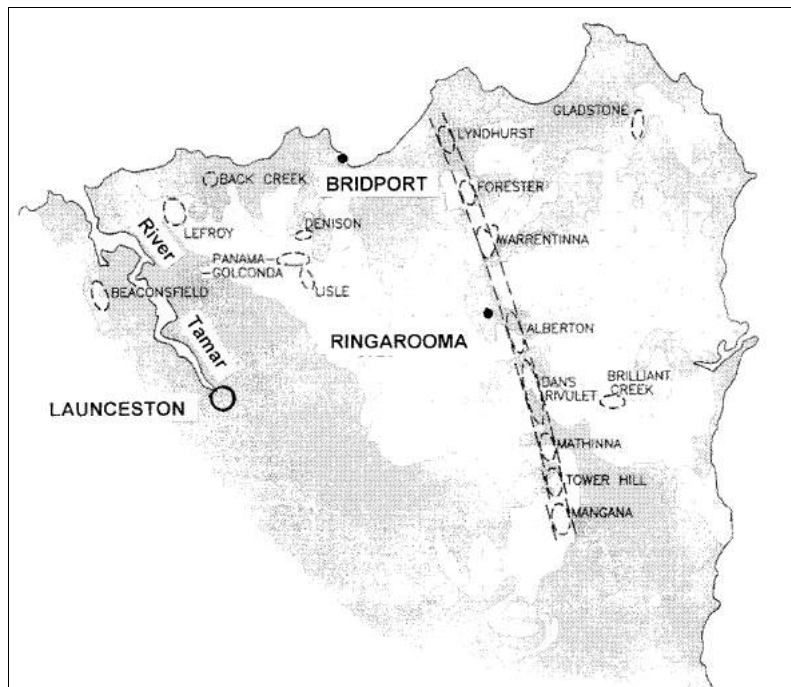


Mount Victoria Goldfield, Tasmania: a case of unfulfilled potential?

By KEITH PRESTON

The Mount Victoria Goldfield (hereafter referred to as the Alberton field) is located to the southeast of Ringarooma in north-eastern Tasmania. It forms part of a linear belt of mineralisation extending some 70km from Mangana at the southern end through the Tower Hill, Mathinna, Dans Rivulet, Alberton, Warrentinna and Forester fields to the Lyndhurst field on the north coast. The Alberton field is associated with the NNW-trending Garden Ridge that is bounded to the west by the Dorset River, to the north by New River and to the east by Mount Victoria rising to a height of over 1200m. Mineralisation occurs within an area approximately 1km wide by 8km in length extending practically to the southern boundary of the Dorset River watershed.¹

Figure 1: *Location of the Alberton and neighbouring goldfields in northeast Tasmania.*



Source: Mineral Resources Tasmania, Report 1993/34.

Brothers Robert and F. Wilson undertook initial prospecting for tin deposits around Ringarooma for the Hope Prospecting Association in 1882. On discovering gold, two 4-hectare sections towards the northern end of the field were registered at the beginning of November and transferred to the Premier GM Co. [Gold mine company] the following March. Two weeks later another two 4-hectare sections some 2km to the south were registered by Owen Jarman working for the Mercury and Caxton Prospecting Associations, ‘then the usual stampede set in and land was pegged off in all

directions without the faintest attempt of prospecting'. Peter Balstrup had registered four adjoining sections approximately 600m further south on behalf of the Mount Victoria Prospecting Co. in April and continued prospecting prior to an inspection by Victorian mining engineer John Lewis at the beginning of May. Lewis reported favourably enabling the best two sections to be transferred to the Mt Victoria GM Co. later in the month.²

The Premier, Mercury and Mt Victoria mining companies were to form the nucleus of the first phase of development that lasted until 1910. Each company undertook extensive surface and underground development during 1883, culminating in three batteries being commissioned between October 1883 and April 1884. After a period of waning production extending to 1891, consolidation of the mine leases and the injection of finance from the mainland states ensured that production levels were restored towards the end of the decade. A mining revival occurred after 1920, again largely funded by mainland investors, but this failed to establish the Alberton field as a major gold producer.

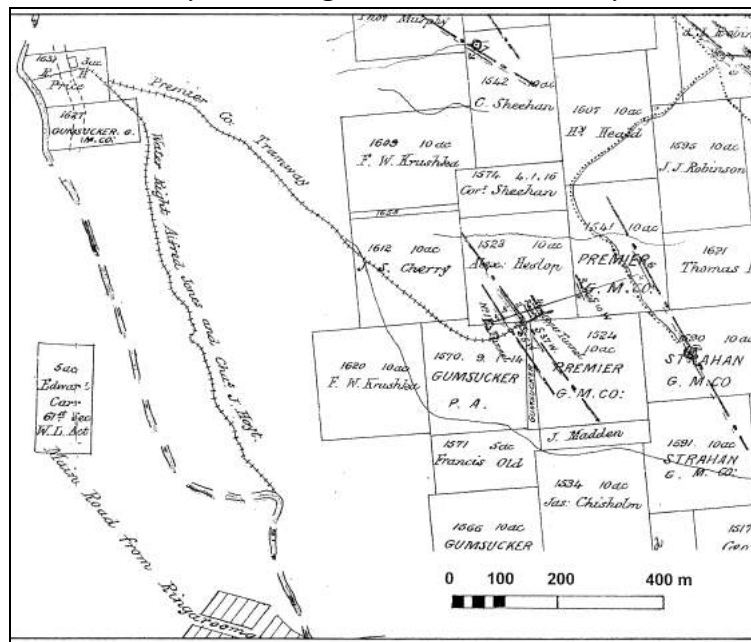
A total gold production of 0.7tonne has been estimated by Mineral Resources Tasmania [MRT] for the Alberton field forming 1.25 per cent of the total Tasmanian production of 56tonnes up to 1992. Although a minor contributor to the Tasmanian gold mining industry, its development was important in ensuring the continuity of gold mining in the northeast of Tasmania after production from nearby fields (Mathinna, Lefroy, Lisle and Denison) during the 1870s and early 1880s had peaked. This paper highlights the challenges that confronted the mining companies when limited finance was available and initial high yields could not be maintained. The measures employed in order to remain economically viable are outlined, especially the adoption of water-powered treatment plants by most of the mining companies through to the cessation of mining.³

Initial developments 1883 - 1885

The prospectus for the Premier GM Co. issued in March 1883 included details of the prospecting undertaken by Frederick Manton which comprised a 3.7metre deep pit on the outcropping reef enabling samples that contained free gold to be obtained. Prospecting undertaken by Owen Jarman for the Mercury GM Co. was more exhaustive with 18tonnes of quartz raised from a trial 7m deep shaft and 10m long heading that was inspected by Government geologist Gustav Thureau on 13th March. On the basis of estimated gold yields provided by the two prospectors, capital raising proceeded, the Mercury GM Co. anticipating that £2,000 would 'be ample to cover the cost of machinery and place the Company in a position to pay dividends' and the Premier GM Co. made provision for a working capital of £2,500. The Mt Victoria GM Co. proceeded more cautiously following the appointment of mine manager Peter Balstrup at the end of May, as a working capital of £900 was established for underground development, with the intention of using the Premier battery for initial crushing requirements.⁴

Site development now proceeded at a hectic pace, the Premier accepting Beaconsfield contractor Francis Hicks's tender for £520 towards the end of April for dismantling a 10 HB [Head Battery with the number of stamps given] at the Star of the West mine at Mt Roland for re-erection within 14 weeks. Despite having to cut a 2.4km long track to haul the battery from the Mt Roland mine site to the Government road, Hicks met the contract schedule by commencing the site work in June and having the battery erected by the beginning of August. The Mercury GM Co. also secured a second-hand 10 HB for £310 from the Campania GM Co. located near Richmond. This battery had been produced by Salisbury's Foundry at Launceston the preceding June and had only crushed 10tonnes of ore. The battery was transported by rail from Campania to Launceston by June, then per schooner Templar to Bridport on the north coast for haulage to Ringarooma. Onward transport to the mine site was delayed until the Government road was constructed to Alberton. As Hicks had also been appointed to erect the Mercury battery, the Premier had secured a lead in the race to commence crushing.⁵

Figure 2: Plan of the mineral leases to the northeast of the Alberton township including Sections 1524 & 1541 held by the Premier GM Co. and showing the water race from the Dorset River and tramway extending to the Premier battery shed on Section 1631.



Source: *Journals of the House of Representatives, Tasmania*, vol.6, no. 61, December 1884.

Water-powered batteries were mentioned in both prospectuses and applications were duly made for water rights to the Dorset River. Thureau had endorsed the adoption of waterpower but recommended that initially a 5 HB should be erected to be driven by 'an inexpensive reaction jet water-wheel' or pelton wheel. This advice was ignored, perhaps because there was no experience of this new technology at that time in Tasmania and as there was no established supplier in Australia, delays would have resulted in shipping from the USA. An 805m head race including 131m of timber fluming was constructed to supply the Premier waterwheel of 11.2m diameter and a

80m tail race cut to the Dorset River (Fig. 2). The Mercury race was reported to be 1,059m in length, almost half (504m) formed by fluming onto the 12.2m diameter waterwheel. William Knight's Launceston foundry supplied the ironwork of the Premier waterwheel, including the shaft, centres, shrouding and buckets. It is believed that the iron components of the Mercury waterwheel were also produced at Knight's foundry, as contracts for five 'iron waterwheels' had been won by November.⁶

The Premier battery was trialled on 26th October, the official opening ceremony held on the 30th attended by mine manager Alex Heslop and contractor Hicks. After this Hicks was eagerly awaited at the Mercury mine to commence erecting their battery. The engineering requirements of this battery, particularly the fluming and large diameter waterwheel, must have been considerable, leading to a lengthy construction period despite an additional contractor being engaged to construct the 'high tresselling and fluming'. The battery was finally commissioned at the beginning of April, five months after the Premier battery (Fig. 3). These delays resulted in the Mt Victoria mine stealing the limelight by having a temporary battery powered by a portable steam engine operational in February. This move was prompted by the poor state of the track to Alberton preventing the contractor from hauling ore to the Premier battery, as originally intended.⁷

Figure 3: *Mercury battery driven by a pitchback water wheel incorporating an iron shroud and buckets.*



Source: Tasmanian Archive & Heritage Office, NS786/1/114.

An 18 HB, the largest to be employed on the field, was acquired for the Mt Victoria mine from the Beaconsfield GM Co. and had been hauled to the mine and erected by September. However, a high fuel and wage bill amounting to £17 per week soon led to another change of plan when waterpower was pursued. At the time of a site visit by Thureau in December, a 9.8m diameter overshot wheel was under consideration at a cost of approximately £600. Thureau recommended instead that a 2m-diameter pelton wheel be obtained at an estimated cost of £302, including freight from California and installation. The company directors, perhaps swayed by the advice of engineer Lewis who was also involved with the adoption of an even larger 18.3m waterwheel for

the Anchor TM Co., now threw caution to the wind by accepting the design for a substantial 13.6m diameter waterwheel. This required construction of a 1,410m long water race, the longest on the field. Contractor Williams had commenced cutting timber for the waterwheel in April 1885 and excavation of the wheel pit was underway in May but progress was slowed by bad weather and it was not commissioned until the end of July, after an 18-month development period. Fortunately, the income generated by the temporary steam-powered battery had funded the increased development costs, which included a budget sum of £1,100 for the waterwheel, a four-fold increase on Thureau's estimate for a pelton wheel of equivalent power of the original waterwheel proposal.⁸

An all too brief 'golden period' 1883 - 1886

The first output from the Premier battery was reported in November 1883, a month after commissioning, when 310 tonnes had been crushed at a grade of only 5 grams per tonne of retorted gold. Although the recovered gold was found to be very fine, justifying the use of tables covered with electroplated copper sheets, instigated by mine manager Alex Heslop, a higher recovery was expected based on the amount of amalgam collected. Being suspected of malpractices, Heslop was dismissed, being replaced by William McLoughlin. As the working capital of £2,500 had been expended, he was engaged to undertake further prospecting and to resolve the gold recovery problem so as to renew confidence and enable further capital to be raised. A trial crushing for a yield of 13g/t was reported at the shareholders meeting the following May, the disappointing yield attributed to the presence of tellurium. By December the mine was being worked on tribute and by May 1885 work had ceased. The site assets including the battery and tramway were advertised for disposal a year later and the company was liquidated.⁹

At the Mercury battery, prospects were more promising after the first crushing of 255 tonnes of ore was completed in May 1884 for a recovery of 50g/t, enabling the first dividend on the field of 6 pence to be declared. In addition to the use of copper plates fitted with ripples and blanket strakes for gold recovery, the battery was equipped with three berdan pans that were 'revolved by a rope attachment from the cam shaft'. An additional 5 HB, installed in the battery for the Caxton GM Co., commenced work in August, when some 1,500 tonnes of ore had been stockpiled. The Caxton Co held 4-hectare Section 1511 to the southeast of the Mercury lease and required the co-operation of the adjoining leaseholders to secure a tramway alignment to the Mercury battery located on the eastern bank of the Dorset River.¹⁰ The Hobart Mercury correspondent was evidently unimpressed after visiting the tramway in December:

The windings of Caxton's extraordinary tramway lead from the junction of the Mercury's tram and across the spur, then round the sideline of a second indented gully ... the tram traverses part of Hoyt's section [Section 1527] and a corner of Wilson's [Section 1579] in getting to the Caxton Co.'s claim. This engineering work has curves of only a few yards radius and superelevation enough on the top rail to capsize the trucks, which invariably happens if an extra hand is not sent round with a steadying lever. The cost of sending quartz along this abortion, of only 55 chains [1107m], to the mill is over 1s. per ton. Further comment is not required.¹¹

Thureau was more circumspect, merely describing the tramway alignment as 'sinuous', and reporting that it had cost £375 to construct. The Mercury 10 HB had produced 42.5kg of gold by this time at an overall return of 21g/t indicating falling grades since the first crushing and the work force had reduced to twelve miners, five on the surface including a blacksmith.¹² Thureau was critical of the battery operation and deterioration of equipment that led to poor gold recovery:

At the Mercury Company's plant crushing was carried on at a low rate of speed [65 blows per minute], thus inducing loss of gold ... the plant was found in a dirty state with grease and oil dropping everywhere; especially was this found to be the case with the bearings and the cams of the camshaft, and thus greasy matter was seen on the boxes and the splashboards at the head of the tables. Then again, the Berdan basins were set up at too low an angle to allow them the full effect in grinding and amalgamating ... tailings or waste taken from the creek some 40 feet outside, or away from the battery house, yielded to the pan, in my presence, about 1 3/4 lbs of valuable pyrites and several largish globules of mercury evidently charged with some amalgamated gold.¹³

After a crushing in January 1885 yielding only 7.5g/t, mining was suspended due to the 'disinclination of shareholders to pay further calls'. The Caxton mine was also forced to shut down owing £170 for the use of the battery, leading to a move at the following shareholders meeting to take over the mine, as a means of debt recovery.¹⁴

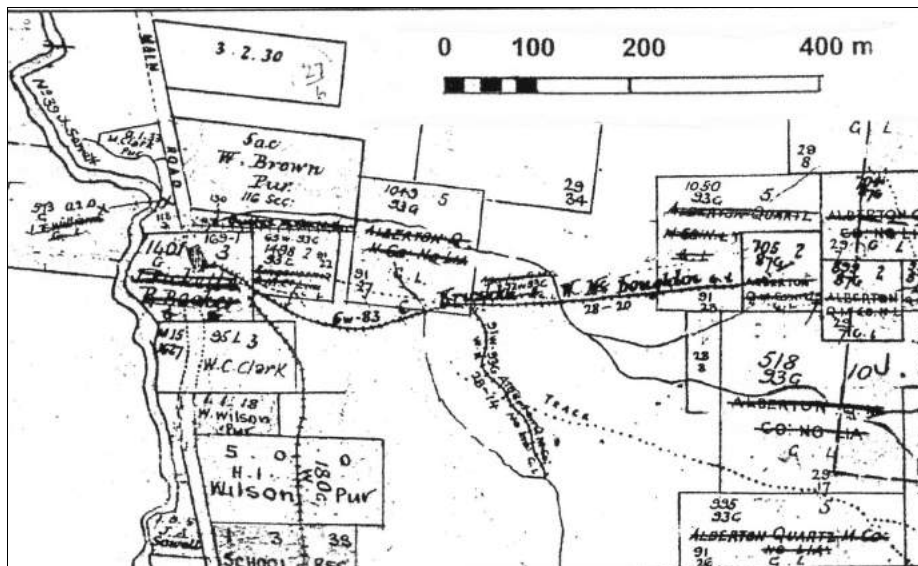
The future prospects of the field now lay with the Mt Victoria mine, the first crushing during February-March 1884 yielding 15.3kg of gold at 61g/t. Gold produced by the steam-powered battery up to April 1885 enabled payment of the first 3 pence dividend in May, financing of the large waterwheel and race for future battery operation and the purchase of the neighbouring Montana Section 1525. Yields from the water-powered battery were maintained until July 1886, falling to 13g/t during the latter half of the year but this did not prevent payment of a further dividend of 3 pence establishing it as the premier operation on the field.¹⁵

Stagnation 1886 – 1896

After the Premier GM Co. ceased operations in June 1884, William McLoughlin prospected the Endeavour claim located to the east of the Premier section. Ore was being raised in April 1886 and this encouraged McLoughlin to enter into partnership with Chris Kruska in August when he advanced £304 for purchase of the battery. In September a contract was let to recover the materials of the Premier tramline and establish a new line to the Endeavour claim (Fig. 4). By the end of November the battery had been overhauled, the tramline completed and the newly christened 'Queen Battery' was officially commissioned at a public ceremony held on the 1st December. The first crushing for a return of 31g/t encouraged further prospecting and by the following December 80tonnes had been stockpiled for treatment. Based on the appearance of the ore, a good return was expected but disappointing yields of only 3-7 g/t were obtained. Tampering of the battery was suspected and a reward of £100 offered for conviction of persons 'who placed a quantity of sulphur with other compounds

injurious to amalgamation among the stone or in the stamper boxes'. As this was a repeat of events that led to the demise of the Premier Co. at the end of 1883, someone having a grudge would appear to be a plausible explanation. The death of the previous mine manager, Alex Heslop, in June 1886 would appear to eliminate him as a possible suspect.¹⁶

Figure 4: Tramway constructed from the Premier battery to the Endeavour claim of Chris Kruska & William McLoughlin later used by the Alberton GM Co. who erected a steam-powered battery on Section 1049-93G, a water race extends to an unnamed creek to provide water for mineral processing and boiler operation.



Source: Mineral Resources Tasmania, North Mount Victoria Mineral Chart, July 1894 - July 1920.

After the Mercury mine suspended operations in January 1885, underground development proceeded intermittently financed by limited capital raisings, sale of surplus equipment and income from periodic gold sales. A further suspension of operations in October 1889 was followed two years later by the disposal of the consolidated 14-hectare lease and plant. The Derby GM Co. purchased the battery and portable steam engine in May 1892 and then called tenders for dismantling the battery (excluding the waterwheel) and re-erecting on the company's claim. The waterwheel was advertised for disposal in November but no buyers were found.¹⁷

At the Mt Victoria mine, production declined in 1887 and by 1889 only two miners were retained to commence another exploratory adit that was financed by a further capital raising. In October when four miners were employed, manager Yates demonstrated his versatility by undertaking 'the smith's work, engine driving and amalgamating' in addition to improvising 'a chest pressurized by water' to pump air into the workings. The exploratory adit had been driven 305m by July 1891 without intersecting the reef and crushing did not re-commence until September 1892, after four years of unproductive development. Mining was proceeding on tribute by the following July and appears to have continued until May 1896. Tenders for purchase of the plant and leases were advertised the following month and dismantling of the battery commenced in October 1898.¹⁸

Resurgence and mainland investment: the smaller players 1896 - 1910

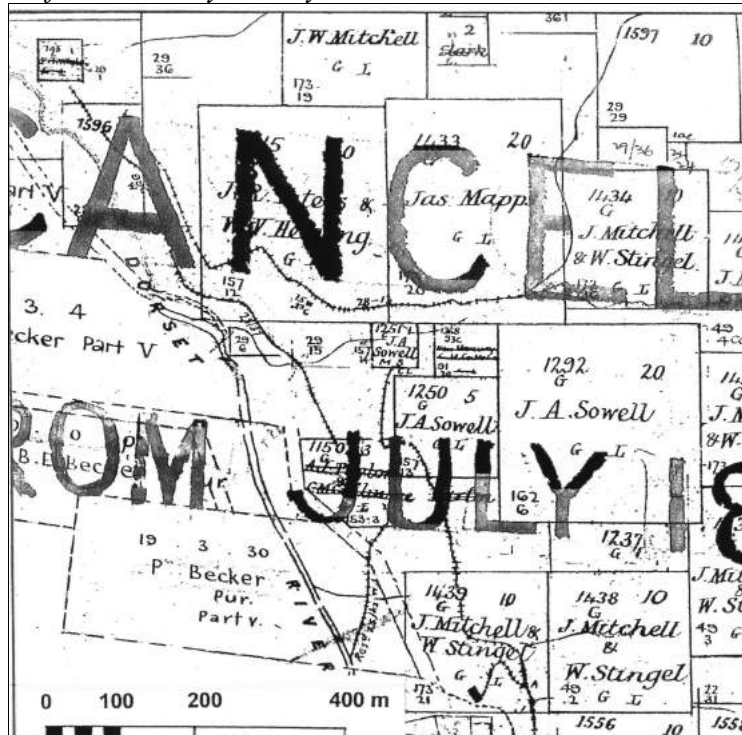
A resurgence of mining activity commenced in 1896 when two local groups acquired leases towards the southern end of the field to form the Bright Star and Long Struggle GM Co.'s, the Caxton was consolidated with surrounding leases to form the Alberton GM Co. using Melbourne finance and the Ringarooma and New Mercury GM Co.'s were formed in Sydney to take over the former Premier, Rosalind, Mt Victoria and Mercury leases. All of these companies were to be constrained by a maximum working capital of £5,000, often substantially less, resulting in protracted development periods and pressure to maximise ore grades.

The Alberton GM Co. was floated in Melbourne in April 1896 with a working capital of £2,500 to acquire four 4-hectare leases together with William McLoughlin's 3.7-hectare section (the Endeavour claim). McLoughlin was appointed the mine manager and a 2-hectare machinery site had been selected 'where a good supply of water can be obtained for engine and battery purposes'. This is shown on the MRT Mineral Chart for North Mt Victoria together with a 200m long water race extending to an unnamed creek to the south (Fig. 4), which is likely to have been the source of water for the portable steam engine and battery operation. Salisbury's Foundry was awarded a contract for a 10 HB, a 12kW Robey portable engine was purchased in June and the battery commenced crushing at the beginning of December. The ore, however, was found to be pyritic and operations were suspended in March 1899 until additional equipment was procured. This does not appear to have occurred as the battery was being used for crushing small parcels of non-pyritic ore from nearby leases in September. The mine remained at a standstill in January 1900 at the time of a visit by Government geologist William Twelvetrees, while the steam engine was sold to the Royal Ruby TM Co. at St Helens in April 1901.¹⁹

The Long Struggle GM Co. was formed by a local syndicate of miners including John Arthur Sowell, A. Cobbing and the Stingel brothers (Alfred, Ernest W. and Henry) being registered in 1895 with a working capital of only £1,024 in 5s shares. Prospecting of Sowell's 8-hectare section and W. Stingel's Caxton and neighbouring sections located to the north of the Mt Victoria property appears to have proceeded intermittently until 1900 when finance was available to commence the first significant surface infrastructure. By May a cyanide plant had been completed and in August water race construction had commenced. The latter comprised a 550m extension of the Mt Victoria battery to a machinery site on 2-hectare Section 1251G (Fig.5). Water race construction remained in progress the following April when a 5 HB procured from Warrentina was erected and negotiations proceeded for the purchase of a waterwheel. A photographer recorded the opening ceremony of the 'Dawn of Hope' battery later in 1901, Figure 6 revealing that the 6.7m diameter overshot waterwheel was largely of timber construction apart from the iron shaft, and most likely constructed on site. The first crushing produced 3.5kg of gold enabling a small 4kW vertical steam engine to be purchased for summer operation. Heavy rainfall during the winter months of 1905 led to a rising water table that limited output despite another 37m deep shaft being sunk to enable working above the water table. Sowell began driving a lower drainage tunnel to allow the reefs to be prospected further but finance was exhausted after driving 75m, the

name given to the claim now seeming quite appropriate. The property was under option to the Tasmanian Consols Co. in 1909 but was not pursued and mining activity lapsed.²⁰

Figure 5: Plan of the mineral leases to the southeast of Alberton showing the Mercury water race extending from the Dorset River to the battery site and the water race to the east supplying both the Mt Victoria battery on Section 1439G (shown as registered to J. Mitchell & W. Stingel) and the first battery site of the Long Struggle GM Co. on Section 1251G registered to J.A. Sowell. The tramway that extended to the original Caxton claim to the ESE of the Mercury battery is also shown.



Source: Mineral Resources Tasmania,, Mount Victoria Mineral Chart, July 1894 - July 1920.

Ringarooma GM Co: a white knight 1896 - 1910

Formation of the Ringarooma GM Co. in Sydney in December 1894 was to herald a period of major development on the goldfield, leading to increased production but no significant returns for shareholders. Development proceeded slowly at first following acquisition of the Premier, Rosalind and neighbouring leases towards the northern end of the field together with the two 4-hectare Mt Victoria sections. Initial capital raising was limited to only £2,000 in 1s. shares, which enabled a new exploratory adit to commence early in 1896 and overhaul of the Premier battery to proceed. William Brown, a former storekeeper from Wollongong, with no apparent mining experience, arrived in Alberton in March 1896 to take up the mine manager position. Brown was also to oversee the re-opening of the Mercury mine and a close working relationship evidently developed with the New Mercury GM Co., also formed in Sydney in June 1896, with a nominal capital of £5,000 in £1 shares.²¹

Financing of the battery overhaul appears to have been shared by both parties, which benefitted the New Mercury Co. as their stamp battery had been sold in May 1892 following closure. The section of the Premier water race leading to the battery was

re-aligned enabling the former flumed section to be replaced and a wooden-railed tramway to be constructed. Operations resumed in August 1897 when each company crushed using five stamps. Production now flourished under the new management, 13kg gold was produced in 1897 increasing to 45kg in 1898, the mine briefly becoming the third largest producing gold mine in the state after the Tasmania mine at Beaconsfield and Golden Gate mine at Mathinna. The benefits of sharing the Premier battery do not appear to have been satisfactory to the New Mercury directors, as William Brown was instructed to replace the old Mercury battery and re-build the waterwheel in November 1897. The water race was partly re-aligned requiring 120m of new race to be cut and the fluming to be renewed. A new 10 HB commenced operating nine months later. Production did not justify the expenditure, as only 1.6kg gold was recovered in 1899. Early in 1902 Ringarooma GM Co. acquired the property, and by the end of May an engine and boiler had been installed to operate a pumping plant. There were immediate results, as five tributors had produced 8kg of gold by September.²²

Figure 6: *Official opening ceremony of the first Long Struggle battery driven by an overshot waterwheel of largely timber construction, 1922 - 23.*



Source: Tasmanian Archive & Heritage Office, NS573/4/1/1/23.

The 128-hectare freehold New River property of John H. Condor, located towards the northern end of the goldfield, was purchased during 1898, and plans to develop this site in conjunction with the Ringarooma mine were in place by November. By March 1899 a new battery was being erected on the New River section utilising two of the 6 HB units from the Mt Victoria battery, the remaining 6 HB being installed in the Premier battery and operational in April. The steam-powered New River battery commenced operation in August, the first crushing the following month yielding 4.4kg of gold. No dividends were to be paid in the short term however, as all income was needed to fund further underground mine development and infrastructure. Plans had been prepared by November 1898 and details were released the following April when it was revealed that the first electrically powered (direct current) pumping and winding plant in Tasmania was to be installed.²³

The dynamo, to be driven by a 33.5kW steam engine, was placed in the Premier battery shed, a boiler obtained from Victoria supplying both the stationary engine and a

15kW portable engine acquired to operate the battery in the summer months. The electrical power was to be used for all surface and underground lighting, as well as powering the pumping and winding plant that was to be erected in an underground chamber located 350m from the main access portal, which in turn was approximately 665m distant from the dynamo. Excavation of the 5.8m x 11.2m (by 4m in height) chamber was underway in February 1899 and completed by May, to await delivery of the pumping and winding plant in July. Meanwhile, in the absence of established mine regulations, a celebratory ball was held in the underground chamber in May when 80 guests were required to enter through

some 1100ft of tunnel carefully planked throughout to keep the guests as dry-footed as possible, and lighted with a sufficiency of candles to make its negotiation a matter of no difficulty at all. There were a few drips to dodge, but not many.

The 'ballroom' was operational the following January when inspected by Government geologist William Twelvetrees, a 150mm lift pump obtained from the recently purchased Bright Star property raising about 2,275L/hr. However, Twelvetrees provided no comment about any voltage drop between the dynamo and the underground electrical motors. Development costs had now reached £20,000 without any share calls having been made.²⁴ Mines Department inspectors provided further details of this pioneering plant supplied by Sydney electrical engineers Edge & Edge:

The motor attached to the winding drum is "series wound", constructed for 440 volts pressure and of ample capacity for hauling 1½ tons at a rate of 150 feet per minute [described as 'rather slow'] ... it will have a speed of 710 revolutions, reduced by spur-wheel gearing to 16 revolutions at crank ... the objectionable feature in the pumping motor is the gearing down by spur wheels, the wear on which is considerable ... the bare copper wire from the generator to the entrance to the tunnel is supported on poles in fluid insulators.²⁵

Fate now intervened as the battery house and dynamo were destroyed by fire at 1.00am on 18 September, also 'serious injury to the boiler, engine and battery ... the cause of the outbreak is a mystery'. One of the Sydney directors, C.J. Doyle, inspected the damage with the insurance assessor later in the week and two-shift operation was introduced at the New River battery to maintain production. The loss of the battery and dynamo was a major blow, limiting further development until significant fund raising occurred. A move to increase the working capital to £4,500 had been agreed a month before the fire in order to purchase the New Mercury property. This was now essential given the loss of the Ringarooma battery but did not proceed until early 1902. Attempts to re-float the company were reported in June 1903 but did not proceed.²⁶

After cessation of the Ringarooma Co.'s activities on the Mercury property in June 1903, a small syndicate had acquired some sections, including the battery, by April 1904. Operations were curtailed however, when the battery shed was burnt down overnight on 8th March 1905. This was the second such event at the northern end of the field within five years, coincidence or the malicious acts of someone bearing a grudge?

No public inquests were reported to shed light on these events, which effectively terminated large-scale mining activity for the next 15 years.²⁷

Inter-war revival: hope or despair? 1920 - 1941

Formation of the Mt Victoria Struggle GM Co. in August 1920 with a nominal capital of £1,500 marked the resumption of mining activity on the field at the Long Struggle leases. The lower adit was extended a further 105m, the water race overhauled to supply an 'air device for ventilation of adit face' and the original Long Struggle 5 HB was re-located alongside the Wilson Creek towards the foot of Garden Ridge. The battery was driven by a 6.1m diameter overshot waterwheel largely of timber construction. Production could not have been satisfactory however, as a shareholders meeting in November 1926 revealed that the mine had been 'closed down for months'. Torrential rainfall and extensive flooding that affected large parts of Northern Tasmania in April 1929 also wreaked considerable damage on the new Long Struggle battery shed, resulting in the foundations of the waterwheel being undermined and the wheel toppling to rest at an angle of approximately 45 degrees. After the leases had been acquired by John Sowell early in 1931, the battery shed was rebuilt and a pelton wheel installed, the first such application on the field. The battery remained in use until at least September 1937 but thereafter the ore was conveyed to the Ringarooma battery for treatment.²⁸

The renewed interest in the Mt Victoria goldfield attracted the attention of South Australian investors leading to the acquisition of the Ringarooma property and formation of the Ringarooma United GM Co. in 1922. The former Premier and Rosalind leases totalling 15 hectares were acquired, together with the water right. James Matthews from Western Australia was appointed the legal manager in January and was to oversee the initial mine development before his appointment as mine manager in June. A budget of about £10,000 was to be made available allowing a temporary battery powered by an oil engine to be erected at the old Premier site, as no mention was made of the former water-powered 5HB used by the New Ringarooma GM Co. In May, a 13 tonne boiler supplied by Salisbury's Foundry was hauled to site from the Legerwood railway station by a team of 22 bullocks, to be used to power an air compressor, the air pipes to the three adits being in place by August. A lighting plant was installed enabling a bulk sample to be obtained and sent to Adelaide.²⁹ The assay results were available by early October revealing a yield of 68g/t leading to the company secretary G.T. Lane visiting the mine in November and cabling his recommendations back to the Adelaide office:

... immediate erection 10 head treatment plant, immediate purchase two hammer drills for deep sinking, four machine drills for drives and stopes, also sinking of main shaft by contract 600ft to lowest level, connect up tunnels with shaft and prepare working stopes in readiness for another 20 head heavy stampers; overhead costs too heavy with present number of employees. Vigorous policy of expenditure and development now warranted.³⁰

Incredibly, the mistakes made when mining the Premier leases 40 years previously, were now to be repeated. A phrenetic period of underground development followed during which the Premier, Rosalind, Hannah, Strahan and Long Tunnel adits were cleaned out, stabilised and extended to prove the reefs at deeper levels

approaching 180m below ground surface. This required a Cameron pump to be erected to de-water some 20m below the lowest adit, the Long Tunnel. The boiler was used to power a 700cfm air compressor for shaft winding, with the rock drills requiring over a kilometre of piping for the airlines. A 10 HB with 400kg stamps was obtained from the Tin Pot TM Co. south of Branxholm together with a Gates crusher, berdan pan, a Wilfley and three Card tables. These were all to be driven by a 36kW Crossley oil engine, which was also required for the dynamo to provide electric lighting to the surface plant and adits.³¹ A battery site had been selected in February 'on the hill behind the engine room' and a water supply obtained from mine drainage and a small creek. As a self-inclined tramway was not adopted to convey ore from the three adit levels to the battery, sections of high timber trestling were constructed in conjunction with long timber chutes, requiring the ore to be re-handled five times at high cost. All this infrastructure had been completed within nine months of secretary Lane's visit. The first crushing of 250t commenced early in October but the result, yielding only 11g/t, was disastrous. Just over a month later, closure of the mine was announced and 60 men retrenched.³²

Prospecting on the various reefs eventually resumed the following year and Richard Eddy from Bendigo was appointed mine manager in August. Further trial crushings were undertaken in 1926 before Michael Hannah, a director of the Ringarooma United Co. with a major shareholding, gained control to operate as Hannah's Syndicate. The April 1929 flooding resulted in extensive damage to surface infrastructure, levels rising to 2m above floor level in the engine house and 4m on the lower level where the processing tables were located, 'one building was carried from its foundations and lodged almost intact about 300 yards away'. An estimated damage bill of £2,000 to the overall development that had cost some £20,000 was reported. The recovery remained incomplete however, at the time of Hannah's death in June 1930. The Ringarooma United GM Syndicate was formed in October 1930 to effect ownership transfer from Hannah's estate when it was revealed that 317kg gold had been produced at the Ringarooma and New River batteries since the Ringarooma mine had commenced operation at an average grade of 29g/t.³³

A final ownership change occurred in February 1936 when Bernard McCann's Mt Victoria Reefs Syndicate acquired control and worked the leases in conjunction with the Long Struggle mine. Mining was again suspended in December 1938 but the battery continued to crush for the Long Struggle and Mt Victoria leases until at least September 1940.³⁴

Summary of Gold Production

A total gold production from reef mining of around 700kg has been estimated for the Alberton field by MRT. Allowance was made in the total figure for unrecorded recovery, particularly for the smaller operations and those worked by private syndicates. No production is indicated for the Premier mine. Production totals for the major producing operations calculated from accounts of shareholders meetings and periodic figures published in newspapers are compared with the MRT data in Table 1. The

published data for the Ringarooma (combined with New River) and Mt Victoria mines indicates that the MRT data underestimates the total mine production by around 11 per cent and 25 per cent respectively. The comparison also indicates that the field total is underestimated by about 20 per cent, a total field output of at least 0.85 tonnes being suggested as a representative figure.³⁵

Table 1: Summary of Gold Production

Mine	Production (kg)	
	Mineral Resources Tasmania	Published Data
Ringarooma	255.0	317.0 combined to October 1930
New River	130.8	
Mt Victoria	145.8	162.6 to December 1886 183.0 to February 1889
Mercury	12.4	54.2 to July 1889
New Mercury	46.0	N/A
Long Struggle	22.1	20.0 to May 1906
Premier	N/A	17.6 to July 1886
Ragged Youth	7.3	N/A
Total	619.4	754.4

Source: Mineral Resources Tasmania, Department of Infrastructure, Energy & Resources.

Conclusions

A review of the Aliberton goldfield by MRT states that it is ‘characterised by the highest density of relatively gold-rich lodes among the northeast goldfields’, over 100 lodes being worked intermittently between 1883-1940. The lodes were limited in extent however, both along strike and with depth, requiring continuous prospecting and extensive underground development to prove reserves. Practically all mining activity was limited by the water table to shallow depths of less than 60m, as the installation of costly pumping equipment was generally beyond the resources of the poorly-financed companies. The financing of a disproportionate number of treatment plants erected on the field relative to the gold output was a criticism by Government geologists. This was valid during the initial decade of development when 43 head of stamps serviced a field where the combined output had fallen to less than a kilogram between 1888-1891 (see Table 2). Later events, such as the destruction of battery houses by fire, ensured that a maximum of 15 head of stamps was operational on the main part of the field, the New River battery being excluded as it serviced the geographically isolated New River area at the northern end of the field. Although the adoption of water-powered batteries supplemented by small steam engines offered considerable cost savings over the sole use of steam power for the first phase of mining up to 1910, construction costs could have been reduced significantly by adopting pelton wheels instead of costly, large-diameter waterwheels associated with high fabrication, transport and site labour costs. This lesson had been learnt when the revival proceeded after 1920, but by that time the Aliberton goldfield had acquired a poor reputation for sustainable production that deterred local investors. The impulsive move by the poorly-advised South Australian

investors to commit £20,000 without undertaking systematic exploration, ensured that this was to be the last significant development on the goldfield.³⁶

Table 2: Summary of Batteries on the Mount Victoria Goldfield

Battery	Operating Period	Power Source	Number Stamps	Comments
Premier	10/1883 – 4/1899 4/1899 – 9/1900 12/1905 – 1909	W W/S W	10 16 5	6HB from Mt Victoria 4/1899 Battery shed burnt down 9/1900
Mt Victoria	2/1884 – 10/1898	W	18	Steam powered until 1/1885
Mercury	4/1884 – 6/1892 7/1898 – 3/1905	W W	15 10	15HB to Derby GM 6/1892 Battery shed burnt down 3/1905
Alberton	1/1897 – 9/1899	S	10	
New River	8/1899 – 1909 6/1936 – 1938?	S P	12 5	12HB from Mt Victoria Different site to earlier one
Long Struggle	1901 – 1907 1922 – 1926 6/1931 – 1937	W W P	5 5 5	Machinery site re-located 1922, flood damaged 4/1929
Ringarooma United	5/1924 – 1940	O	10	Last operating on field

Notes: Power Source - O = oil engine, P = pelton wheel, S = steam engine, W = waterwheel.

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Endnotes

¹ J. Taheri, 'Northeast Goldfields – A summary of the Alberton goldfield', *Mineral Resources Tasmania Report 1993/34*, p. 2 [hereafter *MRT Report 1993/34*].

² *Hobart Mercury*, 17 March 1883, 23 March 1883, 23 May 1883; *Launceston Examiner*, 4 May 1883, 12 May 1883, 21 November 1883.

³ Bottrill, *et al*, 'Gold in Tasmania', *Geological Survey Bulletin no. 70*, Mineral Resources Tasmania, 1992.

⁴ *Hobart Mercury*, 17 March 1883, 23 March 1883, 1 December 1883; G. Thureau, 'Report on the recently discovered Gold Field at Mount Victoria', *Mineral Resources Tasmania*, OS039, pp. 1-2, May 1883 [hereafter *MRT*, OS039].

⁵ *Tasmanian Mail*, 28 April 1883, 16 June 1883; *Launceston Examiner*, 23 May 1882, 27 June 1882, 11 April 1883, 23 June 1883, 28 November 1883; *Hobart Mercury*, 8 May 1883; *Daily Telegraph*, 7 August 1883.

⁶ *Launceston Examiner*, 7 November 1883, 29 February 1884; *Daily Telegraph*, 28 November 1883; *Launceston Queen Victoria Museum*, CHS35 Salisbury Foundry Collection [hereafter *QVM CHS35*]; *MRT OS037*, May 1883; *MRT*, North Mount Victoria Mineral Chart, July 1894 - July 1920.

⁷ *Hobart Mercury*, 26 October 1883, 31 October 1883, 1 February 1884, 13 February 1884; *Launceston Examiner*, 3 November 1883; *Daily Telegraph*, 8 March 1884, 3 April 1884.

⁸ *Launceston Examiner*, 17 April 1885, 18 April 1885, 27 November 1885; *Daily Telegraph*, 4 September 1884; *Hobart Mercury*, 22 December 1884; *Journals of the House of Representatives, Tasmania* [hereafter *TPP*], vol. 6, no. 59, December 1884, p. 10; G. Thureau, 'Report on the Mount Victoria, Dan's Rivulet, Black Boy and Mangana Gold Fields', *Mineral Resources Tasmania*, OS058, December 1884, p. 7 [hereafter *MRT OS058*]; *QVM*, CHS35.

⁹ *Ibid.*, 23 November 1883, 26 November 1883, 28 November 1883; *Hobart Mercury*, 4 December 1883, 28 May 1884; *Tasmanian Mail*, 27 December 1884; *Daily Telegraph*, 27 May 1885, 20 June 1885; *TPP*, vol. 6, no. 61, December 1884, p. 7.

¹⁰ *Daily Telegraph*, 15 July 1884, 16 August 1884; *Hobart Mercury*, 22 December 1884; *MRT*, OS058, pp. 6-7 and attached plan.

¹¹ *Hobart Mercury*, 22 December 1884.

¹² *Ibid.*; *MRT*, OS058, p. 4.

¹³ *MRT*, OS058, pp. 4 & 7.

¹⁴ *Tasmanian Mail*, 25 July 1885.

¹⁵ *Launceston Examiner*, 17 April 1885, 31 July 1885, 24 October 1885, 29 May 1886, 1 December 1886; *Tasmanian Mail*, 30 May 1885.

¹⁶ *Ibid.*, 3 April 1886, 21 September 1886, 2 December 1886, 9 July 1887, 17 June 1891; *Hobart Mercury*, 10 June 1886.

¹⁷ *Daily Telegraph*, 29 January 1886, 26 February 1889, 1 August 1889; *Hobart Mercury*, 1 September 1887, 7 November 1891; *Launceston Examiner*, 19 October 1889, 21 May 1892, 14 June 1892, 4 November 1892.

¹⁸ *Launceston Examiner*, 19 October 1889, 22 September 1892, 15 October 1892, 28 July 1893, 27 June 1896, 14 October 1898; *Daily Telegraph*, 25 July 1891; *Tasmanian Mail*, 31 March 1888; *Hobart Mercury*, 1 June 1887.

¹⁹ *Ibid.*, 27 April 1896, 30 April 1896, 4 June 1896; *Argus*, 19 August 1896, 23 November 1896, 3 December 1896, 17 March 1899, 5 September 1899, 3 April 1901; W.H. Twelvetrees, 'Report on the North Mount Victoria Goldfield', *MRT* OS155 [hereafter *MRT* OS155], 19 January 1900, p. 15; *MRT* Mineral Chart, North Mount Victoria July 1894 - July 1920.

²⁰ *Walch Almanac* 1895; *Launceston Examiner*, 15 December 1895, 8 May 1900, 30 August 1900, 3 April 1901, 11 June 1901, 21 January 1902, 26 May 1905, 26 July 1905, 28 February 1921; *TPP*, vol. 57, no. 7, May 1907, p. 7 & vol. 61, no. 22, June 1909, p. 34; W.H. Twelvetrees, 'Report on the Mount Victoria Goldfield', *MRT* OS227, September 1904, pp. 8-11; *MRT* North Mt Victoria Mineral Chart July 1894 - July 1920.

²¹ *Launceston Examiner*, 5 June 1896, 9 May 1899, 21 August 1900; *MRT* OS155, p. 3.

²² *Ibid.*, 18 February 1897, 4 May 1897, 20 August 1897, 25 November 1897, 10 December 1897, 14 September 1898, 20 April 1899, 9 May 1899, 6 May 1902; *MRT* OS155, p. 10; *TPP*, vol. 47, no. 13, September 1902, p. 41.

²³ *Ibid.*, 16 November 1898, 29 November 1898, 8 March 1899, 20 April 1899, 23 August 1899, 14 September 1899.

²⁴ *Ibid.*, 15 February 1899, 20 April 1899; *Sydney Morning Herald*, 6 May 1899; *Launceston Examiner*, 25 May 1899, 15 February 1900, 8 May 1900; *MRT* OS155, p. 3.

²⁵ *TPP*, vol. 43, no. 63, p. 29.

²⁶ *Sydney Morning Herald*, 19 July 1900; *Launceston Examiner*, 21 August 1900, 19 September 1900, 6 October 1900, 24 November 1900, 6 May 1902; *Hobart Mercury*, 27 June 1903, *TPP*, vol. 45, no. 4, February 1901, p. 32.

²⁷ *Launceston Examiner*, 16 June 1903, 9 March 1905; *TPP*, vol. 51, no. 22, April 1904, p. 6.

²⁸ *Ibid.*, 24 December 1920; *Hobart Mercury*, 6 August 1920, 19 July 1922, 26 November 1926, 8 April 1931, 28 April 1931, 27 October 1931, 10 January 1937, 21 December 1938, 17 February 1939; *TPP* vol. 85, no. 13, June 1921, p. 6, vol. 89, no. 4, May 1923, p. 4, vol. 123, no. 35, June 1940, p. 31; *MRT*, UR1891-1969, 6 July 1931, pp. 21-22; *MRT*, Plan 718D, Frank Blake, Field Geologist, 1934; *MRT*, Mount Victoria Mineral Chart, March 1939; *Archives Office Tasmania*, NS573/4/1/1/23, 1929.

²⁹ *Hobart Mercury*, 17 January 1923, 13 February 1923, 4 May 1923, 22 June 1923; *Launceston Examiner*, 5 May 1923, 7 August 1923; *Adelaide Advertiser*, 2 October 1923; *MRT*, UR1925/119-29, 18 March 1925.

³⁰ *Adelaide Advertiser*, 20 November 1923.

³¹ A battery box for a 5 HB extant on the Ringarooma United battery site, photographed by AMHA member Greg Dickens in January 1998, is believed to be that obtained from the Tin Pot TM Co. site located approximately 10km southeast Branxholm. A plate on the box is inscribed 'Salisbury's Foundry 1896'. The Tin Pot TM Co. was registered in 1895 and a 10 HB was in use in June 1896.

³² *Hobart Mercury*, 17 April 1924, 14 November 1924, 25 March 1925; *Adelaide Register*, 6 May 1924, 17 June 1924, 12 August 1924, 28 August 1924, 23 September 1924, 10 October 1924; *TPP* vol. 91, no. 3, May 1924, p. 6; *MRT*, UR1925/119-129, 18 March 1925.

³³ *Ibid.*, 26 August 1925, 17 October 1925, 15 April 1929, 2 May 1929, 26 June 1930, 25 October 1930; *TPP*, vol. 95, no. 1, June 1926, p. 6 & vol. 97, no. 4, May 1927, p. 21.

³⁴ *Ibid.*, 27 May 1932, 30 May 1934, 13 February 1936, 21 December 1938, 17 February 1939, 17 September 1940; *TPP*, vol. 123, no. 35, June 1940, p. 31.

³⁵ *MRT*, Report 1993/34, p. 5.

³⁶ Loftus Hills, 'Mount Victoria Goldfield', *MRT*, UR1923/41-84, October 1923, p. 29; *MRT*, Report 1993/34, p. 3.