (County Clerk), 16 June 1916; D.W. McArthur (County Engineer), 22 June 1916; W.T.W. Hughes, 10 June 1916, John Samuel Hill Papers, in possession of Eric Hill, Cambridge.

²⁰⁰ *Te Aroha News*, 29 December 1883, p. 2.

²⁰¹ *Te Aroha News*, 5 January 1884, p. 2; *Thames Star*, 7 January 1884, p. 2.

²⁰² *Te Aroha News*, 12 January 1884, p. 2.

²⁰³ Piako County Council, *Waikato Times*, 5 January 1884, p. 2; Piako County Council, *Te Aroha News*, 12 January 1884, p. 2.

²⁰⁴ See paper on the strike at Waiorongomai in 1884.

²⁰⁵ *Auckland Weekly News*, 2 February 1884, p. 13.

²⁰⁶ *Waikato Times*, 29 January 1884, p. 2; *Thames Star*, 30 January 1884, p. 2.

the ability of those in control to cope with. Charges were ‘altogether insufficient to clear the working expenses of such a badly constructed line’, which was ‘a complete bungle from beginning to end, in every particular and detail exhibiting a ‘prentice hand’,²⁰⁷ an attack on Adams. Three weeks later, the tramway was reportedly working ‘much better’.²⁰⁸

Adams suggested that tenders be sought to work it, a proposal that pleased the local newspaper because ‘it would conduce to economy, and in every respect give more satisfaction’ to the companies.²⁰⁹ A contract enabling miners to have ore carted to the battery ‘at so much a truck’ also had the support of one Te Aroha correspondent, for it might mean more efficient and cheaper working.²¹⁰ For the moment, this idea was not adopted.

In January 1884, Joseph Stacey and Patrick Comisky were planning to build a battery beside the Waiorongomai Stream below Butler’s Incline.²¹¹ Stacey was a confectioner who had earlier invested in mines at Thames, Coromandel, Ohinemuri and even, in 1869, a possible one at Waitakere.²¹² By 1884 he had shares in one claim and six companies at Waiorongomai.²¹³ Comisky, a ‘plucky and lucky speculator’,²¹⁴ had earlier invested in several other mining districts, notably the West Coast.²¹⁵ He had been a director of

²⁰⁷ Letter from ‘Miner’, *Thames Advertiser*, 14 January 1884, p. 3.

²⁰⁸ *Thames Advertiser*, 6 February 1884, p. 2.

²⁰⁹ *Te Aroha News*, 26 January 1884, p. 2.

²¹⁰ Te Aroha Correspondent, *Waikato Times*, 26 January 1884, p. 2.

²¹¹ *Te Aroha News*, 12 January 1884, p. 2.

²¹² *Auckland Provincial Government Gazette*, 30 July 1869, p. 652; *New Zealand Gazette*, 24 October 1878, p. 1458, 24 November 1881, p. 1589, 1 December 1881, p. 1601, 12 January 1882, p. 66, 20 July 1882, p. 988, 28 September 1882, p. 1363, 19 October 1882, pp. 1522, 1523, 2 November 1882, p. 1617, 14 December 1882, p. 1886, 21 December 1882, pp. 1915, 1916.

²¹³ Te Aroha Warden’s Court, Register of Te Aroha Claims 1880-1888, folio 276, BBAV 11567/1a, ANZ-A; *New Zealand Gazette*, 14 September 1882, p. 1264, 19 October 1882, p. 1552, 6 September 1883, p. 1266, 20 September 1883, p. 1345, 4 October 1883, p. 1437, 29 November 1883, p. 1705.

²¹⁴ *Observer*, 29 June 1895, p. 5; see also 9 February 1907, p. 5.

²¹⁵ For example, *New Zealand Gazette*, 1 September 1879, p. 1268, 17 February 1881, p. 240, 24 February 1881, p. 258, 17 March 1881, p. 342, 19 May 1881, p. 652, 29 December 1881, p. 1696.

at least one company.²¹⁶ He had been investing in Waiorongomai mining for two years, with shares in one claim and five companies.²¹⁷ In September 1883 he bought the rights to John Bullock's planned water race,²¹⁸ which ended at the proposed battery site, which he acquired two months later.²¹⁹ The council was asked whether 'it would construct a siding continuing the first level grade of the present tramway for a distance of about three quarters-of-a-mile'.²²⁰ The tramway committee was interested, for the additional battery, whilst not increasing costs greatly, would considerably increase revenue,²²¹ but it did not eventuate.

In February, 'owing to the improvements made to the grades during the holidays', the line was 'working very much better than it did last year', and 'a great saving' was expected.²²² More trucks were 'badly required'.²²³ In March, heavy rain caused some small slips.²²⁴ At that month's council meeting, the owners of the Eureka mine asked that the branch line from the top of the May Queen incline be extended another 160 feet. This provoked complaints from three councillors who represented the rural parts of the county (and who had not invested in any mines):

²¹⁶ *New Zealand Gazette*, 24 March 1881, p. 351.

²¹⁷ *Te Aroha Mail*, n.d., cited in *Freeman's Journal*, 1 September 1882, p. 10; *Te Aroha News*, 8 September 1883, p. 2; Te Aroha Warden's Court, Register of Licensed Holdings 1881-1887, folio 65, BBAV 11500/9a, ANZ-A; *New Zealand Gazette*, 23 March 1882, p. 490, 17 August 1882, p. 1131, 19 October 1882, p. 1522, 20 September 1883, p. 1345, 27 September 1883, p. 1369.

²¹⁸ Te Aroha Warden's Court, Transfers and Assignments 1883, Transfer dated 4 September 1883, BBAV 11581/4a; George Wilson to Patrick Comisky, 6 November 1883, 4 December 1883, 18 December 1883, Letterbook 1883-1900, pp. 8, 14, 16, BBAV 11534/1a, ANZ-A.

²¹⁹ Te Aroha Warden's Court, Letterbook 1883-1900, p. 59, BBAV 11534/1a; Register of Applications 1883-1900, 218/1883, BBAV 11505/1a, ANZ-A.

²²⁰ *Te Aroha News*, 12 January 1884, p. 2.

²²¹ Piako County Council, *Te Aroha News*, 12 January 1884, p. 2.

²²² *Auckland Weekly News*, 2 February 1884, p. 13; see also *Thames Star*, 1 February 1884, p. 2; *Thames Advertiser*, 6 February 1884, p. 2; Piako County Council, *Waikato Times*, 16 February 1884, p. 2.

²²³ Te Aroha Correspondent, *Waikato Times*, 5 February 1884, p. 2.

²²⁴ *Te Aroha News*, 15 March 1884, p. 2.

Cr Chepmell thought the tramway was becoming quite a white elephant. It represented the expenditure of a large amount of money. – Cr Ellis thought that a constant overseer would be required to see that the tramway was properly conducted, to see that the men engaged on it did their duty and to see that the expense was kept down. The tramway had not proved a very paying concern to the county as yet. – Cr Maclean was not in favor of any further expenditure on the part of the council on the tramway,

a view shared by Ellis. Accordingly, the extension was made to the Eureka hopper, at the company's expense.²²⁵ While councillors were worrying about expenses, miners and investors considered the cost of conveying quartz was 'too much', as Joshua Cuff,²²⁶ a local solicitor who had invested in seven claims and four companies,²²⁷ told a public meeting.²²⁸

Early in May, a council meeting was informed that the Colonist and New Find had jointly sent down only 165 trucks during the previous week, meaning 'a loss of £12 10s a week, which if not kept down may involve an increased charge of 1/6 per truck'. Firth assured his colleagues that several mines about to start sending ore would 'make up the difference'.²²⁹ At another meeting late in the month, Firth stated that, as expenses must be kept below revenue, he and Adams were seeking to cut costs. Although Adams was 'ably' doing so, Firth 'had felt it necessary to point out' to him 'in a very forcible manner the extraordinary difficulty which the council experienced in raising' money to work it. Costs had to be 'kept down to the lowest possible limit', and the council was 'determined that whatever the tramway had cost would be charged' to users; yet he recognized that increased charges meant the line would be closed, as companies could not afford to pay more. Adams had 'explaining satisfactorily the reason of the

²²⁵ Piako County Council, *Waikato Times*, 20 March 1884, p. 2; *Te Aroha News*, 31 May 1884, p. 2.

²²⁶ See advertisement, *Te Aroha News*, 9 June 1883, p. 1; *Cyclopedia of New Zealand*, vol. 1 (Wellington, 1897), p. 1281.

²²⁷ Te Aroha Warden's Court, Register of Te Aroha Claims 1880-1888, folios 18, 30, 21, 48, 140, BBAV 11567/1a Register of Licensed Holdings 1881-1887, folios 144, 161, 162, BBAV 11500/9a, ANZ-A; *New Zealand Gazette*, 23 March 1882, p. 490, 27 April 1882, p. 646, 18 October 1883, p. 1518, 29 November 1883, p. 1703.

²²⁸ *Thames Advertiser*, 2 April 1884, p. 3.

²²⁹ Piako County Council, *Waikato Times*, 10 May 1884, p. 2.

extra expense complained of. Now that the battery had sufficient water to work at full capacity, Adams expected that the tramway would earn a surplus of from £60 to £70 a month over working expenses. Returns for the month to 24 May showed that 616 trucks had been conveyed, earning £138 12s for ore cartage and £12 12s 6d for up-freight; after wages had been paid, the profit was £11 2s 2d.²³⁰ This prompted the *Te Aroha News* to state that 'few' would deny that the tramway was 'defective, both in construction and management'. Adams' forecast of a monthly profit was 'hardly likely to occur' because mines were sending little ore down due to the cost of haulage; only the highest grade was sent. It repeated that the line should be leased to someone who would charge three shillings per truck.²³¹

During June, the council negotiated with Kenrick to obtain title to the tramway. The draft agreement was made available at the warden's office for comment and suggestions, for, as a local correspondent wrote, the terms were 'a matter of the gravest importance to every resident'.²³² Kenrick included a clause specifying that charges were

not to exceed four shillings and sixpence per truck ... except in case such charge does not cover the full necessary expense of working the Tramway when the rate to be charged shall be the actual cost of conveying quartz over the Tramway. For goods or mining requisites for one hundredweight or any portion of one hundredweight the charge not to exceed one shilling per hundredweight up to five hundredweight beyond that weight by arrangement.²³³

In his report for June, Adams wrote that the extension to the Eureka hopper had been completed

by the ordinary hands employed on the tramway when they were not otherwise engaged in working the line. During the month I have had some of the men at odd jobs forming a roadway from the foot of the tramway down on to the flat part of the country. This is completed now and enables goods to be sleighed or packed right up to the tramway line, and not left some 50 yards off to be carried up by men at a very great labour.

²³⁰ Piako County Council, *Waikato Times*, 31 May 1884, p. 3.

²³¹ Editorial, *Te Aroha News*, 7 June 1884, p. 2.

²³² Te Aroha Correspondent, *Waikato Times*, 19 June 1884, p. 2.

²³³ Conditions laid down in Warden's Court on 23 June 1884, Mines Department, MD 1, 21/2/4, ANZ-W.

Heavy rain and three days of storms had caused ‘a considerable amount of damage’. A large slip on the southern side of the main tunnel stopped all traffic for two days:

It has cost, I estimate, from £25 to £30 to remove the obstruction. This cost is included in the amount of £150 for the month’s pay sheet. Had it not been for the stoppage and the very rough weather we have experienced the last few days, the return for the last week of the month would have been better than usual. As it is, it is up to our average.²³⁴

Revenue for the month was £150, but wages were £120 and £30 had been spent repairing the slip. ‘Next month I hope to have the interest paid at any rate’, said Firth. An offer from a miner, William McLean (whose career is described later), to operate the tramway for 3s 6d per truck was ‘not entertained’ after Firth warned that the higher charge was needed to meet the interest payment of £800.²³⁵

Adams reported the first accident of any note, on 9 June:

A loaded truck which had just left the top of the May Queen self-acting grade broke away from the shackling and went down with a rush, and coming into contact with the empty wagon which stood at the lower end of the grade threw both of them off the line. The line was not damaged in any way, but the trucks were so injured that it will cost, I estimate, £6 to repair them. I do not attach any blame to any of the men for the accident, believing that it occurred entirely through faultiness in the iron.²³⁶

ARGUMENTS OVER MANAGEMENT

At the council meeting held on 30 July, after receiving a report from Adams that for the month to 19 July there had been a profit of £62 14s 7d, which after repairing storm damage had been reduced to £40 15s 7d, the tramway was ‘discussed at considerable length’. Two councillors, Philip Chepmell and Charles Gould, ‘attacked the present management as being

²³⁴ ‘Te Aroha Tramway’, *Waikato Times*, 28 June 1884, p. 2; see also *Te Aroha News*, 21 June 1884, p. 2.

²³⁵ Te Aroha Correspondent, *Waikato Times*, 28 June 1884, p. 2; Piako County Council, *Te Aroha News*, 5 July 1884, p. 2.

²³⁶ ‘Te Aroha Tramway’, *Waikato Times*, 28 June 1884, p. 2.

altogether too costly and not what it might be'.²³⁷ Gould, a farmer at Waitoa,²³⁸ had invested in the Te Aroha battery and two Waiorongomai mines.²³⁹ Adams was defended by Firth, 'who considered that the management was as satisfactory as could be expected under the circumstances'. Chepmell, another farmer, considered there was something 'radically wrong', for despite all the council's assistance 'this was the first month a surplus had been shown. He thought they could very well devise some very much better, more advantageous and more economical way of working'. He considered the charges 'prohibitory', but Firth, whose interests as a battery proprietor needing to receive the maximum amount of ore might have been expected to agree, denied this. He argued that the cause was that 'very few mines were working' compared to the number 'they were led to expect'. If there were four batteries, the charge would be 15 pence a ton. It was 'utterly impossible' to work it 'with fewer men', and if 'such a valuable work' was leased 'it would be a perfect wreck in about six weeks'. Chepmell responded that they had been told it would carry quartz at two shillings; 'nothing but first class stuff would pay' with present charges. It was unanimously agreed to ask the District Engineer to report on its working and management. Firth was reluctant to have this report made, for 'one engineer always reported against the work of another'. In response to Chepmell's querying of the non-use of the locomotive, Firth admitted its purchase had been 'somewhat premature', but argued that had the crushing power of his battery come up to expectations or another one been erected nearby, it would have been indispensable. He rejected Chepmell's call to sell it, for 'it was quite possible the time was not far distant when it would be required'. Some mines had unpayable ore, the battery was only able to crush 300 tons a week instead of the 500 guaranteed, the ore was much harder than at Thames, and it cost £1 per ton to bring it to the battery hoppers, far more than at Thames. 'Had the thing turned out as expected the charge would have been about 1s 3d'.²⁴⁰

²³⁷ Piako County Council, *Waikato Times*, 2 August 1884, p. 3.

²³⁸ See paper on his life.

²³⁹ Te Aroha Warden's Court, Register of Te Aroha Claims 1880-1888, folios 135, 138, BBAV 11567/1a, ANZ-A; *New Zealand Gazette*, 28 April 1881, p. 476, 6 September 1883, p. 1266, 27 September 1883, p. 1369.

²⁴⁰ Piako County Council, *Waikato Times*, 2 August 1884, p. 3; Piako County Council, *Te Aroha News*, 2 August 1884, p. 2.

James Munro, a blacksmith and contractor who had been involved with mining at Thames,²⁴¹ and was a part owner of six claims at Te Aroha and Waiorongomai,²⁴² rejected Firth's argument that contractors would wreck the tramway. 'Surely no contractor, worthy of the name, would ever think of fastening two trucks with strings to the hooks with the wire rope, as was done at first under the present management, whereby the trucks were irretrievably smashed'.²⁴³ In response to their critics, Adams resigned as manager and Firth as chairman of the tramway committee.²⁴⁴ Firth 'looked upon the proceedings of last meeting as a direct vote of censure'; although Chepmell insisted his remarks had not been intended as such, he moved that the resignations be accepted.²⁴⁵ Firth said that until new arrangements were made 'he would continue to do his best in the interests of the Council and all concerned.... The interests of the tramway were of a very complex nature, and very important, and it would not do to trifle with them'.²⁴⁶

The report was written, not by an outside engineer, but by four local mine managers, Hugh McLiver,²⁴⁷ John Benney,²⁴⁸ Thomas Gavin,²⁴⁹ and James Richard Shaw Wilson.²⁵⁰ Their report unreservedly supported Firth and Adams:

We consider that the position of manager of the Te Aroha Tramway from the date of opening until now has been a trying and difficult one for anybody to occupy, for many reasons:- Ist, on account of the peculiar nature of the country, the line is peculiarly subject to slips and damage caused by rains - damage

²⁴¹ See Thames Warden's Court, Register of Claims 1872-1874, claims 1, 39, 157, 171, BACL 14397/8a, ANZ-A; *Thames Advertiser*, 27 April 1875, p. 3, 8 September 1876, p. 2, 30 August 1877, p. 2, 5 July 1878, p. 2, 23 June 1885, p. 3; *Te Aroha News*, 31 January 1885, p. 2, 19 March 1887, p. 2.

²⁴² Te Aroha Warden's Court, Register of Te Aroha Claims 1880-1888, folios 144, 283, 285, 304, 305, 328, BBAV 11567/1a, ANZ-A.

²⁴³ Letter from James Munro, *Te Aroha News*, 16 August 1884, p. 2.

²⁴⁴ *Waikato Times*, 19 August 1884, p. 2.

²⁴⁵ *Waikato Times*, 16 August 1884, p. 2.

²⁴⁶ Piako County Council, *Waikato Times*, 19 August 1884, p. 3.

²⁴⁷ See papers on the New Find mine and on Henry Hopper Adams.

²⁴⁸ See paper on Henry Hopper Adams.

²⁴⁹ See paper on his life.

²⁵⁰ See paper on the Eureka mine.

which has often cost a large sum of money to repair. 2nd- From the fact that only a few of the mines on the hill are as yet anything [but] well opened up, the supply of quartz has often been very short of what it otherwise might have been. Had a constant and regular supply of quartz been forthcoming at all times, the line no doubt might have been somewhat more cheaply worked than it has been. But for this we do not consider that Mr Adams has been in any way to blame. 3rd - Comparisons have sometimes been made to the working of the Thames tramways.... We think that, considering the length of the Te Aroha tramway and the height of the self-acting grades, the Te Aroha tramways have been, and are being now, worked quite as cheaply and as efficiently as were those on the Thames. 4th - We are individually and collectively of opinion that the past management of the Te Aroha tramway has been quite as good and as economical as it has been possible to make it under the difficulties that have had to be contended against, and are also of opinion that great credit is due to Mr Adams for the manner in which he has conducted the management. At all times has the greatest care been paid so as to ensure the strictest economy in the working of the line. 5th - We are of opinion that had there been another battery of equal number of stampers to the present one, and a proportionate amount of quartz been acquired and forthcoming, that not only could the cost of transit have been reduced from 4s 6d, but that also a surplus above working expenses would have been derived every month.²⁵¹

Firth, first to speak when the council debated the report, stated that the whole affair was 'a grave mistake' and it 'would have cause to regret the step they had taken', for they had 'thrown discredit on their own property'. The success of the goldfield and even 'the entire county', which needed a market for its primary produce, depended on the success of the line. Should it fall into incompetent hands, 'and there was every possibility that it would', the field would be ruined. He defied anyone to say the management could be improved. 'When the idea of constructing the tramway was first conceived it was at once declared impracticable, it could never be carried out, it was a mere fad and what not'. When it was constructed despite 'almost insuperable difficulties', the cry was raised that it could never be worked. When shown that it could be, faults were found with the management. Because Gordon twice praised it, the government had granted assistance. If the line was leased and things went wrong, 'it would be the council and not the lessee who would be responsible'. He opposed leasing

²⁵¹ Piako County Council, *Waikato Times*, 19 August 1884, p. 3.

because of the risk it would be operated by ‘a person whose only interest would be to make as much out of it as he possibly could, ignoring any necessary repair’.

Chepmell referred to ‘general dissatisfaction’ with the management. ‘It was a hard thing to get at the truth. He had tried to find out as much as he could, and he thought it was only their duty when they found so much dissatisfaction to get some competent person to report on the matter and find out what was really wrong’. He proposed, and Gould seconded, that Edmund Cookson be appointed temporary manager under the supervision of Francis Pavitt.²⁵² (At the age of 19, in 1863 Cookson had enlisted in the First Waikato Regiment but after serving for nearly three years had not applied for a land grant. ‘Being young I went to the West Coast when the rush broke out and remained there for upwards of 17 years’. He had moved to Waiorongomai in 1882.²⁵³ He worked as a platelayer when the tramway was constructed.²⁵⁴ An indication of how he was respected by his fellows was his election to the committee of the Te Aroha Miners’ Accident Relief Fund;²⁵⁵ in the following decade he was a member of the Waiorongomai School Committee.²⁵⁶ There was no suggestion that he had any previous experience in managing tramways, but he had worked under Adams as traffic manager.²⁵⁷ Pavitt was a civil engineer and surveyor who would become the first permanent county engineer in 1892.²⁵⁸ He had shares in three claims and three companies.²⁵⁹) Firth responded that Adams had saved £2,000 during the construction, and that criticisms of him were based on ignorance, ‘merely what the man in the street had said, and was saying, and beyond this there was nothing to go upon’. The motion was lost by one

²⁵² Piako County Council, *Waikato Times*, 19 August 1884, p. 3.

²⁵³ Petition of Edward Cookson, 1903, Legislative Department, LE 1, 1903/10, ANZ-W; see *New Zealand Gazette*, 11 July 1878, p. 999, 26 September 1878, p. 1328, 4 August 1881, p. 1003.

²⁵⁴ Te Aroha Tramway, Vouchers Paid, Mines Department, MD 1, 07/1014, ANZ-W.

²⁵⁵ *Te Aroha News*, 16 February 1884, p. 2, 6 March 1889, p. 2.

²⁵⁶ *Te Aroha News*, 27 April 1895, p. 2.

²⁵⁷ Piako County Council, *Waikato Times*, 2 April 1885, p. 2.

²⁵⁸ See advertisement, *Te Aroha News*, 9 June 1883, p. 1; *Cyclopedia of New Zealand*, vol. 2, p. 825; *Auckland Weekly News*, 2 July 1908, pp. 26, 36.

²⁵⁹ Te Aroha Warden’s Court, Register of Licensed Holdings 1881-1887, folios 118, 140, 151, BBAV 11500/9a, ANZ-A; *New Zealand Gazette*, 31 May 1883, p. 722, 18 October 1883, p. 1518, 29 November 1883, p. 1703.

vote, Chepmell and Gould being outvoted by Firth, his son William Thornton Firth,²⁶⁰ who had invested in three claims and one company,²⁶¹ and William Louis Campbell Williams, his brother-in-law and manager of his Matamata Estate from 1865 to 1877,²⁶² who had no mining investments. (This vote was only the second division since the council's formation in 1877.)²⁶³

Firth then revealed that, on Williams' instructions, when in Auckland he had investigated ways to reduce their debt and appropriate terms for leasing:

They had reduced the number of their creditors to five. Of these five the lowest amount was £50, and the highest was that due Messrs Price Bros, of the Thames - viz.: £2000. The most feasible plan for the council to pursue was to obtain the authority in the recognised manner to raise a loan, say to the extent of £8000. Should they succeed in obtaining a share of the annual grant to goldfields, say £3000, the amount would then be reduced by that sum. They should then have only to issue debentures to the extent of £5000, and this could not be issued at a lower rate than 7 per cent.

With goldfield revenue and gold duty from increased mining, the debentures could be cleared in five years. After discussion about terms for a lease, this was left to the next meeting to decide, and councillors discussed how to avoid paying for the rails provided by the government, which wanted them either paid for, or returned, by October.²⁶⁴

Leasing had become a political issue. In his address for the council election in August, Denis Murphy,²⁶⁵ then a farmer who would become a mine owner in the early twentieth century,²⁶⁶ called for leasing, despite

²⁶⁰ See *Te Aroha News*, 26 July 1935, p. 4.

²⁶¹ Te Aroha Warden's Court, Register of Licensed Holdings 1881-1887, folios 158, 186, BBAV 11500/9a; Plaintiff Book 1880-1898, 10/1889, 3/1890, BBAV 11547/1a, ANZ-A; *New Zealand Gazette*, 23 March 1882, p. 490.

²⁶² Mona Gordon, *The Golden Age of Josiah Clifton Firth* (Christchurch, 1963), pp. 47, 137, 205, 206.

²⁶³ *Waikato Times*, 19 August 1884, p. 2.

²⁶⁴ Piako County Council, *Waikato Times*, 19 August 1884, p. 3.

²⁶⁵ See paper on his life.

²⁶⁶ Te Aroha Warden's Court, Mining Applications 1908, 25/1908, BBAV 11289/19a; Mining Applications 1911, 8/1911, BBAV 11289/21a, ANZ-A.

admitting the line could not be worked more cheaply at the moment. His rival, mine manger Edward Kersey Cooper, at first wanted it let on contract,²⁶⁷ but soon suggested that Cookson, in charge temporarily, be made working manager. 'With the present small amount of stuff passing over the tramway, he did not think anyone would be found to take it on contract on the terms that would probably be required by the County Council, and to find the large security they would require'.²⁶⁸

The *Waikato Times* noted that many of the complaints had 'arisen from the tales of that fertile genius, the man in the street, still, it is generally believed by those in a position to know, that the management of the tramway, in some way, may be greatly improved upon'. It was likely that the terms of any lease would

be of a prohibitory character. It is not likely that a contractor will lease the tramway on the condition that he not only keeps the line in repair, but is responsible for all damages, of whatever character, when a landslip is likely to occur at any time, representing damage to the extent of thousands of pounds.²⁶⁹

MALICIOUS DAMAGE

Some damaged was beyond human control. For instance, in August 1884, after continuous rain for 48 hours combined with a gale created the heaviest storm yet experienced, slips blocked the line for a week and cost about £100 to clear.²⁷⁰ But on the night of 29 April that year, the wire rope on the Fern Spur incline was 'maliciously broken and damaged to the extent of £20.... Had not the damage to it been discovered before being used a serious accident might have happened'.²⁷¹ Describing this as 'one of the most cowardly and malicious actions' it had ever reported, the *Te Aroha News* described how a tramway hand, when going to his post, had chanced to see something wrong with the rope:

²⁶⁷ *Te Aroha News*, 23 August 1884, p. 2.

²⁶⁸ *Te Aroha News*, 30 August 1884, p. 2.

²⁶⁹ Editorial, *Waikato Times*, 19 October 1884, p. 2.

²⁷⁰ *Waikato Times*, 19 August 1884, p. 2, 21 August 1884, p. 3; *Te Aroha News*, 23 August 1884, p. 2, 30 August 1884, p. 2.

²⁷¹ *New Zealand Police Gazette*, 14 May 1884, p. 80.

On examining it [he] found that two of the strands had been cut or hammered into with some blunt instrument, the marks of which were observable on the iron rail alongside which had evidently been used as an anvil. It is needless to speculate on the possible consequences had the injury not been discovered in time. The sound portion of the rope being unequal to the strain put upon it by a loaded wagon would have parted, and truck and contents would have gone rushing down the incline and been smashed to pieces, and it would only have been by something little short of a miracle if the men at the bottom of the grade saved their lives. The line is there hemmed in between two high banks, and in the dense fog that prevailed on Tuesday morning, escape would have been almost impossible.²⁷²

The blame was laid, 'probably wrongly, upon some of the men recently discharged';²⁷³ who was responsible was never discovered. On 26 and 27 August, 'two small stones were maliciously placed' on the line, causing 'one of the trucks, value £15, to run down the incline with such force that it was broken to pieces'.²⁷⁴ This was at first considered to be an accident, like another on 27 August, when 'the stop chock at the top of Fern Spur got out of position' and 'a loaded truck got under weigh almost before the man in charge was aware, and once on the steep incline went down at a fearful speed; fortunately, however, it got smashed up before reaching the bottom'. This was especially fortunate because a truck loaded with dynamite and detonators was waiting below: 'in the event of a collision a fearful explosion would probably have taken place'.²⁷⁵ It was soon discovered to be the work of 'some evil-disposed person' who had tampered with the chock 'with a view to causing serious damage, thereby prejudicing the public and the County Council against the present management'.

It is well known that a few specimens have been busying themselves to make matters appear worse than they really are. A few days ago two trucks, through some cause or other, were not made fast in the usual way, and when about to descend one of the self-acting grades they rushed off down the incline, doing a large amount of damage to tramway property. No malice was then suspected, and the mishap was put down to pure neglect on the part of the workmen in charge.

²⁷² *Te Aroha News*, 3 May 1884, p. 2.

²⁷³ *Thames Advertiser*, 1 May 1884, p. 2.

²⁷⁴ *New Zealand Police Gazette*, 17 September 1884, p. 157.

²⁷⁵ *Te Aroha News*, 30 August 1884, p. 2.

When the same thing occurred on the 27th, it was ‘taken for granted that both were the outcome of ... malice’. The second accident was caused by the chock ‘having been, during the night, maliciously propped up, so that the first truck when brought into position for attaching rope by brakesman went over to the top and down spur before [the] man had noticed displacement of chock’. Adams’ telegram to the council stated: ‘Up truck filled with dynamite and caps. If collision had occurred, no telling of damage to property, and probably to life’. Accordingly, the council asked for a policeman to be stationed at Waiorongomai to protect the tramway.²⁷⁶ This did not happen; and once again, the culprit or culprits was never discovered.

LEASING THE LINE

The decision to lease the tramway for five years was regarded by one local correspondent as ‘perhaps the wisest course’, for it would ‘at least have the effect of silencing a considerable amount of clamour, but it has yet to be seen whether any real benefit will result’. Much criticism had been ‘unjust’, and he warned that it was ‘extremely doubtful’ whether even one tender would be received because of the ‘stringent conditions’ and low receipts for the past three months.²⁷⁷ The *Waikato Times* favoured leasing, as the previous arrangement had not been entirely satisfactory, ‘not for any fault of the manager’ but because ‘the council could not in the nature of things exercise a close supervision and many things that called for a promptness of action were perforce neglected’. As it should be worked profitably and economically, the newspaper favoured Firth’s suggestion of an association of companies.²⁷⁸

The decision to lease provoked a ‘largely and influentially signed’ petition asking Kenrick to veto it.²⁷⁹ It was feared that a lessee would not reduce the charges should the amount of ore being conveyed increased, and the petitioners sought information on ‘what the actual cost of working it on

²⁷⁶ *Waikato Times*, 30 August 1884, p. 3; see also *Thames Star*, 29 August 1884, p. 2, 1 September 1884, p. 2, *Te Aroha News*, 6 September 1884, p. 7.

²⁷⁷ Te Aroha Correspondent, *Waikato Times*, 11 September 1884, p. 3.

²⁷⁸ Editorial, *Waikato Times*, 27 September 1884, p. 2.

²⁷⁹ *Te Aroha News*, 6 September 1884, p. 7, 27 September 1884, p. 2; Te Aroha Correspondent, *Waikato Times*, 25 September 1884, p. 2; see also *Thames Star*, 29 September 1884, p. 2.

sound business lines' was likely to be. In particular, a mine or battery manager might take charge, creating a monopoly.²⁸⁰ Cooper, critical of both battery and tramway, reminded residents that the government had given financial support to ensure the 'cheapest carriage possible'.²⁸¹

Petitioners would have been relieved that no tenders were received. Firth argued this was because the terms were too stringent, and suggested that the main companies run it, for 'he was convinced no single person would lease' it. He claimed about three out of four men on the field favoured leasing.²⁸² As there had been no interest in a five-year lease, it was decided to auction it in Auckland on 8 October for ten years; a local correspondent expected the lease would be acquired 'by a combination of the principal mining companies'.²⁸³

According to one correspondent, a ten-year lease was 'regarded by 19 out of every 20 persons here with ever greater disfavour' than a five year one, because nobody could make money under its conditions. If the line fell into private hands, they would probably be the hands of the Battery Company, 'and fear of this has added much to the strength of the opposition that has been offered'.²⁸⁴ On 1 October, a deputation led by Cooper presented the petition to Kenrick, telling him that ten years was both too long and against the interests of the field. This was the wrong time to lease, for it was 'likely to fetch but its minimum value', and leasing would remove all hopes of reducing charges, 'as any lessee would naturally charge the highest rate permissible'. Kenrick expressed surprise at the hasty change to a longer lease, and thought more time should have been allowed for public consideration; he promised to act if contacted by the dissenting councillors.²⁸⁵ Chepmell and Gould did, their letter also being signed by Cooper: they asked him to postpone the sale until after the council election in November. For this reason, and because of the failure to have a special

²⁸⁰ *Te Aroha News*, 27 September 1884, p. 2.

²⁸¹ Letter from E.K. Cooper, *Te Aroha News*, 27 September 1884, p. 2.

²⁸² Piako County Council, *Waikato Times*, 27 September 1884, p. 3.

²⁸³ *Te Aroha News*, 27 September 1884, p. 2; Te Aroha Correspondent, *Waikato Times*, 27 September 1884, p. 2.

²⁸⁴ Te Aroha Correspondent, *Waikato Times*, 30 September 1884, p. 3.

²⁸⁵ *Waikato Times*, 2 October 1884, p.2; *Te Aroha News*, 4 October 1884, p. 2.

loan approved, as outlined below, the sale was delayed.²⁸⁶ Should the new council decide to lease, Kenrick would no longer oppose it.²⁸⁷

A counter-petition signed by 150 miners asked Kenrick to sanction the ten-year lease. According to 'Silex', of Waiorongomai, the petition was got up

in a stealthy manner, for, whatever may have been the case at Te Aroha, I venture to assert that there are scores of persons in this township and on the hill who never saw or heard of it until the announcement appeared in the *Herald*. If the 150 signatures were really obtained, it must have been chiefly among the miners in certain claims (where a kind of reign of terror seems to prevail) and the workmen and others employed on the tramway and at the battery, who can only be regarded as the nominees of the Battery Co, and in such matters must do as bidden. It would be an interesting task to look over this petition and learn how many of the signers come under this category, and who they are who thus attempt to make ducks and drakes of the money of the ratepayers who of all others may be said to have the deepest interest in the disposal of the property. The whole matter wears a most suspicious look, but it is satisfactory to learn from the course which events have taken that if the document was presented in time our respected Warden did not think it advisable to attend to its prayer.²⁸⁸

Upon investigating the signatures, the *Te Aroha News* discovered that three people had signed both petitions.²⁸⁹ The first signatory of the one to sanction the lease was Adams, followed by ten mine managers,²⁹⁰ which would have heightened the suspicions of those who suspected a plot to place the tramway in the hands of the Battery Company. In early November, 'A Shareholder' of Waiorongomai was concerned that this company wanted to control it and warned that a lessee would charge 'as much as possible'.²⁹¹ The following January, 'Busy Body', also of Waiorongomai, asked 11 questions which the *Te Aroha News* attempted to answer. The first asked whether Firth would try to lease the tramway in the future; 'quite possible',

²⁸⁶ *Waikato Times*, 9 October 1884, p. 2; *Te Aroha News*, 11 October 1884, p. 2.

²⁸⁷ *Te Aroha News*, 18 October 1884, p. 7.

²⁸⁸ Letter from 'Silex', *Te Aroha News*, 11 October 1884, p. 2.

²⁸⁹ *Te Aroha News*, 18 October 1884, pp. 2, 7.

²⁹⁰ *Te Aroha News*, 18 October 1884, p. 7.

²⁹¹ Letter from 'A Shareholder', *Te Aroha News*, 8 November 1884, p. 7.

the editor thought. Asked whether Firth had opposed levying a rate because he wanted 'to get possession of the tramway' and that raising a loan would 'afford good excuse' for leasing it, the editor answered that there was 'a very prevalent opinion that the Battery Company desire possession'. The other questions attacked Adams' competence.²⁹²

MORE COSTS, MORE COMPLAINTS

In September, Adams, still acting as manager, thanked mine managers for providing workers to repair the slips, 'no other labour being available'. More work was needed to make the line work properly. Firth reported that a flat portion at the bottom of Butler's Spur needed rectifying, for at the moment 'it was necessary to start the trucks at a very high speed, in order to get over the excessive incline caused by this hollow', creating unsafe working conditions.²⁹³ Cooper, strongly critical of Adams managing both battery and tramway, recommended a better system of checking which ore came from which mine.

At the commencement the trucks were some times chalk marked, showing at which claim they were filled, and more recently a little tin label, attached to a piece of wire, is hung on to the truck, to indicate into which hopper at the battery it is to be delivered. Now, as it is considered advisable by the powers that be that the battery manager should be likewise the tramway manager, the books of the tramway are kept by the battery clerk. And, to strain a further point in diverging from all acknowledged business principles, it is so arranged the tramway hands go to the hoppers of the mines crushing at their will, and at the end and at the end of the month the mine managers are informed at the battery what quantity of quartz have been taken from their hoppers; and with this they are charged as the quantity crushed. This process might be looked upon with some favour in the days when the lion lays down with the lamb, but I would suggest, until such a consummation takes place, that ordinary business principles be adhered to.²⁹⁴

²⁹² Letter from 'Busy Body', with editorial responses, *Te Aroha News*, 25 January 1885, p. 7.

²⁹³ *Waikato Times*, 27 September 1884, p. 3.

²⁹⁴ Letter from E.K. Cooper, *Te Aroha News*, 27 September 1884, p. 7.

Neither Cooper nor any other critic ever attempted to prove any muddle or fraud in conveying and crushing ore from different mines.

To increase the amount of traffic up-hill, in September 1884 the council decided to spend £5 constructing a track from the top of the May Queen incline to Wells and Soutter's store at Quartzville, they having agreed to use it to obtain goods.²⁹⁵ A new store opened there also had its goods conveyed in this way.²⁹⁶ There was still the prospect of extra traffic generated by new mines; for instance, as the Stanley reportedly had good prospects, it was planned to extend the branch line from the top of Butler's Incline for 23 chains to connect with an aerial tramway.²⁹⁷ As these prospects were soon discovered not to be good, this extension was not made.

The financial position continued to worsen. Firth, still acting as chairman of the tramway committee, told the September 1884 meeting that although receipts for the month were £197 17s 9d and ordinary expenditure was £163 16s, wages for repairing slips were an additional £166 1s 3d.²⁹⁸ To pay the £9,000 owed on the construction, the council decided to raise a special loan, the securities being the gold revenue, currently £1,000 a year, the rent of the tramway if leased, and (if needed) an annual rate of a farthing.²⁹⁹ Meetings were held in all the ridings to gauge public opinion. In the Waitoa one, the loan was supported, but a poll of ratepayers requested. No ratepayers attended a meeting of the Taotaoroa one; those in Patetere objected to being rated for the tramway; a 'considerable number' attended the Te Aroha one and almost unanimously approved the loan; and nearly all the ratepayers attended the Matamata meeting and unanimously approved it. A poll to authorize the loan was fixed for 17 October.³⁰⁰

An editorial in the *Waikato Times* urged ratepayers to support the loan. Those who opposed assisting the goldfield because they considered that they would derive no benefit were ignorant of the true situation. As the field was expected to be very profitable, the tramway would prove 'a considerable source of revenue to the council, and prosperity to the county'. A successful goldfield would create a flourishing local market for farm produce and thereby stimulate settlement. Until the debt was paid off, the

²⁹⁵ *Waikato Times*, 27 September 1884, pp. 2, 3.

²⁹⁶ *Te Aroha News*, 13 September 1884, p. 2.

²⁹⁷ *Auckland Weekly News*, 27 September 1884, p. 20.

²⁹⁸ Piako County Council, *Waikato Times*, 27 September 1884, p. 3.

²⁹⁹ *Te Aroha News*, 6 September 1884, p. 2.

³⁰⁰ *Waikato Times*, 27 September 1884, p. 2.

needs of the farmers for roads and bridges would be neglected. It was confidently expected that the power to levy a special rate of a farthing would not be exercised; it was only needed as security. The editor feared the apathy of supporters of the loan might mean the vote was lost, for two-thirds of eligible voters had to support it, and then a general rate would have to be levied. 'Thus, by refusing to empower the Council to levy what is practically a nominal rate, by way of security only, the ratepayers make themselves liable to the imposition of a general and much heavier rate'.³⁰¹ Of the 510 eligible to vote, 344 would have to support the loan. In the voting, 12 at Waiorongomai voted for it and none against, at Te Aroha it was 35:11, at Waitoa 10:0, at Taotaoroa 5:0, at Patatere 10:0, and at Matamata 15:0, giving a total of 86 in favour and 11 opposed.³⁰² According to a local correspondent, 'a much larger number would have polled, and the requisite majority possibly obtained, but many who were in favour of it refrained from voting owing to the present unsatisfactory state of matters in connection with tramway and elections'.³⁰³

For the four weeks until late October, 784 trucks were taken down, and an increase of 'up-carriage' earned £27 5s 7d, giving a surplus over wages of £33 16s.³⁰⁴ To ease the problem of the £9,000, the council applied for the £3,000 balance it considered was due from the government.³⁰⁵ In justification, the county clerk reminded the Minister of the 'verbal promise' given to Henry Whitaker in 1883 that a subsidy would be provided, and summarized the negotiations. He admitted that the offer of £3,000 in January had been 'a final contribution', and stated that the council, having the choice of 'either accepting the amount offered in satisfaction of its claims or going without altogether', was 'forced to accept' it. Council finances had 'been strained to the utmost in carrying out the work, and its numerous creditors pressing very hard for the payment of the several amounts due them'. Since then, there had been considerable expense incurred in repairs and clearing slips. 'One of the most promising' goldfields would be closed if it could not be kept working, a loss not just to Te Aroha but to New Zealand. In attempting to charge the lowest possible rate, the council's finances had

³⁰¹ Editorial, *Waikato Times*, 30 September 1884, p. 2.

³⁰² *Waikato Times*, Te Aroha Correspondent, 7 October 1884, p. 2, 9 October 1884, p. 2; *Te Aroha News*, 11 October 1884, p. 2.

³⁰³ Te Aroha Correspondent, *Waikato Times*, 7 October 1884, p. 2.

³⁰⁴ *Waikato Times*, 25 October 1884, p. 2.

³⁰⁵ Piako County Council, *Waikato Times*, 25 October 1884, p. 2.

been ‘taxed to the utmost’. The council had also ‘to meet the demands made upon its funds for roads in other parts of the County, which on account of the very large area of newly acquired lands are both heavy and imperative’. Another £3,000 was ‘justly due’, and the undertaking not to ask for more had been given ‘at a time when the Council was wholly unable to do more than remonstrate at what it considered was the very unjust way in which its legitimate claims were treated’.³⁰⁶ Gordon, in summarizing the history of these requests, noted that the council had started to construct the tramway ‘before receiving agreement that a subsidy would be granted. It had never been promised a subsidy of two-thirds of the cost, had accepted £3,000 as a final payment, and had inflated the cost of the tramway from £15,333 5s 4d to £18,000.’³⁰⁷ The Mines Department agreed,³⁰⁸ and did not pay.

For the half-year to October, the council received £1,303 13s 6d from haulage but spent £1,829 14s 9d.³⁰⁹ Gould told the council in December that in its first year or so of working, the tramway had lost about £1,000.³¹⁰ Consequently, when Adams recommended that the top of Butler’s Incline ‘be made up to the straight line of the grade’, the small hollow near the centre of the incline be raised three feet, and the brake gear moved to the top of the incline, all for a cost of £175, the councillors, four of whom had visited the site, resolved that these changes were ‘needless’ and refused to authorize them. Firth, his son, and his brother-in-law Williams, the latter now the chairman, did not attend this meeting, which provoked comment, Gould noting that they all knew that the question of a change of management was to be raised.³¹¹ Firth informed the next meeting that he had been ‘unavoidably detained from attending’;³¹² the absence of the others was not explained.

When the new Minister of Mines, William Larnach, visited Te Aroha in May 1885, a deputation of Williams, Firth, Gould, and Chepmell again

³⁰⁶ Charles Tuck to Minister of Mines, 24 October 1884, Mines Department, MD 1, 07/1014, ANZ-W.

³⁰⁷ H.A. Gordon to Under-Secretary, Mines Department, 4 November 1884, with statement showing cost of tramway appended, Mines Department, MD 1, 07/1014, ANZ-W.

³⁰⁸ Memorandum by Under-Secretary, Mines Department, 7 November 1884, Mines Department, MD 1, 07/1014, ANZ-W.

³⁰⁹ *Te Aroha News*, 1 November 1884, p. 2.

³¹⁰ Piako County Council, *Waikato Times*, 18 December 1885, p. 3.

³¹¹ Piako County Council, *Waikato Times*, 18 December 1884, p. 2.

³¹² Piako County Council, *Waikato Times*, 17 January 1885, p. 3.

asked for the £3,000. The spokesman, Firth, explained at length the county's financial state: it was £11,000 in debt and goldfield revenue was declining, though he (as always) expected mining to recover shortly. They could not sustain this debt without assistance. They had applied to Rolleston

for the balance of £3000 due on account of tramway expenditure on the tramway, which was £18000, which on the system named would be £12000 from Government and £6000 from council. They had got direct from Parliament £6000. They then applied for the other £6000, but only got £3000 and were told if they did not take this in satisfaction of the whole claim they would get nothing at all. He, Mr Firth, did not think it was proper for a Minister to extort a promise of that nature from the council. The council was such in need of money at the time and the then chairman acting in the best interests of the council accepted the money on the condition that the council should ask for no more. This £3000 therefore was due for some time. As to the £8000, balance of the council's indebtedness, he thought the Government might lend them that sum on the security of the gold revenue.

Firth thought it could be repaid 'in, say, 7 or 10 years'. He explained that they had not raised a special rate because the money obtained 'would be solely for the benefit of one corner of the district at the expense of farmers and wool growers scattered throughout the county for whom the goldfield had no practical concern whatever'. As the field was 'a national concern', he thought the government 'might fairly be called upon to assist'. He pointed out that 'for some years the entire revenue of the county had been spent on the goldfield, while the rest of the county had been neglected', and claimed that 'the field had languished because the council had not been able to reduce' the charges. Every reduction 'meant an increase of many thousands of tons for treatment. By the council being relieved of this financial incubus, it would be able to make a fresh start and do a lot of good for the county and the field'.

Larnach's responded that the proposed loan 'was out of the question, and he did not think Parliament would sanction it'. Shortly the law would be altered to enable a loan to be raised under the Counties Act. After prompting by Whyte, he agreed to recommend £3,000 be placed on the Estimates. 'He could not absolutely promise it', but he recognized 'their position was rather embarrassing'. This sum would be given on condition

that the council struck a rate to pay off the balance,³¹³ and he so instructed his department.³¹⁴

Councillors continued to consider themselves badly treated, Chepmell and Maclean arguing that, had the tramway been in the South Island or at Thames, the government would have met its entire cost.³¹⁵ The following month, the deficit was £34 1s 1d, and the council received legal advice that it could not raise a special loan to pay off existing liabilities.³¹⁶ An editorial on the 'financial incubus', which kept the county in 'a state of chronic disquiet', supported obtaining £3,000 from the government and collecting a special rate, as this would reduce the debt to about £3,000, which was manageable.

A County rate will come rather heavy on some of the large landowners, some of whom will have to contribute as much as £600. This is rather hard considering that the money for the repayment of which they are rated has all been spent in one corner of the district from which they have received no benefit whatever.³¹⁷

A rate of three farthings in the pound was struck (provoking protest from the Thames Valley Settlement Company, which was required to pay £600).³¹⁸ Larnach fulfilled his promise to have £3,000 placed on the Estimates, and the special rate was expected to yield another £3,500.³¹⁹ On 13 November, Firth telegraphed Larnach to inform him that the rate had been levied and the bank overdraft was being reduced. He asked that the £3,000 be paid immediately, encouraging Larnach to comply both by claiming that the goldfield was 'improving steadily' and by adding 'You are very popular in this district don't do a needlessly ungenerous act by withholding the money now that the Council has loyally carried out its part

³¹³ *Waikato Times*, 28 May 1885, p. 2.

³¹⁴ Under-Secretary, Mines Department, to F.A. Hamer, 8 June 1885, Mines Department, MD 1, 07/1014, ANZ-W.

³¹⁵ Piako County Council, *Te Aroha News*, 27 June 1885, p. 2.

³¹⁶ *Te Aroha News*, 25 July 1885, p. 2; Piako County Council, *Te Aroha News*, 25 July 1885, p. 2.

³¹⁷ Editorial, *Waikato Times*, 25 July 1885, p. 2.

³¹⁸ Piako County Council, *Te Aroha News*, 22 August 1885, p. 2.

³¹⁹ *Te Aroha News*, 19 September 1885, p. 2.

of the arrangement'.³²⁰ Larnach did forward the money, and in December the council was able at last to pay off its debts to the banks and its other accounts.³²¹

COOKSON'S MANAGEMENT, AND CONTINUED CONCERNS ABOUT CHARGES

At the December 1884 council meeting, Chepmell proposed that Cookson, the foreman, become tramway manager. 'If there were any slip or accident which required the service of an engineer, the county engineer was available'. Denis Murphy, newly elected, suggested that Adams be consulting engineer:

He felt thoroughly convinced that in overlooking Mr Adams' vast experience, particularly so far as the tramway was concerned, the council would make a great mistake, and the loss would be their own. Mr Adams thoroughly understood the construction and working of the tramway; whereas, another man, though of equal, or perhaps, greater professional ability had not the experience.

Both men were appointed, Gould commenting that 'they had been positively assured' (presumably by the Firth clique) that Cookson 'would not accept the position of manager, but on being asked he had willingly consented'. Councillors agreed with him that, as the locomotive was 'taking injury' lying in the open, it should be sold.³²² Only one tender was received, from Adams, whose offer of £101 was declined.³²³ 'Busy Body' of Waiorongomai suggested that he would really have only paid £1 for it, as the council had not paid him the £100 bonus for constructing the tramway.³²⁴ It is not known if 'Busy Body' was correct.

³²⁰ J.C. Firth to William Larnach, 13 November 1885 (telegram), Mines Department, MD 1, 07/1014, ANZ-W.

³²¹ *Waikato Times*, 19 December 1885, p. 2.

³²² Piako County Council, *Waikato Times*, 18 December 1884, p. 2. 'Te Aroha Tramway', *Te Aroha News*, 20 December 1884, p. 2; advertisement, *Waikato Times*, 23 December 1884, p. 3.

³²³ *Waikato Times*, 17 January 1885, p. 2.

³²⁴ Letter from 'Busy Body', *Te Aroha News*, 25 January 1885, p. 7.

During and immediately after the Christmas holidays of 1884, the line was ballasted.³²⁵ Tenders were called to build a stable on the Fern Spur grade.³²⁶ John Henry Emett, a brakeman who later became a timber contractor,³²⁷ offered to work the tramway for 3s 6d per truck, the council to use the other shilling to keep the line open (and, he suggested, replace the wire ropes, which being too heavy caused ‘considerable friction’). He would meet the cost of feeding the four horses. If this proposal was not acceptable, he offered to work part of the line for a reduced charge. The council was not interested. In his application, Emett asked for lighter wire ropes to be installed because the existing ones created too much friction.³²⁸

In his first report, Cookson detailed his repair work. ‘Butler’s Spur was in a very bad state and here I placed 8 men for 10 days, lifting, ballasting, and straightening the lines’, and it should last for a long time ‘unless we have very severe weather indeed’. The other grades were in ‘fair working order’. A connection had been made with the Waiorongomai Company’s hopper, and a site excavated for the new stable. These works meant that for the past six weeks spending had been ‘greatly in excess of our income’.³²⁹ As a new way to earn income, permission was given for residents to bring firewood down Fern Spur for three shillings a truck.³³⁰

In early March, Cookson reported that, because little ore was being extracted, the line had been worked for only 15 days during the past month, an average of 37 trucks each day.³³¹ To encourage trial crushings, it was agreed to charge 2s 6d (not including loading) to lower ore from the Buck Rock area down Fern Spur.³³² It was anticipated that the number of hands would be further reduced.³³³ By the end of March, there was so little mining

³²⁵ Te Aroha Correspondent, *Waikato Times*, 13 January 1885, p. 2.

³²⁶ *Te Aroha News*, 10 January 1885, p. 7.

³²⁷ See Te Aroha Warden’s Court, Register of Applications 1883-1900, 38, 44/1888, 41, 45/1889, 35, 36, 39/1890, BBAV 11505/1a, ANZ-A; *Te Aroha News*, 11 August 1888, p. 2, advertisement, 22 December 1888, p.2, Warden’s Court, 26 June 1889, p. 2; *Ohinemuri Gazette*, 14 March 1903, p. 2.

³²⁸ Piako County Council, *Waikato Times*, 17 January 1885, p. 2.

³²⁹ Piako County Council, *Waikato Times*, 12 February 1885, p. 2; Piako County Council, *Te Aroha News*, 14 February 1885, p. 2.

³³⁰ *Te Aroha News*, 14 February 1885, p. 2.

³³¹ *Waikato Times*, 12 March 1885, p. 2.

³³² *Te Aroha News*, 14 March 1885, pp. 2, 7.

³³³ *Te Aroha News*, 14 March 1885, p. 7.

that the tramway was only working two days a week. One unnamed councillor made the obvious point that 'unless the mines were going to send down a little more quartz things threatened to be very serious'. 'Things' were already serious for tramway workers, who had not been paid for two months.³³⁴ Cookson reported that 'the men, naturally, are very discontented' because of the shortage of work, 'especially when they are kept so long waiting for their wages'. He had had to buy blocks, rope, dies, and other equipment formerly provided by the Battery Company. As constant repairs were required, a carpenter should be employed all year round because trucks always needed repairing. During summer one was 'constantly required', for timber shrinkage caused bolts to 'slacken' and brakes wore out 'very much faster during hot weather'. There were also 'a great many rollers on the line which constantly require renewing'. Cookson had repaired brakes and trucks, and more slips on the lower grade had been cleared. When the blacksmith was not needed in his shop,

he takes a station on the line, but should any accident happen to a truck, a blacksmith is required as much as a carpenter. The horses require shoeing about once a month and an occasional shoe between whiles. He also does any outside work for any of the companies. Formerly there were two blacksmiths employed occasionally, one for shoeing and the battery blacksmith for any work that required doing on the line.

Now there was one, who, like the carpenter, helped to convey ore. The daily cost of a staff of 11 men and boys and four horses was £5 5s, which would be met by 25 trucks a day; 40 would provide a good profit. 'It has been suggested that the line could be worked by a very small staff, say 5, and follow the trucks from top to bottom, I cannot see how this can be done, unless the number of the number of trucks were increased to 45; we have now 30'. One difficulty was that the 'stations' at the top of the inclines were

all too short. The largest of them will only hold about 10, and May Queen station only 6 trucks. During Mr Adams' management the greatest day's run we ever had was 69 trucks with the following staff:- 19 men and 3 boys, 5 horses and worked 12 hours. I was then traffic manager and was continually up and down the line.³³⁵

³³⁴ *Waikato Times*, 2 April 1885, p. 2.

³³⁵ Piako County Council, *Waikato Times*, 2 April 1885, p. 2.

During April, as only 418 trucks were conveyed, the line was not worked for half the time. Was he 'to keep the staff employed on the line when we are not running quartz? The men are very dissatisfied with the present arrangements'. If constant work was not given he could not see how he could retain them. Council's solution was to employ them only when there was quartz to send down,³³⁶ which hardly encouraged them to stay.

Cookson reported on 4 May that the line had been worked for only 15 and a half days in the past month. The men were 'naturally grumbling, especially when they have to wait so long for their wages'. The ore came mostly from the New Find, and there was no sign of more coming from other mines. His next report, written on 25 May, stated that the tramway had only been worked for 11 days, running 387 trucks. As 'the line required some attention', all hands spent seven days ballasting and repairing it, putting it 'in a very fair working order'.³³⁷ Firth considered that Cookson 'was doing his very best to work the tramway with economy to the county and with satisfaction to the mining companies'. He and the other councillors gave Cookson 'hearty support' because he was working 'in the face of very great difficulties'.³³⁸

When Larnach visited in May, he stated that charges were too high. Firth's response was that the county had lost £600 last year: 'Doubtless if the Government treated them liberally they would be able to make a reduction'.³³⁹ To a deputation of miners seeking lower charges, Larnach said any assistance was conditional on the council reducing these.³⁴⁰ His department noted that 'fees charged for haulage &c on tramway would be reduced on receipt of this subsidy'.³⁴¹

DEMANDING AN ENQUIRY

During 1885 ill feeling continued over the behaviour of Firth and his Battery Company, directly related to the even more bitter controversies

³³⁶ Piako County Council, *Waikato Times*, 2 May 1885, p. 3.

³³⁷ *Waikato Times*, 30 May 1885, p. 3.

³³⁸ Piako County Council, *Waikato Times*, 30 May 1885, p. 3.

³³⁹ *Waikato Times*, 30 May 1885, p. 3; *Te Aroha News*, 30 May 1885, p. 2.

³⁴⁰ *Waikato Times*, 28 May 1885, p. 2.

³⁴¹ Memorandum by F.A. Hamer, 8 June 1885, Mines Department, MD 1, 07/1014, ANZ-W.

over crushing charges.³⁴² ‘Busy Body’ asked the *Te Aroha News* whether it was true that the government was to be ‘petitioned to make a searching enquiry into all matters connected with the construction of the tramway, and to overhaul all vouchers in the County office referring to the tramway?’³⁴³ A Waiorongomai meeting asked Murphy to investigate the spending of ‘certain monies’ on the tramway.³⁴⁴ One at Te Aroha unanimously supported a public enquiry. James Munro³⁴⁵ told this meeting that the government should enquire into both construction and operation, complained about the locomotive ‘lying neglected and decaying’, and said that out of 50 navvies ‘that might be consulted 49 would condemn that monument of incapacity’, the main tunnel.³⁴⁶ It was believed by some, including the local newspaper, that this was badly made and that a cutting into solid rock would have been much cheaper and less liable to collapse.³⁴⁷

The February council meeting debated the ownership of the trestle linking the tramway to the battery. Firth stated that it was authorized and paid for by the council, whereas other councillors were reluctant to bear the cost of keeping it in repair and of making connections to future batteries. Gould ‘thought the Battery Company had no right to the expenditure of so large a sum of County money for their sole benefit’. Peter Ferguson’s new battery company³⁴⁸ ‘did not appear to have any chance of similar advantages being granted them, not any further batteries that might be erected, either’. There was also dissent over the cost of extending the line to the Eureka hopper and over Adams erecting a gauge to check the amount of ore before placing it in the hoppers; Firth said this was needed because more ore was carried than was paid for: ‘The county ought to be very much obliged to the battery manager. It was his business to take care and not crush one and a half tons instead of one and a third tons. If the county conveyed more than one and a third tons they do so to their own injury, and it was the duty of the council to see to it’. Chepmell responded by asking why the tramway committee had not dealt with this.³⁴⁹ Firth used this

³⁴² See paper on the Battery Company.

³⁴³ Letter from ‘Busy Body’, *Te Aroha News*, 21 February 1885, p. 7.

³⁴⁴ *Waikato Times*, 3 February 1885, p. 2.

³⁴⁵ See paper on John Squirrell.

³⁴⁶ *Te Aroha News*, 28 February 1885, p. 2.

³⁴⁷ Letter from ‘Busybody’ and editorial response, *Te Aroha News*, 25 January 1884, p. 7.

³⁴⁸ See paper on Peter Ferguson and his New Era Company.

³⁴⁹ Piako County Council, *Te Aroha News*, 14 February 1885, p. 7.

opportunity to explain that the council had paid all but six guineas for the trestle to the battery.³⁵⁰

At the March meeting, Williams noted that only 15 feet of the trestle was on the Battery Company's land, implying that it was reasonable for the county to have met most of its cost. Firth confirmed that the trestle was county property, and clarified his earlier explanations about whether the council or the companies had met the cost of connections to the tramways. The former paid for the tramway, the latter the shoots and hoppers. He claimed to be the only person who could answer such questions directly, adding that 'it would be very easy and simple for him in future to let them get their information as best they could; and in future he should decline to give any information'. In response to the Te Aroha Vigilance Committee stated intention to visit the council offices to inspect 'the plans, specifications, accounts, books, vouchers, etc, relating to the cost of the construction of county tramway, and general expenditure of public monies in the Te Aroha riding', the clerk stated that they could only be permitted to see the accounts.

Firth said, judging from the report of the so-called Vigilance Committee, there appeared to be a certain amount of want-to-know-you-know as to the expenditure on the tramway.... To meet the case he would propose "That government be requested to cause an enquiry to be made into the particulars of the construction of the tramway, and that all documents connected with the same be put at the disposal of such an enquiry."

This was carried.³⁵¹ Firth's motion was in response not only to the letter but also to the appointment of a committee by a Te Aroha public meeting to assist the local parliamentarian to establish a commission of enquiry 'into the whole matter of the cost of the tramway, etc'. At this meeting, 'a considerable amount of important evidence was taken concerning the construction', and 'some very serious statements were made respecting the way things had been conducted',³⁵² so libellous that no newspaper even hinted at their nature. Presumably they accused Firth and Adams of incompetence and financial mismanagement, and Firth's motion

³⁵⁰ Piako County Council, *Waikato Times*, 12 February 1885, p. 2.

³⁵¹ Piako County Council, *Waikato Times*, 12 March 1885, p. 2; Piako County Council, *Te Aroha News*, 14 March 1885, p. 2.

³⁵² *Te Aroha News*, 7 March 1885, p. 2.

was to show his critics that he had nothing to hide or to fear from any investigation.

James Mills, who had shares in two claims and one company,³⁵³ was spokesman for a deputation of about 40 residents to Larnach seeking an enquiry. In one account, Mills stated that the construction ‘appeared to have cost an enormous sum of money. Evidence could be adduced that much blundering had occurred in carrying out the work. The party who had been entrusted with it was the present battery manager’, Adams, and it was ‘the general opinion that the tramway could have been constructed at far less cost’.³⁵⁴ Another version had him saying that

evidence could be brought forward to show that a large proportion of the cost had been simply wasted, much blundering had taken place and the blame ought to be placed on the right shoulders. The manager of the battery had been entrusted with the work, and competent people said the tramway cost a great deal more than it ought to be in consequence of his inability. It was through Mr Firth’s influence that the manager had been entrusted with the work.³⁵⁵

Larnach’s response, according to one report, was that ‘he did not think any good would be done by raking up the matter at this date, even though blunders had been made, the work was done and the thing past and gone’.³⁵⁶ In another version, Larnach ‘said the tramway was not made by the county, but largely by the Government. He did not know what advantage the people would derive from dragging up old sores’. The deputation then withdrew,³⁵⁷ but discontent over costs, both of cartage and crushing, continued to fester, and these expenses continued to handicap both goldfield and county. For example, in June a Waiorongomai correspondent wrote that there could not be ‘the slightest doubt that if the tramway was under the control of some local governing body who was resolved to work the tramway for the benefit of the mining community

³⁵³ Te Aroha Warden’s Court, Register of Te Aroha Claims 1880-1888, folio 324, BBAV 11567/1a; Register of Licensed Holdings 1881-1887, folio 28, BBAV 11500/9a, ANZ-A; *New Zealand Gazette*, 29 November 1883, p. 1704.

³⁵⁴ *Te Aroha News*, 30 May 1885, p. 2.

³⁵⁵ *Waikato Times*, 28 May 1885, p. 2.

³⁵⁶ *Te Aroha News*, 30 May 1885, p. 2.

³⁵⁷ *Waikato Times*, 28 May 1885, p. 2.

independent of the interests of any particular battery, the line could be made to pay well'. Instead, it was 'subservient to the interests' of the Battery Company. The correspondent attempted to strengthen his case by stating that Larnach had 'severely commented on' the cost of cartage and by inflating the cost of the construction to 'nearly £29,000 of public money'.³⁵⁸

In July, a Te Aroha correspondent wrote that the tramway was 'admitted on all sides to be a monument of unskillful engineering'.³⁵⁹ As usual, this was blamed not on its designer, Stewart, but on Adams and Adams' employer. At another Te Aroha meeting, 'the much vexed tramway question was again brought up',³⁶⁰ this time by a local contractor, Bernard Montague, who was a shareholder in one claim and four companies.³⁶¹ Montague had attended specially to ask what had become of the committee of 12 appointed to enquire into 'the stated misappropriation of money' in building the tramway. As the evidence had not been sent to the government, those who had provided it 'considered they were hardly dealt with in being asked to do so' without any further steps being taken.³⁶² In another account, he spoke 'at considerable length' about the Waiorongomai committee collecting evidence, some of which 'was conclusive and implicated to a serious extent, persons in high places, as well as their employees, who were in charge during the construction'. He called for a committee of enquiry into the cost and construction 'in common fairness to the parties who had given evidence' and were 'suffering persecution from those whom they had denounced'.³⁶³ In subsequent discussion it was stated that 'several' people 'were prepared to give public evidence in the event of an investigation being held, and that evidence of a very serious nature would be brought forward'. The meeting agreed to ask Whyte to arrange for an enquiry,³⁶⁴ but none was held.

CONTINUING FINANCIAL WORRIES

³⁵⁸ Waiorongomai Correspondent, *Thames Advertiser*, 23 June 1885, p. 3.

³⁵⁹ Te Aroha Correspondent, *Thames Advertiser*, 7 July 1885, p. 3.

³⁶⁰ Te Aroha Correspondent, *Waikato Times*, 14 July 1885, p. 3.

³⁶¹ See paper on his life.

³⁶² *Te Aroha News*, 18 July 1885, p. 2.

³⁶³ Te Aroha Correspondent, *Thames Advertiser*, 14 July 1885, p. 3.

³⁶⁴ *Te Aroha News*, 18 July 1885, p. 2.

At its May meeting, when councillors discussed lowering the charges, Williams claimed that they were carrying quartz 'cheaper than any other tramway in the colony'. They agreed to consider reduced charges for mines using only part of the line, and Cookson was 'empowered to bring down firewood and such like at whatever rate he considered payable'. On the chairman's casting vote a special loan to meet their liabilities was approved.³⁶⁵ At the June meeting, Williams repeated that the tramway charged the cheapest rates in New Zealand, citing 7s 6d as the price per truck on shorter Thames lines. His solution was for the mines to 'send down their own quartz under the supervision of the manager and paying a certain royalty for use of the tramway'. Firth opposed this, but warned the companies that if they did not send down more quartz the rates would increase. Every Maclean, a farmer with no mining investments, 'thought it was better to stop the tramway altogether, than to allow it to increase their debt month after month'. The only decision made was to consider the matter in a month's time to see if there had been increased cartage.³⁶⁶ One councillor suggested selling the locomotive and using the proceeds to reduce their overdraft.

This move was defeated by the remark on the part of another member that the maker, Mr Price, who had not yet been paid for the engine, might care to have a say in the matter. The originator of the idea ... was perfectly willing that Messrs Price Bros should take the engine and cry quits, but alas for the unreasonableness of human nature, this commendable course was not likely to be adopted.³⁶⁷

The depressed mood of the meeting was increased by the news that receipts for the past month were £17 less than the wages.³⁶⁸ Only 357 trucks had come down because only two large mines were still at work. Cookson reported that trying to make the tramway pay its way was an 'impossibility under the present circumstances'. At least 27 trucks a day were needed to meet the daily expenditure, and on some days only 14 trucks were sent down. Experimenting with reducing the speed of trucks on the inclines, he had found that sand thrown on the wheels worked well, and had

³⁶⁵ Piako County Council, *Waikato Times*, 30 May 1885, p. 3.

³⁶⁶ Piako County Council, *Waikato Times*, 27 June 1885, p. 3.

³⁶⁷ Te Aroha Correspondent, *Waikato Times*, 27 June 1885, p. 2.

³⁶⁸ Piako County Council, *Te Aroha News*, 27 June 1885, p. 2.

ordered two light wooden portable boxes to hold sand. Firewood trolleys would be 'ready in about a week's time'. He had fixed the rate of carrying goods up the line at one shilling for every 100 pounds and two shillings for every 100 feet of timber.³⁶⁹

On 6 July, heavy rain caused several slips, the worst at the southern end of the larger tunnel

at precisely the same place where the big slip occurred when the tramway was being constructed, and which cost so much money to remove. In the present instance the mouth of the tunnel was completely blocked up. The whole of the tramway staff, together with several additional hands, have been hard at work since the slip took place, getting the earth removed, some night shifts have also been put on.

A smaller slip had displaced and buried some sleepers on Butler's Incline.³⁷⁰ Eleven extra men took a week to clear the line. Cookson retained four 'to construct a covering of heavy logs over the spot where the slip occurred, so that in the event of any more taking place they would slip over the top instead of filling up the line'. If not done, slips would take place 'after heavy rain all the winter'. As only an uneconomical 20 to 24 trucks daily came down from two mines, he suggested working the line four days a week and spending the other two working days on repairs, for it was not possible to work and repair the line at the same time. He was told to use his discretion about repairs, 'taking care to keep the hoppers at the mines reasonably clear'.³⁷¹

A local correspondent repeated the old complaint that the council was largely responsible for the failings 'owing to proper supervision being totally neglected in the construction of the work'. As well, the locomotive still lay 'at the foot of the tramway, in pieces, its use having been condemned before its several parts were put together'.³⁷² The council was now seeking a purchaser for it; Gould knew someone who would pay £150,³⁷³ but councillors agreed to sell it in Auckland at a price of not less than £400.³⁷⁴

³⁶⁹ *Waikato Times*, 27 June 1885, p. 3.

³⁷⁰ *Te Aroha News*, 11 July 1885, p. 7.

³⁷¹ *Waikato Times*, 25 July 1885, p. 3.

³⁷² Te Aroha Correspondent, *Thames Advertiser*, 29 July 1885, p. 3.

³⁷³ *Te Aroha News*, 25 July 1885, p. 2.

³⁷⁴ Piako County Council, *Waikato Times*, 22 August 1885, p. 2.

As it was reported to have cost the council ‘little short of £900’,³⁷⁵ for £60 per year had been paid in interest on top of the original price,³⁷⁶ this would be a considerable loss. This ‘monument of reckless expenditure’, which was ‘practically useless’ for the tramway, was farewelled by the *Te Aroha News* in September, when it was carted to Morrinsville to be taken on to Auckland by train. ‘Rail charges and cost of carting will be somewhat considerable’.³⁷⁷ Despite having set a minimum price, the council accepted £350, ‘from which commission and charges have to be deducted’.³⁷⁸

In August, the loss for the month was £20, the wages bill of over £200 for the previous month was unpaid, and companies owed £94 6s 6d. Williams ‘said it was quite evident that they must either raise the tariff, or else see that more stuff is sent down’. In response to his comment that ‘they would have to charge the actual cost of sending down the quartz’, Firth said ‘this would be a mistake’ because 800 tons of quartz per month would soon be conveyed. Murphy agreed that raising charges would discourage other companies from commencing mining. ‘They wanted to encourage enterprise instead of endeavouring to stifle it’, and the charges were ‘quite heavy enough’.³⁷⁹

Cookson’s report for August stated that he had had ‘considerable trouble in keeping the line clear of slips occasioned by the late severe weather’. The ‘logging in the tunnel’ was completed, and he (foolishly) predicted ‘that slips for the future on that particular spot will trouble us no longer’.³⁸⁰ Late that month, the wire rope on Butler’s Incline ‘gave way on Wednesday afternoon, and in consequence no quartz was conveyed over the line all Thursday. Surely’, the *Te Aroha News* protested, ‘in a case of that kind men could be put on to repair a breakage at night’.³⁸¹ Perhaps this incident provoked a telegram from Adams to the council: ‘Would you kindly instruct Cookson to work tram, as we want; the present system greatly humbugging’. He did not reply when asked for details.³⁸² On 21 August,

³⁷⁵ *Waikato Times*, 15 September 1885, p. 2.

³⁷⁶ *Waikato Times*, 17 October 1885, p. 2.

³⁷⁷ *Te Aroha News*, 12 September 1885, p. 2.

³⁷⁸ *Waikato Times*, 17 October 1885, p. 2.

³⁷⁹ Piako County Council, *Te Aroha News*, 22 August 1885, p. 2; Piako County Council, *Waikato Times*, 25 August 1885, p. 4.

³⁸⁰ *Waikato Times*, 25 August 1885, p. 4.

³⁸¹ *Te Aroha News*, 22 August 1885, p. 2.

³⁸² *Waikato Times*, 25 August 1885, p. 4

when the line was wet and slippery, Cookson was braking two heavily loaded trucks between Butler's Incline and Fern Spur when they 'began to proceed at a great speed'. After he was thrown off, the trucks eventually 'ran off the line and were smashed to pieces', leaving quartz 'scattered in all directions'.³⁸³

The only problem reported by Cookson in September was that the turntable on the battery platform was 'in a very bad state, being entirely out of gear'. As there was a credit balance of £21 for the month because of increased mining, Cookson reminded councillors that 'with plenty of quartz there would be no trouble in always making the tramway pay'. Murphy agreed that if it 'went on improving in this way it would very soon be a source of revenue'.³⁸⁴ The October council meeting was told that 664 trucks had been conveyed over four weeks for a profit of £30 11s 6d. Because of the extra traffic, Cookson had employed two men to repair the line and its culverts and to replace a few sleepers. 'Should our return warrant it, I propose to keep them on continually'. Despite returns 'falling off', once the New Era battery commenced work 'there should be no difficulty in keeping our heads above water'.³⁸⁵

The November meeting was informed that there was a credit balance of £19 9s 9d for the month.³⁸⁶ It was also informed that Whyte hoped that because of the government's grant of £3,000 'the promise of reducing tramway rates would now be considered in the interests of the mining community'. Larnach wrote that 'he would rely on their keeping faith with respect to the reduction of tramway haulage charges in the interest of his friends the miners. He asked the council to take the matter into consideration at their first meeting'. Firth immediately responded that no pledge to reduce rates had been given and that he was opposed to any reduction 'as the circumstances were not favourable'. Williams believed that they had only agreed to consider a reduction when the tramway was profitable. 'Practically speaking, there was no surplus on the working of the tramway at present. It was nearly £300 in debt this year already'. Firth said that soon their indebtedness would be extinguished,

³⁸³ *Auckland Weekly News*, 29 August 1885, p. 18.

³⁸⁴ Piako County Council, *Te Aroha News*, 19 September 1885, p. 2.

³⁸⁵ *Waikato Times*, 17 October 1885, p. 3; Piako County Council, *Te Aroha News*, 17 October 1885, p. 2.

³⁸⁶ *Te Aroha News*, 14 November 1885, p. 2.

and they could then give their attention to this matter. He would like very much to be able to make a reduction. A reduction of 1s 6d a truck would mean a loss on the present return of fully £600 a year. However, by clearing off their liabilities they would save the item of bank interest, and they could not devote the money thus saved to a better purpose than reducing the tramway charges. Eighteen pence a truck meant a considerable stimulus to some of the mines, which at present could not be made to pay. They should do everything they could to encourage the miners.

Williams repeated that the tramway had the cheapest tariff in the country. If they got sufficient quartz to pay expenses 'then he would say make reduction by all means. His opinion was, however, that a reduction of a shilling or eighteen pence a ton would not make any material difference'. There was no further discussion.³⁸⁷

To assist more mines send down quartz, the council permitted companies to make sidings at a cost not exceeding £20, to be refunded out of tramway charges.³⁸⁸ A new wire rope was needed on Butler's Incline, thinner than the unwieldy one being used, and £20 would be spent in general repairs during the summer holiday.³⁸⁹ A new problem for Cookson during spring was that the horses suffered greatly from 'a disease in the throat', one being unable to work for some months.³⁹⁰

Some councillors continued to oppose cutting charges because this meant running at a loss and the council being 'induced to lease the tramway to some private individual, who might not work it in the interest of the field'.³⁹¹ The legal manager of the four main companies requested that charges be reduced to three shillings, for as the government 'had largely contributed towards the liquidation of the county's liabilities', the council 'could better afford' this reduction. It 'would largely benefit the companies, and would not, he believed, lessen the revenue, but might instead tend to its increase'. As most of his mines 'were not paying or barely covering working expenses, the reduction was most strongly urged'. Unless it was made some

³⁸⁷ Piako County Council, *Waikato Times*, 26 November 1885, p. 2; Piako County Council, *Te Aroha News*, 28 November 1885, p. 2.

³⁸⁸ Piako County Council, *Te Aroha News*, 14 November 1885, p. 2; see also *Te Aroha News*, 21 November 1885, p. 2.

³⁸⁹ *Waikato Times*, 17 October 1885, p. 3, 17 November 1885, p. 4, 19 December 1885, p. 3.

³⁹⁰ *Waikato Times*, 17 November 1885, p. 4.

³⁹¹ *Waikato Times*, 8 December 1885, p. 2.

mines would close and ‘materially diminish the revenue of the council’. Another legal manager wrote similarly on behalf of several other companies. Firth, as usual the first one to speak, said the statements were true and should be seriously considered, although they must not go into debt again. The county clerk estimated that the cuts would mean a loss of about £50 a month. Gould expected dry weather for the next four months, meaning only half the stamps at the battery could be worked and the tramway would lose money. Murphy, who acted as spokesman for the miners, also opposed the cut. One shilling less per truck would not keep a poor mine open, but the loss entailed would result in a lease to a private individual who would damage it. ‘The tramway was the cheapest in point of freight in the Australian colonies. In fact if they did anything at all they would have to raise the charges’. While the council should not make a profit, the reduction would lose £2,000 a year and mean ratepayers would be subsidizing companies. Residents did not want a cut, which was an attempt by the companies to get the tramway into private hands. ‘The petition forwarded to the Council by the mining companies was signed by butchers, bakers and their boys and others who had no stake in the county whatsoever’. His motion that any future proposal for a reduction be considered only after due notice had been given was passed unanimously.³⁹²

As 1886 started with no water to run the battery, Cookson suggested his workers made a road to Buck Rock from ‘the present Werahiko terminus’ on the branch line south from Butler’s Spur.³⁹³ In February, as they had only worked seven days during the past month, he suggested that they repair the upper road, which they constantly used and which, unless repaired, might cause an accident to the horses. They were ‘naturally discontented with the long spell of idleness, and if a little work could be given to them about the place it would be the means of keeping them within call as it were. Should they leave me to seek fresh fields it would take me a considerable time to break strangers into the work’.³⁹⁴ Murphy thought work should be found, ‘as it would be a very serious matter if the men left. It would be difficult to replace them, and new hands, not being used to the work, would perhaps suffer loss of life or other serious consequences’. A

³⁹² Piako County Council, *Waikato Times*, 19 December 1885, p. 3.

³⁹³ Piako County Council, *Waikato Times*, 19 January 1886, p. 3; Piako County Council, *Te Aroha News*, 23 January 1886, p. 2.

³⁹⁴ Piako County Council, *Te Aroha News*, 13 February 1886, p. 7.

decision was postponed.³⁹⁵ On Murphy's motion, a party of tramway hands was given the contract to build the 50-chain sledge track suggested by Cookson, although their tender was the second cheapest. They would work the line as needed and complete the contract in their spare time. The financial consequence of little haulage was revenue of £37 13s 6d and a wages bill of £68 17s 6d.³⁹⁶

In the next month of working, 254 trucks used the line,³⁹⁷ and 398 in the subsequent one, despite the battery being curtailed by lack of water. By mid-April, the council had amassed a new overdraft of £2,914.³⁹⁸ Only 356 trucks went down in the following month, which prompted Murphy to request that the charges be considered at the next meeting. 'He was of opinion that the council should make no profit out of the tramway. (Cr J.C. Firth: nor loss either)'.³⁹⁹ The only positive news was Cookson's report that 'everything' was 'going smoothly' and it was 'in first class order'.⁴⁰⁰

At the end of May, the council was informed that there was a credit balance of £9 for the month, that ballasting and other repairs were required during winter,⁴⁰¹ and that the staff was to be reduced. Two companies asked for a reduced tariff because their mines were not paying and unless there was some reduction their continued operation was 'doubtful'. Another legal manager 'also wired advising a reduction'. John Bealby Smith, a farmer who dabbled in mining investment,⁴⁰² opposed making any cuts at the moment and sought to delay consideration until the New Era battery opened. Firth 'said he did not intend to take part in the discussion beyond pointing out that it was possible to make the charges too high and so lessen the profits of the tramway', and reminded them that 'a great many' mines were unable to pay the existing charge. Murphy suggested a cut for only 'a short period, as he was confident the result would justify them. By this means poor claims would have a show'. His proposed rates for three months were 3s 6d when two inclines were used and 2s 6d for one, trial parcels being carried for 1s per truck. His motion was defeated after Chepmell

³⁹⁵ Piako County Council, *Waikato Times*, 13 February 1886, p. 2.

³⁹⁶ *Te Aroha News*, 13 February 1886, p. 7.

³⁹⁷ Piako County Council, *Te Aroha News*, 13 March 1886, p. 2.

³⁹⁸ Piako County Council, *Te Aroha News*, 17 April 1886, p. 2.

³⁹⁹ Piako County Council, *Te Aroha News*, 15 May 1886, p. 2.

⁴⁰⁰ Piako County Council, *Waikato Times*, 11 May 1886, p. 3.

⁴⁰¹ Piako County Council, *Te Aroha News*, 5 June 1886, p. 7.

⁴⁰² See paper on the Waitoa Find.

produced figures showing the tramway was operating at a loss. Gould 'considered the proposed reduction amounted to making a call on the ratepayers in order to keep a few mines going'. Firth abstained from voting; his son, Murphy, and Williams supported the cut. Subsequently, Williams' motion that 'trial parcels of stone from new reefs, not exceeding 10 tons, be carried free' was passed unanimously.⁴⁰³

Extra ore was expected to be carried from the Waiorongomai Company's new mine on the southern side of Diamond Gully. The company made an extension across the waterfall from the previous end of the branch line, 'necessitating in some places trestling 30 feet high'.⁴⁰⁴ (As this mine soon proved to be unsuccessful, it did not increase the amount being conveyed.) It had been welcomed because in winter the tramway working only half the time because little quartz was being extracted. Winter required more repairs, and 'they had also been troubled' with slips, reported Cookson. His staff, now reduced to eight men, 'could send down comfortably twenty five trucks a day, but were only working three days a week and were obliged to find work along the line'. He wanted 'road work' provided 'to make the tramway self-supporting. Ferguson's battery had started, but so far had made no perceptible difference'.⁴⁰⁵ Nor would it, for it was a complete failure.⁴⁰⁶

Finally, in July, the county paid the balance of their account with A. & G. Price, the largest debt outstanding on the construction. The company had not claimed all the interest owing, but as their accountant noted, it was 'satisfactory for us to get it settled'.⁴⁰⁷ In June, yet another debit balance prompted Murphy to chide his fellow councillors for not cutting charges. He applauded Smith's suggestion that five local mine managers report on the management because they were 'men of long experience and tried integrity'. This proposal was adopted unanimously. Yet another request from the New Find Company for 'a much lower rate' of cartage to enable them to crush

⁴⁰³ Piako County Council, *Waikato Times*, 1 June 1886, p. 2; 'Piako County Council', *Te Aroha News*, 5 June 1886, p. 7.

⁴⁰⁴ *Te Aroha News*, 5 June 1886, p. 2.

⁴⁰⁵ Piako County Council, *Te Aroha News*, 10 July 1886, p. 3.

⁴⁰⁶ See paper on Peter Ferguson and his New Era.

⁴⁰⁷ John Watson to H.H. Adams, 16 July 1886, A. & G. Price Letterbook 1885-1886, p. 542, A. & G. Price Archives, Thames.

their low-grade ore was deferred until after this report was received.⁴⁰⁸ Williams considered 'the only way in which the tramway could be satisfactorily worked would be for the mine holders to work it.... A royalty would be better for the Council than the present monthly accounts'.⁴⁰⁹

Cookson's next report, after showing that receipts during July had been £93 9s while wages were £91 4s, referred to staffing levels:

I cannot well do with less than eight until the worst of the winter is over, and should the output from the mines at all increase, I will be compelled to add to, rather than lessen the number of men; but should the traffic remain as present until the fine weather sets in, I will endeavour to still further reduce the hands.... With our present force we can deliver twenty five to thirty trucks daily; but the quartz is not there, and we are obliged to bring the horses down to do a day's work in the town and up again in the morning; this means nothing more than working the horses to death. Referring to the matter of reducing the staff, I might add that the men would require to walk up and down the grades about three or four times a day, in order to complete the forwarding of the stuff; this in wet weather is not pleasant.⁴¹⁰

The same meeting received the report of the mine managers:

After going over the line and carefully ascertaining the number of trucks, quartz forwarded, the amount of pay sheets, &c., for the last few months, your commissioners are of opinion that your tramway has not been managed with regard to economy; that since the reduced output of quartz from the mines to be forwarded over the line to batteries too large a staff has been engaged, and during the days on which the tramway was not running we fail to see how all hands were employed. We beg to recommend that the staff be reduced to five men and a boy, and that each one of the reduced staff work a station or post on the line when the tramway is working. We think the reduced staff is capable of forwarding up to 20 trucks per day over the line, and as the number of trucks has only averaged 12 per day lately, the staff would have ample time to keep the line ballasted and the rolling stock in good working order. We also think that one horse could be dispensed with, which would also be a saving. We are also of opinion that the firewood forwarded over the tramway to the flat should be

⁴⁰⁸ Piako County Council, *Waikato Times*, 6 July 1886, p. 2; Piako County Council, *Te Aroha News*, 10 July 1886, p. 3.

⁴⁰⁹ Piako County Council, *Te Aroha News*, 10 July 1886, p. 3.

⁴¹⁰ Piako County Council, *Te Aroha News*, 7 August 1886, p. 2.

charged for, and that your council should fix a charge for the same to recoup the outlay for wood, trolleys, and wear and tear on the ropes and line, as we are informed that quantities of wood have been forwarded over the line without charge. Your commissioners find the tramway and rolling stock in fair order, with the exception of the horse grade from Butler's spur to the bottom of Queen of May grade, which has not been kept ballasted, water being allowed to lodge, causing the sleepers to show signs of decay. We beg to recommend that the brake gear on top of Butler's spur be shifted some half a chain nearer the incline [as had been recommended by Adams when he was manager]. The ropes, as the gear now stands, coil badly on the drums, causing the trucks to tip when being lowered over the grade, which not only causes serious delay on the tramway but also means a loss of quartz to the mining companies, besides causing the ropes to wear with heavy friction on top of the pulleys. The gear should be shifted for some £25, and we think that the tramway hands, in spare time, with some slight assistance might carry out the shifting as recommended. We think that this should be carried out before the new ropes, which have come to hand for Butler's spur, are fixed, to prevent the same becoming injured. Your commissioners do not think that any great outlay will be required for repairs on the tramway during the next twelve months, besides ballasting and some slight slips that might occur, as the batters of cuttings and formations of the line are, as it were, fairly seasoned with heavy rains during the past winters since the construction of the line. As twelve trucks per day over the line would meet expenses, and as the reduced staff would be capable of forwarding up to 20, we think your council might forward any number over 12 trucks, at a reduced charge, which would not increase the cost of working the line, and no doubt would encourage mining companies to increase the number of trucks over the line by forwarding the poor grade dirt.

When discussing these two reports, Gould claimed 'that carelessness had been exhibited in the management', for when the commissioners were appointed Cookson 'at once reduced the staff, showing that a saving might have been effected before'.⁴¹¹ He claimed Cookson neglected his work and spent a considerable amount of his time drinking in the Premier Hotel. As others also criticized Cookson, he was dismissed.⁴¹²

⁴¹¹ Piako County Council, *Waikato Times*, 5 August 1886, p. 2.

⁴¹² Piako County Council, *Te Aroha News*, 7 August 1886, p. 2.

Cookson drank with John Saunders, a well-know miner at Coromandel and Thames,⁴¹³ who often drank to excess.⁴¹⁴ In January, Cookson had successfully applied for a prohibition order against ‘my mate’ Saunders.⁴¹⁵ They were the original owners of a claim at Stoney Creek, acquired in January 1886.⁴¹⁶ In response to his dismissal, Cookson publicly defended himself. To clarify what his men did when no trucks were running, he quoted from ‘the diary’ to show that in the last five weeks before the commissioners’ visit they ran quartz for 17 days, cleared slips and repaired the line for 11, and on the remaining four worked on Waiorongomai streets. Just under 24 trucks a day had been taken down, not 12 as the commissioners stated, making a total of 403. He denied that they had checked the line between Butler’s and May Queen inclines, which he described as the best ballasted part: ‘they only reached the flag pole at the bottom of Butler’s Spur, and returned thence to the tramway office’. ‘One individual’ had advised the commissioners about that section. He denied having taken firewood down without charge, ‘except what the staff require for their own use’, which was sent down in their own time. Furthermore, he had reduced the staff after work on tracks and in the township had finished, not because of the report.⁴¹⁷

The *Te Aroha News* reproved him for publishing this justification in Hamilton, where the facts were unknown. By checking the returns, it discovered that 217 trucks had been carried, not 403. As for the sleepers between Butler’s and May Queen, Cookson had admitted that nearly all were rotting; it was ‘a well-known fact the water has been allowed to lodge on this portion of the line, and that it has been much neglected’. At least

⁴¹³ For example, Thames Warden’s Court, Thames Claims Register 1868, folio 262, BACL 14397/1a, ANZ-W; *Thames Advertiser*, 14 March 1884, p. 3.

⁴¹⁴ Coromandel Resident Magistrate’s Court, Minute Book 1870-1874, entry for 22 July 1872, BACL 14442/2a ANZ-A; *Thames Advertiser*, Police Court, 28 June 1881, p. 2, 8 March 1884, p. 2, 14 March 1884, p. 3, 19 July 1888, p. 2, 18 August 1888, p. 2; Armed Constabulary Force, Report of Charges taken at the Te Aroha Lockup 1880-1903, 12, 13, 16, 16/1884, 27/1886, in private possession; *Te Aroha News*, Police Court, 8 March 1884, p. 2, 23 January 1886, p. 2.

⁴¹⁵ Police Court, *Te Aroha News*, 23 January 1886, p. 7.

⁴¹⁶ Te Aroha Warden’s Court, Register of Te Aroha Claims 1880-1888, folios 140, 320, BBAV 11567/1a, ANZ-A.

⁴¹⁷ Letters from Edmund Cookson, *Waikato Times*, 19 August 1886, p. 2, 24 August 1886, p. 2.

three commissioners had visited that portion shortly before reporting. For nearly two years no revenue had been earned from carting firewood, which Cookson now claimed had been charged under 'haulage'; he had no authority to convey it free of charge. As to the men sending down wood in their own time, 'we understand that frequently the line has been occupied for hours during the working day, bringing down firewood'.⁴¹⁸

Cookson did not respond to this rebuttal, and two months after being dismissed he filed as bankrupt and his house was sold.⁴¹⁹ He informed his creditors that he had received £3 10s a week as manager and for the past two years had employed 'a man on prospecting, thinking he had something good'. His finances were so poor that he had to sell his interest in the mine for £5 to meet the legal expenses of filing as a bankrupt; his only asset was his house.⁴²⁰ After losing this job, Cookson worked as a prospector and mining contractor at Waiorongomai,⁴²¹ failed in his attempt to farm at Gordon,⁴²² briefly went to Broken Hill in the early 1890s,⁴²³ and then settled at Waitekauri as a miner and, briefly, a tramway manager again.⁴²⁴ And he continued to drink.⁴²⁵

In his last month as manager, Cookson produced a profit of £6. Murphy informed councillors of 'an impression that the ten-ton trial applied not to new reefs but to new workings. In this way the privilege accorded to prospectors had been abused, and the tramway would be asked to do more

⁴¹⁸ *Te Aroha News*, 4 September 1886, p. 3.

⁴¹⁹ *Te Aroha News*, 9 October 1886, p. 2, 16 October 1886, p. 2, 4 June 1887, p. 3, 23 July 1887, p. 3.

⁴²⁰ *Te Aroha News*, 9 October 1886, p. 2.

⁴²¹ *Te Aroha News*, 21 April 1888, p. 2, 12 May 1888, p. 2, 4 December 1888, p. 2, 9 January 1889, p. 2, 20 February 1895, p. 2, 12 October 1895, p. 2.

⁴²² See A.P. Etheridge to Edmund Cookson, 4 March 1889, Edmund Cookson to 'Gentlemen', 18 March 1889, memorandum of 25 November 1889 on defaulters, Gordon Special Settlement, Lands and Survey Department, BAAZ 1108/103a, ANZ-A.

⁴²³ See memorandum of 27 July 1891, Gordon Special Settlement, Lands and Survey Department, BAAZ 1108/103a, ANZ-A; Naval and Military Land Claims (Return of) Lodged since 25 September 1891, and not Substantiated, *AJHR*, 1892, H-36B, p. 11.

⁴²⁴ See *Te Aroha Warden's Court*, Letterbook 1883-1900, p.439, BBAV 11534/1a, ANZ-A; Petition dated 30 July 1898, Mines Department, MD 1A, 8/50, Part 1, ANZ-W; *Ohinemuri Gazette*, 12 August 1910, p. 2.

⁴²⁵ See *Observer*, 9 January 1897, p. 19, 23 January 1897, p. 18, 'Waitekauri', 27 February 1897, p. 21.

than it was capable of performing'. It was therefore resolved that no more than ten trucks from any claim in one year would be free, and they 'must be from genuine new workings'.⁴²⁶

MANAGED BY THOMAS GAVIN

Several men applied to replace Cookson, some 'almost equally qualified'. Thomas Gavin, one of the commissioners, was chosen;⁴²⁷ he was a leading mine manager.⁴²⁸ He went over the line with Williams and found it 'on the whole' in 'very fair order', but 'pointed out several alterations' that should be attended to. Beyond May Queen Incline 'he had been informed the sleepers were rotting. He had suggested an improvement in the construction of the wire rope rollers, whereby a good deal of the present friction would be avoided'.⁴²⁹

Gavin's first report recorded a profit of £3 6s 8d. After taking an inventory, on his first day in charge he discharged the carpenter and four days later dismissed another man and put one horse out to grass. He worked with 'five men and one boy including myself, and I find with that number and with three horses I could send 16 to 20 trucks per day to the Battery, but at present I am not able to obtain that number, as there are so few mines at work'. The men were repairing the line and preparing to shift the Butler's Incline brake. Had there been sufficient quartz 'to enable me to stop the line for two days, I would have the brake shifted but I am obliged to run some down everyday in order to keep the battery going'. He had covered the upper two brakes 'with iron, in order to keep the rain off, for when the winter sets in the brakes will not hold, and the trucks go at such great speed that they were liable to be smashed every time'. A slight slip had taken two hours to clear. As only Fern Spur incline was used to bring down firewood, he suggested a reduced charge.⁴³⁰

Gavin also dismissed George Robert Beeson,⁴³¹ the tramway clerk, whose application to manage the tramway had been declined and whose

⁴²⁶ Piako County Council, *Waikato Times*, 2 September 1886, p. 2; *Te Aroha News*, 4 September 1886, p. 2.

⁴²⁷ Te Aroha Correspondent, *Waikato Times*, 24 August 1886, p. 2.

⁴²⁸ See paper on his life.

⁴²⁹ Piako County Council, *Te Aroha News*, 4 September 1886, p. 3.

⁴³⁰ *Te Aroha News*, 9 October 1886, p. 3.

⁴³¹ See *Te Aroha News*, 27 May 1909, p. 2.

competence had been criticized.⁴³² Beeson asked for an enquiry into his conduct and into ‘certain charges made against his character’, but as the council had not made these and his letter ‘was evidently written under a total misapprehension of facts’, it was ignored.⁴³³

Gavin’s second report revealed that although revenue had been £71 2s 6d, expenditure was £79 3s 3d. To assist miners, he was instructed to charge ‘only what would cover the expenses’ of hauling the ‘large quantities of coal’ taken up.⁴³⁴ The council also assisted the Success (formerly Waitoki Extended) mine by extending the branch line from the top of Butler’s Incline by either four and a half or five and a half chains, depending on which newspaper was correct. A graded pack track already existed, and the miners did the work under Gavin’s supervision, the council granting them £10 along with rails and sleepers.⁴³⁵ One indication of how the tramway was operating was that a man was delegated to collect all the quartz ‘dropped from time to time by trucks upsetting, over filling, etc’.⁴³⁶ A profit of £1 3s 6d was achieved for November and £16 14s 10d for December.⁴³⁷ These modest profits prompted the local newspaper to praise the ‘new and careful management’.⁴³⁸

During the Christmas holidays, new ropes were fixed on Butler’s Incline: ‘40 new rollers had to be mounted and put on the grade to prevent the ropes from chafing. The new ropes were found to be a great improvement and worked well’.⁴³⁹ These alterations meant a deficit of £12 12s 7d for January; little quartz was carried because lack of rain meant little crushing. Three companies, ‘in view of the improved revenue prospects of the line’, wanted the charge reduced to three shillings; Firth commented that ‘it was unfortunate for the arguments of the writers that the tramway

⁴³² *Te Aroha News*, 7 August 1886, p. 2, 21 August 1886, pp. 2, 3, Piako County Council, 4 September 1886, p. 2.

⁴³³ Piako County Council, *Waikato Times*, 30 September 1886, p. 2; Piako County Council, *Te Aroha News*, 2 October 1886, p. 2.

⁴³⁴ *Waikato Times*, 28 October 1886, p. 3.

⁴³⁵ Piako County Council, *Waikato Times*, 28 October 1886, p. 3, 25 November 1886, p. 2; *Te Aroha News*, 23 October 1886, p. 2, 30 October 1886, p. 2, 13 November 1886, p. 2.

⁴³⁶ *Te Aroha News*, 25 December 1886, p. 3.

⁴³⁷ *Te Aroha News*, Piako County Council, 4 December 1886, p. 3, 25 December 1886, p. 3.

⁴³⁸ Editorial, *Te Aroha News*, 1 January 1887, p. 2.

⁴³⁹ Piako County Council, *Te Aroha News*, 29 January 1887, p. 2.

returns showed a deficit for the last month'.⁴⁴⁰ At the council meeting in February 1887, Gavin reported that he had run quartz on 18 days, repaired the line on three, and had no work on another three; this produced a credit balance of £6 9s. Williams said he 'ought to be congratulated on making the line pay during the excessively dry weather'.⁴⁴¹

The March tramway report was encouraging, as 576 trucks were taken down, an average of 24 per day, producing a profit of £50 19s 11d. An extra man was employed to free the blacksmith to repair trucks, and another might be needed 'if they were kept constantly running'.⁴⁴² At the end of March, when all work stopped because there was no water to power the battery, the men repaired the line.⁴⁴³ As the report for April showed a profit of £16 16s, 'several councillors referred in terms of eulogy to the manner in which the tramway had been managed'.⁴⁴⁴ The May report stated that no ore was sent down for nine days because the New Find shoot was being repaired, and on another day when fallen trees had to be removed after a storm. During these nine days, rails had been lifted in low places, sleepers ballasted, and culverts cleared, putting the line 'in good order for the winter'. The credit balance was £2 9s 2d. Gavin 'drew attention to the hardships the men had undergone during the late heavy weather by having to work without oilskins. They had suits supplied three years ago, but they were now worn out. During the last heavy weather, which lasted two days, they had to work, though all other men had knocked off'. Despite his recommendation that the suits be bought, for 25s each, some councillors were opposed, and the idea was dropped.⁴⁴⁵ The May report stated that 620 trucks had been sent down in four weeks, the largest number since Gavin had been in charge; he had employed two extra men, making the total number nine. There was a credit balance of £38 7s 8d.⁴⁴⁶

Early in July, the council was informed that as only 20 trucks a day had been taken down during the previous three weeks, the staff had time to deal with slips caused by heavy rain. The two main ones were underneath the branch line to the Success, causing the rails to be 'suspended' and the

⁴⁴⁰ Piako County Council, *Waikato Times*, 25 January 1887, p. 2.

⁴⁴¹ Piako County Council, *Waikato Times*, 22 February 1887, p. 3.

⁴⁴² *Waikato Times*, 22 March 1887, p. 3.

⁴⁴³ *Te Aroha News*, 2 April 1887, p. 2.

⁴⁴⁴ Piako County Council, *Te Aroha News*, 23 April 1887, p. 3.

⁴⁴⁵ Piako County Council, *Waikato Times*, 14 May 1887, p. 3.

⁴⁴⁶ Piako County Council, *Waikato Times*, 14 June 1887, p. 2.

line 'impassable'. Revenue for these weeks, therefore, was only £18 19s compared with an expenditure of £72 14s.⁴⁴⁷ The next month produced a credit balance of £34 7s, and Williams 'said the council had every reason to congratulate themselves' on Gavin's appointment.⁴⁴⁸ At the end of August, the credit balance was £18 16s 6d.⁴⁴⁹ As these results caused some to argue that the tramway 'for some time past' had 'more than paid working expenses', an Auckland newspaper published the half-yearly balance sheets from 1 October 1883 to 31 March 1887 (omitting shillings and pence):

	Recpt.	Expt
1884 - For half-year ending March 31, 1884	..	£3,408
£5,766		
Ditto, September 30, 1884	.. 1,303	1,326
1885 - Ditto, March 31, 1885.	.. 942	1,326
Ditto, September 30, 1885	.. 657	863
1886 - Ditto, March 31, 1886	..	965
3,096		
Ditto, September 30, 1886	..	519
1,046		
1887 - Ditto, March 31, 1887	.. <u>595</u>	<u>528</u>
Total	£8,379
£14,454		

It will be seen from the above statement that the excess of expenditure over receipts for the three years and a half was £6075. Even allowing £1500 out of the £3096 expenditure for the half-year ended 31st March, 1886, as going to deferred construction account, there is still an excess of £4575 over receipts, or an annual loss of over £1000 a year. The only half-year in which the tramway "has paid more than working expenses" is the half-year ending 31st March last, when the surplus amounted to the enormous sum of £67!⁴⁵⁰

Modest improvements continued, in August £110 0s 6d being received for an expenditure of £91 4s.⁴⁵¹ The following month's receipts were £113 and expenditure £92 4s 9d; the income had been boosted by 179 trucks of

⁴⁴⁷ Piako County Council, *Te Aroha News*, 9 July 1887, p. 2.

⁴⁴⁸ Piako County Council, *Waikato Times*, 2 August 1887, p. 2.

⁴⁴⁹ Piako County Council, *Waikato Times*, 30 August 1887, p. 3.

⁴⁵⁰ *Auckland Weekly News*, 20 August 1887, p. 20.

⁴⁵¹ Piako County Council, *Te Aroha News*, 3 September 1887, p. 3.

firewood for the battery furnace.⁴⁵² Once again the council expressed its 'satisfaction at the efficient manner' in which the tramway was managed.⁴⁵³ In the last month of its operation by Gavin, receipts were £37 3s, and expenditure £34 12s. Once the Battery Company paid the £550 it owed, the profit for the year would be £258.⁴⁵⁴

LEASING THE TRAMWAY

Williams, after noting the impossibility of reducing charges because there was a credit balance for only a few months in the year and 'the deficit over the whole year was considerable', proposed that the tramway be leased for at least ten years. As always, Firth spoke first; he wanted a ten-year lease because 'in the course of a few years the sleepers and other portions of the plant would require to be renewed. He strongly supported the proposal to lease the tramway, though, as he might be supposed to be remotely interested in the matter, he should abstain from voting'. Why he had dropped his opposition to a lease was revealed when he mentioned that 'negotiations were in progress for conducting mining operations on a large scale with large capital' from England. Whilst a reduction in charges 'would prove a great boon to the field', this could only happen 'if the tramway were leased to a large company.'

The council would not only rid themselves of a source of trouble and risk, but the lessees would feel it incumbent upon them to largely increase the traffic, and so more speedily develop the field. He would suggest that the tramway be offered for a lease of ten years, at an upset price of, say, £100 a year, the maximum freight to be 2s 6d per ton,

with those using only one or two grades being charged a shilling per grade. These charges would compel the lessee

to make the fullest use of the line, and so keep more batteries going, and thereby increase the revenue of the council from gold duty. By leasing the tramway the council would escape responsibility, increase their revenue, and do a great deal towards opening up the country. The proposal would, he hoped, be

⁴⁵² Piako County Council, *Te Aroha News*, 29 October 1887, p. 2.

⁴⁵³ Piako County Council, *Waikato Times*, 25 October 1887, p. 3.

⁴⁵⁴ Piako County Council, *Waikato Times*, 24 November 1887, p. 2.

carried forthwith. If the council did not embrace the present opportunity to aid in the introduction of English capital it would be neglecting its duty.... He hoped nothing would be done that would have the effect of breaking off negotiations with English capitalists.⁴⁵⁵

Firth later revealed that the agent of the London mining interests with whom he was negotiating had suggested leasing it.⁴⁵⁶ Some councillors supported the concept but wanted more detail before making decision at the next meeting. Murphy 'warmly supported the proposal. Anything that would have the effect of bringing capital into the country would have his support'.⁴⁵⁷

At the subsequent meeting, after Williams moved that the tramway be leased there was debate about how to protect the council's interests. Firth declared that he personally had inserted the clause in the original agreement that the maximum charge be 4s 6d except when this did not cover costs, in which case the actual cost should be charged. 'That clause would not be required now, and although safe in the hands of the County, in the hands of others it might prove dangerous'. He was 'strongly in favour of making the tariff as low as possible'. As there was 'a large proportion' of low grade ore, '£1 a week made a great difference'. His recommendation 'that the maximum sum should be 2s 6d' was agreed to. If only part of the line was used, the charge would be sixpence for each horse grade or incline. The lease, to be sold by public auction, was for ten years; the upset price was £100 per annum. Two sureties of £500 each were required 'for the due observance of the conditions'.⁴⁵⁸ When the carrying capacity was questioned, Firth stated that Stewart had said the line 'should be capable of conveying sufficient quartz to keep four batteries constantly going'.⁴⁵⁹

On 7 March, the council sought approval from the warden, now Harry Aldborough Stratford, 'of conditions of lease and his consent to lease'.⁴⁶⁰

⁴⁵⁵ Piako County Council, *Waikato Times*, 25 January 1887, p. 2; Piako County Council, *Te Aroha News*, 29 January 1887, p. 2.

⁴⁵⁶ Piako County Council, *Te Aroha News*, 18 June 1887, p. 2.

⁴⁵⁷ Piako County Council, *Waikato Times*, 25 January 1887, p. 2.

⁴⁵⁸ Piako County Council, *Waikato Times*, 22 February 1887, p. 3; Piako County Council, *Te Aroha News*, 26 February 1887, p. 2.

⁴⁵⁹ Piako County Council, *Te Aroha News*, 26 February 1887, p. 2.

⁴⁶⁰ Te Aroha Warden's Court, Register of Applications 1883-1900, 16/1887, BBAV 11505/1a, ANZ-A.

Confusion was apparent at the April meeting, some councillors claiming that Stratford after approving the lease on specified conditions was now refusing to approve it; the lease was postponed until his approval was obtained.⁴⁶¹ On being informed by Firth of the confusion, Stratford said he would approve the lease if his conditions were included. As the auction had been advertised before he received draft terms, he could not permit it before these had been agreed to, but having now seen the conditions he supported them.⁴⁶² He told the Minister that, although he had the power to decide the matter himself, he felt that because of the large government subsidy its approval should be sought. He had ‘inserted additional clauses to protect the public generally and give the Warden collateral power’.⁴⁶³ The Minister approved, one of his officials commenting that it was ‘highly probable that the tramway will be more efficiently worked by a private individual than by a Local Body’.⁴⁶⁴

Because there was no competition, the Battery Company acquired the lease at the upset price of £100 per annum. It was required to keep it in order and to convey quartz at 2s 6d per truck.⁴⁶⁵ As the ‘proposed London company’ was not in ‘a sufficiently advanced stage to act’ when the lease was offered, Firth said his company was forced to acquire it in the meantime.⁴⁶⁶ Being now the lessee, Firth resigned from the council.⁴⁶⁷ At their subsequent meeting, councillors argued about whether ‘fair wear and tear’ was acceptable when they took it back. Without consultation, Williams had added a clause to this effect, clearly benefiting his brother-in-law; Chepmell, who had drafted the original conditions, complained that he should have been informed:

⁴⁶¹ Piako County Council, *Waikato Times*, 19 April 1887, p. 3; see also Piako County Council, *Waikato Times*, 22 March 1887, p. 3.

⁴⁶² H.A. Stratford to Chairman, Piako County Council, 22 April 1887, Thames Warden’s Court, Warden’s Letterbook 1886-1893, pp. 94-96, BACL 14458/2b, ANZ-A; edited version published in Piako County Council, *Waikato Times*, 14 May 1887, p. 3.

⁴⁶³ H.A. Stratford to Minister of Mines, 22 April 1887, Thames Warden’s Court, Warden’s Letterbook 1886-1893, p. 98; for the council’s conditions, see pp. 98-181, BACL 14458/2b, ANZ-A.

⁴⁶⁴ F.A. Hamer to H.A. Gordon, 5 May 1887, plus memoranda by Gordon and Larnach, n.d., Mines Department, MD 1, 07/1014, ANZ-W.

⁴⁶⁵ *Te Aroha News*, 4 June 1887, p. 2.

⁴⁶⁶ Piako County Council, *Te Aroha News*, 18 June 1887, p. 2.

⁴⁶⁷ Piako County Council, *Waikato Times*, 14 June 1887, p. 2.

He certainly never would have agreed to it; they might as well give the tramway away. The very essence of the lease was that the tramway should be handed back to the council in good repair. With Williams' provision they would be handing over to the lessees property of the value of £18,000 at a rental which represented about five-ninths of a £ per cent, and at the end of the term the work would be useless. It would be remembered that one of the inducements held out to the council to part with the tramway was the fact that no further expenditure would be required for repairs, which would be undertaken by the lessee.

After a 'considerable amount of discussion', the council accepted its solicitor's suggestion to confer with the lessee.⁴⁶⁸ A visiting reporter commented that the 'very heavy charge' had been 'a great obstacle to the development of the mining industry'. The small quantity of quartz sent down meant an annual loss of from £600 to £1,000, and the company purchased the line 'on the understanding that a clause provided for an allowance of reasonable wear and tear at the expiration of the lease'. As the conditions of the lease 'did not reach the auctioneer's office till the morning of the day of sale', it was 'impossible for the auctioneer to communicate with' the council 'and the lease was sold on the understanding that the clause must be inserted'. Councillors who objected 'appointed a delegation' to discuss the issue with Firth. The reporter, who was present, considered that by reducing the charge by 2s the council was

practically adding something like a pennyweight per truck to the yield from the mines. One of the members of the deputation strongly opposed the insertion of the "reasonable wear and tear" clause, averring that the Council would only make £100 per annum, besides securing a largely increased gold revenue, resulting from the increased output of ore, which a saving of 2s 6d per truck would almost to a certainty produce.

As neither side gave way, the dispute was referred to the next meeting. The reporter, 'as an unprejudiced observer', considered the deputation was 'decidedly wrong', for the company would have to keep the line 'in good working order up to the very end of the term' unless it was 'foolish enough to incur the risk of life or limb by reason of the tramway falling into

⁴⁶⁸ Piako County Council, *Waikato Times*, 5 July 1887, p. 3.

disrepair'. The London syndicate would probably refuse to invest in 'an enterprise embarrassed by so unreasonable a condition'.⁴⁶⁹

When Stratford read that Williams had added the 'wear and tear' clause, he instructed his clerk to write to the council

to express my disapprobation of such an impropriety and breach of faith, and that I will not register the transfer, or assignment until the sale had been effected strictly in accordance with the original agreed conditions nor will I be a party to any compromise in the matter. If I have been misled by the newspaper's reports and wrongly accused the Council of gross misbehaviour I beg leave to withdraw any offensive remarks as I do not wish to insult, or provoke the Council, I only desire my remarks to apply to any person (or persons) in authority who has so manifestly taken advantage of his position by shewing favour to the sub-lessee. Such an unfair proceeding ought not to be tolerated for one moment.⁴⁷⁰

Because of the controversy, the company agreed to omit the 'wear and tear' clause, and took charge on 1 November.⁴⁷¹ It may be relevant that soon afterwards Chepmell replaced Williams as chairman.

Once the company took over, the tramway's profitability was no longer a concern for the council. The public was informed that it was 'let to the tramway employees at 2s 6d per truck', and Gavin was kept on 'as checker, and general supervisor of the line. The agreement with the contractors provides that they shall keep the line in repair'.⁴⁷² The cost of conveying quartz was to be two shillings per ton.⁴⁷³ In 1888, the council sold its four horses to the company, after some friction over the price,⁴⁷⁴ and a wire rope intended for the Tui aerial tramway was purchased at half price.⁴⁷⁵ A

⁴⁶⁹ Special Reporter, 'A Trip to Te Aroha', *Auckland Weekly News*, 30 July 1887, p. 29.

⁴⁷⁰ H.A. Stratford to Clerk, Warden's Court, Te Aroha, 23 July 1887, Thames Warden's Court, Warden's Letterbook 1886-1893, pp. 146-147, BACL 14458/2b, ANZ-A.

⁴⁷¹ Piako County Council, *Waikato Times*, 2 August 1887, p. 2; *Te Aroha News*, 8 October 1887, p. 2, 5 November 1887, p. 2.

⁴⁷² *Te Aroha News*, 5 November 1887, p. 2.

⁴⁷³ *Te Aroha News*, 21 April 1888, p. 4.

⁴⁷⁴ Piako County Council, *Waikato Times*, 18 February 1888, p. 2, 12 May 1888, p. 2; Piako County Council, Minutes of Meetings of 15 March 1888, 11 May 1888, Matamata-Piako District Council Archives, Te Aroha.

⁴⁷⁵ Piako County Council, *Waikato Times*, 10 November 1888, p. 2.

donkey engine that Murphy considered 'would probably again prove of great use to miners, by enabling them to get quartz hauled up from claims situated below the tramway', was eventually sold to a builder in 1889 for a lower figure than that offered the previous year.⁴⁷⁶

Little information was published about the line under its new arrangement, although it quickly became clear that the decline in mining meant that the company, which had failed in its negotiations with English capitalists, had made a financial mistake by leasing it. In January 1888 only about 12 trucks a day were sent down.⁴⁷⁷ Some still considered its construction was flawed, as indicated by Mills, now a councillor, stating that money 'had been most wastefully expended, and the work it was well known could have been done for half the money'.⁴⁷⁸ In July, the company sold its assets, including the lease, to the Te Aroha Silver and Gold Mining Company.⁴⁷⁹ The rolling stock was valued at £950.⁴⁸⁰ Within a month, the new company was granted permission to make a 25-chain branch tramway from the bottom of Butler's Incline to the Waiorongomai Stream to convey 200,000 feet of firewood to the battery furnace.⁴⁸¹

In late January and early February 1889, a large bush fire raged near the Army Creek bridge 'with great fury'. A number of miners were ordered 'to watch the tramway line, stables, etc, day and night', and at the bridge the company 'placed a number of men prepared for any emergency, with ropes, buckets, and axes'.⁴⁸² Stoppages were caused by the revolving shaft on Butler's Incline breaking in February and a shortage of water for the battery in April; by October the line operated only on demand.⁴⁸³ By

⁴⁷⁶ Piako County Council, *Waikato Times*, 18 February 1888, p. 2; *Te Aroha News*, Piako County Council, 17 March 1888, p. 2, 23 January 1889, p. 3; Piako County Council, *Waikato Times*, 12 February 1889, p. 3.

⁴⁷⁷ *Te Aroha News*, 21 January 1888, p. 2.

⁴⁷⁸ Piako County Council, *Te Aroha News*, 25 February 1888, p. 2.

⁴⁷⁹ Piako County Council, Minutes of Meeting of 13 July 1888, Matamata-Piako District Council Archives, Te Aroha; Piako County Council, *Te Aroha News*, 14 July 1888, p. 2.

⁴⁸⁰ *Te Aroha News*, 21 July 1888, p. 2.

⁴⁸¹ Te Aroha Warden's Court, Register of Applications 1883-1888, 65/1888, BBAV 11505/1a, ANZ-A; *Waikato Times*, 25 August 1888, p. 3.

⁴⁸² *Te Aroha News*, 30 January 1889, p. 2, Waiorongomai Correspondent, 2 February 1889, p. 2.

⁴⁸³ *Te Aroha News*, 23 February 1889, p. 2, Waiorongomai Correspondent, 24 April 1889, p. 2, 9 October 1889, p. 2.

November, the company had decided it was 'far too expensive' because of the cost of working and repairs. There was too much handling, and it could carry only half the quantity of ore the expanded battery could treat. The company decided a low level tunnel be far cheaper,⁴⁸⁴ but did not pursue this plan. As the tramway was deteriorating, after receiving an engineer's report the council insisted that the lessee repair both lines and buildings.⁴⁸⁵ By December 1890, the Te Aroha Silver and Gold Mining Company had abandoned Waiorongomai, and miners complained there was 'no one' to work the line.⁴⁸⁶

Adams headed a syndicate that in 1891 took over both battery and tramway. How to pay for repairs caused controversy, the lessees attempting to evade their responsibilities.⁴⁸⁷ Of the sureties, Firth being bankrupt was no longer liable, and Archibald and James McCosh Clark sought to be freed of their liability.⁴⁸⁸ In May, they convinced the council that they be released on payment of their surety of £1,000. The council agreed to resume responsibility and replace the missing tools, and appointed a committee to make repairs and devise arrangements either to work or stop it 'should they consider it advisable to do so'.⁴⁸⁹ Of the £1,000, a quarter was needed for repairs, and £150 was taken as unpaid rent.⁴⁹⁰ As there had been complaints of unsatisfactory working, the news that the council was once

⁴⁸⁴ *Te Aroha News*, 9 November 1889, p. 2.

⁴⁸⁵ Piako County Council, Minutes of Meetings of 23 August 1890, 26 November 1890, Matamata-Piako District Council Archives, Te Aroha; Piako County Council, *Waikato Times*, 29 November 1890, p. 4.

⁴⁸⁶ Piako County Council, Minutes of Meeting of 18 December 1890, Matamata-Piako County Council Archives, Te Aroha.

⁴⁸⁷ See in particular *Waikato Times*, 9 April 1891, p. 2.

⁴⁸⁸ Piako County Council, Minutes of Meeting of 22 January 1891, Matamata-Piako District Council Archives, Te Aroha; Piako County Council, *Waikato Times*, 27 January 1891, p. 3.

⁴⁸⁹ Piako County Council, Minutes of Meetings of 5 May 1890, 7 July 1891, Matamata-Piako District Council Archives, Te Aroha.

⁴⁹⁰ Piako County Council, *Waikato Times*, 7 May 1891, p. 2; for legal documentation of surrender of tramway to Piako County Council, see Hesketh and Richmond Papers, Box 1, Surrender and Release dated 24 July 1891, and Box 25, 911/C, MS 440, Auckland Public Library.

more taking over the tramway was received with 'great satisfaction'.⁴⁹¹ When Peter Ferguson complained at a public meeting in May that quartz could not be carried, Gavin explained that 'anyone could get stuff carried that applied'.⁴⁹²

CONTROLLED BY THE COUNCIL ONCE MORE

Gavin, appointed to make repairs, obtained new ropes, and in August leased the line for £3 per week. Charging 3s 6d per truck, he paid his employees a miner's wage.⁴⁹³ The new ropes were required because the ropes on the Fern Spur and May Queen inclines were unsafe. On the instructions of the warden, now Henry William Northcroft, the mining inspector, George Wilson,⁴⁹⁴ examined them:

The 5/8 in[ch] steel rope on the Fern Spur grade has been used for about 7 years and although not seemingly much worn may be perished and should be condemned as it has broken near the ends on more than one occasion when trucks were being lowered. The 1 1/8 in[ch] rope on the May Queen Grade is very much strained and the wire broken, sometimes in every strand in a length of 3 feet. This rope may break at any time and is unsafe.⁴⁹⁵

When Wilson was writing his report, the rope did break on one incline, causing 'nothing worse than the smashing up of two loaded trucks, which were being drawn up'.⁴⁹⁶ Repairs and acquisition of new equipment took some months to complete; as an example of the repairs needed, Gavin

⁴⁹¹ Piako County Council, Minutes of Meeting of 7 April 1891, Matamata-Piako District Council Archives, Te Aroha; Te Aroha Correspondent, *Thames Star*, 6 May 1891, p. 2.

⁴⁹² Te Aroha Correspondent, 'The Waiorongomai Mines', *New Zealand Herald*, 6 May 1891, p. 6.

⁴⁹³ Piako County Council, Minutes of Meeting of 4 August 1891, Matamata-Piako District Council Archives, Te Aroha.

⁴⁹⁴ See paper on his life.

⁴⁹⁵ George Wilson to Thomas Gavin and H.H. Adams, 23 July 1891; George Wilson to H.W. Northcroft, 8 August 1891, Inspector of Mines, Thames, Letterbook 1888-1892, pp. 519, 524, YBAZ 1240/1, ANZ-A.

⁴⁹⁶ *New Zealand Herald*, 24 July 1891, p. 6.

reported that the sleepers between Butler's and May Queen inclines 'had got so bad that we could not get the trucks along'.⁴⁹⁷

MANAGED BY WILLIAM McLEAN

Once restored to good working order, the council immediately sought to lease the line. Northcroft approved all the terms apart from charge at 4s 6d per truck, which he wanted to be one shilling less, because the higher price would prohibit most of the ore being treated because it was 'low grade stuff'. After a 'hard fight', by four votes to three the Te Aroha members carried the day and council adopted the lower rate.⁴⁹⁸ Northcroft agreed that the lessee should not be compelled to convey quartz 'unless and until 10 truck loads are ready at one time'.⁴⁹⁹ Four men applied for the lease, William McLean's tender of £30 for one year being accepted. Gavin had offered £5 plus a royalty of threepence per truck, and one councillor strongly urged that he be granted the lease because 'he would take more care of the property than anyone else, but the councillors thought it right to accept the highest tenderer'.⁵⁰⁰ McLean, a miner who had briefly been mine manager of the Prospectors' Claim at Te Aroha in 1880,⁵⁰¹ had applied in 1884 to manage the line.⁵⁰² At that time he was mining at Waiorongomai and seeking

⁴⁹⁷ Piako County Council, Minutes of Meetings of 11 September 1891, 6 October 1891, Matamata-Piako District Council Archives, Te Aroha; Piako County Council, *Waikato Times*, 3 September 1891, p. 2, 8 October 1891, p. 2, 5 November 1891, p. 2; *Thames Advertiser*, 8 September 1891, p. 2;

⁴⁹⁸ Piako County Council, Minutes of Meeting of 3 November 1891, Matamata-Piako District Council, Te Aroha; H.W. Northcroft to Chairman, Piako County Council, 29 October 1891, Thames Warden's Court, Warden's Letterbook 1886-1893, p. 504, BACL 14458/2b, ANZ-A; Piako County Council, *Waikato Times*, 5 November 1891, p. 2; *New Zealand Herald*, 9 November 1891, p. 6.

⁴⁹⁹ Piako County Council, Minutes of Meeting of 25 November 1891, Matamata-Piako District Council Archives, Te Aroha; H.W. Northcroft to Piako County Council, 26 November 1891, Thames Warden's Court, Warden's Letterbook 1886-1893, p. 521, BACL 14458/2b, ANZ-A; Piako County Council, *Waikato Times*, 28 November 1891, p. 2.

⁵⁰⁰ Piako County Council, Minutes of Meeting of 22 December 1891, Matamata-Piako District Council, Te Aroha; *Ohinemuri Gazette*, 2 January 1892, p. 6.

⁵⁰¹ See paper on this claim.

⁵⁰² Te Aroha Correspondent, *Waikato Times*, 28 June 1884, p. 2; Piako County Council, *Te Aroha News*, 5 July 1884, p. 2.

council contracts.⁵⁰³ In 1886, he had unsuccessfully prospected the King Country,⁵⁰⁴ and then spent over two years on Australian goldfields.⁵⁰⁵

The council retained responsibility for keeping the line in repair. In January 1892, more sleepers were replaced, timber was placed in the tunnel at Canadian Gully, yet another slip on Butler's Spur was removed, and 'preventative posts' were erected at each brake, as recommended by Wilson 'for the purpose of keeping the men safe in the event of the ropes breaking'. All this work cost £73 10s, but income from 21 December to 30 January was only £2.⁵⁰⁶ Gavin submitted his last report on the repairs on 1 March, and the new county engineer, Francis Pavitt, was instructed to inspect it each quarter.⁵⁰⁷ The council did not want to spend any more; when one party of miners asked that their hopper be connected, it resolved that it 'can not see its way to make any alterations or additions'.⁵⁰⁸ Then, two months later, William Morris Newsham⁵⁰⁹ and his party sought to make a short incline at the end of the tramway, at the Premier.⁵¹⁰ The council agreed to form the line, provide the sleepers and lay the rails, while the miners had to provide rails, trucks, brake, and rope, make the connections, work it, and transfer it to the council once they ceased using it. When councillors discovered that it was not legally possible to subsidise Newsham's party in this manner, the arrangement was cancelled.⁵¹¹

⁵⁰³ See *Thames Advertiser*, Te Aroha Warden's Court, 13 January 1882, p. 3, 3 June 1882, p. 2; Piako County Council, *Waikato Times*, 2 May 1885, p. 2.

⁵⁰⁴ *Thames Advertiser*, 14 January 1886, p. 2; *Waikato Times*, 3 April 1886, p. 2.

⁵⁰⁵ *Waikato Times*, 8 December 1888, p. 2.

⁵⁰⁶ Piako County Council, *Waikato Times*, 6 February 1890, p. 2.

⁵⁰⁷ Piako County Council, Minutes of Meetings of 1 March 1892, 3 May 1892, Matamata-Piako District Council Archives, Te Aroha.

⁵⁰⁸ Piako County Council, Minutes of Meeting of 3 May 1892, Matamata-Piako District Council Archives, Te Aroha.

⁵⁰⁹ See paper on his life.

⁵¹⁰ Te Aroha Warden's Court, Register of Te Aroha Claims 1880-1888, folio 339, BBAV 11567/1a, ANZ-A; Piako County Council, Minutes of Meeting of 5 July 1892, Matamata-Piako District Council Archives, Te Aroha; Piako County Council, *Waikato Times*, 9 July 1892, p. 2; *AJHR*, 1893, C-3, pp. 14, 18, 73, Appendix, v, xv.

⁵¹¹ Piako County Council, Minutes of Meeting of 5 July 1892, Matamata-Piako District Council Archives, Te Aroha; Piako County Council, *Waikato Times*, 9 July 1892, p. 2, 4 August 1892, p. 2.

At the same time as he requested this assistance, Newsham complained that McLean was 'not working the line properly and had on several occasions refused to carry quartz for his party thus causing the Battery to stop work for several days'. In one instance, Newsham had 'about 80 truckloads of quartz to bring down but when 60 had been sent McLean knocked off working the line without giving any reason and he kept it closed for three or four days. Last week again McLean did not work the line although quartz was ready to be sent down'. The council resolved to require McLean 'to strictly carry out the terms of lease'.⁵¹² When he explained the circumstances and assured it that he was running the tramway properly, his assurances were accepted.⁵¹³ In November, Edward Jennings, an amalgamator and builder,⁵¹⁴ and one of the three members of Newsham's party,⁵¹⁵ complained that both battery and mine were stopped 'owing to McLean drinking'. Northcroft asked the council to investigate: 'if this is the case will you kindly take action'.⁵¹⁶ This complaint was considered along with a report from Pavitt, who gave details of repairs required and stated that 'he had received numerous complaints about the manner in which the line had been worked'. Newsham's party formally complained that they had been

put to considerable loss and expense. We have no idea why he should continuously stop the tramway altogether in the middle of our crushing or when half our quartz is only at the battery. We estimate that under ordinary circumstances we should have exceeded our output from the mine by at least 200 trucks for the year. It is needless for us to particularise as to dates, as the whole community can vouch for the accuracy of our complaint, neither

⁵¹² Piako County Council, Minutes of Meeting of 5 July 1892, Matamata-Piako District Council Archives, Te Aroha; Piako County Council, *Waikato Times*, 9 July 1892, p. 2.

⁵¹³ Piako County Council, *Waikato Times*, 4 August 1892, p. 2.

⁵¹⁴ See *Thames Advertiser*, 14 December 1875, p. 2; A. & G. Price Letterbook 1885-1886, p. 683, A. & G. Price Archives, Thames; *Te Aroha News*, 18 October 1884, p. 7, 27 October 1926, p. 8; *Thames Star*, 24 July 1890, p. 2.

⁵¹⁵ Te Aroha Warden's Court, Register of Te Aroha Claims 1880-1888, folio 339, BBAV 11567/1a, ANZ-A.

⁵¹⁶ H.W. Northcroft to Chairman, Piako County Council, 11 November 1892, Thames Warden's Court, Warden's Letterbook 1886-1893, p. 667; see also H.W. Northcroft to Edward Jennings, 11 November 1892, Thames Warden's Court, Warden's Letterbook 1886-1893, p. 666, BACL 14458/2b, ANZ-A.

are our own eyes blind to the fact. We refrain from stating the direct cause of such carelessness on his part.

The announcement at the start of the meeting that McLean's sureties had been informed that he was 'stated to be drinking heavily' revealed the 'direct cause'. McLean, who listened to the charges, blamed the closure of the line on having only one assistant, Beeson, who had gone to Auckland without telling him:

All the trouble had been caused by petty jealousy and he had great difficulty in obtaining any man used to the work in consequence of this jealous feeling. Continuing he said: "I was never in such a place as Waiorongomai for lying and petty thieving. They thieved the tools and even took the grease and oil off the line." He further stated that the two trucks that were broken was caused by a fault in the iron that he could not see and was not responsible for. The horse he had sub-let for 2s 6d per week, not to make anything out of it, but simply to insure its being well fed and cared for. The clause of the lease referring to sub-letting was read, but Mr McLean said he had not troubled to read his copy of the lease or he should not have let the horse out of his possession. Regarding the statement he was drunk; he presumed the day referred to was the 9th November. If it was he who saw Councillor McNicol on that day and spoke to him, so Mr McNicol could say if he was drunk or not. - Cr McNicol: I think you were a little too loyal to the Prince of Wales on that day - Mr McLean: Well, I could attend to my business, so there could not have been much the matter with me. Mr McLean then retired from the Council Chamber.

In his absence, councillors commented on the ill feeling towards him at Waiorongomai, 'a pretty good place for cliques' according to one. William Herries,⁵¹⁷ a local farmer who had did not invest in mining, said 'he had continually received complaints, and in one instance the Warden had compelled the lessee to bring down some stuff that he had refused to bring down'. They resolved to terminate his lease because he had not paid the latest instalment of rent, had not always carried quartz when required, had sublet a horse without their approval, and had let the plant become 'considerably damaged'. Pavitt was instructed to run the tramway while

⁵¹⁷ See R.S. Herries, *Memoir of Sir William Herries*, KCMG (London, 1925).

repairs were made, after which a new lease would be arranged.⁵¹⁸ The repairs, costing £40 19s 6d, were made at the expense of McLean's sureties, and Pavitt extended the branch line to the Success a further chain to the Silver King.⁵¹⁹ After his dismissal, McLean mined at Waiorongomai,⁵²⁰ and his wife ran a shop at Te Aroha.⁵²¹ That he died of cirrhosis of the liver in 1911 suggests that he had continued to drink excessively.⁵²²

MANAGED BY GEORGE TAYLOR

In January 1893, the tramway was leased for three years, at £30 per annum, to George Taylor, one of the three applicants.⁵²³ Taylor, who had tendered unsuccessfully in 1886,⁵²⁴ had no experience at running tramways and had not invested in any mines. He worked as a blacksmith in the battery during the 1880s, having a reputation as a 'careful, competent, and experienced horse shoer and general smith',⁵²⁵ and after it closed continued to work as a blacksmith at Waiorongomai.⁵²⁶ He may have done some blacksmithing for the tramway when the Battery Company owned it.

Shortly before he took over, on 'one of the higher grades' three trucks were badly damaged in an accident. 'While two loaded trucks were being lowered and two empty trucks raised the draw bolt of one of the loaded trucks broke, and the trucks ran down the grade, striking and shattering

⁵¹⁸ Piako County Council, Minutes of Meeting of 23 November 1892, Matamata-Piako District Council Archives, Te Aroha; Piako County Council, *Waikato Times*, 26 November 1892, p. 2.

⁵¹⁹ Piako County Council, *Waikato Times*, 22 December 1892, p. 2; Piako County Council, Minutes of Meetings of 31 January 1893, 28 February 1893, Matamata-Piako District Council Archives, Te Aroha.

⁵²⁰ *Te Aroha News*, 18 September 1895, p. 2; *Auckland Weekly News*, 21 November 1896, p. 20.

⁵²¹ *Te Aroha News*, 2 April 1898, p. 2, 15 February 1900, p. 2, 17 February 1900, p. 2.

⁵²² Death Certificate of William McLean, 13 July 1911, 1911/5448, BDM.

⁵²³ Piako County Council, Minutes of Meeting of 31 January 1893, Matamata-Piako District Council Archives, Te Aroha.

⁵²⁴ *Te Aroha News*, 21 August 1886, p. 2.

⁵²⁵ *Te Aroha News*, 25 January 1890, p. 2.

⁵²⁶ Te Aroha Correspondent, *Waikato Times*, 21 January 1890, p. 2.

one of the other trucks in their course, and damaging the road'.⁵²⁷ After investigating, Wilson informed the council that chains were needed for extra couplings to the trucks, as 'the present drawing bars' were no longer reliable, several having 'parted lately'. It was agreed to provide these.⁵²⁸

Declining mining meant that Taylor had chosen a bad time to take up his lease. In February, there was a profit of almost £1, but by September 'all work had been suspended and the tramway was idle'. The council therefore gave him permission to let out the three horses 'for light work within the district'.⁵²⁹ He also provoked the county clerk by responding with a sharp comment when asked to pay his half-year's rent; he was told that his 'remarks about "Smartness" are impudent and uncalled for'.⁵³⁰ In March the following year, after meeting the councillors his rent for the coming half-year was remitted.⁵³¹ In September, he sought to surrender his lease because in the past six months 'he had only brought 454 trucks of quartz, which was not enough to make a living', receiving only £34 1s. Council refused to accept the surrender but remitted the next half-year's rent.⁵³²

Whilst income fell, expenses continued. In early January 1894, the stable at the top of Butler's Incline burnt down, 'probably due to some hot ashes left from a fire that had been lighted near the building during the day'. Taylor saved 'the harness and some horse feed', but as he would have to replace the stable his loss would be 'something like £30'.⁵³³ Fortunately a house was brought up from Fern Spur to replace it.⁵³⁴ A year later the

⁵²⁷ Te Aroha Correspondent, *New Zealand Herald*, 21 February 1893, p. 6; reprinted in *Thames Advertiser*, 22 February 1893, p. 3.

⁵²⁸ George Wilson to Chairman, Piako County Council, 25 February 1893, Te Aroha Warden's Court, Letterbook 1883-1900, p. 301, BBAV 11534/1a, ANZ-A; Piako County Council, Minutes of Meeting of 28 February 1893, Matamata-Piako District Council Archives, Te Aroha.

⁵²⁹ Piako County Council, *Waikato Times*, 2 March 1893, p. 3, 5 October 1893, p. 6.

⁵³⁰ County Clerk to George Taylor, 7 September 1893 [two letters], Piako County Council, Letterbook 1893-1899, pp. 30-31, Matamata-Piako District Council Archives, Te Aroha.

⁵³¹ Piako County Council, Minutes of Meeting of 6 March 1894, Matamata-Piako District Council Archives, Te Aroha.

⁵³² Piako County Council, *Waikato Times*, 18 September 1894, p. 7; *Thames Advertiser*, 28 September 1894, p. 2.

⁵³³ Te Aroha Correspondent, *New Zealand Herald*, 12 January 1894, p. 6.

⁵³⁴ Piako County Council, Minutes of Meeting of 6 February 1894, Matamata-Piako District Council Archives, Te Aroha.

Mines Department agreed to pay the full cost, £70, of repairing the Canadian Gully bridge and tunnel.⁵³⁵ The main tunnel also needed some retimbering.⁵³⁶ A new bridge for the upper road across Butler's Incline was constructed at government expense in 1895.⁵³⁷ In April that year, Taylor reported that 'he was doing nothing with the tramway, and left his case re payment of rent in the hands of Council', which agreed to let this stand over. One councillor wanted to hand it over to the government, and it was agreed that the chairman and county clerk would investigate this possibility. Gavin, now a councillor, stated that, as 250 acres had recently been pegged out, in the 'near future' there would be 'considerable revenue'.⁵³⁸ A correspondent countered that it was 'proving a veritable "white elephant"'.⁵³⁹ At the subsequent meeting, the chairman said that 'at the present time when there is a renewed interest in mining matters it would be unwise to think of abandoning the Tramway', and they agreed to take no further action about conveying it to the government.⁵⁴⁰ In September, Taylor's rent was again remitted for the coming six months because he had earned only £21 8s in the preceding six months. Gavin said that, whilst the line was 'in excellent order', repairs costing £268 were required.⁵⁴¹ A representative of a syndicate which had acquired a large part of the field urged the council to retain control, for it was more likely to encourage mining by charging more 'reasonable terms' than a private person.⁵⁴²

The only other notable occurrence involving the tramway in 1895 was reported later in September, when 'some maliciously disposed person' almost severed the wire rope on the May Queen incline. 'It was either done deliberately or by larrikins rolling boulders down the grade. Fortunately,

⁵³⁵ *AJHR*, 1895, C-3, p. 275.

⁵³⁶ *Te Aroha News*, 16 March 1895, p. 2.

⁵³⁷ Mines Department, MD 1, 96/4, ANZ-W.

⁵³⁸ Piako County Council, *Te Aroha News*, 13 April 1895, p. 2; Hamilton Correspondent, *New Zealand Herald*, 18 April 1895, p. 6.

⁵³⁹ Te Aroha Correspondent, *New Zealand Herald*, 18 April 1895, p. 6.

⁵⁴⁰ Piako County Council, Minutes of Meeting of 9 May 1895, Matamata-Piako District Council Archives, Te Aroha; Piako County Council, *Te Aroha News*, 11 May 1895, p. 2.

⁵⁴¹ Piako County Council, Minutes of Meeting of 12 September 1895, Matamata-Piako District Council Archives, Te Aroha; Piako County Council, *Te Aroha News*, 14 September 1895, p. 2; 'Piako County Council', *Waikato Times*, 17 September 1895, p. 6.

⁵⁴² Piako County Council, *Waikato Times*, 17 September 1895, p. 6.

this flaw was discovered in time to present a serious accident, endangering human life'. The police were informed.⁵⁴³

When Taylor's lease expired in March 1896 the council remitted his final half-year's rent because he had kept it in good order, although some repairs were needed to make the brake frames safe.⁵⁴⁴

MANAGED BY GAVIN, AGAIN

In April 1896, it was arranged that the New Zealand Exploration Company, which had acquired most of the goldfield, should run the tramway and repair the brake frames.⁵⁴⁵ Its subsidiary, Aroha Gold Mines, was granted complete control, month by month, being responsible for everything except damage caused by bushfires.⁵⁴⁶ In July 1897, on behalf of this company Gavin received permission to run it with freedom to 'make any charges he pleased to others who wished to make use of it'.⁵⁴⁷ The revival in mining and a consequent increase in traffic ended in August, when Aroha Gold Mines ceased crushing, partly because of poor ore but also because using the tramway had 'proved very expensive'.⁵⁴⁸ Increased traffic meant that repairs totalling £500 were needed by September; the government agreed to provide a £ for £ subsidy.⁵⁴⁹

Another accident on the May Queen Incline occurred in September 1897, when heavy machinery was being hoisted up. 'The rope broke, and the loaded truck descended at great speed, colliding with some empty trucks at

⁵⁴³ *Te Aroha News*, 28 September 1895, p. 2.

⁵⁴⁴ Piako County Council, Minutes of Meeting of 27 March 1896, Matamata-Piako District Council Archives, Te Aroha.

⁵⁴⁵ Piako County Council, Minutes of Meeting of 17 April 1896, Matamata-Piako District Council Archives, Te Aroha.

⁵⁴⁶ Piako County Council, *Waikato Argus*, 19 December 1896, p. 2; Peter Gilchrist (County Clerk) to Aroha G. M. Co., 16 January 1897, Piako County Council, Letterbook 1893-1899, p. 882 [the same letter being repeated monthly after each council meeting], Matamata-Piako District Council Archives, Te Aroha.

⁵⁴⁷ Piako County Council, *Waikato Times*, 17 July 1897, p. 3; *Thames Advertiser*, 20 July 1897, p. 2.

⁵⁴⁸ *Mining Journal* (London), 28 August 1897, p. 1016.

⁵⁴⁹ Peter Gilchrist to Minister of Mines, 21 September 1896, Piako County Council, Letterbook 1893-1899, pp. 786-787, Matamata-Piako District Council Archives, Te Aroha; Mines Department, MD 1, 98/161, ANZ-W.

the bottom of the grade, and smashing them rather badly. Fortunately none of the machinery was injured'.⁵⁵⁰ The following month, decaying brake frames and wire ropes made repairs an urgent necessity. Of the £250 needed, the government provided half, the council a quarter, and several mining companies and parties of miners the other quarter.⁵⁵¹ Repairs to the brake frames, the construction of a new bridge over Canadian Gully, and repairs of flood damage were all made during 1898, the cost being shared once more by the government, the council, and mining companies and syndicates.⁵⁵²

At its April 1898 meeting, Aroha Gold Mines 'declined to renew the usual arrangement' because it did not want to be responsible for it as 'there were other companies wanting to use it'. Council employed a man to look after it until the next meeting, companies using it 'in the meantime to be responsible for damage'.⁵⁵³

MANAGED BY ALBERT EDWARDS

Albert Edwards was appointed to take charge in July 1898.⁵⁵⁴ He had no experience in operating a tramway, and his only involvement in mining was as an owner of one claim.⁵⁵⁵ He had had a variety of occupations: a baker in Auckland in the early 1880s, a storekeeper at Waiorongomai and

⁵⁵⁰ *Thames Advertiser*, 6 September 1897, p. 2.

⁵⁵¹ Peter Gilchrist to Minister of Mines, 23 October 1897, Piako County Council, Letterbook 1893-1899, pp. 121-122; see also pp. 144-145, Matamata-Piako District Council Archives, Te Aroha; Piako County Council, *Waikato Argus*, 23 October 1897, p. 3, 27 November 1897, p. 2, 18 December 1897, p. 4.

⁵⁵² Piako County Council, Letterbook 1897-1899, pp. 185-186, 189, 194, 205, 250-252, 294, 314-315, 321, Matamata-Piako District Council Archives, Te Aroha; Piako County Council, *Waikato Argus*, 22 January 1898, p. 2, 19 February 1898, p. 4, 26 March 1898, p. 4, 23 July 1898, p. 4, 20 August 1898, p. 4, 22 October 1898, p. 3; *Te Aroha News*, 1 March 1898, p. 2, Piako County Council, 23 April 1898, p. 2; *AJHR*, 1898, C-3, p. 213.

⁵⁵³ Piako County Council, *Te Aroha News*, 23 April 1898, p. 2.

⁵⁵⁴ Piako County Council, *Waikato Argus*, 23 July 1898, p. 4.

⁵⁵⁵ Te Aroha Warden's Court, Register of Te Aroha Claims 1880-1888, folio 338, BBAV 11567/1a, ANZ-A.

Quartzville (including being postmaster at the latter), a draper, and a carpenter.⁵⁵⁶

In March 1899, when Edwin Henry Hardy,⁵⁵⁷ who had acquired some of the abandoned mines, took control temporarily, he was told that Edwards 'knows best how to work it'. Hardy was required to keep it in order, with the right to charge others who used it.⁵⁵⁸ Applications for the lease were invited in April, but as none was received,⁵⁵⁹ the county clerk wrote to the Minister of Mines on 3 May:

The cost of maintaining and keeping this Tramway in good order has been a grievous burden upon the funds of the Council. From time to time the Council have let it to Lessees, but when not so let it has remained on their hands and during such periods they have been obliged to expend large sums in keeping it in good order and repair. The Council have always endeavoured to do their best in the matter of keeping the Waiorongomai Tramway open and available for traffic in the hope that someday it would at least pay for its current expenses. During the past two or three years several Grants have been given by you from Goldfields Vote for necessary renewals of bridges &c and these have been judiciously expended. But in addition to these Grants the Council find that during their last financial year alone they have had to spend on Tramway account [£]227-1-9 with a return for haulage of [£]2-15-0. The Tramway I may add is now in good repair and there is a sufficient amount of trucks &c for conveying quartz.

At last meeting of the Council Tenders were called for a Lease of the Tramway,- the Lessee to be responsible for all accident or damage happening during the period of lease. No offer was received. Some of the members of the Council (most likely a majority) now consider that the Council cannot go on keeping going so unprofitable a concern, and a notice of motion has been given for next meeting on 19th inst to the effect that the Council

⁵⁵⁶ Auckland Hospital, Register of Admissions 1870-1885, 713/1881, ZAAP 15287/2a, ANZ-A; *Te Aroha News*, 21 March 1885, p. 2; 'Waiorongomai', *Observer*, 5 September 1885, p. 4; *Waikato Times*, 8 October 1889, p. 2; *New Zealand Gazette*, 12 March 1885, p. 334, 12 April 1888, p. 448, 14 June 1888, p. 683; *Waikato Electoral Roll, 1893*, p. 10; Marriage Certificate of Albert Edwards, 21 October 1895, 1895/1683, BDM.

⁵⁵⁷ See paper on his life.

⁵⁵⁸ Peter Gilchrist to E.H. Hardy, 20 March 1899, Piako County Council, Letterbook 1897-1899, p. 438, Matamata-Piako District Council Archives, Te Aroha.

⁵⁵⁹ Piako County Council, Letterbook 1897-1899, pp. 448-449, 456, 463-465, Matamata-Piako District Council Archives, Te Aroha.

shall surrender the Tramway in the Warden's Court and so get rid of it entirely.

I have the honour by direction of the County Chairman to inform you of this position of matters so that if you think it right you may take such steps as will protect the public interest. The Council would have no objection in the event of surrender by them to you in the public interest taking possession of the Tramway....

The Council will not lodge a Surrender in Court until you have decided what course of action in the event of Surrender shall be taken by your Department.⁵⁶⁰

The under-secretary advised his Minister, Alfred Jerome Cadman, that 'if the Local Authority cannot administer the tramway to advantage the Government should not be burthened with it'.⁵⁶¹ Therefore Edwards continued to work it on behalf of the council until it was arranged that Hardy would control it from 1 January 1900. After much argument and alternative proposals, the council employed Edwards as tramway foreman, along with other hands, and Hardy agreed to pay 3s 6d per truck and guaranteed to send 30 down each month. If he sent less than 30, he was either to pay at the average for the period or meet the wages bill. This agreement was to be renewed at each council meeting.⁵⁶² Edwards continued to work the tramway until his death in September 1902.⁵⁶³

When their June 1899 meeting was told that the government would not permit them to give up the tramway, councillors accepted that the 'mingling of interests' created by government involvement in constructing

⁵⁶⁰ Peter Gilchrist to Minister of Mines, 3 May 1899, Piako County Council, Letterbook 1897-1899, pp. 463-465, Matamata-Piako District Council Archives, Te Aroha; see Piako County Council, *Waikato Argus*, 29 April 1899, p. 3.

⁵⁶¹ Under-Secretary, Mines Department, to Minister of Mines, 21 May 1899; Under-Secretary, Mines Department, to Peter Gilchrist, 6 June 1899, Mines Department, MD 1, 07/1014; see also Memorandum for Under-Secretary, Mines Department, 9 July 1919, Mines Department, MD 1, 21/2/4, ANZ-W.

⁵⁶² Peter Gilchrist to E.H. Hardy, 24 November 1899, 16 December 1899, Piako County Council, Letterbook 1899-1901, pp. 100, 112, Matamata-Piako District Council Archives, Te Aroha; Piako County Council, *Waikato Argus*, 25 November 1899, p. 4, 19 December 1899, p. 4; letters from E.H. Hardy to Piako County Council, December 1899, printed in *Te Aroha News*, 25 January 1900, p. 2.

⁵⁶³ Death Certificate of Albert Edwards, 16 September 1902, 1902/6635, BDM; Piako County Council, Letterbook 1902-1903, p. 149.

and repairing it made abandonment difficult.⁵⁶⁴ According to Hardy, the council was neither running the tramway competently nor keeping it in good repair. He complained to Cadman in June that, after promising to give him 50 trucks, it had only provided 24. 'Council's employees lazy hostile and outside my Control, position intolerable no quartz ready for Monday.... Respectfully urge absolute necessity government assume command to enable me carry on'.⁵⁶⁵ Cadman declined to become involved.⁵⁶⁶ In January 1900, Hardy complained that

often two days are taken into delivering ten trucks when with a little extra work after hours one would do. Trucks of quartz on the line often from Saturday until Monday are at the mercy of depredators one of whom has confessed to the abstraction of gold stone therefrom. Again the trucks are so badly worn that fully one-third of their original load escapes on the road when the quartz is fine and wet.

One wire rope was 'notoriously defective'. He claimed that, as the councillors' interests were 'purely agricultural', they let the tramway decay.

During the winter months the battery had frequently to stop through the contumacy of two tramway assistants who would not turn out in wet weather though that favoured the running of the trucks. One of these men was hostile to my interests because being a drunkard he had been refused work in the mine.⁵⁶⁷

In the year to 31 March 1899, £263 2s had been spent on repairs, £175 being provided by the Mines Department, and the line was 'in good working order'.⁵⁶⁸ Then in May one rope snapped, stopping all traffic for over a month. One of the original ropes, it had been hanging by only six strands

⁵⁶⁴ Piako County Council, *Waikato Argus*, 22 June 1899, p. 4.

⁵⁶⁵ E.H. Hardy to Minister of Mines, 10 June 1899 (telegram), Mines Department, MD 1, 07/1014, ANZ-W.

⁵⁶⁶ A.J. Cadman to E.H. Hardy, 12 June 1899 (telegram), Mines Department, MD 1, 07/1014, ANZ-W.

⁵⁶⁷ *Te Aroha News*, 25 January 1900, p. 2.

⁵⁶⁸ *AJHR*, 1899, C-3, p. 69.

and could not be repaired.⁵⁶⁹ Government funds plus help from miners was obtained to replace it and make other repairs.⁵⁷⁰ The new rope cost £75 9s 10d.⁵⁷¹ Gavin had encouraged his fellow councillors to persevere with repairs because prospects were 'so good'. Hardy 'had about 20,000 tons opened up', and even if he only used the line four days a week 'it would clear expenses', and other mine owners could use the battery. Stopping the line would be 'a calamity', and he claimed, quite inaccurately, that records showed 'that when there was any activity the tram was worked at a profit'.⁵⁷²

The expected growth in traffic was slow to come. In August, for example, Hardy sent down only 100 trucks, and in late November Gavin complained that he 'had not carried out a promise made to him' that ten trucks would be sent down each day, instead sending about 20 each week. Councillors agreed that unless Hardy sent 40 trucks each week they would appoint a man to run the tramway, his wages being paid by Hardy, and 'extra labour' would only be employed when quartz was sent down. 'As things were at present, the tramway was being kept going and in repair for the benefit of Mr Hardy'.⁵⁷³

Because for the period from the beginning of June 1899 to the end of February 1900 Hardy and all the other claim-owners were only sending down a small amount of ore, the deficit for working the line for these nine months was £34 10s 3d.⁵⁷⁴ In that period, repairs had cost £150, the Mines Department meeting half this amount.⁵⁷⁵ By mid-1900, Hardy was sending down an average of 20 trucks per week, which had increased to 30 by

⁵⁶⁹ Piako County Council, *Waikato Argus*, 23 May 1899, p. 4; *Thames Advertiser*, 29 May 1899, p. 2; Peter Gilchrist to E.H. Hardy, 20 June 1899, Piako County Council, Letterbook 1897-1899, p. 497, Matamata-Piako District Council Archives, Te Aroha.

⁵⁷⁰ Piako County Council, *Waikato Argus*, 23 May 1899, p. 4; *New Zealand Mines Record*, 16 June 1899, p. 458; Peter Gilchrist to Minister of Mines, 19 May 1899, 26 September 1899, Piako County Council, Letterbook 1897-1899, p. 472, Letterbook 1899-1901, p. 47, Matamata-Piako District Council Archives, Te Aroha.

⁵⁷¹ Piako County Council, *Waikato Argus*, 26 August 1899, p. 4.

⁵⁷² Piako County Council, *Waikato Argus*, 23 May 1899, p. 4.

⁵⁷³ Piako County Council, *Waikato Argus*, 26 August 1899, p. 4, 25 November 1899, p. 4.

⁵⁷⁴ Piako County Council, Letterbook 1899-1901, p. 144, Matamata-Piako District Council Archives, Te Aroha.

⁵⁷⁵ *AJHR*, 1900, C-3, p. 186.

October.⁵⁷⁶ Despite this modest increase, each month the accounts showed a loss. For the half year to 30 September, haulage earned £92 9s, while wages and repairs were £143 17s 3d.⁵⁷⁷

In the opinion of the new mining inspector, James Coutts, the councillors were 'mostly agriculturalists' whose interests were 'not identical with gold mining' and who exaggerated when claiming charges did not cover expenses. By including gold duty and gold revenue, a different balance was produced. His figures from the beginning of 1899 to July 1900, including these extra sources of revenue, gave revenue from haulage as £248 5s 6d and expenses as £315 19s 8d. If gold duty and gold revenue of £107 0s 11d was added, the council had a credit balance of £39 6s 9d.⁵⁷⁸ Coutts failed to note that this additional revenue was required for making and repairing tracks, which suffered the same storm damage as the tramway. The council's response to his argument was that, even with the additional revenue, they were only able to meet the expenses of haulage and had nothing left for repairs.⁵⁷⁹

Accidents continued to create extra expenses. In April 1900 two trucks got away on the May Queen incline and were smashed, damaging 30 sleepers, and in November the rope on the same incline broke, smashing two more trucks and other equipment and tearing up one and a half chains.⁵⁸⁰ Repairs continued to be needed: for instance, some sleepers were 'in very bad repair' and the bridge linking the tramway to the battery was sinking.⁵⁸¹ Government assistance was requested once more; a grant of £300 to maintain the tramway was declined, but if the council got it 'in a thorough state of repair' a subsidy on its running might be approved.⁵⁸²

⁵⁷⁶ Piako County Council, *Waikato Argus*, 18 June 1900, p. 2, 22 August 1900, p. 4, 22 October 1900, p. 4.

⁵⁷⁷ Piako County Council, Letterbook 1899-1901, pp. 307-308, Matamata-Piako District Council Archives, Te Aroha.

⁵⁷⁸ James Coutts to Under-Secretary, Mines Department, 30 July 1900, Mines Department, MD 1, 1900/1020, ANZ-W.

⁵⁷⁹ Peter Gilchrist to Minister of Mines, 31 August 1900, Piako County Council, Letterbook 1899-1901, p. 275, Matamata-Piako District Council Archives, Te Aroha.

⁵⁸⁰ *New Zealand Herald*, 23 April 1900, p. 3; Piako County Council, *Waikato Argus*, 30 November 1900, p. 4.

⁵⁸¹ Piako County Council, *Waikato Argus*, 26 September 1900, p. 4.

⁵⁸² *New Zealand Mines Record*, 16 September 1900, p. 90; see also Peter Gilchrist to Under-Secretary, Mines Department, 20 October 1900, Piako County Council, Letterbook

This did not happen, and while it continued to be used there were regular requests for assistance with repairs.⁵⁸³ The council considered that it was 'hard' that ratepayers' money was used for repairs, 'especially as so many roads are required throughout the district'.⁵⁸⁴

The tramway was used continuously in the early years of the twentieth century, mostly by Hardy,⁵⁸⁵ although not without regular disagreements over charges and the competence of the workers.⁵⁸⁶ For the three years to 30 September 1903, there was a deficit of £21 0s 4d.⁵⁸⁷

MANAGED BY HARDY'S MINES

Although the government did not want the tramway to 'fall into the hands of one Company or individual who would prevent mining operations being carried on' in its vicinity,⁵⁸⁸ in December 1904 the council accepted Hardy's Mines' proposal to lease it for five years at a nominal rent. The company was required to keep it in good repair and to carry quartz for others.⁵⁸⁹ The lease was extremely nominal: £1 per year. In addition, there was a bond of £500, repairs costing £320 were to be made within three months, and charges for other users were specified (3s 6d for conveying

1899-1901, Matamata-Piako District Council Archives, Te Aroha; Piako County Council, *Waikato Argus*, 30 November 1900, p. 4.

⁵⁸³ For example, Peter Gilchrist to Minister of Mines, 7 September 1901, Piako County Council, Letterbook 1899-1901, p. 1 [at end of book], Matamata-Piako District Council, Te Aroha; *New Zealand Mines Record*, 16 September 1902, p. 72; Piako County Council, *Auckland Weekly News*, 22 January 1903, p. 28; Piako County Council, Minutes of Meeting of 27 April 1904, Matamata-Piako District Council Archives, Te Aroha.

⁵⁸⁴ James Coutts to Under-Secretary, Mines Department, 8 April 1904, Inspector of Mines, Thames, Letterbook 1903-1906, pp. 96-97, YBAZ 1240/3, ANZ-A.

⁵⁸⁵ For example, *AJHR*, 1901, C-3, p. 79; Piako County Council, *Auckland Weekly News*, 26 September 1901, p. 26.

⁵⁸⁶ See paper on his life.

⁵⁸⁷ Piako County Council, Minutes of Meeting of 28 October 1903, Matamata-Piako District Council Archives, Te Aroha.

⁵⁸⁸ James Coutts to Under-Secretary, Mines Department, 8 April 1904, Inspector of Mines, Thames, Letterbook 1903-1906, pp. 96-97, YBAZ 1240/3, ANZ-A.

⁵⁸⁹ Piako County Council, Minutes of Meeting of 21 December 1904, Matamata-Piako District Council Archives, Te Aroha.

quartz the whole distance and ninepence per horse grade and incline).⁵⁹⁰ Once repairs were made, the line was restored to good working order.⁵⁹¹

For the next couple of years, it was of no concern to the council. Then, in September 1907, Hardy's Mines sought assistance in obtaining a grant for repairs.⁵⁹² The county clerk replied:

The Council finds the position to be awkward. An inspection of the Waiorongomai Tramway shows it to be in a bad state. In many places it is overgrown with gorse. On the self-acting grades the ropes are lying on the ground, and at the lower ends buried in the soil. Quite a number of trucks are smashed up, lying on different parts of the line. In one place a very extensive slip had come down upon the line from above, and in another there has been an extensive slip beneath the line leaving the rails suspended in the air. This state of affairs (some parts of it no doubt due to stress of weather) is mostly due to the neglect of your Company. The Council is disposed to think that until matters of neglect are remedied there would not be much chance of getting a Grant even for flood damage. Probably if you set to work to remedy the more glaring items of this kind the Minister might be approached to finish the work. Meantime it would seem to be the plain duty of the Council to call upon your Company to put the Tramway and plant in good and proper repair order and condition in terms of the Lease.⁵⁹³

As Hardy's Mines was virtually dormant, the council decided to seek £300 to repair the damage, in particular the large washout on the May

⁵⁹⁰ Lease of Waiorongomai Tramway and Plant, 23 January 1905; Bond, 6 February 1905, Matamata-Piako District Council Archives, Te Aroha.

⁵⁹¹ Piako County Council, Minutes of Meeting of 18 January 1905; Peter Gilchrist to Secretary, Hardy's Mines Ltd., 22 April 1905, 29 August 1905, Francis Pavitt to W.P. Chepmell, 16 September 1905, Piako County Council, Letterbook 1905-1906, pp. 4, 130, 149, Matamata-Piako District Council Archives, Te Aroha; Piako County Council, *Te Aroha News*, 19 September 1905, p. 2.

⁵⁹² Piako County Council, Minutes of Meeting of 23 September 1907, Matamata-Piako District Council Archives, Te Aroha.

⁵⁹³ Peter Gilchrist to Secretary, Hardy's Mines Ltd, 25 September 1907, Piako County Council, Letterbook 1907-1908, pp. 48-49, Matamata-Piako District Council Archives, Te Aroha.

Queen incline.⁵⁹⁴ Early in 1908, the government provided £91 7s 6d to build a trestle bridge across it, but assistance continued to be needed, for in September the tramway was not working at all, requiring the 30 men still mining to pack their supplies in on horseback.⁵⁹⁵ Fortunately for the immediate needs of the council, Hardy's Mines in mid-1908, recognizing that they were not likely to use the tramway, surrendered the remainder of their lease on payment of £300.⁵⁹⁶ Gavin, then chairman of the council, said that the company had kept the tramway 'in good repair', but a report indicated that £164 would have to be spent to stop 'further serious deterioration'; not until November was it working again.⁵⁹⁷

When the trestle bridge on the May Queen incline was erected, the trestles were built so far apart that it was 'not strong enough to carry trucks at the speed necessary' and had to be strengthened.⁵⁹⁸ While this work was underway, Cyclone Dido dumped so much rain that 'water raced down the hillsides in a seething mass'. Slips and washouts occurred all along the line, and 'a number of big trees fell across the tram carrying the line and ballast down the hillside'.⁵⁹⁹ This time the Mines Department contributed £75, and while the line was not operating Hardy's Mines was given permission to use

⁵⁹⁴ Piako County Council, Minutes of Meeting of 21 October 1907; Peter Gilchrist to Minister of Mines, 30 October 1907, 9 November 1907, Piako County Council, Letterbook 1907-1908, pp. 102-103, 108, Matamata-Piako District Council Archives, Te Aroha; Peter Gilchrist to Minister of Mines, 30 October 1907; Frank Reed to Under-Secretary, Mines Department, 9 November 1907, Mines Department, MD 1, 07/1014, ANZ-W.

⁵⁹⁵ Piako County Council, Minutes of Meetings of 17 February 1908, 15 June 1908; Peter Gilchrist to Hardy's Mines Ltd., 14 April 1908, Piako County Council, Letterbook 1907-1908, p. 337, Matamata-Piako District Council Archives, Te Aroha; Thomas Gavin (Chairman of Piako County Council) to Minister of Mines, 27 September 1908, Mines Department, MD 1, 08/1023, ANZ-W.

⁵⁹⁶ Piako County Council, Minutes of Meetings of 18 May 1908, 15 June 1908, 20 July 1908, 21 September 1908, Matamata-Piako District Council Archives, Te Aroha; Piako County Council, *Te Aroha News*, 16 June 1908, p. 2.

⁵⁹⁷ *Te Aroha News*, Piako County Council, 16 June 1908, p. 2, 3 November 1908, p. 2.

⁵⁹⁸ Piako County Council, Minutes of Meetings of 25 January 1909, 29 March 1909, 30 April 1909, 20 July 1909, 24 November 1909, Matamata-Piako District Council Archives, Te Aroha; *Te Aroha News*, Piako County Council, 30 March 1909, p. 2, 20 April 1909, p. 2, Piako County Council, 18 May 1909, p. 2, 22 July 1909, p. 3.

⁵⁹⁹ *Te Aroha News*, 31 August 1909, p. 3.

it as a pack track to take supplies to its low level drive near the May Queen incline.⁶⁰⁰

MANAGED BY JOHN SAMUEL HILL

Gavin supervised the tramway until February 1909, when John Samuel Hill was appointed 'to work look after & keep in Order the Tramway and to report to Council each month'. In the discussion preceding his appointment, the chairman, now Chepmell, commenting that 'the difficulty was to get a man whom they could trust to keep the tramway in order'.⁶⁰¹ Previously, Hill had been an engine driver, blacksmith, and battery hand, and had operated traction engines, chaff cutters, log haulers, and a portable engine in a flaxmill.⁶⁰² Hardy considered him 'a most useful handy man, quite temperate, attentive to duty, and a hard careful worker'. He had used him in his battery on 'Battery work, plates, pans, vanners and berdans, and blacksmith work of various kinds incidental to a battery or tramway and pipe and belt screwing'.⁶⁰³ A saddlery firm said he was a good workman in wood or iron, was thoroughly reliable, and had been 'one of our handiest men', with a 'capable manner in handling men employed under his guidance'.⁶⁰⁴ After Edwards died in 1902, Hill had become tramway foreman.⁶⁰⁵ In October 1903, his wages were increased, but nine months later the tramway committee dismissed him, for an unrecorded reason. Despite a 'long report and explanation from the Foreman', the council

⁶⁰⁰ Piako County Council, Minutes of Meetings of 21 September 1909, 19 October 1909, Matamata-Piako District Council Archives, Te Aroha; Piako County Council, *Te Aroha News*, 23 September 1909, p. 3.

⁶⁰¹ Piako County Council, *Te Aroha News*, 11 February 1909, p. 2; Piako County Council, Minutes of Meeting of 8 February 1909, Matamata-Piako District Council Archives, Te Aroha.

⁶⁰² Testimonials by H. Burnand, 11 March 1899, Samuel Baldwin, 25 February 1899, J. Lavery and Sons, n.d., Isaac Coates, 3 March 1899, J.S. Hill Papers, in possession of Eric Hill, Cambridge.

⁶⁰³ Testimonial by E.H. Hardy, 16 February 1906, J.S. Hill Papers, in possession of Eric Hill, Cambridge.

⁶⁰⁴ Testimonial by McIndoe and Hill, 29 June 1907, J.S. Hill Papers, in possession of Eric Hill, Cambridge.

⁶⁰⁵ Piako County Council, Minutes of Meeting of 25 April 1903, Matamata-Piako District Council Archives, Te Aroha.

confirmed his dismissal.⁶⁰⁶ Whatever the reason, it was not sufficiently heinous to prevent his re-employment five years later.

Although Hill was kept busy regularly repairing the line,⁶⁰⁷ a minimal amount of ore being sent down meant a minimal income. The county clerk informed the Minister in Charge of Public Works on 11 March 1910 that total revenue received since 1 April 1909 to date amounted to £10 0s 6d, whereas expenditure from the former date until 15 February 1910 was £306 18s, a figure that did not include government grants. 'The Council is expending a great deal more money than it is receiving and thus depriving other parts of the County of money required for urgent works'.⁶⁰⁸ Revenue for the year to 31 March 1911 was £18 3s while expenditure was £387, and once more the government was asked to assist.⁶⁰⁹

In 1911, larrikins and thieves interfered with the line on several occasions. In January, it was reported that Hill had been 'considerably annoyed by larrikinism, certain individuals having been amusing themselves by letting his trucks down the rails'.⁶¹⁰ The council decided that locks and chains would be placed on trucks not in use, and once more the police were informed.⁶¹¹ In July, Hill reported 'quite a number of tools etc were missing' and that 'some person or persons were using the trucks and not putting them in their place again. Resolved that the matter be put in

⁶⁰⁶ Piako County Council, Minutes of Meetings of 28 October 1903, 20 July 1904, Matamata-Piako District Council Archives, Te Aroha.

⁶⁰⁷ See J.S. Hill, Account Books 1909-1910, 1910-1912, MSC 116, Hamilton Public Library; *Te Aroha News*, Piako County Council, 24 March 1910, p. 3, 24 November 1910, p. 2, Piako County Council, 22 December 1910, p. 2.

⁶⁰⁸ R.S. Hanna (County Clerk) to Minister in Charge of Public Works, 11 March 1910, Piako County Council, Letterbook 1908-1910, pp. 650-651, Matamata-Piako District Council Archives, Te Aroha.

⁶⁰⁹ R.S. Hanna to Manager, Bank of New Zealand, Te Aroha, 29 May 1911; R.S. Hanna to Minister for Mines, 30 May 1911, Piako County Council, Letterbook 1910-1913, pp. 361, 367, Matamata-Piako District Council Archives, Te Aroha.

⁶¹⁰ *Te Aroha News*, 21 January 1911, p. 2.

⁶¹¹ Piako County Council, Minutes of Meeting of 19 January 1911, Matamata-Piako District Council Archives, Te Aroha.

the hands of the Police', as was the theft of sleepers.⁶¹² Similar problems were not recorded in future years.

In November 1913, after two more years of repair bills and paying three men and two horses to bring down an irregular and always small amount of ore,⁶¹³ a council committee was formed 'to try and induce the Government to take over this tramway and get an allowance for what has already been expended'. It interviewed the Prime Minister when he visited Te Aroha,⁶¹⁴ unsuccessfully. In mid-1914, when visiting Wellington, the chairman and county clerk attempted to induce the Mines Department to take it over, again without success.⁶¹⁵

Only 224 trucks were sent down during 1914,⁶¹⁶ and when the July council meeting was told that the wages bill for the past month was £40 one councillor 'said this meant a further loss. The tramway was a white elephant, and should be shut down'. He estimated the monthly loss at about £30. 'The Chairman considered that the only way was to keep applying for grants'.⁶¹⁷ He considered that the tramway could not be abandoned, and was praised for his stand by one supporter of mining because without it the goldfield would die.⁶¹⁸ Then, in February 1915, under the sub-heading 'The White Elephant', the tramway committee's report was published:

The track is being cleared of gorse, etc, and the tracks are in a fairly satisfactory condition. The broken strut in the tunnel has been attended to, but there are several other matters needing urgent attention as in the present condition there is grave danger

⁶¹² Piako County Council, Minutes of Meeting of 25 July 1911; R.S. Hanna to J.S. Hill, 28 July 1911, Piako County Council, Letterbook 1909-1912, p. 421, Matamata-Piako District Council Archives, Te Aroha.

⁶¹³ R.S. Hanna to J.J. Macky, 24 July 1913, Piako County Council, Letterbook 1913-1916, p. 109, Matamata-Piako District Council Archives, Te Aroha.

⁶¹⁴ Piako County Council, Minutes of Meeting of 26 November 1913, Matamata-Piako District Council Archives, Te Aroha.

⁶¹⁵ Piako County Council, Minutes of Meeting of 15 July 1914, Matamata-Piako District Council Archives, Te Aroha; Mines Department, Memorandum of 18 August 1914, Mines Department, MD 1, 21/2/4, ANZ-W.

⁶¹⁶ Matthew Paul, Inspector of Mines, to Under-Secretary, Mines Department, 8 April 1914, Mines Department, MD 1, 21/2/4, ANZ-W.

⁶¹⁷ Piako County Council, *Te Aroha News*, 17 July 1914, p. 3.

⁶¹⁸ *Te Aroha News*, Piako County Council, 21 August 1914, p. 3, letter from John Williams, 31 August 1914, p. 3.

to property as well as life. The first thing pointed out by the Foreman was the Fern Spur Bridge [over the upper road]. This bridge has been condemned by Mr Hill for some time past and it is extremely dangerous to use it as at present, as the line is without support for several feet. The cost of a new structure would be about £100. The next matter in urgency is the Fern Spur brake. The condition of this brake is extremely bad and it must be replaced or a serious accident will result. The cost of this also would be about £100, but could be repaired. Another item that must be attended to is the May Queen grade which cannot be used until fresh sleepers are put in for a length of 22 chains at a probable cost of £150. The Canadian Bridge is leaning in a dangerous manner, and must be attended to as a weighted truck will some day take it right over, and as the brake-man rides on the truck it is very improbable that an accident could occur without the loss of at least one life.

As regards our opinion of the Tramway, we certainly feel that if possible, the Council should break off its connection with it. If, however, this is impossible we would strongly advise that none of the County rates be spent on it, and that the matters above referred to as needing attention should only be financed with Government money.⁶¹⁹

Accordingly, the council asked for a grant of £1,000, warning that if not provided it would 'have to close down the Tramway altogether until repairs are carried out'.⁶²⁰ The Minister was given a long list of necessary repairs, and reminded that it had only 'paid working expenses for a short period' in the 1880s. The grant was needed so that 'some half dozen' miners could use it.⁶²¹ Matthew Paul, now the mining inspector, agreed that many repairs, most of them easy, were needed. Most councillors were farmers who did 'not seem to be alive to the advantages which would be derived from having this tram line in the event of a rich gold discovery in the mines: viz. through the gold duty'. The council was receiving sufficient rent from mining leases 'to pay a man to remove slips, keep water channels clear, and to remove noxious weeds', and it could be kept open by spending £200 on

⁶¹⁹ Piako County Council, *Te Aroha News*, 19 February 1915, p. 2.

⁶²⁰ Piako County Council, Minutes of Meeting of 17 February 1915, Matamata-Piako District Council Archives, Te Aroha.

⁶²¹ R.S. Hanna to Minister of Mines, 12 March 1915, Piako County Council, Letterbook 1914-1916, pp. 67-68, Matamata-Piako District Council Archives, Te Aroha.

minimal repairs.⁶²² The council obtained legal advice about its right to close the tramway, and when only £200 as a £ for £ subsidy was offered the tramway committee was instructed to collect all the property and 'discontinue all work'.⁶²³ In May and June, the line was closed; all timber and other material were to be used in other works, and the last two (or one: the sources differed) horses were sold.⁶²⁴ Hill became a contractor, in particular building bridges and making roads for the council.⁶²⁵

FINAL DAYS

Some use continued to be made of the line. In February 1916, Hill received permission to take road metal down Fern Spur, 'he to open up and keep the Tramway in repair', and in November the Waitawheta Company was given temporary use of Butler's Incline.⁶²⁶ In February 1917, when the syndicate working the Bendigo mine was 'lowering down a truck, the rope broke and smashed up the truck and a bit of the gear'. As the rope was 'in such a state' that the county clerk believed that it would be impossible to repair it, the Mines Department was asked for £100 to purchase a new one. A £ for £ subsidy of £37 10s was provided, sufficient to buy a second-hand rope.⁶²⁷ As the Bendigo syndicate did not respond to a request to contribute

⁶²² Matthew Paul to Under-Secretary, Mines Department, 8 April 1915, Mines Department, MD 1, 21/2/4, ANZ-W.

⁶²³ Piako County Council, Minutes of Meetings of 24 March 1915, 21 April 1915, 10 May 1915, Matamata-Piako District Council Archives, Te Aroha; Piako County Council, *Te Aroha News*, 26 March 1915, p. 3.

⁶²⁴ Piako County Council, Minutes of Meetings of 19 May 1915, 16 June 1915; R.S. Hanna to J.S. Hill, 12 May 1915, R.S. Hanna to D.W. McArthur, 21 May 1915, Piako County Council, Letterbook 1914-1916, pp. 126-127, Matamata-Piako District Council Archives, Te Aroha; Piako County Council, *Te Aroha News*, 9 February 1915, p. 2.

⁶²⁵ See *Te Aroha News*, 3 February 1941, p. 1.

⁶²⁶ Piako County Council, Minutes of Meetings of 16 February 1916, 16 October 1916, 22 November 1916, Matamata-Piako District Council Archives, Te Aroha; Waiorongomai Correspondent, *Te Aroha News*, 1 November 1916, p. 3.

⁶²⁷ R.S. Hanna to Inspector of Mines, Waihi, 23 February 1917, Piako County Council, Letterbook 1916-1917, p. 106; Piako County Council, Minutes of Meetings of 12 February 1917, 19 March 1917, 18 June 1917, Matamata-Piako District Council Archives, Te Aroha; R.S. Hanna to Minister of Mines, 3 April 1917, Matthew Paul to Under-Secretary, Mines Department, 19 May 1917, Mines Department, MD 1, 21/2/4, ANZ-W.

to the cost, it was not purchased; the syndicate preferred to buy its own second-hand rope.⁶²⁸

In September 1918, when the Bendigo Company asked for three trucks to use on Butler's Incline, the council appointed a committee to consider whether it should 'stop all use of tramway until it was ascertained if it were safe'.⁶²⁹ The company protested to the Minister that it was forbidden to use the line because it was in a bad condition and the council 'could not undertake the responsibility of granting them permission to work it'. The company was willing to work the incline with its own men, who were all covered by insurance, and would pay for all breakages and keep it in repair. It had its 'own good rope' and had cleared the gorse and fern that 'practically covered' the incline, and disagreed with the county engineer's views on its state; only a few more rollers for the rope were needed.⁶³⁰ Paul could find little problem with the incline, reporting that the county engineer admitted he had not closely examined it; he would permit its use.⁶³¹

Earlier in 1918, the Minister had been asked to approve removing all the rails to assist in building new roads for the dairy industry. It was intended to construct a tramway from the quarry and crushing plant near the mouth of the Waiorongomai Valley to the road works, for an estimated £250, but Walter Greening, manager for Hardy's Mines,⁶³² claimed this would cost £4,500 and was just an excuse to destroy the tramway.⁶³³ Paul's

⁶²⁸ R.S. Hanna to A.M. Bradburn, 12 June 1917, Piako County Council, Letterbook 1916-1917, p. 172; Piako County Council, Minutes of Meeting of 17 July 1917, Matamata-Piako District Council Archives, Te Aroha; Matthew Paul to Under-Secretary, Mines Department, 25 July 1918, Mines Department, MD 1, 21/2/4, ANZ-W.

⁶²⁹ Piako County Council, Minutes of Meeting of 16 September 1918, Matamata-Piako District Council Archives, Te Aroha; Piako County Council, *Te Aroha News*, 18 September 1918, p. 2.

⁶³⁰ John E. Reid to Minister of Mines, 7 October 1918, Mines Department, MD 1, 21/2/4, ANZ-W.

⁶³¹ Matthew Paul to Under-Secretary, Mines Department, 16 October 1918, 18 October 1918, Mines Department, MD 1, 21/2/4, ANZ-W.

⁶³² See paper on Hardy's Mines.

⁶³³ Piako County Council, Minutes of Meetings of 29 April 1918, 20 May 1918, Matamata-Piako District Council Archives, Te Aroha; Nevin Ray (County Clerk) to Minister of Mines, 30 April 1918, 24 May 1918; J.A. Pond and J.J. Macky to Minister of Mines, 27 May 1918; J.S. Hill to Minister of Mines, 10 June 1918; Walter Greening to Minister of Mines, 6 June 1918, Mines Department, MD 1, 21/2/4, ANZ-W; Walter Greening to

report revealed both the state of the line and how the council was using goldfield revenue for the benefit of agricultural interests. Its whole length was overgrown with gorse, in some places five feet high, making examination of rails, ropes, and sleepers difficult. Some bridges and sleepers were decaying, but most of the brake gear and ropes were 'in fair order'. While he could not say that it was in good order nor 'state definitely' that the incline ropes were reliable 'after laying so long exposed to the weather', he had 'failed to detect broken wires'.

If the undergrowth was cut, slips cleared away, leg in tunnel and bridge replaced, water channels opened, sleepers replaced here and there, and culverts repaired - the cost should not exceed £100 - the tramway would last for years, provided someone was appointed to attend to necessary repairs. In the meantime the only section likely to be required is Butler's grade by the owners of the Bendigo Mine. This section is in fair order and a week's work with two men would clear away the gorse and fit it to lower any ore required to the Mill.

As mining would not revive during the war, it was 'absolutely essential in order to preserve this tramway, that the undergrowth be cut, the three ropes laying on the different grades given a coat of tar and wound round the drums, the water channels opened and slips removed', at an estimated cost of £50. He had discovered that from 1 April 1916 to 31 March 1918 the council had received £321 15s 3d in gold revenue. 'Interviewed Clerk of County and endeavoured to ascertain what had become of this money'. After quibbling over the figures, the clerk 'admitted that the Council had not spent any money on this tramway during the past two years, further gave me the impression that the Council had no intention of spending any money on this line, although quite willing to continue to accept gold revenue'. As mining was dependent on the tramway, he considered that some of this revenue should be spent in keeping the water channels clear and vegetation cut back.⁶³⁴ In the light of this report, the Minister refused to permit the

Matthew Paul, 6 June 1918, Inspector of Mines, BBDO 18634, A902, M6, ANZ-A; Piako County Council, *Te Aroha News*, 22 May 1918, p. 2.

⁶³⁴ Matthew Paul to Under-Secretary, Mines Department, 25 July 1918, Mines Department, MD 1, 21/2/4, ANZ-W.

removal of the rails, for he wanted mining to be able to continue; the council hoped to change his mind.⁶³⁵

In 1919, more repairs were needed, especially to prevent the main tunnel from collapsing. When offered a government subsidy for some of the work, the council claimed it was unable to meet its half of the cost. Asked what had happened to the gold revenue of £358 received during 1918 and 1919, the county clerk replied that it had been credited to the general account, just as expenditure on the tramway was debited to the same account. If there had been a separate account, it would have had a debit balance.⁶³⁶ For its part, with an estimated £2,000 to £3,000 needed to thoroughly repair the line (rather than make temporary repairs), the Mines Department considered it 'very questionable whether the Mining prospects' justified this expenditure.⁶³⁷ The under-secretary decided that, as it would be forced to make the repairs that the council would not pay for, the government should own the tramway, preventing the council removing the rails for use elsewhere. His Minister agreed, but the council would only consider surrendering it 'provided Compensation was paid for all improvements and rolling stock in good repair'. Eventually, instead of surrendering its interest, the council accepted the £2 for £1 subsidy (up to a total of £167) that it had declined in May.⁶³⁸ The reasons for not taking up the offer to hand over the tramway are not clear; perhaps councillors took

⁶³⁵ Piako County Council, Minutes of Meeting of 17 June 1918, Matamata-Piako District Council Archives, *Te Aroha*; *Te Aroha News*, Piako County Council, 19 June 1918, p. 3, 14 August 1918, p. 2.

⁶³⁶ Piako County Council, Minutes of Meetings of 17 March 1919, 19 May 1919, 16 June 1919, Matamata-Piako District Council Archives, *Te Aroha*; Nevin Ray to Under-Secretary, Mines Department, 27 May 1919; Under-Secretary, Mines Department, to Nevin Ray, 11 June 1919; Nevin Ray to Under-Secretary, Mines Department, 19 June 1919, Mines Department, MD 1, 21/2/4, ANZ-W.

⁶³⁷ Matthew Paul to Under-Secretary, Mines Department, 15 April 1919; Under-Secretary, Mines Department, to Minister of Mines, 24 April 1919, Mines Department, MD 1, 21/2/4, ANZ-W.

⁶³⁸ Under-Secretary, Mines Department, to Minister of Mines, 24 July 1919; Nevin Ray to Under-Secretary, Mines Department, 21 August 1919, Mines Department, MD 1, 21/2/4, ANZ-W; Piako County Council, Minutes of Meetings of 19 May 1919, 18 August 1919, Matamata-Piako District Council Archives, *Te Aroha*; *Te Aroha News*, 19 November 1919, p. 2.

seriously the prospects of a mining revival, which had led them to require users to provide a 'substantial bond' and a deposit to pay for repairs.⁶³⁹

There was to be no revival of mining during the 1920s. Although there was periodic assistance from the Mines Department for repairs, by the middle of the decade part of the main tunnel had collapsed and washouts had left other parts of the line hanging in the air.⁶⁴⁰ In January 1924, it was transferred to the Public Works Department, and in that month the council provided its last financial assistance, £29 for repairs.⁶⁴¹ It still retained ultimate control.⁶⁴²

In 1932, when some unemployed men attempted to re-start mining, John Francis Downey, the mining inspector, was asked whether there was any justification for re-opening the tramway and the cost 'to put it in sufficiently good order and condition to be sold'.⁶⁴³ Downey reported that much of it was covered in an 'impenetrable growth of fern and gorse'. The brake frame at Fern Spur had been burnt, and the other two brake frames needed reconstructing because of decayed timber. The bridges over Army Creek and Canadian Gully would have to be replaced. With the main tunnel needing repairs and slips to be removed, the minimum cost would be from £1,200 to £1,400. There was 'no justification for spending this money' because he did not anticipate a mining revival. Should this happen, an aerial tramway would probably cost less to build than to repair the line and

⁶³⁹ Piako County Council, Minutes of Meeting of 22 July 1919, Matamata-Piako District Council Archives, Te Aroha; *Te Aroha News*, 28 July 1919, p. 2.

⁶⁴⁰ Matthew Paul to Under-Secretary, Mines Department, 5 September 1923, 4 October 1923, Mines Department, MD 1, 21/2/4, ANZ-W; J.A. Pond to Matthew Paul, 6 September 1924, Inspector of Mines, Waihi, BBDO A902, MM8; Matthew Paul to O.G. Thornton, 25 June 1916, Inspector of Mines, BBDO 18634, A902 MM138; J.A. Pond to Matthew Paul, 17 January 1927, Inspector of Mines, BBDO 18634, A902, M6; Thomas Stewart to Matthew Paul, 14 December 1927, Inspector of Mines, BBDO 18634, A902, S147, ANZ-A.

⁶⁴¹ Under-Secretary, Mines Department, to Nevin Ray, 9 January 1924, Mines Department, MD 1, 21/2/4, ANZ-W; Piako County Council, Minutes of Meeting of 21 January 1924, Matamata-Piako District Council Archives, Te Aroha.

⁶⁴² Minister of Mines to J.D. Cumming, 5 August 1932, Mines Department, MD 1, 21/2/4, ANZ-W.

⁶⁴³ Under-Secretary, Mines Department to J.F. Downey, 13 July 1932, Mines Department, MD 1, 21/2/4, ANZ-W.

would be much cheaper to operate.⁶⁴⁴ In the light of his report, when a prospector asked for the line to be reconditioned he was told that ‘in view of the present position of mining operations, and of the need for exercising the greatest possible economy, the Government would not be justified in repairing the tramway’.⁶⁴⁵

It continued to decay, unnoticed, until June 1942, when the mining inspector, Edward John Scoble, discovered that someone had illegally dismantled its lower end and removed the rails. Scoble had a potential buyer for those on the upper levels, but as he required the approval of the council he asked if the latter would give a percentage of the proceeds to the government ‘in view of the large Government subsidies that had been granted’ for its construction.⁶⁴⁶ Immediately Malcolm Hardy, the last man to mine in the valley,⁶⁴⁷ insisted on being consulted, claiming, as he always did, that as Waiorongomai would boom again the tramway would once more be needed.⁶⁴⁸ The council claimed full ownership of rails and tramway and refused to share the proceeds of any sale; as the potential buyer was no longer interested, the sale lapsed.⁶⁴⁹ The Mines Department did agree, on 9 October, to relinquish any claim to ownership.⁶⁵⁰

⁶⁴⁴ J.F. Downey to Under-Secretary, Mines Department, 25 July 1932, Mines Department, MD 1, 21/2/4, ANZ-W.

⁶⁴⁵ J.D. Cumming to Minister of Mines, 29 July 1932; Minister of Mines to J.D. Cumming, 5 August 1932, Mines Department, MD 1, 21/2/4, ANZ-W.

⁶⁴⁶ E.J. Scoble, Report for 1 July 1942; Under-Secretary, Mines Department, to E.J. Scoble, 13 July 1942, Mines Department, MD 1, 21/2/4, ANZ-W; Piako County Council, Minutes of Meeting of 17 August 1942, Matamata-Piako District Council Archives, Te Aroha; *Te Aroha News*, 20 August 1942, p. 5.

⁶⁴⁷ See paper on his life.

⁶⁴⁸ Malcolm Hardy to Under-Secretary, Mines Department, 3 September 1942, Mines Department, MD 1, 21/2/4, ANZ-W; *Te Aroha News*, 21 September 1942, p. 7.

⁶⁴⁹ Piako County Council, Minutes of Meeting of 21 September 1942, Matamata-Piako District Council Archives, Te Aroha; *Te Aroha News*, 24 September 1942, p. 5; E.J. Scoble to Under-Secretary, Mines Department, 6 October 1942, Mines Department, MD 1, 21/2/4, ANZ-W.

⁶⁵⁰ E.J. Scoble to Under-Secretary, Mines Department, 3 April 1952, Mines Department, MD 1, 21/2/4, ANZ-W.

In 1945, another man asked to buy the tramway, but councillors did not 'wish to dispose of their interest'.⁶⁵¹ Three years later, they were thinking of selling the rails,⁶⁵² but did nothing. In May 1950, when discussing a request by a Morrinsville company to salvage the line, councillors were told that 'as the years went by salvage would become more difficult because of slips, deterioration of bridges, and culverts, until ... the cost of reclamation would be too excessive to be practical'. Although offered three-fifths of them, they decided not to salvage the rails.⁶⁵³ In March 1951, when a concreting company offered £250 to purchase the 40 to 50 per cent of the rails worth salvaging for reinforcing, the council declined the offer, planning to use the rails itself, probably in bridge building.⁶⁵⁴

At the end of that year, the Auckland Smelting Company,⁶⁵⁵ wanting to get machinery up to McLean's level (near the May Queen incline), asked the council either to 'make the Tramway fit for us to use, or alternatively, are you willing to transfer to us your entire rights, responsibilities, liabilities etc for which we offer you a nominal sum of £10'.⁶⁵⁶ This being far too nominal, the council preferred to lift the rails to sell 'when convenient'. The Mines Department authorizing its sale and made 'no claim for any part of the proceeds'.⁶⁵⁷ During the 1950s and 1960s, the council approved the removal of some rails by local contractors.⁶⁵⁸ There was even talk in 1962 of

⁶⁵¹ Piako County Council, Minutes of Meeting of 18 March 1945, Matamata-Piako District Council Archives, Te Aroha.

⁶⁵² Piako County Council to E.J. Scoble, 6 December 1947, Inspector of Mines, Waihi, BBDO 18634, A902, MM138, ANZ-A.

⁶⁵³ *Te Aroha News*, 2 May 1950, p. 4.

⁶⁵⁴ *Te Aroha News*, 22 March 1951, p. 5.

⁶⁵⁵ See paper on this company.

⁶⁵⁶ B.J. Dunsheath to County Clerk, 4 December 1951, Mines Department, MD 1, 21/2/4, ANZ-W.

⁶⁵⁷ Gilchrist Sons and Burns to Under-Secretary, Mines Department, 14 March 1942; E.J. Scoble to Under-Secretary, Mines Department, 3 April 1952; Under-Secretary, Mines Department, to Minister of Mines, 23 May 1952, Minute of 26 May 1952, Mines Department, MD 1, 21/2/4, ANZ-W; Under-Secretary, Mines Department, to Gilchrist Sons and Burns, Te Aroha, 30 May 1952, Piako County Council, 'Administration: Historical Records: Mining - General' file, Matamata-Piako District Council Archives, Te Aroha.

⁶⁵⁸ Piako County Council, 'Administration: Historical Research: Mining - General' file, Matamata-Piako District Council Archives, Te Aroha.

using the rail bed as an access road to the proposed television repeater station on the summit of the mountain. 'This route was used by a Thames Valley Electric Board vehicle in 1960 when radio testing equipment was taken as far as' the middle of the May Queen incline 'and then carried on foot for the rest of the journey. The persons who made the trip were of the opinion there would be no difficulty in improving existing track to take a motor vehicle to or near the top of Mt Te Aroha'.⁶⁵⁹

A change of attitude became apparent in 1969, when the Reserves Advisory Council protested about the removal of the rails. The county council agreed that it was likely that Waiorongomai would become part of a Forest Park, 'and the beauty of the valley and its accessibility' suggested that it was 'likely to become very popular' when 'better known'. The inclines in particular represented 'a rather remarkable feat of early engineering', and as it was 'more interesting to see a tramway, than the place where it was', the council withdrew its 1966 permission to remove rails and other material.⁶⁶⁰ In 1976, it scheduled the tramway 'as an item of historical and scientific interest, and as such would not be removed'.⁶⁶¹

ACCIDENTS TO PEOPLE

Occasionally, accidents befell those working on the line. In his first report on its working, Firth stated that 'no accidents of any note have occurred, which, considering the nature of the tramway, is a circumstance affording great satisfaction'.⁶⁶² That the tramway posed dangers to anyone who might walk along or across it was recognized when first constructed. Wilson instructed Adams to erect 'Danger Tramway Crossing' signs, and to stop it being a thoroughfare he must post signs warning that this was an offence.⁶⁶³ Despite these signs, the following year 'Argus' wrote that people travelling to and from the mines were 'in the habit of crossing the tramway at the pass loop on the Fern Spur' and called for their prosecution.⁶⁶⁴ Later

⁶⁵⁹ *Te Aroha News*, 13 March 1962, p. 5.

⁶⁶⁰ *Te Aroha News*, 28 August 1969, p. 1; Piako County Council, 'Administration: Historical Research: Mining - General' file, Matamata-Piako District Council Archives, Te Aroha.

⁶⁶¹ *Te Aroha News*, 9 September 1976, p. 1.

⁶⁶² *Waikato Times*, 29 November 1883, p. 3.

⁶⁶³ George Wilson to H.H. Adams, 23 August 1883, Te Aroha Warden's Court, Letterbook 1883-1900, pp. 4-5, BBAV 11534/1a, ANZ-A.

⁶⁶⁴ Letter from 'Argus', *Te Aroha News*, 3 May 1884, p. 2.

that month, the council was informed that both children and adults were trespassing during working hours 'to imminent danger to themselves and the inconvenience of the men'. The chairman of the tramway committee was directed to prevent this.⁶⁶⁵

When Gavin took charge in 1886 he forbade the common practice of tramway workers riding trucks up and down the inclines, and instantly dismissed anyone he caught. They rode down the inclines by standing on the buffers at the rear of the trucks, this being the safest place.⁶⁶⁶ This behaviour was particularly dangerous, but as even normal work on the line was 'recognized to be dangerous', the council arranged insurance for all it employed.⁶⁶⁷

The first accident while the tramway was being constructed occurred in June 1883; the reporter who described it was surprised that it was not fatal. William Gibbons, an ex-Thames miner who came to Waiorongomai to mine in 1883 and acquired shares in three claims,⁶⁶⁸ was earning money by working on the tramway near the Inverness mine when

by some chance his foot slipped and he literally rolled down, head over heels, a distance of more than a hundred feet on a steep incline, studded with stones and boulders. When picked up he was insensible, but no bones were broken, though he was much cut about head, and very seriously bruised generally. He soon recovered consciousness, however, and was taken to the Waiorongomai Hotel. Dr Bond was called in, and in his care, we are glad to say, the injured man is recovering rapidly.⁶⁶⁹

⁶⁶⁵ Piako County Council, *Waikato Times*, 31 May 1884, p. 3.

⁶⁶⁶ Evidence of Thomas Hill and Thomas Gavin, Inquest into death of Richard Hill, Inquests, Justice Department, J 46 COR, 1889/767, ANZ-W.

⁶⁶⁷ Peter Gilchrist, County Clerk, to A. Swarbrick, 8 July 1901, Piako County Council, Letterbook 1899-1901, p. 474, Matamata-Piako District Council Archives, Te Aroha.

⁶⁶⁸ *Thames Advertiser*, Warden's Court, 17 September 1880, p. 3, 4 October 1880, p. 3, Warden's Court, 18 January 1881, p. 3, Warden's Court, 3 February 1881, p. 3; Te Aroha Warden's Court, Miner's Right no. 2006, issued 31 August 1883, Miners' Rights Butt Book 1883, BBAV 11533/11; Register of Te Aroha Claims 1880-1888, folios 309, 312, BBAV 11567/1a; Register of Licensed Holdings 1881-1887, folio 133, BBAV 11500/9a, ANZ-A; Warden's Court, *Te Aroha News*, 24 November 1883, p. 3.

⁶⁶⁹ *Te Aroha News*, 16 June 1883, p. 2.

The second accident, in the same month, was very minor: a man shifting rails broke his finger.⁶⁷⁰ The first accident after the tramway started occurred when a boy, the son of Denis Murphy, was walking beside a truck: 'one of the wheels broke, and the truck fell over, striking Murphy on the side'. He was bruised, but fears of internal injuries were unfounded.⁶⁷¹

On 18 July 1884, Thomas Skellon was jammed between two trucks 'and was rather seriously bruised about the lower part of the body', necessitating his being admitted to the Thames Hospital a week later.⁶⁷² The financial significance of such accidents was highlighted in October, when Skellon wrote to the council giving details of the accident. 'He was confined to hospital for some time, and had been put to great expense. He applied that his wages be allowed him for the time he was disabled'. When Adams recommended payment councillors unanimously accepted his advice.⁶⁷³ A similar accident happened two month later, when Alexander Jamieson, like Skellon formerly a leader of the strike against the lowering of tramway workers' wages,⁶⁷⁴ and who would unsuccessfully apply to be tramway manager two years later,⁶⁷⁵ when braking two trucks between the New Find hopper to the top of the May Queen Incline 'got jammed between the trucks and the Waiorongomai Company's shoot, which projects close to the tramway, and sustained some severe bruises about the lower part of the back'. He was expected to be off work for some time.⁶⁷⁶

Men were required to ride on the back of the two trucks on the highest and lowest horse grades, braking them to ensure that they did not go too fast, but occasionally they got out of control and could cover half a mile

⁶⁷⁰ *Te Aroha News*, 23 June 1883, p. 2.

⁶⁷¹ *Thames Star*, 7 December 1883, p. 2; *Te Aroha News*, 8 December 1883, p. 2.

⁶⁷² *Waikato Times*, 19 July 1884, p. 2; *Te Aroha News*, 19 July 1884, p. 2; *Thames Star*, 31 July 1884, p. 2.

⁶⁷³ Piako County Council, *Te Aroha News*, 1 November 1884, p. 2; Piako County Council, *Waikato Times*, 27 November 1884, p. 2.

⁶⁷⁴ *Te Aroha News*, 26 January 1884, p. 7.

⁶⁷⁵ *Te Aroha News*, 10 July 1886, p. 2.

⁶⁷⁶ *Te Aroha News*, 27 September 1884, p. 2.

before being stopped.⁶⁷⁷ In May 1885, Cookson reported ‘a slight accident’ to a tramway hand named Ryan, who

had started away from the foot of Butler’s Spur with two trucks, the morning being what we call “greasy.” The rails were wet and although the trucks he was braking would be locked, they would slide along the top, and they would travel almost as fast as if the wheels were revolving, hence the greatest care in required at starting, for if once the trucks get speed on it is very difficult to control them on such a morning as I have described. The cause of the accident was too much speed at starting. Ryan was not severely injured, the concussion throwing him well clear of the wreck and beyond a scratch on his face and a bruised leg he is alright and he was working again a couple of days after.⁶⁷⁸

Three months later, a similar accident happened to Cookson when he was braking trucks down from Butler’s Incline to Fern Spur. ‘Owing to the rails being slippery’, the brakes did not work ‘and the trucks got away’, tipping off the line in a cutting about halfway between the two inclines, throwing Cookson against the bank and dislocating his shoulder. A tramway worker managed ‘to get the shoulder in place’, and Cookson walked into Te Aroha to see a doctor.⁶⁷⁹ One reporter considered he had ‘narrowly escaped being killed’.⁶⁸⁰ The accident had happened on the Waiorongomai side of the Army Creek bridge when the trucks were ‘going at tremendous speed’, and another reporter agreed that it was ‘little less than a miracle that he was not killed on the spot’. Cookson recovered quickly and but had to supervise with his arm in a sling.⁶⁸¹

The third accident in 1885 happened to Thomas Hill, aged only 16,⁶⁸² ‘who got his foot severely crushed whilst driving on the tramway horse grade between Butler’s Spur and May Queen grades’. Two weeks after the accident, although he was reported to be ‘much better’, the foot was only healing slowly, hardly surprisingly, because a truck full of quartz had run

⁶⁷⁷ R.S. Hanna to Minister in Charge of Public Works, 11 March 1910, Piako County Council, Letterbook 1908-1910, p. 650, Matamata-Piako District Council Archives, Te Aroha.

⁶⁷⁸ *Waikato Times*, 30 May 1885, p. 3; see also *Te Aroha News*, 9 May 1885, p. 2.

⁶⁷⁹ Te Aroha Correspondent, *Thames Advertiser*, 22 August 1885, p. 3.

⁶⁸⁰ *Waikato Times*, 27 August 1885, p. 2.

⁶⁸¹ *Te Aroha News*, 29 August 1885, p. 2.

⁶⁸² Birth Certificate of Thomas Hill, 23 March 1869, 1869/16285, BDM.

over it.⁶⁸³ Whilst unable to work, the council paid him £1 per week.⁶⁸⁴ The next accident, in 1887, might come under the heading 'Act of God', for two men working on the line during a severe thunderstorm were 'momentarily paralysed by a blinding flash of lightning'.⁶⁸⁵

No further accidents were recorded until 1889, when two involved Thomas Hill's father, Richard. Aged 51, he had been a 'well-known' miner in the early days of the Thames field and then 'a hard-working and industrious man' at Waiorongomai, where he mined until starting to work on the tramway in about 1888, although he was mining once more in the following year.⁶⁸⁶ In July, when 'one of the brakemen on the Lower Horse grade', his foot slipped when stepping off a rail, 'throwing him heavily on the iron crossing, and bruising his hip'. His leg became very painful 'and he was obliged to lay up for a day or two'.⁶⁸⁷ At two o'clock on 4 December, he became the only fatality.

The first report of his death was a telegram from George Wilson that Hill 'was riding on a full truck coming down incline the rope broke and the truck descended rapidly and collided with the empty truck about 150 feet from the bottom of incline both trucks were smashed to pieces and the man was instantly killed. It was against rules for men to ride on the trucks'.⁶⁸⁸ The local newspaper rushed out an Extra two and a half hours after the accident:

TERRIBLE ACCIDENT AT WAIORONGOMAI
RICHARD HILL KILLED ALMOST INSTANTANEOUSLY
 NEWS Office, Wednesday, 4.30 p.m.

We regret to have to record a terrible accident at Waiorongomai.
 This afternoon about 2 o'clock Mr Richard Hill, miner, was

⁶⁸³ *Te Aroha News*, 12 December 1885, p. 2; Piako County Council, *Waikato Times*, 19 December 1885, p. 3.

⁶⁸⁴ Piako County Council, *Waikato Times*, 19 January 1886, p. 3.

⁶⁸⁵ *Waikato Times*, 27 September 1887, p. 2.

⁶⁸⁶ Death Certificate of Richard Ellis Hill, 4 December 1889, 1889/4467, BDM; Waiorongomai Correspondent, *Waikato Times*, 7 December 1889, p. 2; George Wilson to Minister of Mines (telegram), 4 December 1889, Mines Department, MD 1, 89/845, ANZ-W.

⁶⁸⁷ *Te Aroha News*, 20 July 1889, p. 2.

⁶⁸⁸ George Wilson to Minister of Mines (telegram), 4 December 1889, Mines Department, MD 1, 89/845, ANZ-W.

coming down from the mines, and mounted a full truck of quartz to ride down the steep self acting grade of the County tramway, known as the Fern Spur; his son Thos. Hill, being in charge of the brake at the time. The truck had only gone a short distance when the rope snapped. The full truck rushed down with fearful speed, and collided with the empty truck on the line, causing a terrible smash, poor Hill being dreadfully crushed, and when picked up a minute or so afterwards was just breathing his last. He was carried into the Battery smithy, and subsequently home. The sad occurrence has cast quite a gloom over the township. An inquest will be held.⁶⁸⁹

The coroner's jury first viewed the body at Hill's home, and then visited the site of the accident. The first witness was Thomas Hill, now aged 20, the brakesman in charge of the Fern Spur incline:

The deceased, who was his father, came to him on Wednesday afternoon about half-past one o'clock, when witness was at his post at the Fern Spur brake, and said he had got a job to go to work in the Colonist mine, was going down to the township to see about a mate, and then got on to a truck load of quartz witness was just about lowering to the battery, without asking him if he might ride down. Deceased got on by standing on the buffers, and holding on to the back of the truck. That was the safest way for riding on a truck. He proceeded to lower the truck in the usual way, but more slowly than he would have done if nobody had been on it. Everything went well until about half the distance to the loop line (about the centre of the grade, where the full truck going down passes the empty truck coming up), when suddenly the wire rope parted. He at once called out to his father to jump off, and saw deceased apparently make an attempt to do so, as he got his feet off the buffers, but did not let go the back of the truck with his hands. Saw the truck meet and collide with the empty truck just below the loop line, and saw his father thrown up in the air and strike the empty truck, but did not see what happened [to] him afterwards until he ran down and found deceased lying across the line amongst the quartz and broken truck, apparently quite dead. John Borrie was there before him. So far as he could see or know all the machinery of the line was in good working order when his father got on the truck. Had been acting as brakesman at the Fern Spur for two or three years. His father was formerly employed on the tramway and he then used often ride up and down on the trucks running on this grade. Witness was aware it was against the rules of the Te Aroha S. and G. Mining Company to allow any person to ride on the trucks. Mr

⁶⁸⁹ *Te Aroha News*, 7 December 1889, p. 2.

Gavin, as manager of the tramway line, told him no one was to be allowed to do so, and if any of the tramway hands did so it was at their own risk. Deceased having been employed on the tramway for a number of years and knowing all about it, and being his father, he did not like to prevent him from riding down. Would not have allowed any one else to have done so.... Had frequently forbidden persons who wanted to ride down on the trucks to do so; in fact as a rule prevented persons from so doing if they tried to. Was aware it was a dangerous thing to do. Had never known the rope to give way before; and had no idea what caused it to give way.⁶⁹⁰

In unpublished evidence, he said that it took about three minutes for him and two others to run down the incline to the body. 'I then went home before my father was moved, as I could not stop and see him lying there'. In answer to a question presumably designed to elicit whether he had been involved in some malpractice, he stated, 'My father and myself were always on good terms'.⁶⁹¹

John Borrie, then employed as a 'dumper' unloading trucks at the foot of the incline but later a farmer at Te Aroha West,⁶⁹² saw the truck break away and 'ran to the side of the line out of the way'. When he reached Hill he appeared to be dead, and made no movement. 'Deceased appeared to be greatly bruised and battered all over, and the back of his head was badly cut open'. He contradicted Hill's evidence by stating that tramway workers 'frequently' rode on trucks down the incline. He 'believed' that he had seen the deceased do so; he 'had not seen outsiders do so'. He knew Gavin had forbidden anyone to ride up or down on the trucks, but 'if he were in charge of the break at the top of the grade he would think it safe enough to ride down on a truck', for this was the first time a rope had broken. 'If deceased had thrown himself off the truck when the rope gave way in the opinion of witness he would have had a chance of saving his life'. Either of the 'two very bad wounds' on the back of the head would have been sufficient to kill him.

⁶⁹⁰ *Te Aroha News*, 7 December 1889, p. 2.

⁶⁹¹ Evidence of Thomas Hill, Inquest on Richard Ellis Hill, Inquests, Justice Department, J 46 COR, 1889/767, ANZ-W.

⁶⁹² See *Thames Advertiser*, 15 April 1880, p. 3; *Te Aroha Electoral Roll, 1891*, p. 3; Supreme Court, *New Zealand Herald*, 6 January 1882, p. 6.

Gavin stated that he had ‘personally warned the hands’, including Richard Hill, not to permit people to ride on the trucks. When he examined the plant the afternoon before the accident, all seemed to be in order.

Thomas Hill had been in charge of the Fern Spur brake for several years, and well understood how to work it. Speaking for himself, so far as the condition of the line, working plant, and capability of the brakeman were concerned, he would not be afraid to ride down on one of the trucks; but necessarily it was a risky thing to do at any time, there would be risking his life, and the risk of being dismissed, if he were seen; for disobeying orders by so doing. Had been in charge of the tramway for the past four years, and had never known the rope to break like that before.

The steel rope, three-quarters of an inch in diameter, had been used for six or seven years, and from examining it there was nothing that would have indicated before the accident that it was defective. William Adams, acting manager of the Te Aroha Gold and Silver Mining Company,⁶⁹³ confirmed that it forbade men travelling on the trucks. From examining the fracture he believed that the centre of some of the strands must have corroded, which ‘would not be observable from outside examination’. He would have notices erected forbidding people from riding on the trucks either on the horse-grades or the inclines; any employee who disobeyed these instructions would be dismissed, while outsiders would be prosecuted.⁶⁹⁴ On 5 December, the company issued a public notice stating that, in future, only its employees would be permitted to travel along any part of the tramway:

ANY PERSON travelling up or down either of the TRAMWAY SELF-ACTING GRADES on the Trucks, do so in direct defiance of the Company’s instructions; and ANY PERSON known to so travel after this date, if an employee will be INSTANTLY DISMISSED; and in the case of outsiders will be PROSECUTED.⁶⁹⁵

Hill’s funeral ‘was very largely attended, over thirty horsemen, besides numbers on foot and in vehicles, followed the hearse.... Much sympathy is

⁶⁹³ See paper on companies and company financing at Waiorongomai.

⁶⁹⁴ *Te Aroha News*, 7 December 1889, p. 2.

⁶⁹⁵ *Te Aroha News*, 21 December 1889, p. 8.

felt and expressed for Mrs Hill and family in their great bereavement'.⁶⁹⁶ He left nine children, the eldest being 25, the youngest three.⁶⁹⁷

There could have been two men dead in the crash, for Alfred Scott, a miner who lived near the top of Fern Spur,⁶⁹⁸ had intended going up the incline at the time of the accident, but had not reached its foot. He 'had a pig aboard the empty truck in a sack, which he was thus having conveyed towards his home on the Hill', and which was killed by the collision.⁶⁹⁹

Despite this accident, and the warnings about dismissal or prosecution, people continued to ride on the trucks. In February 1893, the mining inspector asked the council to instruct the manager to inform all his workers that it was 'dangerous for men to ride on the trucks up or down the self-acting grades'.⁷⁰⁰ When the office manager of the Norpac Company, which mined at Tui in the 1960s and 1970s, met Les Hill in 1970, he recorded that 'Hill's father had been an operator of a winch on the inclines, and Hill had often ridden in the empty trucks'.⁷⁰¹

No serious accidents were recorded on the tramway after the death of Richard Hill, reflecting not so much increased safety standards but the decline in its use. In 1892, Charles Edward McLean, aged 18,⁷⁰² when helping his father, the manager, to move and unload trucks 'got jammed between one of the trucks and the hopper' at the battery. 'He sustained a very nasty scalp wound, which was dressed by Dr Cooper as soon as possible, and the boy is now doing as well as can be expected'.⁷⁰³ The last accident occurred in 1910, causing injury,⁷⁰⁴ but details are unknown because of the loss of the relevant issue of the local newspaper.

⁶⁹⁶ *Te Aroha News*, 7 December 1889, p. 2.

⁶⁹⁷ Death Certificate of Richard Ellis Hill, 4 December 1889, 1889/4467, BDM.

⁶⁹⁸ *Te Aroha News*, 2 February 1889, p. 2; *Te Aroha Electoral Roll, 1890*, p. 30.

⁶⁹⁹ *Te Aroha News*, 7 December 1889, p. 2.

⁷⁰⁰ George Wilson to Chairman, Piako County Council, 25 February 1893, *Te Aroha Warden's Court, Letterbook 1883-1900*, p. 301, BBAV 11534/1a, ANZ-A.

⁷⁰¹ Peter J. Carter, Memorandum of conversation with Les Hill, 11 May 1970, Office file, Norpac Papers received by Mineral Resources and formerly kept at Union Hill, Waihi, but now destroyed; xerox copy provided by Eric Coppard, Waihi.

⁷⁰² Birth Certificate of Charles Edward McLean, 9 June 1875, 1875/ 952, BDM.

⁷⁰³ *Te Aroha Correspondent, New Zealand Herald*, 30 July 1892, p. 6.

⁷⁰⁴ R.S. Hanna to New Zealand Insurance Company, 29 August 1910, Piako County Council, *Letterbook 1909-1912*, p. 495, Matamata-Piako District Council Archives, Te Aroha.

CONCLUSION

This detailed examination of the history of the tramway reveals a variety of ways in which it affected those living in the district. The difficult topography had created as much difficulty for those surveying, constructing, and operating it as it made getting to and from work tiring for miners and exhausting for prospectors, and resulted in constant damage. The damage coupled with the lack of the anticipated level of traffic and the existence for only one battery meant that it was a constant financial burden on the county council and its ratepayers, a burden it sought to share with the government. The costs also highlighted the conflict between miners and farmers, the former wanting cheap carriage and the latter being unwilling to see their needs subordinated to a failing goldfield. The conflict between 'agriculturalists' and miners continued as long as the tramway, and sometimes involved the community, with petitions being circulated to attain what were believed to be cheaper and more efficient methods of operating it. The fortunes of the tramway were dependent on the fortunes of mining, and it became clear almost immediately that few mines were successful, and these not for long. Private investors who had a monopoly over crushing sought government aid to protect their investment by meeting the costs of the tramway and keeping it in operation and at a cost to miners that would maintain a steady flow of ore to the battery: without the latter, their investment was worthless. The difficulties in developing the technology needed to keep the tramway running efficiently combined with damage caused by storms led to squabbles in the local community and charges of incompetence and wasteful expenditure. Allegations against two managers of being drunk in charge of the tramway were proven. The strike was dealt with in another chapter, but conflict between workers and employers, especially in the person of Firth, was an underlying tension throughout the 1880s in particular. There were also criminal acts of sabotage, which may have been part of the conflict with employers or may just have been the work of larrikans, and examples of the dangers operating it could create to tramway property and even to life. This tramway was a microcosm of most of the problems and tensions of the goldfield.

Appendix

(Apart from *Figure 1*, the following are arranged in a geographical sequence commencing at the first incline and ending at the terminus of the tramway.)

Figure 1: Edwin Henry Hardy, 'Plan of Proposed Aerial Tramway Waiorongomai', 29 July 1901, showing full length of Piako County's tramway, University of Waikato Map Library.

Figure 2: Burton Bros., Fern Spur Incline, 1884, Burton Brothers Collection, C.017242, Museum of New Zealand Te Papa Tongarewa.

Figure 3: Burton Bros., Fern Spur Incline and battery, 1884, Burton Brothers Collection, C.17240, Museum of New Zealand Te Papa Tongarewa.

Figure 4: E.H. Hardy, Fern Spur Incline and battery, c. 1900, Te Aroha and District Museum; used with permission.

Figure 5: John Samuel Hill, Fern Spur, n.d. [c. 1914], Eric Hill Collection.

Figure 6: J.S. Hill, repair shop for tramway, at foot of Fern Spur, n.d. [c. 1914], Eric Hill Collection.

Figure 7: John Samuel Hill outside his blacksmith's shop, n.d. [c. 1914], Eric Hill Collection.

Figure 8: J.S. Hill, two new trucks at foot of Fern Spur Incline with inscriptions: 'TERRIBLE', 'HILL BUILDER TERRIBLE', n.d. [c. 1914], Eric Hill Collection.

Figure 9: Top of Fern Spur Incline, n.d. [1880s?], Arthur Mahon Collection, Te Aroha and District Museum; used with permission.

Figure 10: J.S. Hill, top of Fern Spur Incline, n.d. [c. 1914], Eric Hill Collection.

Figure 11: J.S. Hill, horse with truck and driver leaving top of Fern Spur Incline, Eric Hill Collection.

Figure 12: E.H. Hardy, line of tramway near Army Creek, n.d. [c. 1900], Te Aroha and District Museum; used with permission.

Figure 13: E.H. Hardy, bridge over Army Creek, n.d. [c. 1900], Te Aroha and District Museum; used with permission. [But is the bridge curved? If not, it is the wrong bridge, although the creek looks correct, and there is no other site where such a large bridge could have been constructed. See *Figure 14* for later photograph which is undoubtedly the correct bridge.]

Figure 14: Bridge over Army Creek, n.d. [late 1940s], David Calder Hardy Collection, used with permission.

Figure 15: Horse grade below bottom of Butler's Spur Incline, looking towards tunnel through landslip, n.d. [1883?], Arthur Mahon Collection, Te Aroha and District Museum; used with permission.

Figure 16: Bottom of Butler's Spur Incline, n.d. [1883?], Arthur Mahon Collection, Te Aroha and District Museum; used with permission.

Figure 17: Burton Bros., bottom of Butler's Spur Incline, 1884, Burton Brothers Collection, C.017248, Museum of New Zealand Te Papa Tongarewa.

Figure 18: J.S. Hill, Butler's Spur Incline, 1912, Eric Hill Collection.

Figure 19: J.S. Hill, bottom of Butler's Spur Incline, with several wagons ready to be taken up and one to be carted downhill, n.d. [c. 1914], Eric Hill Collection.

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Figure 23: Eric Hill, Stables and smithy on Cadman branch tramway, close to top of Butler's Spur Incline, n.d. [1960], Eric Hill Collection.

Figure 24: Josiah Martin, 'Te Aroha Tram Road', n.d. [1880s], C.81868, Auckland War Memorial Museum – Tamaki Paenga Hira'; used with permission.

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Figure 26: Burton Bros., chute and hopper beside tramway, 1884, C. 017248, Burton Brothers Collection, Museum of New Zealand Te Papa Tongarewa.

Figure 27: 'Waiorongomai Tramway, Te Aroha', in Henry Brett, T.W. Leys, and J.M. Geddis, 'Descriptive Sketch of New Zealand', in *Picturesque Atlas of Australasia*, ed. Andrew Garran (Sydney, 1886), vol. 3, p. 68.

Figure 28: Josiah Martin, 'Tram Rd Te Aroha' [bridge over Diamond Gully?], n.d. [1880s], C24464, Auckland War Memorial Museum – Tamaki Paenga Hira'; used with permission.

Figure 29: Bottom of Fern Spur Incline, n.d. [1884?], Arthur Mahon Collection, Te Aroha and District Museum; used with permission.

Figure 30: J.S. Hill, bottom of May Queen Incline, n.d. [c. 1914], Eric Hill Collection.

Figure 31: Plan of proposed bridge on Fern Spur Grade, 1912, Inspector of Mines, BBDO 18634, MM138, ANZ-A [Archives New Zealand/Te Rua Mahara o te Kawanatanga, Auckland Regional Office]; used with permission.

Figure 32: Burton Bros., bridge over Canadian Gully, 1884, Burton Brothers Collection, C.017247, Museum of New Zealand Te Papa Tongarewa.

Figure 33: Peter Ferguson, Plan of end of tramway, attached to his application to drive low level in Premier mine, 8 June 1889, Mining

Applications 1889, 50/1889, BBAV 11289/12a, ANZ-A [Archives New Zealand/Te Rua Mahara o te Kawanatanga, Auckland Regional Office]; used with permission.

Figure 34: Burton Bros, Premier hopper at end of tramway?, 1884, Burton Brothers Collection, C.017244, Museum of New Zealand Te Papa Tongarewa.

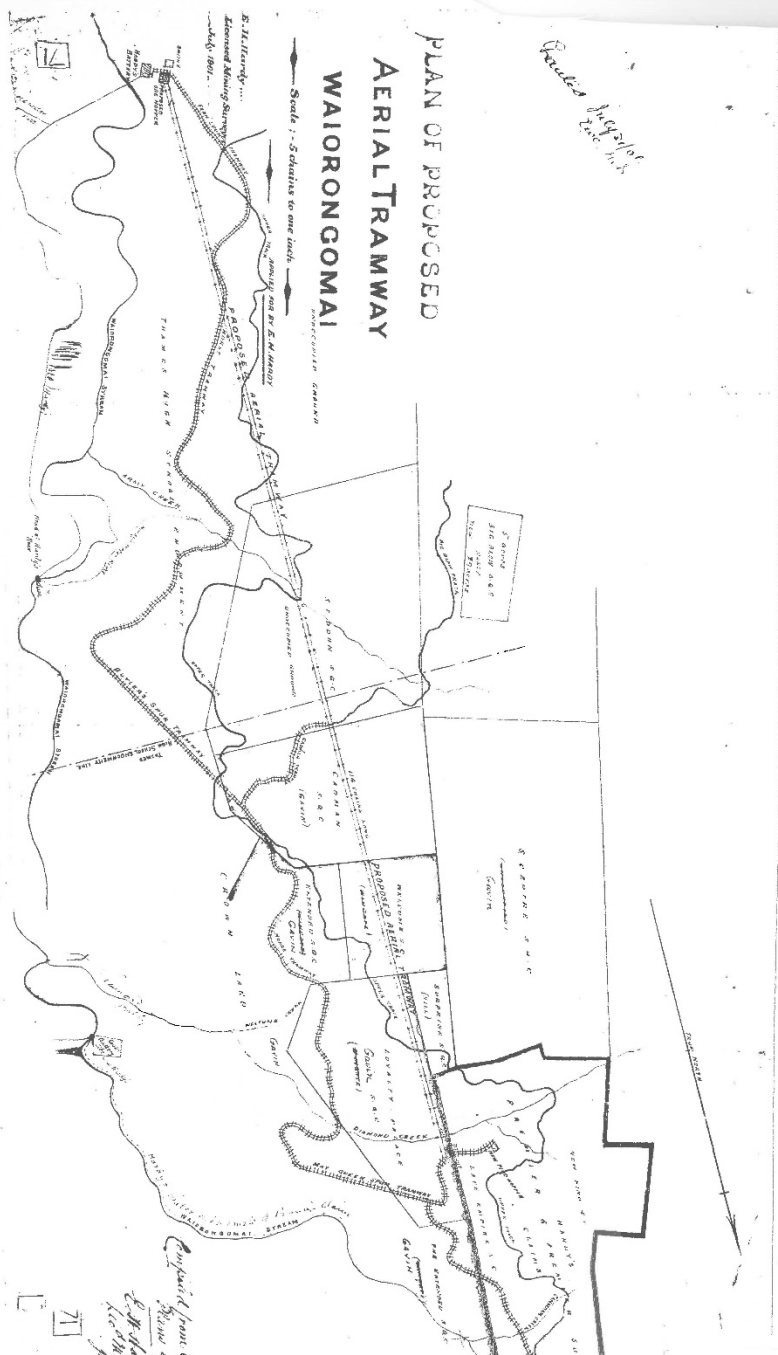
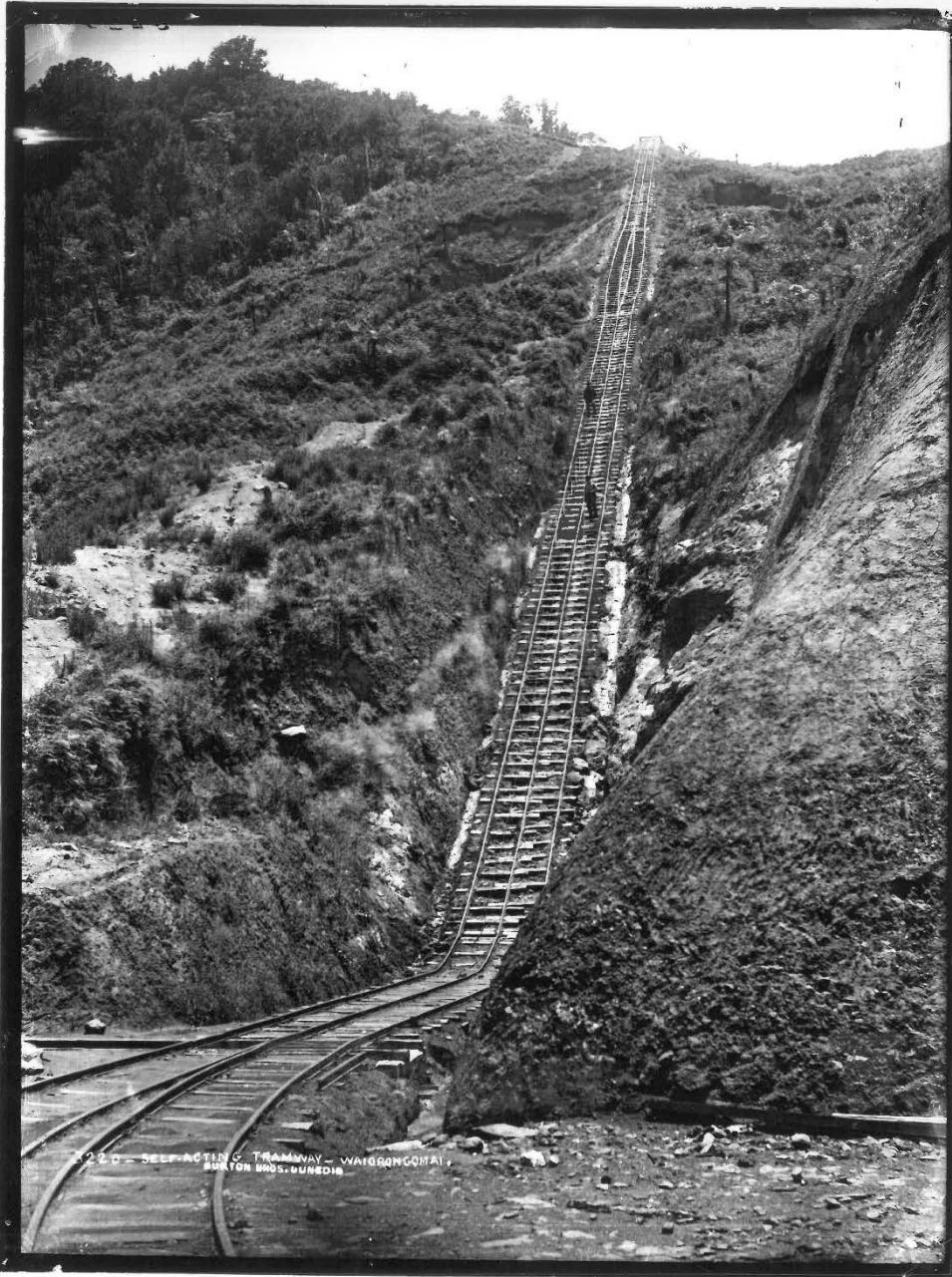


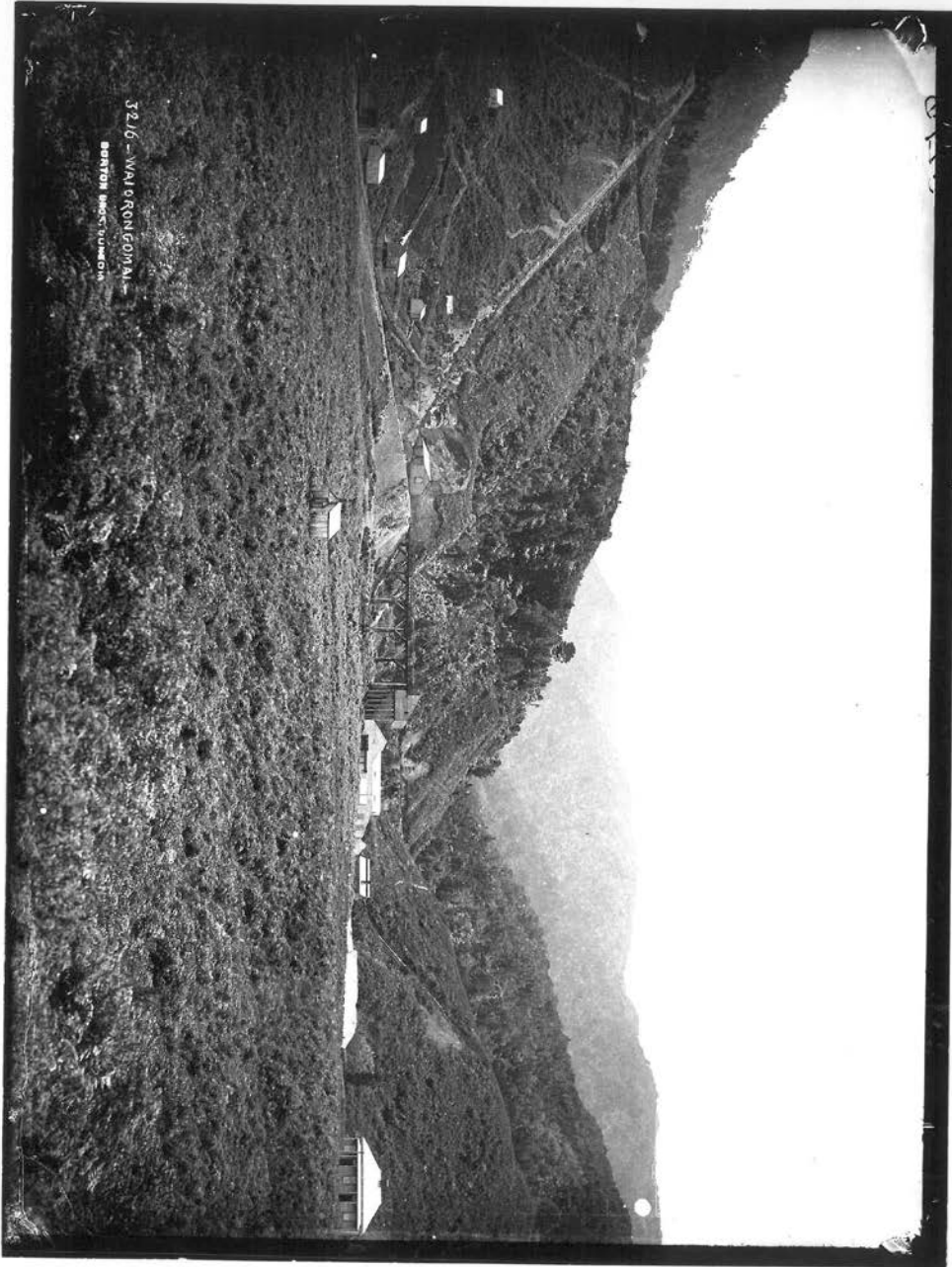
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Fern Spur Incline, 1884

(Burton Brothers Collection, Museum of New Zealand Te Papa Tongarewa, C.17242.)

Figure 2: Burton Bros., Fern Spur Incline, 1884, Burton Brothers Collection, C.017242, Museum of New Zealand Te Papa Tongarewa.



Fern Spur Incline and first battery, 1884
(Burton Brothers Collection, Museum of New Zealand Te Papa Tongarewa, C.17240.)

Figure 3: Burton Bros., Fern Spur Incline and battery, 1884, Burton Brothers Collection, C.17240, Museum of New Zealand Te Papa Tongarewa.

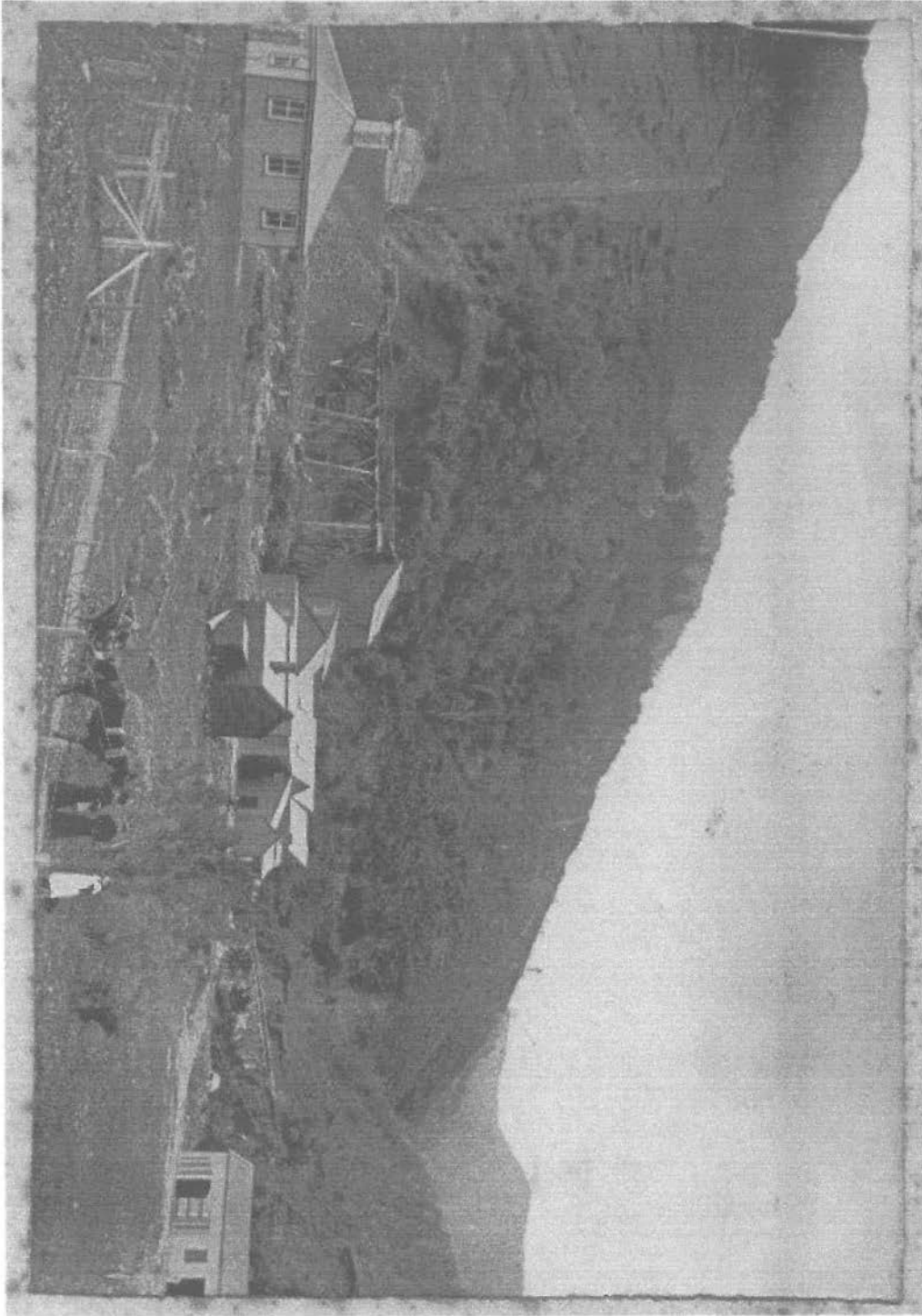


Figure 4: E.H. Hardy, Fern Spur Incline and battery, c. 1900, Te Aroha and District Museum; used with permission.

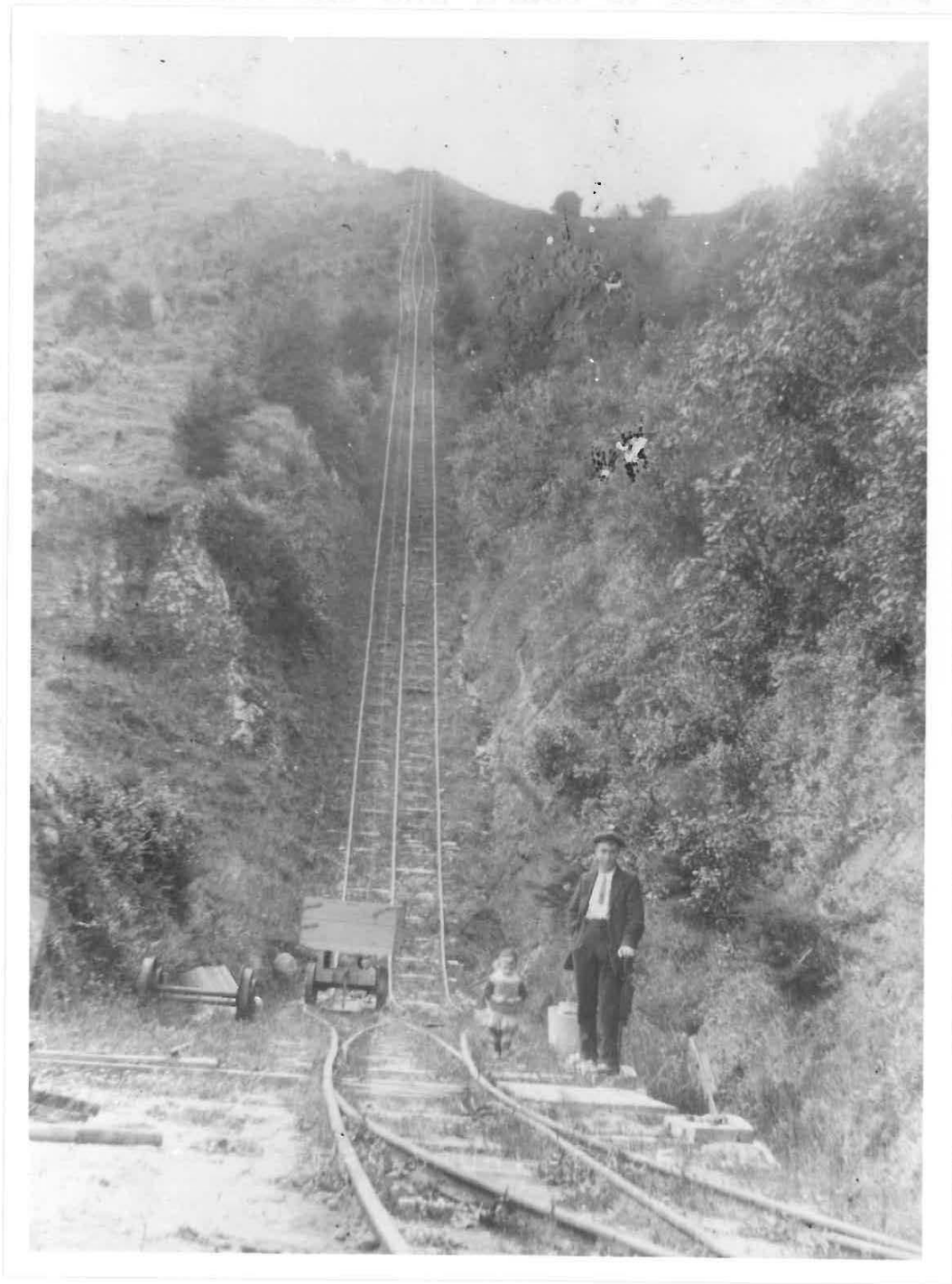


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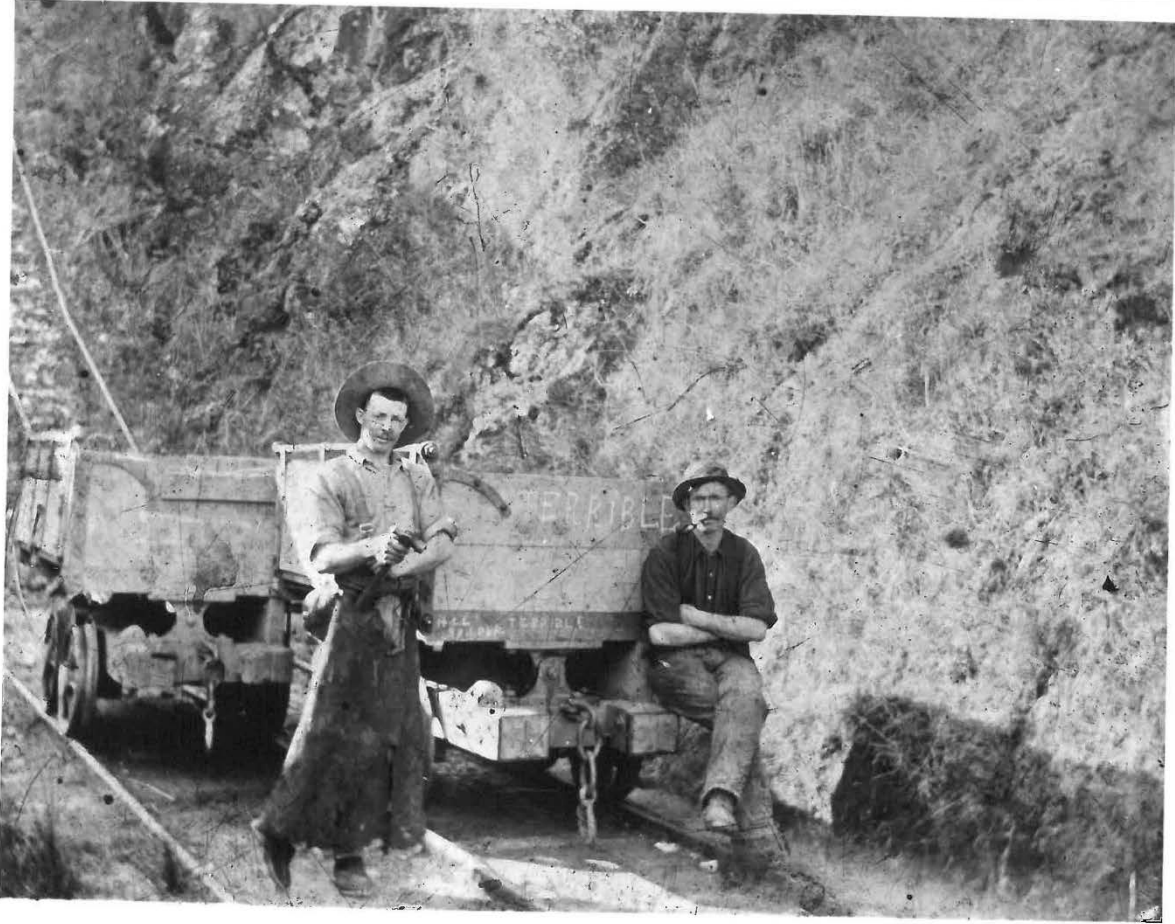


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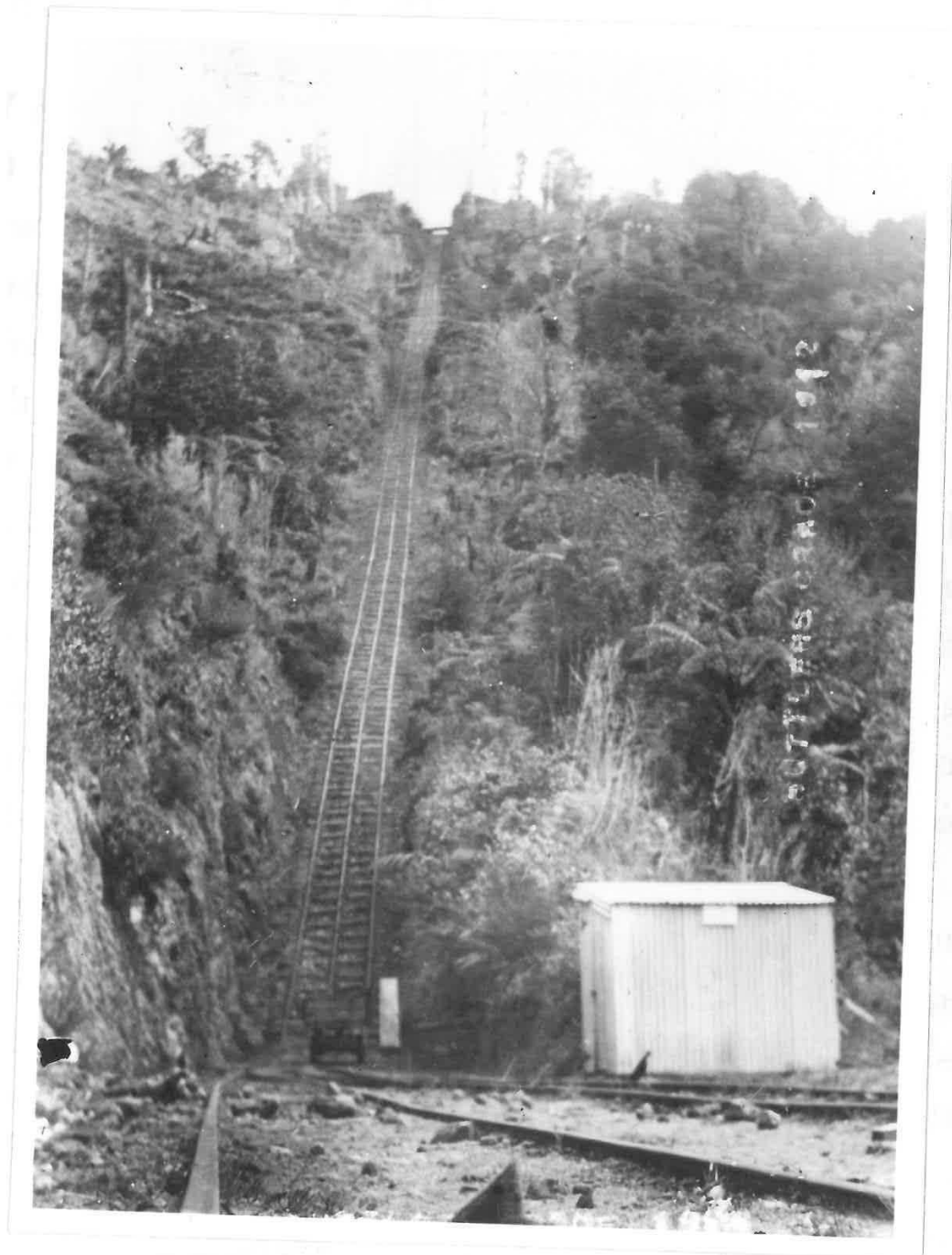


Figure 18: J.S. Hill, Butler's Spur Incline, 1912, Eric Hill Collection.



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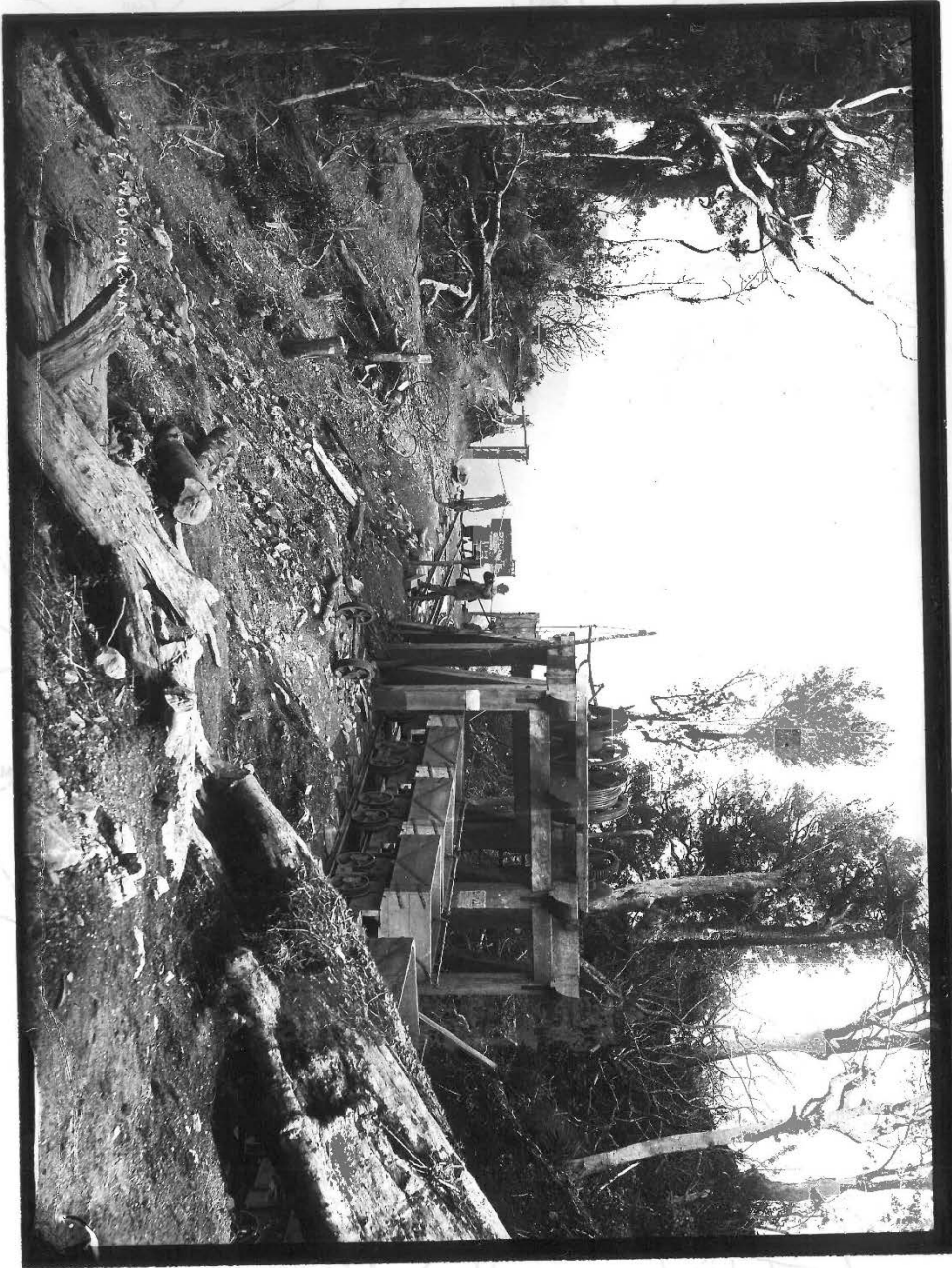


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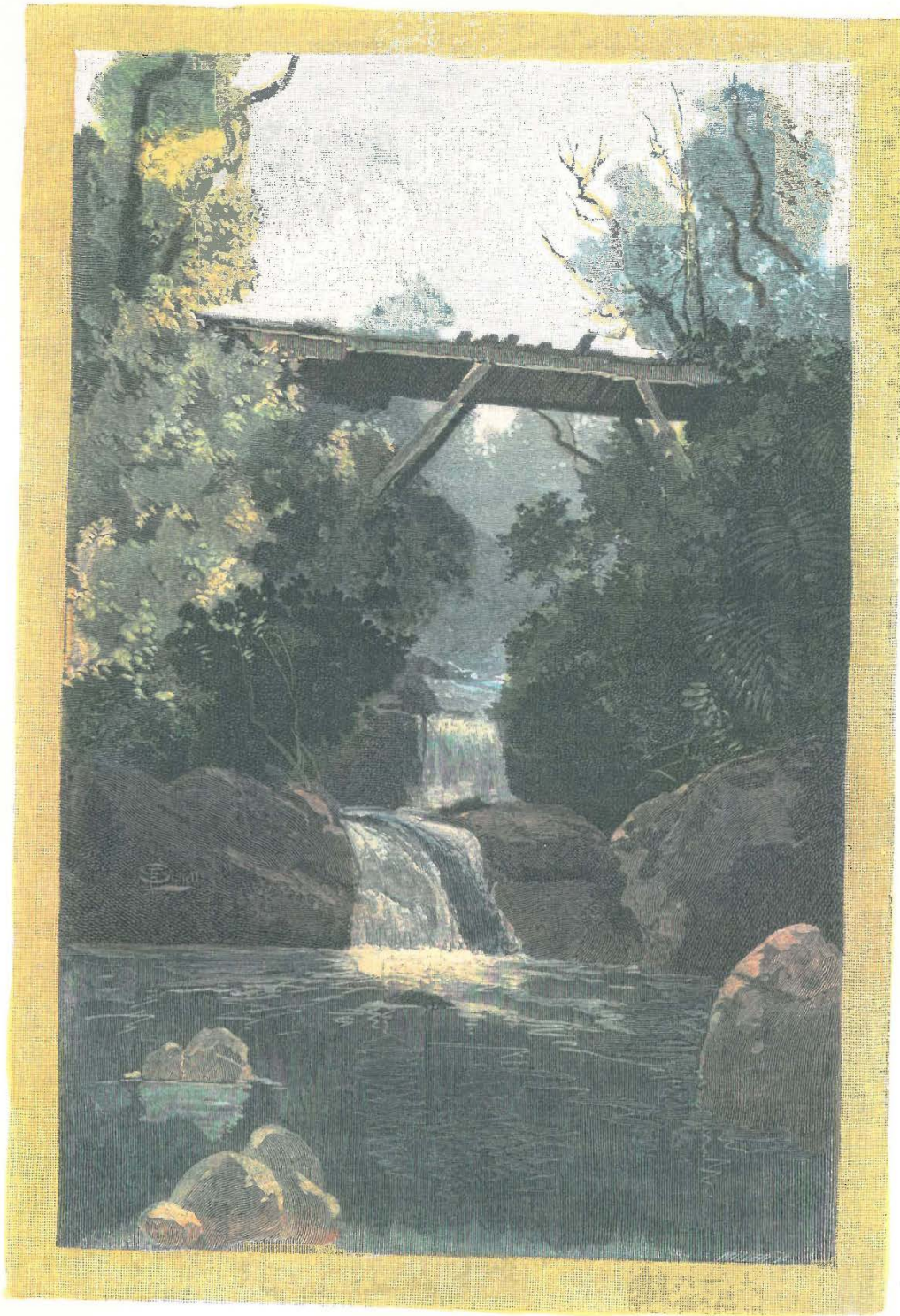
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WAIORONGOMAI TRAMWAY, TE AROHA.

*Figure 27: 'Waiorongomai Tramway, Te Aroha', in Henry Brett, T.W. Leys, and J.M. Geddis, 'Descriptive Sketch of New Zealand', in *Picturesque Atlas of Australasia*, ed. Andrew Garran (Sydney, 1886), vol. 3, p. 68.*



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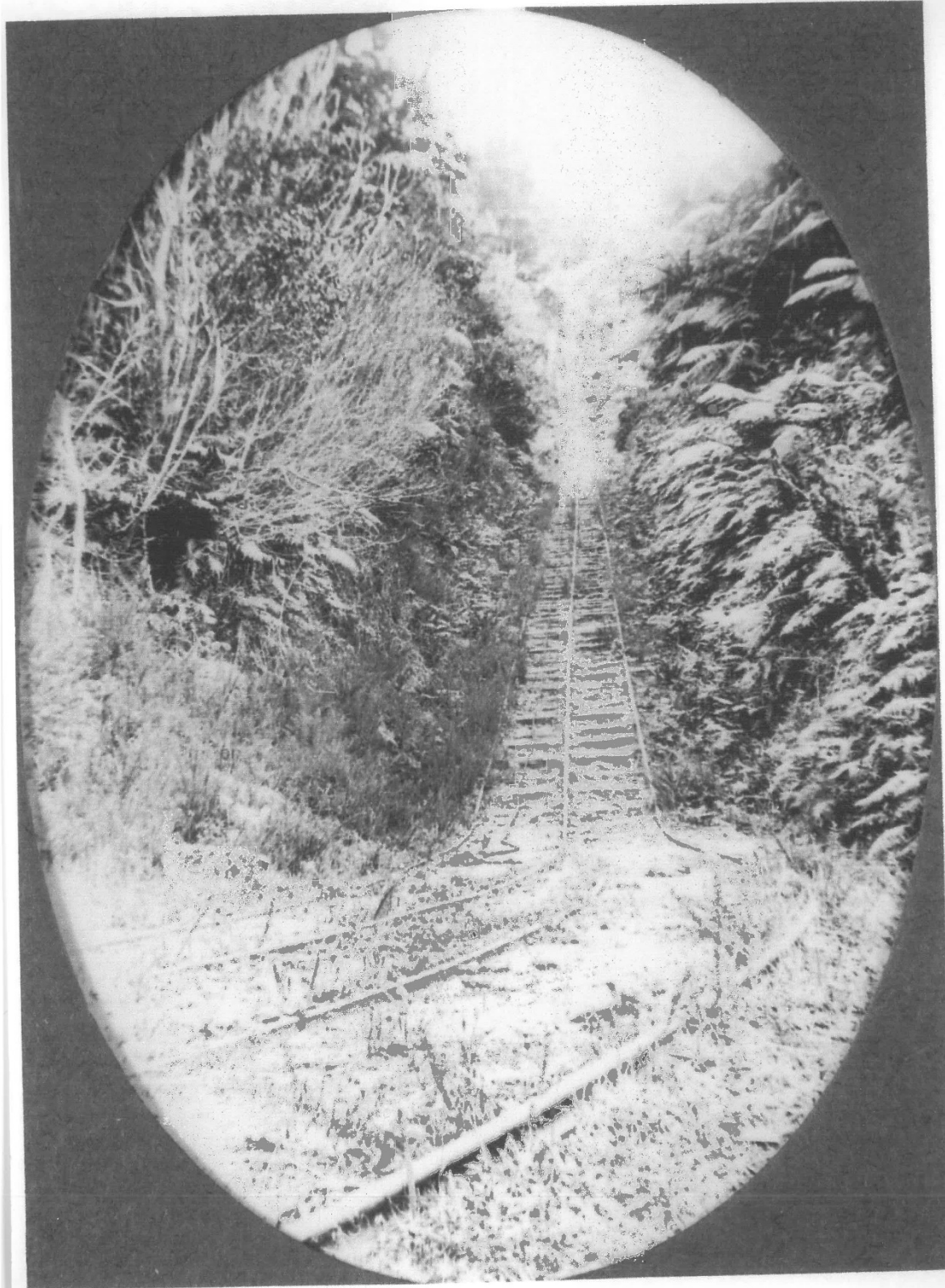


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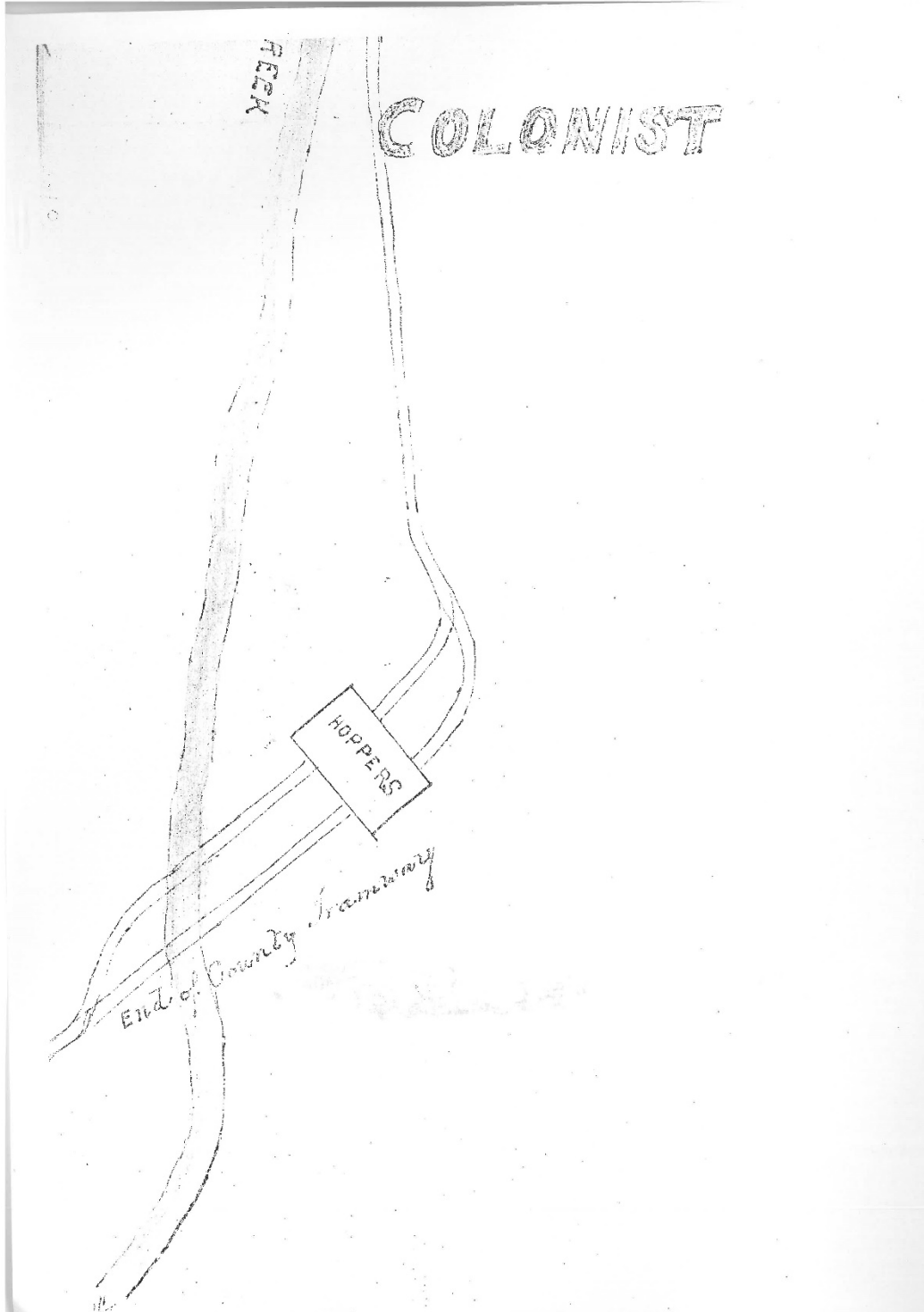


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