

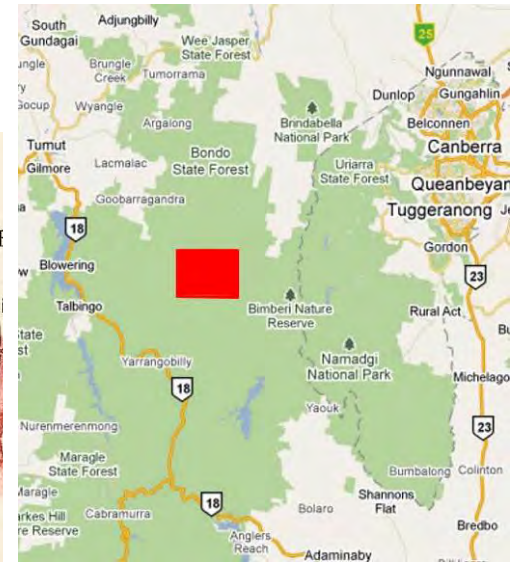
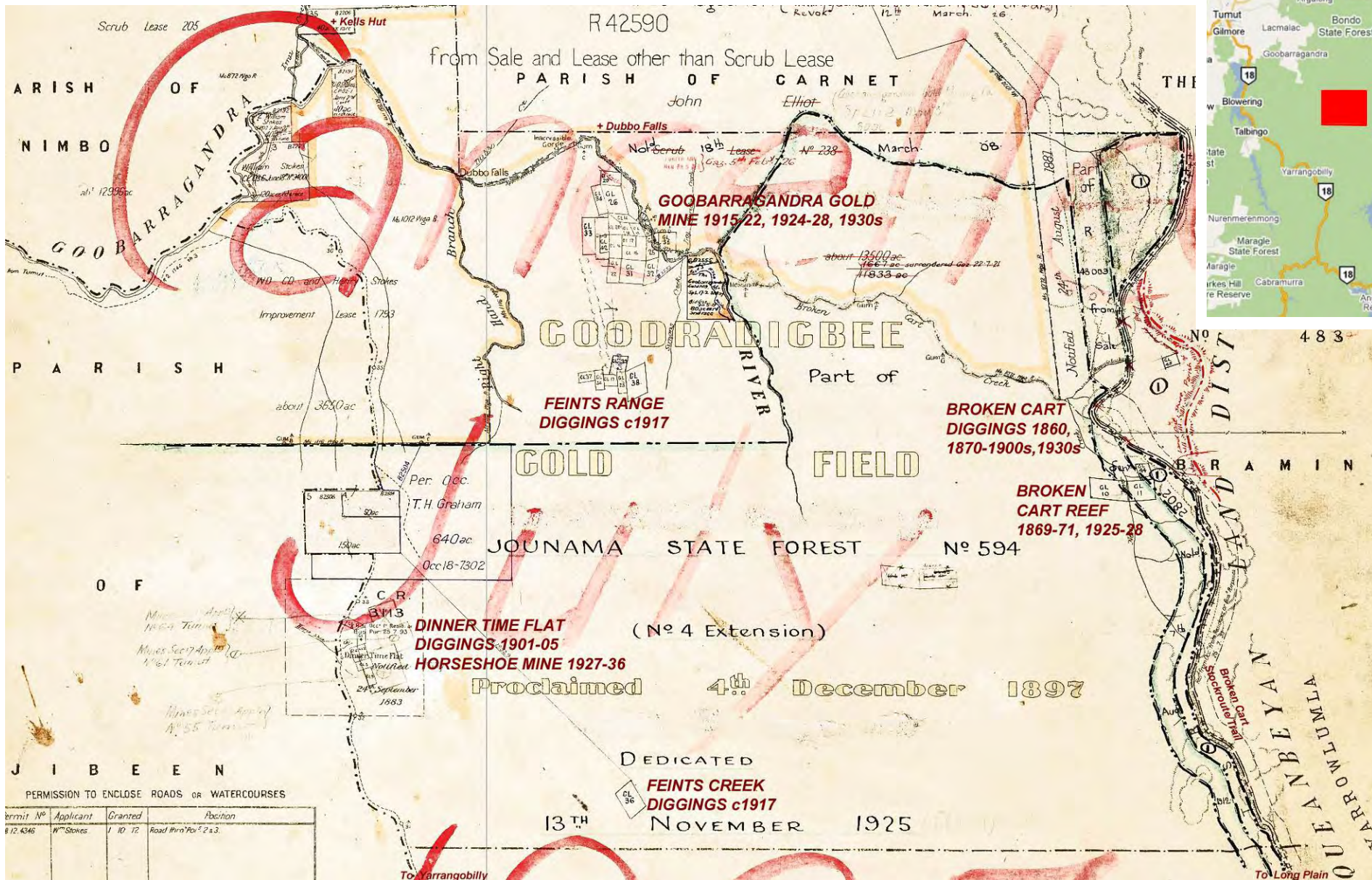
Part of mine record MR1879 & shaft excavation of quartz vein 1985

Working the Upper Goob

A History of the Upper Goobarragandra Goldfields including Broken Cart Diggings, Dinner Time Flat (Horseshoe Mine), and the Goobarragandra Gold Mine (Stokes' or Kings' Mine), Kosciuszko National Park

David Scott March 2011, for the Kosciuszko Huts Association





Location Plan for Gold Diggings in the Upper Goobarragandra Valley, gold leases shown on the Goobarragandra Parish map 3rd Edition 1916-27 (NSW DLPI) & Google Maps thumbnail plan

Introduction

Traditional land of the Wiradjiri, the Goobarragandra River valley is believed to have been first visited by Europeans in the 1830s. By the mid C19th it was part of the Goobarragandra squatting run held by William Atkinson¹. It is unclear as to when the upper part of the valley became used for grazing but it is possible stock were being pastured on the river flats at Broken Cart and westward along the Goobarragandra by the 1850s.

The track from Tumut through Broken Cart appears to have been established prior to the Kiandra Gold Rush of 1860, probably as a means of getting stock into the Long Plain area, and likely followed all or part of an earlier Aboriginal pathway.

In 1868, the Upper Goobarragandra squatting run of 52,200 acres (#246, Eastern Division) was created, bounded by the Fiery Range in the east, and extending from Dubbo Falls south to Peppercorn Hill. Leopold Fane De Salis appears to have been the first lessee², followed by Samuel Moffat from about 1873³. In 1899 the squatting run system came to an end, the runs being offered for freehold selection and carved into smaller scrub leases.

Only a small number of properties would be selected as freehold titles in the Upper Goobarragandra area, all downstream of the current Emu Flat Trail. In 1928, most of the area was included in the Jounama State Forest, and in 1944 it became part of the Kosciuszko State Park. Seasonal grazing continued until 1969, when the area became part of the Kosciuszko National Park.

Over the period 1860-1935, the Upper Goobarragandra was mined for gold. The following describes the three key diggings in the area – Broken Cart, Dinner Time Flat (Horseshoe Mine) and the Goobarragandra Gold Mine (Stokes' or Kings' Mine) – albeit likely that the ranges throughout the area may have been prospected and many creeklines are likely to have been worked for alluvial deposits.

Part 1: Broken Cart Diggings

Alluvial Gold at Broken Cart 1860

Following the discovery of gold at Kiandra in 1859, miners flocked to the high country along a number of routes. The main approach from the north was via Tumut, Talbingo and Yarrangobilly, however from Yass a route came through Brindabella and followed the stock route used by TA Murray in the 1840s up to Long Plain, whilst from Gundagai and Tumut there was an alternative route through Argalong and Broken Cart to Long Plain – along the general alignment of the Broken Cart Trail.

Miners spread south from Kiandra to prospect the valleys of the Tumut and Gungahlin and north to the Murrumbidgee, Goodradigbee and Goobarragandra Rivers. Toward the end of March 1860 one group had success around Broken Cart Flat. Within a few weeks *“nearly fifty persons have set in to work at a place called the Broken Cart Creek, about fifty miles from Yass, on the route to Kiandra. The parties were on their re-turn from the Snowy River [Diggings, ie Kiandra], and the indications of gold being found in the locality stated induced them to prospect. The result was the discovery of a three-quarter ounce nugget, and a quantity of lighter gold. The numbers at work are rapidly increasing”*⁴ . . and by the end of April *“great numbers are going there from Kiandra. 300 persons are already on the creek. Should gold be obtainable in paying quantities, Broken-Cart Creek will serve as convenient wintering ground for a portion of the population from the Snowy.”*⁵ *At this place, some three years since, some miners procured £1000 worth of gold, and the Commissioner*

¹ NSW Gazette various incl 1851 & 1863

² NSW Gazette 1870

³ NSW Gazette 1874 & 1875

⁴ SMH 10 April 1860

⁵ SMH 28 April 1860, as relayed in The Argus 7 May 1860

*predicts great things of this locality.*⁶ The last comment about gold being extracted by miners from Adelong in substantial quantities at Broken Cart two years before its discovery at Kiandra, may be only a rumour as it is not corroborated by other information.

Through this phase, mining is believed to have focused on working the gravel creek beds and banks along Broken Cart Creek (at times referred to as the Goobarragandra east branch) and its tributaries including Never Creek. With several hundred miners present on the goldfield, activity would likely have extended down to the junction of Broken Cart Creek with the Goobarragandra River. Possibly it continued down to the junction with Emu Flat Creek or beyond, as gold washed off the reefs on the Feints Range would have been deposited along this section of the Goobarragandra.

At least one store was established at Broken Cart to cater for the influx, but the numbers of miners was so great that the shortage of food became desperate. *“On Saturday Mr Bulman, storekeeper, left the Broken Cart Creek for Tumut, for the purpose of procuring provisions, which were very scarce, neither meat nor flour being obtainable by the parties digging there. A few teams belonging to Mr Thomas Davis had reached the place on their way to Kiandra. The people asked if there were any provisions for sale upon the teams, and being replied to in the negative, they told the teamsters that they would allow them until next morning to decide whether they would sell the stores with which their drays were laden at a fair price or not, as in the event of their refusing to sell them to a lot of starving men, they would take them by force.”*⁷

The following day, 100 miners are reported to have left Broken Cart for a new goldfield discovered at Micalong Creek⁸, and by the end of May the promise of gold at Broken Cart is being played down in some reports: *“A recent rush had taken place to Broken Cart Creek . . on the Goubaragandia [sic] . . but without much result. . . Broken Cart Creek has proved a failure.”*⁹

Contrasted by a report from June 1860, *“a parcel of gold was brought into town [Kiandra] . . procured by Mr Hayes and party at Broken Cart Creek . . and ascertained to be 22 ozs 16 dwts 6 grs. It is remarkably clean and rich sample, and may be described as granular and angular, leading to the supposition that it has been undisturbed since its first deposit. Competent Judges are of opinion that where gold of this character is found, there is much more distributed close at hand, and . . the gold is even of a better kind than that found at Kiandra.”*¹⁰

A reasonable population appears to have stayed on at the goldfield through the winter. There is no reported building construction and it is likely that the miners' accommodation, along with a few stores and drinking shanties, utilised tents or crude timber and bark gunyahs strewn across the flats and along the creeklines, close to each miners' claim. *“Although, the weather is described as having been very severe at this creek, the population has not diminished. Snow fell on yesterday week, but soon vanished . . The sinking is not deep, and some of the gold brought in bears no similarity in appearance to that which we were shown from the same locality about six or seven weeks ago. The last specimens were decidedly nuggetty, and not angular. They . . were procured from Surface Hill, a small knoll which appears to be in favour with the diggers there, as upwards of three acres have been turned over by a few hands, and with varied success. . . the nuggets [were] brought in . . by Mr George Smith, who has been working on the ground for the last four months.”*¹¹

This is the last report of mining activity at Broken Cart for many years, suggesting the creeklines were soon worked out and the majority of miners departed for other goldfields. A few individual prospectors may have continued to work the area for several years, consistent with the occupation pattern at other mining locations.

Broken Cart Reef 1869 - 71

The 'granular and angular' form of the specimen reported in June 1860 indicates it came from a surface

⁶ SMH 9 & 12 May 1860

⁷ SMH 3 May 1860

⁸ SMH 3 May 1860

⁹ SMH 28 May 1860

¹⁰ SMH 23 June 1860

¹¹ SMH 8 September 1860

outcropping of a reef. Whilst some shallow and opportunistic excavation of reef outcrops where gold was clearly visible may have occurred in 1860, the lack of available crushing plant to extract small particles of gold from within the quartz resulted in the early miners seeking the more-easily won gains of extracting loose gold from within river gravels.

In July 1869, mining entered a new phase centred on reef mining: *“a party of Victorian miners have for many months past been prospecting the ranges and gullies . . . one of this party, named Patrick Lynch, called at our Police-office [Tumut], and registered a quartz prospecting claim of the extended area allowed to four miners . . . he admitted that himself and mates had struck a quartz reef that he believed would make their fortunes, but further than this Lynch was rather reticent, and would on no account exhibit his specimens. I have since seen a flake . . . procured at a depth of about thirteen feet . . . they believe the stone will yield from 10 to 15 oz per ton.”*¹²

*“The discovery was made about a fortnight ago by some parties from the Murrumbidgee River [possibly Tantangara Creek or 12-Mile Diggings], who found quartz thickly impregnated with gold cropping up on the surface . . . they immediately communicated with some of their neighbours on the river, who, we understand, have joined them in sinking a “prospector’s shaft”. The reef can be reached by the route known as Fisher’s Road.”*¹³

*“The reef is situated . . . three quarters of a mile from the workings on the creek. The sinking is remarkably easy, the reef running through a sort of decomposed granite and shale. The reef struck in the prospector’s claim, Lynch and party’s, is from nine inches to two feet wide, and McCarty and Co’s party in No. 1 claim, are also on the leader. Others are sinking, and as a proof of the easy nature of the work we may mention that two men got down about forty-six feet in less than five days. There are now twenty-eight miners at work there, and more expected to arrive”*¹⁴ . . . *“the trial crushing of quartz from Lynch’s Reef, near Broken Cart Creek, which has just been completed at Mr Edwards’s machine, Adelong, shows very good results, 17 cwt of stone having yielded 4 oz 3 dwts. Allowing for the usual waste, this return shows an average of rather better than 5 oz to the ton.”*¹⁵

In October two or three claims were reported to be working the reef, with some 20 tons of excavated ore awaiting processing¹⁶. The question of how to process the ore would take a year to resolve. Cartage of the ore to Kiandra by dray for processing was offered at £4 per ton¹⁷, which equated to about half the likely profit. Cartage to Adelong must have been cheaper, as this is where all the testing appears to have been undertaken, further assays showing between 1oz and 4oz of gold per ton of ore¹⁸. Erstwhile, the excavated ore was simply stockpiled onsite – put ‘at grass’.

The major problem hampering the miners at the close of 1869 was water seeping into the shafts beyond a depth of 12ft (3.6m). *“The miners residing on the Broken Cart quartz reef have been engaged for some time past in carrying out an extensive tunnel, for the purpose of drawing off the superabundant water in their claims. It is already driven over 226 feet, and they hope in a few days to strike the channel of the quartz vein in No 1 east, when the work will be proceeded with by that party to the prospectors’ claim [Lynch & party’s], who will carry it thence to the summit of the mountain. By means of this tunnel they hope to be able systematically to carry on their operations, without having to contend against an over-supply of water.”*¹⁹

In July 1870, a new reef was reported to have been discovered close to the one being worked at Broken Cart Creek, *“close to the reef which has been known there for some time.”*²⁰

By August 1870 a vast quantity of ore was stockpiled, sufficient to induce Edwards’ Brothers of Adelong into

¹² SMH	4 August 1869
¹³ SMH	16 August 1869
¹⁴ SMH	17 August 1869
¹⁵ SMH	14 September 1869
¹⁶ SMH	12 October 1869
¹⁷ SMH	26 October 1869
¹⁸ SMH	7 & 28 December 1869
¹⁹ SMH	26 January 1870
²⁰ SMH	20 July 1870

shifting a quartz crushing machine – romantically named ‘Lady Jane’ - and wash table to Broken Cart. Three major claims appear to have been actively mining the reef: ‘Prospectors’ worked by Lynch & Party, ‘No1 East’ worked by Pollock, Dent, Fitzgerald & Co, and ‘Morning Star’. Lady Jane appears to have been used to process the ore from all claims on a rotational basis, at a cost of about £10s per ton.²¹ The first crushing of 48 tons of ore, from ‘Prospectors’, produced 101 ounces 15 dwts of gold.²² Before the end of September ore had also been processed from ‘No1 East’²³ and yields had improved to 6 and 7oz of gold per ton.

During the first week of October “a cake of pure gold, weighing 300 ounces was brought from Broken Cart Creek Reef” into Tumut.²⁴ This was probably from Lynch and party’s claim, which appears to have been the most productive at Broken Cart. The following month “another parcel of gold arrived yesterday evening from the prospecting claim of Messrs Lynch and Co, at Broken Cart Creek, per private escort, containing two splendid cakes of amalgamated gold, weighing 188 oz. The party stayed in Tumut last night, and took their departure this morning with their treasure, to deposit it in the Bank of New South Wales, Adelong.”²⁵

In mid-October another quartz reef was discovered by Griffiths and Co, within a mile and a half of the existing reef.²⁶

December 1870 marked the peak of mining activity on the reef: “The prospector’s on Lynch’s reef are at present raising some very fair stone from an eighty feet level; they are also crushing now their last paddock of stone of which only about eight tons are left. The Morning Star claim have commenced stoping, and there are altogether about 150 tons to be crushed. A contract has been let on this claim for sixty foot of a tunnel at £2 10s per foot. In Griffith’s reef nothing new has been struck. The prospectors and No 1 East are taking in levels to prove the vein at a depth and drain the water. No 1 West are down twelve feet; they have a leader about three inches thick and little water. Another reef has been struck and called Felix’s reef. The prospectors have about eight inches of stone with some gold to be seen in it. They are sinking, and it is supposed that the vein will improve as they go deeper.²⁷ . . . A crushing of . . . 120 tons of stone from the Broken Cart reef gave 360oz of gold²⁸ . . . belonging to No 1 East (Pollock and Co). This stone goes about 3 ozs per ton. There is nothing new at that place touching the reefs recently discovered, but a good many parties are at work upon them.”²⁹

In February 1871 a trial crushing of about 4 1/2 tons of stone from Griffiths’ reef returned 5oz 5dwts of gold per ton.³⁰ Whilst work progressed on excavating this reef, the other main claims were being wound up and Edwards Brothers were making plans to relocate the Lady Jane: “On Monday last the proprietors of No 1 East, at Broken-cart, brought into town 33 oz of gold, the return from 19 tons of stone. This is the last yield from this once valuable claim that I shall have to record (for the present at least) as the party have abandoned it as worked out, the quartz vein having become very narrow, being enclosed between two walls of hard stone, and offering no inducements to continue operations. The Lady Jane crushing machine is now engaged in reducing stone for the Prospectors at this reef, and when this is concluded the machine will be taken down and removed to Murphy’s reef, at the Micolong [sic] Creek.”³¹

In May 1871, a quantity of the ore from Griffith’s reef was carted to Kiandra, where it yielded 7 oz 10 dwts to the ton. Some discussion in the press occurred around the relocation of a crushing plant owned by Mr Carmichael from Kiandra to Broken Cart³², but in the absence of further reports it appears unlikely this eventuated.

By December 1871 the Broken Cart reefs are reported as being abandoned “not because the quartz was poor or difficult to manipulate, but because the water in the shafts prevented them from being worked without

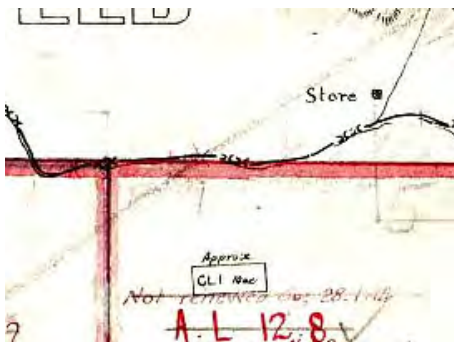
²¹ SMH	2 December 1870
²² SMH	15 September 1870
²³ SMH	28 September 1870
²⁴ SMH	7 October 1870
²⁵ SMH	23 November 1870
²⁶ SMH	19 October 1870
²⁷ SMH	2 December 1870
²⁸ SMH	30 December 1870
²⁹ SMH	21 December 1870
³⁰ SMH	15 February 1871
³¹ SMH	14 March 1871
³² SMH	24 May 1871

powerful pumping apparatus, which the then owners could not afford to purchase.” Alluvial working of the creeklines continued, along with some prospecting for new reefs, including one search expedition funded by “George Campbell, Esq, who is ever ready to advance the district, and any enterprise likely to benefit it . . . advices just received from the parties out, state that they believe they have found a rich deposit of the coveted metal, and promising to send specimens of the stone as soon as fuller investigations have proved a continuance of the veins found.”³³ This appears to have come to nought, and so concluded the two most-prosperous years of mining at Broken Cart.

Prospectors & Chinese Miners c1870s - 1909

Chinese miners are known to have spread north into the Goobarragandra area from the Kiandra Goldfield at some stage during the 1870s. They re-worked the alluvial gravels of Broken Cart Creek, Never Never Creek and the Goobarragandra River, probably as far down as Emu Flat Creek.

To service the diggings along the Goobarragandra, the Chinese are reported to have cut a foot track from Long Plain down Broken Cart Creek to the Goobarragandra..³⁴ Little is recorded of the Chinese activity in the area, and it could have commenced as early as the 1860s.



Gold Lease 1 and Store/shop shown on 1903 parish map.



GL44 lease plan showing the 1928 Syndicate's plant site

Two reports suggest Chinese occupation of the area from the mid 1870s to the late 1900s: an 1876 report of ‘Peter Ah Tin and others’ were issued a gold mining lease (#75-1) for 4 acres “near Broken Cart”³⁵, and a 1909 report on the deceased estate of Peter Chow Ting “late of Broken Cart, via Tumut”.³⁶

Chinese miners typically employed simple manual methods such as shoveling material into sluice boxes or ground sluicing sections of bank using water diverted through racelines. They probably traced the alluvial gold in the creeks to their point of origin – quartz reefs on the hillsides above the rivers – however they appeared to have lacked the technology or investment capital to tunnel underground and crush the quartz to extract gold. Across Kosciuszko NP, Chinese miners appear to have worked exclusively on processing alluvial gravels, be it river banks or old tailings, rather than reef mining, and it is highly likely that most evidence of the 1860s creekline workings was substantially destroyed by later Chinese activity.

By the late 1890s European miners were also prospecting at Broken Cart, including John Venables, who applied for a lease in 1896 (refused). From 1900-1902 John C Dunn had gold lease GL1 at the site of the 1870 tunnels³⁷, and the press reported “operations have been resumed at the famous Broken Cart reef”.³⁸

Parish maps show a ‘Store’ (shop) operating at Broken Cart³⁹ around 1900. This may have been built to serviced miners on the reef but was more likely established to service the Chinese.

In 1906, A Pethur (Arthur Pether?) applied for a mining lease at Broken Cart (refused)⁴⁰. Chinese mining activity and isolated prospecting at Broken Cart appears to have phased out by the First World War.

In 1925 George Harold Bell, M de la Poer Beresford(?) and GW Holdship formed the Broken Cart Gold Mining Syndicate and acquired several leases over the reef at Broken

³³ Queanbeyan Age 14 December 1871, quoting the Town & Country Journal
³⁴ May, Geoff pers comm, based on contact with (ANU?) researcher undertaking study c1985
³⁵ SMH 16 March 1876
³⁶ SMH 24 March 1909
³⁷ Lease plan GL1
³⁸ SMH 15 October 1900
³⁹ Parish map Goobarragandra Ed 2 1903
⁴⁰ Lease plan GL1

Cart (GL10 & GL11),⁴¹ with a view to reopening the tunnels and searching for new reefs. Bell was to spend many years mining in the mountains, seeking to reactivate old reef workings at Broken Cart, Nine Mile and the Grey Mare Mine. Over the years, Bell worked the system of mining grants through numerous successful applications, which probably brought in more money than his mining returns as his schemes often seemed overly-ambitious, ill-planned and similarly fated. At Grey Mare he spent more resources building a road than digging for gold, the three stamper batteries he brought in were never erected, and when he left his son Charlie at the mine as a winter caretaker, Charlie returned when provisions ran low to find he hadn't been paid and his father had abandoned the Grey Mare project and gone off on another venture!⁴²

Work at Broken Cart was slow to start with “no work done on this lease” by December, which was noted as comprising “old tunnel and numerous old shafts extend along line of reef for a distance of 700 ft, varying in depth from 100-130 ft on a mineralised quartz reef 6” to 2 ft in width. Reef said to carry 9 oz gold per ton”.

Through 1927, with the help of mining aid, they commenced “driving the main tunnel . . . 3 men employed”,

and erected a hut⁴³ and a crushing plant - a 3-head stamper battery, 6 ½ hp (Hornsby?) oil engine, a #5 (Wilfley?) wash table - in a clearing just north of the tunnels (GL44).⁴⁴

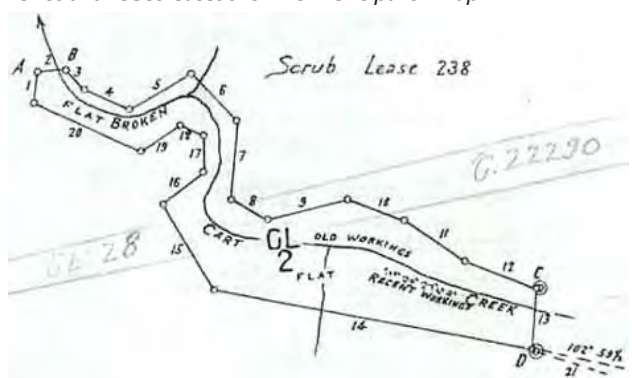
The Syndicate excavated a new tunnel 175 ft through decomposed granite to intersect the reef below the level of the 1870s tunnels. The first 3 tons of ore excavated yielded a pitiful 3 dwts of gold per ton⁴⁵ – about 1/20th of what was economically viable. They continued working into 1928, with little improvement in return “prior to the abandonment of the Broken Cart Mine near Brindabella, the Broken Cart Gold Mining Syndicate obtained 4 oz of gold, valued at £12, from 7 tons of ore.”⁴⁶

During the course of its operations, the Syndicate had also acquired a small lease in the headwaters of Happy-Go-Lucky Creek (GL45),⁴⁷ where they are believed to have undertaken some exploratory prospecting.

The final recorded mining activity at Broken Cart occurs in the 1930s. In February 1931, AJ Harris applied for a 15 acres lease (GL2) along the creek at the site of earlier workings “for gold dredging” although this was refused 14 months later⁴⁸. In February 1935, TH (Tom?) Taylor applied for the same lease and then a reduced lease of 4 acres over part of the same area (GL28). Taylor appears to have spent just one season reworking the gravels along the south bank of the creek; the lease being voided in 1936.⁴⁹



1920s and 1930s leases shown on 1926 parish map.



GL2 lease plan showing old and recent workings as at 1931

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| ⁴¹ Mines Dept | GL10, GL11, GL44 lease plans |
| ⁴² Charlie Bell | pers comm 1991, interview by DScott and CSmith |
| ⁴³ Jack Bridle | pers comm. 1993, interview by HHill and LEvans |
| ⁴⁴ Mines Dept | Mine Record MR1879 |
| ⁴⁵ Mines Dept | Annual Report 1926 |
| ⁴⁶ Mines Dept | Annual Report 1928 |
| ⁴⁷ Mines Dept | GL45 lease plan |
| ⁴⁸ Mines dept | GL2 lease plan |
| ⁴⁹ Mines Dept | GL28 lease plan |

Present Remains - Broken Cart Diggings (area yet to be subject to field survey)

Two distinct types of mine working occurred at Broken Cart:

1. Alluvial working of the Creek and its tributaries

Likely to be extensive working of creeklines and adjoining gravel banks by ground-sluicing methods. Records describe evidence at the junction of Broken Cart and Never Never Creeks, extending a short distance up Never Never Creek, and on Broken Cart Creek about 1.2km downstream of the junction.

2. Reef Mining

Reef mining activity is concentrated on the ridge 1km due south of Broken Cart Flat. A field survey conducted here in 1971 identified:

- the remains of three tunnels on the east of the ridge – collapsed entrances, tramway embankments and spoil heaps;
- a succession of shafts ascending from the tunnels to the crest of the ridge.

Historic plans indicate the small clearing ~200m north of the tunnels was the site of the quartz crushing plant in 1935. It is unknown where the 'Lady Jane' battery was located in 1870-71 – there would be substantial quartz gravel left at this location.

The gold lease plans issued suggest there may be evidence of prospecting (possibly test pits) on the west face of the ridge 600m west of the tunnels, and in the headwaters of Happy Go Lucky Creek.

Buildings: The only buildings recorded as being built at Broken Cart are:

- the c1890s-1910 Store (Shop) located on Broken Cart Flat in the vicinity of the junction of the Broken Cart and Feints Range Trails. The parish map showing the Store's location is very sketchy, it appears likely to be located within 30m of Happy Go Lucky Ck as it flows south into Broken Cart Ck, but could be pretty much anywhere on the Flat. Construction unknown.
- "Bell's House"⁵⁰ - a hut shown on the c1943 Snow Lease map in the clearing 200m north of the tunnels is believed to date from the 1925 activity, with the location marked by some disturbance, lilac shrubs and gooseberries. Construction unknown.

Up to 300 miners were once accommodated around the river flats in tents or bark humpys, and there were likely some stores or grog shanties in similar accommodation. The area has not been investigated and may contain flattened terraces, fireplaces and other evidence of 1860s, 1875-1900s, and 1930s activity.

Other Features: the two most notable features likely to exist at Broken Cart are:

- (i) The reported Chinese miners' foot track from Broken Cart down to the Goobarragandra River; alignment unclear, likely to depart the lower end of the creek workings where the Feints Range Trail climbs to the west, and follow Broken Cart creek down to the river. Possible that all or part of this track (especially from the Goobarragandra River westward) was rebuilt by the Goobarragandra Gold Mining Company during the 1914-19 period. During the 1980s, it was reported a research PhD was being undertaken on this track and the Chinese Miners, but this has not been uncovered. Not investigated however the likely evidence encompasses: narrow benched terrace and possibly some minor stone embankments.
- (ii) The Stock Resting Paddock at Broken Cart Flat, used to hold stock travelling the Broken Cart stock route from the early C20th to 1969. Not recorded. Likely evidence: change of vegetation (grasses, weeds) and possible remains of fence posts or fencing wire.

⁵⁰ Jack Bridle pers comm. 1993, interview by HHill and LEvans

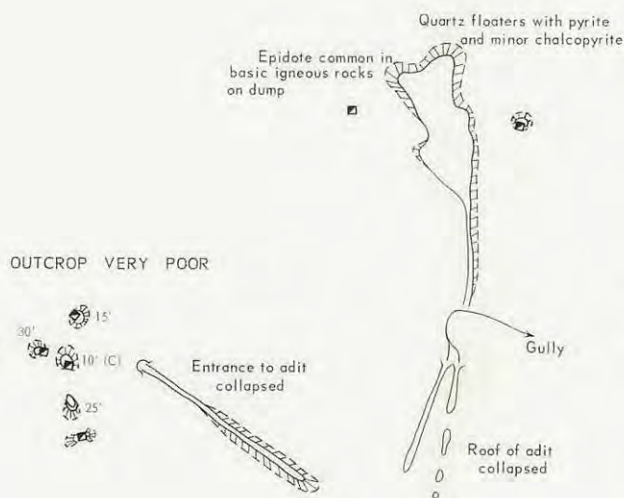
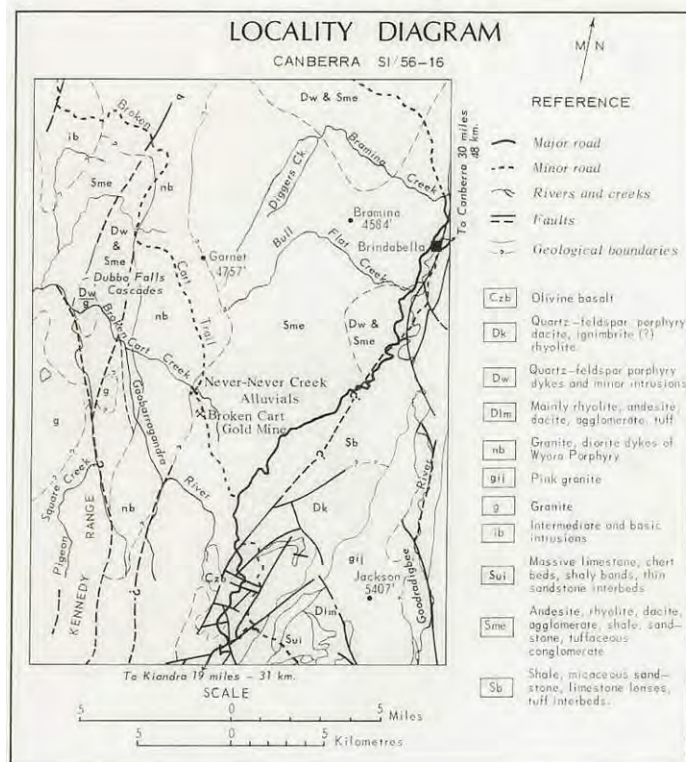
PLAN OF WORKINGS, BROKEN CART GOLD MINE

SOUTH WEST OF BRINDABELLA

CANBERRA

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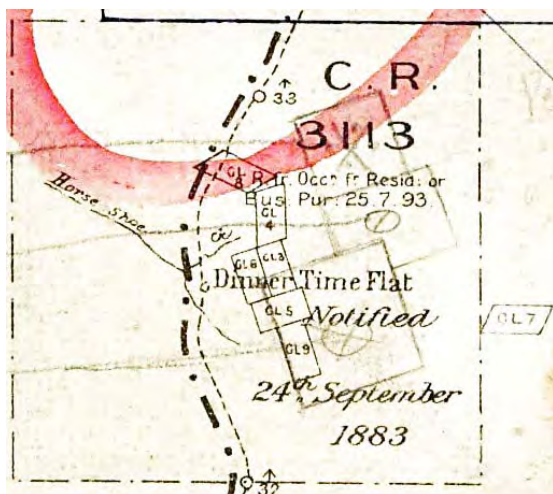
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Geological Survey of New South Wales
Department of Mines
Report by L.B. Gilligan
Date: 16/3/72

6063

Tape and Compass Survey



Layout of early leases from 1916-26 parish map



Later leases from 1926 parish map

Part 2: Dinner Time Flat & The Horseshoe Mine

Little is recorded of the mining activity at Dinner Time Flat or the Horseshoe Mine.

Dinner Time Flat Diggings 1901 - 1905

A bridle track between Goobarragandra and Yarrangobilly Stations via the Andy Andy Range appears to have been established in the mid-late C19th. It may have been an informal (ungazetted) stock route as in 1883 a Crown Reserve was established at Dinner Time Flat. This was a convenient camping point midway along the range, but the area may also have been the site of alluvial mine workings at the time of the Kiandra Gold Rush of 1860.

It appears that evidence of an underground lead was discovered in the headwaters of Horseshoe Creek just east of the bridle track (now the Horseshoe Trail) by James Waters late in 1901. In contrast to the Broken Cart and Goobarragandra gold deposits, which were derived from reefs where the gold occurs in quartz veins, Dinner Time Flat appears to be an extension of the Kiandra Lead, an ancient river bed covered by a layer of basalt now elevated to the crests of the ranges, with the gold occurring as loose particles within gravel deposits.

Waters took up the first lease (GL3 of 4 acres) in December 1901.⁵¹ The following month, James & John McIntyre took up two leases (GL4 & GL5 of 5 acres each)⁵² on adjoining ground to Waters. It is possible that the McIntyres and Waters had been prospecting at the same time and may have even been in the same party.

James McIntyre took up a further adjoining lease (GL6 of 4 acres) in January 1903.⁵³ Waters and the McIntyres worked the area for 3 years, in which time they are believed to have excavated three tunnels into the hillside.⁵⁴

In March 1903 JA Brown took up two nearby leases (GL8 & GL9 of 5 acres each).⁵⁵ Activity undertaken on these leases is unclear but as they were held for two years it was likely to include substantial excavation. It is possible that Brown was also part of the Waters and/or McIntyre parties, as the leases are close to the McIntyre tunnels and most of the leases terminate within a few months of each other at the start of 1905.⁵⁶

Horseshoe Mine 1927 - 36

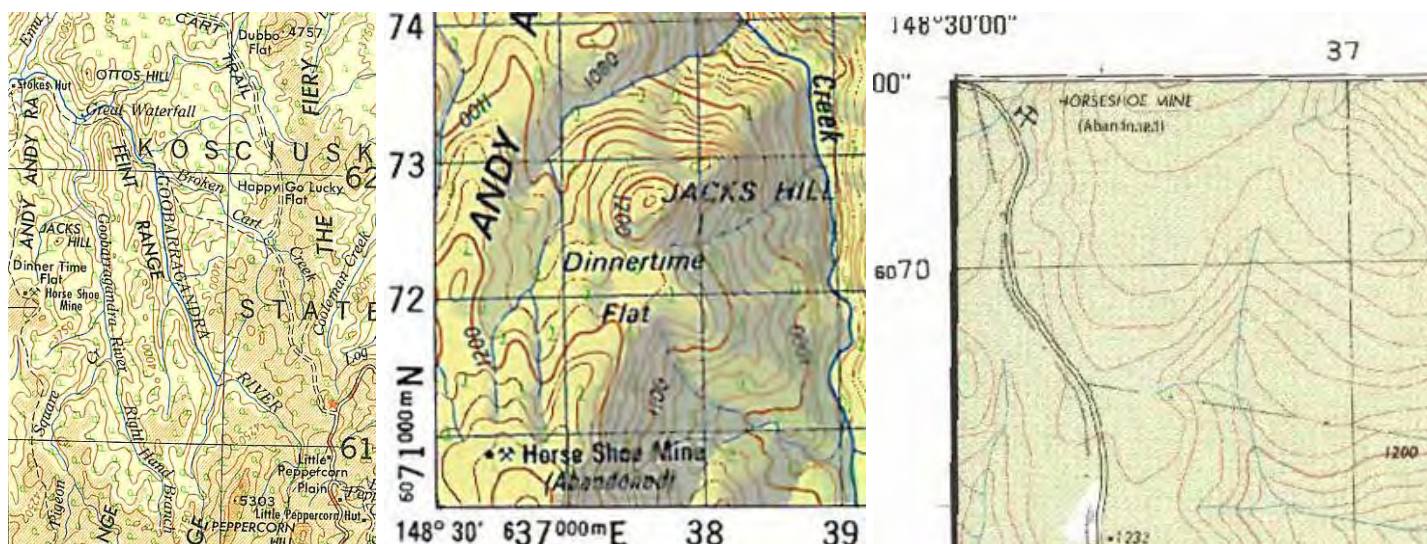
A party led by MM Blood reactivated the mine in March 1927, acquiring two leases (GL46 & GL47 of 25 acres each) over the area worked 1901-05.⁵⁷ By 1928 it was reported "M Blood and party have put in a tunnel a distance of 600 feet under the basalt with the object of cutting the river bed at its lowest level. Rises put up at 550 feet encountered drift sand carrying low gold values."⁵⁸ In addition to the tunnel location, the lease plan shows a shaft and huts on the site.

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|--------------------------|-------------------------------------|
| ⁵¹ Mines Dept | GL3 lease plan |
| ⁵² Mines Dept | GL4 & GL5 lease plans |
| ⁵³ Mines Dept | GL6 lease plan |
| ⁵⁴ Mines Dept | GL47 lease plan shows 'old tunnels' |
| ⁵⁵ Mines Dept | GL 8 & GL9 lease plans. |
| ⁵⁶ Mines Dept | GL3, 4, 5, 8, 9 lease plans |
| ⁵⁷ Mines Dept | GL46 & GL47 lease plans |
| ⁵⁸ Mines Dept | Annual Report 1928 |

The leases terminated in 1930, however they are noted as being the subject of recurring “*Section 17 applications*” from 1932-36, which suggests mining activity may have continued through this period.

Three further Section 17 applications are shown on the parish map about 2km southwest of the Flat leases, possibly the site of activity associated with the Horseshoe Mine.

On several maps a hut is shown remaining at the mine c1970, although as the location of the mine is slightly incorrect the existence of the hut remaining could also be erroneous.⁵⁹



Topo maps showing the mine – RASC 1966 and Natmap 1974 (both show site with hut ~½km too far north) and CMA Brindabella 1:25k 1980

Present Remains – Dinner Time Flat Diggings & the Horseshoe Mine (area yet to be subject to field survey)

Reef mining activity is concentrated on the west side of a flat-topped peak in the Andy Andy Range, 1.5km south of the only prominent clearing on the Horseshoe Trail, which follows the general route of a C19th bridle track from Yarrangobilly to the Goobarragandra Station. NOTE that the parish maps, with their limited topographic detail, indicate the leases and workings are in the vicinity of this clearing and label the area at the clearing as Dinner Time Flat. This is a plotting error; unfortunately later topo maps have copied the label of Dinner Time Flat to various saddles north of the peak. In reality, Dinner Time Flat is a level (and currently a woodland) area west of the peak and extending to a saddle southwest, at the headwaters of Horseshoe Creek. The most prominent type of mine working at this site is:

Reef Mining

The reef workings are believed to comprise the remains of three tunnels along the east of the ridge, located within a 250m strip south of where the Horseshoe Trail kinks noticeably to cross a tributary of Horseshoe Ck.

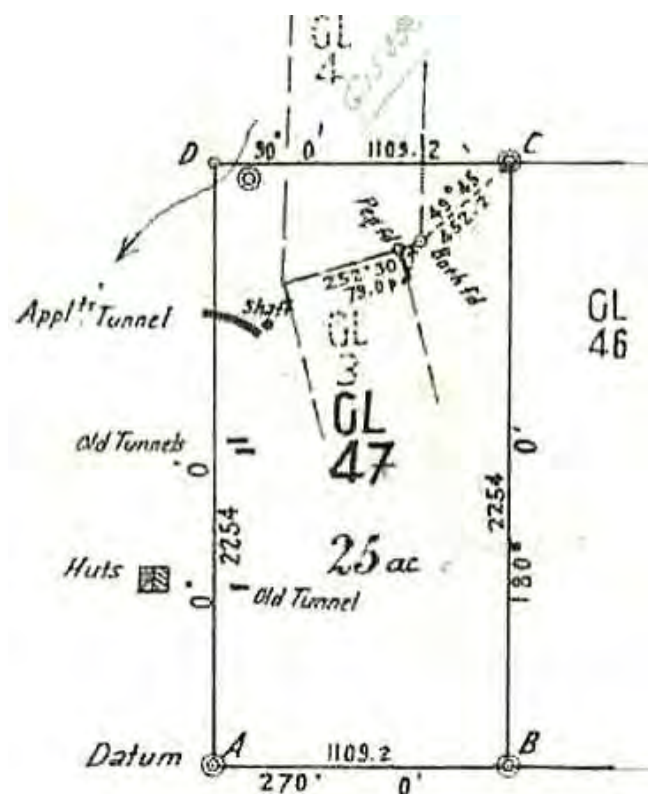
- The main Horseshoe Mine, centred on the 1927-36 tunnel is indicated on the CMA 1980 Peppercorn 1:25k map and Tantangara 1:100k Natmap as being ~50-100m east of the fire trail at about **636320E 6070550N** (note that due to slight changes in the new 1:25k maps, this location is now in the bottom corner of the 2006 Brindabella sheet!).

The tunnel was excavated in an easterly direction into the hillside and extended for at least 55m. It is unknown whether the tunnel entrance has collapsed, but the site will probably include evidence of a tramway embankment leading out from the tunnel and spoil heaps of excavated material. About 30m northwest of the tunnel mouth should be the remains of a shaft.

It is unclear as to whether there was ever a crushing plant at the Horseshoe mine; if so it would be located somewhere between the tunnel mouth and road, possibly a small flat area with quartz gravel evident.

⁵⁹ Topo maps

RASC Canberra 1:250k 1966 & Natmap Brindabella 1:100k Ed1 1974



Extract from GL47 lease plan showing old tunnels and new features

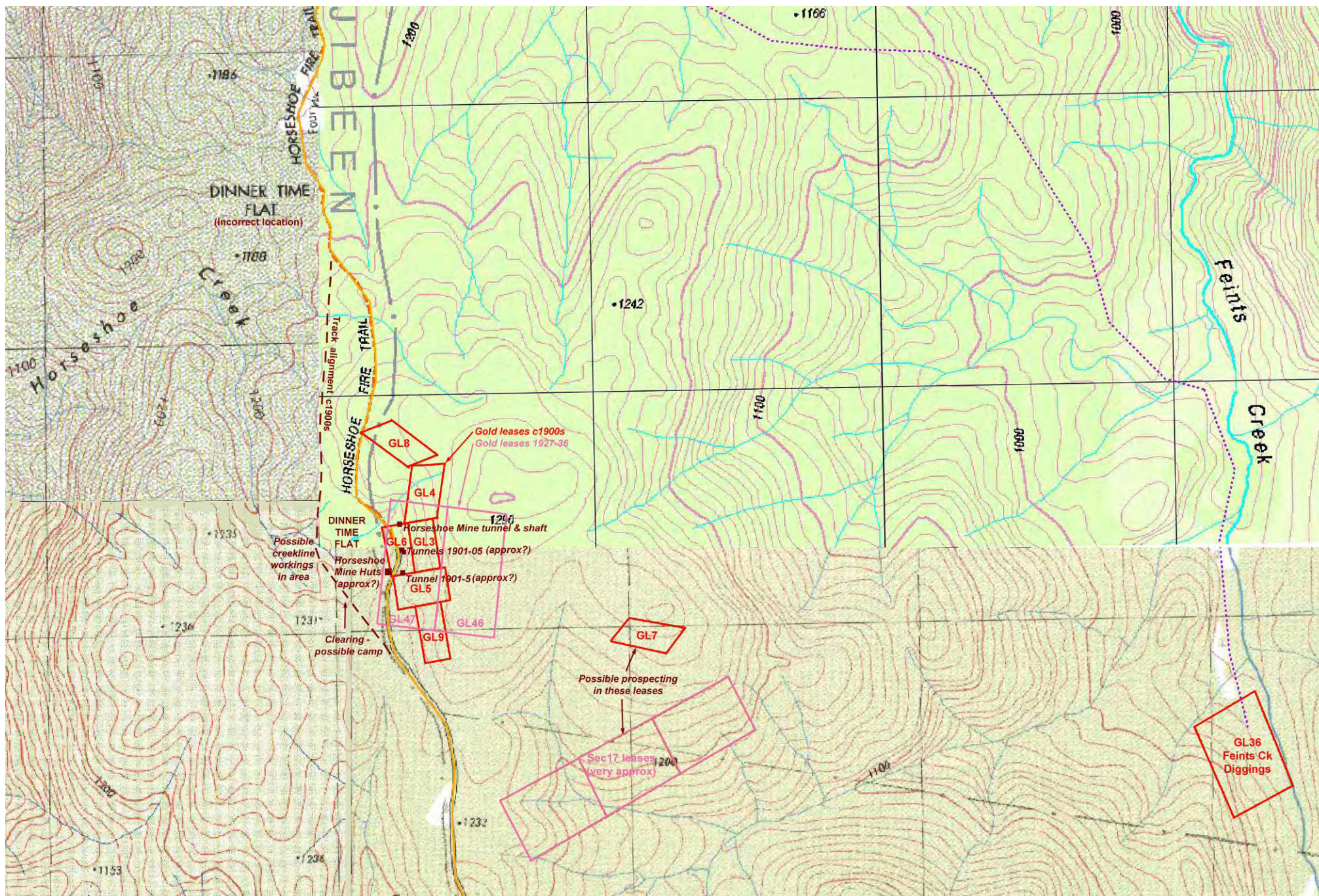
- Two tunnels from the 1901-05 period are recorded to occur about 10-20m apart, at a location about 70-120m south of the Horseshoe Mine (very approx **636300E 6070460N**). These are believed to be located just east of the trail, ie 20-50m. Reasonable spoil heaps should be evident but the trail is a C20th construct that may pass right through the middle of the site (the remains may have been disturbed to get gravel for the road) or the tunnels may be situated just downhill to the west.
- Another tunnel from the 1901-05 period is recorded to occur about 200m south of the Horseshoe Mine (very approx **636300E 6070350N**). Again, this is believed to be located just east of the trail but might be just to the west or disturbed by the trail construction.
- There may be evidence of prospecting for the reef at locations on the south-southeast side of the peak, ie test pits or minor surface disturbances. Several leases were taken out in this area in the 1900s and 1930s, but no mining of them is recorded.

There is no recorded **alluvial mining** of the creeks at Dinner Time Flat, however as this type of mining is what often led to the discovery of reefs, it appears likely that there will be evidence of the creeklines being worked in the vicinity of where two headwater tributaries of Horseshoe Creek meet, approx. 200-250m west of the tunnel sites (very approx **636020E 6070430N**).

Buildings: The only buildings recorded as being built at Broken Cart are 'huts' built during the 1927-36 period, at least one of which is believed to have survived into the 1960s. The site of these is recorded as being ~30-70m due west of the southernmost tunnel. This would appear to put it just east/west/underneath(?) the trail at about **636240E 6070320N**, however the sketchiness of the original map could have an error of +/-100m. There may be evidence of collapsed building materials and/or a fireplace, if not disturbed by the trail construction.

It is unclear whether the 1901-05 miners were accommodated in tents, bark gunyahs or huts. It is possible that evidence of terraced platforms or fireplaces may exist generally across the leases and down on the flats between the trail and Horseshoe Ck. Google Earth shows a small clearing 400m southwest of the mine and 250m west of trail, at **636070E 6070210N**. This area may be clear due to past human activity, ie possible workings or camp site.

Other features: the c1900s bridle track followed a lower route around the peak and across the headwaters of Horseshoe Ck about 200-250m downstream of the existing trail. 1-2 possible alignments appear visible on Google Earth, 150-200m due west of the trail (very approx **636080E 6070450N**).



Site Plan of Dinnertime Flat Diggings & the Horseshoe Mine - site features overlain Brindabella/Peppercorn/Blowering/Talbingo 1:25k topo maps (base data © NSW DLPI 2006)

Part 3: Goobarragandra Gold Mine

Stokes Brothers Prospecting the Goobarragandra 1902-1915

In 1902-03, the Stokes family moved to the Goobarragandra valley from the Temora Goldfield, reportedly using wheelbarrows to carry their possessions⁶⁰. They acquired by means of selection a number of blocks far up the Goobarragandra valley, opposite the confluence of Emu Flat Creek. Charles ('Charlie') acquired portion 1 and built a hut. Brother William ('Bill') acquired portions 2 and 3, building a hut on 2⁶¹. Together with another brother, Harry (or Henry?), Charlie and Bill acquired Improvement Lease 1793 of 3650 acres, extending 6km south of Charles' portion 1 on the west bank of the Goobarragandra River and Feints Creek.⁶²

Aside from running stock on the lease, the Stokes' brothers appear to have spent considerable time reworking alluvial deposits in the river and prospecting the area. Legend has it that Bill stumbled across the first reef above the Goobarragandra whilst looking for missing sheep⁶³. Dept of Mines records suggest they may have been active as early as 1904 "There are several men prospecting quartz reefs [in the Tumut Division] . . . alluvial gold was obtained principally from the Goobarragandra and Adjungbilly by numerous parties of men, who only worked at irregular intervals."⁶⁴

In about 1906 "a 4-head stamp battery was erected by the Messrs Stokes near their homestead . . . and this has been employed intermittently crushing small parcels of stone obtained from the reefs in the vicinity."⁶⁵ Thus the Stokes appear to have been working a number of reefs in the surrounding ranges and transporting the ore by packhorse back to Bill Stokes' homestead for processing. Subsequent mining lease applications suggest the reefs being prospected by the Stokes in the period 1906-1915 include locations along Feints Creek, atop the very crest of Feints Range, and the east side of Feints Range above the Goobarragandra. The brothers are credited with cutting a bridle track from Bill's homestead along the Goobarragandra to the flats near Broken Cart Creek⁶⁶, however this was more likely the re-opening of an earlier Chinese miners' foot track.

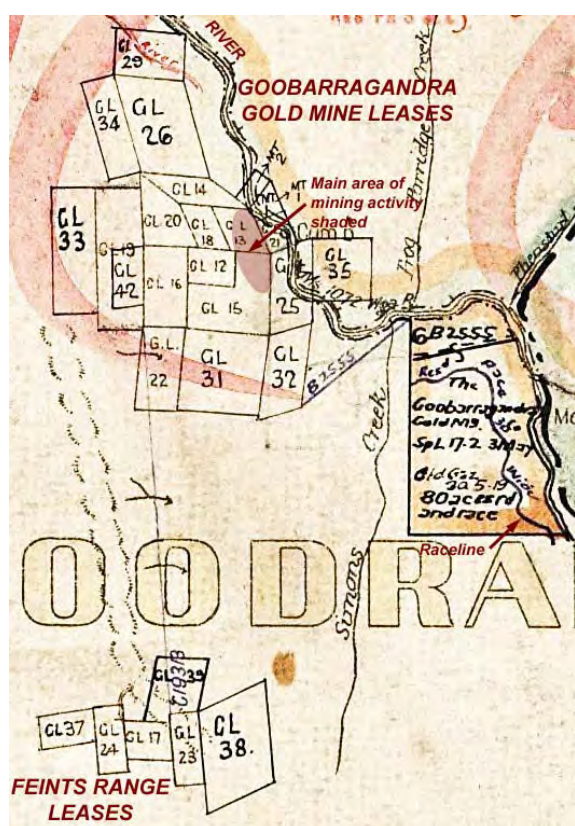


Grazing lease and Stokes' family freehold selections, 1903-16 parish map. Shows two plotted alignments for the river.

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|---------------------------|--|
| ⁶⁰ Hill, Harry | KHA Newsletter # 1994 & MR1879 |
| ⁶¹ Lands Dept | Survey plans of Portions 1, 2, 3 Parish of Goobarragandra |
| ⁶² Lands Dept | Goobarragandra Parish map Ed 2 1903 |
| ⁶³ Hill, Harry | KHA Newsletter # 1994 & MR1879 |
| ⁶⁴ Mines Dept | Annual Report 1904 |
| ⁶⁵ Mines Dept | Annual Report 1916, Report by JB Jacquet on the Goobarragandra Goldfield |
| ⁶⁶ Hill, Harry | KHA Newsletter # 1994 & MR1879 |

By 1907 "Prospecting has steadily proceeded at the Goobarragandra, and one or two reefs are said to be opening up well. HT Dodd . . [is] erecting a battery and cutting a water race. W Stokes crushed 60 tons for a yield of 30 oz, valued at £113. The reef averages 6 inches in width and the chutes of gold have proved irregular in occurrence."⁶⁷ The location of this mining activity is unclear, although the description of Stokes' reef bares a resemblance to those at the latter site of the Goobarragandra Gold Mine.

Downstream at Lacmalac the Stokes formed a syndicate in September 1913 to work an old reef "The Lacmalac Gold-mining Company (no liability) has been registered, with a capital of £6250 . . directors are E[dward] Long, Stephen F[rank] Arantz, Sam Solomons, W[illiam] A[llan] Stuart, ME Pettinger, William Stokes, and HJ Ratcliffe. The mine, which is situated about 12 miles easterly from Tumut, was first opened up some 40 years ago, and only partially worked down to about 70 feet. The shoot of payable stone is said to have been proved to be upwards of 600 feet in length and varied from a few inches to 2 feet in width . . shares in the company were largely subscribed for in the Tumut, Wyalong, and Gundagai districts. Mr Henry Stokes has been appointed mine manager."⁶⁸



Gold leases shown on 1916-26 parish map

By October 1914 "the operations of the company have proved the existence of highly payable stone in both Heydon's and Wright's shafts. A first-class battery and plant have been erected on the mine, and crushing operations were started early in October. There are at grass [excavated ore awaiting processing] upwards of 1200 tons of crushing material, which will keep the battery fully employed for at least six or eight months. A new reef has recently been opened up about 50ft east of Heydon's . . about 10 inches wide."⁶⁹ Bill Stokes presently resigned from being a director of the company, probably to develop his interests further up the Goobarragandra.

By 1914, the Stokes' discoveries were promising enough to take steps secure mining leases and establish a company with the necessary capital to tunnel the reefs. In August the Goobarragandra Gold-mining Company is initially registered through the support of the Stokes' old acquaintances at Lacmalac - Sam Solomons, ME Pettinger, and William Stuart..⁷⁰

Between April and June of 1915 Bill and Harry Stokes took up 30 acres of gold leases above the Goobarragandra⁷¹, establishing the site of what would become known as the Goobarragandra Gold Mine, although in the early years it would be known as Stokes' Mine.

In July 1915, the Stokes established the Goobarragandra Gold Mining Company⁷², and by the end of 1915 had acquired 4 more leases of 24 acres around the mine site.⁷³

Feints Range and Feints Creek Workings 1915 - 1917

Between 1915 and 1917, the Stokes brothers also took up gold leases atop Feints Range, 1.5km southwest of Stokes' Mine, and on Feints Creek 6km south⁷⁴. There are no Dept of Mines records or annual report references to either area, suggesting works were probably minor and of an exploratory nature, and neither site has been visited or recorded in recent years. Charles held the single lease on Feints Creek, and the location suggests he may have been reworking alluvial deposits previously worked by the Chinese or testing a nearby

⁶⁷ Mines Dept	Annual Report 1907
⁶⁸ SMH	24 September 1913
⁶⁹ SMH	17 October 1914
⁷⁰ SMH	7 August 1914
⁷¹ Mines Dept	Survey plans of GL 12, 13, 14, 15 Parish of Goobarragandra
⁷² Mines Dept	Mine Record MR1879 and Annual Report 1915
⁷³ Mines Dept	Survey plans of GL 16, 18, 20, 21 Parish of Goobarragandra
⁷⁴ Mines Dept	Survey plans of GL 17, 23, 24, 37 and GL36 Parish of Goobarragandra

quartz reef above the creek. SG Plucknett and RW Kitto also took up leases on the Feints Range in 1917⁷⁵, suggesting this area held more promise - probably having minor quartz reefs running through it - but ultimately does not have appeared viable enough for mining activity to have been pursued on any scale.

Goobarragandra Gold Mine Established 1915 - 16

The Goobarragandra Gold Mining Company formed in July 1915 with £5000 capital across 250 shares. The prospectus of May 1915 identifies the provisional directors as Adam Warden, Samuel Solomons, ME Pettinger, William A Stuart and Henry Stokes. Henry is identified as Mine Manager, with H Ernest A Miller being the Company Manager from its base in Sydney. The Company was intending to take up 21 acres of leases initially, having a contract with Bill Stokes to acquire his initial gold lease of 6 acres for £200.⁷⁶

The basis of the prospectus was the existence of four reefs which *“to date have only been prospected to a limited extent. The work comprises five small holes, excavated on the line of reefs to a depth of from about 18 inches to a depth of 3 feet [450-900mm]. So far only the caps of the reefs have been exposed, but the reefs look solid . . .”*⁷⁷

Samples from the reefs had been assayed, yielding around 7 oz of gold per ton plus some small amounts of silver.⁷⁸ Considering 3-4 oz per ton was a common threshold for viable mining around Kiandra, the returns appeared promising for potential investors.

By December 1915 the Company had acquired 50 acres of gold leases and *“completed the purchase of a 10-head stamper battery and all connections, and it is expected this machinery will be on the Mine early in the new year and the erection of same will be carried out with all possible dispatch. . . since the Mine Engineer’s visit, the lode in No.3 shaft prospects up to 15 oz of gold per ton.”*⁷⁹

Shareholders were provided with a glowing report on the mine prepared by Dr Charles Mulholland, Mining and Metallurgical Engineer and Mining Geologist:

“It can safely be said that the mine is a rich one, and is likely to keep up its promising reputation . . . after a careful examination and study of the lode material in the workings in No1 shaft . . . I think you can rely on about 24,000 tons of stone . . . assuming the average value of this to be in round numbers, £9 a ton, there will be £216,000 worth of stone in this portion alone coming from three veins.

“I would recommend a series of tunnels . . . at 100 feet [30m] or more above one another . . . From the lowest level, the ore would be hauled up an incline to the mill site, say about the level of the [existing] camp. From [adits between] the camp level to the top of the ridge the ore could be sent down a timber shoot to the bin [at the mill]. . . I think a good site among others for a small milling plant, would be on the southern fall of the hill in GL15, the water being brought either by flume or pipeline to the mill site. The mill would be electrically operated . . .

“I made some rough gauging tests . . . with proper turbine installations and suitable electric generators at different points along the river, abundant electric power can be obtained for all needs for years to come . . . I strongly recommend the installation of a small Leffel-Samson or other similar type of turbine to operate the 10-head mill, hauling and pumping plant proposed. . . . The water will require to be delivered to the penstock of the turbine by a ditch, flume or pipeline.

“There are about 80 tons of ore at grass, and more is being raised daily from the three shafts now opened. . . an asset of £1200 to £1500 . . . [currently exists] to realize as soon as the mill is erected. . . it is advisable to put in hand the purchase and installation of suitable plant . . . before the winter months owing to the severe conditions and snow which will seriously impede, if not hang up altogether, transport operations.

⁷⁵ Mines Dept Survey plans of GL 35, 38, 39 Parish of Goobarragandra

⁷⁶ Mines Dept Mine Record MR1879, Prospectus of the Goobarragandra Gold Mining Company June 1915

⁷⁷ Mines Dept Mine Record MR1879, Prospectus – attached Report by HEA Miller May 1915

⁷⁸ Mines Dept Mine Record MR1879, Prospectus – attached Report by HEA Miller May 1915

⁷⁹ Mines Dept Mine Record MR1879, Letter to Shareholders accompanying Report by CA Mulholland Dec 1915



Shafts – shape reflects the narrow width of the quartz vein being mined (D Scott 1985)



"[The Mine] is accessible in two directions, one of which follows the Goobarragandra River from Tumut right to the mine, and another follows the old Broken Cart Road to the head of the left branch of the river [Broken Cart Ck]. The first of these routes is a good road for about 18 miles, then the river has to be crossed, and thereafter the track is very rough up to Stoke's Homestead. From this place to the mine . . . is a bridle track. A good road could be put in by this route but it would be an expensive job. At present all supplies must be packed out to the mine from the homestead, a distance of about 4½ miles. The second route is, I am told, the more accessible . . . will necessitate a road being made from the head of the left branch of the river to the mine, a distance of about 4½ miles . . . it seems that the question of road access will be settled in favour of this route . . ."

*"The supply and quality of timber is excellent both on and around the leases. The installation of a power saw bench is an urgent need. As the climate is severe in winter, wooden buildings will be necessary for the comfort and efficiency of the men. In the mine workings, close timbering and heavy sets will be required as long as the ground is being worked in the decomposed rock."*⁸⁰

Mulholland identifies Bill Stokes, rather than Henry, as the Mine Manager at the time of his visit. Dick Bullock, a one-time employee at the mine, described Bill Stokes as *"a real flash bloke. If he had money he went through it like water. He'd go into Tumut and board at the Royal Hotel. When he was half shot he would light his cigars with £5 notes."*⁸¹

During the summer, the Chief Inspector of Mines for NSW, JB Jacquet, visited the mine and conducted a detailed appraisal of the workings:

"Excluding what are known as the northern leases, four lines of reef – No 1, No 2, 'X' and no3 – have been discovered. They run approximately parallel to each other, trend a few degrees north of northwest, and have an approximately vertical dip."

"No 1 Reef has been proved by a shaft to a depth of 35 feet. I was informed that the reef splits into two parts at a depth of 10 feet, and that the two veins at the bottom of the shaft had been found to be 12 feet apart. The only [surface-level] exposure of the reef was in a shallow trench 20 feet west of the shaft."

"No 2 Reef is about 1 ¾ chains distant from No 1 reef, and underlies slightly to the north. A shaft has been sunk 55 feet. At 40 feet a drive has been carried in along the reef in a western direction . . . the reef in the drive at the shaft has a width of over two feet. Further on it thins to a few inches, and in the end of the drive there is about 18 inches of good ore . . ."

"A drive has also been driven for 30 feet in an easterly direction. This drive could not be entered, but the manager informs me that along half the distance driven, the reef has an average width of 18 inches, but tapers off in the end of the drive to three inches."

"Reef 'X'. This reef occurs between No 2 and no 3 reefs. It was discovered in a later period, and has been exposed in a trench 3 feet deep. [The auriferous vein] is here 6 inches wide."

"Reef No 3 is about 3 chains distant from No 2 Reef. A shaft has been sunk upon the vein to a depth of 45 feet. The reef varies in width from 6 inches to 18 inches and has an average width of about 1 foot."

"Upon what are known as the northern leases, two new auriferous veins have recently been discovered, which are respectively about 5 chains and 10 chains distant in a northerly direction from the main workings upon the"

⁸⁰ Mines Dept

Mine Record MR1879, Letter to Shareholders - Report of Chas. A. Mulholland Dec 1915

⁸¹ Hill, Harry

KHA Newsletter # 1994 & MR1879

field, and I think that if systematic loaming or trenching be carried out, many other gold-bearing reefs will be discovered. The outcrops of these reefs are about a foot wide, and have been exposed in shallow trenches.”⁸²

Work on the northern leases (block 13) commenced in January 1916, where shafts were sunk on two parallel reefs⁸³ and by March a new shaft was being sunk onto a third reef, where “the ore body is about a foot wide . . assayed 4oz 2dwt 1gr gold and 1oz 16dwt silver per ton”⁸⁴



Stamper battery beside track
— doesn’t appear to have been used at this spot, merely erected, and which period this stamper dates from is unclear (D Scott 1985)



During February, 3 tons of the 90-100 tons of ore already excavated, was sent to the Port Kembla Electrolytic Works for treatment and assay. The results were economically marginal - No 1 reef returned 2oz 16dwt gold per ton; No 2 reef returned 5oz 19dwt and No 3 reef, 3oz 15dwt.⁸⁵ Work commenced stoping the most viable - No 2 reef⁸⁶ to extract the ore, whilst the shaft on No 3 reef was sunk to 80 ft over the next 3 months prior to stoping.⁸⁷

Work now commenced on transporting the stamper battery, ore carts, and other equipment into the mine site by bullock teams, including one driven by Dan French of Tumut⁸⁸. It is unclear which route was taken, as a road had not been built, just a hair-raising route cleared through scrub on the steep hillsides. The most likely routes for transporting equipment in to the mine were from the Broken Cart side, either down Broken Cart Creek or Frog Porridge Gully – where a track is shown on the 1943 Snow Lease map.

The proposed provision of electric power for the stamper battery was soon abandoned, probably due to cost, in favour of using a water-driven stamper battery⁸⁹. Levels were surveyed, and during March and April a 2.5 km raceline was constructed under contract from a point 1 km upstream (south) of the junction of Broken Cart Creek with the Goobarragandra River⁹⁰. The retaining bank of the raceline is reported to have been constructed with a flat top to serve as an access track.⁹¹

The stamper battery was to be erected under contract. It was due to be operational by May,⁹² but “the severe winter, flooded creeks, absence of roads, and inaccessibility of the mine have delayed matters beyond all expectation, and it has been difficult to get miners to go to this out-of-the-way locality. . . some 400 tons of ore expected to yield 4 oz to 5 oz to the ton are waiting for treatment.”⁹³

As late as November, it was reported “Owing to the phenomenally bad weather conditions which have prevailed for upwards of six months, all operations at the Goobarragandra gold mine have to a very great extent been retarded, and mill construction has come to a standstill. Until such time as the belting, etc, is landed on the mine, the battery contractor will not be in a position to get the wheels going.”⁹⁴

In October 1916, a William Kershaw sought to get the Goobarragandra Mining Company’s leases terminated for a breach of the labour conditions. Kershaw probably wished to take over the mine; however his claim was thrown out. The case summarised the extent of the company’s efforts: “that the company had in a little

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| ⁸² Mines Dept | Annual Report 1916 & Mine Record MR1879, Report by JB Jacquet 7 Mar 1916 |
| ⁸³ SMH | 7 February 1916 |
| ⁸⁴ SMH | 24 March 1916 |
| ⁸⁵ SMH | 7 February 1916 |
| ⁸⁶ SMH | 1 April & 14 May 1916 |
| ⁸⁷ SMH | 20 June 1916 |
| ⁸⁸ Hill, Harry | KHA Newsletter # 1994 & MR1879 |
| ⁸⁹ Mines Dept | Annual Report 1916 |
| ⁹⁰ Mines Dept | Mine Record MR1879, Letter to shareholders accompanying Report by JB Jacquet 1916 |
| ⁹¹ Hill, Harry | KHA Newsletter # 1994 & MR1879 |
| ⁹² Mines Dept | Mine Record MR1879, Letter to shareholders accompanying Report by JB Jacquet 1916 |
| ⁹³ Mines Dept | Annual Report 1916 |
| ⁹⁴ SMH | 24 November 1916 |



Ball/roller quartz crusher

- this is the angle at which it is used, albeit usually installed on a solid timber stand (D Scott 1985)

more than 12 months spent up to £3000 in connection with the mine. This comprised something like 600ft of shaft sinking and driving - about 400 tons of first-class milling ore was at grass awaiting treatment; the cutting of a roadway for five miles over rough mountainous country to allow of between 30 and 40 tons of heavy machinery to be conveyed to the mine; the cutting of a large water-race upwards of a mile and a half long, and several other minor operations, all necessary to the development of the mine. The machinery was almost erected. The mine, it was stated, was in an isolated position. . heavy rains of the past winter had made it almost impossible to get in supplies . . the management of the mine had done its best to carry out the conditions of the lease, in its own interest, as well as that of all parties concerned."

Crushing of the ore at grass finally in the summer of 1916/17, but only 160 oz of gold was recovered from 180 tons, a poor yield of less than 1oz per ton.

"... there was considerable disappointment over the return, as it is thought that a large proportion of very fine gold was washed from the tables and irretrievably lost in the river..."⁹⁵

The poor return and management incompetence implicit in the above report, would have made the shareholders furious. It appears that Bill Stokes was replaced with WP King as mine manager about this time. King is well-known as the mine manager in later years, and was certainly taking up leases and mining tenements at the mine by early 1918,⁹⁶ at which time the Stokes family is recorded to be mining back at Lacmalac and at Murphy's Reef.⁹⁷

In March 1917 an offer to buy the mine was rejected by the shareholders⁹⁸, who persisted with new initiatives "a low level tunnel was started on the northeast corner of [GL13] and it is now in 100 feet [30m] through hard igneous rock. At 18 feet a reef 10 inches [245mm] wide . . was cut. At 51 feet a well-defined mineralized reef 8 inches to 15 inches wide [200-380mm] was cut, showing heavy copper and iron pyrites, and several assays returned from 8 oz to 19½ oz gold per ton with from 5½ to 11 per cent copper. . . .The total length of the tunnel, to reach the shafts previously sunk on the high ground, will be 700 or 800 feet, and there are indications other reefs will be cut on the way.

"The stamper battery is worked by a 6-feet Pelton wheel, supplying up to 80hp . . . Concentrating tables and machine drills are to be installed . . . a good road is needed for the haulage of machinery, supplies and ore."⁹⁹

In the wake of the published establishment of the mine, other prospectors moved in to take up neighbouring leases around the mine site during 1915-17. These included WG McDonald (GL19), JC Forsstrom (GL22 & 25), I Wall (GL26 & 29), E Wyburn (GL31), H Murphy (GL32), FA Winter (GL33 & 34) and SG Plucknett (GL35)¹⁰⁰. There are no records of major activity or finds on these leases, suggesting they were probably subject to only exploratory prospecting.

In May 1917, the Company took up a special lease (SpL17.2) over 80 acres on the river flats 1 km southeast of the mine for "grazing and agriculture"¹⁰¹. This may have been used to pasture sheep, and possibly for cropping vegetables to feed the miners. A more remote possibility exists that the land was later developed with accommodation huts, sheds or workshops associated with the mine.

In 1918 the Company produced 168 oz of gold valued at £685, a marginal improvement on the previous year.

"the company have been engaged for the most part in driving a low-level tunnel into the mountain on which their leases and shafts are situated. This was continued to an entire length of 181 feet [58m]. . . . A shaft sunk to

⁹⁵ Mines Dept	Annual Report 1917
⁹⁶ Mines Dept	Survey plans of GL 42, MT1, MT2 Parish of Goobarragandra
⁹⁷ Mines Dept	Annual Report 1918
⁹⁸ SMH	28 March 1917
⁹⁹ Mines Dept	Annual Report 1917
¹⁰⁰ Mines Dept	Survey plans of specific GLs Parish of Goobarragandra
¹⁰¹ Lands Dept	Survey plan of Portion 6 Parish of Goobarragandra

a depth of 25 feet on No1 reef in tunnel, 18 feet from the entrance, disclosed an average width of ore of 15 inches, but of low value. As the country is very hard, a compressor with rock drills is being installed at a cost of £1000 . . to be driven by a newly installed Pelton wheel. Five known parallel surface reefs . . should be intersected by the tunnel . . . The shareholders have loyally met all calls for further capital, and as the property appears to be a good one their efforts deserve every success.”¹⁰²

The shareholders, however, continued to be disappointed and their financial support dried up. The following year (1919) the only reported work on the Goobarragandra is some prospecting by WP King & Party¹⁰³. The Company succeeded in obtaining grant funding to continue prospecting in 1921,¹⁰⁴ but as Dept of Mines records make no further reference to the Goobarragandra Gold Mining Company beyond this date, the Company appears to have folded between 1921 and 1924.

Herb Buckley drove a bullock team that was used to haul equipment out from the mine site for disposal.¹⁰⁵

Fits and Starts 1924 - 1950

By 1924, Marmaduke England Pettinger had taken over the mine from the Goobarragandra Gold Mining Company. Pettinger was one of the Company's early directors, and appears to have taken the mine on as a private enterprise, injecting considerable fresh capital and acquiring leases GL12, 13, 14, 15, 16, 18, 20 & 21. The construction of a new road into the mine had commenced, at least in part, prospecting was continuing and preparations were being made to drive a tunnel 250 feet to cut the No2 reef.¹⁰⁶ Tunneling commenced the following year and the race was repaired to operate water-driven plant.¹⁰⁷



Mining tramcar wheels (D Scott 1985)

In 1927 “A little work was done by ME Pettinger at the Goobarragandra mine, and it is understood that a new syndicate or company, with a capital of £2000 is being formed to extend the main tunnel, which is now in a distance of over 300 feet.”¹⁰⁸

Operations waned. By 1928, Pettinger is recorded as only doing “a little prospecting”¹⁰⁹. In 1929, Marmaduke Pettinger passed away. At the time the mine was assessed for its value “when last inspected by me it was equipped with an air compressor and some other machinery . . . It is doubtful whether the machinery if removed and sold would provide an amount more than equal to the cost of dismantling and transport . . . I am of the opinion that the value of £250 given by Mr Stokes is a fair one.”¹¹⁰

The mine appears to have stayed in the Pettinger family, however H Stokes (Harry?) was permitted to work the mine under an option in 1931, from which 24½ oz of gold was recovered through crushing 60 tons of ore¹¹¹. In 1933 F (Frank?) Pettinger took over the lease and recovered 5oz of gold from 27 tons of ore,¹¹² a pitiful return of less than 0.2 oz per ton, which was the last official return from the mine. Marmaduke Pettinger's leases lapsed 1935-38.¹¹³

GC Ashcroft took up lease GL49 adjoining the mine in 1932, but as no work is recorded it appears unlikely anything beyond exploratory prospecting was undertaken.¹¹⁴

Individual prospectors may have unofficially tried their luck in the tunnels and river

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| ¹⁰² Mines Dept | Annual Report 1918 |
| ¹⁰³ Mines Dept | Annual Report 1919 |
| ¹⁰⁴ Mines Dept | Annual Report 1921 |
| ¹⁰⁵ Hill, Harry | KHA Newsletter # 1994 & MR1879 |
| ¹⁰⁶ Mines Dept | Annual Report 1924 |
| ¹⁰⁷ Mines Dept | Annual Report 1925 |
| ¹⁰⁸ Mines Dept | Annual Report 1927 |
| ¹⁰⁹ Mines Dept | Annual Report 1928 |
| ¹¹⁰ Mines Dept | Mine Record MR1879, Letter from Under Secretary of Mines to Commissioner of Stamp Duties Feb 1930 |
| ¹¹¹ Mines Dept | Annual Report 1931 |
| ¹¹² Mines Dept | Annual Report 1933 |
| ¹¹³ Mines Dept | Mine Record MR1879, Letter from Commissioner of Stamp Duties to Under Secretary of Mines Feb 1930 |
| ¹¹⁴ Mines Dept | Survey plan of GL49 Parish of Goobarragandra |



Feints Ck camp site & possible hut location



Track/race embankment south of the mine



Track/race north of the mine (all photos D Scott 1985)

over the following decades. In July 1950 a brief attempt was possibly made to re-establish the Goobarragandra Gold Mine by WH Shooks, although the reference could be to another mine site in the valley:

“At the Goobra Mine, 4 men are employed and a 5 head stamp battery has been erected, driven by a Pelton wheel. When visited the party was giving the plant a trial run.

“Accompanied WH Shooks to the site . . there were some old shallow shafts on the site but the road was that bad that it could only be reached by a heavy lorry or a jeep. It only worked a few weeks and closed down.”¹¹⁵

From 1938 the mine site was included in a 2170 acre annual pastoral lease (PO 38.10), acquired by EW(?) Hughes Pty Ltd¹¹⁶. From 1943 the mine site was included in snow lease block T9 of 4460 acres, and the following year became part of the Kosciusko State Park. GH Harris had the snow lease from 1943 to 1961 (SnLse 43.46 and SnLse 50.141)¹¹⁷ and possibly up to 1968 (PtSnLse 61.6), when RD Lindley appears to have had an annual lease (Pt PO 68.10 &/or 68.38) for the final year of grazing prior to declaration of the Kosciuszko National Park in 1969.¹¹⁸

Present Remains - Goobarragandra Gold Mine (subject to precursory inspection 1985, no detailed field survey)

The following is based on a far-from-complete inspection of the diggings by the author in 1983 and evidence reported by Pearson and Hill.

The most prominent type of mine workings at this site comprises:

1. Reef Mining

Reef mining activity is concentrated on the east-facing ridge above the Goobarragandra River 1.5-2km south of Dubbo Falls. Records indicate:

- At least 8-9 shafts were sunk in the area. The major shaft was 2A, which was sunk to 55' (18m) with a tunnel then put in from the base of the shaft along the line of the reef, with the reef then 'stoped' – ie a progressive excavation upward, sometimes backfilling the previous excavation as you go. Shaft 3A was excavated to a depth of 80' (25m) and records suggest this may have also been stoped. Shaft 1A was excavated to a depth of 30' (9m) but records suggest it was then abandoned. Other shafts are likely to have not been deeper than 4-5m.
- the existence of a 1917 tunnel at the northern end of the workings; which appears to be evident as some bare ground adjacent to the river in Google Earth. Records indicate this was excavated to a length of at least 60m.
- the possible existence of another tunnel between Shaft 1A and the river; the records refer to a tunnel being put un to Reef #2 in the 1920s but it is possible that this was merely an extension to the previous tunnel. Records indicate excavation to a length of at least 90m.
- 1917 mill (crushing plant) site – powered by a water-driven Pelton wheel, this will be located at the end of the main water race, possible

¹¹⁵ Mines Dept

¹¹⁶ Lands Dept

¹¹⁷ Lands Dept

¹¹⁸ Lands Dept

Annual Report 1950 & MR1879

Goobarragandra Parish map Ed 4 1926-

Snow Lease Lithograph #1 Ed1945 & Ed1955

Goobarragandra Parish map Ed 4 1926-

above the River at a point between Shaft 1A/2A/3A and the 1917 tunnel. A considerable amount of ore was stockpiled here prior to crushing, so there may be evidence of this and quartz gravel left over from crushing, plus a flat bench for the stamper battery, roller mill and wash table. A partially erect stamper battery and part of a roller mill remain onsite beside the track some distance south of the shafts – probably not where they were used and it is uncertain which period they date.

The gold lease plans issued suggest there may be evidence of prospecting (possibly test pits) across the entire west face of the ridge for 1km around the main shaft locations.

Buildings: no buildings are recorded as being built at Goobarragandra Mine, although the need for weatherboard huts is discussed in records. Reference is certainly made to a 'Main Camp', which may or may not have included some huts. It would reasonably be expected that most of the miners' accommodation comprised tents. The Camp's location is unclear other than a reference to it being higher up the slope than the Mill Site. It is likely to be on a flattish piece of ground around the same level as Shaft 1A/2A, possibly (?!?) between the shafts and the 1917 tunnel.

A reasonably level and grassy area suitable as a camp or hut site occurs beside the River at about **640350E 6075700N**, and it is also possible a shed or hut was built adjacent the agricultural property just north of the current Feints Range Trail.

Another reasonable camp and possible hut site, containing the remains of a cooking pot, occurs on the east bank of the confluence of Feints Creek with the Goobarragandra at about **638330E 6077050N**, some 2.1km west of the mine.

Other Features: the two most notable features likely to exist at Goobarragandra are:

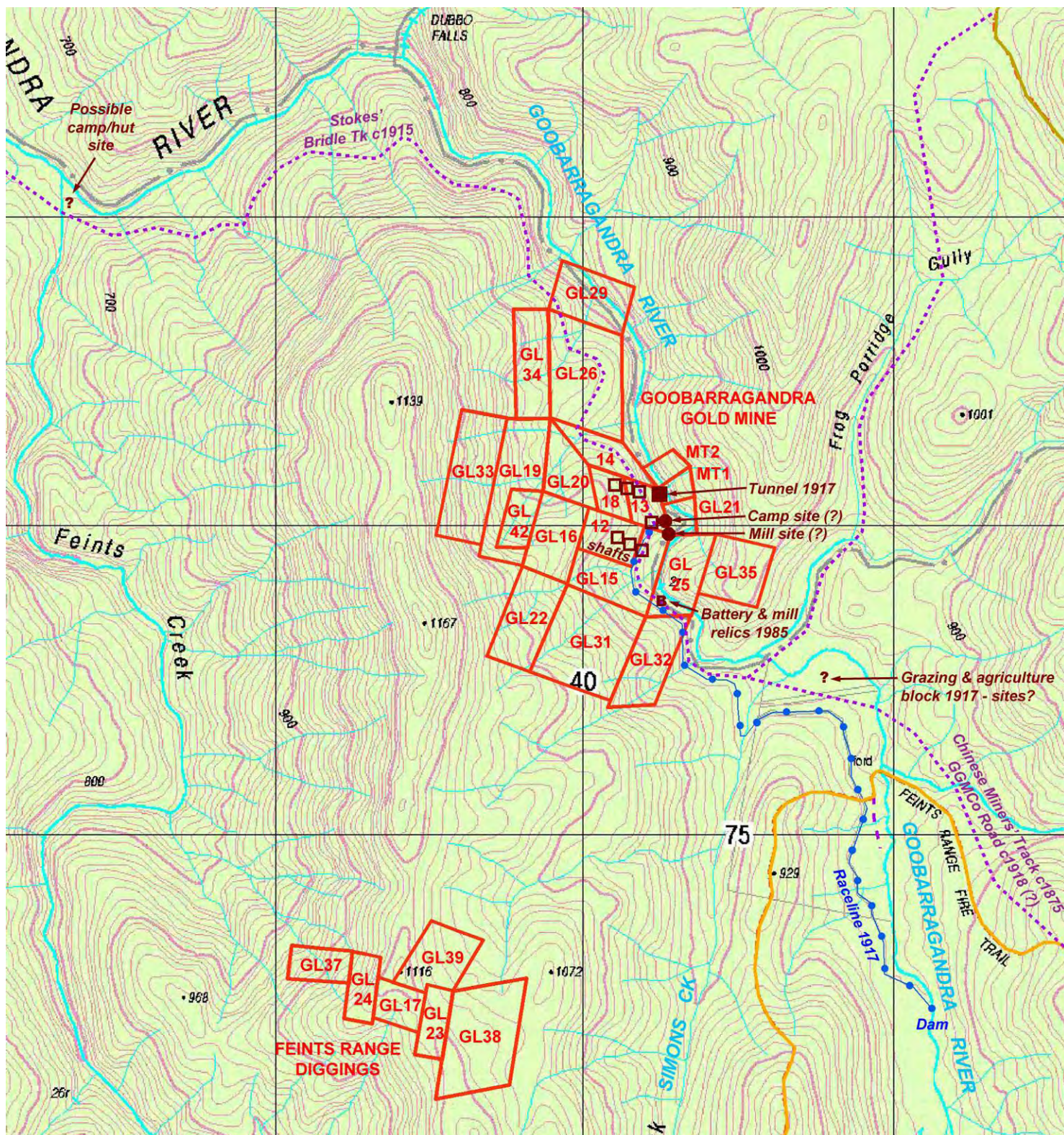
- (i) The water race from the Goobarragandra River approx 800m upstream of the Broken Cart junction, thence following the southwest side of the River around to the mill site. The embankment is believed to have been constructed wide enough to serve as an access road to the site. Slight chance that evidence of a dam wall may remain at the head of the race.
- (ii) Track to the shafts. In 1985 there was evidence of a track climbing from a point near the river at the grassy bank (**640350E 6075700N**) up to the shafts. It may have joined up with the water race as it traveled past a number of deep open shafts, following the line of reef 1 or 2. It possibly follows the line of Reef #1 past Shafts 1A, 1B and 1C, and becomes indistinct as it travels northwest of the site toward the junction of the Goobarragandra with Dubbo Creek.

Present Remains - Feints Range and Feints Creek Diggings (areas yet to be subject to field survey)

There is no record of any substantial mining activity at these locations, however the gold lease plans issued suggest there may be evidence of prospecting (possibly test pits). Approximate locations :

Feints Range – approx 400m radius of **639450E 6074470N**. Note overall area of leases is shown as a grey line on the Brindabella 1:25k map (NSW LPI 2006).

Feints Creek - approx 150m radius of **639250E 6069730N**. Note overall area of leases is shown as a grey line on the Brindabella 1:25k map (NSW LPI 2006).



Site Plan of the Goobarragandra Gold Mine

- site features overlain on Brindabella 1:25,000 topo map (base topo data © NSW DLPI 2006)

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National Park*, NPWS, 1979

Mining Leases on the Upper Goobarragandra

Based on records held within the NSW Dept Primary Industry DIGS online database; and survey plans. All lease portions are for the Parish of Goobarragandra, Application no's are for Tumut.

Broken Cart Diggings Area

<i>Lease Portion</i>	<i>Lessee</i>	<i>Possession</i>	<i>Terminated</i>	<i>Area</i>	<i>Notes; DIGS ref</i>
GL 1	John Venables	1895	refused 23/3/1897	10 ac	Appl #95-5; G11095
	John C Dunn	12/2/1900	refused 27/4/1900	10 ac	Appl #11
	John C Dunn	27/4/1900	exp 8/10/1902	10 ac	Appl #12
	A Pethur (possibly Arthur Pether)	2/6/1906	refused 15/8/1906	10 ac	Appl #28
	TE Woodger	21/12/1912	refused 12/3/1913	25ac	Sec17 appl #2
GL 2	AJ Harris	27/2/1931	refused 10/6/1932	15 ac	Appl #211 for dredging G21295
	TH Taylor	16/2/1935	refused 6/9/1935	15ac	Appl #251
GL 10	JME Franklin	13/1/1913	refused 18/2/1914	25 ac	Appl #13-24; G18930
	GH Bell & Others	16/3/1925	exp 23/8/1929	25 ac	Appl #174
GL 11	Thomas E Woodger	19/12/1912	exp 24/1/1919	25 ac	Appl #25; G18931 incl previous GL1

	GH Bell & Others	5/3/1925	exp 6/9/1929	25 ac	Appl #173
GL 28	TH Taylor	20/4/1935	Voided 6/11/1935	4ac	Appl #255; G22290 incl part previous GL2
GL 43	WP King	24/1/1919	refused 15/1/1920	12 ac	Appl #120 for reefing; G19812
GL 44	GH Bell & Others	1/7/1925	exp 12/8/1932	7 ac	Appl #177 for erection of machinery; G20770
GL 45	GH Bell & Others	1/4/1925	exp 23/8/1928	5 ac	Appl #175; G20769

Dinner Time Flat area

<i>Lease Portion</i>	<i>Lessee</i>	<i>Possession</i>	<i>Terminated</i>	<i>Area</i>	<i>Notes</i>
GL 3	James Waters	24/12/1901	expired 6/12/1904	4 ac	Appl #14; G15095
GL 4	James & John McIntyre	25/1/1902	expired 18/4/1905	5 ac	Appl #17; G15096
GL 5	James & John McIntyre	25/1/1902	expired 18/4/1905	5 ac	Appl #16; G15097
GL 6	James McIntyre	9/1/1903	voided 11/12/1903	4 ac	Appl #20; G15503
GL 7	JA Brown	9/1/1903	expired 18/4/1905	5 ac	Appl #21; G15504
GL 8	JA Brown	19/3/1903	expired 18/4/1905	5 ac	Appl #23; G15505
GL 9	JA Brown	19/3/1903	expired 18/4/1905	5 ac	Appl #24; G15506
GL 46	MM Blood	3/3/1927	expired 18/7/1930	25 ac	Appl #193; G20929 Sec 17 application 1932, 33, 34, & 36
GL 47	MM Blood	3/3/1927	expired 18/7/1930	25 ac	Appl #192; G20928 Sec 17 application 1932, 33, 34, & 36

Goobarragandra Gold Mine Area

<i>Lease Portion</i>	<i>Lessee</i>	<i>Possession</i>	<i>Terminated</i>	<i>Area</i>	<i>Notes</i>
GL 12	William Stokes GGMC ME Pettinger	23/4/1915 c1915-18 1924	expired 29/11/1935	5 ac	Appl #22/37; G19308
GL 13	William Stokes GGMC ME Pettinger	26/4/1915 c1915-18 1924	expired 29/11/1935	5 ac	Appl #23/38; G19309
GL 14	William Stokes GGMC ME Pettinger	15/6/1915 c1915-18 1924	expired 29/11/1935	5 ac	Appl #25/40; G19310
GL 15	Harry Stokes	15/6/1915	expired 29/11/1935	15 ac	Appl #26/41; G19311
GL 16	Goobarragandra Gold Mining Co	24/7/1915	expired 29/11/1935	10 ac	Appl #27/42; G19312
GL 18	Harry Stokes GGMC ME Pettinger	20/9/1915 c1915-18 1924	expired 29/11/1935	4 ac	Appl #29/44; G19325
GL 19	WG McDonald	27/9/1915	canc 23/11/1917	20 ac	Appl #30/45; G19372
GL 20	Harry Stokes GGMC ME Pettinger	27/9/1915 c1915-18 1924	expired 28/2/1936	7 ac	Appl #31/46; G19373

GL 21	Harry Stokes GGMC ME Pettinger	20/11/1915 14/1/1918 1924	canc 21/12/1917 canc 10/9/1937	3 ac	Appl #33/61; G19374 Appl #66/110
GL 22	JC Forsstrom	25/7/1916	canc 22/11/1918	10 ac	Appl #43/79; G19472
GL 25	JC Forsstrom A Falk	2/9/1916 8/6/1934	canc 27/10/1922 canc 16/10/1936	10 ac	Appl #48/85; G19506 Appl #242
GL 26	I Wall	2/9/1916	refused 29/6/1917	20 ac	Appl #47/84; G19507
GL 29	I Wall	18/9/1916	refused 29/6/1917	10 ac	Appl #51/89; G19508
GL 31	E Wyburn	12/11/1916	canc 24/1/1919	20 ac	Appl #54/93; G19509
GL 32	H Murphy	12/11/1916	canc 24/1/1919	10 ac	Appl #55/94; G19510
GL 33	FA Winter	15/1/1917	canc 3/10/1919	15 ac	Appl #58/97; G19549
GL 34	FA Winter	15/1/1917	canc 3/10/1919	10 ac	Appl #59/98; G19527
GL 35	SG Plucknett	1917	voided 23/11/1917	10 ac	Appl #57/96; G19528
GL 40	Harry Stokes	26/11/1917	refused 27/9/1918	6 ac	Appl #65/107; G19661
GL 42	WP King	26/1/1918	canc 22/7/1921	5 ac	Appl #67/111; G19662 incl part GL19 & GL40
GL 49	GC Ashcroft	1/2/1932	voided 2/12/1932	5 ac	Appl #214; G21350
<i>Mining Tenements</i>					
MT 1	WP King	10/10/1918	?	2 ac	Appl #59; T4057
MT2	WP King	10/10/1918	?	2 ac	Appl #60; T4058

Feints Range Area

<i>Lease Portion</i>	<i>Lessee</i>	<i>Possession</i>	<i>Terminated</i>	<i>Area</i>	<i>Notes</i>
GL 17	William Stokes	24/7/1915	cancelled 10/6/1921	5 ac	Appl #28/43; G19313
GL 23	Charles Stokes	27/7/1916	cancelled 10/6/1921	5ac	Appl #44/80; G19473
GL 24	Charles Stokes	27/7/1916	cancelled 10/6/1921	5 ac	Appl #45/81; G19474
GL 37	Charles Stokes	20/1/1917	voided 12/10/1917	5 ac	Appl #67/100; G19530
GL 38	SG Plucknett	17/2/1917	voided 23/11/1917	20 ac	Appl #62/102; G19550
GL 39	RW Kitto & Another	7/3/1917	voided 14/12/1917	10 ac	Appl #64/104; G19551

Feints Creek Area

GL 36	Charles Stokes	20/1/1917	voided 12/10/1917	20 ac	Appl #60/99; G19529
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END