



A brief history of the Jane River Goldfield

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Abstract

Gold has been known from the Jane River area since 1894. In 1935 Robert Warne discovered payable alluvial gold in Reward Creek, a tributary of Ridge Creek which eventually runs into the Jane River, some 10 km or so to the south.

Warne was granted a Reward Claim of 30 acres (12 ha), which he worked until 1952. Leases were taken out about the Reward Lease; all of these, including the Reward, changed hands many times, before being acquired and consolidated into a single lease (21M/74) in 1974.

Prospecting on the field has been sporadic since the first find of payable gold; however production records are incomplete. Estimates of the potential quantity of gold which may be found in the Reward Creek area range from 2000 to 9000 ounces, but these are based on very little hard data. A small-scale exploration programme of systematic pitting and costeaning is currently underway; this programme is confined to areas of previous disturbance and is aimed at delineating the actual amount of gold present in the gravels of the old workings.

The lease is within the Wild Rivers National Park, which has been included in a larger area nominated for World Heritage listing.

GOLD DISCOVERIES

In 1894 W. Burrows discovered alluvial gold in a small creek (now called Burrows Creek) flowing into the Jane River between River Peak North and Warnes Lookout. The workings (at approximately DP167039) were visited by Government Geologist Frank Blake in 1936, who reported that the gravels in this vicinity were 'shallow' and that Burrows had won 13 ounces of gold over an indeterminate period from this locale¹. One H. Smith was also reported to have won a (unstated) quantity of alluvial gold from the same locality².

A further five ounces of gold was won by 19 year old John Stannard from 'the Jane River' while he was working there with other Huon Piners in 1901³. Stannard tragically drowned on 29 April 1901. As the body could not be carried out he was buried on the banks of the river. His mates erected a rough cross of huon pine, inscribed:

"John Stannard drowned in Jane River
April 29 1901 aged 19 years".

Two crosscut saws were arranged upright over the grave and a huon pine planted at each corner, then the piners left the area⁴. The party of piners apparently included Hal Smith (the gold finder), J. Burrows, and N. Darties, who are said to have written this poem which they left on the grave⁵:

Where his comrades gently laid him
Right beside their canvas home
Artist or parson were not wanted
They are unknown way out there
Where the bushman seeks his fortune
Where hardships are many, yet troubles are rare
So here's to every bushman, be he friend or foe
No matter what his calling is, here's 'Good Luck'

he says

And here's to every snowy mountain
Where the badger's still the friend
Of every bushman out beyond yon distant hill
Out beyond the snow clad mountain
Where the black bird sings his song
Where the night owl screeches loudly
Where the badger prowls along
Where the sun ray's first bright glances
Chase the mists from the mountain head
And with swift and silver lances
Pierce the shadows by the creek
On the battlefield of glory where the cross is
sometimes won
Yet beyond the snowy mountain, nought is known
of bravery done
T'was beyond the snow clad mountain
That his comrades staunch and brave
Risked their lives and tried to save him
From a cold and watery grave
So beyond the snowy mountains hue
He sleeps, no more to roam

Balfour Johnson reported in 1935 having known "several men, now old who, in days gone by, have panned many hundreds of pounds worth of precious metal from the creeks and streams of this region"⁶. In 1935, gold was valued at approximately £4 (\$8) per ounce. Johnson and his companions met up with the Abel brothers and others who were cutting huon pine in the Jane and Erebus River valleys. A few months after Johnson's visit, one of the piners won some 16 ounces of gold from "the country in the vicinity of the Prince of Wales Range"⁷.

Robert (Bob) Warne, who ran a fruit and vegetable shop⁸ at 343 Liverpool Street⁹ in Hobart, went prospecting in the Jane River area in February 1935¹⁰, on the advice of "a man who told me that he had got some gold while pioneering on the Jane and I got the impression that there might be something worthwhile thereabouts, and put it aside in my memory as something that might be worth having a look at when I had the time to spare. The occasion came early in 1935, I went in and took a look around"¹¹.

After five months Warne had won 7 ounces of gold from various tributaries of Ridge Creek¹². On 31 July 1935¹³ he chanced upon an extremely rich find of gold in a previously unexplored creek; this became known as Reward Creek and Warne was granted a Reward Claim of just 20 acres (8 ha)¹⁴, then an additional 10 acres (4 ha)¹⁵.

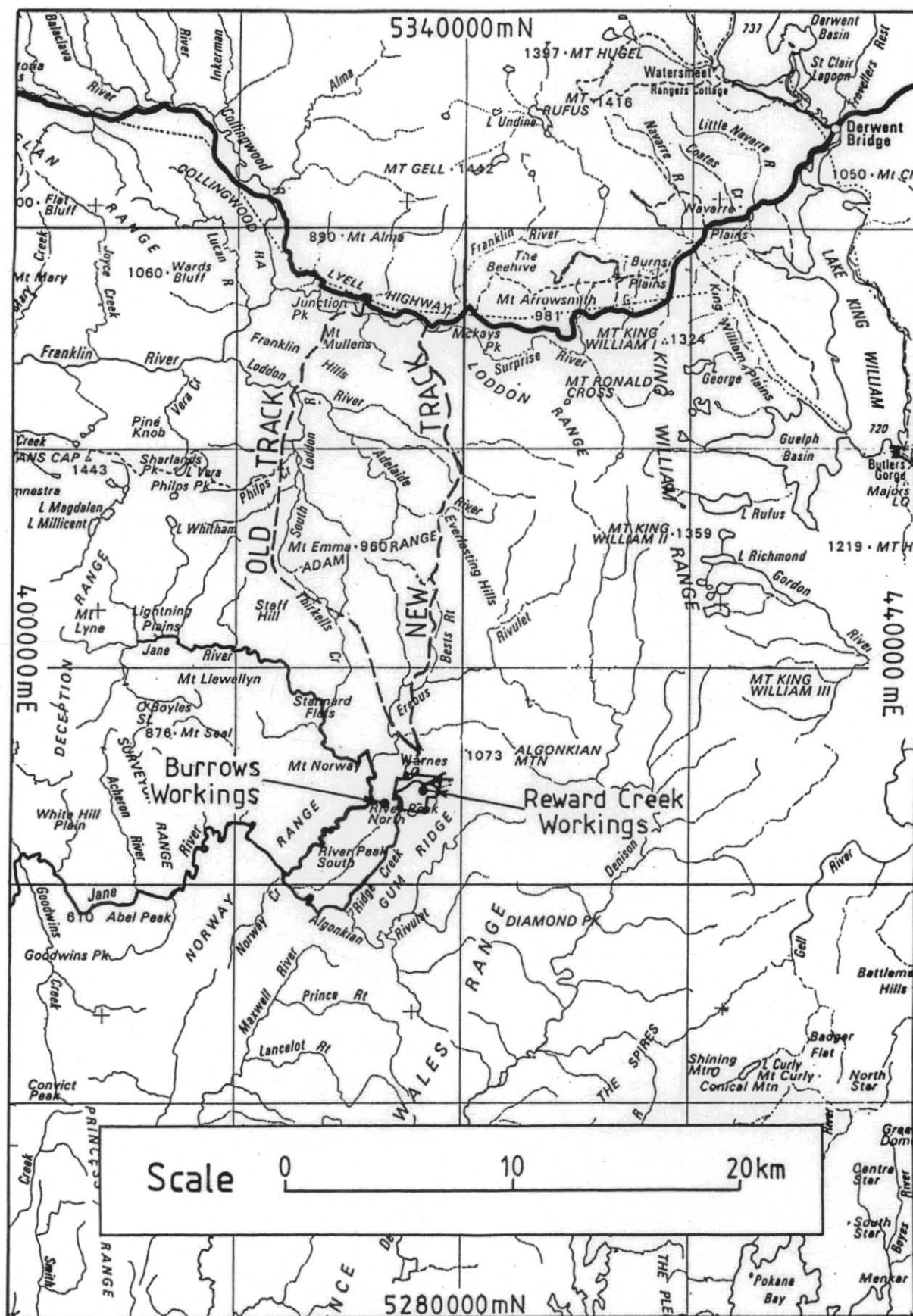


Figure 1. Location of Jane River Goldfield.

5 cm

(30 acres in all) in the vicinity of this first find. (A Reward Claim allows the recipient to work the lease without having to pay rent to the Crown for the privilege of working the claim, as would be the case in an ordinary mining lease).

Warne described his first find:

"It was about four o'clock in the afternoon on one of the worst mid-July days that I ever experienced on the Coast. I walked into a gully that I had not seen before so I downed tools and sank a hole—it was not deep and when I got to the bottom I didn't like the look of it much. (I) took a dish full and washed it carelessly, then swung it round—the light was bad and I couldn't believe my eyes—surely that couldn't be gold, so picking up a piece, I bit it, and the bite said gold. Then I washed it down carefully and had a look at it (thinking) there must be something wrong here, it can't be that good—perhaps I had landed on a little pop-hole or something of that sort. So I went back for another dish, (and obtained) the same result four times (over) ... when cleaned there was at least one and a half ounces. To say that I was pleased with the result would be a gross understatement. That was the first prospect hole on what is now known as my Reward"¹⁶.

Word of Warne's finding of gold filtered out from the area even before he had registered his Reward Claim. The Secretary for Mines, J. B. Scott, asked Inspector J. F. Shaw of Queenstown to report on a find of "payable alluvial gold" in the Jane River district on 15 July 1935. Shaw replied that the local banks and gold dealers (Messrs Stitz & Higginson) had not bought any unusual quantities lately—and that the wife of Mr Penney, who supplied timber to Mt Lyell and food and equipment to local miners, had heard of four men prospecting near the Jane, one of whom had won either 13 ounces (400 g) or 13 pennyweight (20 g) of gold; in any case only one prospector remained. Shaw noted that the "report of gold won was very much exaggerated". From Warne's diary, Warne would only have found the minor traces of gold in Ridge Creek at this time—not the real 'Reward'.

On August 19 (after the Reward Claim was in fact found), Shaw wrote again to Secretary Scott¹⁸, saying that one of the pine cutters from the Jane River area, C. Abel, "this morning took out five Prospectors Licences, four in the names of (the) Abel's and one in the name of—Penney". Abel told Sargent Canning "they had a good alluvial show there". (Prospector's Licences could at that time be obtained from a police station as well as from the Department of Mines' offices). After procuring the licences, Abel "hurried back to Jane River to secure his ground". Shaw further reported that "a man named Ward or Warne, who has taken out a fair quantity of gold, has gone to Hobart to apply for a Reward Claim".

After the Reward Claim was registered, Government Geologist Frank Blake was despatched to inspect the area. At the time of Blake's first visit to the area, in October 1935, prospectors were panning gold from six small tributaries of Ridge Creek, in addition to Reward Creek (which also runs into Ridge Creek)¹⁹. Eager prospectors reported finds of gold from as far south as Lancelot Creek, a tributary of the Maxwell River 7 miles (11 km) south of Reward Creek; and from an area four miles (6 km) south-east of Reward Creek along the western edge of the Prince of Wales Range.

During Blake's second (1936) visit, his two field assistants (S. Edwardson and M. Fletcher) carried out a reconnaissance of the rivers and gullies surrounding the Reward Claim, and reported that "gold in a fine state of division was distributed along the watercourses of almost the whole of the Algonkian Rivulet watershed, and also in the small creeks flowing south to Prince Rivulet, west of Gum Ridge"²⁰.

From 1935 to 1938, Milford Fletcher worked his claim (with Edwardson) near Warnes Lookout, and "did pretty well at the game"²¹. Edwardson is said to have discovered "good gold" near Warnes Lookout, with all the gold recovered there by ground sluicing being "nuggets the shape and size of broad beans"²².

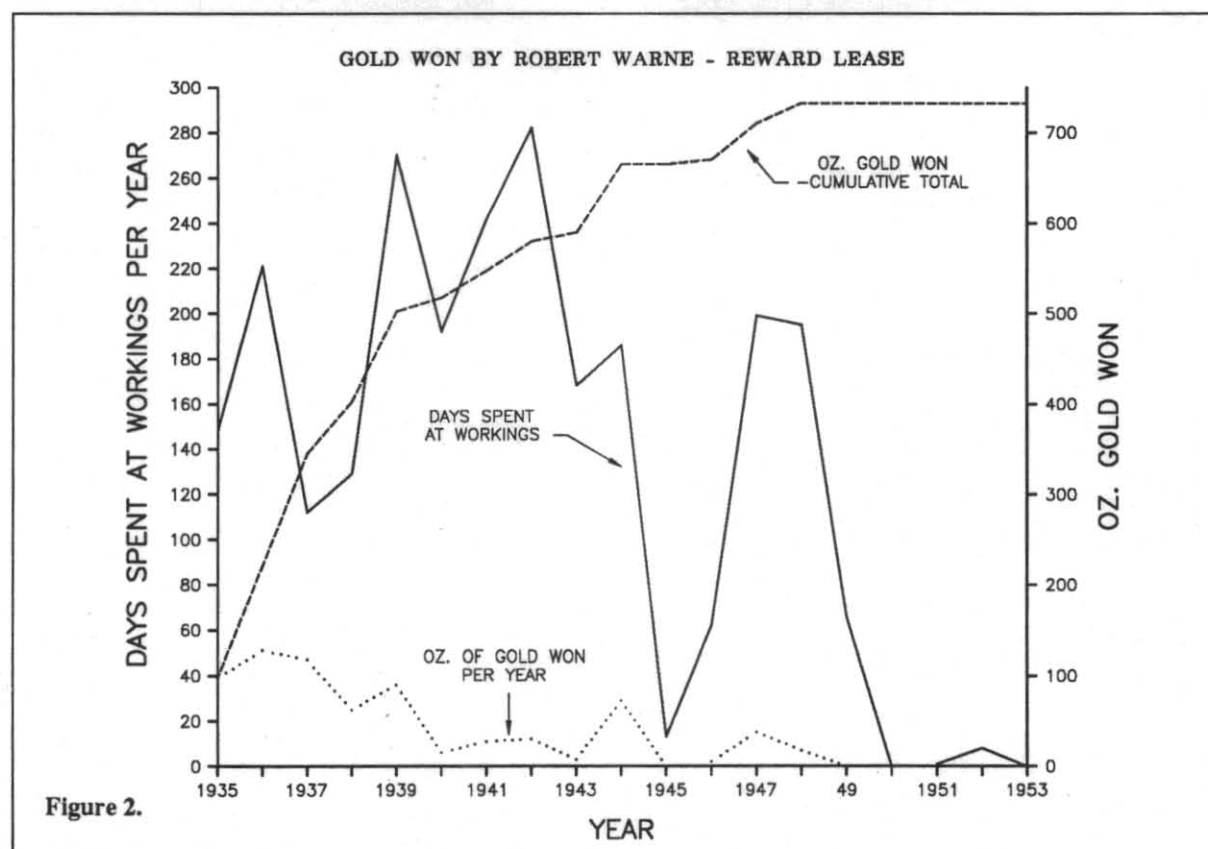


Figure 2.

Table 1. Robert Warne's trips to the Jane River Goldfield

In	Out	Days	Ounces*	Cum. Total
26.2.35	8.3.35	11	-	
14.3.35	28.4.35	36	3 ⁺	
4.5.35	21.6.35	49	4 ⁺	
3.7.35	*17.8.35	46	14	14
*found Reward claim on 31.7.1935				
25.8.35	30.9.35	37	20.5	34.5
8.10.35	12.12.35	66	60	94.5
3.3.36	8.4.36	37)		
16.4.36	13.6.36	28)		
20.6.36	30.8.36	72)	129	223.5
8.9.36	30.11.36	85)		
11.3.37	9.4.37	29	3	226.5
17.4.37	22.5.37	36	112	338.5
9.6.37	27.6.37	19	-	
14.7.37	23.7.37	10	-	
11.8.37	30.9.37	20	3	341.5
24.5.38	3.6.38	11	-	
13.7.38	27.8.38	46	-	
8.9.38	19.11.38	73	66	407.5
3.2.39	12.2.39	10	-	
6.3.39	6.4.39	32	-	
18.4.39	*28.6.39	72	-	
* all tailraces now complete				
7.7.39	11.9.39	67	36	443.5
19.9.39	16.12.39	89	60	503.5
10.2.40	23.3.40	43	-	
19.4.40	7.6.40	50	-	
12.9.40	19.12.40	99	18	521.5
26.3.41	22.5.41	58	5	526.5
6.6.41	23.8.41	79	3	529.5
4.9.41	18.12.41	106	20.5	550
3.2.42	23.3.42	49	-	
21.4.42	31.7.42	102	14	564
12.8.42	20.12.42	131	18	582
1.5.43	18.7.43	79	10	
12.8.43	8.11.43	89	12	604
21.4.44	8.7.44	79	2	606
1.8.44	15.11.44	107	72	678
2.5.45	15.5.45	14	-	
17.3.46	10.4.46	25	2	680
21.7.46	27.8.46	38	4	684
11.5.47	*5.7.47	56	4	688
*Franklin River Bridge gone (i.e. washed away)				
26.7.47	15.12.47	143	35	723
2.2.48	11.6.48	120	6	729
19.9.48	2.12.48	75	15	744
22.9.49	25.11.49	67	0.5	744.5
1950	no visits			
1951	no visits			
19.3.52	26.3.52	8	-	

lease surrendered on 24 August 1953

+ Gold not from Reward Lease

* Amounts of gold won are taken from a hand-written log book kept by Warne. This log book includes entries such as "1 tin about 8 ozs to mint". Because of the imprecise records made by Warne, and the uncertainty whether the figures quoted are troy or avoirdupois ounces (equal to 3.11×10^{-2} kg or 2.83×10^{-2} kg respectively), no attempt has been made to convert the figures into metric equivalents.

Table 2. Gold production from the Reward Lease

Year	Days	Ounces	Cumulative Total (oz)
1935	149	94.5	94.5
1936	222	129	223.5
1937	114	118	341.5
1938	130	66	407.5
1939	270	96	503.5
1940	192	18	521.5
1941	243	28.5	550
1942	282	32	582
1943	168	22	604
1944	186	74	678
1945	14	-	
1946	63	6	684
1947	199	39	723
1948	195	21	744
1949	67	0.5	744.5
1950	0	-	
1951	0	-	
1952	8	-	

THE EARLY WORKINGS

The Reward Claim

During the time in which Warne held his reward lease (1935–1953) he made 45 trips into 'the Jane' and won 744.5 ounces of gold from his workings²³. The dates of each trip, the days spent there, and the amount of gold won are given in Tables 1 and 2. Some 341 ounces (almost half the total) was won during the first three years work; and nearly a quarter (180 oz) was won during the next three years. The remaining quarter (213 oz) was won over a period of nine years. The number of days Warne spent per year at the digging and the amount of gold obtained per year, and as a cumulative total, is shown in Figure 2. The gold was evidently won from 'pockets' of rich wash. In addition to the oft quoted figures of "14 oz from 5 days' work" and "29 oz from 14 days work", Warne once won 8 ounces in a morning, before 11 a.m. The total winnings for this particular trip were 18 ounces, and he was away 131 days²⁴.

LIFE ON THE DIGGINGS

Following Warne's discovery, half-acre Miners Rights were quickly taken out downstream from the Reward Claim. The prospectors quickly established that there was no gold east of Warne's eastern boundary, but gold traces were found to the north, south and west, and the ground was smartly taken up under lease. At the time Government Geologist Frank Blake visited in October 1935, some 33 men were busy working both in Reward Creek and many other smaller tributaries of Ridge Creek.

The miners built themselves rough bush huts to live in whilst on the field. Warne built one of these 'rough and ready' structures on his Reward Claim, but these sorts of huts did not stand up to the elements well, as is amply described by Warne during his account²⁵ of his sudden need (in 1940) to build himself a new hut:

"...it had been raining hard all day, and by about ten o'clock at night the water was roaring through my workings. I knew it must be doing (some) damage so I put on my oil shirt and boots, lit the hurricane lamp and went (down to see). It was worse than I thought, water was everywhere, cutting many races which (would be) difficult to repair, washing away banks and generally

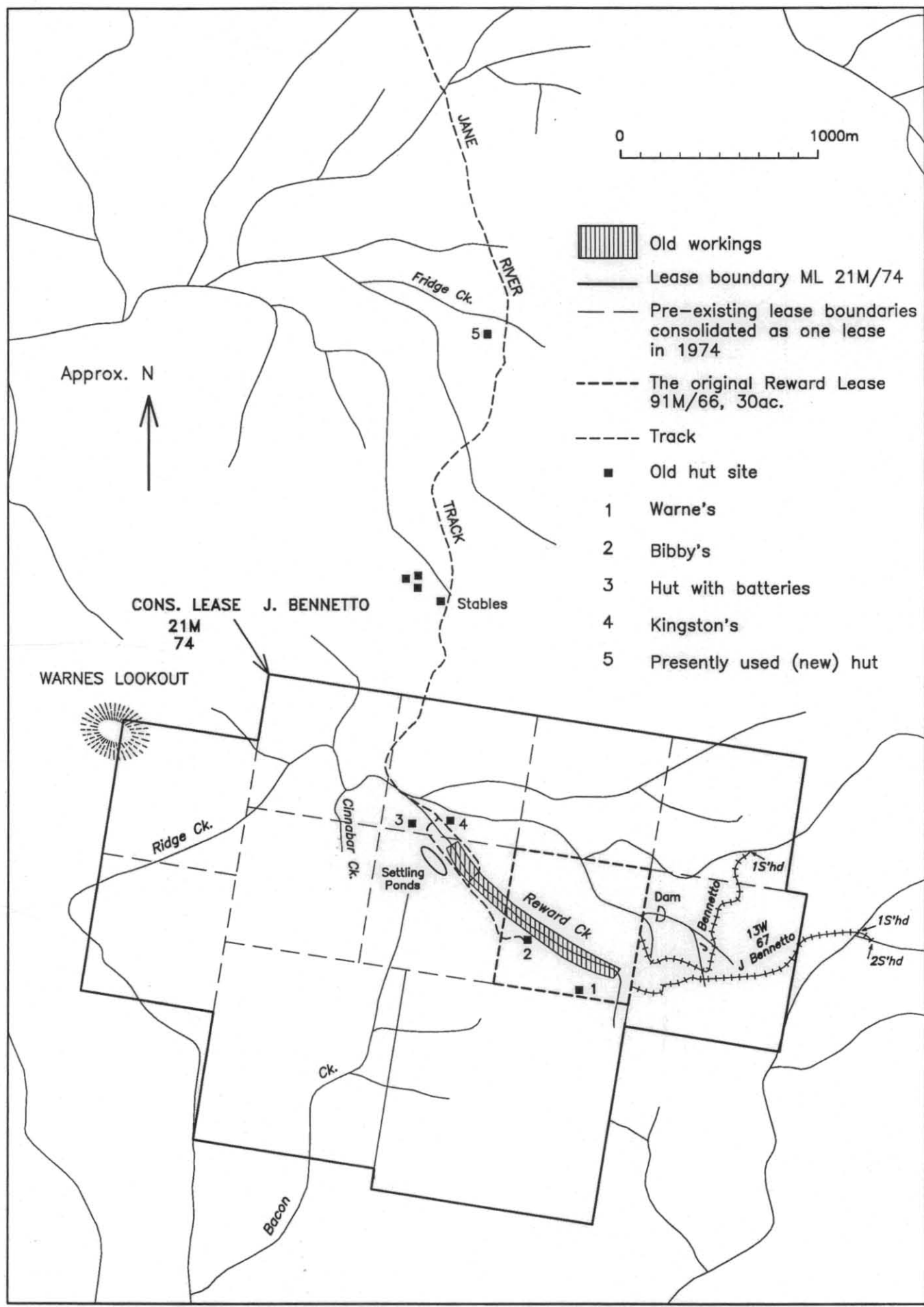


Figure 3. Location of historic work sites, Reward Creek workings.

making a mess of everything. There was only one thing to do: (I had to) turn the water where it would do no damage. It was not easy, and ... took me until 3 a.m. ... before I got it safe. Then I went up to the hut to sleep for the rest of the night ... but there was another unpleasant experience ahead for me. Some time before daylight I was awakened by an awful clatter of rain on my face. I was very tired and sleepy, but there was only one thing for it—so I lit the lamp, got partly dressed and proceeded to find that the roof palings had scattered some distance down the hill in the scrub. After finding most of them and nailing them back in place there was still an opening; this I covered with a few old slabs. By this time I was wet through, and there was as much water inside the hut as out. Fortunately I had had the presence of mind to throw my blankets and other things onto the dry side of the hut I was very tired, and for the third time that night, I went to bed (just) as daylight was breaking.

The next day I signed the death warrant of the original hut. It was (beyond) repair. There was a good paling tree not very far away, and that was the obvious answer. The hut that stands there today I built ... over the top of the old one; a little higher, a little wider and a little longer, then I threw the old one out".

Not all the huts were built to such a good standard as Warne's. Some were rough paling structures, and some hardy fellows camped—or built a sort of lean-to out of palings, and threw a canvas over the top. The location of some of the huts built on the field is shown in Figure 3.

The quantities of gear taken in to the diggings were absolutely staggering. Items such as picks, shovels, panning dishes, cooking utensils, camp ovens or, in some cases, iron stoves; tools such as hammers, nails, saws; personal items—pots, clothes, soap, as well as foodstuffs. Some of the miners were adept bushmen who caught and ate such game as was available; this source of sustenance was only an adjunct to their diet, and the vast majority of foodstuffs were back-packed in.

The mainstays of the bushman's diet were bacon, damper, tea and rice. Evidently, rice and dried fruit were far more favoured than rice and dried vegetables, which although available, were fairly unpalatable²⁶. The list of supplies Warne took for one 300 day trip are interesting:²⁷

- 200 lb flour
- 150 lb meat (bacon)
- 20 lb tea
- 140 lb sugar
- 40 lb split peas
- 40 lb rice
- 5 lb salt
- 20 lb candles
- 20 lb sauce
- 10 lb soup cubes
- 40 lb syrup
- 48 lb milk (powdered)
- 10 lb tobacco
- Papers (for tobacco)
- Matches
- 100 lb potatoes
- 50 lb onions

These supplies add up to a staggering 953 lb (432 kg)—and are in addition to tools needed for working, such as spades, axes, nails and so on, and items of a more personal nature: books, clothes, boots, etc.

At the height of the boom, professional packers made their living by carting in supplies to the diggings and selling to

the miners who, for the most part, were loathe to leave their finds. Packing rates were reported to have been one shilling (10 cents) per pound^{28, 29}. One such packer, A. J. Best, was reported in December 1938 as holding the record for a load carried over the Jane River track—a whopping 140 pounds (63.6 kg). Packs of over 100 pounds (45 kg) were said to be carried in 'almost daily'³⁰.

Mr V. Kingston carried in to the workings a hydraulic nozzle, made of aluminium to reduce the weight, but still weighing 75 lb (34 kg) and "about one ton" (2240 lb or 1000 kg) of pipes³¹ to enable his partnership to ground sluice gravels on their Miners Rights Claims³². At one stage Kingston made five return trips to the Lyell Highway in six days, each time backpacking in a load in excess of 100 lb (45 kg), carrying in supplies for Warne at the rate of one shilling per pound³³. The Queenstown merchant Penney used to cart supplies to both piners and miners, leaving them by the Lyell Highway at the start of the track—the 'Jane River Dump' where they were collected. Penney worked in the area briefly—he has a race named after him in the area of the Miners Rights Claims.

Despite the cost of paying the professional packer, or the inconvenience of carting stuff so far, the items miners considered to be creature comforts were unbelievable. Some of the huts were reported to contain minor libraries of novels and reference books sitting on hand-hewn shelves; one hut contained a radio receiving set, gramophone, set of records, two gas lamps, and a 12-volt battery, as well as various iron cooking utensils. A couple of laying hens scratched around outside one of the huts³⁴.

Nothing remains now of Warne's hut, except for a cut out square in the earth, showing where the walls of the hut butted against the ground. Scattered about are scraps of old bottles and cans, and nearby are the stumps of a number of trees cut, most probably, for firewood. These huts had a low stone hearth and a paling chimney, which despite being wood, virtually never got hot enough to burn. The other huts are also in ruins—nothing recognisable remains except for the outline of most cut into the ground, and occasionally piles of slabs, which have remained where they fell with the collapse of the hut. Old rusty billies, plates, bottles and cans can be found, and at one site two archaic batteries—probably from the hut with the radio.

The remains of one hut, known as "Bibby's", are marked by a stone hearth. This hut was derelict and ramshackle in the 1960s but still standing. By 1980 the hut had collapsed and was partially rebuilt as a pole and canvas structure; this has now disappeared, and only the stone hearth remains. This hut is at the upstream (southern) end of the Miners Rights claims, and so is at the downstream (northern) margin of Warne's old workings. The hut is most probably the one in which the thieves who stole Warne's supplies were ensconced, and where Warne found his bed "in a hut down by the creek". The hut is known today as "Bibby's" after the prospector John Bibby, who worked in the area in the 1960s and 1970s and who used this hut.

The Other Workings

Many prospectors were drawn to the field following Warne's discovery, taking out prospecting licences or Miners Rights claims.

Partnerships were formed between some of the holders of Miners Rights claims pegged on the downstream side of Warne's Reward Lease. One such partnership was formed between Viv Kingston and J. W. Miley, J. Bradley and A.

R. Doyle³⁵. Each man pegged one half-acre Miners Right in his own name, and Kingston pegged another in the name of his wife (Lorraine Kingston)³⁶.

Miley, like Warne, owned a fruit and vegetable business in Hobart, and apparently they were rivals in trade. Not long after Kingston and Miley began work, their diggings started to fill up with tailings—being swept down by Abel's and Best's races from Warne's diggings upstream³⁷.

Blake reported that in July 1936: "in the lower portion of Reward Creek operations have been hampered owing to the lack of a race sufficiently deep to carry tailings away from the thick deposits in this locality"³⁸.

Miley and Kingston took their complaint about the tailings being swept into their claims firstly to the Wardens Court, then to the Supreme Court, where the Court found³⁹ that "during the period 1 August 1936 to 31 May 1937 the defendant (Warne) caused tailings produced on his lease and there collected in heaps or beds deposited on the surface of the land to be discharged from his lease on to the plaintiffs Consolidated Miners Right Claims", and that the total quantity of tailings so discharged was "not less than 370 yards and may have been as much as 446 yards".

Damages were assessed at £100, in addition to which Warne had to pay the costs of action both in the Wardens Court and in the Supreme Court. The case was finally settled in November 1937.

In addition to the squabble over tailings, there were also disagreements over water, which was needed to work the claims. Various water races were built, tapping into the waters of Algonkian and Ridge Creeks. Kingston and his partners had plans to ground-sluice the gravels with a hydraulic high-pressure water hose, powered by gravity-fed races.

They cut a new race in 1937 to join up with a race dug months earlier by Blake's field assistant Edwardson, to the headwaters of Ridge Creek. Edwardson's claim was by now (March 1937) being worked by Daley, who was in partnership with a man named Gordon, who held the adjoining Miners Right⁴⁰. The new race had the effect of allowing the water from Ridge Creek, flowing along Edwardson's race, to flow into Kingston and Miley's claims, instead of flowing past their claims and straight on to Edwardson's old claim. Both parties applied for water rights—a confusing procedure as the rules relating to the taking of water from streams for mining purposes had just been altered. However, after much argument over what exactly constituted a water licence and a water easement, the court decreed that Daley and Gordon were to receive 'one sluiceway' of water direct from Edwardson's race, and the plaintiffs (Kingston & partners) were ordered to remove the obstruction they had put in Edwardson's race to prevent water flowing on down to Daley and Gordon.

The Decline of the Early Prospecting

Warne often dreamed of the last time he would leave his diggings, and seriously considered burning his hut down, so as not to leave the area:⁴¹ "ready for the reception of a class of man I have hated and despised. It has already been whispered that it will be a good hut for snarers when I go, but those animals in there are my friends, they don't even trouble to get out of my way now, (and it is) likely that I am going to leave them exposed to the tender mercies of the dirtiest, cruellest and most callous men I have ever met, and I (am) likely to leave to use as a base. I have a feeling that when I look back from the little knob for the last time

all I shall see is a black patch, and a little smoke rising from what was my hut, and in a short while the site will be covered with scrub. I (will) have handed it back from those I took it fourteen years ago, and perhaps in the years to come an old Black Jay may eye the spot wistfully, and remember a man who lived there (once) and fed him bread and honey—(a man) who went away at the time the hut disappeared". These thoughts were written in 1949.

The decline of the field as a prospecting haven after the initial 'gold rush' is due, in part, to the isolation of the area; the fact that every last kilogram of equipment and food had to be carried over the track from the Lyell Highway. Blake recorded that 33 men were working on the field in October 1935; one year later during his 1936 visit there were 15. Warne noted that during the war years (1939–1945) "men were called up, others fled to a reserved industry, supplies were almost impossible to obtain—the field was almost deserted then"⁴².

After the war, Warne records that there was no need for men to go prospecting, there being "plenty of jobs, high wages, etc." and he made up his mind to finish with the Jane River goldfield⁴³. Warne ran a successful fruit and vegetable business in Liverpool Street, which took up more and more of his time. No trips at all were made to the workings during 1950 and 1951, as he was busy working in his store⁴⁴.

In addition, Warne realised in 1949 that the gold was "becoming exhausted" over his Reward Claim; the gold had been found "in patches" concentrated in the coarser gravels. In 1949 Warne was 58 years old⁴⁵, and added to the facts that his business was doing well and there was not as much gold to be had as previously, there was also the problem of Warne's failing health. He feared that as his health "is not so good as it was" and that his beloved hut could "if anything went wrong then it becomes a death trap and I am getting too old to take any chances"⁴⁶.

Warne's final trip was made three years later, leaving Hobart on 19 March 1952. On arriving at the hut, Warne was greeted with a nasty shock. Poachers had broken into his hut, taken all of his supplies, and stolen most of his gear—even his bed, which he found in a rough bush hut further down the creek. Next morning, Warne discovered that the thieves had done everything he had intended doing on this last trip in, including working the patch of good ground at the top of the gully he had intended to work this trip. With his provisions eaten, Warne was forced to cut his stay short: "After five days during which I had little or nothing to eat, I woke early in the morning, warmed up the remains of the tea I had made overnight with the last (of the) tea I had, drank it, and shouldered my pack with the full knowledge that it was my last trip out... I wondered at times what my reactions would be when I looked back at the old hut for the last time, but when that time did come I did the last thing that I had expected to do, but it was not until I was half a mile along the track on the way out that it occurred to me I had walked away from what had been home to me for nearly twenty years without a backwards glance".

In 1952 on his last trip, Warne was 61 years old. The lease was surrendered on 23 August 1953, and formally forfeited by the Warden on 10 September 1953⁴⁷.

ACCESS

When Warne first went prospecting in the area in 1935, access into the Jane River area was via a track used, and cut, by huon piners⁴⁸. This track crossed firstly the Franklin River, went over Mt Mullens and Franklin Hills,

down to the Loddon River, across the 'sodden Loddon' plains, at the end of which was a hut—the 'Half Way Dump'. The route continued over Calder Pass, down along Thirkells Creek and Stannard Flats (where the young piner was drowned in 1901) to the Erebus Rivulet, and on to the Jane Flats. Blake complained⁴⁹ that this route was, in part, very steep, four rivers and many streams had to be crossed (ten times in all), and the boggy section of the route had been so cut up "that it now resembles a quagmire". Blake suggested that a track be put in by the Government to aid prospectors, and suggested that a possible route would be from near King William Saddle, along the flanks of the range, around the headwaters of the Surprise River and into the Erebus River valley. This route would not require the crossing of any major rivers. The idea, but not the suggested route was acted on, and a pack track was put in from the Lyell Highway in a general southerly direction to the workings. Thus the route of the present track crosses three large rivers. The locations of the 'old' and 'new' tracks are marked on the lease locality map (fig. 1).

The new track was started in 1936, but evidently was still incomplete by 1938⁵⁰, and work was continuing. Before the new track was put in delays of up to ten days between flooded rivers were not unknown; these delays, when every mouthful of food had to be carried on the men's back, were a real trial.

Bridges (of sorts) were erected over the Franklin, Loddon and Erebus Rivers, although the Franklin Bridge was made of three strands of wire—one to stand on and two to hang on to—arranged in a 'V' shape. Some ten miles (16 km) of boggy plains were corded, and this became the route to the Jane River workings.

In the late 1960s a syndicate tried pushing in a road by bulldozer from Butlers Gorge, around the King William Range to the Reward Creek workings⁵¹, following the route suggested by Blake. This route passed by an airstrip put in to service some exploration for gold on EL31/71 (held by C. V. Johnson)⁵² on the western flanks of the King William Range. Coincidentally Johnson was also a fruit and vegetable merchant⁵³—the third fruitier (after Warne and Miley) to go looking for gold in that particular district. The route proved to be difficult, and in the end the effort

was abandoned after track-making had reached the Gell River.

Interest in access to the Reward Creek workings was transferred to the pack track route put in in the late 1930s. The first fourteen miles (22 km) of this track were upgraded to four-wheel drive standard in 1972. However, the exercise was more expensive than first envisaged, and funds dried up. Another attempt was made in 1976; this time the track was finished, and for the first time there was vehicular access to the Reward Creek workings. Substantial bridges had to be built to cross the Franklin, Loddon and Erebus Rivers. However, the track has fallen into disrepair from a lack of maintenance and fairly constant abuse by 4WD enthusiasts. The track is now impassable to regular 4WD vehicles.

The current (1989) exploration work is serviced largely by helicopter flights, although crew changes are effected by crews using 4WD 'ag bikes' along the track. Use of the track requires a permit from the Department of Lands, Parks and Wildlife.

PRODUCTION

Production records for this area are incomplete. Such production, as known, is tabulated below.

RECENT EXPLORATION

Following the initial gold rush of the 1930s, the leases in the Reward Creek area and the associated water rights have changed hands many times. To illustrate this point, the tenure of the Reward Lease is given in Table 3. Similar tenure histories can be traced for each of the other leases. During the late 1950s and 1960s, prospectors fossicked around the workings, finding (unrecorded) ounces of gold. In the 1960s a local entrepreneur, Mr J. Bennetto, took an interest in the field and for a time 'grub staked' various prospectors, including Messrs Clark and Bibby, whilst they worked on the field. By degrees, Bennetto acquired interests in the Reward Lease and all the surrounding leases, consolidating all these small pre-existing leases into the current lease ML 21M/74 in 1974⁵⁴.

Year	Finder	Location	Total gold (oz)
1894	W. Burrows	Burrows Creek	13
1894	H. Smith	Burrows Creek	?
1901	J. Stannard	Jane River	5-6
1935	Various	vicinity Jane River	"hundreds of pounds worth of gold"
1935*	a huon piner	Prince of Wales Range	16
1935	R. Warne	Ridge Creek	7
1935-1953♦	R. Warne	Reward Creek	744.5
1935*	reported to Inspector of Mines, Queenstown		16.5
October 1935	"100 oz won in recent months" (Reward & Ridge Creeks) including 45 oz won by Warne		100
1935-1938	M. Fletcher	Warnes Lookout	"did all right at the game"
1936	in 6 months to March 1936; 246 oz sold to the Mint and stated by the seller to be from Jane River (this could include 94.5 oz. won in this time by Warne).		246
1936	V. Kingston	Cinnabar Creek	3-4
1936	reported to Inspector of Mines, Queenstown		30
1937	reported to Inspector of Mines, Queenstown		113
1938	reported to Inspector of Mines, Queenstown		75
1953	poachers worked 'piece of good ground'	Reward Claim	?
1960's, 1970's	various prospectors including Messrs Clark and Bibby*		?
mid 1970's	weekend prospectors		?
Total			1203.5

* possibly the same gold, reported to the Inspector by the piner;

♦ includes amounts of 45 oz and 94.5 oz of Warne's noted elsewhere in table.

+ Anecdotal evidence suggests that Bibby collected his gold in an old coffee jar. The Capstan tobacco tins used by Warne to hoard his gold each held around 20 oz; so even a small coffee jar would hold considerably more.

Table 3. Tenure of the Reward Lease

Since the issue of the Reward Lease in 1935, the tenure of this piece of ground has been as follows:

<i>Holder</i>	<i>Lease No.</i>	<i>Period held</i>	<i>Termination</i>
Robert Warne	11542/M	19 August 1935 to 10 September 1953	Surrendered to the Department of Mines, Forfeited by the Warden of Mines
K. E. Schmiedecher	26M/58	24 July 1958 to 12 September 1962	Void
G. J. McCallum & J. Brittain	32M/62	21 September 1962 to 15 December 1965	Cancelled
N. F. Clarke, H. Williams	91M/66	4 October 1966 to 26 July 1967	Transferred
N. F. Clarke, J. Bibby, J. Bennetto	91M/66	26 July 1967 to 25 March 1969	Transferred.
J. Bibby	91M/66	25 March 1969 to 24 August 1970	Transferred
J. Bennetto	91M/66	24 August 1970 to 20 February 1973	Consolidated
J. Bennetto	7M/73	20 February 1973 to 19 March 1974	Consolidated
J. Bennetto	21M/74	19 March 1974 to present.	Expires 1 March 1995

An attempt was made in the 1970s to do some systematic pitting and trenching to establish gold values. In 1972 Department of Mines geologist D. J. Jennings accompanied prospector J. Bibby to the Reward Creek area, where equipment was set up to sluice a 'sample paddock' at a site chosen by Mr Bibby. One troy ounce (31 g) of gold was obtained from sluicing twenty cubic yards (15 m³) of mixed silt and gravel⁵⁵.

The tailings from this 15 m³ of wash were sent to the Department of Mines' Launceston Laboratory for analysis. The tailings sample (R647) contained 0.803 g of gold, showing that the vast majority of the gold (1 troy ounce or 31 g) had been successfully removed by the hand panning of the original concentrate⁵⁶.

The worked areas in Reward Creek were described by Jennings as "confined to the strip usually extending about five metres either side of the present water course, but locally extending to 20 m or more adjacent to the creek", over a distance of approximately one kilometre. "There is no indication that the gravels were ever worked out, frequently the workings end laterally with a bold cliff of Cainozoic sediments from which gold prospects can be obtained; in places the creek forms small waterfalls over features of consolidated gravels"⁵⁷.

A test pitting programme was done in 1976. Some 20 pits (up to 2 m deep) and one 40 m long costean were dug in the Reward Creek area. 'Colours' of gold were noted in panning samples from 12 of the 20 pits. A bulk sample of 1134 kg (dry weight) was taken from the costean and subjected to an ore dressing investigation by the Department of Mines Laboratory. This bulk sample

assayed at 0.19 g Au/tonne (i.e. 0.006 oz/tonne). Two additional samples (232.7 kg and 245.6 kg) assayed at 0.299 g/t gold and 0.273 g/t gold respectively⁵⁸.

As these samples were taken from the area previously held under Miners Rights and from the old Reward Lease, the poor values undoubtedly reflect the fact that this particular piece of ground had been well picked over by previous generations of prospectors. These exploration results are given in Table 4.

The analyst remarked that the gold was free, and had not travelled; some grains were partly covered with iron stains; a few grains were seen to be gold-silver alloy, that is gold at one end of the grain, and gold alloyed with silver at the other end. The gold was very small, with few particles being greater than 1.24 mm in size.

As funds permitted, a succession of syndicates headed by Mr Bennetto undertook prospecting works in the area. Two Bombardier vehicles (lightweight vehicles on tracks, used extensively during desert campaigns of World War II as Bren gun carriers) were purchased to convey men and materials along the track to the workings. Two tractors were bought and taken in, but these were stolen, and the bombardiers, along with their garage, were destroyed by fire⁵⁹. An excavator was taken to the workings in 1980, and a large hole (near Bibby's hut) was dug into the gravels of the 'Swimming Hole' pothole. Anecdotal evidence suggests that the gravels in this spot were 15–20 feet (4.5–6 m) deep, and bedrock was not reached⁶⁰. However the excavator was not really suited to the work required of it for systematic sampling, and again the flourish of activity faded.

Table 4. Results of ore dressing investigations on exploration samples.

<i>Year</i>	<i>Sample details</i>	<i>Volume of wash</i>	<i>Grade</i>	<i>Total gold</i>
1972	sample of wash selected by J. Bibby; tested on site in sluice	15 m ³	2 g/m ³	1 oz
1972	reject from above sample (tailings-treated by Department of Mines laboratory)	0.43 kg		0.803 g
1976	samples submitted to Department of Mines laboratory (from area of old Miners Right claims)	1134 kg	0.194 g/t	0.220 g
		232.7 kg	0.299 g/t	0.069 g
		245.6 kg	0.273 g/t	0.067 g

A small exploration programme of pitting and costeaning in the area of the old Reward Creek workings began in April 1989. The activities are confined to an area of previous disturbance—some 350×100 m covering the old Miners Rights Claims. Systematic samples are being taken from the lines of pits and costeans, and a careful record made of the type of material present (sand, clay, gravel, etc.) and of the gold content of each horizon. In this way the resource within the sampled area can be estimated. The exploration programme was approved by the World Heritage Ministerial Council on 17 March 1989, and is carefully monitored by the State Department of Mines, Department of the Environment, and the Department of Lands, Parks and Wildlife.

GEOLOGY

The geology of the lease area has been described by Blake (1935, 1936), Solomon (1968), and McKenna and Partners (1976). The latter two were commissioned by a syndicate (headed by Mr Bennetto) to report on the goldfield.

Most of the lease area is underlain by quartz-muscovite schist and argillaceous chloritic schist of Precambrian age, which are associated with minor amounts of dolomitic limestone. Dolomite bedrock can be seen in Reward Creek, along with patches of argillaceous schist cut by quartz veins. Small quartz pieces containing gold flecks have been found, and these quartz veins were considered by both Blake and Solomon to be the source of the gold^{61,62}.

Warnes Lookout is a small hill (named by the Nomenclature Board in 1953 from a suggestion made by Frank Blake) which is composed of Ordovician-aged conglomerate and sandstone unconformably overlying the Precambrian basement.

Outcrops of iron-oxide in the form of limonite also occur in the area; these were thought by Blake (1936) to represent "the oxidised residue of pyritic impregnation of the rocks".

The gold in the area is very fine grained, has not travelled far, and is found in the Pleistocene and Recent gravels, associated with ilmenite and magnetite. Only in a few places in these gravels has the gold been concentrated to form workable deposits (Blake, 1936). The gravels vary in thickness. In the top part of Reward Creek, Blake recorded a depth of 2'6" (0.76 m), while downstream the gravel was 25' (7.6 m) thick. The highest gold values, according to both Blake and Solomon, were associated with the coarser gravel, and Blake makes the observation that the best values were to be found just above the bedrock-gravel interface.

Three areas were pinpointed by Solomon as being worth further inspection. These are:

- Reward Creek, and a parallel creek north of Reward Creek;
- the headwaters of Ridge Creek;
- and the large alluvial flat to the north of Warne's Lookout.

As a 'ball park' type estimate, Solomon guessed that the first area, around Reward Creek, could possibly yield up to 9000 ounces of gold. He used as a basis for calculation an area of 60,000 square yards; gravel 3 yards thick (giving 180,000 cubic yards of wash); a yield of one

pennyweight/cubic yard (1.5 g/cubic yard or 2 g/cubic metre) which would potentially yield some 9000 ounces gold.

During 1976, two geologists from McKenna and Partners made a theodolite survey of the area of the old workings, and produced a rough contour map⁶³. From their mapping, the area of gravel available to be worked was estimated at around 16 000 square metres, less the estimated 3000 square metres previously worked, leaving 13 000 square metres of unworked ground. Their 'ball park' type estimate of the maximum amount of gold which could be expected from these gravels was 2000 ounces. The contour map stops at 'Bibby's Hut' which is at the northern end of Warne's old workings, and consequently most of the old Reward Lease workings are not included on this particular map.

The gold itself is something of a geological oddity, being mixed, as it is, with mercury. The mineral cinnabar (mercuric sulphide) was found in Cinnabar Creek in 1935 by Mr V. Kingston⁶⁴ and, although proved by assay, none has been found since. However the actual gold flakes in the area are partly amalgamated with mercury; this makes the gold from this district mineralogically interesting, and as this is a very rare phenomena, the gold may well be worth more to mineral collectors than for the mint value of the gold content alone⁶⁵.

Sand samples collected in 1980 by Mr W. Schmul revealed gold values of 2 grains per cubic yard, and the presence of mercury⁶⁶. The exact mineralogical gold-mercury relationship of this deposit is not yet established. Recently concentrates from the current sampling programme were examined by Department of Mines geologist R. S. Bottrill⁶⁷, who described the concentrates as containing "major amounts of quartz, chromite, and rutile with minor zircon, gold and leucoxene, and trace tourmaline, pyrite and limonite".

One grain showed an overgrowth of post-depositional gold. All the gold grains were, as described in previous reports, very angular in shape, indicating that the gold has not travelled far. Bottrill suggested that the gold may have formed *in situ*, and described the origin of the mercury as 'enigmatic'.

LAND STATUS

The current lease (21M/74) was issued for a 21 year term and is due to expire on 1 March 1995. The issue of the lease precedes:

- (1) the definition of the Conservation Area;
- (2) the moratorium on mining/exploration in the Conservation area;
- (3) the declaration of the Wild Rivers National Park (gazetted 13 May 1981), and;
- (4) proclamation of the Western Tasmania World Heritage Area (proclaimed 25 May 1983).

Whilst within the Wild Rivers National Park and included within the Western Tasmania World Heritage Area, the lease area has not been proclaimed as a 'property' to which Section 9 of the World Heritage Conservation Act applies. The application of 'Section 9' would require that "except with the consent in writing of the (Federal) Minister it is unlawful ... to carry out operations for, or for exploratory drilling in connection with the recovery of minerals on any property to which this section applies".

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