Bengonaway, Boggy Camp and Bora Creek

Diamond and Silver Mining

Benganawayi, the picturesque Gwydir River valley 20 km south of Inverell, having disappeared beneath the waters of Copeton Dam, has itself passed into history, as have the tin and diamond miners who once laboured there. Boggy Camp, the village that grew up on a cattle camp in the valley to supply the miners' needs, was already a ghost town before its final humiliation. Up in the basalt-capped hills on the eastern side of the dam the precious gems are still being mined, but the river in which they were first detected in 1872, the enormous granite boulders through which the water rushed and the still, deep waterholes are only a memory. Tin miners first approached Bengonaway in 18722 as they followed the indications of tin downstream along the sands of Copes Creek. Below a spectacular cascade over which the creek entered the valley, tin was found in payable quantities and, with it, in the bottom of the sluice boxes, transparent waterworn pebbles. Despite their unprepossessing appearance, they were soon recognised as diamonds, such as were being mined further downstream, near Bingara. No one person was credited with being the discoverer of Australia's greatest diamond field), probably because the diamonds were found almost simultaneously by several parties of tin miners.

Bora Creek rises in the hills above Boggy Camp. joins Maids Creek and then the Gwydir River upstream of its meeting with Copes Creek. Prospectors who began working in Maids Valley soon found that it and Bora Creek contained an extraordinarily rich and diverse collection of minerals: "In addition to tin ore altogether free from titanic iron, it contains platina, diamonds of the first water, copper, silver and lead, and I hear gold can be got in one place."4 Years later most of the minerals were found to occur together in the Bora Creek lode, but in 1873 the attraction was diamonds. The first tin mine to concentrate on gems was the lease of Adams, Allen and Whittaker on Bora Creek, where 125 diamonds had been quietly collected by January 1873.5 Sixty diamonds, averaging one carat each, with the largest weighing 5.5 carats, were sent to England to be valued.6

One might expect that when the news of such an

excellent find became public, a great rush of miners and speculators would begin. However, a century ago, although large stones were highly prized, diamonds in general did not approach the value they have today, a value that is kept artificially high because of the monopoly of the South African diamond syndicate. Industrial uses for diamonds had not yet been devised. Prices for rough diamonds paid locally from 1872 to 1885 were usually only two shillings and sixpence per carat (about \$5 in today's buying power) and large numbers of gems would have to be found to make mining payable.

Practical difficulties existed too. The unique feature, and main problem of the Copeton diamonds. was their hardness. Although this made them more brilliant gems, the fact that they were the hardest diamonds in the world meant that lapidarists found them almost impossible to cut. When they could be cut, it took four times as long as for South African diamonds and more was wasted. All had to be sent abroad for cutting, chiefly at Amsterdam. This obstacle was not overcome until 1901, when a firm of Sydney cutters began using steam machinery.7 However, the hardness of the Australian diamonds was soon seen to be an advantage for industrial purposes, and from 1885 the majority of the local stones were sold for this use. They are now recognised as the best industrials in the world, capable of sustaining far higher temperatures than any other diamonds.8

This belated recognition did not help the early miners to sell their stones. They had trouble convincing the Inverell jewellers and bank managers that the pebbles were diamonds. Because of the Australian gems' hardness, and unknown value, mineral buyers were reluctant to purchase them. Nevertheless a parcel containing two bucketfuls of diamonds sent to England was never heard of again.9 Although the majority of diamonds were straw or off-coloured, a higher proportion of clear, flawless "first water" diamonds was found among those from the Gwydir than from South Africa. Buyer prejudice remained, however, and for most of the mining period they were marketed abroad as "best Brazilian", which they closely resembled. For the first decade diamonds were so poorly regarded locally that George Eisenmonger, who tried to sell a bottle of 60 stones to a hotelkeeper





Round Mount Diamond Mine 1880s, showing the workings and the washing plant.

in exchange for three drinks, was refused "point blank".10 Afraid they would not receive the true value of their diamonds, miners hoarded them and tin became the primary target in washing the alluvial gravels of the Bengonaway Valley.

In 1884, however, a richer source of diamonds was discovered - the deep leads. These diamond drifts were deposited by an ancient river in disconnected patches over a 60 km stretch from Collis Hill (near Howell) to Bingara. They were later covered by a basaltic lava flow, which has since been eroded away by the present watercourses, exposing in places the buried drifts which bear diamonds in their bottom layers. The gems washed out of these exposed deep leads were found in the alluvial tin wash in the 1870s. In most cases the deep leads were mined by tunnelling under the basalt caps on the hills. The wash dirt was very erratic in quality and varied in thickness from the usual metre, up to an occasional four metres in depth. Other small gemstones were also found as well as enough tin to pay the running costs of the mine. Most of the diamonds were small, averaging three to the carat at Boggy Camp and two to the carat at Bora Creek. Many stories tell of "the" largest stone. A 121/2 carat bort (lustrous black diamond) was reputedly found, valued at 220 pounds. 11 An 11 4 carat clear diamond was discovered in 1904 by Mr Rose, but nothing is known of its fate 12 Gems of six to seven carats were occasionally described as "the largest". 13 The majority of diamonds, however, were smaller than their South African counterparts, stones over one carat being uncommon.

Extensive mining at Boggy Camp, the most productive and long-lived diamond field in Australia, began in 1885. The area within a 10 km radius of the township of Boggy Camp was the scene of the reclaiming of at least 200,000 carats of diamonds between 1886 and 1914 and another 22,000 since then. Pro-

duction figures are unrecorded till 1886 and even after that they are often incomplete, or missing altogether, which does not necessarily mean no production.14 Mining registrars frequently complained of the secretiveness of the miners and their unwillingness to divulge their actual production. Diamond mining in the mid-eighties was stimulated by the discovery of the deep leads, falling tin prices and improved diamond prices, which rose locally to seven shillings and sixpence a carat and remained stable throughout the nineties. Stones sold in London realised about 10 shillings per carat. 15 The result was that between 1886 and 1888, the first three years of full-scale mining, 10,000 carats of diamonds were reported to have been found at Boggy Camp, but this rate was probably not sustained in the nineties.

The first deep lead to be opened was the Koh-inoor on Copes Creek, where trials in early 1885 produced vields of seven carats per load (drayload) of wash dirt. Anything over one carat was regarded as payable, so a company was formed at once. Within a year several other companies had been formed to provide the capital needed to drive tunnels and shafts into the diamondiferous wash, on claims with names such as The Malacca, Round Mount, Red Hill, Crown Jewel, Star of the South, Skippens Deep Shaft, the Lone Star, Stockyard Hill, the Streak of Luck and the Old Farm. Those remembered as pioneers of deep lead mining include Peter Allwell, L.N. Kennedy, William Brown and John Forman. Soldiers Hill Mine was reputedly named because the deep lead was found when tiny diamonds were spotted with the fine gravel on a soldier ants' nest. Most of the shafts were dug by small groups of men, often relations, who camped together on their claim, carting the gravel out of the tunnel down to the nearest watercourse, and then either sluicing it in the same manner as tin or putting it through a pulsating diamond-saving machine or a rotary puddling plant. Sales were negotiated by weight



Washing plant at the Star of the South mine 1899.

in packets of random sizes with a local or travelling buyer. Inverell Jewish businessman Ernie Roos who established a permanent market for Australian stones in Europe, was the principal diamond buyer. Judging by how long many of the miners remained on their claims, the returns must have been remunerative. Some of the men and families who worked for a long time on the diamond diggings in the 19th century were the Daseys (George, James, Tom and John), William and Fred Aitken, H. Strandt, W.T. Thompson, the Sheridans and George and Jim Skippen.

The diamond drifts were patchy and unpredictable, making mining both exhilarating and hazardous. Some success stories were remarkable. Kirks Hill was renowned for its richness. One thousand carats of diamonds were once obtained by the Skippens from four loads of washdirt and on another occasion 2200 diamonds were found in two sugar bags of wash. When a rich patch was struck by Ryder brothers of Bora Creek in 1899, one fifth of a load yielded 25 diamonds, weighing 14 carats. 17 In 1887 six loads of wash from the Round Mount returned 296 carats, although the average yield was 3.7 carats per load. The vertical shaft at the Star of the South tapped very fruitful gravels in 1886 and 1887, when every load for two years averaged a never-equalled 45 carats, at a time when

130 men were being employed underground. The mine's directors, who were experienced miners, set a great value on secrecy and no records were kept.18 On one occasion 84 carats of diamonds were produced from one 18 litre drum of dirt and another half day's work resulted in 378 carats. Many similar stories, passed down and improved upon over the years, have recalled the brilliant harvest of the early years, but the life of many mines was transient, their owners meeting with success for a few years but later leasing or selling their claims to more optimistic newcomers. Despite the excellent quality of the Boggy Camp diamonds they were never found in sufficient numbers to make mining consistently profitable and fulfil the field's earliest promise, as described by a buoyant reporter in 1889: "it may reasonably be expected that the course of events which has been witnessed in our own time in South Africa, will be repeated in this colony. The value of such mines as the Round Mount diamond mine may yet come to be talked of in millions, like those at Kimberley and on the de Beers field".19

Visions of unlimited wealth vanished with the unsuccessful search for the source of the deposits of diamonds in hills such as the Round Mount. In South Africa a "pipe" had been found, containing the dia-

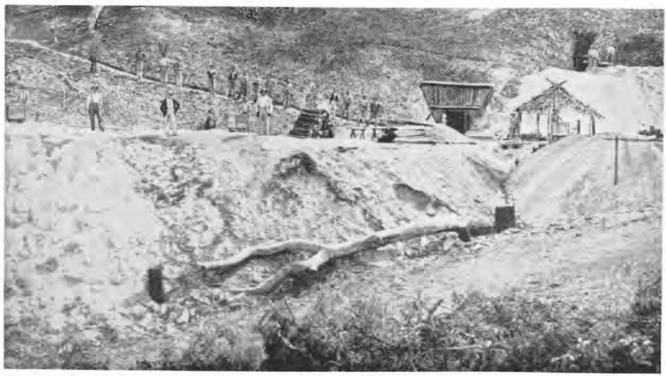
monds in their original position; in New England they were found only in the alluvials of an ancient river and recent watercourses and repeated attempts over the past century have failed to find the place from which the ancient river washed the diamonds. In 1905 Alfred Pike produced a specimen of diamond in a dolerite matrix, found between Kirks Hill and Staggy Creek. This resulted in great jubilation, then widespread debate and controversy, and finally disillusionment. The treasure hunt continues.

In 1889 only capital was felt to stand between Boggy Camp and world fame. In 1896 the opportunity came. Alarmed at the trend of events in South Africa which led in 1899 to the Boer War and the closure of the Kimberley diamond mines of South Africa for three years, British capitalists began to invest in the Australian fields. For the first time the value of Australian diamonds was recognised, and buyers now paid 20 to 25 shillings per carat for gems they had previously disparaged. The influx of capital began with the formation of the Inverell Diamond Fields Ltd in 1896, an all-British company which held its meeting of shareholders in London,20 It was followed by the Elliott Diamond and Tin Mining Co and the Soldier's Hill Diamond Co (both Victorian) and a London company purchased the Malacca. The most ambitious and most productive of all these was the Inverell Diamond Fields. Between 1897 and 1904 it won at least 471/2 thousand carats of diamonds21 from more than 81 hectares of leased mining ground, and employed up to 260 miners. In 1898, in the first full year of production, about 1300 loads were washed for a yield of 12,196 carats and enough tin to pay for the cost of treatment. Immediately the new washing plant was replaced by a bigger one and a railway was constructed from the pithead to the stockpile. Water problems were removed by running a 15 cm pipeline 2 km to the Gwydir River powered by a steam pump. In 1899 production rose to 21,830 carats.

This activity was enthusiastically welcomed by The Inverell Times:

"A place that was only lately a drear desert wild is now a lively business township with its little nest of buildings pretentious and otherwise. The consequence is that the attention of the world, and more particularly of the much coveted London market, is keenly directed to our fields, whither it would not be exaggeration to say that fully 40,000 pounds of British money has found its way mostly into the pockets of local residents." 22

The renewal of mining at Boggy Camp, coinciding with the full-scale working of the Howell mine and rising tin prices, produced feverish excitement in Inverell in 1899. The mining boom that had "made" Inverell in 187223 was thought to be reincarnated. During 1899



Malacca Diamond Mine 1899.

Bengonaway, Boggy Camp and Bora Creek

Inverell had four mining brokers and Boggy Camp one and in May they founded the Inverell Stock Exchange, which met weekly at the Royal Hotel. Inverell and Broken Hill had the only mining exchanges in NSW outside Sydney. Coachloads of potential investors and journalists kept arriving in the town, straining its accommodation to such an extent that four new two-storeyed hotels were built within the next three years.24 While the Inverell people were delighted about their newly found fame, they were content to allow others to take the financial risks this time, although the mines of the eighties had been largely dependent on local capital.

"We all know full well that but little local capital has been invested in mining ventures, but on the contrary very many thousands of British money have been brought into and expended in the district. Should the whole business prove to be a fiasco, practically no injury can be done as far as local residents are concerned ... As it is, the operations that are now in full swing have brought monetary gain, both directly and indirectly, to all alike. Money is plentiful on all hands."25

Boggy Camp

The new rush for the exotic and elusive diamond, which brought a thousand people to the Bengonaway Valley in 1899, was over almost as soon as it started. Perhaps the mine-workers anticipated the butterfly existence of Boggy Camp, for they almost all lived in tents and the village was likened to a gypsy encampment: "neither is there any attempt in the way of street-making; residences are simply erected by virtue of business licenses, and for nonce the inhabitants are content to 'make shift' ",26 The business people of Inverell and Tingha hastened to open branches in the budding town, a post office was started and A.E. Judge opened the Star of the South Hotel. During the boom year Wallace Couch (soon afterwards gaoled for forgery) began a weekly newspaper, with a pretentious title: The Boggy Camp, Bora Creek and Tingha Miner.27 Eight general stores advertised in its pages and the town had as well a doctor, chemist, tradesmen of all types, several boarding houses, a brick yard, two refreshment and tea rooms, a soft drinks factory, a billiard saloon and a dance hall. For recreation, residents had the competing claims of a quadrille club, football and cricket clubs, the Democratic club, the Progress Association and the Methodist Church. The little paper announced proudly:

"Boggy Camp and Bora Creek that a few years ago were comparatively uninhabited sheep and cattle runs, are now compact little villages with several hundred inhabitants each. Boggy Camp, however, shows the greater signs of activity and commercial importance."28

As a symbol of Boggy Camp's promising future the Progress Association resolved to discard the town's present name, which, although still an apt description, was hardly likely to prove inviting to English investors. The newspaper conducted a competition and Dr G. Thompson's suggestion, "Copeton" was agreed upon and became official from 1900. The new century brought further civic improvements — a telephone line, a new hall, a Church of England and a new school, replacing the one that had been functioning at Round Mount since 1889. These signs of permanency were already too late. By the end of 1900 the people were leaving, only 422 remaining in 1901.29

Copeton's heyday ended when the Boer War did. in 1902. Almost immediately diamond prices plummeted to eight shillings a carat and, although they subsequently recovered to ten shillings, the war-time prices never returned and miners always felt that African diamonds were preferred to Other problems beset the industry as well. Water flooded many shafts and small miners could not afford pumps. In 1898 and 1902 far too little water was available for sluicing. One enterprising miner built a long water race with only a plumb line and a spade and charged water rates to those who used it along the way. It was so well engineered that in many places the water appeared to be running uphill.3) Parts of this, and old stone dams and drains, can still be seen on the Tingha side of Copeton Dam. The shafts in which the miners worked, most of which were adits driven into the sides of hills, were dangerous and periodic accidents were caused by falls of gravel and primitive ventilation. Some tunnels were very long - the longest reputedly being the Star of the South, about 1½ km long, with drives giving it a width of 500 metres.32

The big companies had internal problems of structure, management and technique, and whether any paid dividends is doubtful. Mining for precious stones was a novelty in Australia, so the Inverell Diamond Fields brought engineers and technical staff from South Africa, but the soils at Copeton were so dissimilar that new methods had to be devised.³³ In the experimentation, many small diamonds were left in the tailings and large diamonds could not pass into the sieves, so they too were lost. The failure of the companies has also been blamed on the miners pilfering the diamonds. This has been denied by others, who alleged that the managers were cheating the companies and that miners rarely saw gems in the wash

dirt (although if they did they would not pass up the opportunity).34 Another difficulty was that the heavy capitalisation involved in the companies' plants could not be supported by diamond prices. The smaller syndicates seemed to have more success. From 1897 to 1902 the yield of the Inverell Diamond Fields Ltd was 2.6 carats, worth 61 shillings and sixpence, per load, with two shillings to nine shillings worth of tin. Working costs were forty three shillings a load. During 1902 the yield dropped to 1¼ carats and the company fell into debt. Very soon the big plant could not pay for itself and it was closed in 1904. The real reason for the brevity of the Copeton diamond rush is that by 1904 the field was almost "worked out".

By 1907, the village of Copeton was beginning to melt back into the bush. Many buildings were moved, and re-erected at Howell or Inverell. 35 About 200 people remained, working in small groups or fossicking. The year 1911 saw a new short-lived boom, when dredging was introduced and more diamonds were recovered. 36 The two world wars both produced an improved demand and higher prices for diamonds, but only small numbers were produced by persistent miners such as Tom Cant and Tom Heath. Between

the wars only one pound per carat was again being offered for rough diamonds, numbering 3½ to the carat, and miners were hoping that the government would impose a tariff on imported stones.³⁷ No large-scale diamond mining took place from before World War 1 until 1972, when Audimco began exploratory work in the Copeton hills, which is continuing. Copeton diamonds are now many times more valuable than other industrial diamonds and the exquisitely brilliant gemstones, once found by the bucketful and now a rarity, have finally surpassed in value their South African rivals.

Bora Creek

Noted in 1873 for the size and number of diamonds found in its gravels, Bora Creek also contained tantalising traces of silver. Their source was finally found by Mr Beckett in 1888 — a remarkable lode striking south-east and north-west along the line of the rugged Bora Creek valley. Most of the surrounding country is porphyry, the hills covered with great flows of reddish basalt. Eventually a number of subsidiary lodes were found and the main lode was shown



Howell Stannite Mine.

to have top dimensions of 900 metres in length and 0.6 metres in width. Near the top of the valley it was close to the surface, but dipped very steeply. The ore was composed of silver, lead, copper, zinc, tin, arsenic and a small amount of gold, in varying proportions and combinations. The first silver assays were very encouraging, averaging 200 ounces per ton, and sometimes twice that amount.38

A minor rush occurred when the richness of the galena (silver-lead ore) was revealed - "men abandoned useful employments, wandered in a halfdemented condition over the country for weeks".39 Prospecting was carried out in all directions and blocks were pegged out by many small syndicates, chiefly composed of men who were already miners in the district. Many imagined that Bora Creek would become a new Broken Hill. Dreams of fortune were shattered, however, when men realised how much capital would be needed to raise the ore and when news came that it could not be smelted, even after a long and expensive trip to Newcastle. Eventually only a few of the early mines were worked successfully, from shallow shafts, with only the purest ores being selected By 1897 only a handful of miners remained. In that year the site was visited by John Howell of Los Angeles, who had been the general manager of BHP for six years and was a noted metallurgist. He was intrigued by the rare ore because "probably no similar combination of valuable metals on a large scale has ever been worked before".40 He was most hopeful about the prospects and purchased the claims of Beckett and Moore. Having proved the ground, Howell named the lode the Conrad and floated the Conrad Silver and Lead Mining Company in 1898. He became managing director and his subsequent service to the local silver industry was recognised when the township of Bora Creek was renamed Howell in 1901

In the next two years amazing changes took place in the quiet valley A wide shaft was sunk to 40 metres, with drives reaching north and south, and a substantial wooden poppet head was erected above ground to hold the winding machinery. Two tunnels, the longer over 300 metres, had entrances in the side of the hill. The scene under ground was described as a "mass of variegated metals sparkling and scintillating".41 Candles were soon replaced by acetylene lights in the tunnels. Roads, bridges and culverts had to be constructed to bring in the equipment and wood needed to fuel the steam engines. A sawmill, reservoir and assay department were added. The mine had its own crusher and concentrator to reduce the crude ore to one third of its original weight. In the first two years, while this development work was proceeding, 10,000 tonnes of ore were raised. The silver-lead concentrates were sent to Cockle Creek (near Newcastle)

for smelting, while the copper-silver-gold concentrates were stockpiled. At the time 150 men were at work.

Further down the valley, on another part of the lode discovered by Peter Allwell, the King Conrad Silver and Lead Mining Company, comprising Victorian capital, was at work. With a workforce of 70, an elaborate plant was erected and a 4.5 by 4.5 metre shaft, with three compartments, was sunk through solid granite. The company encountered financial difficulties before production started and was liquidated in 1902. By this time the Conrad had also run out of capital, so the two mines were amalgamated and became a public company. They were linked underground by a drive. From then on, except for breaks in 1904 and 1909, when new companies were constructed and took over, both shafts were worked continuously until 1912. During the entire period of recorded production, 1900-12, the two major mines yielded 166,000 tonnes of concentrates, worth about 325,000 pounds (nearly \$12 million in today's buying power). The average assay for the whole mine was 20 ounces silver per ton, 8-9 per cent lead, 1-2 per cent copper, 2-8 per cent tin and up to 6 per cent zinc.

The area had other mines, "outside shows", but little is known of them except their names. The Bora Creek Extended Co had its headquarters in Brisbane and mined 3 km south of the Conrad. Six men were at work there in 1901 in a 100-metre shaft. The Plutus mine was situated in Maids Valley. The Lady Mary Copper Mine had a brief existence. Output of these mines was always limited by the complexity of the ore.

In 1900 a rare form of tin ore, tin sulphide, called stannite or Conradite, previously found only in minute quantities in Cornwall and Bolivia, was discovered in the lower levels of Howell's mine. It could not be treated by any known metallurgical process, so the company, undaunted, erected its own blast furnace and Howell carried out experiments on the stannite. Although progress was made, the problem was not entirely solved until 1912, largely due to the efforts of chemist A.S. Winter. During that year clean products consisting of silver-lead and lead-tin bullion, copper matte and white arsenic, totalling a remarkable sum of 62,000 pounds, was sold.42 All had been extracted at the Conrad mine. The complicated process necessitated a concentrating mill (for sieving, crushing and grading), a smelting plant, blast furnace and refinery. Until 1908, when an arsenic prevention system was installed to trap the arsenic, it was discharged with the smoke. Large quantities of arsenic were later sold for the fight against prickly pear.

Transport was a perennial problem. At first the heavy ores were hauled almost 100 km over poor

roads to Glen Innes. When the Inverell railway was completed, a saving of one pound per ton was made immediately, but the horse teams still had to carry the concentrates 30 km over an appalling road. Fruitless attempts were made to acquire a branch railway line to the mine. Another difficulty was water. In 1902 not enough was available. A large stone dam was therefore built in 1908 on Snake Gully in the town. which adequately provided for the mine's needs. In 1910 vast damage was caused to the mines by a deluge of reputedly about 400 mm of rain.43 As well continual setbacks were caused by flooding in the lower levels from water containing acid which corroded iron and steel.44 As mining progressed the workings grew deeper, to 270 metres, but the quality of the ore deteriorated, the silver proportion falling to 20 ounces per ton. With all these complications on top of a large payroll, the cost of treating the complex ores and the heavy capitalisation, none of the companies that tried to work the Conrad silver lode could make ends meet.

John Howell disposed of his interest in the mine to an English company, but was still owed a large amount, so his son-in-law B.C. Besley was installed as manager.45 One of his tasks was to negotiate with the miners' union, which had 177 members by 190746 and promoted occasional strikes about working conditions. He also had to satisfy the company, which wanted economies when silver prices began to fall in 1912. Payment for day labour was accordingly replaced by

work contracts because of the narrowness of the reef and the height of the stopes. Although this satisfied the men, the union inspector called for a return to the previous system. Besley explained that this was no longer economic and warned that the mine would have to close and that if it did it might never be opened again because the water would enter. The inspector, however, insisted on the regulations and the mine closed in March 1912, throwing 250 men out of work.47 In June 1913 the equipment was sold and dismantled.

Although the life of the silver mines had been brief, it had been significant to Inverell. Local people had not been the principal investors and benefited from the enormous amount of developmental work. For 12 years a minimum of 200, usually 400 and sometimes 600 men were employed in three shifts. bringing a large amount of wages into the community. In the last five years of operation the men averaged 12 shillings and threepence a shift, regarded as a high rate of pay at the time.48 Thus, more than 70,000 pounds a year would have been circulated. Industries were also stimulated, as all of the bricks (from Hennessy's Brickyard, between Boggy Camp and Howell) and some of the machinery for Howell's mine were made locally. Blacksmiths, teamsters and carpenters all found their skills in demand. Enormous amounts of hay were cut into chaff to feed the mine's horses and wood cutters were kept busy in a circle round Bora





Goodyer's Hotel, Bora Creek.

Creek, having eventually to travel up to 19 km for suitable timber.

The most interesting result of the mining period was the creation of a surprisingly permanent-looking township on the plateau above the mine, which mushroomed in 1899. The laid out town with cobbled streets, which housed up to 1500 people, can barely be found now — only the occasional garden shrub and fruit tree, pile of brick and rubbish heap remain as reminders of Inverell's "Broken Hill".

Bora Creek was first settled by the Conrad mine workers in 189849 and it grew steadily, till in 1901 176 dwellings were scattered throughout the bush, housing 570 people. 50 Most homes had extensive vegetable and flower gardens, and cows and goats were kept for milk and allowed to roam with bells on their necks. The architecture of the houses was rather makeshift, most being built of galvanised iron, slabs or whitewashed bags, with big stringybark kitchens at the rear. Water was drawn from tanks, the mine reservoir, springs or the two government wells. Most of the miners must have been married, as by the end of 1901 149 children were attending the school, necessitating a new building in 1902. Boys usually left school at 14. when they were given a job "ore picking" on the mine for 15 shillings a week. During the years from 1901 to 1912 the population of Howell rose to about 1000 and remained fairly constant. The police district numbered about 1500.

Howell's long main street, Conrad Street, was the road from Inverell to the mine and was partly cobbled. It contained a large hall used for regular dances and concerts and, later, for picture shows. A brick police

station, with three cells, an exercise yard and a residence was built in 1901 in Argent Street. At times three members of the force were stationed there. A court house was built in 1902. Many big fights among the miners caused great mobs of onlookers to gather and police intervention was often required. Sometimes the high spirits were worn off at the sports ground at the "top end" of town, where cricket and football were popular and where fortnightly athletic carnivals, "gaslight sports" were held. From 1900 a jockey club held regular race meetings. At one end of Conrad Street was James Goodver's Bora Creek Hotel. At the other end was the "top hotel", a two-storeyed brick structure built by Gabe Williams of Inverell in 1901. Managed by Nat Skippen, it had a big billiard room and barber's shop attached. Both hotels and several boarding houses were filled with single miners as permanent residents.

The first store — McCrohon's, erected in 1899 was soon joined by branches of Cansdell's and Roos' general stores from Inverell. Two bakers, two butchers, a post office, a boxing hall and gymnasium and numerous smaller shops, such as a blacksmith's and a newsagent's soon appeared. At night the shops burnt carbide gas lamps. When Boggy Camp declined in 1900, its newspaper was moved to Howell, where it was published for some months every second day as the Bora Creek Digger. The spiritual needs of the community were cared for in Church Street. Howell had a Wesleyan Church (built 1901), a Church of England and a Roman Catholic Church (burnt down in 1904 shortly after its opening). The Salvation Army also ministered to the miners and its band and the town band provided musical entertainment. The band room was situated in the School of Arts, which also housed a library.

This prosperous, self-sufficient and seemingly enduring community was nevertheless utterly dependent upon the mine, as was shown when it closed in 1912. A team of Chinese pulled down the houses and many shops and sold them in the nearby townships. Demolition was hastened by a big fire in 1915 which destroyed a store, the post office and the courthouse. The last survivor was the school, which served a district population of 40 to 50 before its closure in 1942. Howell then became a "ghost town" and returned to the bush. Between 1912 and World War 1 the Inverell district had high unemployment. The drifting population of Howell soon moved on, but many miners settled in Inverell and Tingha or became small farmers. Small groups of miners continued to work the Conrad lode during and after the war, chiefly by hand, but they were defeated when the shaft filled with water. The tall head frame and the piles of vellowish arsenate remained abandoned in a forgotten valley, through which flowed a poisoned creek with denuded banks.

At length in 1949 Mines Exploration Ltd decided to investigate the mine's capabilities below the old working level of 75 metres.51 Under the management of W.O. Thomas, 60 men worked for almost six years, clearing the obstructions and correcting nearly 40 years of deterioration, erecting the plant and buildings and reopening the main shaft. The first consignment of lead concentrates was sent to America for smelting in December 1955. With greatly improved prices for metals, the belief was that, although the earlier working had "picked the eyes" out of the lode, the lower grade ores would be payable. In 1956 1150 tonnes of lead concentrates and 212 tonnes of zinc concentrates were sold. During 1957 prices began to fall drastically.

and the company was compelled to close the mine at the end of 1957. Seventy-five men had been employed, raising about 40 tonnes of crude ore each working day. Many travelled from Tingha, which was the chief sufferer when mining was suspended. All the equipment and 12 workers' houses were sold and removed and the mine and village returned to their slumbers. Hundreds of metres beneath the ground, the valuable but complex ore remains, until the prices for its metallic components again tempt an enterprising speculator to tackle the problems which have defeated his predecessors.

INVERELL'S SALTBUSH BILL

(as told by The Inverell Times' correspondent, 22.4.1929)

Banjo Paterson has sung of the exploits of Saltbush Bill, but no poet has yet immortalised the hero of the following story, whom we shall call Tom. Tom had been doing a tremendous loaf along the stock route leased by a certain squatter and whenever the latter complained Tom was looking for sheep and blaming his boys, losing his horses and all the other fortunate things which happen when a man is engaged in the art of stealing grass. In these excuses Tom always wound up by complaining that he was a sick man and the worry was killing him. Finally, however, the squatter got fed up, so he brought the sergeant of police out, a kind-hearted officious old soul, well-known to a lot of people who will read this. Now Tom's assistants were well educated. When a drover is on this lay he must have intelligent well-educated boys. As soon as he saw the visitors coming Tom slipped a bit of soap into his mouth and gave the wink to his lads. Just as the visitors rose up Tom was seen to stiffen in his saddle, throw up his hands with a shriek, and fall heavily to the ground. The sergeant promptly dismounted, rushed up to Tom, who was then struggling on the ground. frothing at the mouth and groaning loudly. On being questioned the boys said that Tom was sometimes "took" that way. So the sergeant hurried Tom into the nearest hospital and in the meantime took charge of the sheep, depasturing in a convenient paddock. After a week's rest and careful attention in the hospital Tom was able to go on the road again, and after a week's rest on good feed his sheep were able to go on the road again too



Miner's cottage near Tingha, 1890.