

A Thirsty and Confusing Diggings: The Albert Goldfield, Milparinka-Tibooburra, north-western NSW

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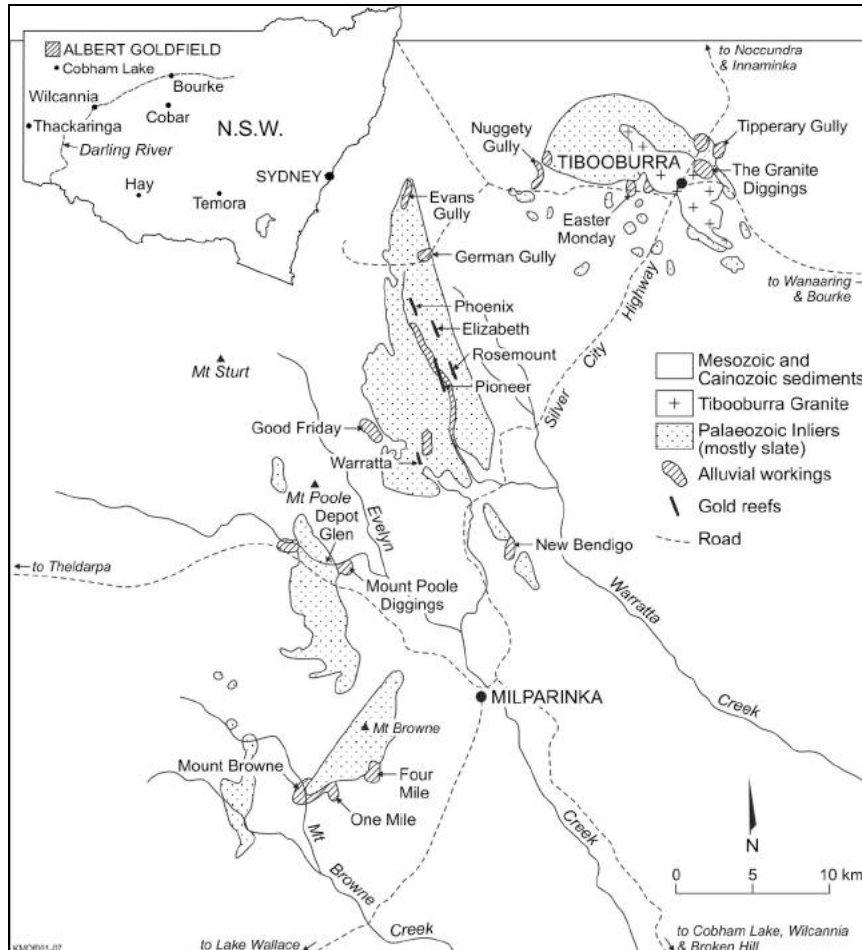
A succession of scattered discoveries from 1880-1882, over a tract 50 miles long by 10 miles wide in the Grey Ranges of far north-western New South Wales (Figure 1) saw the establishment of the Albert Goldfield. These alluvial diggings were amongst the last discovered in New South Wales and the first in the arid outback. They provided 'poor man's' diggings where individual prospectors or small parties could recover payable gold without heavy capital outlays, by 'raking' the shallow gullies overlying the bedrock of the isolated ranges. At first the prospectors were confused by the occurrence of gold in widely scattered near-surface patches with no clearly defined leads or deep leads. Some good deep leads were eventually found and worked, but were then abandoned due to flooding water. Gold-bearing quartz reefs were also found, but the cost of fully developing these in this remote region proved too much for the small companies involved.

Prospectors faced enormous difficulties in the hot, dry terrain (summer temperatures commonly over 100° F and average annual rainfall of 6.5 inches); the most serious being shortage of water for both mining and domestic purposes. However, periodic downpours and flash flooding also adversely affected mining operations. During the numerous dry periods the miners had to stack their washdirt and simply wait for rain, or resort to the tedious and inefficient process of dry blowing.

The remoteness of the field, located 320 km from the nearest town of Wilcannia on the Darling River led to other problems. Supplies were transported by teams from Wilcannia via Dry Lake, Mena Murtie, Tarella, Nuntharungie, Woonaminta, Mordan and Cobham Lake. Alternatively they came overland from Adelaide via Kapunda, Terowie, Thackaringa, Mt Gipps, Fowlers Creek and Cobham Lake or from Port Augusta via Beltana, Paralana and Callabonna or through Craddock, Boolcamatta and the Barrier Ranges. These routes crossed arid country and under very dry conditions the teams were unable to proceed. In an attempt to overcome the problems camel trains and wagons were used, particularly from South Australia, but at times, even they had difficulties. On the rare occasion of heavy rain, the rough tracks became boggy and

impassable. Wilcannia relied on river boat transport for many of its supplies and when the Darling River was low the boats could not get through, exacerbating the supply problems to the goldfield. The result was high costs and periodic shortages of everything from food, to clothing, to mining equipment.

Figure 1: Location of the Albert Goldfield and the main alluvial and reef workings.



Source: Map collated by author from various maps held by Geological Survey of New South Wales.

Yet another problem was the lack of a safe and reliable means for transporting the gold to the banks in Wilcannia and to the Sydney mint. Government authorities recognised the difficulties and in August 1881 a gold escort was provided and a local bank opened on the goldfield. By late 1882 the four townships of Mount Browne, Milparinka, Tibooburra and Albert were well established to service the miners and surrounding pastoralists. However, the goldfield was not sufficiently viable and mining largely petered out by 1896. The townships of Mount Browne and Albert were abandoned. Milparinka gradually declined and is now as a partly restored ghost town

with a population of about six people. After the very early rushes Tibooburra was virtually abandoned but then revived and today has a population of 150.

Since the early mining period there has been sporadic small-scale mining and fossicking. Total recorded gold production from the field up to 1945 was 62,182 ozs (1.94 tonnes).¹ During the 1980s and up to the present, the goldfield has been a popular site for gold fossickers using metal detectors. Numerous small and some larger nuggets have been found.²

The Albert Goldfield provided a model for other goldfields in arid Australia, including Tetulpa in South Australia and the Eastern Goldfields of Western Australia. Miners who had honed their skills on the Albert took their knowledge and experience to these new dry fields. Dry blowing machines, first applied and refined at Tibooburra were later used extensively at Coolgardie and Kalgoorlie.³ The use of camels to transport supplies to the diggers was also adopted in the goldfields of Western Australia.

The history of the Albert Goldfield highlights some of the tensions that commonly developed around remote goldfields. Local merchants, keen to develop their district and cash in on the diggers, whether or not they found gold, tended to promote the field. Successful prospectors tried to play down any success to avoid attracting too much competition. Local government officials, anxious to avoid a humanitarian disaster, tried to dissuade diggers from flocking to the field until there was rain or sufficient water available in dams and wells, but distant administrators were often out of touch with conditions on the ground, tardy or too disinterested to help the miners. Around all of this, the city Press often painted a less than accurate picture of conditions.

Rumours of gold

Explorer Captain Charles Sturt and his expedition members were the first Europeans to visit the Grey Ranges. They arrived on the 27th January 1845 during an extreme drought and were trapped for almost six months at Depot Glen, the only permanent water hole they could find. Sturt's interest was in new agricultural land and a possible inland sea. He had a passing interest in the geology and potential mineral wealth of the country he traversed, observing and collecting rock and mineral samples, but he did not find the gold that lay within four miles of where he camped. His visit occurred before the famous Australian gold rushes of the 1850s and the country was not yet known to be

gold rich. While waiting for rain at Depot Glen, Sturt decided to keep his men 'occupied' by building a large stone cairn on the nearest hill, about four miles to the north. The hill was named Mt Poole after James Poole, the expedition's second in command, who died of scurvy as he was leaving Depot Glen to return to Adelaide after rain on the 16th of July.⁴ In the 1860s, pastoralists with their sheep followed the explorers west and in the early 1870s Duncan Elphinstone McBryde became the lessee of Mount Poole Station.⁵ His homestead was close to the water hole at Depot Glen and his sheep run was to be the site for the first discovery of gold in the region.

There had been speculation about the existence of gold in far-western New South Wales since the area had been settled. In 1858 the South Australian Government sponsored a prospecting party led by J. Crawford, to search for gold in the Barrier Ranges⁶. The government was keen to develop a goldfield close to South Australia to stem the outflow of South Australians to the Victorian goldfields and provide an inflow of gold to their Adelaide mint. The expedition proved unsuccessful, but many still believed that the country, with its numerous quartz reefs, was highly prospective for gold. In 1867 the 'white quartz rush' occurred at Gold Diggers Creek on Poolamacca Station in the central Barrier Ranges. This turned out to be a 'schicer' or hoax, perpetrated by a shepherd employed at the station and exaggerated by the Adelaide and Melbourne press.⁷ In late 1875 or early 1876 Julius Charles Nickel and his mate McLean discovered silver-lead ore in the south-west Barrier Ranges while they were sinking a well on Thackaringa sheep station. This attracted more prospectors to the district, including Cornish miners from the declining copper mines of South Australia. Further discoveries followed around Thackaringa and in 1881 the small but rich silver deposits at Umberumberka and Silverton were found.⁸

Gold in the Grey Ranges, rush to Mount Browne and founding of Milparinka

In October 1880, an experienced prospector, Arthur C. Ashwin, found indications of gold in a gully on Mount Poole station. He induced John Thompson, a station employee, to systematically strip the soil and wash it for gold. Thompson got about two ounces of shotty gold, including a one-ounce piece, which he took to Wilcannia as proof of his find. Believing there was payable gold, Ashwin set up a prospecting party to further test the area, resulting in the development of the Mount Poole diggings about three miles from Depot Glen. A number of miners rights were applied for in November and a small rush ensued. Gold was found to a depth of 30 feet in recent alluvium, but it was not

sufficiently payable.⁹ However, it did increase interest in the region, which led to further prospecting and larger discoveries.

The first indication of a payable goldfield came with the discovery in early February 1881 of gold at Mount Browne, about 10 miles south-west of the Mount Poole diggings (Figure 1). A report of the discovery was given in the *Wilcannia Times* of the 10th February 1881 and another provided by J.C.F. Johnson, who visited the Mount Browne diggings in March-April 1881.¹⁰ James Evans with three other prospectors had been prospecting in the Mount Poole area for about two months. From here they headed 15 miles south to Yango Creek (now Mount Browne Creek) to try and find sufficient water to prospect in the neighbourhood. They found ‘colours’ of gold close to the bed of a creek and while the party was resting on a hillside of slate and broken reef quartz, an aboriginal woman in the group picked up a fair sized nugget on the surface.¹¹ This encouraged a thorough search of the area and sinking of pits to about six-feet. A good fall of rain on the 2nd of February had provided water for washing and the party recovered 23 ozs of gold in about five hours, including one nugget of 7 oz 4 dwt, another 2 oz nugget and 14 ozs of shotty gold. Evans arrived in Wilcannia on the 7th February to register a claim. He sold 11 ozs of the gold to the Australian Joint Stock Bank for £3 15s per oz. A local jeweller and watchmaker, Mr A.L. Garot, purchased the nuggets for £50 for display. Evans immediately returned to the new find and with his party pegged a claim at the south-western end of the Mount Browne range on the north-western side of the ridge¹². This became known as the Prospectors’ Claim and proved to be one of the richest on the field (Figure 2).

Within two days the stock of miner’s rights at the Wilcannia police station had been exhausted and at least 50 men were on their way to Mount Browne. On the 8th of February six teams left Wilcannia for the diggings with provisions and the first coach, driven by Donald Morrison of Messrs Morrison Bros, set out on Saturday 12th at 5.30 pm. News of the discovery quickly spread and by mid-February many miners had started for the new diggings from the Temora goldfield.¹³ Realising that if a rush set in police protection would be necessary, Sergeant Prior from Wilcannia ‘fully alive to this fact’, proceeded immediately to Mount Browne. He returned to Wilcannia on the 22nd of February bringing a small ‘mail’ and nearly 40 ozs of nuggetty gold, and reported about 300 people on the field with another 100 on the road. He also noted that available drinking water at the diggings would last about a fortnight and that washing of dirt before rain was out of the question.¹⁴ This failed to deter men heading for the rush and

by mid March there were nearly a thousand on the field. The first fatality from thirst was soon reported.¹⁵ The Albert Goldfield was officially proclaimed on the 25th of February 1881 and the first local mining warden, Mr G. C. Thompson, arrived at the diggings on the 9th of March where he observed miners camped at a number of declining water holes waiting for rain.¹⁶ As these dried up they moved to a large water hole on Evelyn Creek about 10 miles east of the Mount Browne diggings. This was to become the settlement of Milparinka, the main base for the scattered gold discoveries.¹⁷

Figure 2: *James Evans and party at their Prospectors' claim Mount Browne, August 1881.*



Source: From 'Views at Mount Browne and on the road to it', *Australasian Sketcher*.
Courtesy State Library of Victoria.

A small settlement had already developed on the creek near the Prospectors' claim at Mount Browne, and this area was the focus of the rush. On the 20th of February a miner called John Tyrell wrote:

There has been no one trying for a lead here yet. Several people are getting good gold in the gullies; two or three grains to the dish can be got almost anywhere, but in a week's time there won't be a drop of water.¹⁸

By early March gold had also been found at the 'Four Mile' on the south-eastern slopes of the Mount Browne range.¹⁹ A group of miners at Mount Browne (Butler and party) started deep sinking in search of a lead and by late March were down 80 feet, but hadn't hit bedrock.²⁰

On the 25th of March, Warden Thompson reported to the Under-Secretary of Mines:

There is not any water on the diggings and nearly all the people, numbering about 600, are now camped at Milparinka waterhole, 10 miles from Mount Browne old township. This is the only water near the diggings, and at the present rate of consumption cannot last more than three weeks longer, when the people will have to go eight miles to Depot Glen. There is not any water on the road from Cobham Lake to Mount Browne. Two men nearly perished on that road, but were fortunately picked up. All persons that arrive here, finding that they can do nothing, are quite dissatisfied, and many return at once. Yesterday large numbers left the diggings. It is downright madness persons rushing out here, for they can do nothing without water.²¹

The main water hole at Milparinka at this stage was seven-feet deep and was soon fenced and reserved for domestic purposes. By early April the hole had two-feet of water and many people had left, leaving about 300 on the field of whom only about 150 were at work prospecting and dry blowing. Experienced miners who had come from other fields returned to these greener pastures. The *Town and Country Journal* reported:

Three wagons have returned to Temora from Mount Poole loaded with diggers. They give a fearful account of the diggings, and say that they are not a patch on Temora, and that there is no water.²²

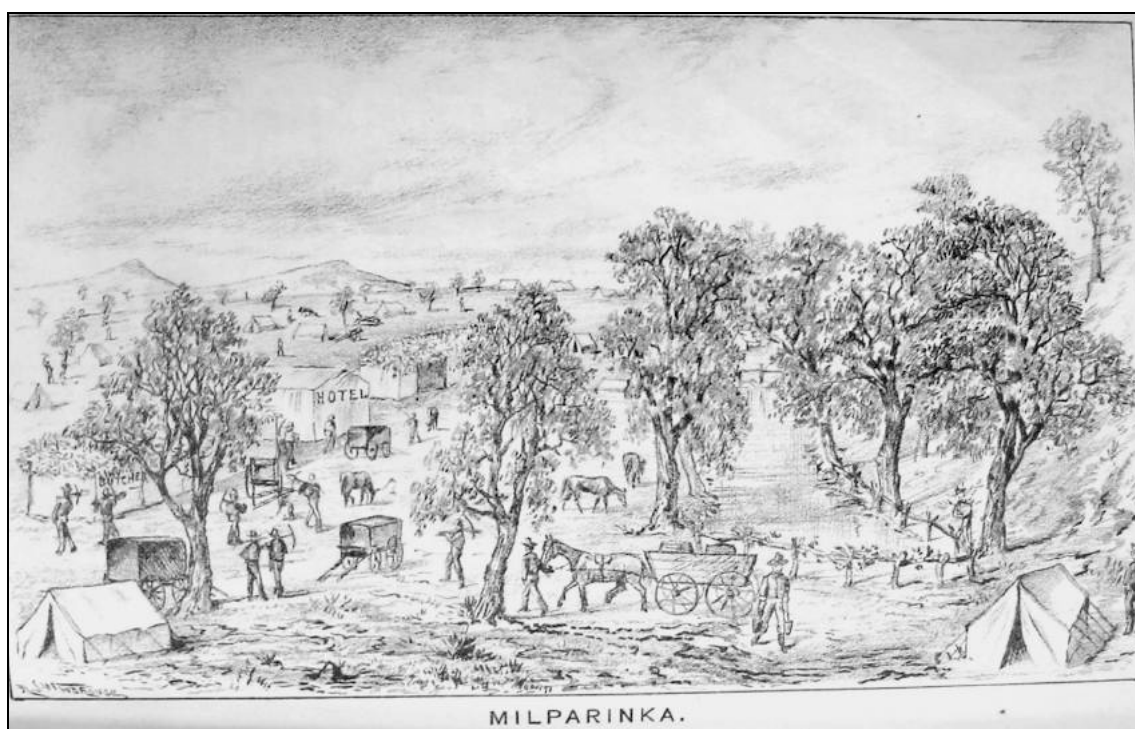
J.C.F. Johnson who arrived in March gave a colourful description of Milparinka and the early development of the Mount Browne and Four Mile diggings (Figure 3).

The township of Milparinka has been laid out on a level plateau above the creek, but the greater number of people are camped on the eastern bank of the creek, close to the water. It is a good place for grog, is Milparinka, and I fancy a considerable number of its inhabitants would never know whether the creek had run dry or not unless somebody told them. There was when I left a population of about 300, and there were exactly six shanties. ... The scene at Milparinka in the daytime was novel to one who had been cooped up in town for so many years, but that at night was more so – camp fires all over the place glinting through the trees, white tents (big and little), diggers ditto, music of various sorts, violin and concertina principally, with snatches of song; but I doubt if there was much jollity, there was not enough gold getting.²³

There were four troopers stationed at Milparinka and Johnson listed several stores, the largest owned by Messrs T. Ottaway and Co., as well as a butcher, baker, chemist, two blacksmiths and several other tradesmen. These were of temporary construction, either tents or ‘houses of boughs’. Provisions at this stage were readily available and not unreasonably expensive. Food prices per pound were: meat (beef) 6d [pence]; flour 4-6d; potatoes 6d; onions 10d; sugar 8d; salt 4d; tea 3s [shillings] and tobacco 5s. Tinned

fish, fruit and vegetables were 2s per tin. When available, sheep could be purchased from the local squatters for 16s each.²⁴ The coach fare from Wilcannia to Mount Browne was £4-5 one-way and £7-8 return.²⁵ For reference, the local price of gold was £3 15s per ounce, but only about twenty men were getting gold.²⁶ At the Four Mile diggings there were about 60 tents and three shanties, while at the Mount Browne diggings a number of tents were scattered widely around the area of workings. At this time, a Miner's Right entitled the holder to take up a claim of 100x100 feet. For two partners the area was 144x144 feet increasing up to 200x200 feet for four partners. A prospector's claim for four men of 700x700 feet could be taken up if more than five miles from any other diggings. Through purchasing a £1 business licence and erecting improvements to the value of £10, a business allotment could be taken up.²⁷

Figure 3: A sketch of Milparinka in April 1881. From J.C.F. Johnson 'To Mount Browne and Back'.



Courtesy: National Library of Australia.

The diggings soon attracted the usual 'hangers on'. During his visit Johnson observed:

Amongst the respectable tradesman at Milparinka, I noticed a select squad of gamblers, including a *rouge-et-noir* man, a gentleman with a "wheel of fortune" and a ring-and-spike artist.²⁸

Sickness was prevalent due to poor diet, contaminated water and general ‘coarse’ living. The main ailments were dysentery, congestion of the liver, bronchitis and ophthalmia or sandy blight. There was also a condition referred to as ‘Barcoo vomit’ that usually accompanied dysentery.²⁹

In early attempts to deter Chinese miners from participating in the rush, one Chinaman’s life was reputedly threatened.³⁰ However, by 1882, 11 Chinese had settled in the area, eight of whom had set up two market gardens in Milparinka supplying vegetables and potatoes. Their efforts were greatly appreciated by the local population and improved the health of the community, no doubt preventing many from succumbing to scurvy.³¹ The gardeners also constructed their own well (Chinaman’s Well) just north of the town. In April 1882, after the Government well had become contaminated, this became for a time the main domestic water supply for Milparinka.³²

Expansion of the field – gold at the Granite

Conditions during April 1881 were very dry, but a succession of discoveries to the north-east of Mount Browne led to several new rushes³³. Smith and party made the first of these discoveries on Good Friday, 15th of April in the Womberinga (or Wambarriga) range, finding gold in the head of a gully at a depth of 12 to 20 inches over a length of 70 feet.³⁴ The prospectors recovered 2 oz of gold from their first load and 1 oz each from two other loads of wash. This discovery resulted in a rush of about 1,000 men and the location became known as ‘Good Friday’ (Figure 1). Two other prospectors, Newton and Nolan, soon made another discovery 3.5 miles further east in the Whittabrena Range, where from the head of a small gully they initially recovered 16 dwt of gold in one load of washdirt. Eight other claims were soon taken up below this area, but only one of these (No 2) had payable gold and the rest were soon abandoned.³⁵

Three days after the Good Friday discovery, gold was found 16 miles to the north at the ‘Easter Monday’ diggings and a new rush of 800 men ensued. Most of these deserted the area within 10 days when it was realised that payable gold could not be found outside the initial discovery and 13 surrounding claims. The prospectors who continued working were able to average £6 per week per man up until the end of July. A group of prospectors (Foley and party) disappointed by the Easter Monday rush worked their way further west and found an area where they could obtain small amounts of gold, barely sufficient to pay for tucker [food]. However, on the 29th of April they were

astonished to find a handsome 15½ oz nugget, four-inches below the surface at the head of a small gully on their claim. This was the largest nugget found in the various diggings to that time.³⁶ The discovery sparked the 'Big Nugget Rush' and the area became known as Nuggetty or Nuggetty Gully (Figure 1). Further work on the prospectors' Big Nugget claim and adjacent claims produced only fine-grained gold.³⁷

The population of the diggings throughout April was in a state of flux with many disappointed miners who had rushed the new finds returning to Milparinka in disgust or leaving the field altogether. A number of people were almost starved, as there was no flour and potatoes were £40 per ton.³⁸ New would-be miners continued to arrive despite unfavourable reports about the dry conditions and the increasing shortage of rations. On the 30th of April a correspondent to the *Town and Country Journal* reported that:

Four men reached the diggings naked and delirious the other day, and two other men died from thirst – one in the bush, and one at Mount Browne.³⁹

Due to lack of water very few miners were getting gold by the end of April and most of the serious diggers were 'shepherding' their piles of washdirt while awaiting rain. Small amounts of gold were obtained by dry blowing. This involved finding a windy spot and tossing the contents of a gold pan in the air, or repeatedly tipping washdirt from one pan held high to another on the ground so that the wind could blow away the finer and lighter material. The coarser rock fragments that settled near the top were removed by hand. The concentrate from this tedious process was then gently blown by mouth to remove the remaining detritus and reveal the gold.

Fortunes changed at the end of April and into early May when rain fell across the goldfield and the miners were finally able to wash their stacked dirt and properly test the field.⁴⁰ Milparinka was soon almost deserted as miners returned to the settlements at Mount Browne and the Four Mile or to the widely scattered diggings in the north. On the 5th of May a man named John O'Keefe was drowned at Milparinka in Evelyn Creek, which was flooded by the heavy rain of the previous day.⁴¹ This unfortunate event demonstrated the cruel irony of an environment where a prospector could die of thirst one day or drown in a flood the next. On the 13th May Warden Thompson reported to the Undersecretary of Mines:

Since the last instant we have had 2 inches and 55 points of glorious heavy rain, which ran all the creeks and filled up the water-holes, and now there is sufficient

water on the field to last three months for domestic purposes and a fair supply for washing the dirt. The miners on the ground will now have a good opportunity of testing the field to see if they can find a lead.⁴²

News of rain brought a new influx of diggers. By the end of May there were 2,000 on the field. The growing population and supply difficulties, worsened by the continued low level of the Darling River that prevented river boats from reaching Wilcannia, resulted in a serious food shortage. Men were now living on mutton and wild spinach, a type of bush tucker found growing near the water hole at Milparinka. In early May a prospector at the Four Mile wrote, 'It is a downright shame, that after holding out for rain so long, now that we have abundance we should be starved out'.⁴³ Men were becoming desperate for flour and there were robberies of provisions from tents.⁴⁴ The miners were also unhappy with the way the goldfield was being supplied by the storekeepers and carriers. There were complaints that grog was being sent instead of flour because teamsters could obtain a higher rate of cartage for grog, and because storekeepers hoped to cash in on the greater production of gold after the rain. There were threats to 'burn the grog' and 'stave in every barrel of beer' that arrived. Men rushed the teams bringing supplies and demanded flour.⁴⁵ A store at the Four Mile had a rope placed round it and the miners threatened to pull it down if the storekeeper withheld the flour. He was forced to yield and sell his flour for 1s per pound. One teamster wrote from Milparinka:

Things are very rough out here. The diggers are pulling down all the stores, and are going to burn all the grog that comes out here. Flour is what they want, and they say that if the storekeepers can send grog they can send flour. Purchase all the flour you can, for it is worth 1s per lb out here. I shall be back shortly if the beggars don't kill me.⁴⁶

The threats were probably exaggerated, and there is no record of any grog actually being burnt or barrels of beer staved in. On the 25th of May four bags of flour arrived and sold for 8d per pound, as well as a few bags of potatoes that had come from Melbourne via Adelaide and then overland to the diggings.⁴⁷ Crisis was averted as many more teams made their way with supplies from South Australia and it was predicted that by early June flour would be cheaper at the diggings than in Wilcannia, where the river had still not risen. On the 23rd of June a team of eleven camels arrived from Beltana with 3.5 tons of supplies comprising four bags of flour, seven cases of groceries and 13 cases of drapery. These had originally been packed for the Port Darwin track.⁴⁸

Following the rain, miners returned to the recent discoveries at Easter Monday and Nuggetty Gully. By mid May there were 200 people at Nuggetty Gully, but only four parties were getting payable gold with an average of 15 dwt to the load. On the 27th of May, Warden Thompson reported that Foley and party, the discoverers of the big nugget, had washed a few loads that averaged only 6 dwt to the load and that they had to cart the washdirt two miles to the nearest water. A claim 'No. 1', above and adjoining the Big Nugget Claim was being worked by a Mr Tully on behalf of a South Australian company. He put drives into the nearby cemented quartz hill believing this to be the source of the big nugget and found some specks of gold.⁴⁹ Prospectors began testing the granite country near Easter Monday and on about the 29th of May found a wide area of alluvial gold that became known as the Granite diggings.⁵⁰ By mid-June, four to five hundred miners were on these new diggings and it was reported that many were doing well, averaging 1 oz per day per man.⁵¹ By the end of the month the majority of miners on the goldfield were working at the Granite.⁵²

Soon the main problem at the Granite was the usual one of water scarcity, because water from the heavy rains in May had evaporated and there was no permanent local supply. The nearest water for gold washing was three miles away and the washdirt had to be carted there at 10 shillings a load. About two miles further south there was a large supply at Thomson's dam on Mt Stuart station, but this was reserved for domestic purposes. By July a large number of carts and drays were engaged in transporting washdirt to the nearest water. The carriers were making about £1 a day, considerably more than most of the miners.⁵³ About 10 claims at the Granite were yielding 3 oz to the load, but the other claims were not nearly so profitable. In late July a new discovery was made about one mile north of the Granite (later referred to as Tipperary Gully) with yields up to 3 oz to the load from depths of 3-14 feet. It was reported that about 200 men were on good gold at the Granite and the new rush. Miners were also still doing well at the Four Mile but the diggings at Mount Browne were almost deserted. Joseph Preston, a miner who had been at the various rushes, estimated that there were at least 1,500 men on the field with about five percent doing well, a third making fair wages and the remainder 'not making salt'.⁵⁴

The Government Inspector of Mines, W.H.J. Slee, was appointed temporary warden to the Albert Goldfield in early July, replacing Warden Thompson.⁵⁵ The new warden, recognising the critical importance of improving the water supply, encouraged the miners to construct dams and sink wells, offering them what protection he could

under the mining regulations for their efforts. Domestic water for the Granite diggings had to be transported three miles. Numerous dams were constructed, but there was no rain to fill them. Many miners began leaving the field but many others were still arriving.⁵⁶

On the 16th of August Warden Slee reported that as soon as he could procure a surveyor he would lay out a town at the Granite diggings to be called Tibooburra.⁵⁷ It appears that Tibooburra was surveyed in September or early October 1881 and by the end of October there were two large hotels and a third almost completed, as well as six restaurant rooms, three butchers shops, two bakers, two barber shops and a saddler.⁵⁸ Unlike Milparinka, which had a substantial water hole, at this stage Tibooburra did not have a guaranteed local water supply.

Continued development of the goldfield and more tribulations

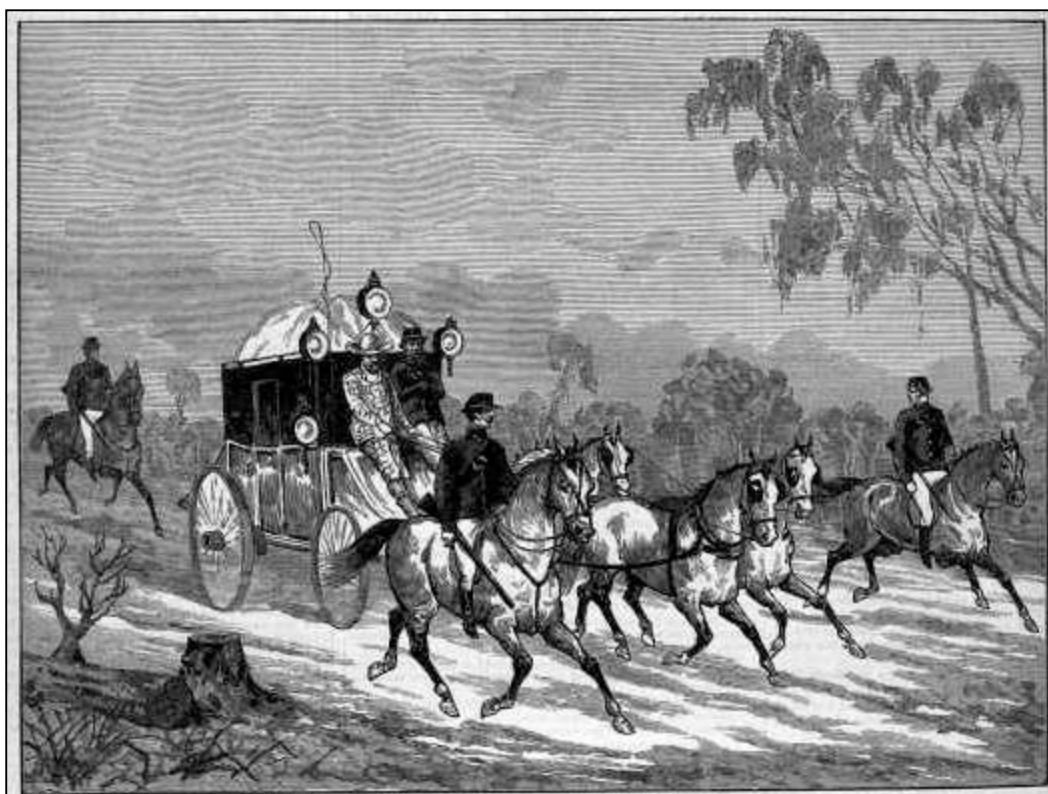
Despite water shortages and other difficulties the goldfield slowly progressed. Substantial sandstone buildings were constructed in Milparinka, indicating that local businessmen believed the goldfield would become permanent. In August 1881, H.C. Armstrong from Wilcannia opened a medical dispensary to service the district at 'Wilcannia prices'. Coaches ran twice a week between Wilcannia and Milparinka. The miners and coach operators were unhappy about the lack of an escort for transporting the gold and many coach drivers refused to carry gold or advertise the fact because they feared robberies.⁵⁹ Eventually the New South Wales Government agreed to provide an escort from Wilcannia to Sydney, whenever the banks held at least 500 oz of gold. From Milparinka to Wilcannia an escort was to be provided when the diggers and storekeepers raised 300 ozs (Figure 4). The fee for this service was 4d per oz of gold carried. The first gold escort with Cobb and Co. left Wilcannia for Sydney on the 8th August carrying 1,657 oz of gold. The departure was marred by a serious accident when one of the troopers, Constable Connor, was shot in the arm when his carbine accidentally discharged. The arm had to be amputated above the elbow by Dr McLean at Wilcannia hospital.⁶⁰ On the 16th of August a branch of the Commercial Banking Company of Sydney⁶¹ was opened in Milparinka, providing the diggers with a secure place to sell or deposit their gold before escort to Wilcannia and the Sydney mint.⁶²

The township of Mount Browne had been re-established and now boasted a number of shanties and the 'Mount Browne Coffee Palace'. The proprietor of the latter,

known as 'Frank the Pieman', was considered a great benefactor, selling a cup of coffee and a meat pie or tart for 6d and keeping scores of diggers from the shanties, where they had to pay a shilling for a 'nobbler'. There was a brisk traffic between Milparinka and Mount Browne, particularly by the butchers, bakers and other suppliers to the diggers.⁶³

Serious attempts were made to find a deep lead away from the shallow surface workings and to prospect the 'cement' beneath the recent alluvium. On the flats south of the range at the Four Mile, shafts were sunk 80-110 feet to look for a deep lead and to test the older 'cement'. The deep shaft at Mount Browne, started in February was down to 180 feet, with a drive 100 feet long yielding 6 dwt to the load. Mining of the hard 'cement' had been hampered by a lack of dynamite. Up until June the only explosives that had arrived at the diggings was a small 50 pound parcel of blasting powder, which sold at 2s 6d per pound.⁶⁴ Tragedy struck on the 12th August 1881 when a miner who had not taken the usual precaution of lowering a candle down the shaft to check the air was suffocated in one of the deep shafts at the Four Mile. The air was so bad that one of his mates lowered down the shaft to investigate had to be quickly retrieved by the rope around his waist before he also succumbed.⁶⁵

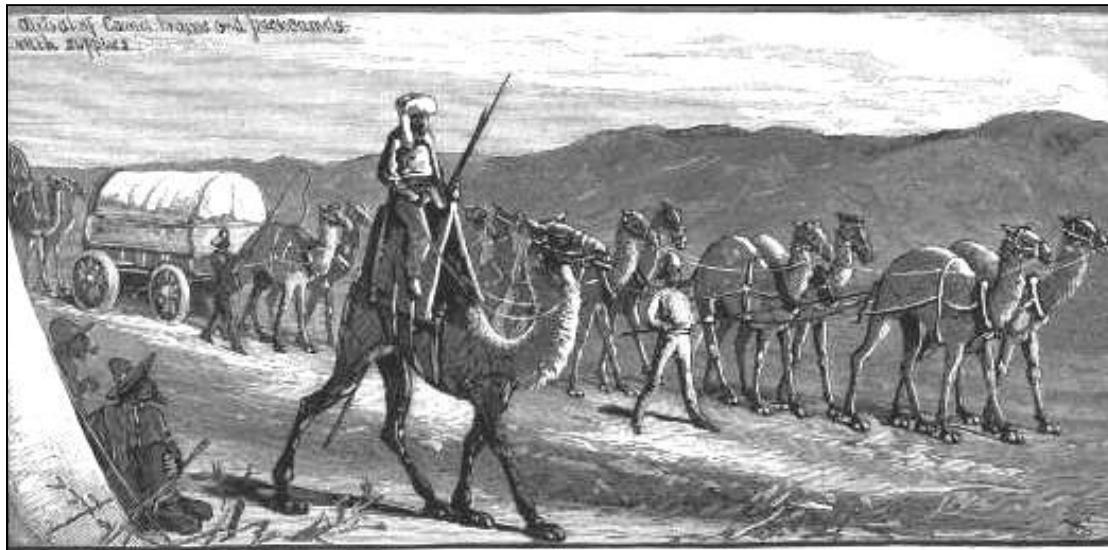
Figure 4: *The gold escort on the road from Mount Browne. From the Australasian Sketcher, July 15 1882.*



Courtesy: State Library of Victoria.

By mid-August 1881, water for gold washing was largely exhausted across the goldfield and most gold recovered was from dry blowing. Hundreds of loads of washdirt were being stacked on claims while waiting for rain. Many alluvial miners at the Granite switched their attention to prospecting for reefs, but when about one inch of rain fell at the Granite on the 8th of November they reverted to washing their stacks.⁶⁶ From the end of 1881 to early 1882 conditions became extremely dry. By mid January, water from Thomson's dam south of Tibooburra was selling at 1s a bucket. About 300 miners had moved to Morte Neds 18 miles to the north in the Whittabrena range, to camp near water and wait for rain. Another 100 were camped at the Wompoo Water Holes near the Queensland border. Mount Browne was almost deserted again with miners camped at Milparinka waiting for rain.⁶⁷ In February there was a small rush of about 150 miners to a new location about 1.5 miles west of Depot Glen. Several parties were able to get payable gold up to 11 dwt to the load by sinking to about 18 feet, but most were not successful and soon left.⁶⁸

Figure 5: *A camel wagon on the way to Milparinka. From the Australasian Sketcher, 20 May 1882.*



Courtesy: State Library of Victoria.

As dry conditions continued into March it again became difficult to supply the goldfield with food. Teams were stranded on the parched tracks from Wilcannia and South Australia and miners could not travel out to meet them. The population was essentially trapped by the waterless tract surrounding them. Flour was rationed to six pounds per person, meat was unavailable and in Tibooburra people were living on rice

and pig-weed. The water at Thomson's dam became undrinkable and water for Tibooburra had to be carted from 14 miles away. In mid March the situation became so precarious that the New South Wales Government telegraphed the Chief Secretary of South Australia, J.C. Bray, requesting camels to transport supplies from South Australia. A caravan of camels owned by Elder, Smith and Co. set out from Beltana on the 22nd of March with 15 tons of supplies (Figure 5). At this stage there were probably about 800 people on the field and at surrounding camps. The camels finally arrived at the end of March and were then used to transport loadings from the stranded horse teams.⁶⁹ Cobb and Co. also used camels to resume a fortnightly mail run to Wilcannia. On the 8th of April, the new Warden, C. McA. King, who had replaced Warden Slee in February reported:

All fear of famine for want of flour is for the present at an end. A caravan of camels and two wagons, each drawn by ten camels, have arrived from South Australia, and eight teams from Wilcannia have also arrived within the last few days and have delivered (say) 25 tons of flour and other loading, including machinery and a large quantity of liquor.⁷⁰

During this period there was again much sickness on the goldfield including ophthalmia, dysentery, scurvy and a particularly virulent typhoid-like fever with accompanying delirium, known locally as Mount Browne fever. There were many deaths and in April it was necessary to set up temporary hospitals in Milparinka and Tibooburra. Dr Wilkie from Wilcannia was engaged by the government to visit the goldfield and administer to the sick for a two-week period. A group of sick miners was transported by camel wagon to Wilcannia where they made a full recovery. As the weather got cooler most of the sickness disappeared. Much of the illness was no doubt due to poor diet and polluted water. Drinking water obtained from dams and soaks was commonly contaminated by sewage from the nearby camps and diggings. It was noted that it was mostly the younger men who succumbed to the fevers and this was ascribed to the old timers partaking more freely of spirits, although they probably also had greater immunity, built up from previous exposures to rough conditions. There was a belief amongst the older miners that fevers always appeared on new goldfields due to the 'opening up' of the ground.⁷¹

Severe drought conditions continued throughout most of 1882. The total rainfall recorded for Milparinka was 6.5 inches but almost half of this fell in the last three months of the year as heavy downpours with accompanying flooding. Up until

November all of the gold produced, totalling several hundred ounces, was obtained by dry blowing. A heavy thunderstorm near the end of November produced 2.5 inches of rain at Mount Browne and there was also good rain at Tibooburra that filled the many dams that had been constructed. The result was a short but very busy period of gold washing, until hot weather in December evaporated all the water. The total gold production for the year that included an estimate of gold sent away by private means was 4,350 ounces.⁷²

Growth of the towns and gradual demise of the gold field

By the end of 1882 conditions on the diggings regained some normality, but most of the easier and richer surface gold had been discovered. Attention was focussed on working the lower grade alluvial, exploring for deep leads and developing the reefs that had been discovered. In September a new township called Albert was laid out near the reef mining area on Warratta Creek. A store was opened by Bignell and Young of South Australia and a post office established under the management of Carl Heuzenroeder, who had general stores in Milparinka and Mount Browne (Figure 6).⁷³

The population on the diggings was now estimated at 400, with 50 at Mount Browne, 100 in Milparinka, 20 on Warratta Creek, 100 in the town of Tibooburra and 130 at and around the Granite diggings. Many of the early 'rushers' had departed leaving mainly the serious or the most optimistic miners. In his annual report Warden King reported favourably on the general conduct of the inhabitants, also noting that 'sly grog sellers and shanty-keepers have been nearly exterminated, at a cost to themselves, in fines and forfeitures of upwards of £530'.⁷⁴ Although the population had dwindled, the towns were becoming more settled and civilised. It is not clear when the first European women arrived at the diggings, although this was probably as early as mid-1881 after the first rain and cooler weather.⁷⁵ The local squatters and roadside hoteliers already had their wives and families living in the area and some aboriginal women had come to the diggings with the first miners, and had been active in prospecting and fossicking. Miner and author Ted Murphy later recorded that when he helped organise the first 'bachelors ball' in early 1882, the female population of Tibooburra had grown to eight or ten women.⁷⁶

During 1882 Tibooburra had become a substantial town with four hotels: the Central Australian, Tattersalls, the Albert and Tibooburra. There were five general

stores, including branches of W.C. Palmer and Company and Cramsie, Bowden and Woodfall, who both had stores in Wilcannia and Milparinka, as well as a branch of the Commercial Bank. There was still no suitable water supply in the town but in March 1882, a group of miners (Campbell and party) struck good water at 200 feet in a shaft about 4 miles away and this became the preferred source for domestic use.⁷⁷ A Government well was sunk to 50 feet but only encountering a small quantity of brackish water was abandoned. Subsequently the residents persuaded the Government to deepen a shaft on a quartz reef about one mile from town, which was then able to supply about 100 gallons of good quality water per day.

Figure 6: *Carl Heuzenroeder's general store Loftus Street, Milparinka c. 1885.*



Source: Courtesy: Bicentennial Copying Project State Library of New South Wales.

At Milparinka there were four licensed hotels: the Milparinka; the Albert; the Royal Standard; and the Royal. Three of these were substantial stone buildings, constructed from the local Cretaceous sandstone. The Commercial Bank had moved to a new stone building and there were three general stores, post office, a police office, courthouse and warden's office. The Milparinka water hole was partly scooped out and an earthen dam constructed across the lower end. The public well had also been

deepened to 163 feet and could supply about 350 gallons per hour with the aid of a new whim.

The year 1883 began dry, but periods of rain in February, May and October allowed a large amount of stacked dirt to be washed for a production of 2,450 ounces of gold. By the end of the year the Granite diggings were largely abandoned, except for a few puddling machines and some fossickers. Small groups of miners were active at Good Friday and the Mount Browne diggings, while new ground was opened up at the Four Mile. The Whittabrinah Company on the Pioneer reefs got its crushing plant operating in June and completed some trial crushings for various claims, producing 230 ozs of gold from 370 tons of quartz. However, mining was suspended at most of the reef claims due to scarcity of water and the high cost of toll crushing. At £2 per ton the ore had to go more than half-an-ounce to the ton just to cover the cost of processing. The township of Milparinka continued to grow, as much as a service centre for the surrounding stations as for the goldfield. In October, 40 new town allotments were auctioned at an average price of £8.17s.8d. The population of Tibooburra decreased considerably, due to ongoing difficulties with its water supply and limited mining activity.⁷⁸

The first half of 1884 again saw drought but near the end of May about two-inches of rain fell. The miners were able to restart the puddling machines at the Granite diggings and process lower grade alluvial stockpiles. Another inch of rain fell in June, and in October there was good general rain over the whole district, falling so heavily at Mount Browne that virtually all the dams constructed to collect the water were washed away. Many miners finished up their washdirt and left the district. Some miners at Mount Browne were able to make good wages by crushing the consolidated 'cement' to extract the shotty gold, but their crude crushers resulted in significant loss of the finer gold. A puddling machine owned by Martin Berg and party was able to operate at the Four Mile diggings, processing tailings and surface clay averaging 1.5 dwt to the load. Limited work on the reefs by the Wittabrinna and Elizabeth Companies produced about 89 ozs of gold from 130 tons of quartz crushed. At the end of 1884 the population of the field was about 500, but no more than 100 were engaged in mining. Warden King considered that the future prospects for the goldfield were not very encouraging.⁷⁹

Just as it looked as if the field might be finished, exceptionally heavy rains throughout 1885 led to a revival of alluvial and deep lead mining. In January, more than nine-inches of rain fell in Milparinka, washing away the new dam at the water hole.

Rainfall for the year was 18.13 inches, almost three times the average. All the water holes and dams filled and miners returned to the field. Early in March a rush occurred at Billygoat Hill, just south-west of the original Mount Browne diggings. A party of prospectors led by McKenzie and Gordon were able to locate a buried lead in 'cement' at a depth of 55 feet yielding from 1 to 2 ozs per ton. Three other parties intersected this lead at greater depth and were also able to get good gold. Shafts were sunk further along the course of the lead, but it was dipping so steeply to the west that one shaft failed to reach basement at 210 feet. A number of the deeper shafts encountered strong flows of water and had to be abandoned. At the nearby 1 Mile, a miner called 'Portuguese Joe' also struck gold at the base of the 'cement' and several shafts were sunk around this area to trace the lead. A number of nuggets were found on the surface around Mount Browne, no doubt exposed by the heavy rain. Mount Browne township, which had been virtually abandoned, sprang back to life for a third time with three stores, a hotel, butcher and a baker's shop. At Tibooburra, puddling machines were able to operate throughout the year processing low-grade alluvium. A few miners also exploited payable gold at Good Friday and at Nuggety Gully, where several nuggets over an ounce apiece were found. At the end of the year there was a new alluvial rush to Evans Gully, about 6 miles north of the Warratta reefs (Figure 1). The total gold production for the year was about 2,100 ozs, although Warden King noted it was difficult to estimate the true amount because some had been sent away privately. The mining population as represented by miners' rights was 430, business licences 120, women 80 and children 126 giving a total population on the diggings of 756. An additional 499 people were on the surrounding stations.⁸⁰

Above average rains continued through 1886 into 1887 with a corresponding increase in gold production (Figure 7). In June 1886, about 5 miles north of Milparinka, a prospector called Tom House found a rich patch of gold, including a six-ounce nugget in an area that had not previously been mined. This sparked a small rush and the area became known as New Bendigo (Figure 1). The gold was confined to a small gully that was soon worked out, yielding about 1 oz to the ton, as well as several additional nuggets from one to eight ounces. During the last few months of 1886 many miners left the field for the recently discovered Tetulpa diggings in South Australia.⁸¹ A large number of puddlers were able to operate around Tibooburra over a distance of 10 miles. Many of the owners were making £20-£30 per week and some were reported to be making small fortunes.⁸² This success encouraged additional construction of dams and

puddling machines at Mount Browne and the Four Mile where there had been limited processing of the lower grade surface material and waste from previous mining. A puddling machine at the Golden Lake shaft, which had struck a good supply of water, was also used to process much of the deeper wash. The Mount Browne Prospecting Company, set up to explore and test the deep gravels at this site, was granted Government aid to continue this work. The nearby All Nations claim was doing well on deep lead gold. Despite the good rains two men died of thirst.⁸³

The year 1888 started well with two-inches of rain in early January at Milparinka and Tibooburra. However, this was to be the last rainfall for the year. The annual rainfall at Mount Browne was even less, at only 0.5 inches. All alluvial mining at Tibooburra ceased by the end of February and some of the miners again turned their attention to the quartz reefs.⁸⁴ Some processing by puddling was possible at Mount Browne, using water pumped from the deeper shafts. Ironically, the Mount Browne Prospecting Company had to discontinue exploring the deep lead system when their shaft reached 241 feet and they could no longer keep the water down. A whim operating night and day with three relays of horses was insufficient, so the company sent their manager to Victoria to procure powerful pumping equipment. A suitable pump and engine were purchased, but owing to the drought, teams could not travel to Mount Browne and by the end of the year only part of the machinery had arrived. Some good nuggets were found around Mount Browne, including one of 28 oz 17 dwt, one of 12 ozs and another of 9 oz. The lucky discoverer of the 12 oz nugget tried to conceal it from his mate, but was found out and sentenced to four months gaol under section 89 of the Criminal Law Amendment Act.⁸⁵

Dry conditions continued through 1889 and the activity and population on the field continued to decline. Attention was focussed on the promising deep lead at Billygoat Hill. The Mount Browne Prospecting Company finding their capital insufficient to continue development, amalgamated with a Melbourne syndicate. By the end of the year most of their new equipment was in place and the manager expected everything to be fully operational by the end of January 1890. A new lease was taken out over the 'cement' hill near Nuggetty Gully and the Tibooburra Gold-mining Company established, with the intention of floating a larger company to mine and process this material on a large scale. A bulk assay indicated that the 'cement' was payable, but the challenge was to obtain sufficient capital and water to operate the mine. Quartz crushing at the Warratta reefs was abandoned, largely due to the poor recovery

of gold from the plant and lack of water. Parcels of stone sent for assay averaged 7-8 ozs per ton but the primitive crushing equipment had never produced more than 1 oz to the ton.⁸⁶

Despite good rains in the early part of 1890 gold production was limited to about 1,450 ozs from the Milparinka area and 700 ozs from Tibooburra. Operations on the deep lead at Billygoat Hill were at a slow pace and reef mining was at a standstill due to the ongoing lack of suitable crushing machinery.⁸⁷ Then the collapse of the Mount Browne Prospecting Company in November 1891 dashed the hopes of many who believed that the Albert Goldfield had a future in deeper mining of the 'cement' and in reef mining. The company had managed to overcome the water inflow to its shaft, pumping out 45,000 gallons of water a day, which was also used to great benefit by the miners at Mount Browne and Stringers Hill. It had purchased the adjacent All Nations claim and connected to these workings with a 350 foot drive, which had cut payable wash in several places going 3 to 16 dwt to the ton. Drives were put in to the east and north-west but the wash was found to be very patchy with no clearly defined lead. The failure of the venture, with unpaid local debts of around £500, had a depressing effect throughout the district and now made it almost impossible to attract additional capital to work the reefs and the large deposits of 'cement' near Nuggety Gully.⁸⁸ Drought conditions resumed and to make matters worse the rabbit plague reached the area, with rabbits consuming all the vegetation around the water holes so that the miners could not feed their horses.

By 1892 mining was virtually paralysed by drought. Only 776 oz of gold were produced for the year. Miners were drawn away from the field to expanding activities at Broken Hill, some to the opal mines at White Cliffs, discovered in 1889 and others further afield to the emerging goldfields of Western Australia. Yet the field did not quite die. It struggled on with a small population of around 100 miners who continued to produce gold after periods of rain, mainly by puddling, limited deep lead mining and fossicking. Gold production actually increased to 5,936 ozs over the period from 1893 to 1894. Some new quartz reefs were found at Warratta and also at New Bendigo and there were intermittent attempts to work these. However, almost eight years of severe drought from 1895 to 1902 largely terminated significant mining across the field. Over the following years some periods of good rain allowed puddling to be resumed and there were attempts to reopen the deep leads and revive reef mining. Sporadic interest

by small syndicates and mining companies has continued to the present, with recent exploration drilling at the Pioneer and Phoenix reefs by Proto Mining Ltd.

Nature of the diggings and methods of working

The various discoveries in the Albert Goldfield revealed four major areas of alluvial and reef gold deposits at separate inliers or islands of early Palaeozoic rocks, surrounded by younger sedimentary rocks (Figure 1). The early prospectors found the nature of the gold distribution confusing. Initially most of the gold was found close to the surface on and around the inliers and there appeared to be no well-defined alluvial leads. Warden Thompson noted in May 1881:

Experienced gold miners say that they cannot understand the field, as the gold is found in small patches, and long distances apart, and they are of the opinion that as the gold is traced northwards that eventually the lead will be discovered in Queensland.⁸⁹

The difficulty in finding well-defined leads was due to the subdued nature of the landscape, with few obvious incised channels, and also to the geological history of the region. The original source of the gold was the reefs developed in the older Palaeozoic basement rocks. During the Mesozoic era (>65 million years ago) these rocks were partly buried by river, lake and shallow marine sediments of the Eromanga Basin. Gold eroded from the reefs was deposited and concentrated in areas of these sediments (referred to by the miners as 'cement'). Barren Cainozoic sediments then extensively covered these older rocks and the contained gold. Subsequent erosion partly stripped away the mantle of sedimentary rocks and reworked gold from the Mesozoic sediments ('cement') into the recent alluvium. This occurred particularly where faulted blocks of basement were uplifted and the contact between these and the Mesozoic sediments exposed. Additional gold was also eroded from the exposed basement rocks. Thus, unlike most of the alluvial goldfields in other parts of south-eastern Australia, the process of alluvial gold concentration was not a simple one of erosion of gold-bearing reefs directly into still exposed recent alluvium and leads.

At the Mount Browne diggings, gold was initially worked near the surface in the shallow gullies. The gold-bearing wash was about 10 inches thick, lying on the slate basement and typically below less than 2-3 feet of soil. At the original Prospectors' claim the gold-bearing alluvium was traced for 400 feet over an area about 60 feet wide.

Some of the washdirt yielded almost 1 oz to the load (about 1 ton) but averaged about 16 dwt. The gold was typically 'shotty' or 'sluggy' and well waterworn. Small nuggets up to half an ounce were relatively common.⁹⁰

On the Four Mile, initial claims in the shallow gullies (e.g. Fallon and party, Nolan and party, Martin and party) yielded about 1 to 1.5 ozs to the load from near the surface. On the nearby level ground (e.g. Seymour's claim) the washdirt varied in depth from 3-12 feet.⁹¹ The washdirt from here was carted to Milparinka for washing at a cost of 15 shillings per load, so that any dirt going less than 5 dwt to the load was not payable.

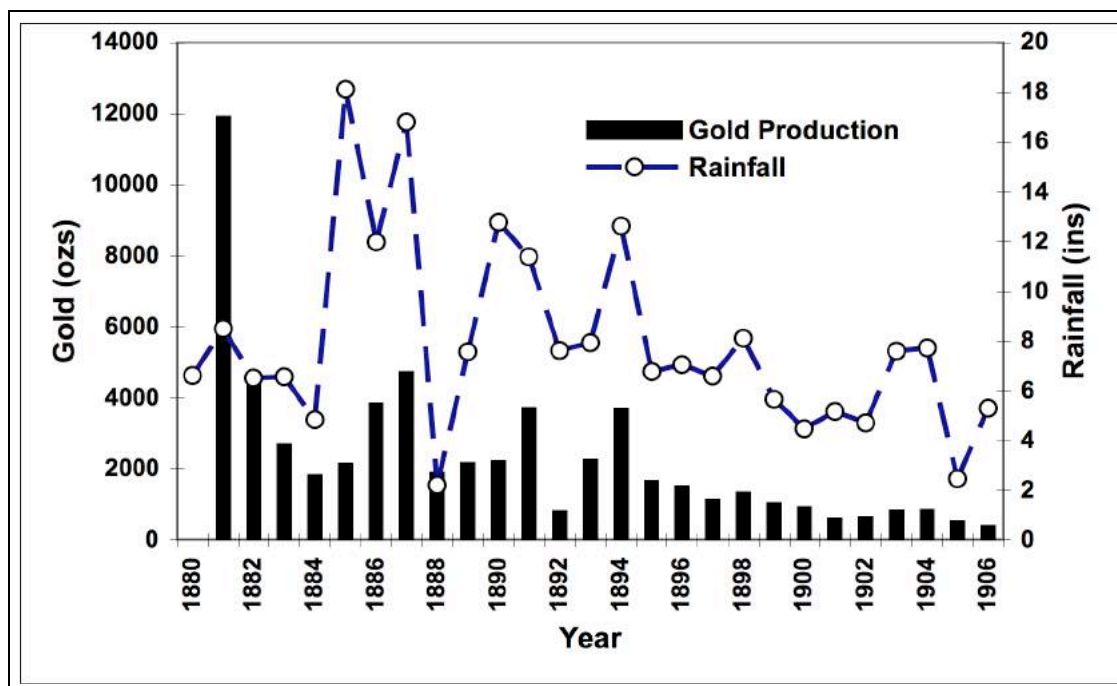
At the Granite diggings (Tibooburra) alluvial gold was won from near surface deposits in and near the margins of the granite. The gold here was mostly fine and scaly, but easily mined from the shallow alluvium/colluvium. Some of the wash went up to 3 oz to the load.⁹² There were also large volumes of shallow, lower grade alluvium that were suitable for large-scale processing by puddlers.

The first attempt to discover a deep lead at the Mount Browne diggings was made by Butler, Innis and party in March 1881. They sunk a shaft to 180 feet on the flat below the Prospectors' claim through the Mesozoic (Cretaceous) sediments and found prospects of 6 dwt of gold per ton.⁹³ At the Four Mile, shafts were sunk to depths of 20 to 180 feet to test the deeper 'cement' and gold was won from some of this material. The discovery of deep lead gold in the 'cement' at Billygoat Hill by McKenzie and Jordan in March 1885 showed the potential of this type of deposit. Initially this lead was traced to a depth of 150 feet and averaged 1-2 oz to the ton. A number of other shafts were put down around this discovery, including the deeper Golden Lake shaft, but problems with the high water inflow, together with the collapse of the Mount Browne Prospecting Company, meant that this lead was not fully tested or developed. Partially successful attempts were also made to mine the 'cement' at Stringers Gully and One Mile locations at Mount Browne and at Tunnel Hill near Nuggety. At the One Mile, a lead was picked up at a depth of 56 feet with gold grades up to 4.5 ozs to the ton in some sections.⁹⁴

At first, the principal methods of working the alluvial wash were by surface specking and dry blowing at the diggings or carting the wash to water holes where cradles and long toms could be used. Before the rain in May 1881 an individual known as 'German Fred' was able to get a quantity of gold together at Mount Browne by specking, his apparatus being a pair of spectacles and a clothes brush.⁹⁵ Local

aborigines were involved in some of the prospecting and fossicking, The first nugget found at Mount Browne was spotted on the surface by an aboriginal woman accompanying James Evans' party. There is also a report of aborigines finding a 4 oz nugget at Mount Browne, which they sold to the prospectors.⁹⁶ Ted Murphy, who prospected at Mount Browne, noted that at one stage in early 1881, the main mining activity on the Prospectors' claim consisted of 'Evan's gin digging up the surface with a yam stick, and as she found an occasional nugget from a pennyweight to an ounce – all rough gold – dropping it into a jam tin'.⁹⁷ Through 1881 a couple of aboriginal women were involved in specking around Mount Browne, particularly after rain, and they had a certain amount of success with the aid of an old pocket knife.⁹⁸

Figure 7: *The pattern of gold production and annual rainfall for the Albert Goldfield (Milparinka) from 1880 to 1906.*



Source: Annual Reports of the NSW Department of Mines (1881-1906) and Australian Bureau of Meteorology.

From August 1881 dams were constructed to provide sufficient water to use puddling machines to process the large amounts of lower grade alluvium at the Granite diggings. The first puddling machine commenced operations at McIntyre's Dam in November after some rain.⁹⁹ In later years, particularly from 1884 onwards, puddling machines were widely used across the goldfield and significantly increased the production of gold, when there was sufficient water to run them (Figure 7). By 1887

there were 25 puddling machines operating at Tibooburra processing wash with 1.5 to 3 dwt of gold per ton.¹⁰⁰ Miners still resorted to dry blowing in drought periods. A dry blowing machine was brought to Tibooburra in September 1882, but was not entirely successful due to the roughness and aggregated nature of the washdirt. Improvements were made and dry blowing machines were soon widely used. This appears to have been the first use of dry blowing machinery in Australia.¹⁰¹

The local mining regulations allowed the miners to stack and register their washdirt or leave their workings during dry periods and maintain their claim, as long as they returned no later than three days after rain. During the numerous dry periods many of the miners subsisted by working on the local stations at various jobs such as fencing, building construction, tank sinking and shearing.¹⁰²

Conclusions

The Albert Goldfield would have to have been one of the most testing and perplexing goldfields in the history of the Australian gold rushes. At the end of 1882 the New South Wales Under-Secretary of Mines, Harrie Wood noted:

Probably no gold-field has been discovered in the Colony which is calculated to tax the perseverance and ingenuity of the miner to a greater extent than the Albert Gold-field.¹⁰³

It didn't get any better with time. Many of the miners were persevering and ingenious but most never made a fortune and many were lucky to 'make tucker'. During the main rushes from early 1881 to the end of 1882 approximately 16,430 ounces of gold were produced (Figure 7).¹⁰⁴ The total value at the time would have been about £63,260. While this might seem like a large sum, at least 2,000 people were involved in prospecting at one stage or another during this time, so the average return per head would have been less than £32. Most people's expenses would have exceeded this. The cost of coach travel to and from the diggings was around £8. Clearly many walked or rode their own horses, but there were numerous other expenses for equipment, transporting the washdirt, food, water and the occasional nobbler. For a miner to break even he probably needed to clear 10 shillings per week, which meant finding more than about 6 dwt of gold. Contemporary estimates made during the very early stages of the rush suggested that for every £1 of gold won £20 were expended.¹⁰⁵ A small number of miners made a good return but most would have lost money and quite a few also lost

their lives. For the individual miner the enterprise was a gamble and the goldfield was in reality a large and confusing casino.

Acknowledgments

My thanks to staff of the NSW Department of Primary Industries, Maitland, particularly Roger Cameron and David Barnes, the National Library of Australia, Canberra, the State Library of New South Wales, Sydney and the State Library of Victoria, Melbourne for helping me access information for this article. Also thanks to some residents of Milparinka and Tibooburra, particularly George Williams, Ray and Debbie Hotchins, for information and site access. Comments from two anonymous reviewers helped improve the article.

Glossary of some terms used in the text

Long tom – a type of sluice box used to recover gold using water and gravity.

Lead – a buried, narrow zone or channel in which alluvial gold has been concentrated.

Nobbler – small glass of ‘spirits’.

Puddler – a device for breaking up clay and mud in water to release the contained gold. The most common large-scale design was a shallow circular trough excavated in the ground and lined with impermeable material, through which harrows were dragged by a horse. Once broken up the clay was sloughed off in suspension allowing the gold and gravel to settle in the puddler.

Shotty gold – coarse gold of a similar size to lead shot.

Specking – looking for gold on the surface, usually after rain.

Units

1 troy oz (the standard measure of gold) = 20 dwt = 31.10348 g; 1 dwt = 1.555 g; 1 (long) ton = 1.01605 tonnes; 1 load (a dray load) = about 1 tonne of washdirt; 1 pound = 0.454 kg; 1 inch = 25.4 mm; 1 foot = 0.3048 m; 1 mile = 1.609 km; 1 (imperial) gallon = 4.5461 litres.

Pre-decimal currency

£1 (pound) = 20s (shillings) and 1s = 12d (pennies). It is difficult to accurately calculate the present value of historic currencies, but using the price of gold as a comparator (£3 15s in 1881 and A\$800 per oz today), £1 in 1881 would be equivalent to \$213 in 2007. A pie and coffee for 6d at the Mount Browne Coffee Palace in 1881 would be about equal to a Big Mac, small fries and Coke (\$5.45) and a 1s nobbler in a shanty on the Four Mile would be the equivalent of a cocktail at a trendy inner Sydney bar (\$10.65).

Endnotes

¹ Annual reports of the NSW Department of Mines [hereafter *ARNSWDM*] 1880-1945.

² D. Jones, ‘Gold expedition to a N.S.W. desert goldfield’, *Australian Gem and Treasure Hunter*, September 1982, no. 72, pp. 26-28; M. Revell, ‘Tibooburra: Eldorado of North West New South Wales’, *Australian Gem and Treasure Hunter*, May 1983, no. 79, pp. 47-48; B. Gillespie, ‘There are still new patches at Milparinka’, *Australian Gold Gem and Treasure*, August 1998, pp. 4-6.

³ ‘Tibooburra’, *Town and Country Journal*, 27 October 1882, p. 711; ‘The Miner – Albert Goldfield’, *Ibid.*, 27 October 1882, p. 694; E.J. Murphy, *They Struck Opal*, Associated General Publications, Sydney, p. 75.

⁴ C. Sturt, *Narrative of an expedition into Central Australia*, eBooks@Adelaide 2004.

⁵ J. Gerritsen, *Tibooburra – Corner Country*, Tibooburra Press, Tibooburra, NSW, 1980, pp. 12-17; *Australian Dictionary of Biography*, Online Edition, <http://www.adb.online.anu.au/biogs/A100199b.htm>.

⁶ Gerritsen, *Tibooburra – Corner Country*, p. 10; R.J. Solomon, *The Richest Lode: Broken Hill 1882-1988*, Southwest Press, Marrickville, NSW, 1988, p. 16.

⁷ J.C.F. Johnson, *To Mount Browne and Back or Moses and Me*, Advertiser Print, Adelaide, 1881, pp. 3, 32; Solomon, *The Richest Lode*, pp. 16-19; R.H.B. Kearns, *Silverton: A Brief History*, Broken Hill Historical Society, Broken Hill, 1992, p. 5.

⁸ Kearns, *Silverton: A Brief History*, pp. 6-9.

⁹ Johnson, *To Mount Browne*, p. 21; *Wilcannia Times*, 4 November 1880; *ARNSWDM* for 1880, p. 182; *Ibid.*, for 1881, p. 106.

¹⁰ Johnson, *To Mount Browne*, p. 21; *Wilcannia Times*, 10 February 1881. Mt Browne was named after John Harris Browne, the surgeon on Sturt's expedition. See, C. Sturt, *Narrative of an expedition into Central Australia*, [eBooks@Adelaide](#) 2004.

¹¹ Johnson, *To Mount Browne*, p. 21.

¹² 'Another Gold Discovery', *Wilcannia Times*, 10 February 1881; 'The Rush to Mount Poole', *Town and Country Journal*, 5 March 1881, p. 454; H.Y.L. Brown, Extract from Report on the Albert Gold-field – Artesian Water, Geological Survey of NSW report, GS1881/002.

¹³ 'Local Intelligence – Stores for the diggings', *Wilcannia Times*, 10 February 1881; 'Local Intelligence – Pioneer Coach', *Ibid.*, 17 February 1881; 'The New Rush at Mount Poole', *Town and Country Journal*, 19 February, 1881; 'The Rush to Mount Poole', *Town and Country Journal*, 5 March 1881, p. 454.

¹⁴ 'Latest News from Mount Brown', *Wilcannia Times*, 24 February 1881.

¹⁵ John Rees, a Welsh blacksmith died on the 2nd of March while *en route* to Mount Browne from Sturt's Meadows Station with two companions. The men had taken a cross-country route and split up to look for water. 'Death in the bush from thirst', *Wilcannia Times*, 24 March 1881; 'The Mount Poole Rush A caution to miners', *Town and Country Journal*, 19 March 1881, p. 539.

¹⁶ 'Extract from Government Gazette' *Wilcannia Times*, 10 March 1881, 'Mount Poole Rush', *Town and Country Journal*, 26 March 1881, p. 597.

¹⁷ Milparinka is a local aboriginal word associated with water and variously thought to mean 'water can be found here', 'find a native well here' or possibly a place where an aboriginal couple had settled on water after eloping. When full there was one large water hole at Milparinka. This divided into two separate holes as the water level dropped. Initially one of these was used for washing gold and the other for domestic supplies. These holes would generally contain water for about 8 months of the year. *ARNSWDM* for 1881, p. 106; 'The Albert Goldfields - Special Report', *Town and Country Journal*, 23 September 1882, p. 598; G. Svenson, *What was at Milparinka*, Milparinka Archaeology, Sutherland NSW, 1995, p. 3.

¹⁸ 'Mount Browne Diggings', *Wilcannia Times*, 3 March 1881.

¹⁹ The Four Mile was so named because it was located about four miles east of the original Mount Browne diggings towards Milparinka. The Mount Browne diggings were sometimes referred to as the Twelve Mile, being about 10-12 miles southwest of Milparinka. See, 'Mount Poole Rush, The Mining Warden's Report', *Town and Country Journal*, 26 March 1881, p. 597.

²⁰ 'The New Rush at Mount Poole', *Town and Country Journal*, 19 February 1881; 'Mount Brown Diggings', *Wilcannia Times*, 3 March 1881; 'Latest Mining Intelligence', *Ibid.*, 24 April 1881.

²¹ 'Mining Items', *Town and Country Journal*, 2 April 1881, p. 646.

²² 'Mines and Mining – Mining Items – Mount Poole', *Ibid.*, 14 May 1881, p. 434.

²³ Johnson, *To Mount Browne*, p. 22.

²⁴ *Ibid.*, p. 23; 'Extracts from reliable correspondents letters', *Wilcannia Times*, 10 March 1881.

²⁵ 'Local Intelligence', *Ibid.*, 10 March 1881.

²⁶ Later throughout 1881 the local price of gold at the banks and stores was £3.18s to £4 per ounce, *ARNSWDM* for 1881, p. 108.

²⁷ Johnson, *To Mount Browne*, p. 22.

²⁸ *Ibid.*, p. 23.

²⁹ *Ibid.*, 'Mount Poole Rush', *Town and Country Journal*, 26 March 1881, p. 597.

³⁰ 'Latest News from Mount Brown Diggings', *Wilcannia Times*, 10 March 1881. 'The Mount Browne Diggings', *The Australasian*, 12 March 1881, p. 335.

³¹ *ARNSWDM* for 1882, p. 99; *Ibid.*, for 1883, p. 116.

³² 'Latest Mining Telegrams – News from Mount Browne', *Town and Country Journal*, 8 April 1882, p. 634.

³³ *ARNSWDM* for 1881, p. 108.

³⁴ 'Mount Browne Diggings – Telegraph to Minister for Mines from Warden Thompson', *Town and Country Journal*, 7 May 1881, p. 886; 'A Tour through the Albert Goldfields', *Ibid.*, 6 August 1881, p. 262.

³⁵ 'Mount Browne Diggings – Telegraph to Minister for Mines from Warden Thompson', *Ibid.*, 7 May 1881, p. 886; *Ibid.*, 4 June 1881, p. 1078.

³⁶ 'A Tour through the Albert Goldfields', *Ibid.*, 6 August 1881, p. 262.

³⁷ 'Mining Items – Mount Poole, Telegram from Warden Thompson', *Ibid.*, 14 May 1881, p. 934.

³⁸ 'Latest News from Mount Brown Diggings', *Wilcannia Times*, 28 April 1881; 'Mount Browne Diggings – Telegraph to Minister for Mines from Warden Thompson', *Town and Country Journal*, 7 May 1881, p. 886.

³⁹ 'Mount Browne', *Ibid.*, 30 April 1881, p. 838.

- ⁴⁰ 'Latest Mining Intelligence – The Albert Goldfield', *Wilcannia Times*, 28 April 1881; 'Latest Mining Intelligence – Mount Brown', *Ibid.*, 12 May 1881.
- ⁴¹ 'Latest News from Mount Brown Diggings', *Wilcannia Times*, 12 May 1881; 'Mining Items – Mount Poole', *Town and Country Journal*, 21 May 1881, p. 982. At the time of the drowning the police sent some aborigines into the creek, but they could not find his body. An inquest determined accidental death by drowning. John O'Keefe's assets were two horses valued at £30, one dray worth £10 and 2 sets of harness valued at £5. Inquests 1881-1890.
- ⁴² 'Mining Items – Mount Poole', *Town and Country Journal*, 21 May 1881, p. 982.
- ⁴³ 'The Mount Browne Diggings - Milparinka, *Ibid.* May 11', *Ibid.*, 4 June 1881, p. 1078.
- ⁴⁴ 'Latest Mining Intelligence – Mount Brown', *Wilcannia Times*, 12 May 1881.
- ⁴⁵ *Ibid.*, 'Mining Items – Mount Browne', *Town and Country Journal*, 11 June 1881, p. 1126.
- ⁴⁶ 'The Mount Browne Diggings Milparinka May 11', *Ibid.*, 4 June 1881, p. 1078; Murphy, *They Struck Opal*, p. 64.
- ⁴⁷ 'Mines and Mining – Mount Poole', *Town and Country Journal*, 18 June 1881, p. 1174.
- ⁴⁸ 'Echuca correspondent of the Melbourne Argus', *Ibid.*, 2 July 1881, p. 22; 'Mining Items – Mount Poole, Telegram from Warden Thompson', *Ibid.*, 9 July 1881, p. 70.
- ⁴⁹ 'Big Nugget Rush Visited 27 May 1881 (report to Minister of Mines)', *Ibid.*, 25 June, p. 1221.
- ⁵⁰ *Ibid.*, 18 June 1881, p. 1174.
- ⁵¹ 'Latest Mining Intelligence – The Albert Gold Field', *Wilcannia Times*, 9 June 1881; 'The Albert Gold Fields', *Ibid.*, 23 June 1881.
- ⁵² 'Mount Browne Diggings', *Ibid.*, 7 July 1881; 'Mining Items – The Albert Goldfields', *Town and Country Journal*, 16 July 1881, p. 119.
- ⁵³ 'A tour through the Albert Goldfields', *Ibid.*, 6 August 1881, p. 262.
- ⁵⁴ 'Mining Items – The Albert Goldfields', *Ibid.*, 16 July 1881, p. 119; 'The Albert Goldfield', *Wilcannia Times*, 4 August, 1881; 'Mining Items - Mount Browne', *Town and Country Journal*, 6. August 1881, p. 262.
- ⁵⁵ 'New Warden for the Albert Gold Field', *Wilcannia Times*, 14 July 1881.
- ⁵⁶ 'Mining Items – The Albert Goldfields', *Town and Country Journal*, 16 July 1881, p. 119; 'The Albert Goldfield', *Wilcannia Times*, 1 September 1881; 'Mining Items – Milparinka, Warden report to Minister of Mines', *Town and Country Journal*, 10 September 1881, p. 503.
- ⁵⁷ Tibooburra was taken from 'Ti burra' the local aboriginal name for the area, meaning place of stones in reference to the numerous granite tors believed in aboriginal legend to be people turned to stone by a hailstorm. 'Mining Items – Milparinka, Warden report to Minister of Mines', *Town and Country Journal*, 10 September 1881, p. 503; Descriptive plaque in Tibooburra.
- ⁵⁸ 'The Albert Goldfield', *Wilcannia Times*, 20 October 1881.
- ⁵⁹ 'Mount Browne Diggings', *Ibid.*, 17 July 1881. 'Advertisement' *Ibid.*, 18 August 1881.
- ⁶⁰ 'The Albert Goldfield', 'Accident to Constable Connors', *Ibid.*, 11 August 1881; 'Mining Items', *Town and Country Journal*, 13 August 1881, p. 300.
- ⁶¹ Both the Commercial Banking Company of Sydney and the Commercial Bank of Australia operated in Australia at the time. That it was the Commercial Banking Company of Australia that operated in both Milparinka and Tibooburra is mentioned in Geoffrey Blainey, *The Rush That Never Ended, A History of Australian Mining*, Melbourne UP, Carlton, 1963, 2nd edition, 1969, p. 137. I wish to acknowledge the input of one of the referees who pointed this out.
- ⁶² 'Mining Items – Milparinka, Wardens report to Minister of Mines', *Ibid.*, 10 September 1881, p. 503.
- ⁶³ 'Through the Albert Goldfield', *Ibid.*, 29 October 1881 p. 838.
- ⁶⁴ 'The Albert Gold Fields', *Wilcannia Times*, 30 June 1881; *ARNSWDM* for 1881, p. 107.
- ⁶⁵ 'Death by suffocation at the diggings', *Wilcannia Times*, 18 August 1881.
- ⁶⁶ 'Mining Items – Milparinka Wardens report to Minister of Mines', *Town and Country Journal*, 10 September 1881, p. 503; 'The Albert Goldfield', *Wilcannia Times*, 20 October 1881. 'Mining Items – The Albert Goldfield', *Town and Country Journal*, 8 December 1881, p. 1078.
- ⁶⁷ 'Milparinka – Warden's Report', *Ibid.*, 18 February 1882; 'Mount Browne' *Wilcannia Times*, 12 January 1882.
- ⁶⁸ 'Affairs at the Albert', *Town and Country Journal*, 1 April 1882, p. 598; *ARNSWDM* for 1882, p. 98.
- ⁶⁹ 'Deplorable Accounts from Mount Browne', *Town and Country Journal*, 25 March 1882, p. 540; 'The Miner – Distress at Mount Poole', *Ibid.*, 1 April 1882, p. 598.
- ⁷⁰ 'Milparinka – Warden's report', *Town and Country Journal*, 29 April 1882, p. 790; *ARNSWDM* for 1882, pp. 98-99.
- ⁷¹ *Ibid.*, for 1882, p. 99; 'Mining Items - Mount Browne', *Town and Country Journal*, 13 May 1882, p. 886; Murphy, *They Struck Opal*, pp. 71-73.

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- ⁷² ARNSWDM for 1882, p. 99; 'News from the Colonial Goldfields – Mount Browne' *Town and Country Journal*, 2 December 1882, p. 1078; 'News from the Colonial Goldfields – Mount Browne' *Ibid.*, 9 December 1882, p. 1126.
- ⁷³ 'The Miner – Albert Goldfield', *Ibid.*, 27 October 1882, p. 694.
- ⁷⁴ ARNSWDM for 1882, p. 99.
- ⁷⁵ Two children of Frederick Christopher Bamess are buried at Mount Browne, a son Frederick Amos who died on 21st December 1881 aged 17, and a daughter Patience Clare who died on the 31st December 1881 aged 14.
- ⁷⁶ Murphy, *They Struck Opal*, p. 84.
- ⁷⁷ 'Affairs at the Albert', *Town and Country Journal*, 1 April 1882, p. 598.
- ⁷⁸ ARNSWDM for 1883, p. 115-16.
- ⁷⁹ *Ibid.*, for 1884, p. 18 & 109.
- ⁸⁰ *Ibid.*, for 1885, p. 17 & pp. 103-04.
- ⁸¹ *Ibid.*, for 1886, pp. 103-04.
- ⁸² *Ibid.*, for 1887, p. 18 & 105.
- ⁸³ *Ibid.*, p. 106.
- ⁸⁴ *Ibid.*, for 1888, p. 18.
- ⁸⁵ *Ibid.*, p. 120.
- ⁸⁶ *Ibid.*, for 1889, p. 124.
- ⁸⁷ *Ibid.*, for 1890, p.127.
- ⁸⁸ *Ibid.*, for 1891, pp. 127, 138.
- ⁸⁹ 'Telegram from Warden Thompson', *Town and Country Journal*, 14 May 1881, p. 434.
- ⁹⁰ 'Latest News from Mount Brown', *Wilcannia Times*, 24 February 1881; 'Mount Poole Rush', *Town and Country Journal*, 26 March 1881, pp. 587, 597.
- ⁹¹ 'Mount Poole Rush', *Ibid.*, 26 March 1881, p. 597. 'The Albert Gold Field District – Extract of report by H.Y.L. Brown', *Wilcannia Times*, 1 September 1881.
- ⁹² *Ibid.*; 'Mining Items' *Town and Country Journal*, 6 August 1881, p. 262.
- ⁹³ ARNSWDM for 1881, p. 107.
- ⁹⁴ *Ibid.*, for 1885, p. 108.
- ⁹⁵ 'A Tour through the Albert Goldfields', *Town and Country Journal*, 6 August 1881, p. 262; 'Through the Albert Goldfields', *Ibid.*, 29 October 1881, p. 838.
- ⁹⁶ *The Australasian*, 26 Feb 1881, p. 277.
- ⁹⁷ Murphy, *They Struck Opal*, p. 61.
- ⁹⁸ 'Through the Albert Goldfields', *Town and Country Journal*, 29 October 1881, p. 838.
- ⁹⁹ 'Latest Mining Telegrams', *Ibid.*, 13 August 1881, p. 300; 'Mining Items – The Albert Goldfield', *Ibid.*, 8 December 1881, p. 1078.
- ¹⁰⁰ ARNSWDM for 1887, p. 110.
- ¹⁰¹ 'Tibooburra', *Town and Country Journal*, 27 October 1882. p. 711; 'The Miner – Albert Goldfield', *Ibid.*, 27 October 1882, p. 694; Murphy, *They Struck Opal*, p. 75.
- ¹⁰² *Ibid.*, pp. 77-86; 'News from the Colonial Goldfields – Mount Browne', *Town and Country Journal*, 16 September 1882, p. 550.
- ¹⁰³ ARNSWDM for 1882, p. 11.
- ¹⁰⁴ *Ibid.*, p. 99. This figure includes an estimate of the gold sent away privately.
- ¹⁰⁵ 'The Mount Browne Diggings', *Town and Country Journal*, 4 June 1891, p. 1078.