

NORTH CENTRAL GOLDFIELDS PROJECT

HISTORIC MINING SITES

IN THE

CASTLEMAINE/FRYERS CREEK

MINING DIVISIONS

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PART TWO: SITE GAZETTEER

1. INTRODUCTION

1.1 PROJECT AIMS

This report aims to assess historic mining sites surviving in the Castlemaine and Fryers Creek Mining Divisions, areas designated, for purposes of administration, by the Mines Department last century. The whole of Victoria was sectioned into Mining Districts which, in turn, were divided into a number of Mining Divisions.

This report is the first in a series looking at historic mining sites in all Mining Divisions in the former Maryborough, Bendigo and Castlemaine Mining Districts, which together comprised the area now referred to as the North Central Goldfields. (See Figure 1) The long-term goal of the North Central Goldfields Project is to assess sites over the entire region and to determine which should be conserved, and by what means. This report should be viewed as a progress report towards that final objective. Recommendations contained within this report are therefore conditional upon the outcome of the final North Central Goldfield's overview. The main focus will be on sites within Land Conservation Council-designated Historic Reserves, but the project will encompass historic mining sites on other types of public land and might also refer, for purposes of comparison, to sites situated on private land.

The Historic Mining Sites Assessment Committee commissioned and supervised a pilot study, which was funded by the Australian Heritage Commission and carried out during the period December 1989 to May 1990. A complete copy of the Project Brief is included as appendix A to this report. The Pilot study was updated in May 1993 to include the results of fieldwork conducted between November and December 1992.

1.2 BACKGROUND

The Castlemaine Mining District was formed in 1859, and comprised the Castlemaine, Fryer's Creek, Tarrengower and Hepburn Mining Divisions. Prior to 1859, the whole area was referred to as the Mt Alexander goldfield. (In the earliest days of gold discovery [1851-2], Bendigo was also considered part of the Mt Alexander diggings.) The first officially recognized discovery of gold in the region occurred in July 1851. Public announcement of the discovery, some six weeks later, sparked a stampede to Mt Alexander and led to its reputation as one of the world's richest alluvial goldfields. The impact of Mt Alexander's wealth affected much more than the economy of the infant colony of Victoria, and extended far beyond the local scene. Nor were the reverberations merely transitory. Mt Alexander - and its contemporaries, Bendigo and Ballarat - unshackled society and the economy with results that wildly changed the nature of Australian life.

While the social and economic consequences of the 1850s gold-rushes have been thoroughly traced and documented by a number of writers and academics, the physical traces of those times cannot so easily be read. Much of the gold-rush landscape has been transformed or obliterated; either by the de-formalizing forces of Nature, as the bush has reasserted itself, or by the formalizing forces of settlement, land ownership, forestry, or subsequent phases of gold-mining. Each of the region's gold-bearing quartz reefs has been repeatedly re-worked (some extensively), whilst vast areas of the most fruitful alluvial tracts have been blasted away by hydraulic sluicing. In some parts of the study area today, evidence of the continuity and development of a mining tradition has replaced or is superimposed upon the landscape of the initial gold-rushes. These places still bear evidence, on the ground, which corroborates that of the historical record.

2. RESEARCH METHODOLOGY

2.1 METHODOLOGY

The collective constraints of project duration (six months), dual surveys (historical and archaeological), length and intensity of historical activity, and size of the project area necessitated that a general type of research strategy to be adopted. It was felt that, in order to gain the necessary perspective on the type, duration and effects of changes in the gold-mining landscape, a strategy was required which concentrated on the study area as a whole, rather than on a 'representative' sample.

It was particularly vital that a strategy be devised that would take into account the continuum of gold-mining in the study area. Because most areas were re-worked a number of times, it was important to collect information that would clarify a mining area's sequence of working, so that surviving features could be attributed to their correct time phase.

2.1.1 SURVEY OF HISTORICAL SOURCES

To pinpoint the parallel between historic site usage and surviving physical remains, the historical record was sampled in such a way as to establish and document the chronological sequence of gold workings. The strategy did not, therefore, require a concentration on the intricate details of underground operations and production figures; rather, the focus of research was on data which could directly assist in determining the particular period and type of gold-mining to which the remaining components of a site or area related. (See Bibliography)

The fact that the Castlemaine-Chewton goldfields have been worked during the lifetimes of people still alive today, made it possible to use oral history as a valuable research tool. Continuous and accurate historical records (principally those of the Mining Registrars/ Surveyors) are available for the period 1851-1892, but are patchy and dispersed thereafter. It was possible to fill many of the gaps that exist in the documentary record after that date with information gleaned from Mines Department maps, plans and reports; photographs and illustrations; published local histories and other secondary sources; local newspapers; local knowledge; and existing conservation studies for the North Central Goldfields area.

The following people provided assistance in the historical research: Verne and Mary Hooper; Doug Ralph; Clive Willman; Silas Ellery; George O. Brown; Reg Langdon; Ray Bradfield; David and Madge Horner; Les and Madge Simmons; Barbara James; Mary Thompson; Bob Wilmer; Keith Sheehan; Sam, Robert and Pam, of the Cartography Section, Department of Industry and Economic Planning (now Department of Energy and Minerals); Iain Stuart, Victoria Archaeological Survey; Ray Supple and Jane Lennon, Historic Places Unit, Department of Conservation and Environment (now Conservation and Natural Resources); Peter Bell, State Heritage Branch, Department of Environment and Planning, South Australia; David Avery and fellow rangers, Department of Conservation and Natural Resources; and Members of the Historic Mining Sites Assessment Committee, particularly Dr. Peter Milner.

All historical data collected was entered into a simple, chronologically organised, computerised database. A focus of the database is to document the main gullies, creeks, reefs, flats, leads or hills where gold mining occurred. For each gold mining locality, the database attempts to provide a chronology of activity, detailing gold discoveries, mining parties and machinery, settlement patterns, population levels, and gold production figures. The database enables the origins of surviving physical remains to be traced, according to their location, as an aid to precise interpretation and dating of sites. Conversely, the data can pinpoint the location of an important historic site, so that remains of that site can be located on the ground today. The historical database also provides a detailed overall picture of gold mining and other activities within the Castlemaine and Fryers Creek Mining Divisions, allowing an historical overview of the Divisions as a whole (their development, trends and characteristics) to be pieced together.

Once historical research was completed and the database compiled, fieldwork commenced. Areas and specific sites pinpointed as having been important mining localities were surveyed for surviving remains. If located, remains were described, measured and photographed. Constraints of time and budget necessitated that recording be of a fairly basic standard. It is envisaged that more detailed site recording, including scale plans and drawings, will be undertaken when particular sites are shown - after comparison with similar sites within the Divisions and elsewhere - to be culturally significant. Ideally, this detailed site recording, and, where necessary, further historical research, will be a component of the conservation policies to be devised for significant sites.

The results of site surveys were matched with relevant historical data and arranged to form a site gazetteer. The gazetteer entry for each site surveyed also includes details of precise location, site interpretation, an assessment of the integrity and condition of surviving remains, and, where appropriate, a statement of cultural significance and recommendations concerning the site's conservation.

The site gazetteer forms Part Two of this report

2.2 INTRODUCTION

The locality-specific contents of the historical database, together with a wider reading of more general sources (see Bibliography), were used to compile an historical overview, highlighting the major periods of development and the special characteristics of the Castlemaine and Fryers Creek Mining Divisions. In all three main mining periods were distinguished, each having quite different characteristics:

<p>Period 1 1851 to mid 1880s</p>	<p>1851-4: Alluvial rushes to gullies and flats and limited quartz mining (including the use of machinery powered by animal and human). Cement mining on hills around Chewton and Vaughan. 1854 -80s: Extensive use of horse- and steam-powered puddling machines, deep lead mining on Guildford Plateau. late 1850s: Animal- and steam-powered quartz crushing machinery, and a more systematic working of quartz reefs. Extensive open cutting, down on quartz outcrops. 1859-64: Many public companies formed to work large leases on quartz reefs. Mainly tunnelling and shaft sinking. Characterised by over-capitalisation and the erection of machinery too ponderous for the task. Commencement of slate quarrying in the district. Mid-1860s-80s: Collapse of public companies. Intensive quartz mining carried out on a smaller scale by tribute companies and small parties of working miners. British and local investment in quartz mining. during the 1870s. Lots of prospecting and the formation of a number of public companies on major quartz reefs. 1870s-80s: Water-power. The deliverance of water, via races, from the Loddon and Coliban Rivers. Resulted in extensive ground sluicing and the erection of several water-wheels, mainly to drive stamp batteries. In 1876 the last steam-engine and machinery used in alluvial mining were removed from the area.</p>
<p>Period 2 Late 1880s to 1920s</p>	<p>1890s: Growth of secondary processing of quartz tailings (chlorination and cyaniding). 1898: Mining boom. Numerous quartz mines re-worked by public companies and others. Dominated by Spring Gully mining boom and several Chewton mines, notably Franics Ormond and Forest Creek (Victoria) Reef Gold Co. Bucket dredging and hydraulic sluicing plants becomes the main gold mining industry from c.1903 to 1920s.</p>
<p>Period 3 1930s to 1990s</p>	<p>Depression.: Government promoted gold prospecting as 'susso' work for unemployed. Re-emergence of gold-panning and cradling. Extensive ground sluicing. Quartz mines re-worked with success, by public companies and small parties. Main mine Wattle Gully Gold Mine Co. (became State's leading gold-producer in 1937). Only Wattle Gully mine continued working into 1990s. By 1990, small-scale quartz mining and prospecting continues in only a couple of localities. Revival in alluvial mining, both hydraulic sluicing and deep lead. This branch of mining dominated by the results of the Victorian Gold Dredging Co. at Newstead.</p>

2.2.1 HISTORICAL OVERVIEW OF CATLEMAINE AND FRYERS CREEK MINING DIVISIONS

DISCOVERY

The following item appeared, without fanfare, in the 'Domestic Intelligence' column of the **Argus** on 8 September 1851:

NEW GOLD FIELD. - We have received the following letter announcing the discovery of a new gold field at Western Port:-

Dear Sir, - I wish you to publish these few lines in your valuable paper, that the public may know that there is gold found in these ranges, about four miles from Doctor Barker's home station, and about a mile from the Melbourne road; at the southernmost point of Mount Alexander, where three men and myself are working. I do this to prevent parties from getting us into trouble, as we have been threatened to have the constable fetched for being on the ground. If you will have the kindness to insert this in your paper, that we are prepared to pay anything that is just when the Commissioner in the name of the party comes.

John Worbey [sic]
Mt Alexander Ranges
Sept 1st, 1851 ¹

The writer was actually John Worley who, along with Christopher Peters and two others, was credited with the discovery of gold at Mt Alexander, by the Rewards Board in 1864. They had first found gold at Specimen Gully, Barker's Creek, to the north of present-day Castlemaine.

RUSH

The diggings at Buninyong/Ballarat were getting all the attention in September 1851, but, following the **Argus** announcement, a trickle of diggers made their way to the spot near Mt Alexander, but the place was not rushed until early November. The **Argus'** correspondent on the spot reported:

Though gold is found more or less along the creek, the richest deposit appears to be at one point, and at this spot there are 122 tents pitched, containing as near as I could judge, 610 persons, independently of about 400 in the neighbourhood... There have been at least 300 persons arrived here since nine o'clock this morning, and hundreds more are coming across the country from Ballarat. ²

Three days later, he wrote:

Since Saturday morning, the scene has greatly changed - then a tent would be seen here and there, but now they are becoming inconveniently crowded... On Saturday, dozens were arriving at a time; on Sunday, hundreds; Monday and Tuesday, one continuous line of new arrivals. Your Melbourne departures are but trifling compared to the arrivals from Ballarat and the surrounding country... Gold continues to be found in abundance - two, three, and four pounds per day seem common among the **luckies**; but water is becoming more scarce. ³

He also set the record straight about the actual location of the goldfield:

...The diggings are not on Mount Alexander, as is generally supposed, but in a gully known as Forest Creek, and situated about seven miles from the Mount, and twenty from the Loddon, which receives the waters of this Creek ... the more experienced are quietly retreating to the Loddon, where report states that gold has been found in abundance. ⁴

In fact, the Mt Alexander diggings centred, at that time, on Red Hill, Chewton, in the vicinity of which canvas stores, post office and **Argus** office, and thousands of diggers' tents, swiftly formed a 'village'. Known generally as 'Forest Creek', the settlement was given the name Chewton in 1856. Fryer's Creek, in the vicinity of Golden Gully (now Fryerstown), was also rushed in late 1851. This area had hitherto been held as grazing land by pastoralist, Peter Fryer, after whom the creek is named. ⁵

1 Argus, 8/9/1851, p2

2 Argus, 5/11/1851, p2

3 Argus, 8/11/1851, p2

4 Argus, 8/11/1851, p2

5 Brown, G.O. 1983 Reminiscences of Fryerstown, Castlemaine

A traveller, writing of his journey from Melbourne to Mt Alexander, told how, after turning off at Sawpit Gully (now Elphinstone), he reached:

the commencement of the diggings on Forest Creek at Golden Point, and from which point for many miles is a continued line of canvas habitations; in every case where the creek is joined by a creek or gully a similar line of tents may be seen as far as the eye can reach, and at the junction of these creeks or gullies with the Forest Creek, a little village or kind of township is formed, consisting generally of one or two stores, a ginger beer establishment, a butcher's shop, and in some cases at the foot of a large gum tree, a solitary dealer in nuts and lollypops. ⁶

UNREST

In December 1851, Victoria's Colonial Government doubled the monthly gold miner's licence fee, from 30s to £3. This ill-conceived action led, three years later, to the violence of the Eureka Stockade, at Ballarat. Indignation at the government's action ran high at Mt Alexander in December 1851. Two meetings of diggers in opposition to the increased licence fee were well-attended and the speakers' fiery rhetoric was mightily applauded. One speaker counselled the diggers to resist the fee increase and, if the Government sent force:

put them in your cradles and rock them to sleep - but mind, keep your powder dry. ⁷

Spirited stuff. But, despite the formation of the Gold Miner's Association, and the Mt Alexander diggers' roared pledge to fight the increase, the wish for wealth seems, for the time being, to have won out over the will for organized resistance.

HIGH AND DRY

In November, the ground had already been hard and the creeks held little more than a trickle of water; by January, dysentery was afoot. Diggers who, in November, had carted soil half a mile for washing, by March had to carry it five miles and more. Even drinking water was not procurable within that distance of the diggings. Many diggers were leaving, whilst others continued to arrive, only to turn on heel and head home again. At the end of December 1851, the **Argus** correspondent had written:

There is plenty of gold, but it cannot be got for the next four months in any quantity. ⁸

And he was right. In April, rain brought better fortune and thousands more diggers. That summer of 1851-2 set the pattern for the next twenty years or more. Water was vital for mining, and, until extensive water race systems, channelling water from afar, were introduced to the area in the 1870s and '80s, the dry summer months meant hard times for gold miners and a seasonal diminishment in the district's mining population.

AND RUSH AGAIN

In mid-1852, the Bendigo diggings, north of Mt Alexander, were big news. Many diggers left the Mt Alexander diggings for Bendigo, but by August they were returning, and many more with them. Diggers swarmed the flats, hills and gullies in the vicinities of Forest Creek, Barker's Creek, Campbell's Creek, Fryer's Creek and the Loddon River. A rich strike in a small gully would result in a 'rush' of thousands of diggers. By October 1852, the population of the Mt Alexander goldfield reached about 30,000, and its output of gold was such that it ranked as the world's richest goldfield at the time. As Blainey wrote:

it is doubtful if any goldfield could have equalled Mount Alexander within six feet of the surface. ⁹

⁶ Argus, 14/2/1852, p2

⁷ Argus, 18/12/1851, p2

⁸ Argus, 31/12/1851, p2

⁹ Blainey, G. 1969 The Rush that Never Ended: A history of Australian mining, p33

In 1852, a small number of Mt Alexander diggers, not content with merely sinking into those 'six feet of the surface', first turned their attention to the gold to be found in quartz. The aptly named Quartz Hill was the first reef to be tried, when:

6 to 8 inches of its eastern face was broken off, roasted, and crushed with hand-hammers, yielding, with these primitive appliances, from 60 to 72 oz. to the foot super ¹⁰

'WORKED OUT' GROUND: THE CAPITALIST PUSH

At Mt Alexander in mid-1853, a good deal of the rich surface soil had been worked over, and many diggers had moved on. An item in the **London Mining Journal** in mid-1853 gives an indication of the state of things in the Victorian goldfields at that time.

Some 35,000 are located at Mount Alexander and Bendigo, where, although few are extremely fortunate, scarcely any but are making good wages, the average being probably about an ounce per man per week. Quartz crushing has been tried, but at present on a very limited scale, the machines in use being worked by hand, and not being capable of crushing more than a ton of quartz per day. All these belong to private individuals, none of the English companies having done more than buying gold, excepting the Port Philip [sic] Company, which...has attempted to work alluvial soil. ¹¹

The **London Mining Journal**, representing, as it did, the interests of British mining investors, helped propagate the view that large tracts of auriferous ground in the Victorian goldfields had been 'worked out' - at least, as far as individual and small-scale mining were concerned - and should be made available under lease to public companies, which could afford to 'properly' work them.

The Port Phillip and Colonial Gold Mining Co. had been floated in London at the end of 1851, for the purpose of mining Victorian gold on a large scale. The company established gold-buying offices at Ballarat, Beechworth and Fryer's Creek, and employed small numbers of men in prospecting. In June 1853, the company applied to the Colonial Government for a lease of several acres of auriferous land at Windlass Hill and Golden Point, Fryer's Creek. In the winter months this land was being worked by some 500 diggers, and up to 1500 during the summer. The proposed lease meant their eviction. It was about to be granted when the local diggers rose to have their say. The company was:

resisted by willing men and strong hearts, and successfully resisted too, because it was considered highly objectionable that a company should possess that which belonged to the community ¹²

The Port Phillip Co.'s attempts to gain leases at Ballarat and the Ovens were also thwarted by local diggers. Their plans to mine at Clunes were initially strongly resisted, but the company won that battle in 1857 and went on to be, for many years, the most successful gold-mining company in Victoria.

The diggers' fight against the Government's proposed laws concerning the leasing of 'worked out' auriferous ground, continued throughout 1854. In support of the proposed laws, the **London Mining Journal** presented the following grim picture of the Mt Alexander diggings:

Forest Creek presents now (June 27) the reality of a deserted diggings, a scene of desolation. About two years ago the place was covered by tens of thousands of human beings from all parts of the earth, digging up the gold. That exciting time is now passing into history, and a gloomy silence prevails along the valley. Every square yard of the soil in the flats, and even up to the top of the bounding ridges, from the head of Golden Point to Castlemaine, has been riddled with holes, and honeycombed with tunnels below, all of which this time of the year are more or less filled with water. As to any re-working of the auriferous soil by individual labour, that is out of the question. ¹³

¹⁰ Mining Surveyors' monthly reports, Dec 1886

¹¹ The Mining Journal, Railway and Commercial Gazette, London, 6/8/1853, p481

¹² Mount Alexander Mail, 3/11/1854, p.7

¹³ The Mining Journal, Railway and Commercial Gazette, London, 7/10/1854, 673

Diggers saw things differently, and public meetings at Fryer's Creek and Pennyweight Flat were told:

If the principle was once allowed, then in a short time we should see nothing but 'worked out' ground. The plan of the Government was to lease all those places to the highest bidder, so that the man of capital alone would have a shadow of a chance, and would obtain the ground, and leave the poor digger to shift for himself ¹⁴

A poem written by a miner at the Kangaroo diggings, near Vaughan, a year later, personifies the diggers' sentiments and explains why it so mattered to them who controlled the goldfields.

SONG OF THE GOLD DIGGERS by M.H.F.

Hurrah for the free new land!
And hurrah for the diggers bold!
And hurrah for the strong unfettered right
To search in the hills for gold!

Turn up the sods my strong free mates,
And dig with a fearless hand;
For there's not a castled lordling here,
In all this glorious land!

Dig 'till each sinew starts like cord,
'Till every vein is shown;
There's a mighty strength in our beating hearts,
We are toiling for our own!

Dig! 'till each pore its tribute gives
Which the burning forehead craves,
But never a lingering look cast back
To the land where we were slaves!

Oh! clasp the strong arms in;
Crush back the yearning thought;
For it whispers the love of our Father-land
Can never be sold or bought.

The love of our Father-land, oh true!
But her homes are cursed with pride;
And her cottage walls are trampled down
To make the palace wide!

Breathe for a moment, one glad breath,
Throw up the shadeless brow;
Where is the paid task-master's eye?
We were never men 'till now!

Men with a right to toil!
Men with a right to speak!
And a strength we will never use, please God,
To trample down the weak!

Oh! brightly gleams the ore
In the digger's cradle rocked;
But 'tis found in a bank-till free to all
In a coffer all unlocked!

Then dig! 'tis for wife and babes,
We are marring beauties now,

¹⁴ Mount Alexander Mail, 3/11/1854,p.7

But the time will come for the waving grain,
And our sons shall hold the plough! ¹⁵

In 1854, as a result of agitation by diggers, the proposed laws were altered in favour of individuals and small companies of miners, so that those who opened up and prospected ground themselves were granted extended claims. Evan Hopkins, Manager of the Port Phillip Co., was still seething in 1857, when he wrote:

As far as I have been able to judge from a survey in the neighbourhood of Mount Alexander, from Fryer's Creek to Bendigo, the gold scramblers will soon disappear, and we shall have the refuse to ourselves. ¹⁶

'SINGULAR CHARACTERS': THE CHINESE

Another stress-point on the goldfields during 1854 was the arrival of large numbers of Chinese diggers. In May, the **Mount Alexander Mail** reported that:

Another importation of these singular characters has just taken place ¹⁷

Over the months and years ahead, 'singular characters' was the kindest thing the **Mail** found to call the Chinese. More typical was the following report:

The Chinese are congregating about Forest Creek in great numbers, disgusting by their filthy habits the decent diggers among whom they happen to squat, and, by their unskilful and lazy mode of working, wasting advantages that could be turned to good account by more dextrous labor ¹⁸

Acts of organized violence against the Chinese were not uncommon. When, in 1855, some 2300 Chinese were living and working on Barker's Creek, the **Mail** reported agitation amongst older residents of the area:

hints are thrown out of an intention to expel them from this locality, and break up their camps. ¹⁹

Like other diggers, the Chinese moved from place to place in rushes, but, in the case of Chinese diggers, movement *en masse* may have been more a matter of safety in numbers than choice.

PUDDLING MACHINES

Puddling machines appear to have been first introduced to the area in mid-1854, when hundreds of miners, returning after the summer, embraced the new technology and made the most of the winter rains. Flooded flats, which had never previously been workable, were worked over for the first time. Furthermore, the **Mount Alexander Mail** informed its readers in January 1855 that:

Several puddling machines are now washing soil originally thrown aside as useless, and not calculated to pay when washed by the common cradle. The puddling machines can wash from fifteen to twenty loads per day, and, although averaging only a few pennyweights per load, the refuse soil pays the proprietors of the machines well ²⁰

So much for 'worked out' ground! In February, the **Mail** reported that an estimated 200 puddling machines were at work along the district's creeks. H. Mason's Portable Puddling Machine Manufactory

15 Mount Alexander Mail, 14/12/1855, p.5

16 The Mining Journal, Railway and Commercial Gazette, 28/2/1857, p163

17 Mount Alexander Mail, 13/5/1854, p.3

18 Mount Alexander Mail, 13/10/1854, p.2

19 Mount Alexander Mail, 14/9/1855, p.2

20 Mount Alexander Mail, 19/1/1855, p.2

was situated on the Forest Creek Road, near Castlemaine, in June that year, and advertized in the **Mail** that:

These machines are so portable that they can be taken up and re-fixed quickly, and are very substantial... They are constructed of wood and iron (principally wood) and fitted together with iron bolts. ²¹

STEAM POWER

Implicit in the mining capitalists' argument in favour of large leases for public companies had been their belief that riches in gold awaited them in the quartz reefs of Mt Alexander. Prospecting and mining in quartz was a more difficult undertaking than alluvial mining, and one in which, they argued, only those who could afford expensive machinery and processing could succeed. They scoffed at the attempts of early miners to extract gold from quartz with hand-held hammers and grinders. The **London Mining Journal** portrayed such attempts as pathetic in early 1854:

The small companies which have been working on the quartz veins north of Forest Creek, Specimen Gully, &c., have laboured in vain, spent all their money, and are offering their machinery for sale. Grinders and amalgamators may be seen scattered and lying about in the gullies of Forest Creek and Bendigo, with as little regard to their value as to blocks of quartz. ²²

Late in 1854, the partnership of Jacob Braché and Denis Eisenstaedler introduced the first steam-powered quartz crushing machinery to the area. It was erected on Specimen Hill, where a steam engine crushed quartz in a Chilean mill, as well as operating a saw-mill. Other steam-powered crushing machines were soon established at Wesley Hill, Moonlight Flat, and elsewhere on the goldfield.

By February 1856, the population of the Castlemaine district was estimated at 34,347, and 23 steam-engines, 140 puddling machines, and 36 quartz-crushing machines were at work. Not all of the steam engines would have been engaged in quartz crushing. Some puddling machines were steam-powered and, in 1856, the district's first large alluvial gold-mining company, the Caledonia Co., operated a Hart's steam-powered patent gold-washing machine at the base of Clinkers Hill, in Castlemaine.

A writer in the **Mount Alexander Mail** in 1855 had predicted that the increase in quartz mining and steam power would drastically effect the goldfields landscape:

One thing impresses the mind forcibly in reference to quartz crushing. Unlike alluvial gold sinking which required fire only to warm the digger and cook his meals, this new pursuit burns up a tree, as one may say, at both ends, one to roast the quartz, and the other to boil the water. It is earnestly to be hoped that before the chimneys of boilers have become very numerous, some method of dispensing with so much fire will have been fallen on, or in a few years the wood crowned summits of our hills will look as desolate and barren as the flats and gullies do already. ²³

Advances in quartz mining technology made quartz roasting (to 'soften' the quartz before crushing) unnecessary within a few years, but the writer was right about the effects of wood-fuelled boilers - before the end of the century, large quartz mines were having to obtain wood from as far away as Daylesford.

HOME ON THE DIGGINGS

During 1851 and most of 1852, the Mt Alexander goldfield had been a shifting swarm of tents and flimsy bark huts. A large number of gold miners - particularly those who worked the goldfield only on a seasonal basis - continued to live this way for many years to come. But the growth in the district's settled population was reflected in the emergence of towns. Castlemaine was laid out and settled in late 1852, and was followed in 1853-6 by the formalisation of the towns and villages of Campbell's Creek, Fryerstown, Vaughan, Glenluce, Guildford, and Chewton. Other small hamlets - with pubs, stores,

²¹ Mount Alexander Mail, 8/6/1855,p.3

²² The Mining Journal, Railway and Commercial Gazette, 1/4/1854, p.213

²³ Mount Alexander Mail, 30/11/1855

churches and schools, as well as houses - existed at places like Golden Point, Moonlight Flat, Barker's Creek, Spring Gully, Tarilta, Mopoke Gully, Kangaroo, and elsewhere throughout the district.

In 1854, many diggers wishing to make a home for themselves on the goldfields, greeted Government legislation which allowed holders of annual miner's licences a half-acre garden allotment on Crown land.

²⁴ A few months later:

everywhere tents may be seen enclosed within bush fences, and a 'wee bit garden' under process of cultivation ²⁵

The following items from the **Mount Alexander Mail** in the mid-1850s give an indication of the increasingly sturdy, but nonetheless portable, nature of structures existing on the goldfields in those years.

Many new tents are also daily springing up along the line of road, the occupants of which have observed greater taste in the construction of their chimneys, and less simplicity in the architecture of the general fabric, than was displayed by their predecessors ²⁶

Wooden Houses -

Two-roomed houses - - £65
 Three do do - - 100 do
 Four do do - - 150 do

The above will be delivered completed, with doors and windows. They are particularly suitable for parties building at the diggings, from the low rate of cartage and trifling expense of erection. ²⁷

Iron Houses, complete, of first-rate construction, on sale to close a consignment, at the following extremely low prices:-

1	2-roomed corrugated black	16 x 12 x 8 ft	£40
1	3 do	24-4 x 12-8 x 8-1/4 ft	£60
1	4 do	galvanized 25 x 20 x 9 ft.	£100
1	do	wood, covered with tin 12 x 8 x 12 ft	£18
1	large iron store, with cast iron pillars,	120 x 45 x 12 ft	£1000 ²⁸

To be disposed of - A first-rate Slab Building, with two good Tents adjoining, situate on Adelaide Hill, Forest Creek, next to Collyn's store, and known as Dale's Eating House, and now doing a good business. ²⁹

Five Cottages for £100 - They are perfect in every respect, uniform in their style, and well adapted for erection on any of the townships or any of the diggings. ³⁰

For Sale, a large Tent, consisting of Front Room and Bed Room, lined with Drugget, and Kitchen attached. Price £20. ³¹

For sale, a first-rate Bark and Slab Hut, containing three rooms and a good chimney, Also an excellent Bark and Slab Kitchen, adjoining, which contains a good stone oven ³²

24 Mount Alexander Mail, 13/5/1854, p.3
 25 Mount Alexander Mail, 26/8/1854, p4
 26 Mount Alexander Mail, 19/8/1854, p.5
 27 Mount Alexander Mail, 3/11/1854, p9
 28 Mount Alexander Mail, 26/1/1855, p.6
 29 Mount Alexander Mail, 26/1/1855, p1
 30 Mount Alexander Mail, 16/3/1855, p.1
 31 Mount Alexander Mail, 13/4/1855, p.1
 32 Mount Alexander Mail, 15/6/1855, p.4

The business of the Licensing Bench [heard] the applications from the Fryer's Creek district...

The Junction Hotel [Vaughan]... Mr Hackett said the building was chiefly of calico, and there was no other floor than the bare earth. In fact, it was only a tent, with calico partitions... The landlord had done nothing to improve his premises or to make them more convenient to the public. The application must be refused.

Mr Paynter asked for an adjournment for a fortnight, in order that the applicant might be able to make improvements. He intended putting up a wooden building. ³³

Even when an area was rushed, its gold-fevered new inhabitants took more care over their dwellings and comforts than previously:

...many of the diggers prefer returning home every evening till they have bottomed their holes, before they move their tents ³⁴

Barker's Creek - A heavy rush has now set in to these new diggings, and the population is little short of a thousand. ...few of the tents are without that appendage which betokens permanence - a stone or mud chimney. ³⁵

Within only four months of its being rushed, in mid-1855, Kangaroo, near Vaughan, had the appearance of a permanent settlement:

the diggings presents a very animated appearance, the stores are very creditable, many parties having gone to great expense in the erection of their buildings. Frontages are scarce, and should Kangaroo continue to go a-head, sites for business will be very valuable... Three or four months ago, it was a quiet and retired gully rarely frequented, but it is now teeming with all the elements of a busy little English town - hotels, restaurants, conveyances, libraries, concerts, balls, quadrille parties, &c. ³⁶

A MINING REVOLUTION

The steady accumulation of quartz-mining expertise and the resultant increase in systematic, larger-scale mining, together with the availability of improved mining and crushing technology, led, in 1859, to a 'mining revolution'. The 'revolution' manifested itself in the large-scale formation of public companies and the granting of large leaseholds of auriferous ground. This time there was no organized resistance by the diggers - the mining scene had changed in five years, and now the time was right. Many diggers continued to work the alluvium for another twenty years or more, and other small parties worked the quartz reefs side by side, or in co-operation (as tributers), with the big companies. Other miners still - the Rowe brothers of Fryerstown, for instance - were to join the ranks of the public companies, with tremendous success.

With the 'revolution' came reforms in Government administration of the goldfields. In 1859, the Castlemaine Mining District was formed, comprising four Mining Divisions: Castlemaine, Fryer's Creek, Hepburn, and Tarrengower (see Figure 1). Previously, the mining district had covered a larger area, extending as far as Maryborough, and appears to have been administered as two divisions: one covering Castlemaine, Chewton, Maldon and Maryborough; the other covering Fryer's Creek, the Loddon, Daylesford and Elphinstone. The increased scale of mining necessitated greater Government administration, and a Mining Registrar/Surveyor was appointed to each of the four divisions. The Mining Registrars lived in the Divisions they administered, and were at the hub of their area's mining activity. They reported monthly at first, and, later, quarterly, and today their reports are a valuable source of historic mining information.

T.L. Brown, the Mining Registrar of the Castlemaine Mining Division, reported in June 1859:

33 Mount Alexander Mail, 22/6/1855, p.3

34 Mount Alexander Mail, 10/8/1855, p.2

35 Mount Alexander Mail, 3/8/1855, p.2

36 Mount Alexander Mail, 2/11/1855, p.2

During the past month an extraordinary impetus has been given to our mining operations, especially in quartz workings, by the formation of mining companies, and the visits of a number of persons desirous of speculating in some of our numerous partially prospected reefs. Twelve leases have been applied for of an aggregate of 6,350 yards in length and representing a capital of £150,000. The immediate result of these applications has been to attract the attention of our miners, and already eight new reefs, or continuations, have been marked off.³⁷

R.L.M. Kitto, the Fryer's Creek Division Mining Registrar, was also noting the progress of the 'mining revolution'.

This division is becoming somewhat noted for the facility with which companies are springing up... I have no doubt but these companies will influence our mining population beneficially, as a large section of the digging community would rather embrace the opportunity of working for certain wages than continue on their own account for an uncertain remuneration.³⁸

Kitto's final sentence reflects that the mood and prospects of the individual diggers had changed by 1859 - or does it? Kitto was a capitalist, ever with an eye to the 'main chance', and did not have much sympathy, it would seem, with the working miner. He didn't stick at his government post for many years, but went on to be the instigator and manager of many a big public company, including the disastrous Australian United Gold Mining Co. which developed the Duke of Cornwall mine - of which more later.

CHINESE AND PUDDLING

Whilst the predominant trend in the Castlemaine district in 1859 was towards sinking shafts and capital into the quartz reefs, the alluvial ground was, increasingly, left to the Chinese diggers, who had, by this time, earned a degree of respect from their European counterparts, as skilled and dogged alluvial miners. By careful working, and sheer hard work, they obtained worthwhile yields of gold, even in areas that had already been worked over a number of times. Mining Registrar Brown reported that, of the 438 puddling-machines operating in the Castlemaine Division, 123 were operated by Chinese - 95 of them purchased from European miners.

The Chinese are partial to prospecting and most indefatigable in their labors from daybreak until dark - the puddlers usually 'washing off' by candlelight. The gold purchasers state that the greater portion of alluvial gold is the product of Chinese labor. In every portion of the division, however secluded, if it has a puddle hole, one or more Chinamen is there, rocking his cradle.³⁹

Whilst the European mining population was tending to settle in towns and mining hamlets, the Chinese continued to move from goldfield to goldfield:

a little gold is everywhere obtainable - resulting in the fact that the majority of our European population is becoming more settled, and no perceptible change has taken place during the month except in a slight diminution of Chinese, who are generally exceedingly migratory.⁴⁰

Puddling activities, like quartz mining, led to considerable changes in the goldfields landscape. 'Sludge' - the residue of the puddled washdirt - clogged up watercourses and caused them to be redirected. In 1861:

The rescinding of a bye-law which for a time prohibited working in Forest and Campbell's Creeks, which run about 14 miles through the richest portion of our alluvial workings, has given great impetus to the Chinese miners, who are forming companies of from 20 to 40,

37 Mining Surveyors' monthly reports, June 1859

38 Mining Surveyors' monthly reports, July 1859

39 Mining Surveyors' monthly reports, June 1859

40 Mining Surveyors' monthly reports, July 1859

cutting new courses for the water, and clearing out the old creek of its accumulations of sludge. ⁴¹

The washing away of topsoil by puddling and ground sluicing (mainly along the Loddon) began, at this time, to reduce whole gullies to bedrock

The ground has been turned over and over again, and now the whole of the alluvium found in the gullies is being put through the puddling machines, and excellent wages is the result. There is no doubt but the present process will be continued until the whole of the known auriferous gullies will be entirely washed away in the shape of sludge, leaving nothing behind but the bare bed rock and sundry heaps of stones to show where the gold has been taken from ⁴²

CASUALTIES IN THE MINING REVOLUTION

Many of the big players in the 'mining revolution' saw their investments crash in 1860-61. Mining companies' plans came unstuck, in most cases, because they had over-capitalised, spending thousands of pounds on mining and crushing technology, yet being unable to recover sufficient gold to recoup their expenses, let alone realize a profit.

The Specimen Gully Mining Association was one such casualty. When it commenced operations in 1859, it was the first private company formed in the Division. In December 1860, the company had expended over £11, 600 (their initial capital had been £10,000), and had realized only a little over £3,800 from gold. By February 1861, the company had temporarily suspended operations, pending the clearance of a loan. No loan was forthcoming and, by July, the company's plant was up for sale.

The effects of the recession in the quartz mining industry was particularly felt in the Castlemaine Division; big company mining had not yet taken off in a big way in the Fryer's Creek Division. Late in 1860, Mining Registrar Brown observed:

a greater increase in the number of alluvial miners. The causes are the partial or entire suspension of mining operations of six out of the eight public quartz mining companies, and the men thereby thrown out of employ. ⁴³

The bursting of the public quartz mining companys' initial bubble of confidence led to increased activity by small parties and companies of working miners. Many of the unsuccessful large lease-holders let portions of ground to small companies of tribute workers. These small-scale operators dominated the quartz mining industry during the later 1860s and into the 1870s.

DEEP LEAD MINING

Between the extremes of puddling or sluicing the surface alluvium and cutting shafts into quartz reefs, was the business of working the district's deep leads. These were the beds of ancient creeks and rivers, which lay sometimes hundreds of feet beneath the basaltic plains and hills, particularly around Vaughan, Guildford and Muckleford. Some of the deep leads, particularly around the Loddon, were worked as early as 1852. It was punishingly hard work, cutting deep shafts and tunnels through solid basalt rock, but the rich yields found 'at bottom' at diggings like Kangaroo, Tarilta and Guildford, and later north to Muckleford, were evidently worth the effort.

In December 1864, T.L. Brown reported:

the most important feature in mining operations, in this [Castlemaine] division, is the great interest taken by the commercial community, and the amount of energy displayed in taking up and making preparations for working the deep leads, believed to exist from Walmer, through the Muckleford Valley, and under the basaltic lands known as the Loddon Plains,

41 Mining Surveyors' monthly reports, July 1861

42 Mining Surveyors' monthly reports, Dec 1861

43 Mining Surveyors' monthly reports, Nov 1860

parishes of Guildford and Strangways, to, and connecting with the deep leads being worked at Guildford, Loddon Valley, and Vaughan.⁴⁴

The Muckleford-Guildford deep leads were continuations of those worked successfully in the Daylesford district. During the 1860s and '70s, many companies, a few of them successful, worked the deep leads in the Castlemaine and Fryer's Creek Divisions.

As with quartz mining, deep lead mining seems to have been the exclusive domain of non-Chinese miners.

THE CHINESE MOVE ON

During the first half of the 1860s, large, stable Chinese camps existed around Strathloddon and Guildford. In 1866 their inhabitants dispersed, taking up old ground at Campbell's Creek, Pennyweight Flat, and Golden Point, where, according to Mining Registrar Brown:

Some Chinese are obtaining possession of quartz tailings from crushing machines, which tailings they submit to a very tedious manipulation in rudely constructed "quicksilver cradles;" one man continually rocks two cradles, 6 x 3 feet each, and at the same time pumps the necessary supply of water, whilst a second man carefully feeds and tends the supply⁴⁵

By 1867, there was a considerable exodus of Chinese back home and to pursue gold in New Zealand. At the same time, rushes elsewhere in Victoria were luring numbers of European alluvial diggers away from the Castlemaine District.

WATER ON DEMAND

The local alluvial mining scene did not revive until the extensive artificial channelling of water in the 1870s made surface working more viable. The first water system completed was that constructed by the Loddon and Tributaries Water Company, which supplied mining areas around Fryerstown and Vaughan. Mark Amos, who had replaced Kitto as the Fryer's Creek Mining Registrar, and who had himself surveyed the route of the water race, reported in December 1870:

the number of miners is increased; this is mainly attributable to the fact that many have removed from adjacent localities to test the quality of old alluvial workings by ground sluicing from water available from the Loddon and Tributaries Water Company⁴⁶

Shortly afterwards, channelled water was also supplied to different parts of the Fryer's Creek Division by races operated by smaller water companies. The supply of a 20-inch sluice-head of water for one week, or twenty-four hours, cost between £3 and £5, and the demand for sluice-heads, by puddlers and ground-sluicers, far exceeded the number available.

BOOM

The Castlemaine Mining Registrar reported the summer months of 1869-70 as the most unproductive yet experienced in his division. Most of the machinery lay idle, or only partially employed for want of water:

and the quartz operated upon giving a smaller average yield of gold than ever before returned. The reefers generally have been off the runs of gold, the upper deposits being exhausted, and very little effort being made to discover lower gold-bearing lodes, though believed to exist here as well as at Sandhurst and other goldfields.⁴⁷

44 Mining Surveyors' quarterly reports, Dec 1864

45 Mining Surveyors' quarterly reports, March 1866

46 Mining Surveyors' quarterly reports, Dec 1870

47 Mining Surveyors' quarterly reports, March 1870

A year later, though, a boom in mining investment resulted in the activity in the District of an unprecedented number of public mining companies, and transformed the goldfield's flagging fortunes. In his June quarterly report, T.L. Brown told how things had changed:

Numbers of gentlemen experienced and interested in mining in other gold-fields have visited Castlemaine, and show their belief in its auriferous resources by investing their capital.

Two new features exist in the present movement worthy of record. 1st. That, generally, the local tradesmen and other inhabitants are taking a lively interest and are pecuniarily assisting the miners to develop our hidden treasures. 2nd. That the applicants for leases or claims take up only so much as they can work, and forthwith commence operations. Both decided improvements to former attempts, when very large areas were taken up but no work done. ⁴⁸

By the end of the year, Brown reported that Castlemaine was feverish with excitement, and that the quartz mining population was on the increase. In September 1872, in the Castlemaine Division, twenty-four steam engines were driving pumping machinery to drain mines on seventeen reefs. In December 1873, four mines in the Castlemaine Division were at depths of more than 300 feet - the Ajax at 400 ft, the Sebastopol at 413 ft, the Eureka at 360 ft, and the Old Wattle Gully at 339 ft - and some of the public companies were paying dividends.

Quartz mining in the Fryer's Creek Division was also booming, with the Golden Gully reefs - Heron's, Ferron's, Clark's, and Cattle's - the focus of activity. The Rowe brothers, the sustained success of whose Mosquito mine, on Cattle's Reef, was legendary in the district, were involved in the formation of a number of public companies on those reefs. Most notable, though, were the Australian United Gold Mining Co. and the Anglo Australian Gold Mining Co., formed in London with British capital in 1868 and 1869, respectively. Kitto, the District's former Mining Registrar, was manager and a major shareholder of both companies. The Anglo Australian mine, on Heron's Reef, went from strength to strength and survived for ten years. The Australian United Co. worked the Duke of Cornwall mine, on Cattle's Reef, just a stone's throw from the Mosquito mine. Buildings and machinery of a calibre never before seen in the Castlemaine District, were constructed and installed at great expense - in anticipation, naturally, of yields in the order of those realized by the Mosquito mine. Mining logic failed yet again, though, and the company's outlay far exceeded its income. Within two years, the mine was closed, and a year later it was sold - to the Rowe brothers.

By mid-1875 the quartz mining boom was over; in most cases, the gold just wasn't there, and the capital ran out before prospecting could be carried out at depth. Many of the public companies had suspended operations and were negotiating with tributing companies to work parts of their leases. Quartz miners found it hard to get work; some turned to seasonal harvest work, and others resorted to fossicking among the old workings.

CHANGING TIMES - 1870s

In the mid-1870s puddling operations became almost unpayable because of the quantity of turned-over stone and gravel which had to be moved before wash dirt could be obtained. (In the Fryer's Creek Division, at least, puddling machines appear to have still been in use during the 1880s.) Water arrived in the Castlemaine District, via races, from the Government's Coliban reservoir, in 1874. As had been the case when the Loddon River water races were introduced, ground sluicing took off in a big way, with demand again outstripping the available number of sluice-heads:

the total returns of water sold for sluicing during the past twelve months is 383,958,000 gallons, or only 7,383,800 gallons per week; whereas, if the five million gallons per day was made available, reservoirs formed to conserve what now runs to waste, and greater care taken in its use, a much larger number of men would find employment. ⁴⁹

Quartz mining was also aided by the availability of channelled water. From the mid-1870s onwards, a number of quartz mining companies in both Mining Divisions erected water-wheels, as substitutes for

⁴⁸ Mining Surveyors' quarterly reports, June 1871

⁴⁹ Mining Surveyors' quarterly reports, Dec 1878

steam engines, to drive their crushing plants. These ranged from the modest 20-foot diameter water-wheel constructed by Messrs Broad and Co. on Red Hill, near Vaughan, in 1874, to the monstrous Garfield water-wheel, 70 feet in diameter, erected in 1887. The latter fed off the Coliban water system and its waste waters were flumed to a smaller wheel on an adjacent reef. It is remembered as an engineering marvel and because of its huge stone abutments which still stand on the site, but, from all accounts, it was not a great success - it wobbled in high winds and was ponderous in the extreme.

The last steam-engine and machinery used in alluvial mining were removed from the District in 1876, and, at the same time, the Muckleford-Guildford deep leads were abandoned. The Mining Registrars' reports of the late 1870s are heavy with news of the depressed nature of the quartz mining industry. Ground sluicers appear to have been the only ones meeting with success. In December 1878, the T.L. Brown (still going strong) reported that:

There is only one public or registered company remaining in this division, viz., the Eureka Consols, who have an extensive mine and plant.

The closing of so many of our large mines and machinery has obliged the miners to prospect for themselves; consequently the reefs are better prospected than for some time past ⁵⁰

DIG DEEP

The quartz mining depression continued into the 1880s. By September 1886 the Castlemaine Mining Division was reported as almost abandoned. The reliability of the Golden Gully reefs in the Fryer's Creek Division, buoyed up in some cases by British capital, kept that Division's quartz mining industry afloat.

The Mining Registrars and others involved in mining in both Divisions had, throughout the late 1870s and early 1880s, fostered the belief that gold was to be found in abundance, if only sufficient, sustained capital existed to allow great depths being reached. Many companies went broke striving for depth - the costs of pumping, driving, timbering, ventilation, and sinking through, sometimes, hundreds of fruitless feet, were crippling. And often, when the depth they'd been striving for with such certainty was reached, the gold just wasn't there.

In 1886, the Government's diamond drill tested the District's richest reefs at depth - and found little to confirm the hope (almost superstition) of abundant gold deep underground.

Nonetheless, in 1887, the New Era Gold Mining Co. mine, on Ferron's Reef, reached a depth of 1010 feet, making it the deepest mine in the Castlemaine Mining District. But that company's fortunes, and those of its neighbours, petered out in the early 1890s. In the Castlemaine Division, during the June quarter of 1891, the amount of gold obtained from alluvial sources was 700 oz, whilst quartz mining produced only 73 oz.

In 1897, at the end of its life, the Ajax mine, on Bolivia Reef, attained a depth of 1100 feet, to steal the New Era's record; soon after, the Francis Ormond mine, on Argus Reef, claimed second place, with a shaft 1035 feet deep. Neither of the company's working these mines found the hoped-for fortunes at the bottom of their shafts.

Quartz mining surged again in the late 1890s, with mines re-opening on many reefs - Quartz Hill, Wattle Gully, Eureka, Spring Gully, among others - and modern equipment installed. The strategy behind all these ventures continued to be one of proving the reefs at depth. Each company argued in its prospectus that companies who had previously worked the reef had simply failed to sink deep enough. Of the new companies, it was the Spring Gully Company who were to have the most dramatic effect. By 1898 this company had paid out sufficient dividends to its shareholders to produce a mining boom in the area. Many companies were formed to prospect and mine on the reef which was now yielding great quantities of gold. The more important of these companies were Spring Gully No 1, South Spring Gully, Spring Gully Junction and North Spring Gully.

The Spring Gully mining boom was shortlived. By 1903, all companies on the reef were mining unprofitably and after one by one closed down. The Spring Gully Co. was the last to go, in 1917.

⁵⁰ Mining Surveyors' quarterly reports, Dec 1878

During the first decade of the twentieth century the district's quartz mining industry was in a dire state, with only two large mines at Chewton - Francis Ormod Co. and Forest Creek (Victoria) Gold Reefs Co. - providing any backbone to the industry. Both, however, were on shaky ground - large ore bodies, but declining gold grades. The latter company (the former Garfield Co.), in effort to make their crushing operations more economical, discarded their huge water wheel for steam power. Nothing however, that either the two companies attempted, arrested the decline in their fortunes, and by 1913 both had closed down and their extensive plant sold off and removed from the district. The smaller companies also followed suit, one by one closed down during the period 1913 to 1918. Amongst these were the Little Nuggetty Co., South Wattle Gully Co., Perseverance Co. and Bendigonian Gold Development Co.

HYDRAULIC SLUICING AND DREDGING

As the importance of quartz mining declined at the turn of the twentieth century, new developments in hydraulic sluicing began to revive the fortunes of alluvial mining. Leading the way was the appearance of bucket dredges in 1898. According to local historian, George Brown:

the first plant ... was equipped with a gravel pump, the invention of a Mr Kershaw who designed this new mechanical device, and it was made by Thompson and Co. of Castlemaine.

Gravel and water pumps mounted on floating pontoons and barges was the most common of these sluicing devices. Mile upon mile of the district's main leads were treated in this way, leaving behind great heaps of tailing and other debris. ⁵¹

Another local historian, Ray Bradfield, gives an account of one of these monsters:

The dredge was powered by a pair of compound steam engines, 16 hp. Her boiler was 22 feet long, and 8 feet in diameter, her pumps operated a nozzle jet at 45 lbs per square inch pressure, and put through 7,000 gallons per minute. Her buckets held four and a half cubic yards, and 11 of these were discharged in each minute, under ordinary conditions.

...Over the three years, 1907-8-9, she treated 223,580 cubic yards of ground, covered 27-1/4 acres, of an average depth of 15.3 feet.

In those three years, she produced 4,024.91 ounces of gold, and paid the shareholders about £1600 per year in dividends. ⁵²

A.J. Cox, arriving from Beechworth around the turn of the century, also introduced to the district the Jet Elevator system of hydraulic sluicing, with outstanding success. In this method, the face of a gully was hosed away, the resulting washdirt puddled up and elevated by pressurized water into raised sluice boxes, from whence it passed over a series of ripples, and the gold was captured in quicksilver. It became a very popular method of sluicing, and was subsequently used in most auriferous parts of the district, where water was available.

By 1903 the good work done by the pioneering sluicing plants had led to a growth in their numbers. There were now eleven plants, operated either by registered public companies or co-operative parties of working miners. Amongst the large companies to operate during this time were the Forest Creek Dredging Co., Golden Point Dredging Co., and the Loddon Gold Dredging Co. The sluicing business expended in the following years and in 1905 it was estimated that for the Campbells Creek-Castlemaine-Chewton area alone that there were:

eighteen dredging plants, besides a number of co-operative parties and individual miners, engaged in sluicing the alluviums in this division. Including those engaged in supplying firewood, there cannot be fewer than 400 men employed in this industry in this division. Some of these plants are returning handsome profits to the shareholders, while almost all of them are making a profit on working expenses.

The aggregate amount of gold won by the dredges above mentioned, not including the co-operative parties and individual miners, during the year, is 18,815 ozs., which, when

⁵¹ Brown, G.O. 1983 Reminiscences of Fryerstown, Castlemaine, p.165

⁵² Bradfield, R.A. n.d. Campbell's Creek, Castlemaine, p.10

multiplied by four, its average value, makes a total value of £74,700. It is needless to state that this is a great boon to the district ⁵³

The same situation was also taking place around Fryerstown and Vaughan. In 1907 there were eleven hydraulic sluicing plants employing some 178 men. By the next year, sluicing had peaked and the following years until the commencement of the First World War saw a steady decline in the numbers of plants in operation. During the war years a few plants, such as the Campbells Creek Dredging Co. and Vaughan Dredging Co. managed to struggle on, but all had ceased to operate by 1920.

HARD TIMES ARE GOOD TIMES: THE DEPRESSION

Gold fetched a good price during the depression of the 1930s, and about twenty mines in the Castlemaine and Fryer's Creek Divisions re-opened. Public mining companies employed a good number of local men, installed new plants, and, ever optimistic, drove further downwards. Small groups of working men prospected and re-worked old shafts and cut new ones, working reefs alongside the big company mines. Often, as had been the case for the past seventy years, parties of working miners also worked the company mines under tribute, claiming a percentage of gold produced. Men also commenced the cyaniding of tailings.

Local men, with backgrounds in mining, were joined on the goldfields during the depression years by new chums - unemployed men who came to the district not dreaming, like their 1851 counterparts, of making a fortune, but simply hoping to eke a living out of the creeks. The Government's Sustenance Department issued each with a gold pan, a rail ticket, and a prospecting guide, and left them to it. With the help of their prospecting guides, many newcomers revived the art of cradling, some panned in the creeks, and others worked at ground sluicing on the slopes. No records were found that tell of their success, or otherwise, but it can be imagined that the pickings were fairly slim.

The 1930s quartz mining revival was dominated by one company, the Wattle Gully Gold Mines N.L. According to local historian, Felix Cappy, it was a government geologist, William Baragwanath, who convinced a group of mining investors to take up the Wattle Gully lease and suggested that they prospected to the west of the main reef to:

pick up the east dipping strata and associated formations of the West Wattle Gully anticlinal fold that had proved so rich on the surface in the 1850's but had hardly been worked at depth below ⁵⁴

What followed was an investors dream. By 1937, the Wattle Gully Co. had produced such an extraordinary amount of gold that it had entered the record books as Victoria's leading gold producer and was being touted as one of the State's top gold mines. The success of the company had a profound effect on the district - ground was pegged for miles in all directions. In March 1937 the Bendigo Advertiser likened the Wattle Gully mining hysteria to the hectic times of the nineteenth century:

the Chewton field now presents a scene of activity reminiscent of the "gold rush" days. Central Wattle Gully, which was floated on Wednesday, had all its 60,000 shares taken up on the day of flotation. Miners believe that there are large bodies of payable ore in the district which have never been properly investigated. Twenty companies have now taken up leases, and eight of them have begun their prospecting work. Wattle Gully is the only company passed the prospecting stage. The companies which have begun shaft sinking are:- South Wattle Gully, North Chewton, Golden Wattle, Upper Barkly, Post Office Hill, North Wattle Gully, Chewton, and Wattle Gully Extended. Other companies which have not yet begun operations are :- Chewton Prospecting Syndicate, Eureka Vineyard, Hog's Reef, New Garfield Gold, Nimrod Development, Central Wattle Gully, Chapman Gold mines, Mimisa United, and Argus Hill.
55

53 Annual Report, 1905.

54 Historic Outline of the Mines on the Wattle Gully leases, Felix Cappy, May 1980

55 Bendigo Advertiser, 1/1/1937

The Wattle Gully mining boom also paralleled events of the nineteenth century in another way. Like all previous booms it was to prove outstanding for the trail of speculation, mine failures and wreckage to investors' funds. In the end only the Wattle Gully Co. lived up to expectations, all the rest of the mines closing down prior to the commencement of the Second World War.

The 1930s and early '40s also saw a revival in hydraulic sluicing and dredging. Dredging barges cranked their way up creeks and major gullies, and sucked away swampy flats. To facilitate the sluicers' work, old water races were rejuvenated and set to work again. Ray Bradfield, the author of many books on the history of the Castlemaine area, was involved in extensive sluicing operations, particularly in the Vaughan area. In 1937 (and again in the early 1940s), he and his father re-opened the Loddon-Fryers Creek water race, which had first been used in 1870. Much of the wooden fluming, which had carried the water across high gullies, had been destroyed by bushfires, but at Salter's Creek (in the Fryer's Ranges, between Fryerstown and Drummond), one lone leg of the original timbers still stood. The Bradfields re-utilized the leg, so that it still forms part of the now-rickety Salter's Creek flume. [62]

The most spectacular sluicing operation to take place during this time was at Strangways, on the very edge of the Castlemaine mining division. In 1934 a Maldon syndicate, consisting of J.J. Waldron, A.C. Meyer, and J. Somer, applied to the Mines Department for a lease over a large area of ground covering part of the Guildford Plateau and a section of the Loddon River Flat between Strangways and Newstead. The syndicate submitted this holding to Gold Mines Australia Ltd. The Loddon Flat area, close to the old Pickpocket Diggings, was put forward by the vendors as a deep leed mining proposition but it was soon realised by Gold Mines Australia Ltd that:

the principal gold deposits of interest were the shallow Recent gravels, not the deep Tertiary leads, and that the area was a potential bucket dredging proposition.⁵⁶

In 1934 and 1935 the company put down a total of 171 bores to determine the Newstead lease's gold content. The bores indicated that there was slightly less than twenty million cubic yards of profitable dredging ground. Not suprisingly, the company took up the vendors' option and in June 1936 Gold Mines of Australia Ltd in conjunction with Gold Exploration and Finance Company of Australia Ltd. (an associated English company) formed the Victoria Gold Dredging Company NL, to work the property. The capital of this company consisted of 9,000 fully paid shares of £1 each and 241,000 contributing £1 shares. The dredge was powered by electricity and the resoiling dredge was manufactured and erected on the property by Thompsons (Castlemaine) Ltd.⁵⁷

The gold yields obtained from the dredge matched the high expectations from the various bores. The dredge operated from July 1938 to March 1948. Despite many difficulties, including a time when the company's Caterpillar tractors were appropriated for the war effort (they were substituted by teams of horses), the dredge worked continuously through the war years. During its ten years of operation the dredge handled 19,546,713 cubic yards of soil from which 117,221 ounces of gold were obtained. The company paid out £643,750 in dividends, and expended £129,000 on equipment and development of its property.⁵⁸ In 1942 the company held the distinction of being the most outstanding gold-producing company in Victoria.

AND NOW, THE END IS NEAR...?

After the demise of the Strangways dredge, and another dredge operated by the New Campbell's Creek Dredging Company, alluvial mining became the preserve of co-operative sluicing parties hosed bravely on (though in smaller numbers) throughout the 1950s. These parties were managed by such men as W. Armstrong, Bradfield and Horner, D. Miller, A.G. Cox, and Juniper and Madigan. In quartz mining only Wattle Gully Company continued to mine successfully after 1950. In fact the mine, continued to operate until 1965, when rising employment costs and low gold yields forced the mine to close. Since this time the mine has re-opened on several occasions and is now currently being mined by Consolidated Victoria Mines.

⁵⁶ Williams, A. J, Maldon and Tarrangower Diggings,p.49

⁵⁷ Williams, A. J, Maldon and Tarrangower Diggings,p.51

⁵⁸ Williams, A. J, Maldon and Tarrangower Diggings,p.55

Apart from Wattle Gully, a few small mines are also found working in the bush away from the towns. A small quartz mine operates on Eureka Reef behind the Monk Hill today; and a smaller one still (a two-man show) is working a shaft on the Cumberland Reef, at Campbell's Creek. Small numbers of locals and others still prospect and pan for gold, and the Castlemaine district is a regular venue for field trips by metal-detector clubs. The interest of mining companies is expressed by flapping notices and pegs dotted through the bush. But, all in all, it's pretty quiet, gold-mining-wise.

3 SURVEY RESULTS

3.1 INTRODUCTION

As the North Central Goldfields Project is a broad-ranging and ongoing one, it is unrealistic to expect that each Mining Division in the region can be exhaustively surveyed. What can be realistically aimed for at this stage is a strong representative sampling of sites. The historical database is the tool used to achieve a balanced sample. Not only does its locality-linked historical references indicate which sites were the most important, but also those which are most likely to yield surviving remains. These are the sites primarily targeted for surveying. The historical database still stands as a guide to other localities where historic mining sites might be found, and, ideally, will be used as the basis for further surveying, research and assessment towards the end of the North Central Goldfields Project, when sites in all other Mining Divisions have been similarly sampled and an overall management strategy is being drawn up.

The survey of mining-related and other industrial sites in the Castlemaine and Fryers Creek Mining Divisions was carried out over a period of four months, and the results of the archaeological survey should be viewed accordingly. It must be noted that other sites may exist and that some features at many of the sites are obscured or completely buried.

A main focus of the survey was on deciphering the sequence of re-workings reflected by the physical remains. In accordance with the research strategy, the survey results therefore detail more about the chronology of, and relationships between workings, than about how such workings rated in terms of the extent of underground workings and gold yields. Counting and measuring every mine shaft was not considered a vital aspect of the survey. The study area is densely peppered with mine shafts, and it was felt that an attempt to record and interpret each one in the time allowed would prove a distraction from the project's real purpose. A geological/mining survey currently being undertaken in the Chewton-Castlemaine area by Clive Willman, of Bendigo DIEP (now DEM) , will thoroughly record details of that sort.

The fieldwork strategy assumed that most of the important mining sites contained within the Castlemaine and Fryerstown mining divisions were known locally. This assumption turned out to be a reasonable one; because mining and related activities (eg. timber-getting) have carried on more-or-less continuously up to the present, details concerning the re-working of a number of sites was available first-hand. Much of the fieldwork was guided by tapping into the remarkable wealth of local knowledge.

3.2 FIELDWORK RESULTS

The following table gives a summary of sites surveyed, outlining geographical location and the components of each site. Maps showing the location of sites appear at end of this report. For further details of sites see the site gazetteer that forms Part Two of this report, and for a breakdown of the types of extant features recorded, see Appendix B

Table 1: Sites Surveyed

Site no	Name	Location	Description
1	Specimen Gully monument	Specimen Gully	Historic monument marking the official spot of the first discovery of gold in 1851 (erected 1931).
2	Specimen Gully Q M Assoc	Specimen Gully	Stone flue and chimney stack base, engine house walls, haulage tunnel, and large dam in gully; line of quartz workings on hill (shafts, open cut and mullock) and tunnel driven from E side of hill. Also shafts from 1930s re-working.
3	Castlemaine Flagging Co.	Specimen Gully	Large slate-flag stone quarry
4	Fortuna Q.M Assoc	Specimen Gully	haulage tunnel and stone footings

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5	Nimrod Reef/ 'Welsh Village'	Golden Point	Consisting of 'Welsh Village' (the remains of several small stone house and various outbuildings), quartz workings including large loading bay, shafts, tunnel, very large open-cut, and mullock dumps (1850s-1930s); and slate quarry (1950s). Victoria Archaeological Survey has identified 74 sites, mostly shafts.
6	Donkey Gully battery site	Donkey Gully	Stone flue and chimney stack base
7	Cappers Reef workings	Pine Plantation	Tunnel, mullock heap and partly filled open cut
8	Lady Gully mining village	Ladys Gully and into Pine Plantation.	Early 'village' (1860s) - stone footings, 2 brick 'beehive' wells on private property (Sebastopol Hotel); three stone house sites within Historic Area; and stone and earth structure on private property.
9.0	South Quartz Hill Co.	Quartz Hill	South Quartz Hill Company tunnelled into south side of hill, tramway embankment, and small engine mounting block
9.1	Quartz Hill	Quartz Hill	Large open cut, quartz mullock, shafts, tunnels and tailing dams. Main workings done on crown of hill by the Old Quartz Hill Company in the early 1860s and again in 1890s
9.2	North Quartz Hill Co.	Scotchmans Gully	Remnant of mullock heap and open shaft
9.3	Golden Point water race	North of Chewton	Disused water race
10	Deadman's Gully adit	Deadmans Gully	Open adit with intact mullock heap
11	Scotchmans Gully puddlers	Scotchmans Gully	Four puddling machine sites, one small furnace and remains of stone building.
12.0	Garfield Co.'s abutments	Chewton	Large stone water-wheel abutments, battery footings, concrete floor, water take-off point for the wooden flume
12.1	Little Sailors Gully cyanide works	Chewton	Remnant of large tailings dam and brick cyanide vats
12.2	New Garfield Co.	Chewton	Concrete engine blocks, iron chimney stack, site of boiler, and capped shaft
13.0	Reef workings and blacksmithy	Englishmans Reef	Stone footings of small house, mullock heap, loading bay, and blacksmith's shop;
13.1	Englishmans Reef Co.	Englishmans Reef	Deep shafts, open stoping, large intact mullock heap, stone building, and possible chimney stack base
14	Energetic Co.	Manchester Hill	Battery stumps, engine block, loading bay, and bulldozed mullock heap
15	Manchester Hill workings	Manchester Hill	Massive open-cut on crown of hill, shafts, and tunnels.
16	Sailors Gully sluicing sites	Sailors Gully	Early ground sluicing reduced slopes to bedrock; hydraulic sluicing in gullies; ground sluicing channels.
17	Golden Point water race	Sailors Gully	Race crosses head of Sailor's Gully via an iron flume.
18	Sailors Gully puddlers	Sailors Gully	Two puddling sites and some shallow sinkings
19	Sailors Gully house sites	Sailors Gully	Late nineteenth century house sites - at least four small stone house sites, three of which are associated with an 1860s road.
20	Argus Hill crushing works	Argus Hill	1950s stone crushing plant - concrete mounting blocks and iron girders.
21	Argus Hill reef workings	Argus Hill	Workings include shafts, small mullock paddocks, hillslope surfacing and four tunnels.
22	Francis Ormond Co.	Chewton	Flood retaining wall built c.1890.
23	Burns Hill Reef workings	Burns Hill	Workings include shafts. open cutting and mullock.
23.1	Golden Point Q M Co.	Burns Hill	Stone boiler setting, long underground (hillslope) stone flue and stack base; and a tramway leading to two tunnels, some shafts and the remains of a powder magazine.
24	Trapps Gully battery site	Burns Hill	Battery sand, boiler setting, and section of flue.
25	Trapps Gully house sites	Trapps Gully	Stone house on track; and twin fire places on private property.

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26	Ajax Co.	Ajax Hill	One large granite engine mounting block, brick rubble, and some tailings. West of the site is an open adit.
27	Ajax/Bolivia Reef workings	Ajax Hill	Large open cut, some shafts and tunnels
28	Bolivia Gully alluvial workings	Bolivia Gully	Water race and ground sluicing channels.
29	Eureka Reef open cut/stope	Eureka Reef	Large open cut/open stope with exposed reef.
30.0	Eureka Co.	Poverty Gully	Battery site consisting of stone chimney stack base, short section of flue, boiler settings, stone building, stone retained dam and traces of tailings
30.1	Phoenix Co.	Poverty Gully	Battery site consisting of long stone flue running up hill, granite bed stones, stone walls, and dump of battery sand.
31	Eureka Consolidated	Eureka Reef	Remains of stone house; long tramway embankment (stone-retained walls) leading to battery site consisting of stone boiler setting, stone flue and chimney stack base, battery footings, spread of bricks, un-treated tailings and two stone-lined ponds.
32	Eureka Central	Eureka Reef	Battery site consisting of concrete and wood engine footings, loading bay, and stamp er stumps; open tunnel; and set of shear legs positioned over shaft - reworked in 1950s.
33.0	Poverty Gully cyanide works	Poverty Gully	Three galvanized iron cyanide vats, iron water tank, dump of lime, and earlier stone footings.
33.1	House sites and tailings	Poverty Gully	Remains of several houses and outbuilding, stone boundary walls, and a dump of tailings.
34	Poverty Gully water race	Poverty Gully	Water race crosses both south and north arms of Poverty Gully via a brick and stone syphon system
35	Poverty Gully house sites	Poverty Gully	Nineteenth century house sites, south arm of Poverty Gully - several stone fireplaces, plus one stone house with walls surviving.
36	Spring Gully Monk Co.	Monk	Two open adits and intact mullock heaps
37	Eureka Vineyard Co.	Coomb's Gully	Concrete engine mounting blocks, working platform collapsed shaft, loading bay, and iron baling tank. South of the mine site are some shallow shafts, small open-cuts and mullock heaps, also remains of one blacksmith shop
38	Cobblers Gully battery site	Cobblers Gully	Standing stone chimney stack, short flue, boiler setting, forge and dam.
39	Battery site	Cobblers Gully	Possible chimney stack base and large dam in gully. To the south are some largely buried stone footings
40	South Eureka Co.	Eureka Reef, Cobblers Gully	Remains including two deep open shafts (Twomey's and Davis's), storage paddocks, large mullock heap and two stone forges
41	Old Coach Road and accommodation paddocks	Cobblers Gully	Section of surviving road, metalled with quartz; stone accommodation paddocks (for horses) and house or hotel site.
42	Cobblers Gully puddler	Cobblers Gully	Well preserved (weathered) puddling machine site and breached dam
43	Cobblers Gully sluicing	Cobblers Gully	Last sluicing paddock and very deep hydraulic sluicing in Cobbler's Gully
44	Cobblers Gully kiln/crushing mill	Cobblers Gully	Footings of Chilian mill and small below-ground quartz-roasting kiln. Coarse tailings. To the south of the kiln is a weathered puddling machine site.
45	Blacksmith Gully dam	Blacksmith Gully	Breached earthen bank and cobbled by-pass.
46	Joe's Gully battery site	Joes Gully	Loading ramp, site of battery, depressions marking site of boiler, flue and stack, spread of red bricks, dump of battery sand, and one stone fireplace.

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47	Spring Gully Co.	Spring Gully	Open-cut (1850s); Hand of Friendship shaft and mullock (1860s); Spring Gully Mining Co. (1898 to 1916), large stone and mortar loading bay, line of battery footings, several brick and stone engine mounting blocks, boiler settings, chimney stack base/collapsed brick stack, working platforms and mullock; Spring Gully mine re-opened in 1930s, shaft, mullock and concrete engine mounting blocks.
48	Spring Gully No. 1	Spring Gully	Large engine mounting block, winding drum footings, outline of boiler house, flue and chimney stack base, excavation for Cornish-draw pump, shaft (capped), spread of red bricks, several large mullock heaps, dump of boiler ash.
49	South Spring Gully Co.	Spring Gully	large mullock heap, outline of boiler setting, blacksmith shop, and spread of red bricks.
50	Spring Gully Junction	Spring Gully	substantial wooden battery footings, two large engine-mounting blocks, footings for winding equipment, boiler house walls, spread of red bricks, and open shaft.
51	North Spring Gully Co.	Spring Gully	Remnant of mullock heap
52	Spring Gully Central	Spring Gully	one small engine mounting block, spread of firebricks.
53	Red Hill alluvial workings and house sites	Red Hill	Landscape dominated by sluicing operations - dumps of 1940s re-used sluicing pipes and sluice heads; nineteenth century hill sluicing/tailings; stone cairns (lease markers); last sluicing paddock complete with tailing dump; deep hydraulic gully sluicing and poplar tree planting (1940s - Ray Bradfield). Open-cut and shaft (?deep lead mining - 1870s+); wall sections of elongated stone building; twin stone fireplaces and associated outbuilding; stone footings of houses; and Red Knob, sluicing landmark.
54	River Loddon Water Supply Co.	Loddon to Vaughan	Mid/late nineteenth century water race (late 1860s) - includes tunnel; race re-used in early and mid-twentieth century - Salter's Creek flume rebuilt in 1940s, consisting of three sets of wooden legs, iron pipe and water race.
55	Butchers Gly Chinese house site	Vaughan	House site - stone walls, Chinese ceramics.
56	Butchers gully	Vaughan	two puddling machine site; alluvial tunnel into Ballarat Hill; engine block associated with 1930s hydraulic sluicing and pressure dam; alluvial tunnel and small stone house site.
57	Sailors Gully alluvial workings	Sailors Gully, Vaughan	Extensive early alluvial workings (rushed in 1855) - group of small fireplaces at junction of feeder gully with Sailor's Gully and associated alluvial workings. These remains form only a very small part of a stretch of several kilometres of early workings running through the tangle of gullies that form the head of Sailor's Gully.
58	Cyanide works	Sailors Gully	1940s cyaniding operations - wood-lined vats and dam; also earlier house site
59.0	Tubal Caine mine site	Sailors Gully, Vaughan	Wooden battery footings, loading ramp, remains of boiler setting, long stone flue and chimney stack base, blacksmith forge, deep shafts, house site, blacksmith's shop, haulage tunnel, powder magazine, and stone and earth structure, with several vents (kiln?)
59.1	Greenwoods Reef workings	Sailors Gully, Vaughan	Reef workings continue south from the Tubal Caine mine site - open shafts, shallow open cutting and some long costeans.
60	Dredge dam	Sailors Gully	Bucket dredging in Sailor's Gully (early 1900's)
61	Sanger's house site	Sebastopol Diggings	Traces of wattle and daub structure

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62	Williams and Party 's battery	Sebastopol Diggings	stone engine-mounting block with wooden rods, loading bay, forge, dump of battery sand; and puddling machine site.
63	Sebastopol Reef workings	Sebastopol Diggings	Large earthen wall dam; mine site consisting of haulage tunnel, working platforms, chimney stack base?, shaft, high stone retaining wall, and dump of battery sand; and two house sites and one blacksmith's forge.
64.0	Specimen Hill open cut	Specimen Hill	Large open cut
64.1	Eldorado Co.	Specimen Hill	Shaft site and traces of stone machinery foundations
64.2	Renaissance Co.	Specimen Hill	Shaft site, machinery foundations, dam and mullock dump
64.3	Cyanide works	Specimen Hill	Remains of vats and large dump at base of hill
65.0	German Gully puddlers	German Gully	Two weathered-looking puddlers
65.1	Tarrs Reef workings	German Gully	Narrow open cut , small costeans and partly filled shafts
65.2	Hands Across the Sea Co.	German Gully	Mine site - small but high mullock heap associated with some small concrete footings. Battery site - Running south from the mine is a 200m long tramway embankment. Embankment terminates at a battery site (mortar blocks and bedlogs, brick engine bed, stone boiler setting, flue depression and brick chimney stack site). Traces of tailings in the gully below the battery. To the south of the battery site is a small open cut.
65.3	Golden Hill Co.	German Gully	Small mullock heaps. The largest has two dumping lines. No machinery footings.
65.4	McDonalds Reef Co.	German Gully	Small intact mullock heap. Derelict house on the east side of the heap.
66	Anglo-Australian Co.	Golden Gully	Site has two shafts (both capped), extensive undisturbed mullock heap, masonry foundations for winding engine and winding drum, location for battery and balance bob pit, and to the south are several stone fireplaces. Collection of shafts, small mullock heaps, small slate quarry, two dams (principal shaft is Redhouse shaft)
67	Royal Saxon Co.	Golden Gully	Shaft, small mullock heap, fire place and footings of blacksmith shop, small cluster of shafts, haulage adit, battery sand, stone fire place and another blacksmith shop.
68	Golden Gully alluvial workings	Golden Gully	Hydraulic sluicing. Extensive operations, deep sluiced banks up to 20 feet. Ground sluicing. Parallel channels and assoc. small paddocks. Quartz mining/residential. Battery sand, traces of roadway, several stone fireplaces Residential. Several fireplaces, one single room house (still standing); stone walled paddock, fruit trees, dam, several
69	New Era Co.	Golden Gully	Mine site - remnant of mullock heap. Battery - Stone boiler setting and base of circular stone chimney stack. Partly quarried large tailings dump, and remains of slum pond embankment.
70.0	Duke of Cornwall Co.	Cattles Reef	Relatively intact Cornish engine house with stack. Foundations of a second engine house. Battery site obscured by rubble and vegetation. Traces of mullock. Manager's house now used as private residence. Near to the house is an intact powder magazine.
70.1	Mosquito Co.	Cattles Reef	Large intact heap and filled shaft. Large stone engine bed, stone boiler setting and chimney stack base. At base of hill is a collapsed adit.

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70.2	Cattles Reef whim shaft	Cattles Reef	Filled shaft associated with a well preserved (stone retained) whim platform.
70.3	Perseverance Co.	Cattles Reef	Large intact mullock heap, open shaft and largely buried machinery footings. Tailings in the paddock to the south west of the mullock heap.
71.0	Fryers Co.	Cattles Reef	Intact mullock heap
71.1	Cumberland Co.	Cattles Reef	Bulldozed mullock heap
71.2	Black Hawk (Golden Eagle) Co.	Cattles Reef	Several smallish mullock paddocks
71.3	Burdett Coutts Co.	Cattles Reef	Mullock heap
72	Butchers Gully ground sluices	Butchers Gully	Well preserved ground sluices and associated paddocks. Ground sluices run from a water race (Poverty Gully Branch). Hillslope below the ground sluices has been extensively surfaced.
73	Crocodile Gully kilns	Crocodile Gully	Two small (below ground) kilns, battery platform, small dump of very coarse tailings and small dry dam
74	Crocodile Reservoir Reef	Crocodile Gully	Intact shallow reef workings - two open shafts/mullock paddocks, some trenching and open cutting, and remains of a blacksmith shop.
75	Chapple Hill Co.	Chapple Hill	Large, partly filled open cut. Remains of large mullock heap. Battery site - traces of bedlogs.
76.0	Little Nuggetty Co.	Nuggetty Reef	Remains of mullock heap. Battery site - mortar blocks and slots (10-heads), small concrete engine footings and floor, concrete boiler setting and remains of loading ramp. In the gully are two water dams
76.1	Adit	Nuggetty Reef	Open adit, intact mullock heap and water dam.
76.2	Nuggetty Co.	Nuggetty Reef	Large mullock heap with six dumping lines. Filled shaft and bulldozed machinery site. Traces of tailings.
77	Bendigo and Fryers Co.	Mopoke Gully	Massive stone water wheel abutments, with underground culvert battery platform, with mortar block depressions, and small tailings dump.
78	Wattle Gully Co.	Wattle Gully	Working mine with machinery plant/footings dating back to the mid 1930s
79	North Chewton Co.	Wattle Gully	Concrete winder bed, boiler setting and remains of air-receiver. Capped shaft and concrete baling pond.
80	South Wattle Gully Co.	Wattle Gully	Battery site - Large brick engine bed, concrete boiler setting and brick chimney stack site. Site also has sections of brick walls, concrete footings and small tailings dump. On the hill above the battery is a dry water dam. Mine site - largely buried/obscured foundations. Visible are the base of a brick chimney stack and some engine beds.
81	Wattle Gully west		Mine workings - Two stone retained mullock paddock/open shafts and partly filled open cut. Machinery site - Concrete winder and engine beds and boiler setting with short flue. Flue terminates at concrete stack base and the decayed remains of a circular iron chimney stack.
82	South Wattle Gully Co.	Wattle Gully	Bulldozed mullock heap and largely buried machinery foundations.
83	Wattle Gully Extended	Wattle Gully	Concrete winder and engine beds and several air-receiver pads. Demolished brick boiler setting. Shell of a Cornish Boiler and decaying iron chimney stack.
84	Wattle Gully United	Wattle Gully	Concrete winder and engine beds, several air-receiver pads. Concrete boiler setting, intact flue and square chimney stack base. Filled shaft and remains of concrete baling pond.

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85	Central Wattle Gully	Wattle Gully	Intact mullock heap and filled shaft. Well preserved concrete winder and engine beds, and several air-receiver pads. Concrete boiler setting and dump of ash.
86	Spring Gully puddler	Spring Gully	Weathered puddler and dam. Remains of single-roomed stone house and stone cairn (lease marker. On opposite side of gully is similar sized house site associated with a stone walled paddock.
87	New Middle Creek Co.	Spring Gully	Open (3-compartment) shaft with wooden collar and intact mullock paddock. Small concrete engine beds Open adit/intact mullock heap at the base of the hill.
88	Spring Gully Dredging Co.	Spring Gully	Deeply dredged gully
89	Spring Gully water race	Spring Gully	Disused water race
90	Prince of Wales Reef workings	Wattle Gully	Partly bulldozed small mullock heaps and filled shafts.
91	Bullocks Reef workings	Wattle Gully	Line of nine, partly bulldoze, mullock heaps.
92	Castlemaine Govt. battery	Specimen Hill	Battery - Mortar blocks (5-heads), decaying bedlogs and remains of loading ramp. Concrete floor containing drains and four small concrete beds. Sheets of galvanised iron/post stumps. Traces of tailings and dry water dam.
93	Golden Point water race	Golden Point	Water race
94	Specimen Gully East Branch	Specimen Gully	Water race
95	Poverty Gully Branch	Poverty Gully	Water race
96	German Gully Branch	German Gully	Water race
97	Hazletts water race	Churches Flat	Disused water race
98	Golden Gully water race	Golden Gully	Disused water race
99	Moyles water race	Vaughan	Disused water race
100	Nolans water race	Vaughan	Disused water race
101	Hunts water race	Sebastopol Diggings	Disused water race
102	Cobblers Gully water race	Cobblers Gully	Disused water race
103	Champion Reef mine site	Mopoke Gully	Remnant of mullock, largely buried machinery footings and traces of tailings.
104	Middletons Creek surfacing	Middletons Creek	Small patch of surfacing associated with Hunt's water race.
105	Stones Gully workings	Sailors Gully	Shallow sinkings
106	Nuggetty Gully workings	Middletons Creek	Intensive ground sluicing of gully. Associated with Hunt's water race.
107.0	Early battery site	White Horse Gully	Depression of hill-slope flue and chimney stack site.
107.1	White Horse Co.	White Horse Gully	Concrete winder bed.
108	Doctors Hill puddler	Doctors Hill	Badly eroded puddler and dam. Associated with cement workings.
109.0	Bald Hill workings	Bald Hill	Cement workings - ground sluicing
109.1	White Hills open cut	White Hills	Large open cut/quarry and mounds of washed gravel.
110	Shicers Hill	Shicers Hill	Cement working - ground sluicing and surfacing.
111.1	Puddler and mill site	Strathloddon	Poorly preserved puddler associated with a raised, circular (stone retained) platform.
111.2	Strathloddon workings	Strathloddon	Quarried cement workings
111.3	Strathloddon Gold Mining Co.	Strathloddon	Large open cut and open haulage adits Mounds of washed pebbles and one mullock dump
112	Golden Plateau Co.	Guildford Plateau	Large mullock heap with 3 dumping lines. North-west corner of heap is an arrangements of high wooden posts. Collapsed iron chimney stack and concrete engine beds.
113	Meins Freehold Co.	Guildford	Three mullock heaps
114	North Wattle Gully Co.	Wattle Gully	Open (fenced shaft) and set of concrete beds
115	Kangaroo Hill workings	Tarilta	Cement workings - collapsed adits
116	Ballarat Hill workings	Tarilta	Cement workings - collapsed adits

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117	Vaughan Gold Mining Assoc.	Tarilta	Intact mullock heap and open adit. Stone boiler setting, short stone flue and remains of circular stone stack base. Iron bolts (stack holding bolts set into stone with lead.
118	Italian Hill workings	Vaughan	Water race adit and cement workings
119	Grog Shop Gully	Vaughan	Large open cut with adit. Site has later been sluiced (drainage channels, slum dam and mounds of washed pebbles). Associated with River Loddon Water Supply Company 's water race
120	Golden Sunrise Co.	Vaughan	Two (fenced) open shafts. One of the shafts associated with a small concrete engine bed, stone wall and concrete sump. Dry dam and bulldozed concrete poppet leg pads.
121	German Gully ground sluices	German Gully	Large patch of ground sluices and paddocks.

4. INTERPRETATION OF PHYSICAL REMAINS

4.1 SURVEY RESULTS

The survey of historical records and archaeological sites revealed the match between the two to be uneven. The abundance of recorded detail existing for some sites and historic periods was rarely found reflected in what remains on the ground today. Conversely, sites with a wealth of mining remains were often poorly represented by the historical record.

4.1.1 RELATIONSHIP BETWEEN HISTORICAL AND ARCHAEOLOGICAL RECORDS

The survey of historical and archaeological records for the period of the initial gold-rushes in the study area (1851-5) revealed a poor match between the two. This is hardly surprising when one considers the nature of early mining settlement and the history of subsequent re-working of areas that were initially worked only at, or close to, the surface. The historical data surveyed certainly documents the immense scale of human occupation and activity during the first years of gold mining in the study area, but the physical mining remains largely fail to corroborate this.

Because of the ephemeral nature of structures and technology (predominantly, timber and human sweat) employed in the early gold-rush days there is little physical evidence of the intensity of activity and cathartic social experience sustained by the study area during the rush years. Despite the absence of remains which truly reflect the area's teeming history, the present-day landscape - with its towns, roads, dams, gullies, creeks and cemeteries - is nonetheless the product and place of an important historic event. When linked with contemporary descriptions and pictures, that landscape conveys - if not a faithful image of its rich past - at least a backdrop and an instance of remarkable transformation - of history gone to ground. This is a story that has to be explained to people; it cannot easily be read from the its physical remains alone.

One of the most valuable and consistent historic markers, and one that can almost exclusively be traced back to the early gold-rushes, is the area's historic nomenclature (place names). It provides the key to tracing a chronology of site workings and occupation. Virtually every stump, bump and puddle in the landscape was named, and these names (many of which appear in Appendix C) are one of the few remaining hints of the intensity of the area's early mining occupation - everyone, it seems, wanted to name a piece of ground. People and events whose names never reached paper live on in the creeks, gullies, flats, hills, reefs, roads and tracks attributed to them. Some names have survived; others have been changed; most are forgotten, except in the written records.

A better parallel was found between historical and archaeological records of the mines from the 1860s onwards. Both testify to the re-working of mining localities and development of different methods of obtaining gold (quartz mining and sluicing). Although a degree of accord exists between archival and physical records of this period, in terms of the sequence in which events and developments occurred, the physical remains once again fail to live up to the documentary record in reflecting the intensity of re-working as the large public companies of the 1860s and '70s gave way to a myriad of small mining companies and parties of prospectors and tributers.

The historical and archaeological records do mesh in that both make clear the continual (and continuing) nature of gold mining in the study area. The historical record shows that, superimposed on the early gold-rush landscape produced by intense habitation, mining and movement, is a landscape reflecting the 'feast and famine' nature of gold mining in the area from the later 1850s to the present day. Each of the area's rich gold-bearing quartz reefs has a history of re-working, stretching back to the mid-1850s. The individual histories of these reefs presents a metronome of optimism and disgust, gullibility and desperation, technological advancement and bankruptcy, which dictated the ebb and flow between the working and abandonment of mining localities. In the pursuit of wealth, either for themselves or their employers, men puddled and sluiced alluvial gullies and hillsides, dammed creeks and gullies, built roads, constructed water races to convey water, and dug intricate networks of shafts, tunnels and open-cuts. They erected machinery of wood, stone and iron, which, depending on the capital involved, was driven by hand, animal, steam or water power. Machinery was added to and replaced as old ground was re-worked, shafts and tunnels extended, and new mines commenced. The same machinery was subsequently dismantled and removed (and its mountings and housings often abandoned) as mines inevitably failed or fell on hard times. As each phase of re-working commenced, components remaining from previous efforts were either re-used, adapted, buried, dug or sluiced away, or built over.

Both the historical and surviving physical records are skewed. Mining records, in particular, are long on statistics concerning depths and yields of mines, and (with the exceptions of maps) short on details of exact locations and workings aboveground. To the person surveying the area for mining remains today (primarily with a view to identifying, dating and establishing relationships), a knowledge of shaft depths and gold yields is of little value. Written records also give far greater emphasis to companies and large-scale operations (particularly those employing expensive machinery), than to individuals. Those individuals who do rate a mention are, almost without exception, the successful ones. For instance, in June 1859, the Fryer's Creek Division Mining Registrar lists Lawler, Flaxman, Lindsay, Rowe and Sutton as working in Spring Gully. For a moment, one imagines that these men have the rich gully to themselves, but, further on, Kitto mentions '71 puddling machines, operated by 270 Europeans and 139 Chinese; 170 Europeans and 231 Chinese involved in ordinary mining; 30 Europeans involved in quartz mining'. [10] This was Kitto's first-ever report - most often thereafter it was only the likes of Lawler, Flaxman et al who rated a mention at all. The small-scale miners - particularly those working the alluvial - were faceless and nameless, and details of their operations went largely unrecorded. Rarely was a Chinese miner named, though the mining registrars and newspapers put their population at thousands.

The surviving physical record also throws up anomalies which skew modern understanding of the past. For example:

- Most engine houses built for quartz mining were constructed of economical iron and wood. Nonetheless, what stands out in today's physical record is the Duke of Cornwall engine house, at Fryerstown. It is built of stone, and was one of the most expensive and least successful of the District's quartz mines.
- The bulk of the District's early mining population lived in canvas, bark, timber, or wattle and daub structures (with perhaps a stone fireplace and chimney). The stone and brick houses which survive today are not representative of the average domestic structure in those days, but are now the only structures which date from the gold-rush years. They are a reflection of a stable, stationary existence, not of the (more commonplace) transient life of the mining population during the first ten or twenty years of gold mining in the area.
- The size of a mullock heap cannot be taken as an indication of the scale of the corresponding mining operation. Many mullock heaps have been reduced or entirely removed for further processing, railway ballast, or roadworks. (This is one instance where mines' production figures can be a valuable aid to interpretation.)

An inventory of what survives on the ground is also skewed in regard to the scale of human effort it reflects. In quartz mining, the majority of human effort is expended in operations below ground. However, a survey can only reveal what survives above ground and, apart from mullock heaps, these remains are principally concerned with machinery, worked by only a handful of men. The shafts themselves, viewed from ground-level, can tell little about their extent below ground. The dramatic scars caused by hydraulic sluicing - a form of mining despised today - are potentially the sites most able to evoke a sense of the scale of human effort in gold mining. Similarly, the water races and channels that criss-cross the landscape, the dams, and the piles of rocks which line the deeply sluiced banks, were all the product of muscle-power. In hydraulic sluicing, massive gouges can result from the efforts of only a small handful of men. Likewise, shafts and tunnels - for quartz, deep lead, and ordinary alluvial mining and prospecting - were often the work of small parties, as were the construction of puddling machines. Ground sluicing was frequently carried out by individuals. Large-scale, company quartz mining is also well represented.

4.2 DATING OF SURVEYED SITES

The interpretation of the physical remains of historic mining sites requires a balanced approach. Ideally, it calls for the skills of an historian, to select and sift through historical sources, and the eye of an archaeologist or geographer, to 'read' the meaning of the surviving landscape and physical remains.

Central to the approach of the project officer is the belief that accurate identification and interpretation of mining sites in the North Central Goldfields region involves investigation of historical sources covering as broad as possible a time period. Historical research that is too narrowly focused - for instance, concentrating only on a site's most renowned period of activity - predetermines its own conclusion, i.e. physical remains are automatically attributed to that period, whilst their possible connection with a later

(or earlier) period of activity is ignored. This is the 'wishful' approach to site interpretation. To automatically assume a connection between what is historically significant and what remains on the ground today overlooks an obvious trend in gold mining where an alluvial field or quartz reef, once proved to be auriferous, was subject to successive re-workings. As a general rule, the greater the gold yield of a place, the more intensive and repeated the re-workings. The surviving remains on such a site are therefore likely to represent bits and pieces from a number of different time periods, with those of the most recent phase of activity dominating and in the best state of preservation. The remains pertaining to early periods of operations are usually the most obscure, having been either removed, buried, eroded, or somehow incorporated into the matrix of a successive stage of working.

By tracing a mining site right through the historical record, rather than targetting only historical sources of a given period, it is possible to find out whether that site was worked only fleetingly or on a number of occasions over a long period. If the latter is the case, a chronology of events and the changing scale of activities can be established for the site.

During site surveying, the surviving physical remains can be deciphered with the assistance of the historical data collected. Often the task is an easy one; for example, if a site has been reworked on several different occasions, then the bulk of what survives can generally be taken to represent the latest period of mining. Sites which have had only one main period of working are not so easy to date. The main tool for dealing with this type of site, and one that is also very useful in interpreting multi-period sites, is a technique called relative dating. This involves the development of a range of artefact types or landscape features which are characteristic, or diagnostic, of a particular period of mining. In examining a site, the diagnostic elements belonging to the most recent period effectively give the date of the site's last period of operation.

Some of the main examples of diagnostic elements which have so far been found to assist in the relative dating of sites in the North Central Goldfields region are:

- Stone and mud mortar engine beds not associated with brickwork or brick rubble, suggest an early machine site, probably dating from the late 1850s to early 1860s. Brick and concrete mortar engine beds appear to be a later manifestation.
- Hand-made red bricks found in association with engine beds or footings suggest a machinery date of mid-1860s to 1880s.
- The presence of machine-made bricks with frogs indicate a machinery site dating to the mid-1880s onwards.
- The use of concrete for engine beds indicates a site dating to the 1890s or twentieth century.
- Tailing dumps which contain stratified layers of battery sand and sludge indicate that they have been deposited direct from a battery following successive crushings, rather than having been deposited as a mass after cyanide re-treatment or relocation.
- Cyanide vats date no earlier than 1895. The vats used to treat the tailings and slums were either constructed of galvanised iron or brick. As the sides of galvanised vats rusted they were repaired with concrete.
- Large mullock heaps containing 'blue' mullock (from below water level) cannot date prior to the introduction of steam-powered pumping machinery (c. 1859).
- Puddlers with a very weathered appearance and covered with large trees, often located away from tracks, tend to date to the nineteenth century; puddlers with well-defined outlines, scant vegetation, raised mounds of washdirt, and found very close to tracks tend to date to the twentieth century (up to 1940s).
- Dredging dams and dredged landscapes post-date 1898.
- Alluvial sinkings associated with rusty tin cans, decaying radio batteries, boot fragments, etc., and often with small brick fireplaces or floors (tent-sites) suggest a 1920s or '30s site.

One of the aims of the North Central Goldfields Project is to expand and refine this listing, and to eventually produce a comprehensive table of dating and identification markers for the mining heritage of the region.

4.3 RESULTS

On the basis of information derived from the historical database, and the survival and recognition of exposed diagnostic dating features, physical remains on the sites surveyed have been organised into their respective time-periods, as summarised in Table 2, below (X indicates that physical remains survive from this period, and ? indicates possible dating). For further details of sites surveyed, see the site gazetteer that forms Part Two of this report.

Table 2: Dating of surveyed sites

Site No	Site Name	1850s/mid 1880s	late 1880s/1920s	1930s/1950s
1	Specimen Gully monument			X
2	Specimen Gully Q M Assoc	X		
3	Castlemaine Flagging Co.	X		
4	Fortuna Q.M Assoc	X		
5	Nimrod Reef/ 'Welsh Village'	X	X	X
6	Donkey Gully battery site	X		
7	Cappers Reef workings	X		
8	Lady Gully mining village	X	X	
9.0	South Quartz Hill Co.		X	X
9.1	Quartz Hill	X	X	X
9.2	North Quartz Hill Co.		X	
9.3	Golden Point water race	X		
10	Deadman's Gully adit	X		
11	Scotchmans Gully puddlers	X		
12.0	Garfield Co.'s abutments		X	
12.1	Little Sailors Gly cyanide works			X
12.2	New Garfield Co.			X
13.0	Reef workings and blacksmithy	X		
13.1	Englishmans Reef Co.	X		
14	Energetic Co.	X		
15	Manchester Hill workings	X	X	
16	Sailors Gully sluicing sites	X	X	X
17	Golden Point water race	X		
18	Sailors Gully puddlers	X		
19	Sailors Gully house sites	X	X	
20	Argus Hill crushing works			X
21	Argus Hill reef workings	X	X	X
22	Francis Ormond Co.		X	
23	Burns Hill Reef workings	X		
23.1	Golden Point Q M Co.	X		
24	Trapps Gully battery site	X		
25	Trapps Gully house sites	X	X	
26	Ajax Co.	X	X	
27	Ajax/Bolivia Reef workings	X	X	
28	Bolivia Gully alluvial workings		X	X
29	Eureka Reef open cut/stope	X		X
30.0	Eureka Co.	X		
30.1	Phoenix Co.	X		
31	Eureka Consolidated	X		
32	Eureka Central			X
33.0	Poverty Gully cyanide works			X
33.1	House sites and tailings	X	X	
34	Poverty Gully water race	X		
35	Poverty Gully house sites	X	X	
36	Spring Gully Monk Co.		X	
37	Eureka Vineyard Co.			X
38	Cobblers Gully battery site	X		
39	Battery site	X		
40	South Eureka Co.		X	
41	Old Coach Road and accommodation paddocks	X	X	
42	Cobblers Gully puddler	X		
43	Cobblers Gully sluicing		X	

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44	Cobblers Gully kiln/crushing mill	X		
45	Blacksmith Gully dam	X		
46	Joe's Gully battery site	?		
47	Spring Gully Co.	X	X	X
48	Spring Gully No. 1		X	
49	South Spring Gully Co.		X	
50	Spring Gully Junction		X	
51	North Spring Gully Co.		X	
52	Spring Gully Central			X
53	Red Hill alluvial workings and house sites	X	?	X
54	River Loddon Water Supply Co.	X	?	X
55	Butchers Gly Chinese house site		?	
56	Butchers gully	X	?	
57	Sailors Gully alluvial workings	X		
58	Cyanide works			X
59.0	Tubal Caine mine site	X		
59.1	Greenwoods Reef workings	X		X
60	Sailors Gully dredge dam		X	
61	Sanger's house site		X	
62	Williams and Party 's battery	X		
63	Sebastopol Reef workings	X		
64.0	Specimen Hill open cut	X		X
64.1	Eldorado Co.	X		
64.2	Renaissance Co.	X		
64.3	Cyanide works			X
65.0	German Gully puddlers	X		
65.1	Tarrs Reef workings	X	X	
65.2	Hands Across the Sea Co.		X	
65.3	Golden Hill Co.		X	
65.4	McDonalds Reef Co.		X	
66	Anglo-Australian Co.	X		
67	Royal Saxon Co.	X		
68	Golden Gully alluvial workings	X	X	
69	New Era Co.	X		
70.0	Duke of Cornwall Co.	X		
70.1	Mosquito Co.	X		
70.2	Cattles Reef whim shaft	X		
70.3	Perseverance Co.	X		
71.0	Fryers Co.	X		
71.1	Cumberland Co.	X		
71.2	Black Hawk (Golden Eagle) Co.	X		
71.3	Burdett Coutts Co.	X		
72	Butchers Gully ground sluices	?	?	
73	Crocodile Gully kilns	X		
74	Crocodile Reservoir Reef	X		
75	Chapple Hill Co.	X		
76.0	Little Nuggetty Co.		X	
76.1	Adit	?	?	
76.2	Nuggetty Co.	X		
77	Bendigo and Fryers Co.		X	
78	Wattle Gully Co.			X
79	North Chewton Co.			X
80	South Wattle Gully Co.		X	X
81	Wattle Gully west			X
82	South Wattle Gully Co.			X
83	Wattle Gully Extended			X
84	Wattle Gully United			X
85	Central Wattle Gully			X
86	Spring Gully puddler	X		
87	New Middle Creek Co.			X
88	Spring Gully Dredging Co.		X	
89	Spring Gully water race	X		

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90	Prince of Wales Reef workings	X		
91	Bullocks Reef workings	X		
92	Castlemaine Govt. battery		X	
93	Golden Point water race	X		
94	Specimen Gully East Branch	X		
95	Poverty Gully Branch	X		
96	German Gully Branch		X	
97	Hazletts water race	X		
98	Golden Gully water race		X	
99	Moyles water race	X		
100	Nolans water race	X		
101	Hunts water race		X	
102	Cobblers Gully water race		X	
103	Champion Reef mine site		X	
104	Middletons Creek surfacing		X	
105	Stones Gully workings	X	?	
106	Nuggetty Gully workings		X	
107.0	Early battery site	X		
107.1	White Horse Co.			X
108	Doctors Hill puddler	X		
109.0	Bald Hill workings	X		
109.1	White Hills open cut	X		
110	Shicers Hill	X	X	
111.1	Puddler and mill site	X		
111.2	Strathloddon workings	X		
111.3	Strathloddon Gold Mining Co.	X		
112	Golden Plateau Co.			X
113	Meins Freehold Co.		X	
114	North Wattle Gully Co.			X
115	Kangaroo Hill workings	X		
116	Ballarat Hill workings	X		
117	Vaughan Gold Mining Assoc.	X		
118	Italian Hill workings	X		
119	Grog Shop Gully	X		
120	Golden Sunrise Co.			X
121	German Gully ground sluices		X	

5. CULTURAL SIGNIFICANCE

5.1 CRITERIA FOR ASSESSMENT

The study brief required that this study should 'test the methodology for assessment of significance of historic mining sites. The Burra Charter of Australia ICOMOS will be used as a basis for this task.'

The Burra Charter is a set of guidelines for the establishment of cultural significance, and was adopted by the Australian national committee of the International Council of Monuments and Sites (Australia ICOMOS) in 1984 and revised in 1988. According to the Burra Charter:

Cultural significance is a concept which helps in estimating the value of places. The places that are likely to be significant are those which help an understanding of the past or enrich the present, and which will be of value to future generations...

Aesthetic value includes aspects of sensory perception for which criteria can and should be stated. Such criteria may include consideration of the form, scale, colour, texture and material of the fabric; the smells and sounds associated with the place and its use.

Historic value encompasses the history of aesthetics, science and society, and therefore to a large extent underlies all of the terms set out...

A place may have historic value because it has influenced, or has been influenced by, an historic figure, event, phase or activity. It may also have historic value as the site of an important event. For any given place the significance will be greater where evidence of the association or event survives in situ, or where the settings are substantially intact, than where it has been changed or evidence does not survive. However, some events or associations may be so important that the place retains significance regardless of subsequent treatment.

The scientific or research value of a place will depend upon the importance of the data involved, on its rarity, quality or representativeness, and on the degree to which the place may contribute further substantial information.

Social value embraces the qualities for which a place has become a focus of spiritual, political, national or other cultural sentiment to a majority or minority group.

Information relevant to the assessment of cultural significance...concerns:

- (a) the developmental sequence of the place and its relationship to the surviving fabric;
- (b) the existence and nature of lost or obliterated fabric;
- (c) the rarity and/or technical interest of all or any part of the place;
- (d) the functions of the place and its parts;
- (e) the relationship of the place and its parts with its setting;
- (f) the cultural influences which have affected the form and fabric of the place;
- (g) the significance of the place to people who use or have used the place, or descendants of such people;
- (h) the historical content on the place with particular reference to the ways in which its fabric has been influenced by historical forces or has itself influenced the course of history;
- (i) the scientific or research potential of the place;
- (j) the relationship of the place to other places, for example in respect of design, technology, use, locality or origin;
- (k) any other factor relevant to an understanding of the place.

Following the guidelines laid down by the Burra Charter the Historic Mining Sites Assessment Committee has adopted the following criteria for assessment of historic mining sites:

Historic Value encompasses the history of aesthetics, science and society. For any given place significance will be greater where evidence of an association or event survives in-situ. It should be assessed against the following criteria:

- Represents a sequence of uses or functions over time.
- Part of a group or network of sites, the totality of which is considered to be significant.
- Be of considerable age in circumstances where precise historical significance of the site is not at present known.
- Associated with an important event(s), person(s) or cultural group.
- Success or failure as a mine in terms of its production levels, yields and as a business enterprise. Influence on the economic development of town/area/region/state.

Scientific Value depends upon the importance of the data represented in the features of a place and upon the degree to which the place may contribute further substantial information. It should be assessed against the following criteria:

- Represents a particular type of process, e.g. special process developed for the reserve or region to overcome water problems, or an accessibility problem; an inventive or innovative process; response to site.
- Represent an important mining technology
- Ability of the site to answer timely and specific archaeological research question.
- balance between historical integrity and historical representativeness (See Dunolly Division Report for discussion on this point)

Social Value is a measure of the spiritual, political, national or other cultural sentiment attached to a place by the community, and is assessed against the following criteria:

- Importance of the site to the local or wider community.

5.2 CULTURAL SIGNIFICANCE OF SITES SURVEYED

On the basis of historical and archaeological research carried out within this project, the sites set out in Table 3 below, are those which have been assessed as having cultural significance. As this is a progress report, these assessments are conditional on an overview to be made at the end of the project, when consideration will also be given to sites identified in the other Mining Divisions that comprise the North Central Goldfields region. There is also the possibility of new historic mine sites being discovered in the Castlemaine and Fryers Creek Mining Divisions which may cause some revision to the table.

Details of the assessments summarised below in Table 3 are to be found in the listings for their respective sites in the site gazetteer, which forms Part Two of this report.

Table 3: Sites of cultural significance

Site No	Site Name	Land status	Historical	Social	Scientific
1	Specimen Gully monument	UCL	X	X	
2	Specimen Gully Q.M Assoc	UCL	X		X
3	Castlemaine Flagging Co.	UCL	X		X
4	Fortuna Q.M Assoc	UCL			X
5	Nimrod Reef/ 'Welsh Village'	UCL/FL		X	X
6	Donkey Gully battery site	UCL			X
7	Cappers Reef workings	RF			X
8	Lady Gully mining village	UCL/FL			X
9.0	South Quartz Hill Co.	PPR/CHR			X

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9.1	Quartz Hill	PPR/CHR	X		
9.3	Golden Point water race	PPR/UCL and CHR	X		X
10	Deadman's Gully adit	UCL/CHR			X
11	Scotchmans Gully puddlers	UCL/CHR			X
12.0	Garfield Co.'s abutments	PPR/CHR	X	X	X
12.1	Little Sailors Gly cyanide works	PPR/CHR			X
12.2	New Garfield Co.	PPR/CHR			X
13.0	Reef workings and blacksmithy	PPR/CHR			X
13.1	Englishmans Reef Co.	PPR/CHR			X
14	Energetic Co.	PPR/CHR			X
15	Manchester Hill workings	PPR/CHR			X
16	Sailors Gully sluicing sites	PPR/CHR			X
17	Golden Point water race	PPR/CHR	X		X
18	Sailors Gully puddlers	PPR/CHR			X
19	Sailors Gully house sites	PPR/CHR			X
21	Argus Hill reef workings	PPR/CHR			X
22	Francis Ormond Co.	UCL	X	X	
23	Burns Hill Reef workings	PPR/FL and CHR			X
23.1	Golden Point Q M Co.	FL			X
24	Trapps Gully battery site	PPR/CHR			X
26	Ajax Co.	UCL/CHR	X		
27	Ajax/Bolivia Reef workings	UCL/CHR			X
28	Bolivia Gully alluvial workings	UCL/CHR			X
29	Eureka Reef open cut/stope	UCL/CHR	X	X	X
30.0	Eureka Co.	UCL/CHR	X		X
30.1	Phoenix Co.	UCL/CHR	X		X
31	Eureka Consolidated	UCL/CHR	X		X
32	Eureka Central	UCL/CHR			X
33.0	Poverty Gully cyanide works	UCL/CHR			X
33.1	House sites and tailings	UCL/CHR			X
34	Poverty Gully water race	UCL/CHR	X		X
35	Poverty Gully house sites	UCL/CHR			X
36	Spring Gully Monk Co.	UCL/CHR			X
37	Eureka Vineyard Co.	UCL/CHR			X
38	Cobblers Gully battery site	UCL/CHR	X	X	X
39	Battery site	UCL/CHR	X		X
40	South Eureka Co.	UCL/CHR			X
41	Old Coach Road and accommodation paddocks	RR/FL and CHR	X	X	X
42	Cobblers Gully puddler	UCL/CHR			X
43	Cobblers Gully sluicing	UCL/CHR			X
44	Cobblers Gully kiln/crushing mill	UCL/CHR			X
45	Blacksmith Gully dam	UCL/CHR			X
47	Spring Gully Co.	UCL/CHR	X	X	X
48	Spring Gully No. 1	UCL/CHR	X		X
49	South Spring Gully Co.	UCL/CHR	X		X
50	Spring Gully Junction	UCL/CHR	X		X
51	North Spring Gully Co.	UCL/CHR	X		X
52	Spring Gully Central	UCL/CHR	X		X
53	Red Hill alluvial workings and house sites	UCL/CHR			X
54	River Loddon Water Supply Co.	UCL/CHR			X
55	Butchers Gly Chinese house site	UCL/CHR			X
56	Butchers gully	UCL/CHR			X
57	Sailors Gully alluvial workings	UCL/CHR	X		X
58	Cyanide works	UCL/CHR			X
59.0	Tubal Caine mine site	UCL/CHR	X		X
59.1	Greenwoods Reef workings	UCL/CHR	X		X
60	Dredge Dam	UCL/CHR			X
62	Williams and Party 's battery	RF/CHR			X
63	Sebastopol Reef workings	RF/CHR			X
64.0	Specimen Hill open cut	RF/CHR	X		

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64.1	Eldorado Co.	RF/CHR	X		
64.2	Renaissance Co.	RF/CHR	X		
64.3	Cyanide works	RF/CHR			X
65.0	German Gully puddlers	RF/CHR			X
65.2	Hands Across the Sea Co.	RF/CHR			X
66	Anglo-Australian Co.	FL	X	X	X
67	Royal Saxon Co.	FL		X	X
68	Golden Gully alluvial workings	FL	X	X	X
69	New Era Co.	UCL/FL and CHR	X		X
70.0	Duke of Cornwall Co.	FL	X	X	X
70.1	Mosquito Co.	UCL/CHR	X		X
70.2	Cattles Reef whim shaft	UCL/CHR			X
70.3	Perseverance Co.	UCL/CHR			X
72	Butchers Gully ground sluices	UCL/CHR	X		X
73	Crocodile Gully kilns	UCL/CHR			X
74	Crocodile Reservoir Reef	UCL/CHR			X
76.0	Little Nuggetty Co.	UCL			X
76.1	Adit	FL			X
77	Bendigo and Fryers Co.	FL	X		X
78	Wattle Gully Co.	UCL/CHR	X	X	X
79	North Chewton Co.	UCL/CHR	X		X
80	South Wattle Gully Co.	UCL/CHR			X
81	Wattle Gully west	UCL/CHR	X		X
82	South Wattle Gully Co.	UCL/CHR			X
83	Wattle Gully Extended	UCL/CHR	X		X
84	Wattle Gully United	UCL/CHR	X		X
85	Central Wattle Gully	UCL/CHR	X		X
86	Spring Gully puddler	FL			X
87	New Middle Creek Co.	FL			X
88	Spring Gully Dredging Co.	UCL/CHR			X
89	Spring Gully water race	UCL/CHR			X
90	Prince of Wales Reef workings	UCL/CHR			X
91	Bullocks Reef workings	UCL/CHR			X
92	Castlemaine Govt. battery	UCL/CHR	X		X
93	Golden Point water race	PPR/UCL and CHR	X	X	X
94	Specimen Gully East Branch	UCL			X
95	Poverty Gully Branch	UCL/CHR	X		X
96	German Gully Branch	UCL/CHR			X
97	Hazletts water race	UCL/CHR			X
98	Golden Gully water race	FL			X
99	Moyles water race	UCL			X
100	Nolans water race	PPR			X
101	Hunts water race	RF/CHR			X
102	Cobblers Gully water race	UCL/CHR			X
104	Middletons Creek surfacing	UCL/CHR			X
105	Stones Gully workings	UCL/CHR			X
106	Nuggetty Gully workings	UCL/CHR			X
107.0	Early battery site	UCL/CHR			X
107.1	White Horse Co.	UCL/CHR			X
108	Doctors Hill puddler				X
109.0	Bald Hill workings				X
109.1	White Hills open cut				X
110	Shicers Hill				X
111.1	Puddler and mill site				X
111.3	Strathloddon Gold Mining Co.				X
112	Golden Plateau Co.	FL	X		X
113	Meins Freehold Co.	FL		X	
114	North Wattle Gully Co.		X		X
115	Kangaroo Hill workings		X		X
116	Ballarat Hill workings				X
117	Vaughan Gold Mining Assoc.	FL			X
118	Italian Hill workings				X

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119	Grog Shop Gully				X
121	German Gully ground sluices				X

Abbreviations RF = Reserved Forest ; FL = Freehold Land; SF = State Forest; UCL = Unreserved Crown Land;
 CHR = Proposed Castlemaine Historic Reserve; RR = Road Reserve; and PPR = Public
 Purpose Reserve

6. RECOMMENDATIONS

6.1 INTRODUCTION AND RECOMMENDATIONS (Tables 4, 5 and 6)

As stated in the Introduction this is a progress report, conditional upon the achievement of a North Central Goldfields overview for heritage assessment. It is recommended that all sites assessed in this report as having significance beyond the local level (regional and National Estate classification) be protected from further preventable damage until such time as their broader cultural significance can be assessed. At that time, some sites might be recommended for visitor interpretation and tourist development; other sites will be judged too sensitive for such development, and further recommendations will be made as to their protection and conservation. The significance of some sites may be diminished by future findings.

Table 4 lists key individual sites, Table 5 list networks of sites, and Table 6 provides a summary of immediate actions required to conserve sites that have been ranked as having regional and National Estate significance. For further details, see the site gazetteer that forms Part Two of this report.

Table 4: Key individual sites for the Castlemaine/Fryers Creek Mining Divisions

Individual sites - Period 1 (1850s/mid 1880s)	2: Specimen Gully Quartz Mining Association 3: Castlemaine Flagging Co. 11: Scotchmans Gully puddlers 13.0: Englishman’s Reef blacksmith shop 13.1: Englishmans Reef Company 23.0-1: Burns Hill workings/Golden Point Quartz Mining Co. 29: Eureka Reef open cut/stope 30.0: Eureka Co.’s battery site 30.1: Phoenix Co.’s battery site 31: Eureka Consolidated 34 + 95: Poverty Gully Branch (water race) 38: Cobblers Gully battery site 41: Old Coach Road and Accommodation Paddocks 42: Cobblers Gully puddler 44: Cobblers Gully kiln/crushing mill 57: Sailors Gully alluvial workings 59.0-1: Greenwoods Ref workings/Tubal Caine mine 66: Anglo-Australian Co. 70.0: Duke of Cornwall Co. 70.1: Mosquito Co. 70.2: Cattles Whim shaft 73: Crocodile Gully kilns 74: Crocodile Reef workings 77: Bendigo and Fryers Co. (Mopoke water wheel abutments) 86: Spring Gully puddler 111.3: Strathloddon Gold Mining Co. 117: Vaughan Gold Mining Association
Individual sites - Period 2 (late 1880s to 1920s)	12.0: Garfield Co. (water wheel abutments) 32: Spring Gully Monk Co. 43: Cobblers Gully sluicing 48: Spring Gully No 1 Co. 50: Spring Gully Junction Co. 65.2: Hands Across the Sea Co. 101: Hunts water race 106: Nuggetty Gully sluicing
Individual sites - Period 3 (1930s to 1950s+)	12.2: New Garfield Co. 32: Eureka Central Co. 33.0: Poverty Gully cyanide works 37: Eureka Vineyard Co. 78: Wattle Gully Co. 81: Wattle Gully west 85: Central Wattle Gully 112: Golden Plateau Co.

Individuals sites - Periods 1 to 3	5: Nimrod Reef/ 'Welsh Village' 8: Lady Gully mining village 9: Sailors Gully house sites 35.0: Poverty Gully house sites 47: Emu Reef/Spring Gully Co. 119: Grog Shop Gully
Individual sites - Periods 2 to 3	9.3+17+93: Golden Point water race 16: Sailors Gully sluicing 54: River Loddon Water Supply Co. (water race) 68: Golden Gully sluicing 72: Butchers Gully sluicing

Table 5: Key networks of sites for the Castlemaine/Fryers Creek Mining Divisions

Networks	Site number and name
Specimen Gully network, Barkers Creek	Sites 1 to 3: Specimen Gully monument, Specimen Gully Q M Assoc., and Castlemaine Flagging Co.
Garfield-Sailors Gully network, Chewton	Sites 12.0 to 19: Garfield Co. water wheel abutments, Little Sailors Gully cyanide works, New Garfield Co.; Englishman's Reef blacksmith shop, Englishman's Reef Co.; Energetic Co., Manchester Hill workings; Sailors Gully sluicing sites ; Golden Point water race; Sailors Gully puddlers; and Sailors Gully house sites.
Eureka Reef-Spring Gully network	Sites 29 to 44 and 102: Eureka Reef open cut/stope; Eureka Co and Phoenix Co.; Eureka Consolidated; Eureka Central; Poverty Gully cyanide works and house sites; Poverty Gully Branch (water race); Poverty Gully house sites; Spring Gully Monk Co.; Eureka Vineyard Co.; Cobblers Gully battery sites; South Eureka Co.; Old Coach Road and Accommodation paddocks; Cobblers Gully puddler; Cobblers Gully sluicing; Cobblers Gully kiln and mill; and Cobblers Gully water race. 47 to 52, and 88: Spring Gully Co.; Spring Gully No 1; South Spring Gully Co.; Spring Gully Junction; North Spring Gully Co.; Spring Gully Central.
Red Hill-Loddon water race network, Vaughan	Sites 53.0 to 53.14, 54 and 119: Red Hill workings, house sites and lease markers; River Loddon Water Supply Co.; and Grog Shop Gully workings.
Butchers Gully network, Vaughan	Sites 55 and 56: Butchers Gully houses sites and alluvial workings
Sailors Gully-Tubal Caine network, Vaughan	Sites 57 to 59: Sailors Gully alluvial workings and camp sites; cyanide works; Greenwoods Reef workings and Tubal Caine mine
Golden Gully network, Fryerstown	Sites 66 to 71: Anglo-Australian Co.; Royal Saxon Co; Golden Gully workings and house sites; New Era Co.; Duke of Cornwall Co., Mosquito Co., Cattles Reef whim shaft ; and Perseverance Co.
Wattle Gully network, Chewton	Sites 78 to 85, 92 and 114: Wattle Gully Co.; North Chewton; South Wattle Gully; Wattle Gully west; South Wattle Gully Co.; Wattle Gully Extended; Wattle Gully United; Central Wattle Gully; Castlemaine Government battery; and North Wattle Gully Co.
Mt Franklin-Middletons Creek network	Sites 101, 104 and 106: Hunts water race, Middletons Creek surfacing; and Nuggetty Gully sluicing

Table 6: Recommendations.

Sites listed below have been assessed as having regional or National Estate significance. For further information see the Site Gazetteer. **Highlighted** sites have been assessed as possessing qualities which make them worthy for nomination to the Register of the National Estate.

Site No	Name	Land status	Recommendation(s)
1	Specimen Gully monument	UCL	Sites to be protected
2	Specimen Gully Q M Assoc	UCL	
3	Castlemaine Flagging Co.	UCL	
5	Nimrod Reef/ 'Welsh Village'	UCL and FL	Site be protected and added to Castlemaine Historic Reserve
6	Donkey Gully battery site	UCL	Sites be protected and a comprehensive archaeological survey carried out.
8	Lady Gully mining village	UCL and FL	
9.3 +17+ 93	Golden Point water race	UCL/CHR	Site be protected and an archaeological survey undertaken to produce a comprehensive picture of mining relics associated with the race
11.0-1	Scotchmans Gully puddlers	UCL/CHR	Sites be protected

12.0	Garfield Co.'s abutments	PPR/CHR	Sites be protected. An interpretive track established that links sites 12 to 19
12.1	Little Sailors Gly cyanide works	PPR/CHR	
12.2	New Garfield Co.	PPR/CHR	
13.0	Reef workings and blacksmithy	PPR/CHR	
13.1	Englishmans Reef Co.	PPR/CHR	
14	Energetic Co.	PPR/CHR	
15	Manchester Hill workings	PPR/CHR	
16	Sailors Gully sluicing sites	PPR/CHR	
18	Sailors Gully puddlers	PPR/CHR	
19	Sailors Gully house sites	PPR/CHR	
23	Burns Hill Reef workings	PPR?CHR	Site be protected
23.1	Golden Point Q M Co.	PPR/CHR and FL	Site be protected
24	Trapps Gully battery site	PPR/CHR	Site be protected
29	Eureka Reef open cut/stope	UCL/CHR	Site be protected. An interpretive track established that links Sites 29 to 52.
30.0	Eureka Co.	UCL/CHR	
30.1	Phoenix Co.	UCL/CHR	
31	Eureka Consolidated	UCL/CHR	
32	Eureka Central	UCL/CHR	
33.0	Poverty Gully cyanide works	UCL/CHR	
33.1	House sites and tailings	UCL/CHR	
34+95	Poverty Gully water race	UCL/CHR	
35	Poverty Gully house sites	UCL/CHR	
36	Spring Gully Monk Co.	UCL/CHR	
37	Eureka Vineyard Co.	UCL/CHR	
38	Cobblers Gully battery site	UCL/CHR	
39	Battery site	UCL/CHR	
40	South Eureka Co.	UCL/CHR	
41	Old Coach Road and accommodation paddocks	RR/CHR and FL	
42	Cobblers Gully puddler	UCL/CHR	
43	Cobblers Gully sluicing	UCL/CHR	
44	Cobblers Gully kiln/crushing mill	UCL/CHR	
47	Spring Gully Co.	UCL/CHR	
48	Spring Gully No. 1	UCL/CHR	
49	South Spring Gully Co.	UCL/CHR	
50	Spring Gully Junction	UCL/CHR	
51	North Spring Gully Co.	UCL/CHR	
52	Spring Gully Central	UCL/CHR	
53	Red Hill alluvial workings and house sites	UCL/CHR	Sites be protected. Comprehensive archaeological survey conducted to establish the true extent of sites associated with the water race.
54	River Loddon Water Supply Co.	UCL/CHR	
55	Butchers Gly Chinese house site	UCL/CHR	Sites be protected
56	Butchers gully	UCL/CHR	
57	Sailors Gully alluvial workings	RF/CHR	Sites be protected
58	Cyanide works	RF/CHR	
59.0	Tubal Caine mine site	RF/CHR	
59.1	Greenwoods Reef workings	RF/CHR	
66	Anglo-Australian Co.	FL	Sites be protected. Sites 70.1 to 71.0 added to the existing nomination for Duke of Cornwall engine house.
67	Royal Saxon Co.	FL	
68	Golden Gully alluvial workings and house sites.	FL	
70.0	Duke of Cornwall Co.	FL	
70.1	Mosquito Co.	UCL/CHR	
70.2	Cattles Reef whim shaft	UCL/CHR	
70.3	Perseverance Co.	UCL/CHR	
72	Butchers Gully ground sluices	UCL/CHR	Site be protected
73	Crocodile Gully kilns	UCL/CHR	Site be protected
74	Crocodile Reservoir Reef	UCL/CHR	Site be protected
77	Bendigo and Fryers Co.	FL	Site be protected

78	Wattle Gully Co.	UCL/CHR	After mining operations come to an end, site be protected and nominated to the Register of the National Estate. Sites be protected
79	North Chewton Co.	UCL/CHR	
81	Wattle Gully west	UCL/CHR	
83	Wattle Gully Extended	UCL/CHR	
84	Wattle Gully United	UCL/CHR	
85	Central Wattle Gully	UCL/CHR	
86	Spring Gully puddler	FL	Site be protected
101	Hunts water race	RF	Sites be protected
104	Middletons Creek surfacing	RF	
106	Nuggetty Gully workings	RF	
102	Cobblers Gully water race	UCL	Site be protected
111.1	Puddler and mill site	UCL	Site be protected
111.3	Strathloddon Gold Mining Co.	UCL	Site be protected
112	Golden Plateau Co.	FL	Site be protected
114	North Wattle Gully Co.	UCL/CHR	Site be protected
117	Vaughan Gold Mining Assoc.	FL	Site be protected
119	Grog Shop Gully	UCL/CHR	Site be protected

Abbreviations RF = Reserved Forest ; FL = Freehold Land; SF = State Forest; UCL = Unreserved Crown Land; CHR = Proposed Castlemaine Historic Reserve; RR = Road Reserve; and PPR = Public Purpose Reserve

6.2 PUBLIC ACCESS TO SIGNIFICANT MINING SITES

It is not considered that all of the places containing significant mining sites are suitable for tourism development - that is, access upgrading, signposting, inclusion in tourist brochures, etc.

The mining sites in the Sailor's Gully/Greenwood's Reef area, south of Vaughan, for instance, have retained their integrity simply because they are not on the tourist circuit or in a settled area, and therefore are not widely known. It is recommended that this area not be publicized.

The place considered most suitable for tourism is that around the Garfield water-wheel, north of Chewton. The site of the water-wheel is already signposted and is well-publicized in tourist brochures; as a result, it is the district's best-known mining site and is frequently visited via good access tracks. The large, stable remains of the water-wheel abutments provide a focus for visitors, and, together with adjacent mining sites (Sites 12-19) illustrate most phases of the district's mining history. All sites are accessible via existing tracks (some of them associated with the early phases of mining), and, if appropriately interpreted (by signs or brochures), would form an ideal historical walking route, with its commencement at the Garfield wheel. Ground sluicing channels contained in some sites (Sites 16.1, 16.3, 16.4) are fragile, and measures should be taken to ensure that these areas are not trampled.

If the opening up of the Garfield wheel environs to tourism activity were successful, other core areas identified by this study as significant, such as Eureka Reef-Spring Gully network, might be considered for similar development.

6.3 RETENTION OF HISTORIC NOMENCLATURE

It is a conclusion of this study that one of the most important artefacts to be conserved and managed in the study area is the historic nomenclature, much of which is detailed in Appendix C. The area's historic place names (virtually every bump or hollow in the landscape was named) provide one of the sturdiest links with its early and ongoing history. People and events that were never recorded on paper live on in the names of creeks, gullies, flats, hills, reefs, roads and tracks. These names have largely survived, despite some massive changes in the actual landscape (for instance, parts of Castlemaine's urban sprawl are still locally known as Wesley Hill, Victoria Gully, Happy Valley, and so on). Retention of the historic nomenclature should be promoted - in the form, perhaps, of appropriate street names where new housing estates are established on old flats and hills, where new roads are cut, where name changes are proposed for roads with existing, historic names, or when new mining operations are proposed.

An awareness of historic nomenclature could be even more actively promoted by a campaign of signposting, directing residents' and visitors' attention to the location of historic mining localities

throughout the district. This would be particularly valuable in localities like Quartz Hill and Specimen Hill, where little is to be seen of their rich mining histories.

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APPENDIX A : Project brief (1991)

The Department of Conservation and Environment wants to employ a person or persons to identify and recommend on the Significance of and prepare a strategy for the conservation and mangement of historic mining sites on public land in North Central Victoria. It is intended that htis will focus on the Land Conservation Council's Historic Reserves but will also include historic mining sites on the other categories of public land and may also require comparison with historic mining sites on private land.

Tasks

A person or persons will be engaged to undertake the following:

- 1) Indetify all the historic mining sites and area, ie. where mining commenced before 1940, and identify the reports about those places which will assist in determining their significance according to the guidelines of the Burra Charter of Australia ICOMOS as appiled by the Historic Mining Sites Assessment Committee.
- 2) Undertake historical and archaeological research required for the assessment of the significance of the historic mining sites and areas in North Central Victoria using
 - x DIEP records, maps and plans
 - x relevant newspapers
 - x local historical records, conservation studies
 - x State libraries
 - x other known sources
 - x field surveys

Information about these sites will be stored on a computer data base to facilitate the use of the information for assessment and management purposes.

- 3) Carry out field surveys at sites selected on the basis of (1) and (2) above, recording the:
 - x location of each site
 - x components (features and artefacts) at each site
 - x condition of each site and its features
 - x details of the operation of the site, ie. an attempt should be made to interpret the site and its features
 - x relationship between individual sites as well as between the sites and their environment.
- 4) Assign relative significance to these historic places and submit these recommendations to the Department of Conservation and Environment and the Historic Mining Sites Assessment Committee for their consideration.
- 5) Prepare a strategy for the conservation and management of these historic mining sites and areas, based on present government policies and stategies, with particular emphasis on how historic sites can be interpreted to the public and linked with existing goldfields tourism promotions.
- 6) Prepare site specific works plans and projects for in the ground works necessary for the protection and interpretation of key historic sites identified in the strategy, so that such on the grounds work can be commenced in the 1991/92 financial year.
- 7) Make recommendations about areas that require further detailed site recording and investigation.

Qualifications

Applicants would need to have some of the following skills/qualifications:

- x experience of qualifications in historical research
- x computing/compilation of data bases
- x knowledge of mining history

- x experience or qualifications in historical archaeology with experience in recording historic mining sites

Experience or qualifications in natural resource management would be desirable.

APPENDIX B: Types of extant features recorded in the Castlemaine and Fryers Creek Mining Divisions (grouped according to method of mining).

Bold type indicates individual features which have exemplary intactness and/or uniqueness

ALLUVIAL

Historical monuments	1	Specimen Gully Gold Diggings	Discovery of Mount Alexander
Lease markers	53.4	Red Hill area	Two small stone cairns
	53.6	Sullivans Hill	One stone cairn
	53.13	Red Hill area	One stone cairn
	86	Spring Gully	One stone cairn constructed in the corner of the ruins of a stone house

SHALLOW ALLUVIAL

Sinkings	57	Sailors Gully	Long stretch of undisturbed shallow sinkings
	105	Stones Gully	Long stretch of undisturbed shallow sinkings
Puddlers	11	Scotchmans Gully	Four weathered puddlers. Near one puddler is a small furnace
	18	Little Sailors Gully	Two weathered puddlers located at the head of the gully
	42	Cobblers Gully with small dam	Well defined puddler associated
	56	Butchers Gully	Two puddling machine sites
	62	Sebastopol Diggings dump	One puddler located near tailings dump
	86	Spring Gully with dam and house site	Two weathered puddlers Well defined puddler associated
Surfacing	16.0	Sailors Gully surface to bedrock	Eastern slope of Machester Hill
	21	Argus Hill	Eastern slope extensively surfaced
	72	Butchers Gully	Hillslope extensively surfaced
	104	Middletons Creek	Small patch of surfacing at terminus of water race
Ground sluicing	16.1	Sailors/Little Sailors	Ground sluicing channels and associated paddocks
	16.3/4	German Gully	Ground sluicing channels and associated paddocks
	28	Bolivia Gully	Ground sluicing channels and associated paddocks
	68	Golden Gully	Ground sluicing channels and associated paddocks
	72	Butchers Gully	Ground sluicing channels and associated paddocks (reputed to be Chinese)
	106	Nuggetty Gully	Intensively sluiced gully with a network of channels and mullock mounds
	121	German Gully	Ground sluicing channels and associated paddocks

Hydraulic sluicing	<p>16.2 Sailors Gully paddock still survives 43 Cobblers Gully 53.4 Red Hill area 53.5 Red Hill area 53.9 Red Hill area</p> <p>53.15 Red Knob 56.2 Butchers Gully</p> <p>60 Sailors Gully, Vaughan 68 Golden Gully 88 Spring Gully</p>	<p>Deeply sluiced gully/last sluicing</p> <p>Deeply sluiced gully Deeply sluiced gully Deeply sluiced gully Deeply sluiced gully with last sluicing paddock still surviving Sluiced hilltop Sluicing dam associated with concrete mounting beds Last dredging paddock Deeply sluiced gully Deeply sluiced gully</p>
Sluicing pipe	<p>53.0 Red Hill</p> <p>53.1 Red Hill and rivetted-panel types)</p> <p>53.11 Red Hill area</p>	<p>Dump of iron sluicing pipe (overlapping rivetted type) Dump of iron sluicing pipe (mixture of overlapping rivetted</p> <p>Dump of iron sluicing pipe (mainly rivetted-panel type)</p>
WATER RACE		
Water race	<p>54 River Loddon race</p> <p>89 Spring Gully race</p> <p>93 Golden Point race heads, one tunnel and several small flumes (Associated with</p>	<p>Disused race with several flumes, one tunnel and many sluice heads (at Red Hill area, Grog Shop Gully and Pennyweight Hill)</p> <p>Disused race associated with several sluice heads</p> <p>Well preserved race with sluice</p>
Reservoir and	<p>Expedition Pass Garfield water wheel abutments)</p> <p>94 Specimen Gully race 95 Poverty Gully race 96 German Gully Branch</p> <p>97 Hazletts race and several dams 98 Golden Gully race 99 Moyles water race 100 Nolans water race 101 Hunts water race</p> <p>102 Cobblers Gully race heads</p>	<p>Well defined race with many sluice heads and ground sluicing channels</p> <p>Disused race which has 2 tunnels</p> <p>Disused water race associated with sluiced landscape Disused race which has been converted into a walking track Disused race Disused water race associated with many sluice heads, dams and ground sluicing Disused race with several sluice heads</p>
CEMENT MINING		
Tunnelling	<p>56.2 Ballarat Hill 56.4 Butchers Hill, Vaughan 111.3 Strathloddon G. M. Co. 115 Kangaroo Hill 116 Ballarat Hill 117 Vaughan G. M. Co.</p>	<p>Open adit Open adit Haulage adit into large open cut Collapsed adits at base of hill Collapsed adits at base of hill Open adit with mullock heap</p>

	118 Italian Hill 119 Grog Shop Gully	Collapsed adits Open and collapsed adits into large open cut
Open cut	53.2 Red Hill washed pebble mullock 53.6 Sullivans Hill washed pebble mullock 109.1 White Hills mullock	Massive open cut and mounds of Massive open cut and mounds of Large open cut with walls of white clay/mounds of washed pebble
	111.3 Strathloddon G. M Co. washed pebble mullock 119 Grogshop Gully washed pebble mullock	Large open cut with mounds of Large open cut with mounds of
Sludge	119 Grogshop Gully	Culverts leading from large open cut to massive sludge pond
Surfacing	53.0 Red Hill 53.6 Sullivans Hill 109 Bald Hill 110 Shicer Hill	Hillslope extensively surfaced Hillslope extensively surfaced Surfaced hillslope with some unusual clay walls and mounds Hillslope extensively surfaced
Puddling	108 Doctors Hill 111.1 Strathloddon Diggings remains of Chilian mill	Eroded puddlers associated with bulldozed cement diggings Eroded puddler associated with
Battery	117 Vaughan G. M. Co.	Battery site associated with pebble mullock
Steam power	117 Vaughan G M Co.	Stone boiler setting and short flue
Chimney stack	117 Vaughan G M Co.	Small circular stone chimney stack with iron securing bolts
Chilian mill	111.1 Strathloddon Diggings	Raised circulat stone-retained platform adjoining puddling machine site
DEEP LEAD		
Mullock heaps	112 Gold Plateau G M Co. 113 Meins Frehold	Large, partly quarried heap with some timber posts Line of three small mullock heaps
Mining engine footings	112 Gold Plateau G M Co.	Concrete mounting beds
Chimney stack	112 Gold Plateau G M Co.	Collapsed iron chimney stack

QUARTZ MINING

Adits	2	Specimen Gully	Open adit with intact mullock head and blacksmith's forge
	7	Cappers Hill	Open adit with mullock heap
	9.0	Sth Quartz Hill	Open adit with intact mullock heap and some concrete footings
	9.1	Quartz Hill	Open adit
	10	Deadman's Gully	Open adit with mullock heap
	21	Argus Hill	Four open adits/intact mullock heaps
	23.1	Burns Hill	Two open adits/intact mullock heaps
	26	Ajax Hill	Open adit
	32.0	Central Eureka	Open adit
	36	Spring Gully Monk Co.	Two adits/intact mullock heaps
	59.0	Tubal Caine	Open adit
	64.0	Specimen Hill	Collapsed adit
	72	Butchers Gully	Fireclay adit
	76.1	Nuggetty Reef	Open adit with intact mullock heap
87	New Middle Creek	Open adit with intact mullock heap	
Open cuts	1	Specimen Reef	Small open cut with some stopping
	5	Nimrod Reef	Large open cut partly filled with mullock from later shaft mining
	7	Cappers Hill	Large, partly filled open cut
	9.1	Quartz Hill	Open cut through massive blow of quartz
	15	Manchester Hill	Large open cut with haulage adit
	21	Argus Hill	Shallow open cutting
	23	Burns Hill	Shallow open cutting
	27	Ajax Hill	Large open cut with tunnelling
	29	Eureka Reef	Narrow but very deep open cut/stope with exposed quartz reef
	47	Emu Reef/Spring Gully	Shallow open cut partly filled by mullock from later shaft mining
	59.1	Greenwood Reef	Small open cut with shaft
	63.2	Sebastopol Reef	Narrow open cut with haulage adit
	64.0	Specimen Hill	Massive, partly filled open cut
	65.1	Tarrs Reef	Narrow open cutting
74	Chapple Hill	Large open cut partly filled by mullock from later shaft mining	
Shallow reef workings	2	Specimen Gully Reef	Line of open shafts, deep open cutting, adits and some mullock
	5	Nimrod Reef	Open and filled shafts, small mullock paddocks, open cutting
		and some trenching	
	21	Argus Hill	Shallow open cutting, filled but subsiding shafts and some mullock
	23	Burns Hill	Shallow open cutting, filled but subsiding shafts, adits and some mullock
heaps	45	Blacksmith Gully	Line of filled (subsiding) shafts and small mullock heaps
	53.8	Red Hill area	Small open cut and some shafts. Conglomerate and quartz mullock
	59	Greenwoods Reef	Long line of reef workings - small open cuts, open

		shafts/mullock paddocks, adits
	and costeaning	
	63.2 Sebastopol Reef	Open cutting and main shaft
	65.0 German Gully	Line of partly filled shafts (both rectangular and round)
	65.1 Tarrs Reef	Narrow open cutting and partly filled shafts
	66 Herons Reef	Collection of shafts, small mullock heaps and a slate quarry
	70.1 Cattles Reef	Filled shafts and mullock heaps
	74 Crocodile Res Reef	Small line of workings - open shafts/mullock paddocks and some open cutting
	81 West Wattle Gully	Open shafts/mullock paddocks, shallow open cutting and some stoping
	90 Prince of Wales Reef	Filled shafts and small mullock heaps
	91 Bullocks Reef	Filled shafts and small mullock heaps
Stoping	1 Specimen Gully Reef	Stoping in open cut
	13.1 Englishmans Reef	Open stope
	29 Eureka Reef	Narrow but deep open cut/stope
	81 West Wattle Gully	Some stoping
Costeaning	59.1 Greenwoods Reef	Long costeans
Mullock heap	13.1 Englishmans Reef Co.	Large intact heap
	14 Energetic Co.	Bulldozed mullock heap
	37 Eureka Vineyard Co.	Large mullock paddock with loading bay
	40.1 South Eureka Co.	Large intact mullock heap
	47 Emu Reef/Spring Gully shaft mining periods	Large intact heaps illustrating 3
	48 Spring Gully No. 1	Large intact heap
	49 South Spring Gully	Large intact heap
	50 Spring Gully Junction	Large intact heap
	51 North Spring Gully	Small intact heap
	52 Central Spring Gully	Small intact heap
	65.2 Hands Across the Sea	Small intact heap
	65.3 Golden Hill Co.	Intact heap with 2 dumping lines
	65.4 McDonalds Reef	Small mullock heap
	66 Anglo Australian Co.	Massive intact mullock heap
	67 Royal Saxon Co.	Small mullock heap
	69 New Era Co.	Remnant of once large heap
	70.0 Duke of Cornwall	Remnant of mullock heaps
	70.1 Mosquito Co.	Large intact mullock heap
	70.3 Perseverance Co.	Large intact mullock heap
	71.0 Fryers Co.	Large intact mullock heap
	71.1 Cumberland Co.	Large, partly bulldozed heap
	71.2 Black Hawk	Collection of smallish heaps
	71.3 Burdett Coutts	Intact mullock heap
	74 Chapel Hill G M Co.	Remnant of once large heap
	76.0 Little Nuggetty Co.	Remnant of once large heap
	76.2 Nuggetty Co.	Partly bulldozed heap with 6 dumping lines
	80 South Wattle Gully	Large, partly bulldozed heap
	81 Wattle Gully west	Small intact heap and mullock paddock
	82 South Wattle Gully	Partly bulldozed small heap
	85 Central Wattle Gully	Intact mullock heap

	87	New Middle Creek Co.	Intact mullock paddock and open shaft
	103	Champion Reef	Remnant of mullock heap
Shafts	9.1	Quartz Hill Co.	Filled 3-compartment shaft
	9.2	Nth Quartz Hill	Open 3-compartment shaft
	12.2	New Garfield Co.	Capped shaft
	13.1	Englishmans Reef Co.	Open shaft
	32.0	Central Eureka Co.	Open shaft
	37	Eureka Vineyard Co.	Filled shaft/intact mullock paddock
	40.0	Twomey/Davis shafts paddocks	Open shafts with intact mullock
	47	Spring Gully G M Co.	Capped shaft
	47	Hands of Friendship Co.	Filled but subsiding shaft
	48	Spring Gully No 1	Capped shaft
	50	Spring Junction Co.	Open shaft
	66	Anglo Australian	Capped shaft
	67	Royal Saxon Co.	Shaft site
	70.3	Perseverance Co.	opne shaft filled with water
	79	Wattle Gully Co.	Working shaft
	79	North Chewton Co.	Capped shaft with baling tank
	84	Wattle Gully United	Shaft site and concrete baling tank
87	New Middle Creek Co.	Open 3-compartment shaft and intact mullock paddock	
114	North Wattle Gully	Open (fenced) shaft	
120	Golden Sunrise Co.	Two open (fenced) shafts	
Poppet head	78	Wattle Gully	Steel framed poppet head
Engine House	2	Specimen Gully Q M	Foundations of stone engine house
	47	Spring Gully Gold NL	Concrete footings
	66	Anglo Australian Co.	Stone footings for Cornish Engine House
	70.0	Duke of Cornwall	Intact Cornish Engine House
	70.0	Duke of Cornwall House	Foundations for Cornish Engine House
Mining engine footings	9.0	Sth Quartz Hill	Small concrete mounting beds
	9.1	Quartz Hill Co.	Largely buried stone foundations
	26	Ajax Co.	Single granite mounting bed
	37	Eureka Vineyard Co.	Small concrete beds, footings and sections of floor
	47	Spring Gully G M Co.	Large stone and brick beds with remnants of wooden bearers
	47	Spring Gully Gold NL	Arrangement of small concrete mounting beds
	48	Spring Gully No. 1	Large stone engine/winding beds
	50	Spring Gully Junction	Large stone engine/winding beds
	52	Spring Gully Central	Small stone winder bed
	64.1	Eldorado Co.	Machinery site - traces of footings
	64.2	Renaissance Co.	Machinery site - traces of footings
	66	Anglo Australian Co.	Remains of stone engine and winder beds
	70.1	Mosquito Co.	Large stone bed
	70.3	Perseverance Co.	Largely buried stone foundations
	76.2	Nuggetty Co.	Bulldozed machinery site
78	Wattle Gully	Working mine	
79	North Chewton Co.	Concrete winder bed	

	80	South Wattle Gully	Largely buried foundations
	81	Wattle Gully west	Concrete winder and engine beds
	82	South Wattle Gully	Largely buried stone foundations
	83	Wattle Gully Extended	Concrete winder and engine beds
	84	Wattle Gully United	Concrete winder and engine beds
	85	Central Wattle Gully	Concrete winder and engine beds
	87	New Middle Creek Co. beds	Small concrete engine and winder
	107.2	White Horse Co.	Concrete winder bed
	114	North Wattle Gully	Set of large concrete beds
	120	Golden Sunrise Co.	Small concrete mounting beds
Bob-pit	48	Spring Gully No 1	Partly filled stone-lined pit
	66	Anglo Australian	Site of bob-pit
Air-receiver	79	North Chewton Co.	Iron air-receiver cylinder
	83	Wattle Gully Extended	Concrete air-receiver pads
	84	Wattle Gully United	Concrete air-receiver pads
	85	Central Wattle Gully	Concrete air-receiver pads
Chimney stack	2	Specimen Gully Q M	Sqare stone chimney base
	6	Donkey Gully	Small circular stone stack base
	12.2	New Garfield Co.	Decaying iron chimney stack
	23.1	Golden Point Q M	Small square stone stack base
	30.0	Eureka Co.	Base of small circular stone stack
	30.1	Phoenix Co.	Base of small circular stone stack
	31	Eureka Consolidated	Base of small square stone stack
	38	Cobblers Gully	5m high circular stone stack
	46	Joe's Gully	Brick collapse
	47	Spring Gully G M Co.	Brick collapse
	48	Spring Gully No 1	Square stone chimney stack base and brick collapse
	59.0	Tubal Caine	Base of small circular stone stack
	65.2	Hands Across the Sea	Square stack depression and scatter of red bricks
	69	New Era Co.	Base of small circular stone stack
	70.0	Duke of Cornwall	Intact stone stack associated with Cornish Engine House
	70.1	Mosquito Co.	Base of stone chimney stack
	80	South Wattle Gully Co.	Scatter of red bricks/Base of brick stack
	81	Wattle Gully west collapsed (decaying) iron stack	Concrete stack base and
	83	Wattle Gully Extended	Collapsed (decaying) iron stack
	84	Wattle Gully United	Concrete stack base
Whims	70.2	Cattles Reef	Circular stone-retained whim platform and shaft site
Mine buildings	13.0	Frenchmans Reef	Footings of blacksmith shop
	13.1	Englishmans Reef Co.	Remains of stone building
	30.0	Eureka Reef	Remains of 2-roomed stone building
	30.1	Phoenix Co.	Remains of stone building
	31	Eureka Consolidated	Remains of stone building
	33	Poverty Gully	Remains of stone building
	37	Coombs Gully	Footings of blacksmith shop

	38 Cobblers Gully	Blacksmith shop - stone forge and wooden anvil stump
	40.1 South Eureka	Two stone forges
	49 South Spring Gully	Footings of blacksmith shop
	53.3 Red Hill	Narrow rectangular stone structure and possible stack base
	59.0 Tubal Cain	Footings for blacksmith shop
	59.0 Tubal Cain	U-shaped stone faced chamber - possible powder magazine.
	59.1 Greewoods Reef with air vents	Adjoining stone-lined chambers
	62.0 Williams and Party	Stone forge
	63.2 Sebastopol Reef	Two stone forges located on working platform
	63.2 Sebastopol Diggings	House site and stone forge
	67 Royal Saxon	Stone fireplaces and forges
	70.0 Duke of Cornwall	Mine managers residence (now private residence)
	70.0 Duke of Cornwall	Intact powder magazine
	74 Crocodile Reservoir	Footings of blacksmith shop
	78 Wattle Gully Co.	Mine buildings - working mine
Power plant	2 Specimen Gully Q M	40 metre long stone-lined hillslope flue
	6 Donkey Gully	Remnants of hillslope flue
	12.2 New Garfield Co.	Concrete boiler setting
	23.1 Golden Point Q M	Stone boiler setting and 35 metre long stone-lined hillslope flue
	24 Trapps Gully depression	Remains of boiler setting and flue
	30.0 Eureka Co.	Short stone-lined flue and remains of stone boiler setting
	30.1 Phoenix Co.	90 metre long stone-lined hillslope flue and granite bed stones
	31 Eureka Consolidated	Stone boiler setting and intact flue
	38 Cobblers Gully setting. Latter converted into blacksmith shop	Short flue and remains of boiler
	46 Joe's Gully	Boiler setting and flue depressions
	47 Spring Gully G M Co.	Largely buried stone boiler setting
	48 Spring Gully No 1	Stone boiler setting and intact flue
	49 South Spring Gully	Stone boiler setting
	50 Spring Gully Junction	Stone boiler setting and flue depression
	59.0 Tubal Cain	40 metre stone-lined hillslope flue
	65.2 Hands Across the Sea	Stone boiler setting and flue depression
	69 New Era Co.	Stone boiler setting
	70.0 Duke of Cornwall	Large buried boiler settings
	70.1 Mosquito Co.	Stone boiler setting
	79 North Chewton Co.	Concrete boiler setting
	80 South Wattle Gully Co.	Concrete boiler setting
	81 Wattle Gully west	Concrete boiler setting and flue
	83 Wattle Gully Extended	Demolished brick boiler setting and shell of Cornish Boiler
	84 Wattle Gully United	Concrete boiler setting and flue
	85 Central Wattle Gully	Concrete boiler setting

	107.1	White Horse Reef	Depression of hillslope flue
Carting	27	Ajax Hill	Carting track
	41	“Old Coach Road”	Section of old gold rush road
	68	Golden Gully	Mining tracks
Loading bays	13.1	Englishmans Reef	Stone-lined loading bay
	23.1	Burns Hill	Stone-lined loading bay
	27	Ajax Hill with carting track	Stone-lined loading bay associated
	37	Eureka Vineyard Co.	Stone-lined loading bay
Haulage adit/tramways	2	Specimen Gully Q M	Collapsed haulage adit
	4	Fortuna Q M Co.	Collapsed adit
	5	Nimrod Reef	Adit associated with large open cut
	5	Nimrod Reef Co.	Tramway embankment terminating at loading ramp
	9.0	South Quartz Hill	Tramway embankment leading from adit
	15	Manchester Hill open cut	Haulage adit associated with large
	23.1	Burns Hill	50 metre long tramway terminating at loading ramp
	31	Eureka Consolidated	Tramway embankment (parts of which retained by stone walling)
	59	Tubal Cain	Tramway from adit to battery
	63.2	Sebastopol Reef cut	Haulage adit associated with open cut
	65.2	Hands Across the Sea	Tramway embankment from mine to battery
67	Royal Saxon Co.	Open haulage adit	
Water wheel	12.0	Garfield Co.	Massive stone abutments
	77	Bendigo and Fryers	Massive stone abutments
Chilian mills	44	Cobblers Gully	Raised circular stone-retained platform associated with coarse tailings
Roasting kins	44	Cobblers Gully	Small quartz roasting kiln
	73	Crocodile Gully	Two small below ground quartz roasting kilns
State crushing works	92	Castlemaine State battery	Concrete and wooden footings
Battery engine	14	Energetic Co.	Large stone engine bed
	32.1	Central Eureka Co. wooden bedlogs	Small concrete mounting beds and
	47	Spring Gully G M Co.	Large stone and brick engine bed
	50	Spring Gully Junction	Large stone engine bed
	62	Williams and Party	Stone engine bed with wooden bolts
	65.2	Hands Across the Sea	Large brick engine bed
	76.0	Little Nuggetty Co.	Concrete engine beds
78	Wattle Gully Co.	Working battery	
80	South Wattle Gully Co.	Large brick mounting bed	

Stamper footings	14	Energetic Co.	Decaying, partly buried mortar blocks	
	32.1	Central Eureka Co. foundations (5-head)	Decaying mortar blocks/concrete	
	46	Joe's Gully blocks)	Linear depression (decayed mortar blocks)	
	47	Spring Gully G M Co. head)	Long line of mortar blocks (20-head)	
	50	Spring Gully Junction (12-head)	Mortar blocks/wooden bedlogs	
	59.0	Tubal Cain	Decaying bedlogs	
	65.2	Hands Across the Sea	Concrete footings and mortar block slots	
	76.0	Little Nuggetty Co.	Mortar blocks and slots/concrete footings	
	77	Bendigo and Fryers	Traces of mortar blocks	
	92	Castlemaine State battery	Decaying mortar blocks (5-head)	
Classification Floor	76.0	Little Nuggetty Co.	Rough concrete floor and small mounting beds	
	92	Castlemaine State battery small mounting beds	Concrete floor with drains and small mounting beds	
Loading ramp	5	Nimrod Reef Co.	Stone retained ramp	
	32.1	Central Eureka Co.	Remnant of ramp	
	46	Joe's Gully ramp	Remains of small, stone-retained ramp	
	47	Spring Gully G M Co.	Massive stone-retained ramp	
	59.0	Tubal Cain	Remains of small loading ramp	
	62	Williams and Party	Remains of small loading ramp	
	65.2	Hands Across the Sea tramway embankment	Large ramp at the terminus of a	
	76.0	Little Nuggetty Co.	Remnants of loading ramp	
Sludge ponds	9.1	Quartz Hill Co.	Large, partly intact sludge ponds	
	12.1	Garfield Reef	Sludge pond embankment	
	24	Trapps Gully	Small sludge pond with tailings	
	26	Ajax Co.	Remnant of large tailings dump	
	30	Eureka Co.	Extensive spread of tailings	
	31	Eureka Consolidated sludge associated with two small	Partly sluiced, brightly coloured stone-	
	lined ponds	39	Cobblers Gully	Sluiced sludge pond
		46	Joe's Gully	Small sludge pond
47		Spring Gully G M Co.	Three large intact sludge ponds	
50		Spring Gully Junction	Small sludge pond and extensive spread of tailings	
62		Williams and Party	Small tailings dump	
63.2		Sebastopol Reef	Extensive spread of tailings	
65.2		Hands Across the Sea	Traces of tailings	
66		Anglo Australian Co.	Spread of tailings	
67		Royal Saxon Co,	Traces of tailings	
69		New Era Co.	Sludge pond embankment	
73		Crocodile Gully	Small dump of tailings	
77		Bendigo and Fryers	Small sludge pond	
78		Wattle Gully Co.	Massive modern sludge ponds	
80		South Wattle Gully Co.	Partly quarried tailings dump	
92		Castlemaine State battery	Spread of tailings	
103	Champion Reef	Traces of tailings		

Water dams	2 Specimen Gully Q M	Large dry water dam with wooden outlet valve
	30.0 Eureka Co.	Small dam with stone faced embankment
	31 Eureka Consolidated	Small dry water dam
	38 Cobblers Gully	Small water dams
	58 Tubal Cain	Large water dam
	63.0 Sebastopol Reef	Large water dam
	76.0 Little Nuggetty Co.	Two small water dams
	80 South Wattle Gully Co.	Small dry water dam
92 Castlemaine State battery	Small dry water dam	
TAILINGS RETREATMENT		
Cyanide vats	12.1 Garfield Reef	Remnants of brick and Gal. Iron lined vats
	23.0 Burns Hill Reef	Buried brick and Gal. Iron vats
	33.0 Poverty Gully	3 well preserved Gal. Iron vats, one water tank and drainage vat
	58 Tubal Cain	Circular and square vat depressions
	64.3 Specimen Hill	Remains of Gal. Iron vats
Treated tailings	12.1 Garfield Reef	Large, partly quarried dump
	23.0 Burns Hill	Dump of treated tailings
	33.0 Poverty Gully	Large spread of treated tailings
	58 Tubal Cain	Spread of treated tailings
	64.3 Specimen Hill	Large spread of treated tailings
	69 New Era Co.	Large dumps of treated tailings
70.3 Perseverance Co.	Spread of tailings	
MINING VILLAGE/HOUSE SITES		
Residences/pubs	5 'Welsh Village and hotel sites	Remains of several stone houses, outbuildings, terracing
	8 Lady's Gully	Remains of several stone houses, outbuildings, and hotel sites
	9.3 Quartz Hill	Single house site with outbuildings and stone-edged garden beds
	19.0 Little Sailors Gully	Remains of small stone house
	19.1 Sailors Gully	Remains of large stone house assoc. with stone walled paddock, garden terracing and dam
	19.2 Sailors Gully	Remains of small house site
	19.3 Little Sailors Gully with its own blacksmith shop	Two adjoining house sites, each
	19.4 Little Sailors Gully assoc. blacksmith forge	Remains of small stone house and
	25 Trapps Gully	Stone fireplaces
	33/35 Eureka Reef	Collection of stone house sites and one hotel site. Also some stone-walled paddocks
	41 'Old Coach Road'	Two large stone-walled paddocks and associated hotel site
	53 Red Hill area sites and outbuildings	Collection of small stone house

	55	Butchers Gully	Remains of small stone houses and one Chinese house site
	57	Sailors Gully	Collection of small stone fireplaces and forges
	58	Tubal Cain	Small stone house sites
	61	Sebastopol Diggings	Collection of stone fireplaces
	68	Golden Gully	Collection of house sites, ranging from stone fireplaces to an intact (partly restored) house
	86	Spring Gully	Two stone house sites - one assoc. with lease marker, the other with a small stone-walled paddock
Slate Quarry	3	Castlemaine Flagging Co.	Massive partly filled quarries
	5	Nimrod Reef	Slate quarry

APPENDIX C:

As part of the historical research a gazetteer was compiled which treated each mining locality (i.e. gully, hill, flat, reef or town) identified in the research process as a separate entity, and details, chronologically, the progress of mining activity in each locality. These localities have been grouped (by means of a numbering system) with others which are either in their immediate vicinity or with which they are clearly linked by means of gully, reef, watercourse or settlement. The groupings of linked localities have been named zones, and numbered 1 to 9. The area covered by the nine zones comprises the whole of the former Castlemaine and Fryer's Creek Mining Divisions, but the zones themselves are not historic entities - merely a typological tool designed for this project. Some may question the logic of particular groupings. For instance, Specimen Hill has been grouped with Spring Gully, with which it has a gully system and many mining operations in common, rather than with Golden or Wattle Gullies, with which it shares a reef system. Dirty Dick's Gully shares a common gully system and early history with Moonlight Flat, but was later exclusively connected with mine workings on the Sailor's/Argus line. Some inconsistencies and borderline cases do undoubtedly exist, but the gazetteer was designed (and succeeded) as a working tool, to connect and make explicable the intense and complex history of gold-mining in the study area. It is intended that this geographic gazetteer will be published separate to the report.

Six of the zones (1, 2, 3, 5, 6, and 9) include parts of the Chewton-Castlemaine Historic Area.

Zone 1: Golden Gully/Fryerstown

1.1	Golden Gully	1.2	Golden Point (Fryers Ck)	1.3	Heron's Reef
1.4	Ferron's Reef	1.5	Clark's Reef	1.6	Crocodile Gully Reservoir
1.7	Crocodile Creek	1.8	Lucky Strike	1.9	Commissioners Flt/Glly
1.10	Cattle's Reef	1.11	Fryerstown	1.12	Windlass Hill and Flat
1.13	Deadman's Flat/Gully	1.14	Bellevue	1.15	Nuggety Gilly/Irishtown
1.16	Burying Ground Flat	1.17	Long Gully	1.18	Paddy's Gully
1.19	Brown's Gully/Reef	1.20	Rocky Gully	1.21	Devil's Gully

Zone 2: Specimen Hill/Eureka/Spring Gully

2.1	Vineyard Reef	2.2	Monk's Hill/Reef	2.3	Eureka Reef
2.4	Cobbler's Gully	2.5	Californian Gully	2.6	Higging's Reef
2.7	Specimen Hill/Eldorado	2.8	Bullock Reef	2.9	Cemetery Reef
2.10	Two Foot/Lost Gully	2.11	Goat's Gully	2.12	Bristol Reef
2.13	Blacksmith Reef/Gully	2.14	Prince of Wales Reef	2.15	Spring Gully/Flat & Emu Reef
2.16	Irish Reef	2.17	Abraham's Gully	2.18	Church's Flat
2.19	Horseshoe Bend	2.20	Murdering Flat	2.21	Chokem Flat
2.22	Red Hill	2.23	New Year's Flat	2.24	Sullivan's Hill
2.25	Daphne Reef	2.26	Long Gully	2.27	United Reef
2.28	Joe's Gully	2.29	Specimen Gully	2.30	Bindon Reef
2.31	Chapel Hill Reef	2.32	Rocky Gully		

Zone 3: Vaughan/Lower Loddon

3.1	Vaughan	3.2	Hit-or-Miss Reef	3.3	Bald Hill
3.4	Sailor's Hill	3.5	Butcher's Hill	3.6	Kangaroo or Hard Hill/ Kangaroo Creek & Kangaroo/Boddy's Reef
3.7	Ballarat/Jackson's Hill	3.8	Scotch Point/Gully	3.9	Table Hill
3.10	Tarilta	3.11	Oven Gully	3.12	Butcher's Gully
3.13	Sailor's Gully	3.14	Liverpool/Greenwoods Rf	3.15	Middleton Creek
3.16	Sebastopol Gully/Reef	3.17	Adelaide Reef	3.18	Holcombe
3.19	Green Gully	3.20	Glenluce	3.21	Heron's Hill
3.22	Rae's Hill	3.23	Smyth's Hill	3.24	Kitto's Hill
3.25	Verdon's Hill	3.26	Buscombe's Hill	3.27	Stone's Gully
3.28	Italian's Hill	3.29	Patten's Reef	3.30	Salter's Creek
3.31	Shicer's Hill/Gully				

Zone 4: Mopoke/Strathloddon/Guildford

4.1	Nil Desperandum Reef	4.2	German Gully	4.3	Cornish & Spanish or Tarr's Reef
4.4	Mopoke Reef/Gully	4.5	Frenchman's Reef	4.6	Champion Reef

4.7	Pennyweight Flat/Hill	4.8	Capper's Reef	4.9	Strathloddon
4.10	Taylor's Paddock (Yapeen)	4.11	Guildford Hill	4.12	Guildford
4.13	Guildford Plateau/ Loddon Valley	4.14	Pickpocket/Hard Hill	4.15	Donkey Gully
4.16	Bald Hill	4.17	Boots Gully	4.18	Rabbit Flat
4.19	Shicer Hill				

Zone 5: Campbell's Creek

5.1	Campbell's Ck (General)	5.2	Preshaw's Flat	5.3	Winter's Flat
5.4	Diamond Flat/Hill/Gully	5.5	Lushington Hill/Gully	5.6	Adelaide Hill
5.7	Seventy Foot Hill/Flat	5.8	Hard Hill	5.9	Forty Foot Hill
5.10	John O'Groat's Flat	5.11	Cemetery Flat	5.12	White Hill/Flat/Rf
5.13	Crow Gully	5.14	Little/Specimen Gully	5.15	Bolivia/Ajax Reef
5.16	New Chum Gully	5.17	Dead Horse Gully	5.18	Specimen Flat
5.19	Cumberland Reef	5.20	Nuggety/Poverty Reef	5.21	Little Nuggety Reef
5.22	Tarr's Gully	5.23	Dutch/Diechman's Reef	5.24	Nuggety Gully
5.25	Railway Gully	5.26	Poverty Flat	5.27	Slaughteryd Hill/Gully
5.28	Cabbage Garden Flat	5.29	Red Hill/Flat	5.30	Italian Hill/Gully
5.31	Hobby's Flat	5.32	Cheshire Flat	5.33	Poverty Gully
5.34	Skeen's Gully/Reef	5.35	Victoria Reef	5.36	New Year's Gully
5.37	Heard's Reef	5.38	Mysterious Reef	5.39	Burial Hill
5.40	Blanket Hill/Gully	5.41	Doctor's Hill	5.42	Switzerland Reef
5.43	Hargrave's Hill	5.44	Volunteer Reef	5.45	Wightman's Flat

Zone 6: Castlemaine/Forest Creek

6.1	Town of Castlemaine	6.2	Forest Creek (General)	6.3	Town/Commercial Rf
6.4	Forty Foot Hill	6.5	Clinker's Hill	6.6	Victoria Gully/ Caledonia Reef
6.7	Ten Foot Hill	6.8	Aberdeen Hill/Gully	6.9	Scott's Hill
6.10	Scott's Gully	6.11	Meredith Reef	6.12	Champion Reef
6.13	Little Bendigo Gully	6.14	Humbug Gully	6.15	Little Bendigo Reef
6.16	Coombs' Gully	6.17	Wesley Flat/Hill	6.18	Red Hill
6.19	White Hill	6.20	Little White Hill	6.21	Kampf's Gully/Reef
6.22	White's Gully	6.23	Montgomery Hill/Gully	6.24	Rubio Reef
6.25	Iron Hill	6.26	Steel's Flat	6.27	Steel's Gully
6.28	London Reef				

Zone 7: Barker's Creek

7.1	Barker's Creek (Gen)	7.2	Specimen Gully/Reef	7.3	Launceston Flat/Gully
7.4	Capper's Reef	7.5	Aplin's Reef	7.6	Long Gully
7.7	Belltopper Reef	7.8	Cranky Ned's Reef	7.9	Shellback Reef
7.10	Turnbull/Warren's Reef	7.11	Hermits Reef	7.12	Lauriston Reef
7.13	Gordon's Reef	7.14	Lady Barkly Reef	7.15	Granite Reef
7.16	Specimen Flat	7.17	Rigby's Hill	7.18	Union Gully
7.19	Hard Hill	7.20	Wattle Gully	7.21	Launceston Reef
7.22	Heinrich/Henrick's Rf	7.23	Devonshire Reef	7.24	Tongue/Fortuna Reef
7.25	Nathan's Gully	7.26	Milkman's Flat/Gully	7.27	Mosquito Gully/Reef
7.28	Black Jack/Hickman Gly	7.29	Uncle Billy's Gully	7.30	Harcourt
7.31	Mt Alexander Reef	7.32	Chinaman's Flat		

Zone 8: Moonlight/Pennyweight Flats

8.1	Napier's Reef	8.2	Lady Gully	8.3	Nicholson's Gully
8.4	Racehorse Gully/Reef or German Banner Reef	8.5	Nicholson's Reef	8.6	Lucknow/Nthmblnd Rf
8.7	Dog Leg Gully/Reef	8.8	Sebastopol Reef	8.9	Shicer Gully/Hill
8.10	Lever/Lion Point	8.11	Moonlight Flat	8.12	Moonlight Reef
8.13	Hundredweight Gully/Hill	8.14	Fiddler's Reef	8.15	Pennyweight Flat
8.16	Burns's Gully	8.17	Cemetery Gully/Rf	8.18	Great Britain Reef
8.19	Greaterox Reef	8.20	Jumper's Reef	8.21	Dirty Dick's Gully
8.22	Magenta Reef	8.23	Shicer's/Cadzow Reef		

Zone 9: Chewton/Golden Point

9.1	Quartz Hill/Reef	9.2	Scotchman's Gully or Little Quartz Hill/Reef	9.3	No Name Reef
9.4	Trewartha Reef	9.5	Sailor's Gully/Flat	9.6	Little Sailor's Gully
9.7	Englishman's Gully/Reef	9.8	Dead Cat/Sailor's/ Garfield Reef	9.9	South American Reef

NORTH CENTRAL GOLDFIELDS PROJECT: Castlemaine/Fryers Creek Mining Divisions

9.10 Sheepshead Gully/Reef	9.11 German Gully/Reef	9.12 Walker's Reef
9.13 Vale's/Tambaroora Reef	9.14 Manchester Flat Reef/Hill	9.15 Manchester
9.16 Argus Hill/Central Reef	9.17 Golden Point (General) Pass	9.18 Expedition/Mitchell's Pass
9.19 Nimrod/Donkey Reef	9.20 Burns/Welcome Reef	9.21 Little Burns' Hill/Rf
9.22 Diamond Reef	9.23 Golden Gully	9.24 Donkey Gully
9.25 Deadman's Gully	9.26 Shicer Gully	9.27 Commissioner's Gully
9.28 Tipperary Flat/Gully	9.29 Trapp's Gully	9.30 Trapp's Reef
9.31 Black Monday Reef	9.32 Coach Flat	9.33 Esmond's Reef
9.34 British American Reef	9.35 Bonnet Flat	9.36 Scramble Gully
9.37 Town of Chewton	9.38 Break-of-Day Reef	9.39 Pioneer Reef
9.40 New Chum Gully	9.41 Argus Flat	9.42 Chewton Reef
9.43 Poverty Gully	9.44 Poverty Reef	9.45 Poverty Hill
9.46 Little/Red Hill/Gully/Rf	9.47 Golden Gully	9.48 Chapel Hill Reef
9.49 Old P.O. Hill Gully/Reef	9.50 Brice's Hill	9.51 Hard Hill/Reef
9.52 Prospect Hill	9.53 Charcoal Gully	9.54 Surveyor's Reef
9.55 Adelaide Flat	9.56 Adelaide Hill	9.57 Butcher's Gully
9.58 Adelaide Gully	9.59 Wattle Flat	9.60 Wattle Gully
9.61 Deadman's Gully	9.62 Deadman's Reef	9.63 Long Gully
9.64 Mona Reef	9.65 Three Speck Gully	9.66 Whitehorse Gully/Flat/Reef or Reservoir Reef & Dinah Flat
9.67 Crocodile Reef	9.68 Blarney Reef	

SITE NO. & NAME: **SPECIMEN GULLY SITES, BARKER'S CREEK**
1. Historic monument and residential site
2. Specimen Gully Quartz Mining Association
3. Castlemaine Flagging Co.
4. Fortuna Quartz Mining Association

LOCATION: **Barker's Creek**

DIRECTIONS: North side of Specimen Gully Track, Barker's Creek.

MAP/GRID REFERENCE: Site 1: Chewton 1:25,000 - 563.980
 Site 2: Chewton 1:25,000 - 565.979
 Site 3: Chewton 1:25,000 - 560.980
 Site 4: Chewton 1:25,000 - 560.982

PARCEL NUMBER: Sites 1 and 2: P120333
 Site 3: P121051
 Site 4: P121048

MUNICIPALITY: Metcalfe

LAND STATUS: Unreserved Crown Land

EXISTING HERITAGE CLASSIFICATION: None

PRESENT MANAGEMENT/USE: LCC Rec - U1

HISTORY:

July/Aug 1851 : The first gold discovery of Mt Alexander was made by John Worley and Christopher Thomas Peters at Specimen Gully on the 20th July, 1851, at which time the first-named was a bullock driver, and the latter a hut-keeper in the service of William Barker, Esquire. The late Mr Pearce, of Castlemaine, was at that time superintendent of the station, from whom I obtained the following information: - He was present when the first dish of stuff was washed, which, to use his own words, "was black soil; as black as your hat". It was obtained from a little gully, and panned off in a small soup tin, the result being half-a-dozen pieces of gold about the size of "wheat corns"... The next attempt was in the hill side - about 100 yards from the first gold - into which they drove a tunnel and discovered a quartz leader, thickly impregnated with gold. This necessitated the breaking up of the quartz, which they considered too much trouble, and soon left it.ⁱ

20 July 1851: The discovery of alluvial gold in quantity at Ballarat was subsequent by two months to the finding of nuggety gold at Barker's Creek by C.T. Peters, a hutkeeper, on the 20th July, 1851, but the finds were kept secret until early in September, when a disclosure was made by one of the party of four then getting much gold in the spot subsequently known as Specimen Gully.ⁱⁱ

Aug/Sept 1851: [in] the Melbourne Argus of the 8th September, 1851, [is] a letter headed "Mount Alexander Ranges, September 1st, 1851," written by me to the editor of that paper, where my name is spelt Worly, in place of Worley, describing, as near as possible, the position where we were then at work, and had been from the 17th August of the same year. The place is where Messrs. Stacey, Grant and Co.'s steam engine is now at work, at Specimen Gully, Barker's Creek ... John Worley, Barker's Creek.ⁱⁱⁱ

17 Dec 1853: The diggers are leaving Forest Creek and Bendigo in great numbers - some to Ballarat, others to the Ovens, and many to Melbourne. The small companies which have been working on the quartz veins north of Forest Creek, Specimen Gully, &c., have laboured in vain, spent all their money, and are offering their machinery for sale. Grinders and amalgamators may be seen scattered and lying about in the gullies of Forest Creek and Bendigo, with as little regard to their value as to blocks of quartz.^{iv}

3 August 1855: Barker's Creek - A heavy rush has now set in to these new diggings, and the population is little short of a thousand. Large numbers arrive every hour... The great feature of the place is the extraordinary richness of the surfacing, in certain patchy spots... The diggings are close to a lofty range somewhat resembling Bryant's ranges at Tarrengower, and the quartz vein, Specimen Gully, can be traced from Golden Point to these new diggings. That portion of the vein which is being worked at Launceston Flat, about half a mile from the rush, is turning out particularly rich.^v

21 Sept 1855: on the eastern side of Specimen gully several parties have done well.^{vi}

5 Oct 1855: several patches of new ground have been opened, including several small gullies leading out of Specimen Gully. ^{vii}

19/7/1857: Reefs being worked: Bolivia, Town, Eureka, Lower Wattle Gully, Specimen Hill, Mt Alexander, Golden Point, Dirty Dick's, Old Specimen Hill, Sebastopol, Specimen Gully, Barker's Creek. ^{viii}

June 1859: My statistics show two steam-engines less than formerly employed in quartz-crushing. These were small and inefficient. They will be replaced by a 12-horse power, now being erected by Opie and Co., Forest Creek; and a beautiful engine of 40-horse power, and corresponding plant, being erected by the Specimen Gully Quartz Mining Association, Barker's Creek. ^{ix}

August 1859: One claim working, 30 miners, Specimen Gully Company. ^x

August 1859: List of companies in existence and contemplated [includes]: Specimen Gully Quartz-Mining Company, Specimen Reef, 268 yards, commenced working; Gully Company, Specimen Reef, 600 yards, not commenced. ^{xi}

August 1859: One claim working, 30 miners, Specimen Gully Company. ^{xii}

August 1859: Steam machinery employed in quartz crushing: Old Specimen Gully Gold Mining Company, Barker's Creek, 40-horse power, 32 head of stamps, pumps, etc. ^{xiii}

August 1859: Steam machinery employed in quartz crushing: Smith & Company, Specimen Gully, 7 h.p., 8 head of stamps, etc. ^{xiv}

August 1859: 5 claims working, 20 miners, Specimen Reef Company [working continuation of Specimen Reef, Barker's Creek] ^{xv}

Sept 1859: Specimen Hill Gully Quartz Mining Association - The powerful engine and stamping machinery of this company are completed, and are working satisfactorily. There is a 40-horse power high-pressure steam engine, with 2 boilers of 4 tons each. There are 16 heavy stamps - to be increased to 32. The gold is to be saved by fixed inclines, set with ripples, the debris finally passed through an amalgamator. An exceedingly well-constructed dam crosses the gully above the reef. The company's first crushing 18 tons yielded 35 1/4 oz. ^{xvi}

1859: Specimen Gully - area on north side of Forest Creek marked 'Very Rich'. ^{xvii}

early 1860: Flagstone Quarry, Specimen Gully - This is the original quarry, and it has been extensively worked for over 40 years. It is 4 miles by road in a north-easterly direction from Castlemaine, and there is a railway siding but a short distance from the quarry...The belt of the valuable flagstones is about 23 feet wide, and it has been worked at intervals for a length of 20 chains (400m). At the south end a fault has broken up the rocks, so as to render them of little value. At the deepest part of the quarry has been sunk to a depth of 220 feet (67m); this is filled with water to within 30 feet of the surface...

There is an immense amount of valuable material available, and as the quarry has been sunk down to a depth of 220 feet, the heavy initial expenses have been defrayed, and a working face prepared. In dealing with such a quarry pillars should be left at proper intervals to support the sides. Stone of the character obtainable here is useful for building material, for paving, and for many other purposes. There is a 25 horse-power engine and planing and sawing plant at the quarry but no work has been done here for several years. This industry should be revived.. ^{xviii}

October 1859: Specimen Gully Mining Association - The whole of the machinery of this company is completed, and is the most powerful and substantial in the district. The main tunnel is now driven 355 feet in the line of the reef. ^{xix}

May 1860 : The Old Specimen Gully Gold Mining Association - The prospects of this company are more encouraging, the working expenses have been considerably diminished, the usually tedious and costly operations of opening the mine have been perserveringly prosecuted through a hard blue stone country; the main tunnel being now 500 feet long connecting nearly all the original claims and shafts, and several material alterations have been effected in the plant by additional tramways, winding gear, &c, and two shafts have been sunk and will be connected by adit to work the known auriferous leads. A trial of 6 tons from this adit yielded 1 oz. per ton, and 464 tons crushed from this reef gave an average yield of 17 dwt. 18 1/3 gr. per ton ^{xx}

Oct 1860: The Old Specimen Gully are improving and anticipating a dividend. ^{xxi}

Dec 1860: Quartz Reefs actually proved to be auriferous: Specimen Gully Company

No. of claims: --

Extent of claim: 804 feet

No. of men employed: --

Extent of Reef prospected: 1,400 feet ^{xxii}

Dec 1860: Leases Demised to Public Companies: [include]

Specimen Gully Company

Area of Lease: 5 acres 2 rods 32 perches

Amount of Capital: £10,000

Machinery: Forty horse-power engine, thirty-two stamps, pump gear, &c.

Value of Machinery: £5,000

Cash Expended: £11,612 12s 10d

Miners now employed: 2

Men lately employed: 39

Gold or Value realized by Company: £3,837 18s 11d

Dated: 10 Oct 1860

Remarks: Recommencing next week. ^{xxiii}

Feb 1861: The Specimen Gully Co. are also temporarily suspended, waiting the contemplated loan. ^{xxiv}

March 1861: The Eureka Reef, Capper's Reef, and Old Specimen Gully Companies continue inactive. ^{xxv}

April 1861: The Specimen Gully Gold Mining Company was the first formed in this district and consequently had to pioneer its way. Their powerful machinery was erected about two years ago, yet only 3,705 1/2 tons have been crushed from the mine; this produced 1,367 oz. 4 dwt. of gold. ^{xxvi}

July 1861: The Old Specimen Gully, the first ...[of the Division's public quartz companies]... is about to be wound up, advertisements being out for the disposal of the plant and machinery. ^{xxvii}

Aug 1861: The Old Specimen Gully Co.'s lease runs across gully (grid ref. 55HBU565980). Machinery on lease: 40hp engine, 16 stamps on N side of gully; open workings, pumps and dam in gully; office on S side ^{xxviii}

Aug 1861: Specimen Gully Reef being worked by the Old Specimen Gully Co. on their lease, situated where reef crosses Specimen Gully (grid ref. 55HBU565980). ^{xxix}

Aug 1861: Capper's Reef Co. lease at head of both Specimen and Launceston Gullies (grid ref. 55HBU566969-55HBU566975). Machinery on lease (at Specimen Gully end): 20 hp engine and 8 stamps, also dam in Specimen Gully (grid ref. 55HBU566974). Working Capper's and Aplin's Reefs. ^{xxx}

Sept 1861: Some of our older companies, as the Old Quartz Hill, Specimen Gully, Phoenix (late Eureka), and El Dorado, have been trying to let the mines and plant upon tribute, the success of the Bolivia Reef tributers inspiring great confidence in that system of working. ^{xxxi}

Nov 1861: Lease No. 4 - 5 acres, 3 rods, 32 perches - Specimen Gold Quartz Mining Association - map shows a large dam and a 40 hp engine - grid ref. for engine is 55HBU566979. ^{xxxii}

Nov 1861: Map shows - Flag (stone) Quarry - large quarry running N-S, either side of Specimen Gully (Grid ref 55HBU558980). ^{xxxiii}

Nov 1861: Map shows - Lease No 39, 12 acres 1 r. 20 p. Fortuna Mining Association - working Fortuna Reef, N side of Specimen Gully. Includes dam across Specimen Gully, and a tunnel leading from the Fortuna's Company's Engine (located on the weatern boundary of the lease) to the middle of the lease. Tunnel is about 800 feet long, grid ref of engine 55HBU558980. ^{xxxiv}

Dec 1861: Thompson Brothers...have added a very simply constructed 5 horse-power engine to the Old Specimen Gully plant, for the purpose of draining the mine, thereby superseding the cumbersome machinery formerly used. ^{xxxv}

June 1861: The Specimen Gully, the Old Quartz Hill and the Cumberland and Bolivia mines and machinery have been unworked, and several other plants only partially employed. ^{xxxvi}

May 1862: Public Companies - Fortuna Quartz Mining Association, Specimen Gully, Barkers Creek. [See Fortuna Reef - 7.24] ^{xxxvii}

March 1862: Old Specimen Gully Quartz Mining Association -Specimen Gully, Barker's Creek.

Area and Title - The extent of ground held by this association is 660 feet from north to south. Title, a lease from the Crown.

Position - The Old Specimen Gully Reef, for the purpose of working which this company was formed, lies about two and a half miles from Castlemaine, and is to the east of the Barker's Creek Road. The reef is situate in Whirley's Gully, at the very head of Specimen Gully, and within a short distance of the Fortuna Reef and Capper's Reef. The ground rises very precipitously at the back of the crushing plant, the distance of the mouth of the shaft from the engine crank being about 150 feet, and the difference in elevation about 40feet.

Workings - There are two lodes that have been wrought by former claim holders, the one distinguished as the Gully Reef, and the other as the Hill Reef, from their position relativey in the Gully and on the Hill...The difference in elevation between the mouth of the northernmost shaft on the hill and the mouth of the shaft in the gully is 130 feet, most of the surface work having been done by former claimholders. The Gully Reef has been wrought for a length of about 100 feet, and for a depth of about 105 feet. The Hill Reef has been removed for a length of about 150 feet, and for a depth of about 130 feet. The distance between the two workings is about 180 feet. There is a tunnel into the hill along the course of the lode, level with the stamp platform, and the tributors were engaged at the time of our visit pushing forward the tunnel north, and very hard driving. They were also engaged in driving at a depth of 90 feet in a shaft that passes alongside the tunnel just mentioned, in order to connect with old workings.

Machinery - The Association have a splendid 40 h.p. beam condensing engine, perhaps the finest on these gold-fields, but unfortunately out of all proportion to the work it has to do. The tributors have had manufactured for them a small 6 h.p. engine by Messrs Vivian and Co., of Castlemaine. This they have erected over one of the boilers of the large engine, for the purpose of working the 4 1/2 inch pumps fixed in the shaft up the hill, and also for the purpose of working winding gear in connection with the same shaft. Although its work is 150 feet off, and at a difference in elevation of some 40 feet, it appears to answer admirably well. The large engine works four batteeries of four heads each. These were not at work, and had not been apparently for some time. The shafts of the stamps are of wood. The large engine cylinder is 22 inches, stroke 3 feet 6 inches, with two boilers of 18 feet by 5 feet each.

Amalgamation - Eight heads of ripples and blanket tables, the second eight heads are furnished only with blanket tables.

Remarks - Comparatively little progress has been attempted in mining by this Association since it was first formed, the greater portion of the capital having been expended in the purchase of the ground, and the purchase and erection of machinery. As an instance of the experience that is being bought, and that may be useful to others, we may state the Association erected 9 or 10-inch pumps for draining the claims, but the supply of water was out of all proportion to the size of the pumps. The consequence was the pumps were always out of order, and the claim never properly drained. Neither was the supply of quartz sufficient to keep the mills going. The large engine, a very expensive one when not fully aat work, was thus frequently employed pumping only from the claim, and even this duty it was performing very ineffeiciently, at a cost to the Company of not less than £10 per week for firewood alone. The little engine recently erected, at a comparatively small outlay, is pumping effectually, and winding, at a cost of £2 only a week for firewood, thus showing a saving in that item alone of £416 per annum. The deepest shaft on this reef is 130 feet. ^{xxxviii}

3 Nov 1862: Specimen Gully Mining Association have sold engine and claim to 14 miners - tunnel is 400 ft. ^{xxxix}

Sept 1864: The Old Specimen Gully and Cumberland mines remain unworked. ^{xl}

March 1870: ...several of the old reefs in Specimen Gully, Barker's Creek, have been re-occupied. ^{xli}

Sept 1870: The Old Specimen Reef, Barker's Creek, is again occupied; the parties on cleaning out an old shaft, found a gold-bearing lode, the first crushing giving the tributors £4 per week and the proprietors £32 each. The reef shows to yield many similar returns. ^{xlii}

Dec 1870: At Barker's Creek the Specimen Gully Reef is being profitably worked by Bibby and Walters. The reef is 20 to 30 feet wide. Six feet of its western face is being worked, from which 397 tons have yielded 176 ozs. 16 dwts. Thirteen men are employed. ^{xliii}

March 1871: On Specimen Gully Reef, Walters and Co. have driven a cross-cut from their tunnel through a wide reef impregnated with indications of gold. The Specimen Gully Tribute have succeeded in draining their mine, and reaching the lode where much gold was obtained some years ago. The Specimen Gully Extended, the Imperial, the Hermit, the Lady Barkly, the Cappers, and many other companies throughout the division, are engaged in sinking shafts, or driving tunnels or levels, very few breaking out quartz. ^{xliv}

10 April 1871: Walters and Bibby - 38 ton yielded 73 oz.^{xliv}

27 June 1871: Specimen Gully Tribute Co. - prospectus issued.^{xlvi}

June 1871: On the Specimen Gully Reef, Walters and Co. obtained 232 ozs. from 141 tons. The old Gully Claim has been let on tribute to a good proprietary, who will erect suitable machinery. The reef, both north and south, is being worked with very good prospects.^{xlvii}

10 July 1871: Imperial Co. to form a company. The claim adjoins Walters and Bibby's original claim.^{xlviii}

Sept 1871: On Specimen Gully Reef, the Imperial Company, lease No. 670, are sinking their main shaft, now 60 feet, and are getting out quartz for Crushing. They have applied for an extension of ground. Walters and Bibby have just disclosed another excellent shoot of golden quartz in their tunnel, and within 30 feet of the Specimen Gully Tribute Co., who have a whim erected and are busily sinking a shaft, now 80 feet, to strike the run of gold left by the old company. The claims of Clarke, Homan, and others, on the south end of the reef, have been amalgamated with a view of more economical and systematic mining.^{xliv}

2 Oct 1871: Two new reefs discovered by Patrick McClusky and other by Bibby and party.¹

6 Nov 1871: Specimen Gully Tribute Co. - lease of 520 ft on south end of Walter and Bibby claims.^{li}

Dec 1871: In Specimen Gully, Barker's Creek, the Specimen Gully Reef is being worked by the company at 100 feet deep, by the Specimen Gully Tribute at 110 feet, and by the Imperial Company at 77 feet.^{lii}

13 July 1872: Specimen Gully Reef - Lewis Amalgamated - a shaft 5 ft x 4 ft has been sunk. Old workings are very extensive. Engine shaft has been cut to 123.5 ft.^{liii}

15 July 1872: Specimen Gully Tribute Co. - owing to hardness of ground, downright shaft was abandoned. South shaft. Further shaft 250 ft north.^{liv}

20 July 1872: Specimen Gully Extended Gold Mining Co.^{lv}

Dec 1875: Many of our old lines of reef are at present unworked, as the Sebastopol, Caledonia, Volunteer, Specimen Gully, Dead Cat, Fortuna, and others.^{lvi}

Dec 1876: Parties obtaining gold from quartz crushing: Bennett's, Old Specimen.^{lvii}

6 May 1878: Specimen Gully Tribute Co. formed. The obstacle to this reef being systematically worked is the great weight of water that has to be mastered.^{lviii}

Sept 1878: The Specimen Gully Reef is let on tribute in 25 shares, and prospecting operations commenced on the 5th May last.^{lix}

26 May 1879: Specimen Gully Tribute Co. - tried two small crushings yielding 2 dwt and 2.5dwt to the ton - sufficient to try further prospecting.^{lx}

March 1882: Mineral. - Slate and Flagging. Three mineral lease blocks are being worked in Specimen Gully, giving employment to 47 men, in addition to several draymen.^{lxi}

Sept 1883: At Specimen Gully, the Castlemaine Flagging Company, in excavating at the south end of their slate-flagging formation, found it cut off by a cross flookan, which they followed away to the south-east, and again found the vertical flagging; and whilst stripping they also met with a southerly continuation of the Fortuna quartz reef, carrying coarse gold.^{lxii}

22 July 1886: Specimen Gully Reef - Lease 1769 crosses Specimen Gully (grid ref. 565981). Lease No. 786 crosses Long Gully.

Mineral lease 758 runs south from Specimen Gully towards Launceston Gully (mid grid ref. 563978)
Fortuna Reef crosses Specimen Gully - Lease 2401 and mineral leases 235, 455 and 719 all appear to belong to the Castlemaine Slate Paving Company. These leases stretch from north of Specimen Gully to south of Launceston Gully. (mid grid ref. [Specimen Gully] 560980)

March 1905: Specimen Gully Dredging Co.: 209oz gold. ^{lxxv}

June 1906: Specimen Gully Dredging Co.: 426oz gold - D. Fraser, Castlemaine, Legal Manager. ^{lxxvi}

1907: Flagstone Quarry, Specimen Gully - This is the original quarry, and it has been extensively worked for over 40 years. It is 4 miles by road in a north-easterly direction from Castlemaine, and there is a railway siding but a short distance from the quarry...

There is a 25 horse-power engine and planing and sawing plant at the quarry, but no work has been done there for several years...

The new quarry is in Nicholson's Gully, at a distance of about 1 1/2 miles E, 30 deg. S. from the old quarry. The belt of flagstone is 17 feet in width, the flags range from 1 inch to 4 or 5 inches thick, and the material is material is slaty, as at the old quarry. The strike of beds is about north and south, and the dip is 82 deg. E. This quarry has been opened up for a length of 200 feet, and to a depth of 50 feet. The flags do not split so readily as at the old quarry. An engine with planing and sawing machines is on the ground, but the quarry is not being worked. ^{lxxvii}

March 1908: Specimen Gully Dredging Co.: 287oz gold. ^{lxxviii}

June 1909: Specimen Gully Dredging Co.: 383oz gold - G. Chester, Castlemaine, Legal Manager. ^{lxxix}

March 1910: Specimen Gully Dredging Co.: 190oz gold. ^{lxxx}

Sept 1910: Specimen Gully Dredging Co.: 97oz gold. ^{lxxxii}

1990: Specimen Gully - slate quarries, historic monument. Also remains of machinery site, dam, main shaft in gully and extensive line of workings (deep, well formed shafts, open cuts, one tunnel with associated forge and mullock) on the hill above... located a short distance E of the historic monument.

In the gully running N along the W edge of the slate quarry (N side of road) is a tunnel associated with some stone footings. ^{lxxxii}

DESCRIPTION :

Site 1 - Stone cairn, some old Cypress trees and adjacent ruins of a house.

Cairn inscription reads: 'The first gold from the Mount Alexander goldfields was discovered in this gully by Christopher John Peters on 20th July 1851. Associated with him were John Worley, Robert Keen and George Robinson. Cairn gift of R. Owens 10th October 1931'.

The house is built of slate. Walls in good condition, one section has recently been roofed.

On the flat on the opposite side of the road to the monument site is a relatively small patch of alluvial sinkings. Some of the shafts are circular (whether by intention or collapse is not certain) and some are vaguely rectangular or square. Diameter of the shafts range from 1 to 3m. Shafts occur about every 5m.

Site 2 - The chimney base, flue, and stone walls of engine house are in good condition, and are part of quartz mining plant erected by the Specimen Gully Quartz Mining Association in 1859. This plant, when installed, included winding, pumping and crushing facilities. The dam also appears to have been constructed during this time. The workings on the crown of the hill also date back to this period, but would have later been worked by small tribute companies, who prospected and mined the in area until the 1890s. The shaft nearest the engine house, containing relatively modern timbers, dates to the 1930s.

Description - On the N side of the gully are some substantial stone walls of an engine house. The rear wall of the engine house is 5.10m wide, and the side walls are 4.10m long. The walls are 50cm thick and stand to a height of 2.4m.

2.4m E of the engine house is a stone-lined flue. Its side walls are 30cm thick and are capped with large slabs of stone, and the internal chamber is 50cm wide. For the first 21m the flue runs underground, then runs aboveground for about 40m. The flue is cut by at least one road and the V.W.S race, which is concrete-lined.

The flue terminates with a square stone chimney base (2.1m square). A scatter of broken bricks lies to the NE of the chimney base. These are handmade, red bricks, with a single long rectangular frog, and are all broken.

To the E of the engine house is a collapsed haulage tunnel.

Below the engine house are several shafts and a large dam. This dam has an outer facing of stone, and the eastern embankment is approx 35m long. Inside the dam is a wooden valve.

On the crown of the hill, above the remains of the stack and flue, is a very intensive patch of workings (deep, open shafts, open-cuts, some mullock)

E of the line of workings, at the head of a gully, is a tunnel, driven W into the hill.

On the mullock heap or paddock in front of the tunnel is a forge.

Site 3 - The slate quarry is the site of the Castlemaine Flagging Co. which operated for over forty years, commencing excavations c.1860. The quarry is becoming very overgrown.

Description - On both side of the Specimen Gully track are large excavations relating to a slate-flagstone quarry .

Site 4 - The tunnel and stone footings found at the head of the gully, on the W side of the slate quarry, match well with descriptions of the activities of the Fortuna Quartz Mining Co. The tunnel is probably a haulage tunnel constructed by the company to convey stuff to their battery. The site of the battery has been obliterated by bulldozing. This company operated from c.1860-62.

Description - At the head of the gully that runs along the W side of the flagstone quarry, on the N side of the Specimen Gully Track, is a tunnel, driven E into a hill. Some stone footings are situated in the gully, below the tunnel.

PHOTOS: Black and white

ARTEFACTS: None visible

INTEGRITY/CONDITION: Good

THREATS:

CULTURAL SIGNIFICANCE:

Sites 1 to 3 have:

- | | |
|-------------------------|---|
| Historical Significance | - Specimen Gully, Barker's Creek, has considerable historic significance, being the official location of the first discovery of gold which led to one of the world's greatest gold-rushes. |
| Scientific Significance | - The place contains the well preserved mine remains and workings of the first public quartz mining company to operate on the Mount Alexander goldfield, and the massive and evocative slate quarries of the region's largest and most successful slate quarrying company |
| Social Significance | - The social significance of the place is testified by the erection of a commemorative monument on the spot in 1931. |
| Cumulative Value | - The monument is in close proximity to sites (2 and 3) that have high scientific value forming a nework of sites that illustrates several different types of mining. |

Site 4 has:

- | | |
|-------------------------|---|
| Scientific Significance | - Relatively intact adit and some footings. Possibility of buried relics. |
|-------------------------|---|

Significance ranking	Sites 1 to 3	National Estate
	Site 4	Local

CONSERVATION POLICY:

Significance comes from the historical association of the place to the discovery of the famous Mount Alexander Diggings and the survival of other relics (the Specimen Gully mine and Castlemaine slate quarry) which docuement the development of mining in the area.

RECOMMENDATIONS FOR IMPLEMENTATION:

Sites 1, 2 and 3 to be protected and nominated to the Register of the National Estate.

Assessor: David Bannear **Date: 1993**

SITE NO. & NAME: **NIMROD REEF SITES**
5 'Welsh Village '
6 Battery site

LOCATION: **Nimrod Reef, Golden & Donkey Gullies**

DIRECTIONS: At the heads of Golden and Donkey Gully.

MAP/GRID REFERENCE: Site 5: Chewton 1:25,000 - 566.952
Site 6: Chewton 1:25,000 - 568.949

PARCEL NUMBER: P120329

MUNICIPALITY: Metcalfe

LAND STATUS: Site 5: Unreserved Crown Land and Freehold Land
Site 6: Unreserved Crown Land

EXISTING HERITAGE CLASSIFICATION: Registered as an archaeological site by the Victorian Archaeological Survey

PRESENT MANAGEMENT/USE: LCC Rec - U1

HISTORY:

1850s: This line of reef, which consisted for the greater part of a number of spurs dipping in various directions, proved very rich in shallow workings during the time the alluvial deposits of Golden Gully and Forest Creek were being worked. ^{lxxxiii}

April 1857: Our party was about the first to prospect what is now called the Nimrod reef. We saw fine gold in the leaders while sinking two holes there, the deepest of which was 70 feet, but could not find what would be called payable stone at that time. ^{lxxxiv}

24 April 1857: Nimrod - Palmer and King. New reef discovered on Good Friday 1857. At 2ft struck 16 in. wide quartz. ^{lxxxv}

1 Oct 1858: Averaging less than 1 oz per ton. ^{lxxxvi}

17 June 1859: Seven steam engines. ^{lxxxvii}

August 1859: 9 claims working, 49 miners, 5 good claims. ^{lxxxviii}

Nov 1859: Referring to plan of Forest Creek produced by mining surveyor, T. L. Brown.] By the plan now sent, as also by the general plan of the division previously sent, the source of the alluvial deposits is easily traceable to the quartz reefs on the west of the main workings. The alluvial diggings begin at the Nimrod and Diamond Reefs, head of Golden Gully and the other gullies from the continuation of these reefs. ^{lxxxix}

1860's ?: Undated mining survey map shows a lease of 20 acres held by the Nimrod Reef Mining Co., whose northern boundary is centred on the head of Golden Gully and lease heads south towards Donkey Gully (centre grid reference 55HBU565951); adjoining the southern boundary, centred on the head of Donkey Gully, is another lease, Howell and Co. (centre grid reference 55HBU567947). ^{xc}

May 1860: Parties reporting quartz yield: Edwards, Lewis. ^{xc}

Dec 1860: Quartz Reefs actually proved to be auriferous: Nimrod, or Donkey Reef

No. of claims: 8

Extent of claim: 960 feet

No. of men employed: 20

Extent of Reef prospected: 1,200 feet ^{xcii}

June 1861: The Nimrod Reef, Golden Point, which for the past two years has been very dull, has again given proof of its continued richness. This reef has yielded an immense amount of gold from its surface workings, but these being

exhausted the reef was partially abandoned; one party however (Williams and Company) determined to prove the quartz in depth, and having sunk their shaft 150 feet were last week well rewarded for their perseverance, the first ten tons giving 43 oz. of gold, and this week a single ton has yielded the splendid quantity of 167 oz. of gold. ^{xciii}

23 Aug 1861: Williams and Co. - 16 ton yielded 96 oz. ^{xciv}

August 1861: Monthly quartz returns list Williams, and Cook and Company as obtaining quartz from Nimrod Reef. ^{xcv}

Sept 1861: Companies/parties crushing quartz and obtaining gold during past month: Williams - 12 ton yielded 6 oz 6 dwt. 16 gr. ^{xcvi}

Nov 1861 : Map shows the following: in Golden Gully - quartz machine 55HBU568953, quartz machine 55HBU571954, and steam puddling machine 55HBU573953; and in Donkey Gully - quartz machine 55HBU568949, quartz machine 55HBU569949, quartz machine 55HBU570948. ^{xcvii}

7 March 1862: Williams and Co. - 15 tons yielded 133 oz. ^{xcviii}

16 May 1862: Morris and Co. - 25 ton yielded 25 oz. ^{xcix}

1 Aug 1862: Morris and Co. - 60 ton yielded 60 oz. ^c

22 Aug 1862: Williams and Co. - 30 tons yielded 74 oz. ^{ci}

5 Oct 1862: Price and Co. - 1 oz to the ton. ^{cii}

23 Oct 1862: Lewis and Co. - 24 ton yielded 25 oz; Morris and Co. - 24 ton yielded 25 oz.; Jones and Co. - 5 tons yielded average 5 dwt/ton. ^{ciii}

24 Oct 1863: Jones and Co. (No. 1 claim), Powell and Co. (No. 2), Lewis and Co. (No. 4), Davis and Co. (No. 5), The Crown claim party (No. 3), Jones and Co. (No. 6), Bowen and Co. (No. 7), Morris and Co. (No. 8), Morgan and Co. (No. 9), Joseph and Co. (No. 10). ^{civ}

4 Nov 1863: Sherry and Co., Powell and Co. ^{cv}

29 Jan 1864: B. Jones - 30 ton yielded 20 oz.; Lewis and Co. - commenced crushing and opening a cutting about 60 ft wide. ^{cvi}

March 1864: In March, 1864, Williams and Company again met with rich stone, 18 tons returning 156 ozs. of gold, and the other parties treated larger quantities of stone for an average yield of over an ounce per ton, working from the surface to 160 ft in depth. ^{cvii}

Sept 1864: Quartz Reefs, and no. of claims and men: Nimrod Reef: 9 claims, 42 men. ^{cviii}

1865: Parties reporting yields from quartz crushings in 1865: Powell and Son, Lewis and Company, Jones and Company, Bowan, Evans and others. ^{cix}

March 1866: continuations of the Nimrod and Quartz hill reefs have been taken up for a long distance. ^{cx}

1866: Parties reporting yields from quartz crushings in 1866: Lewis and Company, Jones B., Powell, Jones D.W., Williams, Jones and Company, Davies, Price, Powell and Jones. ^{cxii}

1867: Parties reporting yields from quartz crushings in 1867: Sherry, Bowan or Bowin, Jones, Lewis and Company, Sherry and Jones, Jones B. and Company. ^{cxii}

June 1868: Upon the Nimrod Reef the returns are small, in consequence of most of the claims being worked to water-level, 112 feet. The claim holders are about to amalgamate and sink a shaft 300 feet upon which to place an engine to drain and wind from all claims interested. Rich deposits are proved to exist under the water-level, above which over 12,000 ozs. have been obtained, the average yield being 1 oz. to the ton. ^{cxiii}

1868: Parties reporting yields from quartz crushings in 1868 - Lewis and 5 others, Jones and 7 others, Ten claims.
cxiv

3 July 1871: Tributes: B. Jones and Co., Crown Nimrod Co. (will sink shaft in central part of claim). cxv

7 July 1871: Crown Nimrod Co. - directors decide to sink new shaft to 140 ft. cxvi

14 Aug 1871: Paull and Co. cxvii

15 Aug 1871: Crown Nimrod, Lewis and Co. cxviii

28 Aug 1871: Jones and Co., Crown Nimrod - shaft down 60 ft. cxix

18 Sept 1871: Nimrod Private Co. cxx

Sept 1871: On the Post-office, Nimrod, Argus, Dead-cat, and Burns reef, shafts are being sunk to work the deeper leads. cxxi

Dec 1871: Nimrod Reef - The Crown Company are working full handed, sinking shaft to 150 feet; they have erected a whim, and determined to find continuations of some of the rich leads of former years. The North Nimrod have cleaned out a 90-foot shaft, and are sinking it deeper. Upon the miners' right claims very little is being done, nor can be until the amalgamate and sink deeper. cxxii

10 June 1872: New North Crown Nimrod - eastern shaft is down 70 ft. cxxiii

June 1872: On the Nimrod and Manchester Reefs new plants are being erected to work below water-level. cxxiv

Sept 1872: On the Nimrod Reef the Crown Company find it necessary to increase their capital and erect proper steam machinery for draining the reef, which, above water-level, has averaged nearly 1 oz. to the ton. cxxv

29 Jan 1873: North Nimrod Co. - have suspended operations for six months. cxxvi

Sept 1873: On the Nimrod Reef a 14 horse-power engine, with drainage machinery, is nearly completed. Its efficient working will enable all the mines of this rich line of reef to carry on operations below water-level upon golden quartz followed to that depth some years ago. cxxvii

March 1874: The Crown Nimrod engine-shaft is down 180 feet, and has drained the reef above that level, having struck the reef. cxxviii

March 1875: The late Crown Nimrod is being worked as a co-operative company. cxxix

Sept 1878: The Nimrod Reef Company have completed erection of machinery, and now have one 16-horse power engine for pumping and winding, and one 12-horse power to drive battery, and start with good prospects. cxxx

March 1880: On the Crown Nimrod, a reef underlying west (situate west of all previous workings which underlayed east, and apparently forming the west leg of a saddle-reef) has been found in a fine slate country; a trial crushing yielded 18 oz. 8 dwts. from 16 tons taken from a large body of stone. cxxxii

Sept 1881: On the Nimrod Reef, Lewis and Co. have just discovered, east of their old workings, a new make of quartz, which shows gold freely. cxxxiii

Sept 1884: ..the Crown Nimrod Company have sold out to a party of practical men. cxxxiiii

Dec 1884: The Crown Nimrod, having effected necessary repairs and improvements to machinery and mine, have commenced driving for the several gold-bearing lodes known to exist. cxxxv

Sept 1887: The Crown Nimrod mine has been purchased by a Melbourne syndicate. cxxxvi

March 1888: The Nimrod Reef upon which the deepest shaft is 180 feet, and from which 22,325 tons yielded 16,670oz. of gold, remained for years past unworked, and unproven below water level. The Crown claim has changed hands at a nominal price and is to be worked. ^{cxxxvi}

June 1888: Two other new companies have been registered during the quarter, viz., The White Horse Gold Mining Company, who have added a 10-head battery and extensive housing to their mining plant, and The Crown Nimrod Quartz Mining Company, who are sinking their engine shaft... This latter company have bought out all the claimholder, who for many years have "shepherded" this reef. ^{cxxxvii}

19 April 1899: The Nimrod Reef is now about to lose its ancient cognomen for the still more ancient and probably more apropos title of the Mount Alexander Reef. Mr John Cooper, in our issue of to-day, advertises application for lease of this historical mining ground, on behalf of the Anglo Mount Alexander Company. Of all the large yields of gold from old Forest Creek, none have excelled those from Nimrod - or Donkey Reef, as it was first known by. The four claims within the present Company's area, viz., Powell's, Lewis's, Jones's, and Bowen's, returned over 150,000 oz of gold from the surface to 95 ft in depth. There is a well-defined lava dyke lode, with numerous spur leades, also strongly formed indicator, running almost parallel (strike 344) from which yields as high as 300 oz to the ton were crushed in the palmy days of Donkey Reef quartz mining. It is not at all creditable to our local mining enterprise to be informed that the greatest depth to which this future great mine has been worked is 110 ft. The line of reef is one of the best defined in the district, and has been traced for about 10 miles, where it commences its course south of the White Horse Reef in the Fryers district and butts against the granite of the Mount Alexander range, north of the old Specimen Gully mine... the late Mr T.L. Brown, mining surveyor, who was on the field in the early fifties, computed that in the two short gullies - Donkey and Golden - running eastwards into the source of Forest Creek at Golden Point - over 21/4 tons of gold were won in a few months' time. ^{cxxxviii}

28 April 1900: Some of the richest surface finds, both quartz and alluvial, obtained in the early days, came from the property now held under lease by the Capper's Reef Gold Mining Company. The lease, which comprises about 41 acres, lies immediately south of the Specimen Reef mine at Barker's Creek, and although the line of reef has not been positively identified, it is generally believed to be the favourably known Nimrod line. ^{cxxxix}

19 June 1900: The Golden Point Mine - it is a new line, about 300 feet east of the Nimrod line. ^{cxl}

17 Feb 1937: Prospectus of Nimrod Developments, No Liability. .. The Nimrod Mine is situated on the fourth line of reef east of the Wattle Gully line about 2 miles north from Chewton. The reef was first worked prior to 1859, and in that year it was considered exhausted. Re-opened in 1861, it had produced by the end of 1886 13,321 tons of ore which yielded 11,040 ozs. of gold, from workings extending less than 150 feet from surface. The claims working on this reef were amalgamated into the Crown Company in 1871, and a main shaft was sunk to a depth of 180 feet. This shaft is considered to have been placed too far west to locate the downward trend of the auriferous formations. It was deepened to 260 feet in 1888 by a subsequent company, but due to the apparent lack of interest in the field at the time little development was carried out and the mine was closed down.

The total recorded production from the Nimrod workings was 22,325 tons of ore which yielded 16,670 ozs. of gold..

The Nimrod Reef. The reef has been extensively worked between Donkey Gully on the south and Golden Gully on the north, an apparently continuous distance of 20 chains. North of Golden Gully no gold has been found. The north end of the reef has been worked from a number of rather closely spaced, small vertical shafts, which do not seem to be deeper than about 109 feet. From the heads of the north-south gully which lies on the east side of the workings and junctions with Golden Gully, a tunnel, giving very limited backs, has been driven about 250 feet, commencing on a bearing of 225 degrees and turning to 270 degrees. Connection has been made to surface, and at 230 feet from the mouth a shallow winze has been sunk. In the tunnel a reef, apparently up to 5 feet wide and dipping east at a very flat angle, has been stoped.

The middle section of the reef has been worked by an open cut about 500 feet long, 60 feet wide and 50 feet high on the western side, from which a large tonnage has been won. Winzes have been sunk below the floor of the cut for an unknown depth. These workings have an easterly dip, and on the western side, dipping west, is a reef which may be the western leg of a saddle.

Between the open cut and Donkey Gully are shafts, and small open cuts. On the northern side of the gully a main shaft, now collapsed at the collar, has been sunk to a depth of 260 feet. An anticlinal fold is reported to be exposed in the south end of the workings...

Detail in the [Bulletin No. 2 issued by the Department of Mines] respecting the "Burns-Nimrod" line of reef discloses that from the small amount of effectual development on this line the following results were obtained.

Burns Claim	2890 tons for 2402 ozs
Little Burns Claim	65 tons for 322 ozs.
Blarney Claim	1261 tons for 1111 ozs.
Nimrod Claim	22325 tons for 16670 ozs.
Specimen Gully	7093 tons for 2929 ozs.

Total 33734 tons for 23434 ozs.

The 'Nimrod' claim was worked through the open cut to a depth of approximately 140 feet. No deeper development work has been carried out on this section of the lease...

The following reports on the property are submitted for subscribers' information:...

Dear Sir,

The open cut on the Nimrod mine is the largest in the Castlemaine district....

W. Baragwanath

Director of Geological Survey

WATER: This is an essential item and the leases are particularly fortunate in having a plentiful supply of water carried by a race which runs within 500 feet of the proposed position of the plant. ^{cxli}

March 1937: Chewton Mining Boom

Rush Days Recalled

Due largely to the remarkable success of the Wattle Gully Mine, which is paying shareholders large sums in dividends and bonuses, the Chewton field now presents a scene of activity reminiscent of the "gold rush" days. Central Wattle Gully, which was floated on Wednesday, had all its 60,000 shares taken up on the day of flotation. Miners believe that there are large bodies of payable ore in the district which have never been properly investigated. Twenty companies have now taken up leases, and eight of them have begun their prospecting work. Wattle Gully is the only company passed the prospecting stage.

The companies which have begun shaft sinking are:- South Wattle Gully, North Chewton, Golden Wattle, Upper Barkly, Post Office Hill, North Wattle Gully, Chewton, and Wattle Gully Extended. Other companies which have not yet begun operations are :- Chewton Prospecting Syndicate, Eureka Vineyard, Hog's Reef, New Garfield Gold, Nimrod Development, Central Wattle Gully, Chapman Gold mines, Mimisa United, Argus Hill, and also Juniper and Maddigan's sluicing party working alluvial ground on Chewtons G.M. area. Almost all these companies have been launched since Wattle Gully struck its payable reef. ^{cxlii}

1946: At the Chewton mine no active operations were carried on, but work was commenced by the company on the Nimrod lease where a shaft was sunk to 168 feet. ^{cxliii}

June 1947: Chewton. Mine Manager, J. Barsby. Only water bailing operations were continued at the main shaft of this mine, and work at the Nimrod lease ceased at the beginning of June. ^{cxliv}

1990: Welsh Village - top of Golden Gully. Major Mitchell is supposed to have come through Golden Gully. Ruins of at least five house sites and several outbuildings, mine workings and sections of roads. The Victorian Archaeological Survey has examined the ruins.

North of the Welsh Village, on both sides of a feeder gully, are about 25 well-formed mounds of rock. This area was once part of the Faraday Common. Some locals view the mounds as graves.

Going south from the Welsh Village, along the line of the Nimrod workings, is the site of the Nimrod mine; the East Nimrod was further down in the gully [all that remains of the East Nimrod are shafts and mullock].

Nimrod mine - On the top of the ridge separating the two gullies is a large open-cut belonging to an early phase on mining here... partly filled by mullock from later re-workings. In the open-cut is a tunnel - probably a haulage tunnel - called Jones' Adit. Jones and Lewis dug the tunnel and filled in the open-cut with the mullock. The Nimrod mine was re-worked in the 1930s. Jim Lindsay worked here then. Above the open-cut are large slate quarries, worked in the 1950s. At that time, the tunnel described above was utilized as a powder magazine. ^{cxlv}

DESCRIPTION

In regards to quartz mining, Golden and Donkey Gully are inextricably linked. Through the heads of both these gullies ran the Nimrod or Donkey Reef. The quartz workings are the results of various mining ventures, dating from 1857 to late 1930s. The round chimney stack and flue probably represent the remains of one of the three quartz crushing machines, shown to exist in the gully during the late 1850s/early 1860s. The house sites most likely date to the quartz working years of c.1860+. The slate quarry was opened in the 1950s.

Site 5 - At the head of Golden Gully are the remains of several stone houses and out-buildings (locally known as the Welsh Village). On the ridge above, separating Golden Gully from Donkey Gully are some mine workings including shafts and a very large open-cut. The open cut has been partly filled by mullock from later phases of mining. In the open-cut is a tunnel (probably a haulage tunnel) which the locals refer to as Jones' adit. Above the open-cut is a modern slate quarry.

NE of the Welsh Village are about 25 well-formed mounds of rock.. This area was once part of the Faraday Common, and some locals believe that the mounds are graves. This site, and Site 6, have been extensively surveyed and recorded by the Victoria Archaeological Survey.

Site 6 - Near the head of Donkey Gully, on the N side, is small machinery site consisting of a round chimney stack, 1.5m diameter. The stack is constructed mainly of clay, with some stone. A flue leads downhill from the stack.

To the E of the stack and flue is the site of the True Blue Britain Hotel and immediately opposite may be the site of the Nimrod Hotel.

PHOTOS: Black and White

ARTEFACTS: None visible

INTEGRITY/CONDITION: Good

THREATS:

CULTURAL SIGNIFICANCE:

The site has:

- | | |
|---------------------|--|
| Social Significance | - The remains of the house sites, and associated outbuildings (collectively known as the Welsh Village) hold considerable local significance, as reflected by the formation and activities of the Mt Alexander Diggings Development Association (MADDA) to defend the site from proposed mining exploration in 1988. |
| Cumulative Value | - The place has high scientific significance due to the survival of a broad range of historic mining relics. The place also has an ambience of isolation and abandonment. |

Significance ranking **National Estate**

CONSERVATION POLICY:

Significance of the place comes from the look and feel of the place, from the survival of several stone houses and outbuilding in a quartz mining landscape.

RECOMMENDATIONS FOR IMPLEMENTATION:

Site be protected. The Nimrod sites are at the moment not in the Castlemaine-Chewton Historic Area. Their inclusion would greatly add to the Historic Area's ability to display the various phases which underlay the mining tradition which developed in the district. These sites are contained within an area covering approximately 0.4km x 0.6km .

Assessor: David Bannear

Date: 1993

SITE NO. & NAME: 7 CAPPERS REEF WORKINGS

LOCATION: Cappers Hill/Reef

DIRECTIONS: Moonlight Pine Plantation, head of Launceston Gully.

MAP/GRID REFERENCE: Chewton 1:25,000 - 564.975

PARCEL NUMBER: P120342

MUNICIPALITY: Metcalfe

LAND STATUS: Reserved Forest

EXISTING HERITAGE CLASSIFICATION: None

PRESENT MANAGEMENT/USE: LCC Rec - F3

HISTORY:

early 1850s: This reef was discovered during the early part of the fifties, and yielded wonderfully rich returns to the parties that first worked it. ^{cxlvi}

August 1859: 3 claims working, 11 miners, Launceston Gully Company. ^{cxlvii}

August 1859: List of public companies in existence, and contemplated [includes]: Launceston Gully Quartz-Mining Company, Capper's Reef, 600 yards, projected. ^{cxlviii}

Nov 1859: .operations commenced ... on the Capper's. ^{cxlix}

Feb 1860: Some of our quartz companies are progressing satisfactorily; one other engine of 20-horse power has just been added to our crushing machinery by the Capper's Reef Company. ^{cl}

May 1860: The Capper's Reef Company have arranged their differences with the contractors for machinery, and their plant consisting of 20 horse-power engine and 8 revolving stamps, is now reducing their piled quartz, a trial from which yielded above 1 oz. per ton. ^{cli}

July 1860: Capper's Reef Mining Company - from 15th May to 30th June, 400 tons returned 113 oz. 17 dwt., out of which a dividend of five per cent. has been paid. ^{clii}

29 Oct 1860: Capper's Reef Company - eastern reef, 180 feet - western vein, extending cutting 57 feet in length from the large body of quartz which proves to be 8 inches thick. The deepest shaft in the middle vein is 170 feet down. ^{cliii}

Oct 1860: The Cappers Reef Company have just issued their by monthly report, setting down for two months ending 24th October, £945 realised from quartz crushed. ^{cliv}

Nov 1860: The Capper's Reef Company are not progressing so satisfactorily as when last reported, the run of gold then working being lost, and the company having no reserve fund, the working miners, who are principally shareholders, have magnanimously gone on on half wages rather than the work should be suspended. ^{clv}

Dec 1860: Leases Demised to Public Companies: [include]

Capper's Reef Company

Area of Lease: 19 acres 3 rods 13 1/2 perches

Amount of capital: £6,000

Machinery: Twenty horse-power engine, eight stamps, feed pump, &c.

Value of machinery: £3,034

Cash expended: £4,797 4s 6d

Men now employed: 17

Gold or Value realized by Company: £1,649 9s 4d

Dated: October 24 1860

Remarks: Working. ^{clvi}

end 1860: by the end of 1860, [the Capper's Reef Co.] had expended £4,797 4s., principally on machinery, for a return of £1,649 9s 4d. Work stopped, the yields, at first payable, having become poor.^{clvii}

Feb 1861: The Capper's Reef Company are not at present working, the only person engaged being the manager and engineer.^{clviii}

March 1861: The Eureka Reef, Capper's Reef, and Old Specimen Gully Companies continue inactive.^{clix}

July 1861: The Capper's Reef and Wattle Gully Companies ...[public quartz companies]... are quietly disappearing, but little remains of the companies' property which is dwindling away and dissolution is inevitable.^{clx}

Aug 1861: Capper's Reef Co. lease at head of both Specimen and Launceston Gullies (grid ref. 55HBU566969-55HBU566975). Working Capper's and Aplin's Reef.^{clxi}

Oct 1861: The Capper's Reef Company is at last to be wound up, the directory having disposed of the whole plant, &c. The machinery is to be removed from the district, and the lease abandoned.^{clxii}

Nov 1861: Map shows Lease No 46, 19acres 3 rds 13 1/2 p. - Capper's Reef Quartz Mining Company - 20 hp. engine, grid ref 55HBU564974.^{clxiii}

Nov 1861: The machinery of the Capper's Reef Company has been removed to Muckleford.^{clxiv}

March 1862: Public Companies - Cappers Reef Quartz Mining Association, Specimen Gully, Barkers Creek. Seeing this Association quoted daily amongst the list of our Public Companies, we paid the locality a visit. We were informed that the machinery and all the assets of the Company had been sold off some time, and that quartz was being carted away from it as ballast for the railway.^{clxv}

1866: In 1866 the ground was again taken up by a prospector named Morris (Norris?), whose yields, however, were unremunerative.^{clxvi}

1867: Parties reporting yields from quartz crushings in 1867 - Morris, Norris .^{clxvii}

June 1871: From Capper's Reef, Bibby obtained 83 ozs. 19 dwts. from 148 tons, the result of two men's labor during six weeks; the lode being worked near the surface, on the crown of the hill..^{clxviii}

25 Sept 1871: South Capper's Co., North Capper's Co.^{clxix}

Sept 1871: Capper's Reef is being worked by three companies, each, near surface, are obtaining payable quartz.^{clxx}

Dec 1871: South Capper's Reef Company are down 153 feet, getting gold. The Capper's, Capper's Energetic, and Lady Barkly Companies work by tunnels.^{clxxi}

March 1872: The Specimen Gully Extended, the Imperial, the Hermit, the Lady Barkly, the Cappers, and many other companies throughout the division, are engaged in sinking shafts, or driving tunnels or levels, very few breaking out quartz.^{clxxii}

Sept 1873: A new reef has just been discovered, situate east of the Capper's Reef, reported to be exceedingly rich. It has been taken up for a considerable distance on either end.^{clxxiii}

10 May 1899: Capper's Reef Gold Mining Co. - Have had one crushing of 23 loads for a yield of 7oz 3dwt. The shaft is 153ft deep.^{clxxiv}

2 Dec 1899: Capper's Reef Co. - Present depth of shaft 219.5ft.^{clxxv}

March 1899: Capper's Reef Co.: 20 ton crushed, 7 oz gold.^{clxxvi}

28 April 1900: Some of the richest surface finds, both quartz and alluvial, obtained in the early days, came from the property now held under lease by the Capper's Reef Gold Mining Company. The lease, which comprises about 41

acres, lies immediately south of the Specimen Reef mine at Barker's Creek, and although the line of reef has not been positively identified, it is generally believed to be the favourably known Nimrod line... The shaft at the Capper's mine is not large enough for an engine shaft, and was sunk more as a prospecting shaft, being run down about 15ft east of centre country on the crest of a rather steep hill. The eastern and western legs are visible on the surface having been worked years ago to a considerable length and depth. The shaft was sunk to 153ft in very hard country...

The intention of the company is to sink a main engine shaft 438ft north-east of the present shaft in the lower ground. The site chosen is in every way suitable for a main shaft an machinery site with the exception probably, that it is rather far north. ... They are running about 50 tons through the Specimen Reef battery and will clean up today. ^{clxxvii}

April 1900: Capper's Reef Co.: 74 ton crushed, 30oz gold. ^{clxxviii}

June 1900: Capper's Reef Co.: 72 ton crushed, 19oz gold. ^{clxxix}

Feb 1901: Capper's Reef Co.: 18 ton crushed, 7 oz gold. ^{clxxx}

Sept 1902: Map shows Capper's Reef Company's property - W boundary runs through the head of Launceston Gully, N boundary runs along Norris' Gully and S boundary along Hermit's Gully - workings shown include old shaft, tunnel, shallow workings and open cut on the crown of the hill; two tunnels driven E into the hill - Norris' tunnel is driven from the very head of Launceston Gully, and there is another smaller length of tunnel shown starting further down Launceston Gully; the V.W.S race runs along the N boundary and also touches on the W boundary of the property. ^{clxxxi}

1903: The Capper's Reef Company's lease adjoins that of the Specimen Reef Company, and throughout its full length well-defined centre country can be traced by surface outcrops and reef workings... The present company's old shaft, which was intended as a prospecting shaft rather than for an engine shaft, was sunk near the crest of a spur on the watershed between Norris' and Launceston Gullies, on the eastern side of, but closely adjacent to centre country, to a depth of 220 feet... In tunnels driven south from the northern slope of the hill payable stone was obtained from saddle reef and legs... The shaft...continued to 219 feet, where water-level was met with; work in this shaft was then stopped for want of suitable appliances to cope with water. Work on this lease was suspended until recently, when a start was made at a depth... At the head of Launceston Gully, two tunnels (Norris') started to intersect the reef from the west stopped before reaching centre country. ^{clxxxii}

1990: Going to Cappers Reef, Moonlight Pine Plantation. Used to be several large slate quarries which were worked in the early days, incl ...After Dark quarry (now almost filled in), Gentle Annie, and Break of Day.

Cappers Reef/Cappers Hill - some workings still survive...an open cut, some mullock, also a tunnel driven E into Cappers Hill. Tunnel in good condition, must go in 200 to 300 feet.

Other gullies near Cappers Reef include Smith's and Hermit's gullies.

Pine Plantation - 1919 was the first pine planting, and right over in the back corner was the last planting in 1929. There were 1300 acres planted. [Whose idea was it?]...well, I will tell you...Sir Harry Lawson, he was a big man in Castlemaine (barrister and solicitor)...he got into Parliament and then became Premier of Victoria. Around the end of the first world war, this was one of his projects...was to plant this to supply work for the soldiers coming home. Well, the government could see that they were goin to have thousands of idle men, so they started this.Well, people reckoned they were mad, planting pine on these hard rocky hills. Yet it turned out successful. It was only a stab in the dark because they didn't know. Pine growing was very young then, Creswick was about the only place going at the time. It created a bit of work and kept the returned men quiet. It was all hand work. Lots of roads put in since by bulldozers, and alot of the old slate quarries filled in. Everything's been bulldozed about. ^{clxxxiii}

DESCRIPTION

Mine Workings : Remains consist of an open-cut and some mullock on the crown of the hill, and a tunnel driven E from the head of Launceston Gully The tunnel at the head of the gully would be the one named by Baragwanath (1902) as Norris' tunnel. Norris prospected on the reef during the late 1860s. He may have commenced the tunnel. If not, it was dug, and named in honour of the prospector, by one of the three companies - South Capper's Co., North Capper's Co., and Capper's Energetic - who worked the reef in the early 1870s.

PHOTOS: None taken

ARTEFACTS: None visible

INTEGRITY/CONDITION: Good

THREATS:

CULTURAL SIGNIFICANCE:

The mining site has little historical significance, but some scientific value to the well preserved nature of the adit. The whole area is now covered by part of the Moonlight Flat Plantation. It is to this more recent phase of its history that the site owes its historic and social significance. The first pine planting were in 1919, providing work for soldiers returning from the First World War. Subsequently, the plantation has become one of Victoria's most successful.

Significance ranking**Local**

CONSERVATION POLICY:

None required

RECOMMENDATIONS FOR IMPLEMENTATION:

None

Assessor: David Bannear**Date: 1993**

SITE NO. & NAME: **SEBASTOPOL REEF & LADY GULLY SITES**
8.0 Sebastopol Hotel
8.1 House site
8.2 House site
8.3 Stone structure

LOCATION: **Sebastopol Reef & Lady Gully**

DIRECTIONS: Sites lie to the north and south of Stronells Road, Moonlight Flat

MAP/GRID REFERENCE: Castlemaine 1:25,000 - 552.961

PARCEL NUMBER: P121060

MUNICIPALITY: Metcalfe

LAND STATUS: Unreserved Crown Land and Freehold Land

EXISTING HERITAGE CLASSIFICATION: None

PRESENT MANAGEMENT/USE: LCC Rec - N/A

HISTORY:

1852: In 1852, [Lady Gully] was opened up by the discovery of rich alluvial, and several parties had no difficulty in securing competences. Many Germans gathered there, hence the original company was known as The Germans. clxxxiv

1854: . then returned to Moonlight Flat, and, from what the police call "information received," or, as the diggers would say, "laid on," I and two others set to work on a quartz reef in Lady Gully, now known as "The Sebastopol Reef." There commenced my first experience in quartz mining, if it can be called such. I prefer giving the details of this to my tub and cradle work, as it may prove suggestive, if not interesting, at this particular time, seeing it is our only hope for the future, and will ultimately prove a source of wealth more permanent and useful than gold mining in the alluvial... [At Tarrengower, Christmas 1854] ...we broke up with hammers... we left the tailings in the gully, intending to wash them over again, as we could not save all the gold... We were, unfortunately, without knowledge or experience to turn such a discovery to proper account, there being no machinery for crushing or amalgamating. clxxxv

9 Nov 1855: The quartz reef running across Lady's and Dirty Dick's Gullies, Moonlight Flat, continues to be worked with vigor, and the line of reef is taken up a mile in length, extending north and south of the rich claims on the south side of Lady Gully. clxxxvi

1855: ...returning to Lady Gully to find it rushed. This time some good patches were obtained. We sank two holes on the south end of the hill. No doubt many here will remember the interminable disputes, and police court cases of "assault and battery" which took place between two men named Goss and Nathan, brothers-in-law. They had a good patch in leaders, for I saw, taken out of their claim, a piece weighing 21 dwts. of solid gold. After five months of unprofitable labor, we left Sebastopol Hill. clxxxvii

1855-60: We were the first to break ground at Sebastopol south, half-a-mile from Old Sebastopol, where we obtained a good prospect, but it ran out, as usual. At several other places I found gold in the quartz, and registered double claims for the discovery. The price of crushing was at first £7 and £5 per ton, and afterwards £4-10/- per ton. We carted a ton from the top of Moonlight Flat to the Colin Campbell machine at Winter's Flat, and although it yielded 4 ozs. 4 dwts. to the load we only divided, after paying expenses of carting and crushing, &c., about 13/- per man of four in the party. clxxxviii

23 May 1856: 15 ton yielded 156 oz. clxxxix

19/7/1857: Reefs being worked: Bolivia, Town, Eureka, Lower Wattle Gully, Specimen Hill, Mt Alexander, Golden Point, Dirty Dick's, Old Specimen Hill, Sebastopol, Specimen Gully, Barker's Creek. cx

5 Nov 1858: Worked by about 5 claims. cxci

26 Nov 1858: Opened three years ago - was abandoned after one year, but has since been rushed. cxcii

August 1859: Sebastopol Reef, Lady Gully - 8 claims, 40 miners. ^{cxci}

August 1859: Steam Machinery employed in quartz-crushing: Elpit and Company, Sebastopol Reef, 12 h.p., 12 head of stamps, pumps, &c. ^{cxci}

Dec 1859: In quartz crushing machinery, we have added during the month, an 8-horse power engine, driving 16 head of stamps, erected on the Sebastopol Reef, at a cost of £1,500. ^{cxci}

May 1860: [Returns from quartz reefs] include Sebastopol Reef, Owner Lewis, Tons 2, Yield 179 oz. 12 dwt. 18 gr. ^{cxci}

21 Sept 1860: Reef divided into three claims: Hope and Co., Lewis and Co., and Irwin and Co. ^{cxci}

2 Nov 1860: Reef still averaging 80 to 100 oz per week. ^{cxci}

Nov 1860: Numbers & Occupations of Miners: - Europeans: 2 tub and cradle workers. ^{cxci}

21 Dec 1860: Warwick and Co. - Depth 160 ft - southern end of Sebastopol Reef, where it dips towards Dog Leg Gully. ^{cc}

Dec 1860: Quartz Reefs actually proved to be auriferous: Sebastopol Reef

No. of claims: 10

Extent of claim: 1,337 feet

No. of men employed: 37

Quartz Reefs actually proved to be auriferous: Sebastopol Reef

No. of claims: Lease

Extent of claim: 412 feet

No. of men employed: --

Extent of Reef prospected: 2,650 feet (claims and lease combined)

Exceeding rich from surface to present depth of 160 feet. ^{cci}

Dec 1860: Quartz leases applied for and surveyed, but not yet demised: [include]

Sebastopol Reef Company

Applicant: Gordon and Company

Area: 2 acres

Feet on reef: 412

Machinery: (proposed) Steam pumping machinery. ^{ccii}

1860's: ... The richest of the shafts were Elfer's, a crushing from which gave 115 oz. from 55 tons, when water came in and flooded them out; and Straede's shaft, 120 feet deep from the surface...gave 2 oz. to the ton. This party paid between £900 and £1000 in 18 months in tribute money (royalty) in Dr. [Ir]win's shaft... The Bendigo company's shaft, 280 feet, was rich in places, 400 tons yielding 800 oz. and 17 tons 32 oz. gold... Lewis Amalgamated was good, and Lewis "cutting" was exceedingly rich, but was only worked to a depth of 30 feet. ^{cciii}

15 Jan 1861: Sebastopol Reef - Bendigo Co. has raised hopes of claim owners on the southern slope of the hill - 38 tons yielded 22 oz. Stockport Co. - 68 oz. ^{cciv}

25 Jan 1861: There is a large body of mineral claims in Dog Leg Gully - but too far from machinery. ^{ccv}

15 Feb 1861: Lewis and Co. - struck rich lead on opposite side of the Gully. ^{ccvi}

Feb 1861: The Sebastopol Reef continues to yield its weekly return from the old claims, and during the month additional claims have proved payably auriferous on both north and south continuations. This reef has long been one of the richest and most regular in yield in the division. ^{ccvii}

March 1861: On the Sebastopol Reef the claimholders have wisely combined for the purpose of erecting steam machinery for draining, having purchased, and are now erecting the engine and pumping apparatus formerly belonging to the Chapel Hill Company, Fryer's Creek division. ^{ccviii}

Aug 1861: Elfer's & Co. gold mining lease, 2 acres in middle reaches of Dog Leg Gully (grid ref. 55HBU554956). Working Sebastopol Reef. ^{ccix}

Aug 1861: A series of small leases run N-S for the length of Sebastopol Reef, from between Nicholson's and Lady Gullies to the northern boundary of Elfer's lease on Dog Leg Gully. Starting from the most northerly, these leases are labelled as follows: Horbat, Larsis, Fischer, Gaffney, Hoffman, Straeda, Bach, Irwin, Morris, Smith, Gordon, and Helfer's & Co. ^{ccx}

Aug 1861: A shaft is located on Sebastopol Reef, S of Nicholson's Gully, on N boundary of Horbat's lease (grid ref. 55HBU554963). ^{ccxi}

Aug 1861: Smith's small lease is at the head of a gully running from Dog Leg Gully along Sebastopol Reef, and has a pumping engine and shaft, 162ft deep (grid ref. 55HBU554958). Working Sebastopol Reef. ^{ccxii}

Aug 1861: On the NE side of the junction of Lady Gully with Nicholson's Gully is Irwin's horse-powered crushing machine (grid ref. 55HBU552962). ^{ccxiii}

Aug 1861: Elfers & Co., 12hp engine and 12 stamps, situated on S side of Lady Gully's middle reaches. Associated with large dam across gully at this point. (Grid ref. 55HBU 553961). ^{ccxiv}

Aug 1861: Buck & Co., 10hp engine, 12 stamps, situated on S side of head of Lady Gully. Associated large dam at head of gully. (Grid ref. 55HBU555961). ^{ccxv}

Nov 1861: Map shows Irwin's Horse Power Crushing Machine, on N side of Lady's Gully, where it joins with Moonlight Flat - 55HBU550962; Elfer's & Co's 12 HP Engine, S side of Lady's Gully, plus dam in gully - 55HBU552961; Buck & Co's 10 HP Engine, located at the head of Lady's Gully, associated with dam - 55HBU554961. ^{ccxvi}

Nov 1861: Map shows Pumping Engine located on Sebastopol Reef, Dog Leg Gully (grid ref. 55HBU554958) . ^{ccxvii}

Dec 1861: The Sebastopol Reef, which for several years has been one of the most regularly remunerative in the district, has lately much fallen off in its yield, several claims being abandoned. ^{ccxviii}

1860's: [Although Ray Bradfield suggests there was a village in Lady's Gully in the 1850s, the mining survey map of Nov 1861 shows the gully occupied by quartz crushing machinery. Presumably the village post-dates this.] ...Let us begin at Lady Gully, where Stronells Road joins the main road. Nowadays, it is easier to walk the two hundred yards or so through the site of the old village, over the rough pavement to the beginning of the pine plantation. On the corner of Stronells Road, one cannot help but notice the massive walls of sandstone blocks around a field built up with manual labour. These formerly enclosed an orchard of fruit trees. On the hillside above stands the solid brick home built by the Lewis family... All the way along Lady Gully can be seen the traces of the houses and shops which formerly made up the village... The most extensive site was formerly occupied by the Sebastopol Hotel, a large business established by the Hoffman Family, who also operated □ a butcher's shop. They also held a gold-buyers licence... The Hoffmans left the old place about 1890, I'm told, and the building was gradually removed. About all that is left now are the the large underground tanks, the domes of which can be easily seen...

The old home just inside the pine plantation was built by a Mr Straede, and was the last home occupied in Lady Gully...

The last home which had any permanence here was built by the Stronells. Mr Stronell was one of the first men on Moonlight, and he did very well. ^{ccxix}

26 Sept 1862: For many months, reef has been unproductive - attributed to lack of pumps - however, arrangements are being made. ^{ccxx}

Sept 1864: Quartz Reefs, and no. of claims and men: Sebastopol: 2 claims, 14 men . ^{ccxxi}

10 Aug 1864: Lady Gully - Lewis and Co. - 50 tons yielded average 14 dwt/ton. ^{ccxxii}

12 Sept 1864: Reef on top of Lady Gully called Great Britain Reef. ^{ccxxiii}

Sept 1864: No./Location of Alluvial Miners - Lady and Nicholson's Gullies - Europeans: 13 puddlers, 14 ordinary miners. ^{ccxxiv}

1865: Parties reporting yields from quartz crushings in 1865 - Straede and Company, Lewis and Company. ^{ccxxv}

1866: Parties reporting yields from quartz crushings in 1866 - Streade, Lewis. ^{ccxxvi}

1867: Parties reporting yields from quartz crushings in 1867 - Lewis and Sons, Staley and Co., Streade and Co. ^{ccxxvii}

Dec 1867: Straede and Company have also ceased working Dr. Irwin's claim, their time having expired. ^{ccxxviii}

March 1868: On the Sebastopol Reef, Straede and Co. have found a new reef yielding nearly 1 1/2 oz. per ton, and have again taken Dr. Irwin's claim on tribute. ^{ccxxix}

1868: Parties reporting yields from quartz crushings in 1868 - Streade and Co., Lewis, Straide and Lewis. ^{ccxxx}

4 Sept 1871: Straede and Co. ^{ccxxxii}

25 Sept 1871: Lewis and Co. ^{ccxxxiii}

5 Dec 1871: Lewis Amalgamated claim - have 1130 ft (north to south) on lease passing across Dog leg Gully - sinking shaft 40 ft from where rich leaders were found at Straede's. ^{ccxxxiv}

19 Dec 1873: Golden Crown Co. - driving west from water level. ^{ccxxxv}

Dec 1871: The Sebastopol Reef - All the old claims, except Straede's, have been purchased by the Lewis's Amalgamated Company, who are sinking a new shaft (now 55 feet), and purpose working energetically. The North Sebastopol Company are down to water 180 feet, and erecting a whim. Straede's Company and the Golden Crown Company are also sinking. ^{ccxxxvi}

March 1872: On the Devonshire and Sebastopol Reefs, where water has much impeded work, first-class machinery is being delivered; whilst upon the lines of reef, new poppet-heads, whims, whips, &c., indicate the sites of new main shafts...

On the Sebastopol Reef, Lewis' Amalgamated Company are very busy sinking engine-shafts, erecting machinery, &c., on the south end of their lease, toward which all the gold-bearing lodes strike. Their working will drain this reef, and enable the Golden Crown, Straede and Co., the North Sebastopol, and other companies, to work below the water-level.. ^{ccxxxvii}

June 1872: On the Sebastopol Reef, Lewis and Co. are still sinking - now 330 feet - and are cross-cutting at 180 feet. The North Sebastopol are driving on the reef at 262 feet, finding a little gold.

The Golden Crown, Working Miners, and other companies on this line, are still prospecting. ^{ccxxxviii}

25 July 1872: Golden Crown Quartz Mining Co. - main shaft down to 90 ft. ^{ccxxxix}

30 July 1872: Working Miners' Co. ^{ccxl}

Sept 1872: The four extensive plants being erected last quarter, viz., the Warren's Reef, Devonshire, Lewis's Amalgamated, and Chewton United, have been completed, and working very satisfactorily so far as the machinery is concerned, but it will yet take some weeks before the main shafts and levels are sufficiently advanced for supplying quartz from the lodes; in each case the sinking is being pushed forward with three shifts of men. ^{ccxli}

March 1873: The Lewis's Amalgamated, Sebastopol Reef, are progressing very energetically with erection of 35 horse-power engine, with crushing, winding, pumping gear, &c. complete. They have an extensive mining plant and a proved rich mine. As soon as the poppet-heads, tram and pumps are finished, which they expect three weeks will accomplish, a start will be effected. ^{ccxlii}

June 1873: ... the Lewis Amalgamated Company are still sinking; now down 270 feet, with improved indications.... The North Sebastopol Company, at 210 foot level, struck a reef 7 feet wide which shows gold. ^{ccxliii}

Dec 1873: The deepest mines in this division are - ... [2nd] the Sebastopol, 413 feet, and crosscutting at 400 feet. ccxliii

28 Jan 1874: Working Miner's Co. - ...We also had 53 tons of the stone which was lying on top of the old shaft from the commencement, crushed at the Lewis' machine, and obtained 34oz from it. ccxliiv

March 1874: The Lewis's Amalgamated, at a depth of 400 feet, have cross-cut 128 feet east, and cut a reef 5 feet carrying a fine flucan on the hanging-wall.. ccxlv

June 1874: The Lewis's Amalgamated have driven on the 400-foot level; but in each face the reef is much broken and mixed with sandstone. They are now cross-cutting at 250 feet, having quartz leaders in the face; also driving along the reef at the 180-foot level, to which depth rich gold has been obtained. ccxlvii

20 July 1874: Lewis's Amalgamated - The Bendigo shaft has been put in order, the ladderway repaired...so everything is ready to commence a level south to connect the workings. ccxlviii

29 July 1874: Working Miners Co. - Your directors regret that on account of the falling off in the yield of gold calls had to be made to carry on the operations of the company, and unfortunately those calls have not been responded to as they had reason to expect, owing partly, no doubt, to the very depressed state of business in the district; this, however, has had the effect of determining them on suspending operations rather than incur liabilities which might be difficult, if not impossible to meet. We have applied for a suspension of the labour covenants for three months, and now leave it with you to determine as to the future working of the mine. ccxlviii

15 Jan 1875: Lewis' Amalgamated Co. - Sixth Half-yearly Report. - Your directors beg to report that during the past half-year a large amount of prospecting has been done in your mine, but without any satisfactory result being obtained. The 180 foot level, which had been commenced at the close of last half-year to connect the engine shaft with the bottom workings in the 'Bendigo Claim', was driven a distance of 186 feet, when a winze was sunk and a connexion effected. About 100 feet of this level was driven in quartz, several trial crushings from which were made, but did not prove payable. Stopping was commenced, principally in the northern portion, and various crushings amounting in the aggregate to 356 tons, resulting in a yield of about 15 oz retorted gold. There being no appearance of any improvement, work was temporarily suspended in this level, until recently when a crosscut was commenced west to prospect the ground in that direction. It is now in 23 feet in hard sandstone, without any appearance of quartz... The machinery is in first-class working order; the batteries have been engaged a considerable part of the time in crushing for the public, 1586 tons have been put through, for which £586 3s 11d has been received. ccxlix

Dec 1875: Many of our old lines of reef are at present unworked, as the Sebastopol, Caledonia, Volunteer, Specimen Gully, Dead Cat, Fortuna, and others. ccl

Dec 1877:: The Ajax, Devonshire, White Horse, Manchester, Nuggety, Cumberland, Burns, Caledonia, Old Quartz Hill, Sebastopol, and other noted reefs, continue unworked. ccli

March 1878: The New Caledonia, Dan O'Connell, Burns, Nimrod, Sebastopol, Fortuna, and other quartz reefs are being worked with better prospects. cclii

22 April 1878: A new reef to the east of good promise has been struck in Lady Gully by the Sebastopol Crushing Co., at a depth of 50 feet. It is between 6 and 8 ft wide and widening as it goes - gives 8dwt to the ton. ccliii

14 June 1880: Sebastopol Crushing Co. - 4 oz 8 dwt. ccliv

June 1884: On the Sebastopol Reef, Fischer and Co. have found a surface leader yielding splendid specimens. cclv

March 1886: The Sebastopol mine and plant has been purchased by a Castlemaine syndicate, who purpose to properly work the same. cclvi

22 July 1886: Lease 1824 working Sebastopol Reef heads south from Lady Gully towards Dog Leg Gully (mid grid ref. 554960). cclvii

1903: The Perseverance Co. (at Lady Gully), after doing a good deal of prospecting work at the 140 and 200 feet levels, struck stone in a rise over the 140 ft. level There is a good winding plant on this mine. cclviii

Dec 1904: Perseverance Co.: 340 ton crushed, 31oz gold. ^{cclix}

1904: The stone in the Perseverance Company's mine, which yielded over 1/2 oz. to the ton when tried at the Spring Gully battery, prior to the company erecting its own battery. ^{cclx}

1908: Work has been resumed at the Perseverance mine, Lady Gully, by a new company under the old name. ^{cclxi}

June 1909: Perseverance Co.: 57 ton crushed, 14oz gold - W. M. Bull, Legal Manager . ^{cclxii}

Sept 1910: Perseverance Co.: 45 ton crushed, 4oz gold. ^{cclxiii}

c. 1910: The next show of importance is the Sebastopol, now kept going by a local company, called the Perseverance, managed by Mr W. McLeod Bull. The history of this mine, situated in Lady Gully, has been one of much variety... They are now at 180 ft, with hopeful prospects. There is a good plant and battery on the ground. ^{cclxiv}

1910: The Perseverance Company has worked in a very half-hearted way with two men underground, and have not discovered anything payable. ^{cclxv}

1912: Castlemaine

Quartz mining in this division has, I regret to report, in no way improved during the year. Three companies, viz. the Chewton Gold Mines, the Perseverance, and the Bendigonian Gold Development have closed down and sold their extensive winding and crushing plants. ^{cclxvi}

1972: Further up, the large mullock dump in the gully marks the site of the Perseverance mine, which was one of the quartz shows operated by the Lewis's. ^{cclxvii}

DESCRIPTION

The pine plantation has obliterated the quartz workings which may have been situated at the head of the gully. The stone buildings match with local historian, Ray Bradfield's, descriptions of a village. Certainly the site of the Sebastopol Hotel is still visible, and the house erected by the Lewis family, who were quartz mining in the gully as far back as the mid 1860s, is still lived in. The use of stone and the fact that the November 1861 plan shows the gully occupied by quartz crushing equipment, suggests the house sites would date from the 1860s onwards. As for the unusual earth and stone structure (Site 8.3) with its circular recessed area behind the fireplace, the historical record is not very helpful. Interpretations for the recessed area, and hence the function of the building, range from a hiding hole for gold, oven, some sort of gold processing kiln, or Chinese shrine.

Site 8.0 - On private property, S side of Lady Gully is the site of an old hotel. Visible from the fence are two brick beehive wells, and footings of two buildings.

Site 8.1 - On the opposite side of the road to site of Sebastopol Hotel, 11m W of the boundary fence to the Moonlight Pine Plantation is a stone structure consisting of a single room, approx. 3.2m x 3.5m, which has a fireplace on SE corner. The structure is in poor condition. Some bricks are present; they are all red, handmade, and have no frog. 13m to the W are the remains of another stone building. This house has two rooms. The walls are still standing, the highest is the N wall (1.4m) and lowest is the S wall (40cm). Overall, the house measures 4m x 6.10m. A fireplace is located in the middle of the E wall and entrance on the N side of the building. The fireplace protrudes 1.5m and is 1.5m wide. 6m to the SW is a smaller structure. Mainly exists as amount of rubble, but a faint outline suggests the building is around 2.6m x 3.4m. In the W corner is a forge (about 1m square).

Site 8.2 - On the edge of Lady Gully, 100m W of Site 8.1 is a stone building. The dimensions are 3.25m wide, 3.6m long, and walls 30 cm thick. A fireplace is located on the NE corner and protrudes 80cm and is 1.6m wide. There is an entrance on the W end of the building. To the north are some more stones, but no structural outline visible. NW of the stone building are some more building remains. By the boundary fence is a what appears to be a fireplace. It measures 1m by 1.2m and stands slightly above ground level. There are two layers of bricks visible (mainly brickbats) which rest on stone footings. The brickbats appear to have no frog, and are 10cm wide and 7cm thick. The rubble contains several red bricks which show considerable wear.

Site 8.3 - 35m N of boundary fence, on private property, are the remains of a stone and earth building. It is oval-shaped, 5.4m wide and 7.2m long. It is a difficult structure to describe. The rear and S walls are mainly stone. The N wall comprises an earthen embankment (about 1.1m thick) which has an outer retaining wall of stone. The rear wall has a central fireplace, oval-shaped (1.2m wide, recessed 1.2m and 88cm high) which has 50cm square opening

at the back. This opens into a circular compartment which has a diameter of 70cm, and is about 30cm high. This small compartment is totally enclosed, no draught hole. The central fireplace has a square chimney (about 50cm) and the stones show they have seen heat. On the S side of the central fireplace is another compartment which is 70cm wide, 88cm high and recessed 50cm. A small chimney is situated at the back of the recess. There may have been another recess on the N side of the central fireplace, but if there was, it has been removed by a collapse in the stonework. The building was entered from the W, and about 5m from entrance is a round depression (approx. diameter of 3m). There are some stonework visible on the side of the depression..

There are other stone building surviving downstream from the surveyed sites; and also one house site with associated outbuilding upstream, about 300 metres into the pine plantation.

PHOTOS: Black and White

ARTEFACTS: Domestic rubbish exposed by treasure hunters

INTEGRITY/CONDITION: Good

THREATS:

CULTURAL SIGNIFICANCE:

The site has:

Cumulative Value	- Important archaeological resource. The place has high scientific significance due to its potential to contribute information on the nature and development of early mining settlement.
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Significance ranking: **Regional**

CONSERVATION POLICY:

The significance comes from the survival of structural remains belonging to the Lady's Gully mining village. The relatively intact and undisturbed relics provided the place with considerable archaeological potential.

RECOMMENDATIONS FOR IMPLEMENTATION:

Sites be protected and a comprehensive archaeological survey carried out.

Assessor: David Bannear

Date: 1993

SITE NO. & NAME: **QUARTZ HILL SITES**
9.0 **South Quartz Hill Co.**
9.1 **Quartz Hill Co.**
9.2 **North Quartz Hill Co.**
9.3 **House Site and Water Race**

LOCATION: **Quartz Hill**

DIRECTIONS: 1.75km north of Chewton

MAP/GRID REFERENCE: Site 9.0: Chewton 1:25,000 - 560.939
 Site 9.1: Chewton 1:25,000 - 560.942
 Site 9.2: Chewton 1:25,000 - 560.948
 Site 9.3: Chewton 1:25,000 - 558.943

PARCEL NUMBER: Site 9.0 and 9.1 : P121393
 Site 9.2 and 9.3: P120329

MUNICIPALITY Metcalfe

LAND STATUS: Site 9.0 and 9.1: Public Purpose Reserve
 Site 9.2 and 9.3: Unreserved Crown Land
 All sites included in proposed Castlemaine Historic Reserve

EXISTING HERITAGE CLASSIFICATION: Recommended as part of proposed Castlemaine Historic Reserve by
 Land Conservation Council (Victoria)

PRESENT MANAGEMENT/USE: LCC Rec : Site 9.0 - J1
 Site 9.1 - U1
 Site 9.2 - U1
 Site 9.3 - J1

HISTORY:

1852: In 1852 the outcrops of quartz attracted attention first at the Old Quartz Hill, where 6 to 8 inches of its eastern face was broken off, roasted, and crushed with hand-hammers, yielding, with these primitive appliances, from 60 to 72 oz. to the foot super.; the surface soil, 6 to 14 inches deep, yielded from 10 to 16 oz. to the tub, with richer patches. ^{cclxviii}

1852: The Old Quartz Hill Mine, discovered in 1852... In 1852 when the claims were only 8 x 8, thousands of ounces were obtained from the surface downwards to 30 feet by breaking it with a hammer, and afterwards abandoned. ^{cclxix}

23 March 1855: On the opposite side of Forest Creek, also, many are actively engaged in erecting puddling machines, particularly at Sailor's Gully and the neighborhood of Quartz Hill. ^{cclxx}

25 May 1855: Two or three quartz-crushing parties on the quartz hill are about to erect machinery. ^{cclxxi}

29 June 1855: During the week, a most promising hill has been discovered at Golden Point, near the residence of the Commissioner, and close to the Creek. The place is called Quartz Hill, par excellence, and a reef has been discovered which is expected to turn out particularly rich. As yet the locality has merely been prospected, but a careful examination has resulted in the finding of a great many rich and beautiful specimens of gold in quartz. These for the most part were picked up on the surface. We have, however, inspected several specimens taken from the face of the reef, which were far superior to any that have been exhibited...from any locality in this immediate neighbourhood. The flats and gullies which surround Quartz Hill have turned out very well; and it is believed that the find at the newly discovered locality will be sufficiently remunerative to warrant the assumption that the alluvial gold found in the lower grounds had been washed down from the hill. As a matter of course, Quartz Hill has been rushed... a circumstance occurred at the newly discovered Quartz hill, Golden Point, which exemplifies...the operation of the new regulations as applied to quartz mining. It seems a party of five individuals...discovered...a quartz vein of more than ordinary richness. In accordance with the clause of the Act regulating the leases of quartz claims, the party applied for a lease, paying down the deposit of twenty-five per cent. on £63 for a claim sixty-three yards in length. The Commissioner acting as Warden handed a receipt for the money, and the party went on their way rejoicing and took possession of their claim. Shortly afterwards the place became rushed, and several miners commenced their operations on the claim belonging to the original party... The Commissioner then read from the

Act, and said that the original party were entitled to their claim, but unfortunately, from the defective state of the police force, he was unable to protect them in their rights..^{cclxxii}

6 July 1855: Quartz Hill - The miners who rushed this place last week have nearly all departed, and the original discoverers of the reef are left alone in their glory. By a curious coincidence it was found that the five claims allotted to the prospectors of the hill exactly took in the whole vein... The claim on the reef...is turning out very well, and from experiments made by the party, they anticipate a yield from the pulverized quartz of six ounces to the bucket... A crushing machine on new principle is being erected at the foot of the hill..^{cclxxiii}

1855-6: Old Quartz Hill, at the head of "Dirty Dick's Gully," was the first quartz mine worked, I believe, in the district, and in the years 1855 and 1856 turned out remarkably rich.^{cclxxiv}

4 March 1856: Dissolution of Partnership. Quartz Crushing Machine... Morris and Co., Quartz Hill, Golden Point.^{cclxxv}

August 1859: 1 claim working, 2 miners, 320 feet claim .^{cclxxvi}

August 1859: Steam Machinery employed in quartz-crushing: Roberts and Company, Old Quartz Hill, 10 h.p., 8 head of stamps, &c.^{cclxxvii}

August 1859: List of companies in existence and contemplated [includes]: Old Quartz Hill Company, Old Quartz Hill, 1000 yards, projected.^{cclxxviii}

Nov 1859: The Old Quartz Hill has been finally purchased and operations commenced on this.^{cclxxix}

May 1860: The Old Quartz Hill Company have purchased, and are now busily erecting, a fine engine of 50 horse-power. At starting, only 24 head of stamps will be used, but the gear is adapted for increasing that number. ...Old Quartz Hill Reef, which report is fully proved by an adit just completed by the company, which is driven on a level with the passes into which the quartz will be tipped for stamping. The tunnel - a good piece of workmanship - is 281 feet long, the first portion principally through sandstone.^{cclxxx}

6 July 1860: Old Quartz Hill Co. - upper adit driven into good lode (60 ft thick).^{cclxxxi}

July 1860: The splendid plant belonging to the Old Quartz Hill Company is erected, and is the most substantial and powerful I have seen in the colony; the company are extending their operations, and increasing their chances of success by a second lease containing a strong auriferous lode, and also by occupying and working claims on the Little Quartz or Scotchman's Hill.^{cclxxxii}

13 Aug 1860: Old Quartz Hill Co. - alluvial surface of this hill was highly productive.^{cclxxxiii}

31 Aug 1860: Tunnel 160 ft long from gully into reef - shaft 120 ft deep - a second tunnel running at right angles with the open cut.^{cclxxxiv}

August 1860: Old Quartz Hill Company's machinery is now working... The machinery just completed comprises a 50 horse-power engine capable of working to 80 horse-power, with 2 boilers 24 feet by 6 feet 6 inches; cylinder, 24 inch, 36 inch stroke; fly wheel, 16 feet diameter, at present driving 24 head of stamps, intended to be augmented to 50 head; self-feeding with 9 inch pumping gear.

The amalgamating apparatus is 9 feet by 9 feet; ripples covered with copper, running thence into Meyerhoff's patent galvanic cradles, in which the oscillating action tends to bring all particles of gold into contact with the copper, and at the discharge of cradles are inclined planes with stops covered with copper.

Two excellent dams are calculated to contain six months' supply of water.

Not only will this mine and plant bear comparison with any in the colony for completeness and durability, but its cost (£4500) may afford a very profitable lesson to many of our public companies, the Old Quartz Hill Company being a private company, held by 14 shareholders, and having a capital of £25,000.^{cclxxxv}

Sept 1860: The Old Quartz Hill Company realised, from fourteen days' work, 114 oz. 4 dwt.^{cclxxxvi}

Oct 1860: The Old Quartz Hill Company are continuing to extract from 60 to 70 oz. per week.^{cclxxxvii}

Nov 1860: The Old Quartz Hill Company are pursuing the even tenor of their way; no stoppage of any moment has occurred since they started; the mine has been thoroughly opened, and the whole of their splendid machinery works night and day without hindrance. They employ 45 men, and realize a weekly return of 55 to 60 oz. of gold. ^{cclxxxviii}

Nov 1860: 1 puddling machine. ^{cclxxxix}

Dec 1860: Quartz Reefs actually proved to be auriferous: Old Quartz Hill

No. of claims: 3

Extent of claim: 640 feet

No. of men employed: 6

Quartz Reefs actually proved to be auriferous: Old Quartz Hill

No. of claims: Lease

Extent of claim: 1,800 feet

No. of men employed: --

Extent of Reef prospected: 2,400 feet. ^{ccxc}

Dec 1860: Leases Demised to Public Companies: [include]

Old Quartz Hill Company

Area of Lease: 16 acres 1 rod 19 perches

Amount of Capital: £2,500

Machinery: Fifty horse-power engine, sixteen stamps, feed pumps, cradles, &c.

Value of machinery: £4,550

Cash expended: £6,800

Miners now employed: 56

Remarks: Four horses and men carting extra. ^{ccxci}

8 Feb 1861: Old Quartz Hill Co. - continues to crush about 200 tons per week. ^{ccxcii}

Feb 1861: The Old Quartz Hill Company continue to employ about 30 men, and to keep their splendid machinery in motion, crushing about 200 tons per week; but as they are engaged in opening the mine by tunnels, shafts, and levels, everything goes to the mill, and the yield is not so great as otherwise would be in proportion to working expenses. ^{ccxciii}

March 1861: The Old Quartz Hill Company having nearly exhausted their reservoirs are only crushing by day, but are otherwise busily employed sinking two deep shafts and driving levels...the reef [is] showing every inducement to persevere with promise of future success. ^{ccxciv}

Sept 1861: Some of our older companies, as the Old Quartz Hill, Specimen Gully, Phoenix (late Eureka), and El Dorado, have been trying to let the mines and plant upon tribute, the success of the Bolivia Reef tributers inspiring great confidence in that system of working. ^{ccxcv}

Nov 1861: Map shows Lease No. 17, Old Quartz Hill Mining Co. (grid ref 55HBU560941). Adjoining the N boundary of this lease are two machine sites - Davis's Quartz machine, on NW corner of lease 17 (grid ref 55HBU560941), and Old Quartz Hill Co.'s machine, on NE corner of lease 17 (grid ref 55HBU559944). Lease No. 84, the Old Quartz Hill Mining Company, is located north of lease No 17, between Scotchman's and Dirty Dick's Gullies (grid ref 55HBU560945)

31 Jan 1862: Vivian and Co. have struck rich mineral in their shaft at 140 ft. ^{ccxcvi}

20 June 1862: Rowe and Co. - 14 tons yielded 7 oz. ^{ccxcvii}

30 Oct 1863: Havilah and Co. have registered their claim for three months. ^{ccxcviii}

June 1864: The Specimen Gully, the Old Quartz Hill and the Cumberland and Bolivia mines and machinery have been unworked, and several other plants only partially employed. ^{ccxcix}

Sept 1864: The purchasers of the Old Hill Quartz Hill plant have commenced repairing their dams and machinery, preparatory to further operations. ^{ccc}

March 1865: On the Old Quartz Hill, the Vulcan Company, who were just about to give up, have found payable stone. ^{ccci}

- 1865: Parties reporting yields from quartz crushings in 1865: Vulcan Company, Ulster Company. ^{cccii}
- March 1866: ...continuations of the Nimrod and Quartz hill reefs have been taken up for a long distance. ^{ccciii}
- 1866: Parties reporting yields from quartz crushings in 1866 - Vulcan Company, Hillman and Company . ^{ccciv}
- June 1867: On the Old Quartz Hill, the Ulster Company have struck the reef at 145 feet, averaging over 15dwts. to the ton. ^{cccv}
- 1867: Parties reporting yields from quartz crushings in 1867 - Ulster, Allen & Company, Vulcan and others. ^{cccvii}
- March 1868: The Old Quartz Hill Company's engine has been sold and removed to Ballarat. ^{cccviii}
- March 1869: On the Old Quartz Hill a fine engine, with winding and pumping gear for 300 feet in depth, is being erected; they purpose sinking to 400 feet forthwith.. ^{cccix}
- June 1869: The Chewton Company, Old Quartz Hill, have their 300-foot shaft cleaned out and squared, a fine engine with pumping and winding gear completed, and at work sinking shaft to 400 feet. ^{cccix}
- Dec 1869: The Chewton Company have ceased sinking, and are now driving toward the reef, as also following the old workings; their "country" and prospects are improving. ^{cccix}
- June 1871: At the Old Quartz Hill, so long deserted, men are again employed, and excellent prospects obtained. Four companies of tributoers have taken up the leases, and active operations have commenced. ^{cccxi}
- 10 July 1871: Enterprise No. 2 - run of gold worked by No. 1 is 25 feet from boundary. ^{cccxi}
- Dec 1871: The Old Quartz Hill No. 1 Enterprise Tribute Company have come upon a gold-bearing lead of quartz; 226 tons from it has returned 244 ozs. 6 dwts. of gold. Number 2 tribute are sinking to reach the same lode. ^{cccxi}
- March 1877: The Old Quartz Hill Tribute are sinking a winze upon the eastern face of the reef, expecting thereby to find the old runs of gold. ^{cccxi}
- Dec 1877 : The Ajax, Devonshire, White Horse, Manchester, Nuggety, Cumberland, Burns, Caledonia, Old Quartz Hill, Sebastopol, and other noted reefs, continue unworked. ^{cccxi}
- Sept 1881: In quartz mining, a new reef has been opened in Dogleg Gully, by O'Connor and Co. It lies east of the Sebastopol Reef, and is supposed to be upon the Old Quartz Hill line. A trial of 10 tons yielded 26 ozs. of gold. ^{cccxi}
- Sept 1881: The South Eureka, Kampf's, Old Quartz, and others of our old quartz reefs, are being again taken up. ^{cccxi}
- March 1882: The General Garfield Company, situate upon the line, and midway between The Argus and Old Quartz Hill reefs, have a regular body of quartz... The reef cannot be followed without drainage machinery. ^{cccxi}
- 23 Oct 1882: A shaft is sunk 395 feet ^{cccxi}
- 19 March 1883: Old Quartz Hill - Have formed a company. Have timbered engine shaft to 175ft level. Opened out on course of lode north for Thompson's run and south for Wilson's run, with a well defined reef about 4 feet wide. ^{cccxi}
- 24 April 1883: Main engine and Jollies shaft put into working order. ^{cccxi}
- Sept 1885: The Old Quartz Hill Company have commenced work, and after careful survey determined to cross-cut west to intersect the gold. ^{cccxi}

5 Oct 1885: The first general meeting of the Old Quartz Hill Mining Company, Chewton, No-liability, took place on Friday... It was resolved to form a Company under the No-Liability Clauses of the Mining Act ^{cccxxiii}

5 Dec 1885: Old Quartz Hill Co. - The report stated that the operations of the present company had resulted in discovering the track of gold-bearing country above the water level, good prospects of coarse and fine gold being obtained with the dish... It was unanimously resolved that the directors should be authorised to procure machinery. ^{cccxxiv}

March 1886: the Old Quartz Hill Company are removing a plant to their mine. ^{cccxxv}

27 April 1888: Old Quartz Hill Company - It was determined by the directors to secure machinery... A good road has been made, and the main shaft logged up, ladders repaired, and contract entered for pulling down and re-erection of poppet heads ready for engine. An agreement has been entered into by the Board with Mr C.F. Nicholls... The cost of machinery inclusive of poppet heads now erected will be about £650...

Mine Manager's Report - ...I find the shoot of gold that was so successfully worked by Messrs Thompson and Co. from the surface own to 120 ft was also taken out as might have been expected, and the mine since then enjoyed the local notoriety of being "pig-rooted" which I thoroughly agree with... Since then another party of gentlemen took up the mine, and started to work in a practical manner by cutting down and sinking the engine shaft to a depth of 396 ft from the surface....operations ceased - I believe with the distinct understanding that they should be resumed with a certain time; the said party paid a man to look after the property. Six or seven years he was so employed by them; work was not resumed and the party sold their machinery... You have a splendid poppet heads recently erected for working the deep ground ^{cccxxvi}

28 Sept 1886: Old Quartz Hill Co. - The shaft has been sunk to 394 feet. ^{cccxxvii}

29 Sept 1886: Old Quartz Hill Co. - In consequence of our present crushing battery subsiding it is necessary to remove it to some more suitable position, and after careful consideration your directors came to the conclusion that it would be far cheaper to work by water instead of steam power, and have let a contract to Messrs Harkness and Co. for the manufacture of a 70ft water-wheel, and the excavations for the same are in a fair way of completion... The first work done was the fixing of the plunger, and timbering up shaft and finishing footway. ^{cccxxviii}

Sept 1887: Two other mines were reported in progress of floating in London, viz., "The Old Quartz Hill," by the Hon. Howard Spensley, and "The Railway Wattle Gully," by J. McIntyre, Esq., M.L.A. ^{cccxxix}

22 July 1892: To the Shareholders of the Old Quartz Hill Company, Chewton, Castlemaine.

I have now succeeded in the flotation of your property, The Old Quartz Hill Mine, discovered in 1852, and you may say not only the richest mine at Chewton, but in the Colony. Below is the list of Shareholders, and I think you will agree with me that it is a good one. Applications are also invited for the purchase of a first-class Mining Plant, and when the Company's Engineer, Mr John Howell, of Ballarat, inspects and reports thereon, purchase will be completed, and tenders invited for its erection at once, you can rely on me pushing the work ahead. I don't see that we have any necessity to go to England to float our mining properties; we have plenty of money in the Australian colonies to develop all our mines, but it is not the flotation, it is the grand secret of getting the confidence of the public and retaining that throughout. I do not take up mines for the sake of shepherding. I go in wholly and solely for the gold. I manage mines. I show you as an example by being a large shareholder, as large as my circumstances will allow. How the residents of Castlemaine could have been so sleepy during this last 30 years to allow a property like that to be shepherded an unworked, I know not... In 1852 when the claims were only 8 x 8, thousands of ounces were obtained from the surface downwards to 30 feet by breaking it with a hammer, and afterwards abandoned. Subsequently, Fairbairn sunk it down to 50 feet, and picked it up again, and in one week obtained 60 lbs weight, and in 18 months cleared a profit of £18,000. It was again abandoned; and look at your own townsmen, with whose name you see on the list, the Messrs. Thompson Bros., Foundry of Castlemaine, from 1340 tons of quartz obtained 4166 ozs of gold; and again look at McDermott Bros., Ford, Vivian and others, who obtained 20 ozs to the ton. All the tailings afterwards yielding 1 oz to the ton. Every person, with the exception of the Company who sunk their shaft to a depth of 390 feet when the water ran in, made their piles out of the claim. Does that show you that the gold has run out? No! but the Company's funds run out, so it is left for me to put you on the gold, and that I will do. Whilst the machinery is erecting I will be cutting down the shaft, as it is too small.. ^{cccxxx}

29 Sept 1893: Old Quartz Hill Co. - Directors' Report: Since the last half-yearly meeting unforeseen circumstances had occurred; the closing of the banks and the stagnation of trade had been the means of 10,000 shares being placed on our hands, and out of that 3000 being from South Australia. At this time heavy bills had to be met, and if it was not for the renewed energy of your manager, assisted by my co-directors, your mine would have collapsed, but instead, it is coming to the front, and will be one of the greatest successes in the Castlemaine district...

Mine Manager's Report - On taking charge of your mine on the 29th of May last I found the erection of the winding and pumping engine nearly completed, which work was pushed on and finished as soon as possible. After doing

some surface work in connection with the cutting down of your shaft, such as putting up tram-road, erection of windlass and plat, &c., I started to cut down the shaft... A Wilson steam pump has been erected at the dam, which works admirably, to raise the water to the level of the tank.... tenders are being called for a set of pumps, likewise a capstan is being erected, as I don't anticipate cutting down much further without having water to contend with, therefore I will be ready to coper with it when the necessity arises. Your plant is good and efficient, second to none in the district, and will be put to work in a few days. M. Fern..^{cccxxxi}

30 Oct 1893: Old Quartz Hill Co. - Yesterday a number of directors and shareholders assembled to witness the starting of the machinery, which has just been completed. This consists of a 35 horse-power engine, with a 20 in cylinder, the boiler being 28ft x 6ft 6in; this drives the winding were pumping plant. The engine and boiler were purchased from the Sebastopol Co., Ballarat. The winding and pumping is entirely new, and was procured from the Messrs Thompson, of the local foundry, and is built on brick piers. The machinery is of sufficient power to work to over 2000 ft. The drums are 8ft in diameter and are so adjusted that either can be used separately to wind at different levels; the whole is very complete, and reflects great credit on the contractors; the total cost of the plant is about £2000. The christening and starting of the machinery were entrusted to Mr Humphreys, one of the Melbourne directors, who in the orthodox manner christened the plant May, after one of Mr Price's daughters. The ponderous machinery started very smoothly amid the cheers of the spectators, and the blowing of the steam whistle. The plant is well housed in a substantial double-gabled building.^{cccxxxii}

17 Nov 1893: A Visit to the Old Quartz Hill.

The lease is about 40 acres, traversed with reefs. The company commenced by cutting down an old shaft, and making the new one 11 ft by 4ft 6 in. It is now down about 200ft, and is, Mr Fern, the Mining Manager states, in sandstone country intermingled with quartz. At present, an old shaft is being opened up in the north end of the lease, where large results were previously obtained. The machinery includes a powerful engine, large boiler, pumping and winding gear, sufficient to sink to a depth of 2000 fet. The erection of the captstan is complete, and preparations are being made to put in lifts. Everything in connection with the mine is carried out by the company in the most substantial manner. The faith in the mine locally is very strong, owing to its former phenomenal yields. In 1854, with very rude appliances, between eleven and twelve hundred ounces were obtained; in 1855 over 3000 oz; and in the early part of 1856, enough to make up over 5000 oz, and from 700 odd tons only. New rushes at the time, and an influx of water caused the abandonment of the claim, the early debris of which is now payable.^{cccxxxiii}

30 March 1894: Old Quartz Hill Co. - Shaft has been cut down to 202 feet. During the past half-year I have cleaned out an old shaft 2000 feet north of your main one - this shaft was worked to 110 feet in the early days with profitable results.^{cccxxxiv}

29 Oct 1894: Old Quartz Hill Co. - Main shaft cut down to 240 feet.^{cccxxxv}

12 May 1899: A prospectus has been issued setting forth the yield of gold obtained by Messrs Thompson, amounting to 5063 ozs. from 740 tons, which they procured from a 60 ft claim in 18 months.^{cccxxxvi}

28 Sept 1890: The Quartz Hill Company's mine, near Castlemaine (says the 'Age') marks almost the central point in an auriferous belt of reefing country, which extends from Fryers Town on the south, to the Capper's and Specimen Reefs, about eight miles to the north... The Garfield Company's battery is only a short distance from the mine, so that the cost of carting and crushing is something less than 2dwt to the ton..^{cccxxxvii}

21 Jan 1901: 66 tons yielded 41 oz 2-1/2 dwt.^{cccxxxviii}

Sept 1901: Quartz Hill Gold Mining Co.: 143 ton crushed, 241oz gold.^{cccxxxix}

Dec 1901: Quartz Hill Gold Mining Co.: Thompson 10 head crushing plant .^{cccxl}

Thompson Cornish boiler, 22 feet by 6 feet; 120 pounds per square inch working pressure .^{cccxli}

Jan 1902: Quartz Hill Gold Mining Co.: Thompson 11.5 inch by 30 inch steam engine with Corliss valve gear.^{cccxlii}

March 1902: Quartz Hill Gold Mining Co.: Thompson Seymour and Kemp's patent mining cage.^{cccxlili}

1902: Quartz Hill Gold Mining Co.: 10 head battery .^{cccxliv}

6 Jan 1902: Sth Quartz Hill , shaft is down 80 ft , it has been reported that an indicator has been struck in the shaft. cccxlv

2 April 1902: Starting the Quartz Hill Battery. - The battery is...of the very latest design and is probably the best at the present in the State... The engine is a high pressure Corliss arranged so that she can be compounded when the battery is increased. She is 11 1/2 inch diameter by 30 inch stroke, running at a piston speed of 600 ft per minute. The fly-wheel is provided with a barring gear to allow of the engine being worked by hand in case of any adjustment being made to the battery. The battery had ten-head of stamps, each stamp weighing 1075 lb., and making 100 blows per minute. These stamps are far and away heavier than anything in the district the usual weight being about 700 lb... The framing is of massive iron and the boxes are of the Homesake (American) pattern. The cam shaft is driven by belt gearing arranged with a lightening or jockey pulley to enable it to be stopped without stopping the engine. The tables are 5 ft 1 in. wide by 10 ft long, and are covered with 8 copper plates. Below the copper plates are two Whiffley tables driven by counter shafting from the main battery...with the present 10-head it is estimated that 350 tons of stone can be crushed per fortnight. The plant is built on the model of the American and South African plants with modifications to suit colonial conditions. There is only one other battery of the same class in Australia... The house is lofty and the floor concrete with all pipes running underneath the floor, which is certainly a departure from existing methods. The retort and smelting furnaces and battery supply pump are of the latest design. .. Mr J.S.M. Thompson, Chairman of Directors...gave a brief history of the mine, from the time it was first worked in 1856, when his brothers obtained 5800 oz. of gold from a 60 ft claim in 18 months. During the six months prior to 1st January last the present company crushed 665 tons for 945 oz. cccxlvii

19 May 1902: North Quartz Hill Co. - shaft down 150 feet. cccxlviii

21 July 1902: Owing partly to its proximity to the Quartz Hill mine, and partly to the merits of the property itself, a considerable amount of attention has been directed of late to the operations in the South Quartz Hill mine. The lease is an awkwardly shaped block of ground, lying due south of and adjoining the parent mine with an area of 11 acres. cccxlix

23 July 1902: Quartz Hill Co. - During the past six months the mine has been equipped with a first-class and thoroughly up-to-date crushing plant of 10 heads and Corliss engine, supplied by Messrs. Thompson & Co., of Castlemaine. The battery is giving entire satisfaction, the tonnage put through since its erection, viz., 3 months, being, we believe, a record for this State for a 10-head battery... All top works, including a first-class water supply for crushing purposes, and all necessary settling pits for tailings have been completed... Since last half-yearly meeting, the engine shaft has been cut down 80ft, total from surface 315 ft ccccl

July 1902: Quartz Hill Gold Mining Co.: 740 ton crushed, 359oz gold. ccccli

10 Nov 1902: Sth Quartz Hill Co. Started to sink a prospecting shaft 140 feet west of engine shaft, now down 10 ft cccclii

23 Feb 1903: North Quartz Hill Co. - work suspended. ccccliii

1903: Quartz Hill Gold Mining Co.: First class modern 10 head battery; good winding and pumping plant. ccccliv

March 1903: Quartz Hill Gold Mining Co.: 2280 ton crushed, 640oz gold. cccclv

29 June 1903: South Quartz Hill co. - Stone in western cross-cut poor. cccclvi

23 July 1903: Quartz Hill Co. - [Directors' Report] showed a very large reduction during the past six months, both in the quantity and quality of the quartz. They had not been able to keep the battery crushing anything like full time. The falling off was equal to 1268 tons. Then again the return for the previous half-year was 7dwt 9grs per ton, and for the past half-year only 6dwt 3grs, or a falling off of 223 oz. On the other hand they had done a large amount of developmental work at considerable expense. In consequence of the decreased yield they had had to reduce the number of men in the mine. If the yield went on decreasing they would have to make still further reductions in the men, or make calls. They had tried during the past six months to keep away from calls. That was why they had not done as much developmental work as they would have liked. cccclvii

Sept 1903: Quartz Hill Gold Mining Co.: 705 ton crushed, 113oz gold. cccclviii

Sept 1903: South Quartz Hill Co.: 15 ton crushed, 1oz gold. cccclix

Sept 1903: Map shows large tailing dam in Dirty Dick's Gully; extensive open cut on the crown of the hill; at least six shafts, three of which are named (Fairbank's shaft, Quartz Hill shaft and Jolley's shaft); and a tunnel, with several branches. This tunnel is driven in from Dirty Dick's Gully.

Also shown is the North Quartz Hill shaft, on the N side of Scotchman's Gully and South Quartz Hill shaft, on N side of Sailor's Gully (opposite Englishman's Gully) ^{ccclix}

1903: The Quartz Hill Company, having apparently worked out the payable stone found in 235 and 310 feet levels, is now engaged in sinking the shaft, which is now about 450 feet deep ... This company has a first-class modern 10-head battery, a good pumping and winding plant, all being very convenient to the main shaft... ^{ccclx}

20 Jan 1904: Quartz Hill Co. - Directors' Report - Owing to the ore in sight being just below paying point the battery was run intermittently, and only 745 tons were crushed during the half-year, for a yield of 92oz 5dwts... During the half-year an air compressor and two rock drills have been added to the plant. Tenders were invited for sinking the main shaft 200ft, but your directors ultimately decided to carry out the work on wages... We started to sink the shaft with two shifts of men, and have sunk and timbered 28ft, making 456ft from surface ^{ccclxi}

29 Feb 1904: Quartz Hill Co. - Shaft sunk total of 522 feet. ^{ccclxii}

27 April 1904: Perhaps the richest point opened was on what is now known as 'Quartz Hill'. This hill is situated at about half a mile to the north of Chewton, and its surface presents, a mass of quartz belonging to a system of wing like structure of the same, which has been exposed by the surface wear. The outcrop naturally attracted the attention of the early diggers, and it is said that mining in its shallow parts along a north and south distance of about a quarter of a mile, resulted in a yield of gold which totalled in value more than £100,000.

The extraordinary richness of some of the quartz met with, caused the Quartz Hill to be known as one of the richest places in the district. Mr Jas. S. Thompson Senr. member of Thompson Bros. Firm of Foundry note, Castlemaine, relates that a party of which he was a working member, took out £18,000 worth of gold from a shallow works in a length of claim that did not exceed 20 feet..

If I am not mistaken, two registered Companies in succession, had a turn at deep sinking. Both appear to have taken the rich averages of yields, met with in early times, - yields from the quartz of rich patches, and sorted - as the average to be expected, and both suffered in consequence. The first venture soon retired under the shadow of a mortgage, I believe, and the second one is in possession at present.

The latter is known as "The Quartz Hill Company" and it has a servicable hauling and pumping Plant and a 10 head crushing mill, its main shaft has been sunk to a depth of 510 feet, and levels have been opened, and exploiting works conducted, at 235, 310, 41- and 510 feet from the surface...

Certainly a tunnel was put into the hill from the west side as marked but the mining was also of the "gouging" class, in great masses of wing quartz of a gold bearing nature. ^{ccclxiii}

19 Sept 1904: Work at Quartz Hill has been temporarily suspended. ^{ccclxiv}

1904: Quartz Hill Gold Mining Co.: 10 head battery . ^{ccclxv}

1904: The Quartz Hill Company suspended operations in September last, and nothing has been done since ^{ccclxvi}

21 Feb 1936: Wattle Gully North Extended - the lease is situated at Chewton, on the Quartz Hill-Wattle Gully line of reef, about one mile north of the Wattle Gully mine. The lease has only been worked to a shallow depth, probably 140 ft. ... Mr Edwards [mining engineer] ...considers that the possibilities of sluicing the surface deposits should be investigated. ^{ccclxvii}

6 March 1937: In a report on the area of 120 acres comprising the Quartz Hill section of the Chewton goldfield, recently acquired by Chapman's Gold Mines N.L., Mr M.R. McKeown, mining engineer, states that the Quartz Hill is a large saddle reef... It is one of the largest reefs of the type located on the field. ^{ccclxviii}

May 1937: New Garfield - A preliminary meeting of New Garfield Gold No Liability held at Castlemaine ... The company is to operate on a lease about one mile a little west of north from Chewton, which includes several well defined and proved lines of reef, notably the Sailors Gully or Garfield, Dead Cat and Quartz Hill. ^{ccclxix}

Jan 1939: Notes on Chewton Mines

New Garfield- No development work at this mine was practicable, and in both the Quartz Hill and the New Garfield mines operations have been suspended. ^{ccclxx}

1990: Quartz Hill - lot of the quartz has been taken away by Wattle Gully Company. Large open cut and shaft still visible. Tunnels driven into Quartz Hill from Dirty Dick's and Sailor's Gullies. ^{ccclxxi}

DESCRIPTION

The remains of the three quartz mines are very poor. At Quartz Hill the workings reflect mining operations which spanned 1852 to 1940s; the workings on Nth Quartz Hill appear to date to the early 1900s; and South Quartz Hill appears to have been first worked in the 1900s and again in the 1930s. The V.W.S race came through in the mid 1870s/early 1880s.

Site 9.0 - The South Quartz Hill mine consists of tunnel, driven N into Quartz Hill, some mullock, a tramway embankment leading S from tunnel's entrance, and where the tramway terminates a small stone and mortar engine block. This block measures 90cm wide, is 1.9m long and 35cm high. It has 6 engine mounting rods (3/4" diam).

Site 9.1 - On the road to Quartz Hill, on the crown of the hill between Sailors Gully and Dirty Dick's Gully, is a large open-cut running N-S through the middle of the hill, and a dump of large blocks of quartz. There is also a shaft, still with the timberwork showing separate compartments, located at the northern end of the open cut. On a level platform below the shaft are some largely buried footings, and some brick rubble. A large tailing dam is situated below, in Dirty Dick's Gully..

Site 9.2 - The site of the North Quartz Hill mine is located on the N side of Scotchman's Gully. Little remains of this site except some mullock. and a deep open shaft. Recent roadworks have disturbed what was left of the workings.

Site 9.3 - On the N side of Dirty Dick's Gully, near Quartz Hill are the remains of several stone structures. Appears to represent a single house site, with outbuildings and garden bed. On the western slope of Quartz Hill, between Cemetery Gully and Dirty Dick's Gully is a tunnel dug for the Golden Point water race. (Golden Point water race also recorded as Sies 17 and 93)

PHOTOS: Black and White

ARTEFACTS: None visible

INTEGRITY/CONDITION: Varies

THREATS:

CULTURAL SIGNIFICANCE:

Sites - 9.0. (adit and associated remains) has some scientific significance because of the relatively undisturbed nature of the relics.

Site 9.1: Although Quartz Hill was the site of the first quartz workings in the Mining District, and of the first quartz crushing machinery in the Castlemaine Mining Division and has a long history of rich yields, its historic and scientific significance is mainly archival. The site's history is well-documented, but little survives on the ground which can be said to add to its significance. The site does hold some local social value, as the Thompson brothers, who gained tremendously rich yields on Quartz Hill in the 1850s built on this capital and, in the late nineteenth century, opened a foundry in Castlemaine, manufacturing mining machinery. Thompson, Kelly and Lewis (as the company is known today) is now one of the largest works of its kind in Australia, and is a major employer in Castlemaine.

Site 9.2: The mine workings here have been badly disturbed and have little significance.

Site 9.3 (single house site, with outbuildings and garden bed/Golden Point water race) has considerable significance because:

- | | |
|-------------------------|---|
| Historical Significance | - Due to the Golden Point water race's association with Expedition Pass Reservoir and the Garfield Water wheel. |
| Scientific Significance | - Both the house site and water race have scientific value due to their intactness and what they can contribute to our understanding of alluvial mining and settlement. |
| Cumulative Value | - The relics form part of a network of sites which lie in close proximity to the Garfield water wheel abutments |

Significance ranking **Site 9.0** **Local significance**

Site 9.1 Local significance
Site 9.2 None
Site 9.3 National Estate

CONSERVATION POLICY:

The significance of Site 9.3 comes from the intactness and age of the relics and their proximity to the Garfield water wheel abutments. The significance of the water race (recorded as Sites 9.3, 17 and 93) is enhanced by the number of historic mining sites the race serviced, or passes near to.

RECOMMENDATIONS FOR IMPLEMENTATION:

Site 9.3 be protected and an archaeological survey undertaken to produce a comprehensive picture of the historic remains associated with the race.

Assessor: David Bannear

Date: 1993

SITE NO. & NAME: **10. Deadman's Gully adit**
 11..0 Two puddlers and house site
 11.1 Two puddler and small furnace

LOCATION: **Little Quartz Hill/Scotchmans Gully**

DIRECTIONS: Site 10 - Head of Scotchmans Gully
 Site 11.0 & 11.1 - Head of Scotchman's Gully, in the vicinity of North Quartz Hill mine [Site 9.2] About 10m past the turn-off to Quartz Hill the dirt road branches. The track that diverges to the N will take you across Dirty Dicks, Scotchman's gullies, and thence northwards to Moonlight Pine Plantation

MAP/GRID REFERENCE: Site 10: Chewton 1:25,000 - 569.945
 Site 11.0 Chewton 1:25,000 - 562.947
 Site 11.1 Chewton 1:25,000 - 560.947

PARCEL NUMBER: P120329

MUNICIPALITY Metcalf

LAND STATUS: Unreserved Crown Land/proposed Castlemaine Historic Reserve

EXISTING HERITAGE CLASSIFICATION: None

PRESENT MANAGEMENT/USE: LCC- Rec: Site 10 - J1
 LCC Rec : Site 11 - U1

HISTORY:

c. 1856: Shortly afterwards we sank two other holes; the first on the hill at the head of Scotsman's Gully, where, two years subsequently, we were informed that £1600 worth of gold had been taken out of the quartz near the surface, which we had neglected to prospect sufficiently. ^{ccclxxii}

August 1859: 3 registered claims. ^{ccclxxiii}

Dec 1860: Quartz Reefs actually proved to be auriferous: Little Quartz Reef

No. of claims: 3

Extent of claim: 560 feet

No. of men employed: 6

Extent of Reef prospected: 1,200 feet. ^{ccclxxiv}

June 1869: In Scotchman's Gully two new lodes, from one of which quantities of specimens are obtained; but from these and several others no crushings have yet taken place. ^{ccclxxv}

June 1871: The Little Quartz Hill, the Shicer Reef, the Greaterox Reef, Lady Barkly, and many other of our old reefs are again occupied, and very good prospects being obtained. ^{ccclxxvi}

2 Oct 1871: McClelland's Reef - in Scotchman's Gully - may be a continuation of Dead Cat Reef. ^{ccclxxvii}

8 Oct 1898: Little Quartz Hill - Many years ago a shaft was sunk at the head of Scotchman's Gully, or as it is now known, Little Quartz Hill (from its close contiguity to the Old Quartz Hill), situate about 3 miles east of Castlemaine, and nearly the same distance from Chewton. The shaft was sunk 60 feet and a drive put in. Good gold was then obtained by those at work, and the story told by some old identities of Chewton is that he claim was compulsorily abandoned in consequence of the underground workings collapsing. Just at about the same time, some copper plates and a billycan of rich specimens were reported as having been stolen from the Crown Nimrod mines and no trace of them could be found. It was generally stated upon the authority of Dame Rumour, that the person or persons who had abstracted the plates and specimens from the Crown Nimrod mine had 'planted' them in the drive of the shaft at Little Quartz Hill, and that it had collapsed before the 'plant' could be again secured by the guilty party. Of course, the story is given for what it is worth; but a singular feature of the present discovery is the unearthing, in the drive, of a couple of copper plates, and how they got there is not very mysterious if credence is to be attached to the foregoing. The long since abandoned drive was being cleaned out this week by two Chewton miners named Lipplegoes and Strong, when they first found the plates, and then the rich specimens. One of the specimens is believed to contain 2

oz. of gold, and the others are also very rich. It is hoped the find will prove a more permanent one, and that it will afford additional proof of the fact that the old reefs are still auriferous, and will handsomely pay re-working. ^{ccclxxviii}

10 Oct 1898: Little Quartz Hill: The flat leader struck by Lipplegoes and Strong is so very rich.. ^{ccclxxix}

20 Oct 1898: Little Quartz Hill: Lipplegoes and Strong, who are working near the Little Quartz Hill, had a crushing of 5 tons for 3 oz. 1 dwt. ^{ccclxxx}

5 Dec 1898: Prince of Wales Birthday syndicate are sinking at Little Quartz Hill. ^{ccclxxxi}

26 Dec 1898: Little Quartz Hill - Strong and party - 12 tons yielded 15-3/4 oz. ^{ccclxxxii}

March 1990 : Driving from Welsh Village to Burns Hill line of working. Head of Scotchman's Gully - Great Ox tunnel, and a house site. ^{ccclxxxiii}

March 1990 : Scotchman's Gully - not much in this gully. It has been sluiced. There is the site of the North Quartz Hill mine...little remains here except mullock and site of shaft. Little Quartz Hill - has been pushed around by recent bulldozing. ^{ccclxxxiv}

DESCRIPTION

The records are not very illuminating regarding alluvial mining in this area, but one would expect the puddling machines to date from c. 1855-70.

The puddling site and adjacent furnace are probably contemporary, the furnace designed to melt down specimens into a large parcel for more convenient handling.

The tunnel at the head of Deadman's Gully would date from the mid 1850s until late 1890s.

Site 10 - At the head of Deadman's Gully is a tunnel driven W into Little Quartz Hill. There is a mullock paddock and a loading bay in front of the tunnel. A patch of workings, mainly open-cutting, survives on the slope above the tunnel..

Site 11.0 - On the N side of Scotchman's Gully are the remains of a stone building, and 23m to the W of the house is a puddling machine site. The puddling machine site has several trees growing out of the central mound. The puddling trough is about 1.7m wide and about 50cm deep. The inner mound has a diameter of 2.8m, and outer mound IS about 1.5m wide. Total diameter is 9.2m. Of the stone building, only A small section of the fireplace survives. 100m to the east of the house site, south side of the gully, is the remains of another weathered puddler. Only half of the puddler survives, the other half has been sluiced away.

Site 11.1 - On the S side of the road, opposite the site of the North Quartz Hill mine, on a small 'island' which escaped sluicing, are the remains of a puddling machine sites and a small furnace. The small furnace is constructed from stone and clay mortar. It is situated under a trunk of a eucalypt and stands to a height of 70cm. The furnace is 80cm wide, has a hearth area of 30cm square and a small chimney stack. 4m N of the furnace is a puddling machine site. The northern half of the machine has been sluiced away. The inner mound would have had a diameter of 2.8m, the puddling channel is 1.4m wide and 35cm deep. In the section left by the sluicing is the outline of the post, showing it had a diameter of about 25cm. Outer mound over 2m wide. Total diameter approx 9.6m. Another puddler lies 100 metres to the east, located on the verge of the main track.

PHOTOS: Black and White

ARTEFACTS: None visible

INTEGRITY/CONDITION: Poor

THREATS:

CULTURAL SIGNIFICANCE:

Site 10 has:

Scientific Significance - The adit and associated features are relatively intact.

Sites 11.0 and 11.1 have

- Scientific Significance - The puddling machine sites and small furnace in Scotchman's Gully hold some historic significance because of their relative rarity.
- Cumulative Value - The place has considerable scientific value. One of the most enduring forms of alluvial mining technology employed on Central Victorian goldfields was puddling. Puddlers were consistently grouped in 'communities' at the heads and sides of gullies. The four puddlers found in the gully are rare surviving example of the intensive distribution of puddlers.

Significance ranking	Site 10	Local Significance
	Sites 11.0 and 11.1	Regional Significance

CONSERVATION POLICY:

The significance of Sites 11.0 and 11.1 come from the relics ability to illustate the nature of alluvial puddling

RECOMMENDATIONS FOR IMPLEMENTATION:

Sites 11.0 and 11.1 be protected.

Assessor: David Bannear **Date: 1993**

SITE NO. & NAME: **GARFIELD REEF SITES**
12.0 Garfield Co. water wheel abutments
12.1 Little Sailors Gully cyanide works
12.2 New Garfield Co.
12.3 Sailors Gully sludge pond

LOCATION: **Garfield Reef, north of Chewton**

DIRECTIONS: Follow the sign posting to Garfield water wheel abutments from Chewton.

MAP/GRID REFERENCE: Site 12.0 Chewton 1:25,000 - 563.934
Site 12.1 Chewton 1:25,000 - 560.934
Site 12.2 Chewton 1:25,000 - 563.936
Site 12.3 Chewton 1:25,000 - 561.936

PARCEL NUMBER: P121393

MUNICIPALITY Metcalfe

LAND STATUS: Public Purpose Reserve/proposed Castlemaine Historic Reserve

EXISTING HERITAGE CLASSIFICATION: Recommended as part of proposed Castlemaine Historic Reserve by Land Conservation Council (Victoria). Garfield water wheel abutments have been placed on the Register of the National Estate

PRESENT MANAGEMENT/USE: LCC Rec - J1

HISTORY:

18 Jan 1856: From Sailor's Reef, several tons, crushed and amalgamated...yielded 44 ounces to the ton..^{ccclxxxv}

21 March 1856: A whim, capable of drawing up 120 gallons of water in three minutes, is now in full work at the back of the Manchester; it is the property of Mr Bickford the butcher, who, ten years ago, in England, invented a machine of the same description. It is worked by one horse.^{ccclxxxvi}

28 March 1856: Sailor's Reef, Back of Manchester Hotel - Mr Bickford and party have struck upon a reef 130 feet deep.^{ccclxxxvii}

19 Nov 1858: Near Sailor's Gully - 6-10oz per ton.^{ccclxxxviii}

August 1859: List of companies in existence and contemplated [includes]: Mount Alexander Quartz Company, Sailor's Gully, 300 yards, working.^{ccclxxxix}

August 1859: 3 claims working, 14 miners, profitable.^{cccxc}

20 Dec 1859: 7 small leases near the head of German Gully, running N-S - no names. Dead Cat Reef runs through these leases. (mid grid ref. 563937)^{cccxc}

Dec. 1859: In quartz crushing machinery, we have added during the month...a 10-horse power engine, with 8 head of stamps, erected on Forest Creek, in connection with the Dead Cat Reef, Sailor's Gully.^{cccxcii}

Dec 1860: Quartz Reefs actually proved to be auriferous: Dead Cat Reef

No. of claims: 3

Extent of claim: 560 feet

No. of men employed: 13

Extent of Reef prospected: 1,400.^{cccxciii}

Sept 1861: In Sailors' Gully valuable specimens are found near the surface in new ground, the reef apparently being a continuation of Dead Cat Reef.^{cccxciv}

Sept 1861: In Sailors' Gully valuable specimens are found near the surface in new ground, the reef apparently being a continuation of Dead Cat Reef.^{cccxcv}

- Sept 1861: Companies/Parties crushing quartz & obtaining gold - Phillips, 5 ton yielded 10 dwt. of gold. [10]
- Oct 1861: Parties crushing quartz: Marsh - 6 ton yielded 10 dwt 12 gr. ^{cccxcvi}
- 2 Sept 1863: Bennet and Co. - 5 ton yielded average 6 dwts/ton.. ^{cccxcvii}
- 19 Sept 1863: Victoria Co. - shaft finished and driving commenced. ^{cccxcviii}
- 1865: Parties reporting yields from quartz crushing during 1865 - Spencer and Company. ^{cccxcix}
- 1866: Parties reporting yields from quartz crushings in 1866 - Spencer and Company, Gregory, James, Hocking, Smith. ^{cd}
- 1867: Parties reporting yields from quartz crushings in 1867 - James G. ^{cdi}
- June 1871: On a southerly continuation [from Old Quartz Hill], known as the Dead Cat Reef, 101 ozs. 3 dwts. were obtained by prospectors; and other claimholders are finding good prospects. ^{cdii}
- 17 July 1871: Reef being worked by James and Co., Featherby, Williams and Co. (sinking, expects reef at 90 ft). ^{cdiii}
- Sept 1871: On the Post-office, Nimrod, Argus, Dead-cat, and Burns reefs, shafts are being sunk to work the deeper leads. ^{cdiv}
- 2 Oct 1871: McClelland's Reef - in Scotchman's Gully - may be a continuation of Dead Cat Reef. ^{cdv}
- 20 May 1872: Central Co. - working quartz in 150 ft level.; South Dead Cat - 130 ft deep, soft country. ^{cdvi}
- 21 May 1872: Great Extended North Deadcat Gold Mining Co. - driving being continued. ^{cdvii}
- 17 June 1872: South Extended Dead Cat Co. ^{cdviii}
- Sept 1872: On the North Dead-cat Reef, an 8 1/2 horse-power engine, with 6-inch pump and friction winding-gear has been erected. ^{cdix}
- Dec 1875: Many of our old lines of reef are at present unworked, as the Sebastopol, Caledonia, Volunteer, Specimen Gully, Dead Cat, Fortuna, and others. ^{cdx}
- Dec 1877: the Dead Cat is coming-to again.. ^{cdxi}
- Sept 1881: On the Dead Cat, Williams and Co. have found a strong body of payable auriferous stone crossing from thence to the Victoria Reef. ^{cdxii}
- March 1882: The General Garfield Company, situate upon the line, and midway between The Argus and Old Quartz Hill reefs, have a regular body of quartz... The reef cannot be followed without drainage machinery. ^{cdxiii}
- 8 May 1882: A move is to be made in the General Garfield Mine, on the Dead Cat Reef, by some Sandhurst shareholders, who are so well satisfied...they propose putting up machinery on it. ^{cdxiv}
- 19 June 1882: Garfield Co. - This company formed to work a reef discovered by a party of sluicers, who sank two or three shafts, one of which is down to water level at 60 feet. About 20 acres held on lease. ^{cdxv}
- June 1882: The Garfield Company have been making necessary works for a reservoir, machinery, smithy, engine-shaft, &c.; and their prospects have been materially improved by Lamb and Co. - claimholders inside the company's lease - having found the reef at a depth of 40 feet, and from which splendid specimens are being obtained. ^{cdxvi}
- 4 Sept 1882: Garfield Co. - The new shaft is near to that of the old Dead Cat Co. ^{cdxvii}

Sept 1882: The Garfield Company have twenty-three men employed sinking an engine shaft and erecting machinery, &c. They purchased Archbold's crushing plant, but on testing the boiler, the tube collapsed under 41 lbs. hydraulic pressure. A new boiler and an 18-head battery, with iron frames, &c., is being fixed. ^{cdxviii}

Sept 1882: The Wheal Margery Company have men employed erecting a water wheel for crushing. ^{cdxix}

2 Oct 1882: Wheal Margery Co. hold a claim of about 10 acres between the Argus Flat and Garfield Co. Three distinct runs of quartz go through the ground, (i) South American, (ii) Dead Cat, (iii) Sheepshead. A number of shafts have been sunk on this line but none exceed 100ft. In every case quartz has been met with at intervals of 10ft to 20ft, and the whole of the claim is interlaced with flat leaders: at a depth of 80ft in the South American reef, a body of quartz 30ft thick, was worked and left, last crushing gave 3dwt to the ton.. ^{cdxx}

30 Oct 1882: The Wheal Margery is at the south, the Garfield in the centre, and the Lady Garfield that is to set in at the north. ^{cdxxi}

6 Nov 1882: Wheal Margery Co. - Receiving tenders to drive a tunnel 200ft. ^{cdxxii}

Dec 1882: In mechanical appliances we have a new 18-head battery of superior description, with all necessary plant and housing, at the Garfield Quartz Mine, Chewton... Unfortunately, only four steam engines are employed in draining quartz reefs...[including]...the Sir Garnet Wolseley Company, shaft 145 feet deep, draining the Argus Reef. The Garfield Company have a Tangye pump, which serves them pending the erection of the usual pumping and winding machinery...

The Garfield Company has proved to be the first successful new venture:- They started their machinery on the 6th December last, and on the 22nd, from 265 tons of quartz, they obtained 523 ozs. of retorted gold, from which a 6d. dividend, equal to £750, was declared, and in four days of the holidays 116 tons of stone were crushed for 266 ozs. of amalgam. As this company extend their workings...new bodies of auriferous quartz are discovered...and gold is showing frequently in all directions. ^{cdxxiii}

8 May 1882: A move is to be made in the General Garfield Mine, on the Dead Cat Reef, by some Sandhurst shareholders, who are so well satisfied...they propose putting up machinery on it. ^{cdxxiv}

4 Sept 1882: Garfield Co. - The new shaft is near to that of the old Dead Cat Co. ^{cdxxv}

2 Oct 1882: Wheal Margery Co. hold a claim of about 10 acres between the Argus Flat and Garfield Co. Three distinct runs of quartz go through the ground, (i) South American, (ii) Dead Cat, (iii) Sheepshead. A number of shafts have been sunk on this line but none exceed 100ft. ^{cdxxvi}

29 Jan 1883: Wheal Margery Co. - Driven tunnel 180ft. ^{cdxxvii}

26 March 1884: Wheal Margery Co. - The tributors commenced work by sinking what is now called the 'central shaft' to a depth of 21ft below the level of the tunnel and then ceased work, when the directors decided to continue sinking the shaft and for that purpose accepted the tender of Williams and party at 11s per foot for 50ft. The shaft is now down 61ft. ^{cdxxviii}

29 March 1883: Wheal Margery Co. - Since the registration of the company yor directors have urged on the work inthe mine, and have let two tributes to parties of six and our men respectively, who have met with fair success in opening up their operations, but unfotunately the water-wheel fell to pieces just as the tributers were getting into solid ground in their claims, and caused all mining operations to cease for the present. The wheel is now undergoing repair, and will be so strong as to dispense with all fear of another breakdown...Mr Yandell remarked that mechanics were very scarce in Castlemaine, and the person who erected the wheel at Fryers Creek was considered the best to employ again. Had the wheel been properly bound together it would not have fallen asunder. ^{cdxxix}

March 1883: The Wheal Margery Company have two parties of tributers raising quartz for crushing. ^{cdxxx}

March 1883: The Garfield Company...1,280 ozs. of gold have already been obtained, out of which the company have paid for machinery, and also declared two dividends of £750 each.. ^{cdxxxi}

2 April 1883: Garfield Co. - Mine Manager's Report. - On taking charge on 3rd of June last, 1882, I found two or three small shafts had been sunk in centre of gully, varying in depth from 20 to 50 feet, and as none of these were large enough for winding, and also being so low, it was decided to sink a shaft entirely out of the gully, and of a size adequate for winding by machinery, and pumps if required; and the 1280 oz 15 dwt already taken out I think fully

justifies the action of removing from the old spot to the new one. Present main shaft is 10 by 4, with two winding compartments, pumps and ladder-way... In our operations we had many drawbacks. Our first trouble was water, which was crippling us completely, but having secured a Tangye pump, and it doing its work well, we were saved from stopping; drives were then pushed on north and south, and providing it will only work to the present depth it will more than pay back the cost of it. Another trouble has been the inability to haul the dirt fast enough to grass; the horses have had just enough to do in hauling quartz to supply battery without hauling much mullock. This is being met by the erection of a double winding air-winch, and from the trials shall be able to get plenty of dirt to surface. Can now dispense with hired man and horse, which means something like £7 10s a fortnight. The No. 2 shaft has been sunk 75 feet to cut Lamb's stone, and from which payable crushings have been taken. A lot of stone is being opened up in this 400 yards of road to mine, two large dams, tailings shafts, a first class 18 head battery with iron horses, 12 horse power horizontal engine, a 28 feet 6 inches by 6 feet 6 inches best boiler, set of copper plates and blanket tables; the whole of which is covered by first rate engine house. ^{cdxxxii}

23 May 1883: Madame Garfield Co. - ...we are of the opinion that, with the payable results obtained by our neighbour, the Garfield Company, that before long we will be able to congratulate you on occupying a similar position. The work done for the half year is as follows:- A shaft has been sunk 77 feet, 7 feet x 3 feet, also timbered, and ladderway put down to bottom. ^{cdxxxiii}

June 1883: In quartz mining, the most energetic and successful companies are the Garfield... and Dyason and Co., who have again come upon gold. Both companies have Sandhurst proprietary and management, whereas the public companies subject to Castlemaine management, continue as unsuccessful as heretofore... The Garfield Company, employing 55 men... The company's Tangye pump answers very well the present depth, 130 feet; so also does their double-cylinder steam winch for winding. ^{cdxxxiv}

6 Sept 1883: Garfield Co. - Your plant is in good working order. As the winding power is being increased by having two larger cylinders fixed to winch.. ^{cdxxxv}

Sept 1883: The Garfield Company have obtained 556 oz. 16 dwt. of gold for the quarter, making 2,400 oz. 17 dwt. realized within ten months from 130 feet from the surface. ^{cdxxxvi}

26 March 1884: Garfield Co. - We have also added more steam power by having our old boiler repaired and built in...

Mine Manager's Report. - I have the honour to report that the principal part of the work done on quartz during the past half year is south of the main shaft, thence on to the boundary of Louisa James Company - distance, 280 ft from our main shaft... As we have additional steam room in the second boiler shall be able to sink the shaft another 50 ft or 60 ft. Also we have another head heads in course of erection. Besides 5092 tons crushed from the mine 410 tons have been crushed for the Louisa James Company, making a total crushed by our 18-head battery of 5502 for the past half-year; total yield of gold 1020 oz. ^{cdxxxvii}

March 1884: The Garfield Company...have fixed an additional boiler, and are erecting an extra battery. ^{cdxxxviii}

19 May 1884: A new shaft is being sunk to open out new country. ^{cdxxxix}

June 1884: The Garfield Company completed the erection of additional boiler and battery... They are sinking a new engine shaft. ^{cdxli}

Sept 1884: The Manchester and Wheal Margery Companies, who crush by water power, are re-forming, with the object of deeper and more systematic working. ^{cdxlii}

1 Oct 1884: Garfield Co. - A quarter share on Louisa James Company has also been purchased, making half the claim our property... With the sanction of directors meeting a contract was let to sink a new shaft 70 ft to the east of one now in use. ^{cdxliii}

Dec 1884: The Garfield Company...their return for the quarter was 696 1/2 ozs. of gold ^{cdxliv}

Sept 1885: The Garfield Company...purpose erecting more machinery. The company in three years obtained 7,385oz. of gold at 120 feet deep, erected 23-head battery and extensive plant, and paid 4s. per share dividend on 30,000 shares. Now they have still better prospects. ^{cdxlv}

Dec 1885: In quartz mining the Garfield Company takes the premier position for the past quarter, with 910oz. of gold... The Garfield Company's mine is only 120 to 170 feet in depth, where from large bodies of stone they have crushed with an 11-in. cylinder engine, and battery of 23 heads of 6 cwt. each, 13,017 tons of quartz, yielding

2,668oz., average 4dwt. 10gr. per ton, out of which they have paid £2,000 in dividends, besides adding to their mining plant... [the] company employs about 70 men and boys. ^{cdxlv}

March 1886 The Garfield Company has again been the most successful mine in this division... Their returns for the quarter were 793 oz. 17 dwt., of which 254 oz. was obtained from 14 tons, an average of over 18 oz. to the ton. A dividend of £500 has been paid, and extra steam machinery for pumping and winding has been erected... In opening out at 254 feet, they drain the Central and Englishman's reefs, which are within their boundary, and now prove to be connected with the Garfield Reef.

PARTIES REPORTING GOLD YIELDS FROM QUARTZ CRUSHING: Garfield Reef - Sailor's Gully (to 170 feet); Ditto Sailor's Gully (120 feet)

NUMBER AND DISTRIBUTION OF MINERS: Sailor's Gully - 92 men. ^{cdxlvi}

17 May 1886: A Sandhurst party has secured the Manchester Reef and water wheel, and the South Garfield, lately the Wheal Margery, with a second waterwheel which they propose having worked. The South Garfield ground is but an extension of the Garfield, having the same record of productiveness in the shallow ground. ^{cdxlvii}

22 July 1886: Leases 2908 (head of gully), 1465, 2682, and 1116 are all associated with Sheepshead Gully, working the southern ends of Sailors or Garfield and Central Reefs, as well as northern end of Chewton Reef. (mid grid ref. 561929)

German Gully and Little Sailor's Gully - Leases 2125, 2211, and 2187: Garfield Mining Company. Leases cross both Sailor's or Garfield Reef and the Central Reef. (mid grid ref. 562935)

Lease 2569 is centred on Englishmen's Gully, working both Sailor's or Garfield and Central Reefs. (mid grid ref 562938) ^{cdxlviii}

30 Aug 1886: The Garfield, which is at the present time most prominent, has now been in existence some four years. The original lease was for about ten acres, and was first held by a small co-operative party, who worked some spurs and small bodies of stone to shallow depths with highly remunerative results. The Garfield Company first started with this lease, but have since greatly added to their ground by taking in 3 other leases, giving a total of over 50 acres in their present holding. On the last they took up some 20 acres, so as to include a reef known as the 'Englishman's', and which proved very rich near the surface. To the west they added about ten acres, in order to secure a line known as the Energetic, and which is a continuation of the Wattle Gully line. The company's first work was a sink a new shaft, and secure of handy winding plant and crushing battery. The Englishman's reef underlies west, and the Central underlies east... It is their intention to, as soon as possible, push on with the sinking, and at about 350 ft crosscut for the east back, and the Englishman's reef, which is underlying towards the shaft. Prior to pushing on with this work the battery has to be removed, as despite their having left the large block of ground standing below at 120 ft, under the works, the ground is subsiding so fast as to endanger their foundation. The directors have determined to take advantage to the removal to make an alteration in the motive power, and the present steam power is to be superseded by water. The battery (23 heads) will be removed to about 500 ft south of the present site, in the vicinity of the Government water race, and be worked by a large water wheel over 50 ft in diameter. This will be very much less expensive than steam power, and in this case will be even less than usual, as the water will be conducted from the wheel to drive two others lower down the hill, thus reducing the cost to one-third. In connection with the lease being taken up so as to include the Energetic reef, the company are now preparing to prospect from an old shaft on the ground. This shaft was sunk by the original holders of the ground to about 140 or 150 ft, and rich stone worked, but getting poor, and water becoming troublesome, was abandoned. A good portable engine has now been erected here, and everything necessary for pumping is being prepared. ^{cdxlxi}

3 March 1887: Garfield Co. - The work carried on at your mine during the past six months has been chiefly in removal and re-erection of crushing battery, and the erection of water wheel to work the same, the contract for the latter has been completed, and we hope to be able to resume crushing in two weeks from date. All work below the surface was stopped in January last till after machinery is completed, and in consequence of there being no returns from the mine and our heavy expenditure, we have been obliged to make a call of sixpence per share, which has been duly responded to. The necessary repairs to shaft are being made, and work will be resumed in the mine immediately. In consequence of a communication from London, your directors have decided on offering the whole of the Company's leases and property for sale to a London syndicate... About 800 yards have been excavated for wheel, and two heavy stone walls have been raised to a height of 35 feet to carry a water wheel 70 feet in diameter. In the building of these walls large blocks of solid stone have been obtained, and about 7 cwt of strong hoop iron has been used for binding purposes. The water wheel, which appears to be a splendid piece of workmanship, has been put in position with counter shaft, and cog gearing resting upon massive wooden horses, the framework of a very large and commodious battery house has been raised, and quartz shoots and falling floor will be finished in two or three days. As we were compelled to put the battery well down, large excavations followed entirely increased labour and time. The fluming, which is rather a big piece of work, will be finished this week or the beginning of next; total length, 786 feet; and the highest point from ground, 60 feet. The tramway will require about three days' work to complete and connect with battery, its length will be 501 feet. The new brace and cage catchers have been

completed. Horses, boxes, and ripple tables for 15 head of stampers have been fixed in position. Shall now get on with blanket tables, etc., so that a start will be made as soon as possible. ^{cdli}

March 1887: The Garfield Company have confined their operations to pulling down and re-erecting their crushing plant adjacent to a new water-wheel of 70 feet in diameter, in form like the large wheel of a bicycle. The water to be obtained from the V.W.S. race, carried by flume about 790 feet long, on a sapling frame from 20 to 58 feet high, is intended, after discharge from this 70-foot wheel, to be conducted by flume and race, to work the Manchester 40-foot wheel. The plan, construction, and efficiency of these extensive hydraulic works have yet to be tested. Both wheels are made to revolve backward (the reverse of the ordinary over-shot wheel), the motive power being thus limited to the gravity or weight of water in the buckets. ^{cdlii}

June 1887: The Garfield 70-foot diameter waterwheel...has been completed, and works admirably; its 220 wrought-iron buckets have on either side strong wrought-iron bands, upon which a brake is easily applied by a long lever; the supply of water is regulated or stopped by other levers, all well devised and controlled by one man in charge of the battery, who can shut off the water, apply the brake to the ponderous wheel, and stop the battery with as much ease as stopping a steam-engine.

This wheel revolves (according to force of water) in 45 to 55 seconds, driving a 15-head battery from 70 to 86 falls per minute. The same water flows thence and works the Manchester(40-foot diameter) waterwheel, which drives a heavier battery of 10 stampers 64 falls per minute. This utilization of water power for quartz crushing is an important matter, affording employment to over 60 men (in place of six or eight, at sluicing, using the same water), and by saving firewood, engine-drivers, &c., reducing the cost of crushing to about one-third, thereby allowing poorer ore to be operated upon. ^{cdliii}

Sept 1887: The extensive and valuable mines, "The Garfield" and "The Manchester," have been successfully floated in the English market, in 100,000 shares of 20s each. It is stated that the present shareholders are to receive in payment for the mines, and the newly erected plant, the sum of £12,500 and 12,500 paid-up shares, the vendors discharging all outstanding liabilities. A sum of £25,000 is to be placed to the credit of the new company for developing the mines. ^{cdliiii}

21 Sept 1887: The new Company will take in the whole of this and the Manchester Company's leases adjoining. Our battery, consisting of 25 heads, and water wheel have been completed, and are now working satisfactorily. ^{cdliiv}

Dec 1887: The upper portion of the Garfield mine, let on tribute, has paid as high as £30 per man per month. ^{cdlv}

Dec 1889: The Garfield crushed 245 tons for 37oz. 11dwt. 12grs. During the quarter news was received from London that this claim and the Manchester were in the market, and with favorable prospects of floating for £40,000. Tributers are now at work. ^{cdlvi}

1 Oct 1891: Garfield Co. - Works of development have been carried on at the shallow levels and on the surface of the mine, but so far nothing of importance has been found. The work now being carried out in what is known as Ogilvie's ground, is being pushed on with as much speed as possible, and will hole through to a drive put in south some years back. ^{cdlvii}

3 June 1895: In a month a lease will be issued to J. Ebbott for the Garfield Co., a mine that should never have stopped, nor would have been, had it not been projected to launch it on the English market and pending negotiations, suspend work. ^{cdlviii}

March 1898: Forest Creek Gold Reefs: 2,003 ton crushed, 379oz gold. ^{cdlix}

June 1898: Forest Creek Gold Reefs: 2,331 ton crushed, 355oz gold. ^{cdlx}

Sept 1898: Forest Creek Gold Reefs: 165 ton crushed, 31oz gold. ^{cdlxi}

22 Oct 1898: Forest Creek Co. (Chewton) - Garfield

No. 2 lease - 44 tons from south leaders at 100 feet, yielded 10 oz. 3 dwt. Expect to have to sink shaft another 20 feet in order to be deep enough to meet run of stone worked by tributers. ^{cdlxii}

5 Nov 1898: South lease - 76 tons yielded 24-1/4 oz. Let contract to drive 100-ft level north 30 feet more or less. ^{cdlxiii}

22 Nov 1898: South lease - 85 tons yielded 13-3/4 oz... Nearly reached sandstone bar noted for carrying rich patches of gold in No. 1 lease. ^{cdlxiv}

17 Jan 1899: South lease - repairing broken segment of water wheel. ^{cdlxv}

Feb 1899: Forest Creek Gold Reefs: 117 tons crushed, 10oz gold. ^{cdlxvi}

June 1900: Forest Creek Gold Reefs: 60 ton crushed, 24oz gold. ^{cdlxvii}

July 1902: Forest Creek Gold Reefs: 281 ton crushed, 157oz gold. ^{cdlxviii}

Sept 1902: Map shows workings along the line of the reef, consisting of: large quarry on the S side of Englishman's Gully; Garfield shaft on S side of German Gully; a large tailing dam in German Gully downstream from the shaft; a smaller dam upstream; an open-cut near the battery (driven by water-wheel); flume coming from V.W.S Race; two large dams in Little Sailor's Gully; and Garfield No. 2 shaft and open cut on the S side of Little Sailors Gully. ^{cdlxix}

12 May 1903: There is a probability of Forest Creek Gold Reefs mine being closed down, and bulk of hands were laid off. The prospects are very encouraging. At No. 10 level, the reef is over 25 ft wide and averaged 7 dwts for a distance of 270 ft. Mining and general legislation in this State is the principal cause of the English directors' decision to reduce hands and possibly shut down the mine. ^{cdlxx}

March 1903: Forest Creek Gold Reefs: 670 ton crushed, 114oz gold. ^{cdlxxi}

Sept 1903: Forest Creek Gold Reefs: 3,004 ton crushed, 767oz gold. ^{cdlxxii}

1903: Chewton Gold Mines Ltd. (formerly Garfield Co. & Forest Creek Victoria Gold Reefs Co.): Compound steam battery engine, extra 10 head battery with heavy stampers (total now 25 stampers) and high pressure boiler erected; 75 foot diameter water wheel discarded; modern double cylinder first motion steam winding engine in use with baling tanks ^{cdlxxiii}

Dec 1904: Forest Creek (Victoria) Gold Reefs Ltd.: 3,236 ton crushed, 852oz gold. ^{cdlxxiv}

1904: Chewton Gold Mines Ltd.: 25 head battery . ^{cdlxxv}

1904: But like all things, the wheel became old, and the strong winds interfered with its efficiency, sometimes breaking cogs, when they did not mesh correctly. The wooden spokes of the wheel became worn, and then loose at the joints.

And so, in 1904, it gave way to a steam power plant, which drove an additional 10 head of stampers. The wheel was dismantled, and became only a memory. Nowadays, all that remains are these two great abutments in massive masonry, which formed its main supports. ^{cdlxxvi}

March 1905: Forest Creek (Victoria) Gold Reefs Ltd.: 2,890 tons crushed, 716oz gold. ^{cdlxxvii}

1905: Chewton Gold Mines Ltd.: 25 head battery. ^{cdlxxviii}

Chewton Gold Mines Ltd.: 10 head battery with 1000 pound stampers; discarding 15 heads of 800 pound stampers on the old pattern and replacing them with 10 heads of heavy stampers . ^{cdlxxix}

1906: Chewton Gold Mines Ltd.: 20 head battery . ^{cdlxxx}

May 1906: Forest Creek (Victoria) Gold Reefs Ltd.: 2,060 tons crushed, 474oz gold. ^{cdlxxxi}

June 1906: Forest Creek (Victoria) Gold Reefs Ltd.: 4,490 tons crushed, 820oz gold. ^{cdlxxxii}

27 Aug 1906: All hands laid off pending instructions from London. ^{cdlxxxiii}

Oct 1906: Forest Creek (Victoria) Gold Reefs Ltd.: E.J. Hartley, Castlemaine, Legal Manager. ^{cdlxxxiv}

1907: Chewton Gold Mines Ltd.: 25 head battery . ^{cdlxxxv}

March 1908: Chewton Gold Mines Ltd.: 449 ton crushed, 110oz gold. ^{cdlxxxvi}

June 1909: Chewton Gold Mines Ltd.: 1517 ton crushed, 299oz gold. ^{cdlxxxvii}

Oct 1909: Chewton Gold Mines Ltd.: E.J. Hartley, Legal Manager. ^{cdlxxxviii}

March 1910: Chewton Gold Mines Ltd.: 2,247 ton crushed, 489oz gold. ^{cdlxxxix}

3 August 1910: .. next in line is the Garfield Reef. It is now working on English capital under the name of the Forest Creek Gold Mines. This is the same mine that led the regrettable Dead Cat boom. Up until 1887 the Garfield had got to 250ft and crushed 52,000 tons for 11,704 ozs. gold, when it was shut down. The present company (of which Mr. Hartley of Melbourne, is the legal manager, and Mr. John Ebbott mine manager) has wisely started to sink. While they have no means struck a bonanza, the results down to below 1000ft. have been such to encourage the British directors to keep on paying into it. Included in their lease is the Manchester line of reef, to the west. This is regarded as the continuation of the famous Wattle Gully line. It has never been tested in the space between the railway and the Forest Creek Co's. ground. The Manchester line was opened in 1854. The surface workings were reputedly rich, some of it going as high as 4 ozs. to the ton. The open cut was worked for 80ft by 100ft., and yielded 2428 ozs. from 7403 tons. From what is known as the Energetic shaft on the same lease, some good returns received down to 140ft. The total registered yields are 11,015 tons for 3649 ozs. ^{cdxc}

Sept 1910: Chewton Gold Mines Ltd.: 3,708 ton crushed, 555oz gold. ^{cdxcii}

Oct 1910: Chewton Gold Mines Ltd.: J. Hartley, Legal Manager. ^{cdxciii}

Sept 1911: Chewton Gold Mines Ltd.: 374 ton crushed, 70oz gold. ^{cdxciv}

1912: Chewton Gold Mines Ltd.: Mine closed; machinery sold ^{cdxcv}

May 1937: New Garfield - A preliminary meeting of New Garfield Gold No Liability held at Castlemaine ... The company is to operate on a lease about one mile a little west of north from Chewton, which includes several well defined and proved lines of reef, notably the Sailors Gully or Garfield, Dead Cat and Quartz Hill. ^{cdxcvi}

July, 1938: New Garfield, Chewton. Work has been confined to erection of plant and reconditioning of shaft, which has been unwatered to 72 feet, and No. 1 plat opened at 68 feet. ^{cdxcvii}

4 Aug 1938: New Garfield - operations still suspended owing to inability to obtain water from Government race for boiler purposes. ^{cdxcviii}

Jan 1939: Notes on Chewton Mines

New Garfield- No development work at this mine was practicable, and in both the Quartz Hill and the New Garfield mines operations have been suspended. ^{cdxcix}

13 March 1939: New Garfield Gold - Owing to the necessity of selling the forfeited shares in the hands of the company, and the shortage of water for boiler purposes, owing to the drought, operations at the mine were suspended in July last. All forfeited shares in the hands of the company have been sold to a Western Australian group, and the total number of contributing shares is now 45,000, and the company's finances are in a satisfactory position. The recent rains have filled the company's dams, and there is sufficient water to provide three months' supply, with good prospects of future requirements being available. Mr W.J. Moore, of Bendigo, has been appointed mine manager, and operations at the mine were resumed on March 6. The unwatering of the mine will be immediately commenced, and the first objective will be to carry out development work at the 373 ft leve. Mr Leo. H. Hunter, of Perth, has been appointed a director to represent West Australian interests, and Mr M. Finkelstein, of Melbourne, has been appointed alternate director to act for him. ^{cdcx}

25 March 1939: New Garfield. Main shaft: On commencement of operations on March 16, inspection showed the main shaft repaired to 71 ft. Removed timber and mullock and repaired shaft to depth of 101ft from surface. Bailing water with both tanks. ^d

July 1939: New Garfield, Chewton - Resumed work in March, and have since been engaged in reconditioning the main shaft to 325 feet. ^{di}

19 June 1941: Prospecting shaft sunk 5 ft to 45 ft. Timbered 8ft to 23 ft. Five tons of south quartz sent to Government battery.^{dii}

6 Feb 1942: Prospecting shaft: Overhead drive south off rise to 20 ft. Reef 4ft wide, showing gold. Arrangements made for crushing at Government Battery.^{diii}

27 Feb 1942: Breaking stone in overhead drive south off rise, 5ft of stone. Gold in small prospects. Cleaning out and timbering south drive in bottom level. Fine gold in dish prospects. Crushed 35 tons at Maldon State battery for a return of 4 oz 7 dwt 5 grns. retorted gold. An average of 2 dwt 11 grns. per ton. Sands assayed 18 grns. per ton, making a total value of ore crushed 3 dwt 5 grns. per ton.^{div}

1942: Map shows the Garfield No. 1 shaft (as named in map dated 1902) as New Garfield Shaft.^{dv}

1943: The following mines have closed down owing to call up of manpower:- Argus Hill, Chewton; New Garfield, Chewton.^{dvi}

1945: Mines likely to re-open in the Chewton area in the near future are :- New Garfield, Argus Hill, and Eureka Vineyard.^{dvii}

1990: Sailor's Gully. On opposite side of gully to Energetic mine. House site, consisting of stone footings and intact fireplace...the old fellow who lived here used to keep a visitors book. Any one who visited the place..he got them to fill in their name. He had a decent garden. Originally this may have been one of the mine manager's houses.

Eastern slope of Sailor's Gully, or western slope of Manchester Hill, has been ground sluiced to bed rock, from Little Sailor's Gully to Golden Gully. The gully itself has been done over by hydraulic sluicing.

Sailor's Gully, S side, from Englishman's Gully to head of gully is a section of old road (shown on 1861 map). On the side of the road are 3 house sites. This road leads to Little Quartz Hill. At the head of Sailor's Gully are 2 puddling machine sites.^{dviii}

DESCRIPTION

The dams are all related to quartz mining operations carried out along the lines of workings known as the Garfield Reef. They all appear on a mining survey map dated September 1902.

The Garfield Company erected the water wheel in 1886/87. This wheel was later operated by the Forest Creek Gold Mining Company until about 1903. In the late 1930s the New Garfield Company built the concrete engine mounting blocks found near the capped shaft (Garfield No. 1).

The cyanide vats found in Little Sailor's Gully were, according to local historian George O. Brown, operated by Alex Archbold during the 1950s. Apparently tailings were brought here from surrounding districts.

Site 12.0 - Consists of two large stone abutments, sections of concrete floor and some battery footings. On the hill above, to the E, is situated the Golden Point water race and take-off point for the wooden flume that fed the under-shot water wheel.

Site 12.1 - A large tailing dam in Little Sailors Gully has been mostly quarried away. The dam's earthen wall would originally have been over 5m high. A small section of tailings survive in the SW corner and here can be seen the remains of at least two cyanide vats. One of the circular vats is exposed in the quarried face of the tailing dam. This tank is lined with a double row of bricks, is 5m in diameter and is over 1.1m deep. A second tank survives, but appears to have just been lined with galvanized iron. The area surrounding the two surviving tanks is littered with the debris of others.

Site 12.2 - Located 150m due north of the W end of water-wheel abutments, on the S side of German Gully, are three large concrete mounting blocks and several smaller ones. These mounting blocks have been built in an excavation measuring about 14m by 11m. They still retain their iron mounting rods (1" diam). The concrete is very crumbly, and thus the mounting blocks are in a very unstable condition. The remains of the a large iron chimney stack (1.10m diameter and 6.8m long) lie near the mounting blocks. A shaft, the Garfield No. 1, has been capped, and is 17m to the N. A road runs between the shaft and mounting blocks, and on this roadway can be seen some earlier stone footings.

Site 12.3 - 180m W of the Garfield No.1 shaft is a large tailing dam, across German Gully. It is very eroded but would have been about 160m wide, about 3m to 4m deep.

180m to the E of the Garfield No.1 shaft is another earthen dam which is about 20m wide and stands to a height of 3m. A galvanised iron outlet pipe runs through the dam wall.

PHOTOS:

Black and White

ARTEFACTS: None visible

INTEGRITY/CONDITION: Good

THREATS:

CULTURAL SIGNIFICANCE:

Site 12.0 has:

- | | |
|-------------------------|---|
| Historical Significance | - The Garfield water-wheel abutments have considerable scientific and historic significance, being the site of the largest water-wheel ever erected in Australia. |
| Social Significance | - The site also has considerable social value, as testified by a commemorative plaque attached to its structure's northern abutment. |
| Scientific Significance | - The site has considerable ability to demonstrate water-powered crushing technology. |

Sites 12.1 to 12.3 have:

- | | |
|------------------|--|
| Cumulative Value | - The value of the abutments would be considerably enhanced by the nomination of alluvial and quartz mining sites that lie within, and in close proximity to, the lease of the company that constructed the water wheel. These sites,(12 to 19) are easily accessible to the visitor and illustrate a series of re-workings which lie at the heart of the mining history of the goldfield. These sites, contained within an area approximately 0.9km by 1.5km. |
|------------------|--|

Significance ranking	Site 12.0	The Garfield stone water wheel abutments are already on the Register of the National Estate.
	Sites 12.1 to 12.3	Regional significance

CONSERVATION POLICY:

The significance of the place is enhanced by the historical and social importance of the Garfield Co.'s water wheel abutments. The landscape surrounding the abutments (Sites 12 to 19) is easily accessible to the visitor and illustrates a series of re-workings which lie at the heart of the mining history of the goldfield.

RECOMMENDATIONS FOR IMPLEMENTATION:

All relics making up Sites 12 to 19 be protected and the whole landscape (place) nominated for inclusion on the National Estate.

Assessor: David Bannear

Date: 1993

SITE NO. & NAME: **ENGLISHMAN'S REEF**
13.0 Englishman's Reef workings
13.1 Englishman's Reef Co.

LOCATION: **East side of Sailor's Gully**

DIRECTIONS: Follow the track that runs along the east side of Sailor's Gully

MAP/GRID REFERENCE: Site 13.0 Chewton 1:25,000 - 563.937
 Site 13.1 Chewton 1:25,000 - 564.939

PARCEL NUMBER: P121393

MUNICIPALITY Metcalf

LAND STATUS: Public Purpose Reserve/proposed Castlemaine Historic Reserve

EXISTING HERITAGE CLASSIFICATION: None

PRESENT MANAGEMENT/USE: LCC Rec - J1

HISTORY:

29 Oct 1858: Sailor's Gully Reef (Englishman's) - Whitaker getting up to 9.5 oz per ton. ^{dxix}

22 Dec 1858: Henry Whitaker - 7 tons yielded 14 oz - also crushed 13.5 tons for 180 oz. ^{dx}

July 1859 : .the Englishman's Reef, lately yielding such treasures, is now almost abandoned. ^{dxix}

June 1859: A new amalgamator has been invented by a Forest Creek machinist (Whittaker). It consists of a small portable cylinder, revolving in a larger one containing mercury. The matrix is passed through the quicksilver, and discharged upwards. This amalgamator is being experimented with, and I hope soon record its efficiency. ^{dxii}

August 1859: Steam machinery employed in quartz-crushing: Whittaker, Forest Creek, 8 h.p. 2 pairs of Chilean rollers. ^{dxiii}

August 1859: 6 claims working, 14 miners. ^{dxiv}

20 Dec 1859: Englishman's Gully -

1 dam/2 puddling machines A'Gee 6C

1 dam/1 puddling machine C. King 4

Across the middle reaches of Englishman's Gully runs a lease of ten acres (aligned N-S) - the Englishman's Reef Company (mid grid ref. 564940) ^{dxv}

end 1859: This reef was worked by a number of small claim-holders with profitable results until the end of 1859, and was then abandoned, the workings having reached water-level. ^{dxvi}

May 1860: Parties reporting quartz yield: Whittaker. ^{dxvii}

Dec 1860: Quartz Reefs actually proved to be auriferous: Englishman's Reef

No. of claims: 1

Extent of claim: 153 feet

No. of men employed: 3

Extent of Reef prospected: 650 feet

Two claims have been very rich. ^{dxviii}

1 Nov 1861: Walker and Co. - have taken up a claim - 3 years previous, Whitaker and Co. obtained 400 oz. ^{dxix}

26 June 1871: Englishman's Reef all taken up again. ^{dxix}

June 1871: The Englishman's Reef is applied for under lease. ^{dxix}

Sept 1872: On the Englishman's Reef, which, in 1859, was worked to water-level and yielded from 5 to 37 ozs. to the ton, a 14 horse-power locomotive engine, for pumping and winding, has been erected; the shaft is 163 feet deep, the reef apparently thrown out of its course easterly, toward which the present owners are now driving.^{dxxii}

June 1873: The Englishman's Company obtained from a small reef 6 ozs. per ton from 6 tons, and are now sinking shaft to enable them to follow gold.^{dxxiii}

Sept 1873: On the Englishman's Reef, so long idle, by the application of steam-wrought draining machinery, the ground has been drained, and a splendid golden reef is being opened out.^{dxxiv}

Dec 1873: The deepest mines in this division are - ...[9th] the Englishman's, fixing pumps at 280 feet, with rich quartz above.^{dxxv}

15 May 1874: 24 tons mined for yield of 41-3/4 oz.^{dxxvi}

6 July 1874: 25 tons mined for yield of 12 oz 13 dwt.^{dxxvii}

March 1875: The Englishman's and Warren's Company's machinery have been sold and removed from the district.^{dxxviii}

March 1886: The Garfield Company [Sailor's Gully]... In opening out at 254 feet, they drain the Central and Englishman's reefs, which are within their boundary, and now prove to be connected with the Garfield Reef.^{dxxix}

22 July 1886: Lease 2569 is centred on Englishman's Gully, working both Sailor's or Garfield Reef and the Central Reef. (mid grid ref. 562938)^{dxxx}

30 Aug 1886: The Garfield Company first started with this lease, but have since greatly added to their ground by taking in 3 other leases, giving a total of over 50 acres in their present holding. On the last they took up some 20 acres, so as to include a reef known as the 'Englishman's', and which proved very rich near the surface... The Englishman's reef underlies west, and the Central underlies east... It is their intention to, as soon as possible, push on with the sinking, and at about 350 ft crosscut for the east back, and the Englishman's reef, which is underlying towards the shaft.^{dxxxi}

Sept 1902: Map shows Englishman's Shaft, located just below V.W.S race. This race is a continuation of the race that supplied water to the Garfield water wheel. Also dam in gully upstream from the mine site.^{dxxxii}

1990 : Englishman's Gully - two lines of workings. The most easterly line contains an 'intact' mining site consisting of undisturbed mullock heap, deep shafts, stone building, and possible site of chimney stack. Workings been cut by water race. On the most westerly line of workings is a disturbed site - shaft filled in, quarried mullock heap, but with the remains of one house and a blacksmith shop.^{dxxxiii}

DESCRIPTION

The remains of quartz mining found on both sides of Englishman's Gully appear to relate to mining operations conducted from the late 1850s to mid 1870s. Certainly, the later date is supported stratigraphically, as workings from the northern mine have been cut by the V.W.S water race. The southern mine workings probably relate to operations on the Central Reef. Both of these reefs, after abandonment in the mid-1870s, were worked from cross-cuts from the Garfield No. 1 shaft.

Site 13.0 - On the S side of Englishman's Gully is a small mullock heap (partially bulldozed). Near it are the remains of a small stone structure.

17m to the S is a small mullock heap and loading bay. The loading bay has side walls 2m long, the rear wall is 2.7m wide, and is over a metre high.

About 3m from the loading bay, on the north side of the mullock heap, are the remains of a blacksmith shop. The walls of the smithy are of stone, and the building measures 4.3m x 3m wide. The stone walls are 50cm thick and stand to a height of 1m. In the E corner is the remains of a forge. The forge is partially buried by rubble, measures approx. 1m square, and stands to a height of 40cm. Small scraps of iron are associated with this building.

Site 13.1 - On the opposite of the gully, slightly higher up, is another mining site. The site includes a large mullock heap which runs along the E side of small gully. There is a stone loading bay at the N end of the mullock heap. The loading bay has been cut by a concrete-lined channel of the V.W.S race. The loading bay is constructed of stone and clay mortar and the walls stand over 1.8m. The E wall is about 5m in length, and the rear wall approx 3m wide. Immediately behind the loading bay is a deep, open shaft.

On the E side of the mullock heap are the remains of a stone building. The stones used in the building have been dressed on both sides. Overall dimensions of the building are 3.6m x 3m. The walls are 40 to 50cm thick and there is a fireplace built in the middle of the W wall. The E wall is the most intact, standing to a height of 2.4m. The V.W.S. water race passes within 2m of N wall.

10m to the SE is some very deep open-stoping. There is a deep, open shaft on the northern end of the stoping. 16m further E are the remains of a stone structure.

PHOTOS: Black and White
ARTEFACTS: Scraps of iron associated with forge
INTEGRITY/CONDITION: Good
THREATS:

CULTURAL SIGNIFICANCE:

The site has:

- | | |
|-------------------------|--|
| Scientific Significance | - The Englishman's Reef site contains well preserved relics which help illustrate the nature of mid/late 19th century small scale quartz mining. |
| Cumulative Value | - The value of Englishmans Reef site is enhanced by its proximity to (and association with) the Garfield water wheel abutments. The relics at both these sites, go hand in hand with others in the general area (sites 12 to 19) to illustrate to the visitor a series of re-workings which lie at the heart of the mining history of the goldfield. All the sites have the added value of being accessible and well preserved. |

Significance ranking: Regional

CONSERVATION POLICY:

The significance of the place comes from the age and relative undisturbed nature of the relics and from its proximity to the Garfield water wheel abutments.

RECOMMENDATIONS FOR IMPLEMENTATION:

Sites be protected and all relics making up Sites 12 to 19 be protected and the whole landscape (place) nominated for inclusion on the National Estate.

Assessor: David Bannear Date: 1993

SITE NO. & NAME: **MANCHESTER HILL**
14 Energetic Co.
15 Manchester Hill Workings

LOCATION: **Chewton**

DIRECTIONS: Follow the track to Manchester Hill, that runs along the E side of German and Sailor's Gullies.

MAP/GRID REFERENCE: Site 14: Chewton 1:25,000 - 558.935
Site 15 : Chewton 1:25,000 - 559.932

PARCEL NUMBER: P121393

MUNICIPALITY Metcalfe

LAND STATUS: Public Purpose Reserve/proposed Castlemaine Historic Reserve

EXISTING HERITAGE CLASSIFICATION: None

PRESENT MANAGEMENT/USE: LCC Rec - J1

HISTORY:

1854: The Manchester line was opened in 1854. The surface workings were reputedly rich, some of it going as high as 4 ozs. to the ton. The open cut was worked for 80ft by 100ft., and yielded 2428 ozs. from 7403 tons. From what is known as the Energetic shaft on the same lease, some good returns received down to 140ft. The total registered yields are 11,015 tons for 3649 ozs. ^{dxxxiv}

1850s: This reef was worked from surface to 120 feet by a great number of small claim-holders prior to 1860; the yields, although small, being regular. ^{dxxxv}

August 1859: 5 claims working, 13 miners, Manchester Reef Company. ^{dxxxvi}

August 1859: List of companies in existence and contemplated [includes]: Manchester Reef Company, Manchester Reef, 1000 yards, partially working. ^{dxxxvii}

Sept 1859: Yield of quartz: Manchester Reef - Chinese, 20 tons yielded 19 oz. 3 dwt. ^{dxxxviii}

Dec 1859: Parties reporting yields of quartz include the following: Kewl and Co., Chinese. ^{dxxxix}

20 Feb 1860: Manchester Reef (Lichfield and Co.) - 17 tons yielded 10 dwt/ton. ^{dxl}

May 1860: Parties reporting quartz yields: Chambers, McWatton, Jamieson. ^{dxli}

Dec 1860: Quartz Reefs actually proved to be auriferous: Manchester (2)

No. of claims: 3

Extent of claim: 365 feet

No. of men employed: 6

Quartz Reefs actually proved to be auriferous: Manchester (2)

No. of claims: Lease

Extent of claim: 825 feet

No. of men employed: 8

Extent of Reef prospected: 4,000 (claims and lease combined) ^{dxlii}

Dec 1860: Quartz leases applied for and surveyed, but not yet demised: [include]

Manchester Reef Company

Applicant: T. Walker and Company

Area: 4 acres 1 rod 10 perches

Feet on reef: 825

Machinery: Twenty horse-power engine, twenty stamps

Number of men employed: 8. ^{dxliiii}

- August 1861: Monthly quartz returns list Fairbairn as obtaining quartz from Manchester Hill and Reef. ^{dxliv}
- Nov 1861: Map shows Lease No. 94, Walker and Co, working Manchester Reef (grid ref 557934), also site of one horse mill (Chilian Mill) ^{dxlv}
- 14 Feb 1862: Walker and Co. - preparing to erect pumps as they have reached the water level. ^{dxlvi}
- 14 April 1862: King and Co. tried a spot near the old Chinese claim and got 14.5dwt. per ton. ^{dxlvii}
- 18 April 1862: Musset and Co. - crushing. ^{dxlviii}
- 27 May 1864: Walker and Co. - applied for extension of this lease on north side of hill at its base- have worked this reef successfully for nearly 8 years - new lease will allow digging of tunnel. ^{dxlix}
- 1865: Parties reporting yields from quartz crushings in 1865 - Walker and Company . ^{dl}
- 1866: Parties reporting yields from quartz crushings in 1866 - Walker, Walker and Company . ^{dli}
- 1867: Parties reporting yields from quartz crushings in 1867 - Walker and Co., Wilson and Co., Energetic. ^{dlii}
- 1868: Parties reporting yields from quartz crushings in 1868 - Walker and Co. ^{dliii}
- Sept 1870: On the Manchester Reef the Energetic Company, having erected machinery for draining the mine, have been rewarded with 204³/₄ ozs. of gold from 234 tons of stone. The adjoining ground is again taken up to work below water-level. ^{dliv}
- 25 Oct 1871: The Broubadour (Patrick Furlong and John Stratford) - application for lease north of Energetic lease. ^{dlv}
- 30 Oct 1871: Walker and Co. ^{dlvi}
- June 1872: On the Nimrod and Manchester Reefs new plants are being erected to work below water-level. ^{dlvii}
- Sept 1873: On the North Manchester Reef, a fine plant for drainage purposes has been completed and started, which will again bring this line of reef into favorable notice. ^{dlviii}
- 27 April 1874: Energetic Mine - Struck very rich stone in lower level - one dish contained 1 to 2lbs gold. This company working here 12 months. Lowest level at 130 feet. ^{dlx}
- 24 Oct 1874: Energetic Mine - Meeting held to appoint a liquidator. ^{dlxi}
- 1875: Walker and Co. continued to work this reef till 1875. ^{dlxii}
- 8 March 1875: Energetic Mine disposed of by sheriff. ^{dlxiii}
- n.d. [1875]: The old Energetic Mine on the Manchester Reef is to be worked again.. ^{dlxiv}
- 17 May 1875: New Energetic Company - Contractors progresing with erection of machinery. ^{dlxv}
- 31 May 1875: What appears to be a new reef carrying gold has been found on the company's ground. ^{dlxvi}
- 12 July 1875: The Energetic Co. have recommenced operations. ^{dlxvii}
- 30 Aug 1875: 92 oz gold from month's crushings. ^{dlxviii}
- Sept 1875: The Bolivia, Nuggety, Manchester, and Burns Reefs are again being profitably worked. [10]

Dec 1877 : The Ajax, Devonshire, White Horse, Manchester, Nuggety, Cumberland, Burns, Caledonia, Old Quartz Hill, Sebastopol, and other noted reefs, continue unworked. ^{dlxviii}

Sept 1878: The Nuggety Company have purchased the Energetic plant, including two engines, 12-head battery, pumping and winding gear, &c., which is being erected. ^{dlxix}

June 1879: A portion of the Manchester Reef (late Walker's) has also been let on lease. ^{dlxx}

Dec 1879: On the Manchester Reef the lessee is erecting a water-wheel and ten-head battery. ^{dlxxi}

Sept 1880: The Manchester Reef Waterwheel Company have come upon a large body of payable stone. As they work by a tunnel and crush by water-power, they have good prospects before them. ^{dlxxii}

Sept 1884: The Manchester and Wheal Margery Companies, who crush by water power, are re-forming, with the object of deeper and more systematic working. ^{dlxxiii}

June 1886: The Manchester Company Water Wheel have recommenced crushing, and machinery is being erected upon adjoining lease, the Energetic. ^{dlxxiv}

30 Aug 1886: The Garfield Company first started with this lease, but have since greatly added to their ground by taking in 3 other leases, giving a total of over 50 acres in their present holding... To the west they added about ten acres, in order to secure a line known as the Energetic, and which is a continuation of the Wattle Gully line. The company's first work was a sink a new shaft, and secure of handy winding plant and crushing battery. ^{dlxxv}

March 1887: The Garfield Company have...a new water-wheel of 70 feet in diameter, in form like the large wheel of a bicycle. The water to be obtained from the V.W.S. race, carried by flume about 790 feet long, on a sapling frame from 20 to 58 feet high, is intended, after discharge from this 70-foot wheel, to be conducted by flume and race, to work the Manchester 40-foot wheel... Both wheels are made to revolve backward (the reverse of the ordinary over-shot wheel), the motive power being thus limited to the gravity or weight of water in the buckets. ^{dlxxvi}

June 1887: The same water flows [from the Garfield wheel] and works the Manchester (40-foot diameter) waterwheel, which drives a heavier battery of 10 stampers 64 falls per minute. ^{dlxxvii}

Sept 1887: The extensive and valuable mines, "The Garfield" and "The Manchester," have been successfully floated in the English market, in 100,000 shares of 20s each. It is stated that the present shareholders are to receive in payment for the mines, and the newly erected plant, the sum of £12,500 and 12,500 paid-up shares, the vendors discharging all outstanding liabilities. A sum of £25,000 is to be placed to the credit of the new company for developing the mines. ^{dlxxviii}

Dec 1889: During the quarter news was received from London that [the Garfield] and the Manchester were in the market, and with favorable prospects of floating for £40,000. Tributaries are now at work. ^{dlxxix}

20 July 1896: A start...has been made with a main shaft in the ground designated the Energetic, where so much heavy gold was realised. ^{dlxxx}

24 Aug 1896: The shaft is down 34 feet, is close timbered for 26 feet, divided into three compartments. ^{dlxxxi}

26 Sept 1898: Forest Creek (Vic) Gold Reefs Ltd. - Pumping Energetic and Manchester line - water is down 95 feet in Energetic, which is now timbered to 90 feet. ^{dlxxxii}

24 Feb 1899: Energetic - main shaft sunk total 189-1/2 feet. ^{dlxxxiii}

c. 1902 ...the Forest Creek (Victoria) Gold Reefs Company (the amalgamated leases) started open-cut workings, operating on large spurs and irregular bodies of stone. ^{dlxxxiv}

Sept 1902: Map shows large open cut on the crown of the hill; Battery and Energetic shaft on south side of Little Sailor's Gully, where it joins up with Sailor's Gully; and a pipe head, and flume coming from a race connected to the Forest Creek (Victoria) Gold Reefs Company's large waterwheel. ^{dlxxxv}

3 Aug 1910: .next in line is the Garfield Reef. It is now working on English capital under the name of the Forest Creek Gold Mines. This is the same mine that led the regrettable Dead Cat boom. Up until 1887 the Garfield had got to 250ft and crushed 52,000 tons for 11,704 ozs. gold, when it was shut down. The present company (of which Mr. Hartley of Melbourne, is the legal manager, and Mr. John Ebbott mine manager) has wisely started to sink. While they have no means struck a bonanza, the results down to below 1000ft. have been such to encourage the British directors to keep on paying into it. Included in their lease is the Manchester line of reef, to the west. This is regarded as the continuation of the famous Wattle Gully line. It has never been tested in the space between the railway and the Forest Creek Co's. ground. The Manchester line was opened in 1854. The surface workings were reputedly rich, some of it going as high as 4 ozs. to the ton. The open cut was worked for 80ft by 100ft., and yielded 2428 ozs. from 7403 tons. From what is known as the Energetic shaft on the same lease, some good returns received down to 140ft. The total registered yields are 11,015 tons for 3649 ozs. ^{dlxxxvi}

1945: Map shows tunnel driven in from N side of Golden Gully, into Argus Hill . ^{dlxxxvii}

1990: Manchester Hill/Reef - extensive open cutting, some shafts and tunnels. Very little mullock about. ^{dlxxxviii}

1990: On the N side of Golden Gully - tunnel driven N into Manchester Hill...at the back of Badger's Keep Nursery. The entrance to the tunnel is near a large native cherry tree, but hidden by chinese gorse and blackberries. The head of Golden Gully has been sluiced to bedrock. ^{dlxxxix}

DESCRIPTION

In 1886 the Garfield Co. purchased the Energetic property and erected winding gear and a battery at the Energetic shaft. The remains probably date to this period of working, which appears to have ended sometime in the early 1910s. The extensive workings on the hill would date from 1854 to 1890s.

Site 14 - The battery site consists of an engine block which is mostly buried by mullock. The shaft has been filled and the area bulldozed. The engine block would measure at least 1.5m wide, 3.2m long, and stand 2m high. The exposed section of mounting block, built of stone and a hard mortar, shows two profiles of iron rods.

2m to the N are some decayed wooden blocks marking the site of the stamp battery.

20m W of engine block is a long narrow excavation, 3.2m wide, at least 1.2m deep, and over 8m long. It is partly filled by gravel.

Site 15 - A very large open-cut dominates the crown of Manchester Hill. Also some shafts and tunnelling. There is a fairly safe walking track through the deep open-cut. About half way up Golden Gully, on the N side, near a large native cherry tree, is a tunnel driven north onto the Manchester Reef. The entrance is largely obscured by weed growth.

PHOTOS: Black and White

ARTEFACTS: None visible

INTEGRITY/CONDITION: Good

THREATS:

CULTURAL SIGNIFICANCE:

The two sites have:

Scientific Significance - Manchester Hill area contains relics which help illustrate the nature of mid/late 19th century small scale quartz mining.

Cumulative Value - The value of the Manchester Hill sites is enhanced by its proximity to (and association with) the Garfield water wheel abutments. The relics at both these sites, go hand in hand with others in the general area (sites 12 to 19) to illustrate to the visitor a series of re-workings which lie at the heart of the mining history of the goldfield. All the sites have the added value of being accessible and well preserved.

Significance ranking: **Regional significance**

CONSERVATION POLICY:

The significance of the sites come mostly from their proximity to the Garfield water wheel abutments.

RECOMMENDATIONS FOR IMPLEMENTATION:

Sites be protected and all relics making up Sites 12 to 19 be protected and the whole landscape (place) nominated for inclusion on the National Estate.

Assessor: David Bannear

Date: 1993

SITE NO. & NAME: **SAILOR'S GULLY ALLUVIAL SITES**
16.0 hydraulic sluicing
16.1 ground sluicing channels and paddocks
16.2 Sluicing Paddock
16.3 Ground sluicing Channels and Paddocks
16.4 Ground Sluicing Channles and Paddocks
17. Water Race and Iron Flume
18.0 Puddling Machine Site
18.1 Puddling Machine Site
19.0 House s site
19.1 House site
19.2 House site
19.3 Adjoining House sites
19.4 House site

LOCATION: **Chewton**

DIRECTIONS: North and south sides of Sailor's Gully.

MAP/GRID REFERENCE: Site 16.0: Chewton 1:25,000 - 557.933
 Sites 16.1 to 16.4: Chewton 1:25,000 - 559.937
 Site 17: Chewton 1:25,000 - 564.942
 Sites 18.0 and 18.1: Chewton 1:25,000 - 565.942
 Site 19.0: Chewton 1:25,000 - 558.935
 Sites 19.1 to 19.3: Chewton 1:25,000 - 557.936
 Sites 19.4: Chewton 1:25,000 - 565.943

PARCEL NUMBER: P121393

MUNICIPALITY Metcalfe

LAND STATUS: Public Purpose Reserve/proposed Castlemaine Historic Reserve

EXISTING HERITAGE CLASSIFICATION: None

PRESENT MANAGEMENT/USE: LCC Rec - J1

HISTORY:

c. Oct 1851: One day a runaway sailor...put up a mia-mia with bushes on the other side of the creek... The poor fellow was drinking heavily for two or three days. On the following Wednesday I was passing his mia-mia when a lot of blow-flies attracted my attention. I looked in and then saw the poor sailor lying dead... We buried the poor run-away near his mia-mia, and the locality was afterwards known as "Sailor's Gully." ^{dxcc}

Oct 1851: In October, 1851, gold was first discovered at Golden Point...and at Sailor's Gully...; in each case 8 to 12 inches of black soil overlaid deposits of gold, yielding from 12 to 20oz. to the tub of washdirt. As the workings extended, similar yields were common, and many extraordinary finds were made of 200 to 2,000oz., aggregated in small hollows, or "pockets", in the bed-rock. ^{dxci}

23 March 1855: On the opposite side of Forest Creek, also, many are actively engaged in erecting puddling machines, particularly at Sailor's Gully and the neighborhood of Quartz Hill. ^{dxcii}

21 March 1856: A whim, capable of drawing up 120 gallons of water in three minutes, is now in full work at the back of the Manchester; it is the property of Mr Bickford the butcher, who, ten years ago, in England, invented a machine of the same description. It is worked by one horse. ^{dxciiii}

28 March 1856: Sailor's Reef, Back of Manchester Hotel - Mr Bickford and party have struck upon a reef 130 feet deep. ^{dxciiv}

August 1859: List of companies in existence and contemplated [includes]: Mount Alexander Quartz Company, Sailor's Gully, 300 yards, working. ^{dxcv}

20 Dec 1859: Sailor's Gully -
 Between junctions with Little Sailor's Gully and German Gully:

Alluvial lease	Yin lan	8C
Dam/Puddling machine	Ah'Shing	9C
"	"	A'Haw 8C
"	"	A'Hik 8C
Between junctions with German and Englishman's Gullies:		
2 puddling claims	A'Yung	10C
	A'Yong	8C . dxcvi

13 Oct 1860: Sailor's Gully and Flat - sludge channel, 12 puddling machines. dxcvii

Nov 1860: Numbers & Occupations of Miners: -
 Europeans: 10 puddlers
 Chinese: 6 puddlers, 41 tub and cradle workers.
 11 puddling machines. dxcviii

Sept 1861: In Sailors' Gully valuable specimens are found near the surface in new ground, the reef apparently being a continuation of Dead Cat Reef. dxcix

Oct 1861: Parties crushing quartz: Marsh - 6 ton yielded 10 dwt 12 gr. dc

Sept 1864: No./Location of Alluvial Miners:

Sailor's Flat &c. - Europeans: 10 puddlers, 2 ordinary miners - Chinese: 27 puddlers, 26 ordinary miners

Sailor's Gully and branches - Europeans: 29 puddlers, 13 ordinary miners - Chinese: 15 ordinary miners. dci

March 1872: From a new reef in Sailor's Gully, Harvey obtained 22 ozs. 10 dwts. from 9 tons... Number and Distribution of Miners on the Goldfields, &c.

Sailor's Gully 29

Parties Puddling or Sluicing:

Niesen, Sailors. dcii

1990: Sailors Gully. On opposite side of gully to Energetic mine. House site, consisting of stone footings and intact fireplace...the old fellow who lived here used to keep a visitors book. Any one who visited the place..he got them to fill in their name. He had a decent garden. Originally this may have been one of the mine manager's houses.

Eastern slope of Sailors Gully, or western slope of Manchester Hill, has been ground sluiced to bed rock, from Little Sailors Gully to Golden Gully. The gully itself has been done over by hydraulic sluicing.

Sailors Gully, S side, from Englishmans Gully to head of gully, is a section of old road (shown on 1861 map). On the side of the road are 3 house sites. This road leads to Little Quartz Hill. At the head of Sailors Gully are 2 puddling machine sites. dciii

DESCRIPTION

The gully was the site of considerable alluvial mining, including tub and cradle, and puddling. The puddling machine site found at the head of Sailor's Gully, on the strength of the historical data collected, could date from any time between 1854 and the early 1870s. The gully has probably seen three periods of ground-sluicing - extensive operations after the Golden Point water race came through; and some further ground sluicing during the early 1900s and again in the 1930s/40s. The main sections of the gullies would have been hydraulically sluiced in the early part of this century. For further information on the race see Site 93.

The historical data collected for Sailor's Gully, because of its focus on mining sites, found no references to particular house sites. Archaeologically, the sites are interesting, and all appear to have had stone walls. The stone building material must suggest they do not date back to the gold rushes of the early 1850s, but relate to the later, more stable stages of gold mining in the division, when miners built houses near their work.

Site 16.0 - The western slope of Sailor's Gully, between Little Sailor's and Golden Gullies has been ground-sluiced to bed rock. The bed rock is just beginning to be colonised by trees and weeds. Sailor's Gully itself has been extensively sluiced (hydraulic sluicing) and is very choked with weeds.

Site 16.1 - Along the southern bank of Little Sailor's Gully, near its junction with Sailor's Gully are several ground-sluicing channels and paddocks.

Site 16.2 - 30m below the lower dam in German Gully is the last paddock taken out by hydraulic sluicing. In this paddock are some stone walls built for retaining tailings. The area is relatively free of weeds, and also features some exposed reef.

Site 16.3 - On the E side of German Gully, below the last sluicing paddock, is a series of ground-slucices and small paddocks, including a fairly extensive patch that runs along the gully to the Energetic shaft site

Site 16.4 - At the head of German Gully are some ground-slucicing channels running down the slope. In the flat are some small puddling paddocks, are linked by water channels. The Golden Point water race travels around the head of the gully.

Site 17 - Golden Point water race crosses the head of Sailor's Gully, by a short iron flume. The iron pipe, now rusted away, was mounted on two concrete and stone supports. These supports measure 1.5m by 90cm at base, and are 1.3m high. Sections of the iron water-pipe lie on the ground below. The pipe, of the overlapping, rivetted type, has a diameter of 36cm, and is similar to the pipe used in the early days of hydraulic sluicing. This race has also been recorded as Sites 9.3 and 93)

Site 18.0 - 8m N of the iron flume is a puddling machine site. The inner mound, puddling channel and outlet are still visible. A tree grows out of the central mound at the point where the wooden post would have been positioned. The E side of the puddling machine has been obliterated. The central mound and puddling channel have an overall diameter of 5.8m. The puddling channel is 45cm deep, the outlet channel 80cm wide, and the outer bank about 2m wide.

Site 18.1 - 80m N of the iron flume is a raised embankment of a puddling machine site. The puddling site is in good condition, but no post survives. The inner mound and puddling channel has a diameter of 4.8m and the channel is 50cm deep.

Site 19.0 - On the S side of Little Sailors Gully is a small house site consisting of one room and a fireplace. Remains comprise a single room, 3.1m long by 3m wide, with a fireplace on its NE corner. The stonework is roughly squared on both faces. The fireplace protrudes 1.10m, is 1.8m wide and stands to a height of 1.25m. The walls are 30 to 40 cm thick. The site is in good condition, although a lot of the clay mortar has leached away.

Site 19.1 - This site is on the track which branches off at the Energetic shaft site and crosses Sailors Gully. It is a large house site, aligned approx N-S, with intact fireplace and chimney. The side and front walls have been demolished to ground level. The fireplace is in a reasonable condition, except for a small section around the top of the fireplace. The lack of rubble suggests the house has been demolished for building stone. There are no whole bricks present; all fragments are of handmade red bricks, with no frog. 35m E of the house is a small stone paddock associated with the house. To the N and NE of the house are some garden terraces. Above the terracing is a small, square dam which has been excavated into bedrock, and the rubble used as a retaining wall. It roughly 5.7m square and 2m deep, and a water race connects to the dam on the SW side. About 35m to the N is a small, earthen dam having a diameter of about 12m. To the E, on the opposite side of the gully to the dam, are two open, deep shafts and associated small mullock heaps.

Site 19.2 - 62m E from from the house (Site 19.1) is a small stone building which is approx. 3.2m by 3.7m. The walls have an average thickness of 30cm. The outline of the small house is still evident, but only the NW wall stands (60cm) above ground level. A small fireplace protrudes 95cm from the middle of the S wall, and is 2m wide.

Site 19.3 - Follow the bush track that runs along the E side of Sailor's Gully to Little Quartz Hill. Near the head of Little Sailor's Gully, just below where the V.W.S race crosses from the E to the W side, are two houses sites, each associated with what appears to be a small blacksmith shop. The buildings are in reasonable condition, but are threatened by tree growth.

Site 19.4 - Along the old track past Site 19.3 is the point where the V.W.S water race crosses Sailors Gully. About 70m up the gully that heads north at this point to Little Quartz Hill, is a small house site which consists of a single room, measuring 3.3m by 3.7m, whose walls stand to an average height of 60cm. The fireplace is the SE corner and protrudes 1.2m and is about 1.5m wide. The structure is in poor condition; most of the clay mortar has leached away. 9m E of the house is a forge, approx 1m square.

PHOTOS: Black and White

ARTEFACTS: Iron scaps and domestic artefacts exposed by treasure hunters.

INTEGRITY/CONDITION: Good

THREATS:

CULTURAL SIGNIFICANCE:

The site has:

Scientific Significance - Sailors Gully contains numerous sites whose archaeological relics could expand our knowledge on the nature and development alluvial mining. on the goldfields

Cumulative Value - The value of the Sailor Gully sites is enhanced by their proximity to the Garfield water wheel abutments. The relics at these sites go hand in hand with others in the general area (sites 12 to 19) to illustrate to the visitor a series of re-workings which lie at the heart of the mining history of the goldfield. All the sites have the added value of being accessible and well preserved.

Significance ranking **All sites , except Site 17, have Regional Significance. Site 17 (Golden Point water race, also recorded as Sites 9.3 and 93) has National Estate significance.**

CONSERVATION POLICY:

The significance of the sites comes from their intactness and comprehensiveness, and from their high archaeological value. For the conservation on Site 17, see Site 93.

RECOMMENDATIONS FOR IMPLEMENTATION:

Sites to be protected and all relics making up Sites 12 to 19 be protected and the whole landscape (place) nominated for inclusion on the National Estate. Archaeological survey conducted to determine the range of historic sites associated with the water race.

Assessor: David Bannear **Date: 1993**

SITE NO. & NAME: **ARGUS HILL SITES**
20 Modern Crushing Works
21 Argus Hill Reef Workings, adits and surfaced hillslope

LOCATION: **Chewton**

DIRECTIONS: Site 20: Take dirt road to Garfield water wheel abutments. from Chewton Turn E after crossing Forest Creek.
 Site 21: Reef workings runs north from the summit of Argus Hill
 Site 21A: Head of Sheepshead Gully . Located 130m south down North Track from branch to Garfield Waterwheel. 125m west from North Track.
 Site 21B: West side of Sheepshead Gully. Located 340m south down North Track from branch to Garfield Waterwheel. 75m west from North Track
 Site 21C: West side of Argus Hill. Located 260m west of Site 21C.
 Site 21D: East side of Argus Hill.

MAP/GRID REFERENCE: Site 20: Chewton 1:25,000 - 563.927
 Site 21: Chewton 1:25,000 - 563.928
 Site 21A: Chewton 1:25,000 - 561.931
 Site 21B: Chewton 1:25,000 - 561.929
 Site 21C: Chewton 1:25,000 - 563.929

PARCEL NUMBER: P121393

MUNICIPALITY Metcalfe

LAND STATUS: Public Purpose Reserve/proposed Castlemaine Historic Reserve

EXISTING HERITAGE CLASSIFICATION: None

PRESENT MANAGEMENT/USE: LCC Rec - J1

HISTORY:

19 Aug 1854: Golden Hope, Forest Creek - James Trewartha (from Adelaide)...has opened the above-mentioned house on the Argus Hill... The house consists of fifteen rooms... There is also attached an excellent Eight-stalled Stable, and roomy yards..^{dciv}

5 Jan 1855: Wrestling Match at Forest Creek - Among the pastimes by which the genial season of Christmas has just been celebrated on our goldfields, none were shared in more extensively than the wrestling match which came off on the 26th of December, and three following days, in Captain Trewartha's Amphitheatre, Forest Creek. The play was altogether in the good old Cornish and Devon styles... On the first day between 800 and 100 people attended..^{dcv}

19 Jan 1855: Large Store, situate on the 'Argus Hill', where the principal business is conducted on Forest Creek. a sitting room and kitchen attached. For particulars apply at the store opposite Mr Anketell's, to Mr J.W. Henry, Mountain Hut Boarding House, or at the Bar of the Golden Hope Hotel. To the Diggers of Forest Creek and Its Vicinity. J.W. Henry, late of the Mountain Hut, Adelaide...intends having A BALL, in the old style, at Captain Trewartha's Bowling Saloon, opposite the Golden Hope..^{dcvi}

13 April 1855: For Sale, the Amphitheatre, known as Trewartha's Wrestling Ground, is 64 feet in diameter, and contains upwards of 600 slabs, 7 1/2 feet high, besides a great quantity of Quartering, and is well adapted for a Timber Yard, or a place of amusement..^{dcvii}

14 Dec 1855: Some new ground near Old Argus Hill has been opened and turned out rich..^{dcviii}

1850s/60s: While the alluvial was being worked in Forest Creek, where the township of Chewton is now situated, numerous flat bodies of quartz were met with in the strata forming the bottom of the alluvium. From these bodies of quartz rich specimens of golden stone were obtained, and work was carried out on a number of them in what was known as Argus Flat. The yields obtained, being highly profitable, led various parties to prospect successfully for similar bodies on either side of the flat... From the south side of the hill a tunnel, from which splendid gold was obtained, was driven by Fairbairn and others. From the crown of the hill shafts were sunk on large veins, which yielded over an ounce to the ton, besides specimens often half-an-ounce in weight of almost pure gold... An engine shaft was sunk near the creek level, on the south side of the hill..^{dcix}

15 April 1859: Captain Trewartha - has commenced opening up oblique tunnel into this hill, with the hope of cutting the continuation of the Chewton Co.'s reef. ^{dcx}

August 1859: List of public companies in existence, and contemplated [includes]: Little Sailor's Gully Quartz-Mining Company, Argus Hill, 600 yards, projected. ^{dcxi}

Sept 1859: The Argus Hill Company has commenced operations. A trial of 20 tons produced nearly 1 oz. per ton. It is now about to drive a working tunnel, for the construction of which the hill is admirably adapted. It has obtained a grant for the erection of machinery and water privileges. ^{dcxii}

Dec 1860: Several of the residents of Chewton are combining for the purpose of prospecting the Argus Hill, which offers great inducements, three reefs running through which are proved gold bearing. ^{dcxiii}

8 Feb 1861: A tunnel already cut about 125 feet - to be extended - expect to cut lode which already exists in tunnel on eastern side of hill (Pearce and Co.) ^{dcxiv}

27 Sept 1861: Argus Hill/Argus Flat - Walker and Co. have struck quartz at 50 ft. ^{dcxv}

13 Dec 1861: Argus Reef - Ogilvy and Hunter - 13 ton yielded 9.5 oz. ^{dcxvi}

Dec 1861: On the Argus Hill Reef, Hunter and Company, at a depth of 70 feet, have a reef. ^{dcxvii}

24 Jan 1862: Hunter and Co. - gold is being won at depths of 40 ft and 70 ft in shaft 160 ft deep. ^{dcxviii}

7 Feb 1862: Argus Hill - Hutton and Co. - adit driven from Argus Flat - is hundreds of feet below crown of hill.

28 Feb 1862: Argus Reef - Pearce and Co. - 8 dwt. per ton - in tunnel. ^{dcxix}

14 April 1862: Hunter's claim - 18 dwt. per ton. ^{dcxx}

18 April 1862: New shaft at rear of Argus Hill. ^{dcxxi}

5 Sept 1862: Argus Hill tunnel - 15 dwt. ^{dcxxii}

5 Sept 1862 Russell and Co. paid expenses; Hunter and Co. ^{dcxxiii}

19 Sept 1862: Logan and Co. ^{dcxxiv}

14 Jan 1864: Logan and Co. are opening a tunnel through the ground of Russell and Co., total length to be 360 ft. ^{dcxxv}

1865: Parties reporting yields from quartz crushings in 1865 - Logan and Russell. ^{dcxxvi}

1866: Parties reporting yields from quartz crushings in 1866 - Logan & Company, Russell. ^{dcxxvii}

March 1867: On the Argus Reef, Russell and Co., have erected an engine for draining, the miners have been able to enter the lower workings and discover gold bearing stone. ^{dcxxviii}

1867: Parties reporting yields from quartz crushings in 1867 - Russell & Co., Logan & Co. ^{dcxxix}

June 1868: New Machinery -...on the Argus Reef, Jenkin and Company have just completed the removal of their engine and plant, making seven engines upon this line of reef within 1 1/2 miles. ^{dcxxx}

1868: Parties reporting yields from quartz crushings in 1868 - Russell & Logan, Logan and others. ^{dcxxxi}

June 1885: The Argus and Chewton reefs are being worked on tribute. ^{dcxxxii}

March 1886: PARTIES REPORTING GOLD YIELDS FROM QUARTZ CRUSHING:
Logan and Co. Argus Reef (tunnel)

Jaynes and Co. Argus Reef (tunnel)
 Dyasons (tributers) Argus Reef
 Ormond Argus Reef (to 150 feet).^{dcxxxiii}

22 July 1886: Leases 2908 (head of gully), 1465, 2682, and 1116 are all associated with Sheepshead Gully, working the southern ends of Sailor's or Garfield and Central Reefs, as well as the northern end of the Chewton Reef (mid grid ref. 561929). German Gully and Little Sailor's Gully - Leases 2125, 2211, and 2187: Garfield Mining Company. Leases cross both Sailor's or Garfield Reef and the Central Reef. (mid grid ref. 562935)^{dcxxxiv}

March 1898: Argus Hill Tribute: 16 ton crushed, 61 ozs. of gold.^{dcxxxv}

June 1898: Argus Hill Tribute: 43 ton crushed, 92 ozs. of gold.^{dcxxxvi}

Sept 1898: Argus Hill Tribute: 12 ton crushed, 3 ozs. of gold.^{dcxxxvii}

Jan 1899: Argus Hill Tribute: 24 ton crushed, 12 ozs. of gold.^{dcxxxviii}

August 1899: Argus Hill Tribute: 19 ton crushed, 13 ozs. of gold.^{dcxxxix}

Oct 1899: Argus Hill Tribute: 38 ton crushed, 11 ozs. of gold.^{dcxl}

April 1900: Argus Hill Tribute: 28 ton crushed, 8 ozs. of gold.^{dcxli}

Sept 1902: Map shows tunnel driven in to Argus Hill, from the W side of Bryce Ross' Gully (known earlier as Sheepshead Gully); whip shaft on crown of hill.^{dcxlii}

1903: Almost from the time of its first discovery, this hill has been held by companies, which have let various portions of the mine on tribute; from those profitable returns have been obtained by various parties, who, however, failed to give any record of their yields. Above the tunnel the extensive and irregular workings resemble an immense ant-hill... Various parties of tributers have, since 1883, been employed fossicking about above the tunnel level, where payable results are still being obtained.^{dcxlili}

March 1903: Argus Hill Tribute: 69 ton crushed, 23 ozs. of gold.^{dcxliv}

Sept 1903: Argus Hill Tribute: 48 ton crushed, 12 ozs. of gold.^{dcxlv}

3 August 1910: Next to the Argus Reef is the Argus Hill mine, which is really a tunnel. The hill itself has been honeycombed by small parties, several of whom have got high averages of gold.^{dcxlvi}

March 1937: Chewton Mining Boom

Rush Days Recalled

Due largely to the remarkable success of the Wattle Gully Mine, which is paying shareholders large sums in dividends and bonuses, the Chewton field now presents a scene of activity reminiscent of the "gold rush" days. Central Wattle Gully, which was floated on Wednesday, had all its 60,000 shares taken up on the day of flotation. Miners believe that there are large bodies of payable ore in the district which have never been properly investigated. Twenty companies have now taken up leases, and eight of them have begun their prospecting work. Wattle Gully is the only company passed the prospecting stage.

The companies which have begun shaft sinking are:- South Wattle Gully, North Chewton, Golden Wattle, Upper Barkly, Post Office Hill, North Wattle Gully, Chewton, and Wattle Gully Extended. Other companies which have not yet begun operations are :- Chewton Prospecting Syndicate, Eureka Vineyard, Hog's Reef, New Garfield Gold, Nimrod Development, Central Wattle Gully, Chapman Gold mines, Mimisa United, Argus Hill, and also Juniper and Maddigan's sluicing party working alluvial ground on Chewtons G.M. area. Almost all these companies have been launched since Wattle Gully struck its payable reef.^{dcxlvii}

31 Nov 1937: Argus Hill Gold Mining Co. have started operations on their lease north of and adjoining the Upper Barkly lease. The Argus Hill which is part of the Chewton saddle reefs was a wonderful producer and for 50 years was profitably worked. The hill itself was worked from the creek level to the surface and the workings were like a huge rabbit warren. The old miners were very thorough and it is not likely that much gold has been left at the shallow depths. This ground was worked also below the surface, but to no great depth. The Argus Hill Co. has installed electric machinery to cope with the water.^{dcxlviii}

1 July 1938: Argus Hill, started crushing on Monday but battery is held up on account of repairs to water channel.
dclxix

18 July 1938: Argus Hill - The north level on the big formation off main west cross-cut has been driven 10ft. There is a large body of solid stone coming down into the level, very heavily mineralised. We should have all solid stone in another 20 ft of driving in the level. South level driven 4 ft. timbered and mullocked up heavy ground. this level has a full face of spurs with heavy minerals. We will get solid stone as we go further south, as we appear to be on the bottom of the formation. North level on spurry formation near shaft has been driven 10 ft. The branch crosscut off this level has been extended to 10ft. in small spurs. dcl

July, 1938: Argus Hill, - A Pomona pump (capacity 6,000 gallons per hour) was installed in the old Francis Ormond shaft to the south to cope with water estimated to be making at the rate of 2,500 gallons per hour; compressor and surface plant installed. dcli

1940: Vigorous developmental work and stoping have been carried out at the Chewton, North Wattle Gully, and Argus Hill mines, Chewton, and in some cases more satisfactory returns have been recorded. dclii

March, 1942: Although the North Wattle Gully mine has closed down in November owing to the failure to intersect payable reefs, the Argus Hill and Chewton Gold mines have good prospects for the future if the essential development work is continued. dcliii

1942 : Map shows Argus Hill shaft on the flat, immediately below the south slope of Argus Hill. The shaft is located in an large excavation . dcliv

1943: The following mines have closed down owing to call up of manpower:- Argus Hill, Chewton; New Garfield, Chewton . dclv

1945: Mines likely to re-open in the Chewton area in the near future are :- New Garfield, Argus Hill, and Eureka Vineyard. dclvi

June 1947: In the Castlemaine district there has been an increase in quartz mining activity. The Argus Hill mine at Chewton has been reopened dclvii

1947: At Argus Hill Mine, Chewton, a large spur system has been worked, but no outstanding results have been obtained dclviii

March 1948: At Argus Hill mine, Chewton, a large spur system has been worked but no outstanding results have been obtained. dclix

September 1948: Shaft-sinking is in progress at the Argus Hill mine, Chewton, with the aid of 1500 pound loan from the Mines Department. dclx

March 1949: At the Argus Hill mine, Chewton, an approved programme of shaft sinking has been carried out through the year. dclxi

September 1949: At the Argus Hill mine, Chewton, shaft sinking was completed and a western crosscut to intersect the Chewton line commenced. dclxii

13 Aug 1950: Argus Hill Chewton Gold - 455 ft. level: East crosscut of No. 1 rise at 35ft. advanced 10ft to 18ft in large quartz spurs and heavily mineralised slates. dclxiii

1 Sept 1950: Argus Hill No Liability - East crosscut of No. 1 rise at 35 feet advance 10ft to 28ft in faulted black slates and full face of quartz, heavily mineralised and a few fine colours of gold in dish prospects. Ventilation air and water pipes placed in rise. dclxiv

Sept 1950: Argus Hill, Chewton - The west crosscut was extended to 332 feet from the shaft. dclxv

19 May 1951: Argus mine - 455ft levl. North intermediate level from vise extended 5ft to 32ft in well mineralised quartz spurs, showing blackjack and one shotty colour of gold. 312ft west of shaft, south level extended to 15ft in slates and highly mineralised quartz spurs. dclxvi

March 1952: Argus Hill, Chewton. Mine Manager, H.Colston. Further development work has been carried out at the 455-foot level. ^{dclxvii}

11 Nov 1952: Result of Argus Hill Test Bore - Dr. Thomas of Mines Dept has advised Argus Hill Co. at Chewton that the core taken from No. 6 bore hole in the bottom level of the mine was assayed 5dwt. 6grm. of gold. Dr. Thomas stated the feature of interest is that the laminated quartz at 75 gave this result... Dr Thomas considers some prospecting to test this is justified. ^{dclxviii}

1952: Development work was carried out at the Argus Hill mine, Chewton. ^{dclxix}

September 1953: Argus Hill, Chewton. The company has gone into liquidation, and assets are being disposed of. ^{dclxx}

DESCRIPTION

Site 20 - According to local historian, George O. Brown, the crushing plant was used to crush stone for the manufacture of gravestones (about twenty years ago). Site 21 - References collected show that Argus Hill was being worked from as early as December 1855, mainly by tunnelling. In 1883, the hill was being worked on the tribute system, with mining mainly confined to ground above the level of the tunnels. From the late 1930s until the 1950s, the ground below the level of the tunnels was prospected by Argus Hill No Liability Co..

Site 20 - 300m along the road are the remains of a modern crushing works. The plant is situated 30m north of the road, set in a quarried part of Argus Hill. The site consists mainly of concrete mounting blocks and steel girders. One of the mounting blocks has been constructed out of large granite blocks. The remains are in good condition.

Site 21 - On the hill above the modern crushing plant is a patch of quartz workings, consisting of some shallow open cutting, several open shafts, and numerous small mounds of mullock. The workings continue down the northern side of the hill. Some of the open shafts have descending footholes.

Site 21A- Open adit, driven north. Small mullock heap and loading bay.

Site 21B- Open adit and traces of mullock. A small, relatively high, earthen embankment(inner and outer faces retained with stone) has been constructed across the adit. This is probably a sluicing dam (called sluice head), designed to capture water flowing from the adit.

Site 21C - Collapsed adit and mullock. Like Site 21C, the adit has been converted to a sluice head.

Site 21D - Eastern side of Argus Hill has been surfaced, that is, all the dirt has been removed down to bedrock.

PHOTOS: Black and White

ARTEFACTS: None visible

INTEGRITY/CONDITION: Poor to good

THREATS:

CULTURAL SIGNIFICANCE:

Site 20 has little cultural significance

Site 21 has:

Scientific Significance - The place has scientific value due to the survival of a range of relics that illustrate various mining methods (eg. shaft sinking, tunnelling, and surfacing)

Significance ranking	Site 20	None
	Site 21	Local

CONSERVATION POLICY:

None required

RECOMMENDATIONS FOR IMPLEMENTATION:

None

Assessor: David Bannear

Date: 1993

SITE NO. & NAME: 22 FRANCIS ORMOND CO.

LOCATION: Argus Flat, Chewton

DIRECTIONS: Immediately south of modern crushing plant, across the road in the creek, is a large stone retaining wall

MAP/GRID REFERENCE: Chewton - 563.926

PARCEL NUMBER: P121461

MUNICIPALITY: Metcalfe

LAND STATUS: Unreserved Crown Land/proposed Castlemaine Historic Reserve

EXISTING HERITAGE CLASSIFICATION: None

PRESENT MANAGEMENT/USE: LCC Rec - J1

HISTORY:

mid- 1852: We started sinking for water again on what is now known as "Argus Flat," and found another golden claim, taking 6 ozs. of rough gold off the bottom and securing as much water as would clean up the remainder of our washdirt from our good claim on Poverty Hill..^{dclxxi}

22 Feb 1856: Argus Hill Flat - Numerous diggers are at work, and in companies doing well. Paddocks are being dug, the water being pumped out day and night.^{dclxxii}

Aug 1856: At W end of Argus Flat, claim of Forest Creek Diggers Gold Mining Co. granted (grid ref. 562925).^{dclxxiii}

May 1859: Above claim still being worked. On its S boundary & N of Red Hill Hotel is the Chewton Co.'s Argus Shaft (grid ref. 563925)^{dclxxiv}

May 1859: Three leases adjoin the Forest Creek Diggers claim, at the junction of Argus Flat and Sheepshead Gully: Ellis & Co., Thompson & Co., and Argus & Co. (grid ref. 561926).^{dclxxv}

August 1859: Steam machinery employed in alluvial mining: Argus Flat Company, Forest Creek, 10 h.p., Hart's patent.^{dclxxvi}

August 1859: List of companies in existence and contemplated [includes]: Argus Flat Company, Forest Creek, 3 1/2 acres alluvial, worked profitably for 3 years.^{dclxxvii}

Sept 1859: The Argus Flat Company was one of the first and most successful in the colony, worked and managed by an association of miners, the only wages paid being for extra necessary labor. This company has again extended its claim, and evinces no sign of relaxation.^{dclxxviii}

1859: Argus Flat - 3 puddling machines, 3 dams, sinking 12 to 14 feet.^{dclxxix}

Feb 1860: The Argus Flat Company, which has been the best company in the district, has worked out its lease, disposed of its plant, and divided the proceeds.^{dclxxx}

13 Oct 1860: Argus Bridge is situated at western end of Argus Flat (grid ref. 561926). Cutting No. 1 (to straighten course of Forest Creek) was made at the eastern end of the Flat.^{dclxxxi}

Nov 1860: Numbers & Occupations of Miners: -
Europeans: 14 puddlers, 6 tub and cradle workers, 4 paddocking
Chinese: 13 puddlers, 2 tub and cradle workers, 8 paddocking
3 puddling machines.^{dclxxxii}

Nov 1861: Map shows Fairbairn's quartz mine, one large structure and a dam.^{dclxxxiii}

24 May 1861: Argus Flat - Fairbairn - the reef dips towards the Argus Hill Reef at 45. ^{dclxxxiv}

7 June 1861: It appears that three distinct reefs cross Argus Flat. ^{dclxxxv}

April 1861: A very good prospect is being obtained from reefs in the Argus Flat, and from several of the old reefs increased returns are anticipated. ^{dclxxxvi}

Sept 1861: Argus Flat, Sheepshead Gully - Europeans: 17 puddlers, 4 ordinary miners. ^{dclxxxvii}

Sept 1864: Quartz Reefs, and no. of claims and men - Argus: 3 claims, 12 men. ^{dclxxxviii}

June 1868: New Machinery -...on the Argus Reef, Jenkin and Company have just completed the removal of their engine and plant, making seven engines upon this line of reef within 1 1/2 mile. ^{dclxxxix}

March 1870: The only new discoveries have been...in Joynes's claim, Argus Reef, a leader giving 2 ozs. 7 dwts. to the ton ^{dcxc}

June 1871: the Argus lease is taken up by a party of Sandhurst capitalists, who will erect more powerful machinery. ^{dcxci}

Dec 1871: The Argus Reef Bendigo Tribute Company are deepening their engine-shaft from 130 to 190 feet, opened 130 feet of levels and a 30-foot winze, and have now a large quantity of quartz stripped for taking out. The adjoining claimholders and either side are applying to hold their ground under the leasing regulations and extend their operations. ^{dcxcii}

Dec 1872: The Bendigo Tribute Company, Argus Reef, have sunk a new shaft, and discovered a reef underlying west carrying gold, which appears to be a western leg of former workings, which underlie east. Another (the third) engine and plant is being erected on this reef. ^{dcxciii}

1873 : In 1873, the William Tell Company obtained a large quantity of stone from above the 140-ft level, but soon abandoned the reef. ^{dcxciv}

June 1875: On several of the lately abandoned reef leases excellent prospects have been obtained, as, the Argus Reef, Joynes, 108 3/4 ozs. from 38 tons. ^{dcxcv}

June 1876: The Magpie Tribute, Argus Reef, by cross-cutting, met with a large body of stone, easily worked. From 337 ton they obtained 150 1/2 ozs. of gold. ^{dcxcvi}

1876: In 1876 the Magpie tributers found a larger body of stone, soon worked it out, and then, like all preceding parties, ceased work. ^{dcxcvii}

Dec 1876: Parties obtaining gold from quartz tailings, mullock, etc. - Lamb and Co., Chewton. ^{dcxcviii}

Dec 1877: The Argus Reef is yielding good returns to three parties working it. ^{dcxcix}

Sept 1882: The Argus United Company have been broken up, and their mine and plant have been purchased by the adjoining Perseverance Company, who purpose amalgamating the two leases...

Lamb and Ogilvie's claim (excised from Garfield lease) has yielded 42 ozs. 18 1/2 dwts. of gold from 73 tons of quartz. ^{dcc}

March 1878: In quartz mining only one new find has been made. At the Argus Reef a western lode has been discovered, which yielded 143 ozs. 12 dwts. from 141 tons, but which was then unfortunately flooded by overflow of Forest Creek. ^{dcci}

1878: In 1878 [the Magpie tributers] renewed operations, met with another make of stone, and obtained good yield. During that year the Argus United Company was enabled - owing to the Chewton United Company's plant, worked by the Argus tributers, draining the reef - to obtain a quantity of stone from below water-level, but the tribute party, failing to sufficiently drain their own ground, then ceased work. The Argus United Company continued to obtain payable results for some time from spurs or reefs west of all previous workings, and also obtained a tribute of the

adjoining block to the north (Dyason's), and there worked a fine body of stone, which dipped south into their own ground, towards the engine-shaft originally sunk by the William Tell Company. ^{dccii}

8 July 1878: Argus Flat Tribute Co. - this company formed during past week to work the ground adjoining the rich ground of the Argus United Co. The shaft is already down 35 feet in a nice slate country. ^{dcciii}

15 July 1878: The claim and plant of the late Chewton United Co. which has been purchased by the Argus Tribute Co. will be sufficiently clear of water in the workings to admit a tribute party. ^{dcciv}

4 Aug 1879: Argus Flat Co. (Same as Argus United Co.) have had great influx of water. This came into their claim by striking the Chewton United Reef, while they were crosscutting. ^{dccv}

March 1880: Four engines only are employed in drainage, viz., on Wattle Gully, Argus Flat, Eureka, and Nuggetty Reefs. ^{dccvi}

Dec 1882: Unfortunately, only four steam engines are employed in draining quartz reefs...[including]...the Sir Garnet Wolseley Company, shaft 145 feet deep, draining the Argus Reef. ^{dccvii}

March 1883: Dyason's tributers, Hocking and Co. and Logan and Co., are obtaining very good returns. ^{dccviii}

June 1883: Dyason's tributes, the Sir Garnet Wolseley, and other claims on Argus Flat, are still on gold, and, if amalgamated, and aided by efficient machinery, they would become a rich venture. ^{dccix}

1883: In 1883, the Francis Ormond Company was formed to work this line of reef at greater depths than heretofore; but, after prospecting in the shallower workings, and failing to discover there any payable bodies of stone, determined to sink a main shaft, and devote their prospecting operations to the Chewton line of reef, which lies about 300 feet to the west of the Argus Hill Reef. ^{dccx}

June 1883: In quartz mining, the most energetic and successful companies are the Garfield... and Dyason and Co., who have again come upon gold. Both companies have Sandhurst proprietary and management, whereas the public companies subject to Castlemaine management, continue as unsuccessful as heretofore... Dyason's tributes, the Sir Garnet Wolseley, and other claims on Argus Flat, are still on gold, and, if amalgamated, and aided by efficient machinery, they would become a rich venture. ^{dccxi}

5 Feb 1884: Francis Ormond Co., Chewton - A preliminary meeting of the shareholders in the Francis Ormond Company... The business of the meeting was to take steps to register the company and other business in connection with the formation of the company... Mr Ebbott should be appointed as mining manager. The ground is situated at Argus Flat, Chewton, on the part held by the Sir Garnet Wolseley Company, and comprises gold mining lease No. 1913, 2a 3r 33p, with machinery, plant and engine shaft; also a tribute right of adjoining lease, No. 1178, 5a 2r, with two shafts thereon. Upon this ground numerous formations of quartz, rich in gold, were found under the alluvium, heavy specimens and nuggets being daily met with; but in consequence of the quartz being below the level of Forest Creek it could not be worked, and several attempts with insufficient machinery proved unsuccessful. Subsequently steam engines have been erected, and a very wide extent of quartz formations, including four distinct reefs, has been proved, and worked in shallow depths within the company's ground, and more extensively adjacent thereto, both north and south, as shown on a plan. The returns of quartz crushed and gold obtained therefrom, compiled from official records, are as follows: - 1864-5, Powell and Co., South claims, 378 tons, 857 oz 2 dwt 10 gr.; 1872 to '77, Chewton United, do., 6061 tons, 2486 oz 9 dwt 6 gr.; 1866 to '71, Flint and Co., do., 1844 tons, 663 oz 2 dwt 10 gr.; 1866 to '71, Low and Co., private property, 1452 tons, 643 oz 10 dwt 20 gr.; 1873-4, William Tell, Sir Garnet's lease 1913, 5480 tons, 1447 oz 16 dwt; 1842, Perseverance, do. 1178, 178 tons, 144 oz 3 dwt 12 gr; 1882, Argus United, do., and Mr Dyason's lease 398, 14,307 tons, 5484 oz 12 dwt 14 gr; 1863 to '68, Russell and Co., Mr Dyason's lease, 4700 tons, 1817 oz 9 dwt 16 gr; 1869 to '82, Logan and Co., lease 1116, 4248 tons, 2692 oz 1 dwt 2 gr; making a total of 38,648 tons, 16,236 oz 7 dwt 18 gr; or nearly 8.5 dwt to the ton... There at present stands on the ground a 14-inch cylinder engine of eight horse-power, and a battery of eight head of stampers, with pumps, etc. There is not at present any winding engine, but it is proposed to erect a suitable one at once. The engine shaft is down 130 feet, and the north shaft has been sunk to a depth of 175 feet. ^{dccxii}

March 1884: On the Argus Reef, a new company, "the Francis Ormond," have taken possession of three lease areas; they are busy overhauling their machinery, to which considerable additions are necessary; they have a rich mine which, with efficient management and mechanical appliances, should prove a success. ^{dccxiii}

June 1884: The Francis Ormond Company are cutting down and re-timbering their engine shaft (10 feet by 4 feet) into three partitions, preparatory to opening out underneath the old workings, from which such rich returns have been obtained. ^{dccxiv}

27 Aug 1884: Francis Ormond Co. - Mining Manager's Report: - I have to report that on taking charge of your mine and plant in February last, I found that before anything could be done in a regular way of work, the machinery, which was in miserable condition, had to be thoroughly put in order; to do this absorbed both time and money. After putting machinery in condition to work, a start was made to pump, the whole mine being full of water to surface. As the 7-inch pump was considered too small to get the water out with anything like the despatch required, a large vertical Tangye pump was obtained, and placed in the north or Perserverance shaft. This greatly assisted in reducing the water. As soon as the water was got down far enough to get in upon the stone worked by J. Hocking and Co., in Dyason's lease, a start was made to break stone. ^{dccxv}

Sept 1884: The Francis Ormond Company...are now fixing a new 9-inch plunger pump. ^{dccxvi}

n.d. Francis Ormond Gold Mining Co. has four shafts on Lease 2947, E of the junction of Argus Flat and Golden Gully II, working Red Hill Reef and Golden Gully II. ^{dccxvii}

Dec 1884: The Francis Ormond Company are now cross-cutting from their new engine shaft and, having three leases amalgamated, from which such large quantities of gold have been obtained to water-level, they should soon pay dividends. Logan and Co., adjoining leaseholders, obtained 103 oz. from 96 tons during the quarter. ^{dccxviii}

22 July 1886: 4 leases centred on Argus Flat - Leases 2180, 1178, 1913 and 2376, all held by Ormond and Co. (mid grid ref. 562926), and working Chewton Reef. ^{dccxix}

26 Aug 1886: Francis Ormond Co. - We purchased the freehold property known as Mysing's adjoining us; this we consider adds very much to the value of our operations. From the improved prospects obtained we found our crushing plant not equal to the amount of work required. After carefully looking at the appearance of the reef it was resolved to have an additional battery erected. Our attention was directed to a plant nearly new with all appliances for ten heads, five of which were complete; this we bought at a low price, and its now being connected; as soon as finished we hope to have an abundance of payable quartz ready to keep the machinery constantly working. ^{dccxx}

March 1887 : In progressive quartz mines, the Ormond Company have erected new commodious housing, added another battery, also a double-acting steam-winch for winding, buddles, &c., for saving pyrites, and are going energetically to work with the assistance of their Prospecting grant. ^{dccxxi}

24 Aug 1887: Francis Ormond Co. - Mining managers' report: - In submitting my half-yearly report of the work done in your mine at the time of your last meeting, the winding plant was completed. Since then the main shaft has been skidded, a tramway put down, and all necessary preparations to haul the whole of our stuff through the main engine shaft; this work being done the expense of horse work is saved. ^{dccxxii}

June 1888: The Francis Ormond Company have much improved prospects in their deeper levels. They are now engaged cutting plat, excavating for cistern, and fixing plunger at 250 feet. ^{dccxxiii}

Dec 1888: The Francis Ormond Company, also on the same line of reef [Shank's] northerly, were sinking their shaft; two men were down 279 feet on New Year's Day, when a terrific flood swept through Chewton, which swamped the mine and drowned the men. ^{dccxxiv}

20 Feb 1889: Francis Ormond Co. - Prior to this your machinery was in good working order, and in every way suitable for your requirements for many a day to come. The extra pressure put on to try and quickly get out the water and recover the bodies of the two men proved the machinery was not sufficient to go at such speed, although the water was lowered 143 ft from the surface. The Government inspector saw the risk to continue was so great, and stopped all further work until certain alterations were effected. We then gave an order to Harkness Co., ironfounders, to supply the machinery required...

Mine Manager's Report:- ...Your machinery, although equal to the ordinary work of the mie, was so injured by the flood that it was found incapable to do the increased work of draining the mine. Your directors have wisely determined to increase the strength of the plant by putting in a new boiler, poppet legs, bob, and winding engine. ^{dccxxv}

March 1889: The Francis Ormond Company commenced pumping with their new plant on the 31st March, and are putting in large pumps and tanks, with which they anticipate reaching in two or three weeks' time the bodies of the men drowned in this mine during the recent flood...

FLOODING OF THE FRANCIS ORMOND COMPANY'S MINE, CHEWTON

The mine is situated on the "Argus" Flat, opposite, and adjoining the principal business part of the township of Chewton. The flat where the Ormond reef crosses it is about 450 feet wide. The reef has been worked for upwards of thirty (30) years, by shafts sunk along its course across the flat. The main shaft of the Ormond mine is on the south side of the flat. It was formerly known as the "William Tell" shaft. The present channel of the Forest Creek is on the north side of the flat, about 300 feet away from the main shaft.

I infer, from the existing natural features, that the course of the old creek was about 50 feet distant from and northwards of the main shaft.

At a crossing, about 300 yards up the creek, immediately above a bend of the old creek, a bridge known as "The Mount" bridge was erected. Ten (10) years ago a straight channel for the creek, commencing just below the bridge, was made on the north side of the flat. A retaining wall 314 feet long was built up, across the old creek, and below this wall a cutting was made through a sandstone ridge. The cutting was about 40 feet wide at the bottom, battered to 50 feet wide at the top. The water carrying capacity of the Mount bridge was adopted for the cutting. The water-way in the cutting at 6 feet from the bottom - half the height of the recent flood mark - at this point, is 44 feet wide. The great volume of storm water coming down the creek was obstructed by this narrow outlet. It rose, burst over, and swept away the retaining wall. The greater portion of the water was thus directed into the old creek bed, and towards the engine and shaft of the Ormond mine. Here a tramway heap, extending from the shaft northwards, partly across the flat, acted as an embankment. One of the outlets for the checked current was through the engine-house, and thence into and over the main shaft, where the miners, O'Connor and Dennis, were at work, 250 feet below.

The water attained the height of 5 feet 3 inches above the floor of the engine-house. The fire in the boiler was extinguished, and the bridge in the fire-box washed into the flues.

The tramway heap was levelled, and the stream extended across the flat for fully 400 feet wide. During the previous ten years, the new creek channel was found to be of ample capacity for the carrying away of all storm waters. ^{dccxxvi}

1889: A miner and his mate were repairing the shaft at the Ormond and were trapped and drowned, when the mine was flooded from the surface. The Company decided that it was not payable to pump out the mine and decided to seal off the shaft. Local public sentiment was against this of course, and the State Member ("Jimmy Patterson") took it up, and a compromise was reached. The mine was pumped out, and the bodies of the two men were recovered and decently buried. The Ormond went back into production, and worked until 1913. ^{dccxxvii}

June 1889: The Francis Ormond mine has at last been cleared of water and debris accumulations. Its new machinery has been completed. ^{dccxxviii}

21 Aug 1889: Francis Ormond mine - At our half-yearly meeting in February we had to deplore the sad loss of life and great damages done to our machinery by the disastrous floods on the 1st of previous month. Since then we have been continuously engaged in repairing the damage done, the mine being almost as badly damaged as possible. To put it in thorough order a large amount must still be expended...

Mine Manager's Report: - ...I beg to state that the work of getting out the water, and recovering the bodies of the two men drowned, named W. Dennis and A. O'Connor, has been accompanied with the utmost difficulty. ^{dccxxix}

Sept 1889: The Francis Ormond mine...has been cleared out, the shafts, plats, and levels re-timbered to 276ft. 6in. deep. ^{dccxxx}

March 1890: ...the Ormond Company have been making additions to their machinery, three engines and a battery of 18 stamps being now at work. ^{dccxxxi}

19 Feb 1890: Francis Ormond - We regret the Borough Council has not made much visible show to build the retaining wall abutting the lease, washed away by the floods last year, causing so much loss of life and property. We gave the Council notice in July last, that we would hold them responsible for any damage sustained in the future from that cause. We now congratulate you on having a compact crushing and mining plant working very satisfactorily...

Mine Manager's Report:- ...As we had now a large quantity of what appeared to be payable and permanent character of stone it was recommended to the board to put up another engine for driving the battery, first to clear away the difficulty occasioned by the battery being attached to the pumping engine, and second, to give greater facilities for crushing, and also to relieve the great and dangerous strain on the pumping engine. A 12 horse-power engine has been purchased and put in position, and is now doing its work in a satisfactory manner. The main shaft has been sunk a further depth of 55 ft; total depth of shaft, 331 feet... Shaft is timbered to within a few feet in the bottom. ^{dccxxxii}

Dec 1890: Only three mines are constantly at work, namely, the Francis Ormond, United Ajax, and South Wattle Gully. ^{dccxxxiii}

25 Feb 1891: Francis Ormond Co. - During the past six months we have driven 525 ft of levels, 173-1/2 ft of cross-cuts, sunk 90-1/2 of winzes, and put up 102 ft of aise, and also cleaned out 50 ft of surface shaft, re-fixed ladders, from the surface to the bottom level, and conveyed the water in pipes from the 253 ft to the bottom level. ^{dccxxxiv}

March 1891: The Francis Ormond Company have obtained 430oz. from between the 200-ft. and 320-ft. levels, and have paid a dividend of £1,200. ^{dccxxxv}

8 July 1895: Francis Ormond Co. - We purchased the property known as the Bank of Australasia, in order to secure more surface ground for the extension of our mining plants that will be required to carry out the intended prospecting of the mine ... Mine Manager's Report:-I would recommend that we push on the shaft another 80 ft, so that we can open out another level below our present bottom level, as I consider the prospects are half-year 600 tons of quartz have been crushed for the public. We have put on a new wire rope 1400 ft long; also have had two new cages (Seymour and Kemp's). Both boilers have been cleaned and tested, and all the machinery is in good order. ^{dccxxxvi}

March 1898: Francis Ormond Gold Mining Co.: 140 ton crushed, 21oz gold. ^{dccxxxvii}

Feb 1899: Francis Ormond Gold Mining Co.: 370 ton crushed, 157oz gold. ^{dccxxxviii}

March 1899: Francis Ormond Gold Mining Co.: 455 ton crushed, 354oz gold. ^{dccxxxix}

May 1899: Francis Ormond Gold Mining Co.: 555 ton crushed, 277oz gold. ^{dccxl}

August 1899: Francis Ormond Gold Mining Co.: 842 ton crushed, 385oz gold. ^{dccxli}

Oct 1899: Francis Ormond Gold Mining Co.: 585 ton crushed, 127oz gold. ^{dccxlii}

1900 : Francis Ormond Gold Mining Co.: Harkness air brake installed on winding gear. ^{dccxliii}

April 1900: Francis Ormond Gold Mining Co.: 461 tons crushed, 261oz gold. ^{dccxliv}

June 1900: Francis Ormond Gold Mining Co.: 1250 tons crushed, 832oz gold. ^{dccxlv}

23 Aug 1900: Francis Ormond Co. - Shaft sunk 60 ft., making it 1055 ft from surface. ^{dccxlvi}

Oct 1900: Francis Ormond Gold Mining Co.: 1650 ton crushed, 656oz gold. ^{dccxlvii}

May 1901: Francis Ormond Gold Mining Co.: 745 ton crushed, 151oz gold. ^{dccxlviii}

Sept 1901: Francis Ormond Gold Mining Co.: 1280 ton crushed, 262oz gold. ^{dccxlix}

1902: Francis Ormond Gold Mining Co.: 18 head battery. ^{dcccl}

July 1902: Francis Ormond Gold Mining Co.: 1,159 ton crushed, 227oz gold. ^{dcccli}

Sept 1902: Francis Ormond Gold Mining Co.: 2,826 ton, 564oz gold. ^{dccclii}

1903: Francis Ormond Gold Mining Co.: 18 head battery . ^{dcccliii}

1903: modern date double cylinder, first motion steam winding plant in use with baling tanks. ^{dcccliv}

March 1903: Francis Ormond Gold Mining Co.: 3,378 ton crushed, 678oz gold. ^{dccclv}

20 Aug 1903: Francis Ormond Co. - Chewton United shaft. - Put in new timber, centres, ladders, solars to 220ft from surface, re-erected poppet heads and air winch, and now engaged bailing. There are a number of old workings to drain. ^{dccclvi}

1903: Francis Ormond Company - This company, whose mine is adjacent to the main road, Chewton, is at present working at the deepest level on the field. After doing a considerable amount of prospecting at shallow levels in the

hope of cutting similar spurs to those worked in the Argus Hill, it was decided to prospect the continuation of the Chewton line of reef at a depth. ... South of the various cross-cuts very little work has been done. The major portion of the lease lying in that direction, a start was recently made to sink a shaft about 1,050 feet south of the main shaft, but nothing is at present being done. ^{dcclvii}

1903: The main shaft of the Francis Ormond Company is over 1,000 feet in depth, and that of the Forest Creek Gold Reefs Company is over 700 feet. Both mines are well equipped, each has an up-to-date double cylinder first-motion winding plant. The water in each mine is baled by tanks. ^{dcclviii}

1904: Francis Ormond Gold Mining Co.: 18 head battery . ^{dcclix}

Dec 1904: Francis Ormond Gold Mining Co.: 902 ton crushed, 255oz gold. ^{dcclx}

1904: The main shaft of the Francis Ormond Company has been sunk a further depth of 200 feet, making the total depth 1,235 feet, which is about 500 feet deeper than any other shaft that being worked in the divisions. ^{dcclxi}

1905: Francis Ormond Gold Mining Co.: 18 head battery . ^{dcclxii}

17 Feb 1905: Francis Ormond Co. - At date of last meeting sunk to 1142 feet - sunk another 18 ft. ^{dcclxiii}

March 1905: Francis Ormond Gold Mining Co.: 1030 ton crushed, 167oz gold. ^{dcclxiv}

May 1906: Francis Ormond Gold Mining Co.: 777 ton crushed, 102oz gold. ^{dcclxv}

June 1906: Francis Ormond Gold Mining Co.: 1,178 ton, 242oz gold. C. Moore, Bendigo, Legal Manager. ^{dcclxvi}

June 1907: Francis Ormond Gold Mining Co.: 164 ton crushed, 228oz gold. ^{dcclxvii}

1907: The Francis Ormond Company continued work on the large bodies of stone existing at the 820 feet and 900 feet levels with barely payable results. ^{dcclxviii}

March 1908: Francis Ormond Gold Mining Co.: 1083 ton crushed, 208oz gold. J.G. Stanfield, Bendigo, Legal Manager. ^{dcclxix}

1908: The Francis Ormond Company continued work, but has, unfortunately, been again obliged to call on its plucky shareholders to make up the leeway occasioned by the insufficiency of gold obtained to clear expenses. Twenty-five men have been employed on an average. ^{dcclxx}

June 1909: Francis Ormond Gold Mining Co.: 470 ton crushed, 93oz gold. ^{dcclxxi}

3 Aug 1910: As the Francis Ormond is just south of this country, it means that if the negotiations which are at present in motion between that company and the powerful Melbourne syndicate (which has taken up about 350 acres to the north and east of the Francis Ormond lease) come to a satisfactory issue, the same reef will be in the region to be exploited. As it was, the workings from the main shaft cut through the Chewton United reef (which is the same run as the Argus) at 300ft. As regards the Francis Ormond mine itself, most of the best gold was got from flat spurs or leaders between the surface and 900ft., at which depth they struck the first defined reef that they attempted to prospect. ^{dcclxxii}

Sept 1910: Francis Ormond Gold Mining Co.: 635 ton crushed, 65oz gold. ^{dcclxxiii}

1910: The Chewton Gold Mines Company, as in 1909, has just managed to keep going ... The Francis Ormond Company, which shut down for a little time during the year, has, owing to a party of tributers having discovered payable stone between the 800-ft. and 900-ft. levels. ^{dcclxxiv}

Sept 1911: Francis Ormond Gold Mining Co.: 729 ton crushed, 511oz gold. ^{dcclxxv}

June 1912: Francis Ormond Gold Mining Co.: 1261 ton crushed, 190oz gold. ^{dcclxxvi}

1912: The Francis Ormond Company continues to operate on large bodies of stone between the 800 and 900 feet levels, with about payable results, but no margin is left for developmental work.^{dcclxxvii}

1913: The Francis Ormond mine was...between the road and the creek... The Ormond... worked until 1913, when it closed down having produced 31,669 ozs. of gold from 104,088 tons of ore (an average yield of 6.08dwts. per ton). It was down 1236 feet, and had repayed its shareholders £150,000 in dividends.^{dcclxxviii}

1913: Neither quartz nor alluvial mining has shown any improvements in this division during the year. The Francis Ormond Company, which for many years past has been considered the hope of the district from a mining point, ceased operations and sold the whole of its extensive mining and crushing plant.^{dcclxxix}

July, 1938: Argus Hill- A Pomona pump (capacity city 6,000 gallons per hour) was installed in the old Francis Ormond shaft to the south to cope with water estimated to be making at the rate of 2,500 gallons per hour; compressor and surface plant installed.^{dcclxxx}

DESCRIPTION

Stone retaining wall that runs from Mount Street, Chewton, west to just past Site 20, a distance of approximately 250m. The wall, at its western end, measures 1.9m above the current creek level, top stones varying in length from half to one metre. All are half a metre thick and bonded together by a hard mortar. The retaining wall is in good condition

PHOTOS: Black and White

ARTEFACTS: None visible

INTEGRITY/CONDITION: Poor

THREATS:

CULTURAL SIGNIFICANCE:

The site has:

- | | |
|-------------------------|--|
| Historical Significance | - Argus Flat has a long history of mining, commencing with alluvial workings in the early 1850s, and progressing to quartz mining in the late 1850s through to the early 20th century. As little survives at the site today, except for the stone wall, it is more an archival than a heritage sites |
| Social Significance | - The site holds some social value in the community today as it was the site of a mining disaster. |

Significance ranking: Local

CONSERVATION POLICY:

None required

RECOMMENDATIONS FOR IMPLEMENTATION:

None

Assessor: David Bannear

Date: 1993

SITE NO. & NAME: **BURNS HILL**
23.0 Burns Hill Workings
23.1 Golden Point Quartz Mining Co.
24 Trapps Gully Battery Site

LOCATION: **Burns Hill, Chewton**

DIRECTIONS: Chewton, south side of Burns Hill, overlooking the town.

MAP/GRID REFERENCE: Sites 23.0 and 23.1 : Chewton 1:25,000 - 657.931
 Site 24: Chewton 1:25,000 - 569.936

PARCEL NUMBER: P121393

MUNICIPALITY: Metcalfe

LAND STATUS: Freehold Land and Public Purpose Reserve

EXISTING HERITAGE CLASSIFICATION: None

PRESENT MANAGEMENT/USE: LCC Rec - J1

HISTORY:

1850s: When first discovered, this line of reef yielded very profitable returns, and work was carried out on a number of parallel lines of reef by means of shafts and open cuts. As the gold was found to continue to a depth, a number of tunnels were driven to intersect these various reefs and afford a cheaper means of working. ^{dcclxxxi}

1854: Burn's reef, which has been tapped by means of a tunnel. It was one of the earliest gold producers, being, as far back as 1854, on the list of good things. The late Sir J.B. Paterson was one of the eight who worked it for a time. Before its final abandonment, many years ago, the records show that 2800 tons were crushed from it for 2402 oz. In 1854 the Salmon party got 343 oz. from 161 tons. ^{dcclxxxii}

August 1859: Steam machinery employed in quartz-crushing: Walker and Company, Forest Creek, 12 h.p., 16 head, amalgamator, &c. ^{dcclxxxiii}

August 1859: Steam machinery employed in quartz-crushing: Jenkin and Company, Forest Creek, 10 h.p., 8 stamps, 2 tables, &c. ^{dcclxxxiv}

August 1859: 1 claim working, 4 miners, has been payable. ^{dcclxxxv}

Dec 1859: Parties reporting yield of quartz: Burns's - Jenkins. ^{dcclxxxvi}

October 1859: Yield of quartz: - Welcome Reef, Jenkins's, per ton 1 oz. 3 dwt.; Welcome Reef, Jenkins's No. 2, 6 ton yielding 6 oz. 12 dwt. ^{dcclxxxvii}

1860: In 1860 Jenkin and Co. put through 85 tons for the fine yield of 289 ozs. ^{dcclxxxviii}

July 1860: Price of Crushing - Another reduction has been made in the price charged for crushing quartz. Opie and Co. and Jenkins and Co. have lowered to 10s. per ton, and Fairbairne to 12s. 6d.; other mill owners have given up crushing for the public, averring the above prices unpayable, but the powerful machinery now being brought into use will be able to crush profitably at such prices, and will give a very great impetus to quartz-mining operations. ^{dcclxxxix}

Nov 1860: Numbers & Occupations of Miners: -
 Europeans: 6 puddlers; 24 tub and cradle workers.
 Chinese: 5 tub and cradle workers.
 3 puddling machines. ^{dcxc}

Dec 1860: Quartz Reefs actually proved to be auriferous: Burns, and Welcome (2)
 No. of claims: 2
 Extent of claim: 240 feet
 No. of men employed: 4

Quartz Reefs actually proved to be auriferous: Burns, and Welcome (2)

No. of claims: Lease

Extent of claim: 612 feet

No. of men employed: 8

Extent of Reef prospected: 2,200 (claims and lease combined) ^{dccxc}

Dec 1860: The Golden Point Quartz Mining Company are removing a superior plant from Newstead to the site formerly occupied by the Chewton Company's machinery. ^{dccxcii}

Dec 1860: Quartz leases applied for and surveyed but not yet demised: [include]

Golden Point Company

Applicant: P. Hunter and Company

Area: 4 acres 27 perches

Feet on reef: 612

Machinery: Sixteen horse-power engine, twelve stamps, erecting

Number of men employed: 8. ^{dccxciii}

Feb 1861: The Golden Point Company have completed the erection of their machinery and will commence crushing next week, when further returns are expected from the Burns and Welcome Reefs. ^{dccxciv}

Sept 1861: Companies/Parties crushing quartz & obtaining gold, Lawrie - 100 ton yielded 5 dwt of gold. ^{dccxcv}

Nov 1861: Map shows Lease No. 90, Golden Point Quartz Mining Co., no structures shown, claim runs along the eastern side of New Chum Gully. ^{dccxcvi}

Dec 1861: On the Burns' Reef the prospectors have again found auriferous quartz, after driving a distance of 70 feet from their last payable stone. ^{dccxcvii}

13 Oct 1863: Burns reef again being taken up. ^{dccxcviii}

30 Oct 1863: Victoria Company - working 2 shafts; George and Co. - working the 3rd shaft. ^{dccxcix}

6 Aug 1864: Duckett and Co. - depth 100 ft. ^{dccc}

19 Sept 1864: Featherby - 12 tons yielded 27 oz. Cutting into hill 40 ft from the surface and following the reef down. ^{dccci}

Sept 1864: Quartz Reefs, and no. of claims and men - Burns (newly discovered): 3 claims, 10 men . ^{dcccii}

23 Dec 1864: Featherby and Co. - reef is 15 ft wide; Lovell and Co. - working ground adjoining Featherby and Co., working a face into hill. ^{dccciii}

1860s: McWalter crushed 360 tons for 224 oz. ^{dccciv}

Dec 1864: Salmon and Company, during December, 1864, crushed 113 tons for 246 ounces. ^{dcccv}

1865: Parties reporting yields from quartz crushings in 1865 - Salmon and Company, McWaters and Lovel (or McWatur's and Lord). ^{dcccvi}

1866: Parties reporting yields from quartz crushings in 1866 - Featherby, McWaters and others, Salmon and Company, Bennett's. ^{dcccvii}

1867: Parties reporting yields from quartz crushings in 1867 - McWaters and others, Salmon and others. ^{dcccviii}

end 1867 ...the reefs continued to return profitable yields to the end of 1867. ^{dcccix}

Sept 1868 : In quartz mining considerable interest is taken. A large number of applications have been made for quartz prospecting claims - the Loddon, Burns, and many other of our old reefs being retaken up; some by companies from Ballarat. ^{dcccx}

March 1869: The Burns Reef Company have made a commencement. ^{dcccxi}

June 1869: In the Chewton locality several new reefs have been discovered. The East Barns [sic], from a conglomeration of slate, sandstone, and quartz, yields 1³/₄ oz. of gold to the ton... This line of reef, including the Black Monday Reef, is taken up for the length of 4,000 feet. ^{dcccxi}

Sept 1871: On the Post-office, Nimrod, Argus, Dead-cat, and Burns reefs, shafts are being sunk to work the deeper leads. ^{dcccxiii}

Sept 1874: For the Burns' Reef, Chewton, a large plant has been purchased, and tenders called for its erection; the lessees intending to crush from a face, there being an immense body of quartz containing gold. ^{dcccxiv}

Dec 1874: On the Burns' Reef the Bertha Company are progressing with erection of machinery and preliminary works necessary to crush on an extensive scale. ^{dcccxv}

Sept 1875: The Bolivia, Nuggety, Manchester, and Burns Reefs are again being profitably worked. ^{dcccxvi}

Dec 1877: The Ajax, Devonshire, White Horse, Manchester, Nuggety, Cumberland, Burns, Caledonia, Old Quartz Hill, Sebastopol, and other noted reefs, continue unworked. ^{dcccxvii}

March 1878: The New Caledonia, Dan O'Connell, Burns, Nimrod, Sebastopol, Fortuna, and other quartz reefs are being worked with better prospects. ^{dcccxviii}

Dec 1878: The closing of so many of our large mines and machinery has obliged the miners to prospect for themselves; consequently the reefs are better prospected than for some time past; the best yields are McWalters, Burn's Reef, 65 ozs. 6 dwts., from 20 tons, and Starkey, 23 ozs. 4 dwts, from 24 tons. ^{dcccxi}

June 1888: The Burns Reef Company...have purchased a 15-head battery, which they purpose driving by water-power. The V.W.S. race runs across their leases. ^{dcccxx}

1990: Burns Hill is riddled with shafts, some tunnels and an open-cut. The water race from Expedition Pass to the Garfield water-wheel runs around the south side of Burns Hill. A small machinery site (square stone chimney stack, flue and walls of boiler house) is situated on private property (belonging to George Ralph) below the water race. A machinery site is located on the west side of New Chum Gully. ^{dcccxi}

DESCRIPTION

The surviving mining remains are in accord with the historical record, fairly low energy workings. The surviving remains reflect quartz mining from 1854 until the 1890s. The battery site certainly falls within the bounds of the Golden Point Quartz Mining Company (early 1860s), but the remains could well date to later erection of machinery. The Golden Point water race was constructed in the 1880s.

Site 23.0 - A patch of quartz workings on the crown of Burn's Hill, comprising open-cutting and shafts. The Golden Point water race which fed the Garfield Water Wheel travels around the S slope of the hill.

Below the V.W.S water race on the W side of New Chum Gully is a battery site. The remains consist of a well-built stone chimney stack base, 1.75m square, and standing to a height of 1.05m. On the NE side of the chimney base is a spread of brick rubble. The bricks are red, handmade, and have no frog. A square flue runs down hill from the stack. It has stone sides (44cm thick), and an internal compartment about 50cm wide and capped with slabs of stone. The flue runs downhill some 30m, where a road crosses it. The road (3m wide) appears to seal, not cut, the flue and is thus probably contemporary. The flue continues another 5m beyond the road, to the boiler setting, only the rear of which survives above ground level. The boiler setting was partly excavated into the hillside and would have been over 4m square. The walls are 70cm thick and stand to a height of 1.10m. These remains are on private property.

Site 23.1 - At the head of New Chum Gully, to the north of the battery site, are some quartz workings including some shafts, and two tunnels associated with large mullock heaps. The bottom tunnel has what appears to be a 50m tramway embankment heading S towards the battery site. There is a loading bay at the S end of the tramway. The top tunnel has a deep, open shaft to one side. A water race cuts through the mullock in front of the tunnel suggesting that the tunnel had been abandoned by the 1870s.

50m E of the top tunnel, slightly below the Golden Point water race, is a stone structure. This consists of an U shaped chamber with inner and outer stone walls retaining a 1m-thick embankment of clay. The structure measures 3.5m x 2.5m and stand to a height of 1m. A deep, open shaft is situated 5m from the entrance to the chamber.

Site 24 - Located 50m below the point at which the Golden Point water race crosses the track, is a battery site. On the E side of the track are the remains of a boiler setting. The two side walls are 3.4m long. The rear wall is 3.2m long and, from its S end, a flue curves around to run parallel with the back wall. This flue, marked by a depression, continues N for 10m. There is no sign of a stack. The boiler setting walls are 80cm thick. Fragments of red handmade bricks occur in the stone rubble which is situated downhill from the boiler setting. On the opposite side of the road, downhill to the E, is a large dump of battery sand. Uphill, or W of, the boiler setting is an extensive line of workings on the reef, including shafts and open-cutting.

PHOTOS: Black and White

ARTEFACTS: None visible

INTEGRITY/CONDITION: Good

THREATS:

CULTURAL SIGNIFICANCE:

The sites have:

- | | |
|-------------------------|--|
| Scientific Significance | - The quartz outcrop on Burn's Hill was one of the earliest producing gold in the Castlemaine Division, being listed in 1854 as 'a good thing'. The two battery sites and associated quartz workings contain a range feature which illustrates the nature of mid/late 19th century small scale quartz mining |
| Cumulative value | - Site 23.1 became associated with the Golden Point water race when it used the water to drive a water wheel for crushing purposes. The site is therefore linked to other sites, such as Garfield water wheel abutments (site 12.0) who also utilised the water from the race. |

Significance ranking: Regional

CONSERVATION POLICY:

Significance of the site comes from its intactness and comprehensiveness. Its significance is enhanced due to its association with the Golden Point water race.

RECOMMENDATIONS FOR IMPLEMENTATION:

Site be protected

Assessor: David Bannear

Date: 1993

SITE NO. & NAME: **TRAPPS GULLY**
25.0 House Site
25.1 Adjoining House Sites

LOCATION: **Trapps Gully, Chewton**

DIRECTIONS: Along bush track that runs from Burns Hill along Trapps Gully, Chewton.

MAP/GRID REFERENCE: Chewton 1:25,000 - 571.937

PARCEL NUMBER: None

MUNICIPALITY Metcalf

LAND STATUS: Freehold Land

EXISTING HERITAGE CLASSIFICATION: None

PRESENT MANAGEMENT/USE:

HISTORY:

Oct 1860: and from Trapps Reef, where a tunnel was driven and shafts sunk within a few inches of the gold and then abandoned, parties are now realising 2 oz. 11 dwt. per ton. ^{dcccxxii}

1990: Going down Trapp's Gully (from Burns Hill to Golden Point Road) the gully has been sluiced; some quartz workings, lots of shafts, open cut and mullock dumps; battery sand and some stone walls which may be boiler house; on opposite side of gully to machinery site (on S side) is a house site, partly excavated into slope. On private land in Trapp's Gully - two fireplaces, nice stone work. ^{dcccxxiii}

DESCRIPTION

The proximity of the houses sites to mines, the use of stone as building material, and (in the case of the twin fireplaces) the superb workmanship, suggest they date to some time post-1850s, when miners were more likely to locate themselves permanently near their place of work.

Site 25.0 - The bush track from Burns Hill to Trapp's Gully has cut through the N end of a stone building. The walls that are left suggest it was about 4.4m long, and may have comprised two rooms. The stone and clay mortar walls are 40cm thick and stand to a maximum height of 1m.

Site 25.1 - Where the track first enters Trapp's Gully, two stone fireplaces are situated on the opposite side of the gully. They are on private property, and are in excellent condition, showing superb stone work. [Chewton 1:25,000 - 571937]

PHOTOS: Black and white

ARTEFACTS: None visible

INTEGRITY/CONDITION: Good

THREATS:

CULTURAL SIGNIFICANCE:

The sites have little historic or no scientific significance.

Significance ranking: **Local**

CONSERVATION POLICY:

None required

RECOMMENDATIONS FOR IMPLEMENTATION:

None

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- iii Mount Alexander Mail - 1/2/1856, p.3
- iv The Mining Journal, Railway and Commercial Gazette, London, 1/4/1854: p.213
- v Mount Alexander Mail, 3 August 1855
- vi Mount Alexander Mail, 21 Sept 1855, p2
- vii Mount Alexander Mail, 5 Oct 1855, p2
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- ix Mining Surveyors' monthly reports, Castlemaine and Fryer's Creek Divisions
- x Mining Surveyors' monthly reports, Castlemaine and Fryer's Creek Divisions
- xi Mining Surveyors' monthly reports, Castlemaine and Fryer's Creek Divisions
- xii Mining Surveyors' monthly reports, Castlemaine and Fryer's Creek Divisions
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- xxii Mining Surveyors' monthly reports, Castlemaine and Fryer's Creek Divisions
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- xxvii Mining Surveyors' monthly reports, Castlemaine and Fryer's Creek Divisions
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- xxix 12/8/1861 Mines Department map, ref. 1290/M/5
- xxx 12/8/1861 Mines Department map, ref. 1290/M/5
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- xxxii Nov. 1861 Mines Department map, ref. GF16
- xxxiii Nov. 1861 Mines Department map, ref. GF16
- xxxiv Nov. 1861 Mines Department map, ref. GF16
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- xxxvi Mining Surveyors' monthly reports, Castlemaine and Fryer's Creek Divisions
- xxxvii Dickers Mining Record
- xxxviii Dickers Mining Record
- xxxix Mount Alexander Mail, as summarized in Clive Willman collection
- xl Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
- xli Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
- xlII Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
- xlIII Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
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- xlvi Mount Alexander Mail, as summarized in Clive Willman collection
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- li Mount Alexander Mail, as summarized in Clive Willman collection
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 - lxxxiii Milner, P. 1989 Mining Sites in Specimen Hill Area, for Newmont, p26
 - lxxxiv Gaulton, W. (24 June 1881) in Records of the Castlemaine Pioneers, Rigby Ltd., 1972, page 26
 - lxxxv Mount Alexander Mail, as summarized in Clive Willman collection
 - lxxxvi Mount Alexander Mail, as summarized in Clive Willman collection
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 - lxxxviii Mining Surveyors' monthly reports, Castlemaine and Fryer's Creek Divisions
 - lxxxix Mining Surveyors' monthly reports, Castlemaine and Fryer's Creek Divisions
 - xc Mines Department map, ref. 1290/G/2: Mining Division of Castlemaine, T.L. Brown
 - xci Mining Surveyors' monthly reports, Castlemaine and Fryer's Creek Divisions
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 - xcvii Nov. 1861 Mines Department map, ref. GF16
 - xcviii Mount Alexander Mail, as summarized in Clive Willman collection
 - xcix Mount Alexander Mail, as summarized in Clive Willman collection

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xxxix	<u>Mount Alexander Mail</u> , as summarized in Clive Willman collection
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cxlvi	Milner, P. 1989 <u>Mining Sites in Specimen Hill Area</u> , for Newmont, p22
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- clv Mining Surveyors' monthly reports, Castlemaine and Fryer's Creek Divisions
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- clxxxvii Gaulton, W. (24 June 1881) in Records of the Castlemaine Pioneers, Rigby Ltd., 1972,
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ccxii	12/8/1861 Mines Department map, ref. 1290/M/4
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ccxiv	12/8/1861 Mines Department map, ref. 1290/M/4
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ccxviii	Mining Surveyors' monthly reports, Castlemaine and Fryer's Creek Divisions
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SITE NO. & NAME: **AJAX/BOLIVA REEF SITES**
26 Ajax Co.
27 Ajax/Boliva Reef Workings
28 Boliva Gully Alluvial Workings

LOCATION: **Castlemaine**

DIRECTIONS: 2km south of Castlemaine Post Office. Castlemaine

MAP/GRID REFERENCE: Site 26: Castlemaine 1:25,000 - 523.921
Site 27: Castlemaine 1:25,000 - 524.921
Site 28: Castlemaine 1:25,000 - 525.921

PARCEL NUMBER: P126763

MUNICIPALITY Castlemaine or Newstead

LAND STATUS: Unreserved Crown Land/proposed Castlemaine Historic Reserve

EXISTING HERITAGE CLASSIFICATION: None

PRESENT MANAGEMENT/USE: LCC Rec - J1

HISTORY:

HISTORY OF THE UNITED AJAX MINE, CASTLEMAINE

The United Ajax Mine is situated on the Bolivia Quartz Reef, which traverses a prominent range immediately south of the town of Castlemaine, and there forms the main outcrop of a long channel of auriferous country, which has been proved to be rich in gold deposits at the south end, namely, in the Cumberland, the Nuggety, Little Nuggety and German Gully mines. Its course northerly is under the Episcopalian and other churches and private property, and the reef at that end remains unproven. When first worked, the reef was known as Specimen Hill, but on the 11th May, 1857, it was duly christened "Bolivia", in honour of the first prospectors, Francesco Romano and Co., natives of that country. The ceremony was performed by a Mrs. Morley, whose husband, with others, was then working nearly 11 feet deep, and obtaining from 10oz. to 30 oz. of gold to the ton of quartz. The surface alluviums in the intersecting ravines and gullies, named respectively the "New Chum", "Dead-horse," "Specimen," and "Little Specimen," yielded large quantities of alluvial gold, and they have been continuously re-worked from time to time, and lately were sluiced clean away to the bed-rock.

The great outcrop of quartz had the appearance of a continuous body, and was roughly excavated or quarried, but on sinking 20 feet to 30 feet, the auriferous strata formed into leaders and veins of quartz interstratified with soft sandstone and blue slate, dipping southerly about 15°. On the 30th October, 1857, Romano and Co. struck another leader, crushed 2 tons, and obtained therefrom 44 oz. of gold. On 6th November, Fleming and Co., in driving for Romano's leader, not only came across it, but found three others, each of which was highly auriferous. On the south end of the hill. Savage and party struck good leaders, and obtained 47 oz. from 4 tons. [10: June 1888]

c. 1855 The Ajax or Bolivia Reef, on Ajax Hill, south of Castlemaine, was one of the first quartz outcrops to attract attention. When first worked, by parties with small claims, the reef was known as Specimen Hill, but in May, 1857, it was duly christened the Bolivia. ¹

26 Oct 1855: Poverty Gully - It appears that one of those extensive reefs which have been before alluded to as running northwards of Jim Crow passes through this gully, between the hill of the same name and the White Hill, Campbell's Creek, through Clinker's Hill, Slaughter-house Hill, across the township [of Castlemaine] northwards to the ranges on the west of Pennyweight Flat, towards Harcourt... Its value as a quartz reef has only recently been tried by a few persons... The sinkings up to this time do not, we understand, exceed fourteen feet through quartz and...the quantity of quartz appears to increase, instead of diminishing, as the digger goes down. ²

1855-6: There were several reefs being worked then, such as the Bolivia, now known as the Ajax, the Wattle Gully reef, the Eureka, the Caledonia, and many others of lesser note. ³

15 May 1857: Morley's Party - 1 ton yielded 20 oz. Discovery of new reef - Bolivia Reef. ⁴

27 May 1857: Morley's claim - 7 ton yielded 40 oz. ⁵

24 July 1857: Eastern side of Bolivia - tunnel driven from level of the gully into centre of range. ⁶

1857: In 1857, Romano and Co. struck a leader, 2 tons of which yielded 44 oz. On the south end of the hill, Savage and party struck good leaders and obtained 47 ozs from 4 tons. The first steam-engine brought into the Castlemaine

district was erected to work this reef, by Ham and Co., who, however, failed to obtain sufficient gold to pay working expenses. ⁷

15 March 1858: Reef continues prosperous. ⁸

20 Aug 1858: Romano responsible for discovering Bolivia Reef. ⁹

3 Nov 1858: Penna and Co. - 1 ton yielded 3 oz - from No. 7 claim (Savage's) at 115 ft. ¹⁰

June 1859: Bolivia, No. 8, 10 tons yielded 45 oz. 3 dwt.; Do., No. 10, 5 tons yielded 62 oz. 7 dwt. ¹¹

August 1859: nine claims working, 31 miners, Bolivia Reef Company. ¹²

August 1859: List of public companies in existence, and contemplated [includes]: Bolivia Quartz Reef Company, Bolivia Reef, 570 yards, commenced operations. ¹³

August 1859: Steam machinery employed in quartz-crushing: Penna, Pearce, and Company, Campbell's Creek, 30 h.p., 16 head of stamps, &c. ¹⁴

August 1859: Steam machinery employed in quartz crushing: Sir Henry Barkly Company, Campbell's Creek, 30 h.p., 16 head of stamps, tables, etc. ¹⁵

Sept 1859: In September 1859, the Bolivia Company was formed, and bought out a number of small claims, went energetically to work, and sunk a shaft to a depth of 150 feet, at the same time erecting winding and crushing plant. From the head of Specimen Gully, a tunnel 8 feet wide and 7 1/2 feet high was driven to intersect the reef, which, at this level, was 17 feet in width. ¹⁶

Sept 1859: Yield of quartz: Bolivia Reef - Pearce, Peuna and Co., 1 ton yielded 14 dwt. 16 gr.; Savage and party, 3 ton yielded 21 oz. ¹⁷

Sept 1859 : Notwithstanding that such yields were obtainable from shafts sunk 20 feet to 20 feet on the Bolivia Reef, the attractions of new goldfields caused an exodus of miners, and on the 10th September, 1859, Messrs. Cameron, Thorburn, and others, purchased Romano's and other claims on the north end of the hill for £4,000 cash. They then formed the first "Bolivia Company," consisting of 20,000 shares of £5 each, and applied for a mining lease. They subsequently went energetically to work; sunk a shaft 150 feet, drove levels in quartz which was not payable; drove a tunnel from Specimen Gully easterly, intersecting a body of quartz 17 feet through; erected a steam-engine and eight-head battery, with all necessary appliances, and constructed a dam. ¹⁸

Dec 1859: Parties reporting yields of quartz: Moscret and Co., Savage, Eureka Company. ¹⁹

May 1860: Parties reporting quartz yield: Savage, Gingle. ²⁰

May 1860: The Bolivia Reef Company's machinery consists of 35 horse-power engine driving a battery of 16 heavy revolving stamps, which is kept pretty constantly employed, crushing from 200 to 250 tons per week; the yield from which is 4 to 5 dwts. per ton. The main adit 8 feet wide by 7 1/2 high is completed, and is 230 feet long.It is proposed to add another 8 stamps, as the quantity of stone and facility for obtaining it, will render a small yield payable, with every probability of finding rich patches. ²¹

Sept 1860: On the Bolivia Reef, at the depth of 145 feet, 10 feet below the water-level, the quartz is yielding 7 oz. per ton. ²²

Oct 1860: The affairs of the Bolivia Company are in the hands of Judge Bindon of the Court of Mines. ²³

Oct 1860: Gross of the Bolivia Reef 6oz. per ton. ²⁴

5 Nov 1860: Sir Henry Barkly Co. - 20 tons yielded 1 oz per ton - on No. 5 claim at 170 ft.
Phillips and Co. - northern extension of Bolivia - 7 to 8 dwt per ton (prospecting only) ²⁵

5 Dec 1860: Five Flags Company - 2 tons yielded 9.5 oz. ²⁶

Dec 1860: Quartz leases applied for and surveyed, but not yet demised: [include]
 Sir Henry Barkly Company
 Applicant: R. W. Fairbairn
 Area: 3 acres 33 perches
 Feet on reef: 577
 Machinery: Twenty horse-power engine, sixteen stamps
 Number of men employed: 7. ²⁷

Dec 1860: Quartz Reefs actually proved to be auriferous: Bolivia Reef
 No. of claims: 8
 Extent of claim: 960 feet
 No. of men employed: 17
 Quartz Reefs actually proved to be auriferous: Bolivia Company
 No. of claims: Lease
 Extent of claim: 1,204 feet. ²⁸

Dec 1860: Leases Demised to Public Companies: [include]
 Bolivia Company
 Area of Lease: 16 acres 2 rods 33 perches
 Amount of capital: £20,000
 Machinery: Thirty-five horse-power engine, sixteen stamps, pumps, &c.
 Value of machinery: £4,600
 Cash expended: £24,000
 Men lately employed: 28
 Remarks: Insolvent. ²⁹

Dec 1860: .in December, 1860, the Bolivia Company was wound up in the Court of Mines, as money to prosecute the works could not be obtained from the shareholders. ³⁰

Jan 1861 - In January, 1861, Messrs. Wm. Clarke and Co. purchased the mine and Feb 1864 plant for £3,000, and named it the "Ajax Quartz Mining Association." On the 1st February 1861, they let the mine on tribute to P.E. Phillips and party (20 men), for a term of three years, the proprietors to receive 25 per cent. of the gross yield, and the tributers 75 per cent., from which to pay all working expenses of the mine... During the three years' tribute, 8,0009 tons were raised and crushed, yielding 13,340oz. 11dwt. , and realizing £50,611 16s., which gave to each tributer about £1,500 net, and returned to each shareholder 260 per cent. upon his investment. The portion of ground then held (lease No. 163) is shown on the accompanying plan. To the south, six other mining claims obtained 6,510oz. 13 dwt. from 5,743 tons of quartz. ³¹

Feb 1861: Phillips and Company, who have rented the late Bolivia Reef Company's plant, have been busily employed in opening the mine, substituting square for revolving stamps, and effecting many other important improvements in the machinery. This company consists of twenty experienced working shareholders, and there is every probability of their being successful in this formerly mismanaged reef and machinery. ³²

March 1861: Phillips and Company, after effecting numerous alterations and improvements in the machinery and plant of the Bolivia Reef Company, commenced crushing about the middle of the month, but up to this time their progress has been retarded in consequence of frequent breakages of the machinery. ³³

17 April 1861: Sir Colin Campbell - a level has been driven in the northern shaft - said to be 285 ft. Bolivia Company - 3 dwt per ton. ³⁴

April 1861: The Bolivia Reef Tribute Working Company have, at length, discovered payable stone. The week before last a crushing of 20 tons yielded 46 oz. 18 dwt... Other claims on the Bolivia are also paying well. Two shares in No. 7 have been sold for £120; the depth of working in this claim is 185 feet, and the yield a little over one ounce per ton. A late trial of stone from No. 6 claim obtained from depth of 200 feet, gave 15 dwt. per ton. ³⁵

5 May 1861: Bolivia Co. - reef averages 2ft wide - from Gorman's claim to the north.
 Five Flags co. - own southern end - have two shafts, No. 5 and No. 6. The lower shaft (No. 5) is 200 ft deep. ³⁶

22 May 1861: Bolivia Co. 155 ft depth. No. 7 claim, 185 ft depth. No. 6 claim, 200 ft depth. ³⁷

17 June 1861: Ajax Co. - 70 ton yielded 80 oz. ³⁸

19 June 1861: Bolivia - Ajax co. 55 ton yielded 108 oz. ³⁹

26 June 1861: Five Flags Co. - 200 ft deep, 100 ft below water. ⁴⁰

June 1861: Shaft on Bolivia Reef Company's lease is 200 ft deep and located at grid ref. 524918. Yielding well. The SW corner of this claim is adjacent to the Bolivia Reef Company's machinery, at the head of Little Specimen Gully. Immediately south is a series of smaller claims, extending down to Specimen Gully, as follows: (most northerly) Penna and Co., Maltstow and Co., Moscript, Goodge, Savage, Sir Henry Barkly Co. ⁴¹

July 1861: Quartz crushed for last month lists Ajax Company, and Rowley and Company working Bolivia Reef. ⁴²

July 1861: The returns from claims formerly held by public companies are very materially improving: the Ajax, formerly the Bolivia Company, having realised 532 oz. 4 dwts from 260 tons, and the Undaunted, formerly the Cumberland, 122 oz. 3 dwt. from 243 tons - both during the past month ⁴³

August 1861: The Ajax Company continue to improve in their yield, and in their hands the Bolivia Reef is redeeming its auriferous character.... The success of the Ajax Company at the north end of the hill, and the excellent prospects obtained by Grose and Company, at the south end, has induced the latter party to extend their operations by forming a company of twenty working shareholders to invest £150 each ... and are now busily employed removing their machinery to the reef, and adding pumping apparatus which will supersede two horse whims now in use. ⁴⁴

August 1861: Monthly quartz returns list Ajax Company, Sir Henry Barkly Company, Savage and Company as obtaining quartz from Bolivia Reef. ⁴⁵

Sept 1861: On the Bolivia Reef the Ajax Company are increasing their machinery by an additional battery of eight stampheads...

The new company, late Sir Henry Barkly, have already moved their machinery to the southern end of Bolivia, and from present appearances will soon commence draining and crushing. ⁴⁶

Oct 1861: The Bolivia Reef presents a more animated appearance than other reefs in the division, the two companies of lessees and private claimholders holding and disputing every inch of ground, and exerting their utmost to work or find the rich lode being wrought by the Ajax Company. ⁴⁷

1 Nov 1861: Bell and Co - next independent claim south of Ajax - have sunk 170 ft. ⁴⁸

15 Nov 1861: Bolivia Co. (formerly Sir Henry Barkly Co.) have cut very rich quartz in 200 ft level. ⁴⁹

Nov 1861: The Ajax Company have been busily employed increasing the crushing capabilities of their machinery, since which their first cleaning up 95 tons (four days' work) produced 195 oz. and last week they reduced 130 tons, the yield being 528 oz., the best week's return yet, causing increased confidence in the reef.

The Bolivia Company have nearly completed the erection of their machinery, and continue to break out rich stone. ⁵⁰

Dec 1861: In quartz mining the Ajax Company continues to give the best proof of increased yield in depth. The ground held by them was among the first opened as quartz workings. In connection with this claim the first steam engine brought into this district was erected by Ham and Company, who, however, failed to exact sufficient gold to pay expenses. Subsequently several parties prospected it with variable success, the greatest failure being the late mismanaged Bolivia Company, whose plant was taken by the present company on the tribute, under the style of the Ajax Company. They struck gold in June last, and to the present time - i.e. six months - they have driven a level 200 feet southwards along the lode, and raised and crushed 1460 tons of quartz, which has yielded 4530 oz., which realized, at market price, £17,119 12s 6d.

On the same reef the Lady Barkly Company (late Sir Henry Barkly) have completed the removal and erection of their machinery, and their first cleaning up gave them 40 oz. of gold. Their machinery has been considerably improved. Among other things, they have introduced the paper pipes for pump, which, should they prove as serviceable as they are cheaply and expeditiously adapted for draining a mine, will be an immense improvement to cast iron. ⁵¹

3 Jan 1862: Several independent miners are nearly deep enough to drive east to the Ajax lode. ⁵²

23 May 1862: Moscrip and Co. - after sinking over 200 ft and driving various levels, have failed. Bolivia Co. - 30 tons averaged 5 dwts/ton. ⁵³

17 June 1862: Bannister and Co. have sunk to the level of the lode (220 ft). ⁵⁴

29 April 1863: Ajax Co. - 150 tons yielded 150 oz.; Bannister and Co. - lost on crushing; and Bolivia Co. ⁵⁵

11 May 1863: Bolivia Co. have sunk to nearly 300 feet - constantly prospecting for two years with little success. ⁵⁶

June 1864: The Bolivia Reef has not supplied its quota, in consequences of the stoppage and erection of new machinery at the Ajax Company, and the Lady Barkly, Great Centre, and other claim holders having registered their claims. The...Bolivia mine...and machinery have been unworked...

The Ajax new plant is now in full operation, the stonebreaker answers admirably, crushing large blocks into small stones, and thereby facilitating the pulverization. The process for extracting the gold is the same as was employed at the Clunes Company's works. The Ajax mine is reported to improve as the ground becomes open; the works are in excellent order.

Mr Haye's new plant, consisting of twelve horse-power locomotive engine and 10 stamps, is nearly completed, when the cement hills adjacent will be operated upon...

Two engines with Chilean rollers and appliances are nearly completed specially for operating upon quartz tailings from the Ajax and Sir Henry Barkly machines. Considerable interest is evinced as to the result of these operations, which if successful will materially affect quartz crushing operations. [It appears that Henry Barkly and Lady Barkly Companies are one and the same] ⁵⁷

10 Aug 1864: Moscrip and Co. - 22 tons yielded 30 oz; Ajax Tailings Co. - will treat Ajax tailings. ⁵⁸

Sept 1864: The appliances so long erecting for the purpose of extracting the gold supposed to remain in the quartz tailings, are not found efficient, Roberts and Co., at the Ajax, having already given up and disposed of their "rollers"; and Flude and Co. do not report success, although it is said they obtained a prospect of 8 dwts. of gold per ton before erecting their machine.

The Bolivia, or Lady Barkly Company, have not yet recommenced operations; they are re-forming the company, for the purpose of increasing their capital. The adjoining claims on Bolivia Reef are much improved on yield

Mr. Hayes' new crushing plant has been working, but the returns are not very satisfactory, the operations hitherto having been upon mullock and tailings. ⁵⁹

Sept 1864: The Perseverance and Victoria machines and plant have changed hands, and will be used for crushing from the Bolivia and Wattle Gully Reefs. ⁶⁰

Sept 1864: Quartz Reefs, and no. of claims and men: Bolivia: 6 claims, 48 men ; East Bolivia (newly discovered): 1 claim, 2 men. ⁶¹

29 Dec 1864: Ajax Co. - 364 tons yielded 82 oz.; Keegan and Bannister - 20 ton crushed. ⁶²

March 1865: The Bolivia Company are again working, with every prospect of success, and the ground immediately south has been applied for on lease. ⁶³

June 1865: The Bolivia Company continue driving cross-cuts to the west at a depth of 270 feet, and excellent leaders are now met with. The Ajax mine has been closed for the past three weeks; it is again let on tribute to the party who so successfully worked it before. ⁶⁴

1865: Parties reporting yields from quartz crushings in 1865; Ajax Company, Bannister, Moscup or Moscrip and Company, Sir Colin Campbell Company, Sir Henry Barkly Company. ⁶⁵

Dec 1866: The Bolivia machinery is also sold to adjoining claimholders, known as Moscrip and Company, and will not be removed. ⁶⁶

1866: Parties reporting yields from quartz crushings in 1866 - Ajax Company, Moscrip and Company. ⁶⁷

1867: Parties reporting yields from quartz crushings in 1867: Ajax Company, Boss Ajax. ⁶⁸

March 1868: In quartz mining more extended workings have commenced. The Ajax's Company's mine has been let to five parties of tributors; each party have already obtained good prospects. Ten men are employed at the machinery, tailings, &c., preparing for extensive operations. ⁶⁹

March 1868: On the South Ajax a party of eight men are prospecting....The South Ajax, also the Boss Ajax mines, have again been let on tribute. ⁷⁰

June 1868: The Ajax Company are again successful. The mine is now divided into eight "pitches" or separate working parties - seven parties of 6 men each, one of 14 men, and 4 men prospecting, making 60 men employed. 977 tons raised, yielded 601 oz. 18 dwts. 18 grs. ⁷¹

1868: Parties reporting yields from quartz crushings in 1868 - Ajax and others, Boss Ajax, South Ajax and others. ⁷²

March 1871: The Ajax have been re-forming, to increase their capital, for the purpose of sinking their engine-shaft 200 feet deeper, and prospecting their mine at a depth of 500 feet. ⁷³

25 Sept 1871: Ajax Co. - on 240 ft level - 50 ft more driving done towards old shaft. ⁷⁴

Sept 1871: The Ajax Company has been resuscitated. They have succeeded in buying out the several claimholders whose small claims intersected the company's leases, so that now the whole of Bolivia Reef can be drained and worked by the Ajax Company's powerful and efficient machinery. Their engine shaft, which, with the machinery, is on a lease at the base of the hill, is now 230 feet deep, will be sunk 200 feet deeper...and connected with the old 240-foot level. The machinery has been overhauled, twenty-six men employed. On lease 461 a whim has been erected and a shaft sunk (now 92 feet) without striking quartz, nine men employed; and on lease No. 462, a shaft (now 80 feet) is being sunk, and one party of four tributers are at work. ⁷⁵

14 Oct 1871: North Ajax Gold Mining Co. - company formed to work ground on Clinker's Hill, formerly worked by Savage and Co. Also Williamson and Co. worked another part of the claim. ⁷⁶

Dec 1871: The Bolivia Company employs 72 men; eight shafts are being sunk; the Ajax Company sinking their main shaft to 400 feet; and each of the other companies on the line are sinking; their several depths varying from 50 to 110 feet. ⁷⁷

March 1872: The Ajax Company's engine-shaft has been sunk 105 feet below the 300-foot level, and as soon as the pumps can be lowered a cross-cut will be driven at 400-feet - i.e. from crown of hill [Clinker's?]. On other portions of this extensive mine four other shafts are being sunk. North of the Ajax shafts are being sunk: the Clinker's Hill Company, down 195 feet; the Picanniny Company, 100 feet; Summer Hill Company, 60 feet; and on the south of the Ajax the sinking of shafts is progressing thence along the Cumberland, Poverty, and Nuggety Reefs, to the Frenchman's, in the Fryer's division. ⁷⁸

June 1872: The Ajax Company, Bolivia Reef, have opened a gold-bearing lode at the 300-foot level; they are about erecting an engine and gear for winding, and likely again to become one of the largest gold-yielding mines in the district. ⁷⁹

22 July 1872: Ajax Reef - Ajax Tunnel Co. - tunnel in 14 ft. ⁸⁰

Sept 1872: The North Ajax Company have erected a 16 horse-power engine, with friction winding gear, 7-inch lift-pumps, housing, &c., complete, upon the north continuation of the Bolivia Reef; their engine-shaft is down to water-level - 135 feet - above which 1 oz. of gold to the ton was obtained. ⁸¹

Dec 1873: The deepest mines in this division are - [1st] the Ajax, 400 feet, and about to sink to 500 feet... on the...Ajax...more powerful machinery is being erected. ⁸²

Sept 1875: The Bolivia, Nuggety, Manchester, and Burns Reefs are again being profitably worked. ⁸³

Dec 1875: The old Ajax mine has been purchased by a party of 20 working miners, who have already discovered gold-bearing quartz in four distinct faces. ⁸⁴

Dec 1876: Number and Distribution of Miners on the Goldfields, &c. - Bolivia Reef 24 men ; Parties obtaining gold from quartz crushing: Ajax Tribute, Bolivia Reef. ⁸⁵

Dec 1877: The Ajax, Devonshire, White Horse, Manchester, Nuggety, Cumberland, Burns, Caledonia, Old Quartz Hill, Sebastopol, and other noted reefs, continue unworked. ⁸⁶

March 1878: It is reported that the Ajax mine is again to be worked. ⁸⁷

June 1879: The Ajax mine has been let on tribute to ten men, who are endeavoring to find some of the lost runs of gold. ⁸⁸

Dec 1879: The Ajax mine and machinery has been purchased by three gentlemen who purpose forming a company to sink the main shaft. In the bottom level of this mine there is the cap of a large reef believed to be the main reef. ⁸⁹

1877-9 : The Ajax Quartz Mining Association, up to 1879, worked by wages men and tributers with varying success... Subsequent to the first tribute, this company raised 50,638 tons of quartz, yielding 27,589oz. 2dwt., making a grand total of 58,647 tons crushed, yield 32,190oz. 16dwt., producing £128,760. From profits a new plant was erected, comprising 20-inch cylinder engine, with 20-head battery of revolving stamps; a Chambers' stonebreaker, and 12-inch plunger pump; also a 15 1/2-inch cylinder engine, with winding gear complete; commodious galvanized-iron housing, with all necessary appliances. A permanent engine-shaft was commenced at about 400 feet west of cap of reef... During the three years 1877-79 inclusive very little work was attempted. Only 198oz. 18dwt. 10gr. of gold was obtained, and the "Ajax Quartz Mining Association" became defunct, a bank again taking possession. ⁹⁰

May 1880: From the bank the mine and plant were purchased by Messrs. Winks and Co., and on the 19th May, 1880, "The United Ajax Gold Mining Company No Liability" was gazetted, consisting of 30,000 shares of 10s. each, and held by 76 shareholders. ⁹¹

Sept 1880: The United Ajax company have now 36 men driving permanent levels, tributing, &c. They hope soon to keep their extensive machinery full employed. ⁹²

4 Dec 1880: United Ajax Co. - It was thought advisable to raise and re-set the boilers, and overhaul the machinery, and make what repairs were necessary, laying new ripple tables, &c. Steam was raised and the pumps set to work on 2nd June, and the mine was drained to the 300 feet level on 24th July. ⁹³

June 1881: The United Ajax Company...have purchased a "Normanby air-compressor", receiver, "National rock-drill", pipes, connections, &c... The drilling machine is the first introduced into this district. The company have been sinking by hand-labor. ⁹⁴

Sept 1881: The Ajax United Company have sunk their shaft to 388 feet, in soft ground, in which the National rock-drill does not answer expectations. ⁹⁵

March 1882: The Ajax United Company employ 40 men on wages and tribute... The Ajax are the only company who possess a rock-drill with Normanby air-compressor, &c., but, from mismanagement or other cause, it is not made a success. ⁹⁶

Sept 1882: The Ajax United Company are having their machinery overhauled, cylinder re-bored, boiler repaired, &c... From the engine shaft, at the 400-foot level, they have come upon a large body of quartz, carrying quantities of sulphurets of zinc, lead, and iron...

The North Ajax Company have cleaned up and timbered an old shaft to 310 feet, and have erected a whim, &c.

The South Ajax Company have also cleaned up an old shaft, and are driving for the reef. ⁹⁷

2 Dec 1882: United Ajax Co. - The winding engine and boilers have been put in good working order, and arrangements are being made for bringing in fresh water to feed the boilers, as it is found that the mine water acts injuriously on them. Three calls of sixpence each per share have been made during the half-year. ⁹⁸

Dec 1882: Unfortunately, only four steam engines are employed in draining quartz reefs, these [include]-...the Ajax United Company, Bolivia Reef, shaft 512 feet deep. ⁹⁹

Sept 1883: On the Bolivia, operations are directed to finding the lost runs of gold between 240 and 300 feet deep. ¹⁰⁰

March 1884: The United Ajax Company, having repaired boilers, rebored cylinders, and given their machinery a thorough overhaul, are sinking their engine shaft. ¹⁰¹

Sept 1884: The United Ajax Company have sunk their engine shaft to 612 feet. ¹⁰²

May 1885: On the 7th May, 1885, the capital [of United Ajax] was increased to 30s. per share. ¹⁰³

June 1885: ...the United Ajax plant...[is] the only one left on Campbell's Creek. ¹⁰⁴

1886: Mr G. Lansell, the well-known mining investor of Sandhurst...has shown his faith in the future of the district by purchasing 24,000 shares (equal to four-fifths) of the United Ajax Mine, where he intends forthwith to sink to 1,000 feet... He has also taken up the abandoned leases north and south of the Ajax Company with the intention of working them. ¹⁰⁵

March 1888: The Ajax Company...are energetically repairing shaft and machinery, cutting 600-foot plat, fixing new boiler, plunger, rockborer, steel rope, and other works preparatory to sinking to 1,000 feet. ¹⁰⁶

June 1888 : The United Ajax company have completed fixing new steel boiler 27ft. x 6ft. 6in., new mountings to steam-engines, new steam and feed pipes, exhaust tank, 900 feet rope, &c.; re-timbering engine shaft to surface with red-gum planking; new ladders, stages, &c., complete and safe. They have sunk the shaft to 660 feet. ...The amount paid in calls by [United Ajax] company has been £18,240, which, with the value of gold obtained (£6,770), has been expended in sinking the shaft to 612 feet, driving 426 feet 6 inches of cross-cuts, and 2,420 feet of main levels, all upon the hanging wall, from which surface has not proved auriferous. The other mining operations by this company during eight years have been confined to burrowing about the old workings, between the surface and the 300-foot level - a useless and wasteful expenditure of time and money, resulting in the abandonment by the shareholders of nearly all the shares, 24,300 of which were lately purchased by Mr. Geo. Lansell of Sandhurst, who wisely discards surface scratchings. This gentleman has had the machinery overhauled, the water bailed, the shafts thoroughly repaired, and he is now sinking below the 600-foot level with every prospect of success. ¹⁰⁷

Dec 1890 : Only three mines are constantly at work, namely, the Francis Ormond, United Ajax, and South Wattle Gully. ¹⁰⁸

1897: For ten years [1887-97] this company continued sinking, and at each 100 feet in depth, to 1,100 feet from surface, cross-cuts were put in to reef and short drives from these north and south, without meeting with any payable results. In December, 1897, the company stopped work, and the mine and plant have remained idle ever since. ¹⁰⁹

DESCRIPTION

The granite engine block and quartz workings is all that survives to represent a long history of machinery working the Ajax Reef. The granite engine block belonged to the Ajax mine, which was operated, by a number of different companies, from 1861-97. The ground-sluices would date to the 1930s.

Site 26 - Ajax Mine site. The most prominent feature is a very large engine-mounting block, constructed of granite blocks. Also present is a large spread of handmade red bricks (no frog) - all that survives of a large chimney stack. SW of the granite engine-mounting block is a large tailing dam and the former mine manager's house. The Shire of Newstead quarried away most of the mullock heap some years ago. An adit is located to the west of the machinery site.

Site 27 - Continuation of the Ajax line of workings, consisting of shafts, open-cut, tunnels and large mullock heaps. Near one of the large mullock heaps is a levelled platform containing a spread of worked stone and brick. Also one large loading ramp and well defined carting track.

Site 28 - A water race travels along the W slope of Bolivia Gully from which several well-defined ground-sluices head off down the slope. There are also some small earthen dams in the gully.

PHOTOS: Black and White

ARTEFACTS: None visible

INTEGRITY/CONDITION: Poor

THREATS:

CULTURAL SIGNIFICANCE:

Site 26 has:

- Historical Significance - Although the Bolivia/Ajax Reef workings have a long history of rich yields and operations carried out by large companies its historic significance is mainly archival. The site's history is well-documented, but little survives on the ground which can be said to add to its significance.

Site 27 has:

- Scientific Significance - Relatively well preserved shallow reef workings

Site 28 has some :

- Scientific Significance - Because of the well preserved ground sluices.

Significance ranking: Local

CONSERVATION POLICY:

None required

RECOMMENDATIONS FOR IMPLEMENTATION:

None

Assessor: David Bannear Date: 1993

1 Milner, P. 1989 Mining Sites in Specimen Hill Area, for Newmont, p20
 2 Mount Alexander Mail, p2
 3 Gaulton, W. (24 June 1881) in Records of the Castlemaine Pioneers, Rigby Ltd., 1972,
 p26
 4 Mount Alexander Mail, as summarized in Clive Willman collection
 5 Mount Alexander Mail, as summarized in Clive Willman collection
 6 Mount Alexander Mail, as summarized in Clive Willman collection
 7 Milner, P. 1989 Mining Sites in Specimen Hill Area, for Newmont, p20
 8 Mount Alexander Mail, as summarized in Clive Willman collection
 9 Mount Alexander Mail, as summarized in Clive Willman collection
 10 Mount Alexander Mail, as summarized in Clive Willman collection
 11 Mount Alexander Mail, as summarized in Clive Willman collection
 12 Mount Alexander Mail, as summarized in Clive Willman collection
 13 Mount Alexander Mail, as summarized in Clive Willman collection
 14 Mount Alexander Mail, as summarized in Clive Willman collection
 15 Mount Alexander Mail, as summarized in Clive Willman collection
 16 Milner, P. 1989 Mining Sites in Specimen Hill Area, for Newmont, p20
 17 Mining Surveyors' monthly reports, Castlemaine and Fryer's Creek Divisions
 18 Mining Surveyors' monthly reports, Castlemaine and Fryer's Creek Divisions, June 1888
 19 Mining Surveyors' monthly reports, Castlemaine and Fryer's Creek Divisions
 20 Mining Surveyors' monthly reports, Castlemaine and Fryer's Creek Divisions
 21 Mining Surveyors' monthly reports, Castlemaine and Fryer's Creek Divisions
 22 Mining Surveyors' monthly reports, Castlemaine and Fryer's Creek Divisions
 23 Mining Surveyors' monthly reports, Castlemaine and Fryer's Creek Divisions
 24 Mining Surveyors' monthly reports, Castlemaine and Fryer's Creek Divisions
 25 Mount Alexander Mail, as summarized in Clive Willman collection
 26 Mount Alexander Mail, as summarized in Clive Willman collection
 27 Mining Surveyors' monthly reports, Castlemaine and Fryer's Creek Divisions
 28 Mining Surveyors' monthly reports, Castlemaine and Fryer's Creek Divisions
 29 Mining Surveyors' monthly reports, Castlemaine and Fryer's Creek Divisions
 30 Mining Surveyors' monthly reports, Castlemaine and Fryer's Creek Divisions, June 1888
 31 Mining Surveyors' monthly reports, Castlemaine and Fryer's Creek Divisions, June 1888
 32 Mining Surveyors' monthly reports, Castlemaine and Fryer's Creek Divisions
 33 Mining Surveyors' monthly reports, Castlemaine and Fryer's Creek Divisions
 34 Mount Alexander Mail, as summarized in Clive Willman collection
 35 Mining Surveyors' monthly reports, Castlemaine and Fryer's Creek Divisions
 36 Mount Alexander Mail, as summarized in Clive Willman collection
 37 Mount Alexander Mail, as summarized in Clive Willman collection
 38 Mount Alexander Mail, as summarized in Clive Willman collection

93 Mount Alexander Mail, as summarized in Clive Willman collection
 94 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
 95 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
 96 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
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 102 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
 103 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions, June
1888
 104 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
 105 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
 106 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
 107 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
 108 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
 109 Milner, P. 1989 Mining Sites in Specimen Hill Area, for Newmont, p20

SITE NO. & NAME: **EUREKA REEF MINE SITES**
Site 29 Eureka Reef surface workings
Site 30.0 Eureka Co. 's battery site
Site 30.1 Phoenix Co. 's battery site
Site 31 Eureka Consolidated
Site 32.0 Eureka Central Co.'s mine
Site 32.1 Eureka Central Co. 's battery
Site 33.0 Poverty Gully cyanide works
Site 33.1 Stone structure
Site 34.0 Poverty Gully branch (water race and syphon sysytem)
Site 34.1 Underground syphon
Site 35 Residential sites
Site 37 Eureka Vineyard Co.
Site 38 Cobbler's Gully battery site
Site 39 Battery site?
Site 40 South Eureka Co.

LOCATION: **Chewton**

DIRECTIONS: 3.0km south west of Chewton. Sites located either site of Eureka Street.

MAP/GRID REFERENCE: Site 29: Castlemaine 1:25,000 - 546.904
 Site 30.0 and 30.1: Castlemaine 1:25,000 - 544.903
 Site 31: Castlemaine 1:25,000 - 544.906
 Site 32.0 and 32.1: Castlemaine 1:25,000 - 546.903
 Site 33.0 and 33.1: Castlemaine 1:25,000 - 543.903
 Site 34.0: Castlemaine 1:25,000 - 546.903
 Site 34.1: Castlemaine 1:25,000 - 545.906
 Site 35: Castlemaine 1:25,000 - 543.902
 Site 37: Castlemaine 1:25,000 - 546.914
 Site 38: Castlemaine 1:25,000 - 546.898
 Site 39: Castlemaine 1:25,000 - 548.900
 Site 40: Castlemaine 1:25,000 - 546.897

PARCEL NUMBER: P126763

MUNICIPALITY Metcalfe

LAND STATUS: Unreserved Crown Land/proposed Castlemaine Historic Reserve

EXISTING HERITAGE CLASSIFICATION: Castlemaine Historic Reserve

PRESENT MANAGEMENT/USE: LCC Rec - J1

HISTORY:

1852: The Eureka reef was opened in 1854, and was divided into 300 mining claims. Right on the surface there was a body of quartz 69 ft. wide, with regular walls, and carrying spurs on both foot and hanging walls. These were worked later on. ¹

1855-60: There were several reefs being worked then, such as the Bolivia, now known as the Ajax, the Wattle Gully reef, the Eureka, the Caledonia, and many others of lesser note. ²

27 March 1857: Most successful reefs to date - El Dorado, Specimen Hill; Eureka, Poverty Gully; the Emu Reef near Spring Flat; the Old Specimen Hill Reef and the small reefs or leaders on Wattle Gully. ³

pre-1859: The Eureka Reef...was extensively worked to water-level by various parties prior to the formation of amalgamated claims during 1859. ⁴

June 1859: Eureka Reef* - Williams and Co. - one 4hp vertical engine, 4 stamps; crushes 6 tons in 24 hours.
 Eureka Reef* - Stevens and Co - one 8hp horizontal engine, 4 stamps; crushes 9 tons in 24 hours.

*These engines, although in Fryer's Creek division, are also crushing from claims in the Castlemaine division. ⁵

August 1859: 11 claims working, 56 miners, all claims payable. ⁶

August 1859: Steam machinery employed in quartz-crushing: Trembath, Eureka Reef, 6 h.p., 4 stamps, &c.; Bastion, Eureka Reef, 16 h.p., 8 stamps, &c.; Whitehead, Eureka Reef, 10 h.p., 8 stamps, &c.; Harris, Eureka Reef, 12 h.p., 8 stamps, &c.; Harris, John, Eureka Reef, 5 h.p., 4 stamps, &c.; Harris Brothers, Eureka Reef, 20 h.p., 12 stamps, &c.; Blyth and Company, Eureka Reef, 12 h.p., 8 stamps, &c.; Callwer, Eureka Reef, 10 h.p., 4 stamps, &c.

In addition to the above, 2 engines are always employed in the Fryer's Creek Division, from the Eureka Reef. ⁷

August 1859: List of public companies in existence, and contemplated [includes]: Eureka Reef Company, South Eureka Reef, 600 yards, partially working. ⁸

Sept 1859: Yield of quartz: Eureka Reef - Tenby and Co., 28 tons yielded 90 oz.; Harris and Co., 42 ton yielded 87 oz. 16 dwt. ⁹

Sept 1859: The Eureka Mining Company has purchased all the claims on the southern portion of the Eureka Reef, and is applying for a lease of 440 yards. The cap of this reef, so far prospected, is 56 feet wide from its eastern to its western face, the whole of which, to a depth of 23 to 30 feet, would pay well for crushing. ¹⁰

Nov 1859: The Eureka have had a washing off, which, however, did not realise expectations. ¹¹

1859: In 1859, when down 150 feet the claim holders all sold out to the Eureka Company for £14500, half in money and half in shares. The company called up all its capital and then stopped. A party with miner's rights afterwards tried it, and discovered a fine body of payable stone. ¹²

May 1860: The Eureka Quartz Mining Company - The new machinery of this company is working admirably, the engine is a condenser, by Barratt and Company, of 35 horse-power; the crushing apparatus, 24 head of stamps and gear are very complete, and the whole plant creditable to the manager and company. The smaller engine formerly used for crushing is removed to the hill, there to be employed in draining the reef and raising quartz; when completed a considerable saving will be effected in manual labour, and consequent working expenses. The company have applied for an additional lease of the Northern, or Old Eureka, which is proposed to work by driving an adit on level of machinery, which is unquestionably the best system wherever practicable.

At the Eureka Company the process of amalgamation is facilitated by the waste water from the condenser which affords a constant stream over the ripples, heated to about 120 degrees. ¹³

July 1860: The Eureka Reef Company having been very dissatisfied with the yield of gold attained by their new machinery having the Clunes system of amalgamation are instituting inquiries and experiments with the view of testing the tailings and reef. ¹⁴

Nov 1860: The Eureka Company which, from its antecedents and promises, ought, ere this, to have returned a good dividend, continues idle, professedly awaiting a re-organization. ¹⁵

Dec 1860: Quartz Reefs actually proved to be auriferous: Eureka

No. of claims: 6

Extent of claim: 734 feet

No. of men employed: 25

Quartz Reefs actually proved to be auriferous: Eureka

No. of claims: Lease

Extent of claim: 1,776

No. of men employed: 60

Extent of Reef prospected: 1,900 (claims & lease combined)

Very rich near surface, lately dull.

Quartz reefs actually proved to be auriferous: [include]

South Eureka, Fryer's Creek Division

No. of miners employed: nil. ¹⁶

Dec 1860: Leases Demised to Public Companies: [include]

Eureka company

Area of Lease: 23 acres 1 rod 32 perches

Amount of Capital: £25,000

Machinery: [1] Thirty-five horse-power engine, twenty-four stamps

[2] Sixteen horse-power engine, pumping and winding

Value of machinery: [1] £5,000 [2] £2,500

Cash expended: £22,000

Miners now employed: -

Men lately employed: 40

Gold or Value realized by Company: £3,500

Dated: 10 Oct 1860. ¹⁷

Feb 1861: The Eureka Company's extensive claim and machinery continues in status quo... The manager gives no reason for suspension of works. ¹⁸

March 1861: Harris and Company, Eureka Reef, have removed their engine, placing it on their claim, rendering it available for pumping, winding, and crushing. ¹⁹

March 1861: The Eureka Reef, Capper's Reef, and Old Specimen Gully Companies continue inactive. ²⁰

c. March 1861: During its short career [the Eureka Reef] company expended £22,000 on the mine for a return of £3,500 from gold obtained. A large amount of this money was spent in useless surface works, and expensive machinery. The mine was allowed to remain idle for over six months while the company reconstructed, and again started under the name of the Eureka Phoenix Company. ²¹

May 1861: The Phoenix Quartz Mining Company (late Eureka) have been cleaning up their machinery and are sinking their pumping and working shafts preparatory to extensive, and doubtless, if properly managed, successful operations; their very superior plant and an immense body of moderately payable quartz should produce favorable results...

The private claimholders on the Eureka are still progressing. Harris and Company, since erecting their engine on the reef, have enabled adjoining claims to extract payable stone from below the water level. ²²

Sept 1861: Some of our older companies, as the Old Quartz Hill, Specimen Gully, Phoenix (late Eureka), and El Dorado, have been trying to let the mines and plant upon tribute, the success of the Bolivia Reef tributers inspiring great confidence in that system of working. ²³

Sept 1861: On the Eureka Reef, Trembath and Company and Harris and Company have found payable quartz at a depth of 220 feet. Their success has stimulated miners to accept terms offered by the Phoenix Company, who have now twelve tributers at work upon their lease. ²⁴

Sept 1861: Eureka Reef, Fryer's Creek Division - Quartz crushed & gold obtained in past month: Williams and Company - no returns. ²⁵

Sept 1861: Map shows two engine sites at the head of Cobblers Gully. In a unnamed gully heading north from the point where Cobblers, Tucker and Shicer Gullies meet, the following are marked: (1) Caper's Stevens[?] Engine House (grid ref 55HBU555902) with associated dam and brick house; (2) to the north, Williams Engine House and large dam (grid ref 55HBU555903), with brick house marked nearby; (3) further up, near the head of the gully, are two house sites with associated gardens. ²⁶

Nov 1861: Map shows - Lease No 21, 20 acres S. Rodda and Company. On north section of the lease is Eureka Co.'s 35 hp engine (grid ref 55HBU545903); in the north-east corner of S. Rodda & Co.'s lease, in Poverty Gully, is a dam. Below, and to the south of, this dam, on the opposite side of a small feeder gully to the Eureka's engine, is another engine house (55HBU545903). In the north-east corner of Rodda's lease is the site of Trembath's engine (grid ref 55HBU547904).

Adjoining the north boundary of the S. Rodda and Co's lease - Lease No. 75 J. Whitehead, 9 acres 32 perches. (mid grid ref 55HBU545905)

Map shows two engine sites erected on the flat at the head of the most northern arm of Poverty Gully - Blyth's engine (grid ref 55HBU546906); slightly north of this engine is Harris and Co.'s lease, No. 177, showing Harris's engine (grid ref 55HBU546907).

To the east of South Eureka Reef, on the W side of Cobblers Gully the map shows an engine site (grid ref 55HBU548899), situated close to the gully and a large dam. ²⁷

1862: A continuation of this reef, called the Vineyard, was opened up in 1862, and 800 oz. was obtained above the water level. Then a Mr. Learmonth took up both reefs and sunk a lot of money without profit, but here again work was confined to driving about in the shallow country. No effort was made to get down. To show the foolishness of the time, the total result from these two mines were 32,928 tons for 16,046 oz, an average of half an ounce, which should have been highly payable, but the proprietors, against advice, stuck to the old shafts, and in consequence had to crosscut 129 ft. through hard country, and then drive 600 ft. north to catch the shoot of gold. Disheartened by lack of profit, the plant became disused, and it lay until about 1900, when a local company was floated called the Eureka and Vineyard. They erected a battery on the lease, but undercapitalisation was the rock on which they struck. The plant is still there, and ever and anon an effort is made to get it going again. ²⁸

March 1864: Harris and others - 432 tons mined, average yield 16.18 dwt/ton, total yield 352 oz. ²⁹

June 1864: Harris and Co. - 265 tons mined, average yield 12.22 dwt/ton, total yield 171 oz; Trembath - 533 tons mined, average yield 7.12 dwt/ton, total yield 200 oz. ³⁰

Sept 1864: Quartz Reefs, and no. of claims and men - Eureka: 5 claims, 26 men. ³¹

March 1866: On the Vineyard Reef a new leader, carrying gold, has been found east of the old workings... The whole of the ground between it and the Eureka has been taken up under three gold mining leases. The claims and leases on the Eureka and Vineyard reefs now form one continuous line, about one and a half miles in length. ³²

March 1867: On the Eureka a westerly lode has been opened by Trembath and Co., with payable results. ³³

1867: Parties reporting yields from quartz crushings in 1867: Trembath, Harris and others. ³⁴

March 1868: On the Vineyard and Eureka Reefs several new claims have been taken up. ³⁵

June 1868: On the Eureka Reef, Harris and Company, have the deepest workings in this division, viz - 380 feet, 140 feet below water-level. ... On the South Eureka an auriferous slate reef is being worked which yields 9 dwts. per ton. ³⁶

1868: Parties reporting yields from quartz crushings in 1868 - Harris and others. ³⁷

June 1869: West of the Eureka Reef a new lode has been opened. ³⁸

Sept 1871: The Eureka Company have a number of men employed prospecting and deepening the engine shaft. ³⁹

Dec 1871: The Eureka Consols have 40 men employed; they have fixed pump plunger, &c., in their engine-shaft, and are sinking it from 280 to 400 feet, driving cross-cuts to eastern and western reefs, sinking winze and works for ventilation; and from the main body, sometimes 14 feet thick, they have crushed about 1200 tons, averaging 3 1/2 dwts to the ton. ⁴⁰

March 1872: The Eureka Consols are down to 320 feet in very hard country, the working being very expensive. ⁴¹

June 1872: The Eureka Consols have opened out at 360 feet upon what appears a second formation of reef... This company have thirty-two men employed sinking and driving, principally at 285 and 360 foot levels. ⁴²

late 1872: Near the end of 1872 the company started to sink a new shaft, but very little work appears to have been done. ⁴³

Dec 1873: The deepest mines in this division are ... [3rd] the Eureka, stoping and driving at 360 feet, with very good prospects... on the Eureka...reef, more powerful machinery is being erected. ⁴⁴

June 1874: The Eureka Consols are stoping between the 360 and 280 foot levels, averaging from the main lode 7 dwts. per ton, and from the eastern reef 15 dwts. to the ton. ⁴⁵

Dec 1874: At the Eureka Reef the western lode has again made good at the 360-foot level. ⁴⁶

March 1875: The Eureka Consols...have three gold-bearing lodes, one east and one west, contiguous to the main lode. ⁴⁷

Dec 1875: The Eureka Consols have worked out their good run of stone to the 360-foot level, where it was wider and richer than above. The company are now sinking their engine shaft 100 feet, and will open out at 460 feet with every prospect of success. South of the shaft they are driving at 360 feet, to cut continuations of rich runs of gold worked near the surface in the early days. Their upper levels are being worked on tribute. ⁴⁸

Dec 1876: Number and Distribution of Miners on the Goldfields, &c. - Eureka Reef ⁴²; Parties obtaining gold from quartz crushing: Eureka Consols, Eureka Reef. ⁴⁹

March 1877: The Eureka Consols have connected their 360 and 460-foot levels by a winze and are now well ventilated. ⁵⁰

Sept 1877: The Eureka Consols have fixed a new ladder-way, and are continuing their 460-foot level, now in 670 feet north of shaft, the reef being 15 feet thick, about 2 feet of each face being taken for crushing. ⁵¹

March 1878: The Eureka Consols have added pyrites works to their plant, and effected other improvements. They have let a portion of their mine on tribute, and are sinking a winze upon their run of auriferous stone below the 400-foot level. ⁵²

Sept 1878: The Eureka Consols Company continue sinking an underlay shaft in their 460-foot level, but the reef has become very small and poor. ⁵³

Dec 1878: There is only one public or registered company remaining in this division, viz., the Eureka Consols, who have an extensive mine and plant. In their bottom level the gold is so associated with pyrites as to render it difficult to extract, and their last yield of 7 ozs. 8 dwts. of gold to the ton of pyrites shows the necessity of greater care in saving pyrities than is usually adopted in our quartz mines. ⁵⁴

March 1879: The Eureka Consols mine (the only remaining public company) has been sold, and is now in the hands of the bank. ⁵⁵

Dec 1879: On the Eureka, several small parties are working on Eastern Reef ground near the surface, from which payable results have been obtained. ⁵⁶

March 1880: Four engines only are employed in drainage, viz., on Wattle Gully, Argus Flat, Eureka, and Nuggetty Reefs. ⁵⁷

Sept 1880: The Eureka Phoenix Company continue to work by tributes only, their profits thereon for the past six months being £574. They have now let the famed McIntosh claim, and contemplate sinking a new engine shaft, and doing other improved permanent works. ⁵⁸

March 1881: The centre and earliest worked portion of the Eureka Reef is being busily and profitably worked by five parties of tributers. ⁵⁹

June 1881: The Eureka tributers continue to find large bodies of payable quartz, averaging over 10dwts. per ton; other portions of this mine, including the once famous Vineyard Reef, have been taken on tribute. ⁶⁰

Sept 1881: The South Eureka, Kampf's, Old Quartz, and others of our old quartz reefs, are being again taken up. ⁶¹

June 1884: Hunt and Temby - 20 tons mined, average yield 3 dwt/ton, total yield 3 oz. ⁶²

March 1886: Parties reporting gold yields from quartz crushing: McGlenchy and Co. - Eureka Reef. ⁶³

June 1886: Smith and Mate - 70 tons mined, average yield 20 dwt/ton, total yield 70 oz. ⁶⁴

Dec 1887: The Eureka and Vineyard line has been taken up by Mr E.W.H. Rowe, and several other promising ventures are spoken of. ⁶⁵

June 1889: Three new finds of auriferous quartz have been made at Forest Creek, in the locality of the Eureka and Vineyard reef, from prospecting claims. Bastian and Son have crushed 29 tons, and obtained 84oz. 14dwt. therefrom.

Thwaites and mate, from 7 tons, had 7oz. 12dwt.; and McGlen, from his trial crushing of 8 tons, obtained 17oz. 8dwt. ⁶⁶

Dec 1889: Bastian has had only one crushing from fourteen tons of stone for 29 oz. 3 dwt. 12 gr., and it is extremely hard to work. Thwaites crushed seven tons for 2 oz. 2 dwt. McClenchy has found some very rich stone, and from six tons he had the grand yield of 60 oz. 5 dwt., or over 10 oz. to the ton. The land lies on the Eureka, south of Rowe's lease, and on the same reef as Bastian's. ⁶⁷

1 July 1899: Eureka and Vineyard United Gold Mining Co. - Mine Manager's report - The shaft known as McIntosh's has been cut down and timbered 10 x 4 ft. to water level (45 feet). it is intended to make this our base for further operations... Our present engine shaft will be cut down to 200 feet before opening out. ⁶⁸

13 July 1899: Eureka and Vineyard United Mine... The mine is situated in undulating rangy country north-west of the Monk, distant about two miles from Castlemaine, and about the same distance from Chewton. There are two roads for vehicular traffic to the mine - one branching off from the main road at Wesley Hill, and the other at Steel's Gully, Chewton.

...[Eureka Reef yielded] 7720 oz...from 1871 to 1878... The official gold returns of the Vineyard reef, from above water level, as given by the late Mr T.L. Brown from June, 1862 to 1865, are 10,288 oz. 9 dwts. from 9069 tons of quartz. No machinery, either winding, crushing, or pumping was, until now, ever erected on the Vineyard reef. The enterprise of the then fortunate quartz miners never led them to higher mechanical efforts than a windlass barrel and a nail keg. Until Felstead and party commenced on the Vineyard a few months prior to the end of 1895, no work of any consequence had been done since 1865. Certainly, at one period, an effort was made by a company to find the reef below water level, but they did not succeed. ...The winding plant, manufactured by Messrs Thompson and Co., is a powerful and compact one, capable of carrying the shaft sinking down to 1000 ft, and crushing with a battery of 20 heads. The plant is erected within a strong-looking iron building. Poppet legs are erected above the shaft where it is proposed to carry on operations, from the present depth, about 200 ft. This shaft is closely adjacent on one side to the spot where, many years ago, McIntosh and party obtained magnificent yields, and on the other side, where splendid returns were obtained by other parties from the famous Vineyard reef... the Company have in their large lease over 40 acres, extending for a distance of about 4000 ft. In the middle of the reef is one of the finest bodies of quartz to be seen in Australia. ⁶⁹

26 Sept 1899: South Eureka - Half-yearly meeting - Work was started in a shaft on the western side of the lease and at a depth of 100 feet a level was driven north and south along the reef for 25 feet each way, but the stone did not improve and it was decided to sink a new shaft more to the east for purposes of testing another run of stone from which as much as 7 oz per ton was obtained some years ago. This shaft has been sunk to 65 feet and a cross-cut is in 20 feet east - the reef should be intersected in another 10 feet. At 12 feet a leader passed through this shaft, 6 inches thick and carrying good gold; it went out of the shaft to the west and will probably be found to junction with a continuation of the reef now being worked with profitable results by Davies and party and Twomey and party to the north. ⁷⁰

11 Dec 1899: Eureka and Vineyard - Half-yearly meeting - Main shaft cut down to 207 feet... Drove north...to cut run of stone worked by McIntosh Bros. in shallow levels... The eastern shaft has been timbered up to 100 feet... Expect to have the bottom level far enough in next four months to rise up to McIntosh's workings - presently 100 feet below old workings. ⁷¹

1899: Davis and party from a crushing of 27 tons of stone taken from the eastern leg of a saddle they had been, for a considerable time previous, sinking and driving in hard ground to discover, obtained 17-3/4 oz. ⁷²

5 Feb 1900: Eureka and Vineyard - Timbering up shaft 120 feet north of eastern shaft, which is 60 feet deeper than eastern shaft. ⁷³

5 March 1900: Eureka and Vineyard - In northern shaft have timbered and laddered to 170 feet. ⁷⁴

26 March 1900: South Eureka - Half-yearly meeting - At date of our last meeting a cross-cut was being driven east from a shaft on the western side of the lease with a view of intersecting a reef which yielded well years ago. Water gave problem and had to be abandoned - however, 5 tons gave 16 dwts to the ton from a 6 inch leader met with in sinking the shaft.

A cross-cut is now being put in east from a shaft north, and close to the course of the main Spring Gully and Eureka line of reef. The proprietors of a Miner's Right Claim are working the reef directly north and with 150 feet of this shaft, they have proved it to be 14 inches thick and of payable quality. ⁷⁵

2 April 1900: South Eureka - Sinking shaft on reef - now down 96 feet - stone full width of shaft. ⁷⁶

25 May 1900: Eureka and Vineyard United Company - Starting the New Battery.

They have...purchased the 10-head battery which had been erected on Diamond Hill, and an engine in Melbourne; both second-hand, but nearly new. The engine is 12 in. cylinder, 27 in. stroke, and is worked at 80, the indicating horse power being 15. She is capable of driving 20 to 25 head. The plates and blankets measure about 60 ft. To ensure economy in working, an overhead tramline, 200 ft long, connects the battery with the shaft, and taken all round the plant is one of the most compact and complete in the district.

For four years...they had worked at Spring Gully mine without getting a return, and when gold was struck about two years ago, it created a new era in Castlemaine mining. ⁷⁷

23 June 1900: Eureka and Vineyard - half-yearly meeting - ...The north or Welshman's shaft has been cleaned out and timbered to 200 feet. ⁷⁸

June 1900: Eureka and Vineyard Reef Co.: 220 ton crushed, 31oz gold. ⁷⁹

10 Sept 1900: South Eureka - Crushed 18 tons at Ford's battery for 16 oz 6 dwt. The stone came from their western shaft on their northern end at 38 feet from the surface. In following the lava dyke they have run out of it at the south end but it is about 4 inches in the north end. This dyke is peculiar to the Eureka Country, and is a good indicator, large makes of high grade ore making here and then. They have now cleared out an old shaft about 70 feet south on the same line and intend to put it down to cut the dyke. ⁸⁰

Oct 1900: Eureka and Vineyard Reef Co.: 108 ton crushed, 12oz gold. ⁸¹

Oct 1900: South Eureka Co.: 33 ton crushed, 71oz gold. ⁸²

1900: A continuation of this reef, called the Vineyard, was opened up in 1862, and 800 oz. was obtained above the water level. Then a Mr. Learmonth took up both reefs and sunk a lot of money without profit, but here again work was confined to driving about in the shallow country. No effort was made to get down. To show the foolishness of the time, the total result from these two mines were 32,928 tons for 16,046 oz, an average of half an ounce, which should have been highly payable, but the proprietors, against advice, stuck to the old shafts, and in consequence had to crosscut 129 ft. through hard country, and then drive 600 ft. north to catch the shoot of gold. Disheartened by lack of profit, the plant became disused, and it lay until about 1900, when a local company was floated called the Eureka and Vineyard. They erected a battery on the lease, but undercapitalisation was the rock on which they struck. The plant is still there, and ever and anon an effort is made to get it going again. ⁸³

7 Jan 1901: Davis and Party (Welshmans claim) [this claim is north of South Eureka Co. and are working body of stone at about 50 ft] ⁸⁴

10 June 1901: South Eureka - cross-cutting east at 145-ft level for Welshmans stone. ⁸⁵

9 Jan 1902: Eureka and Vineyard Mine: Expert Opinion - by E.J. Nankivell - The Eureka and Vineyard reef is a well defined saddle formation, outcropping in various places along the channel of outer country for 2000 yards on the company's leases.

Commencing from Poverty Gully and trending south, the apex of this large reef can first be seen on Poverty Hill, and further south 1600 feet from the Poverty Gully. The main outcrop occurs upwards of 100 feet wide on Pygmalion Hill. In Little Poverty Gully, which lies between these two hills, the outcrop is not visible for debris.

From Poverty Gully to the top of the hill, the legs of the formation have been taken out down to water level, and 600 feet in length. A fault occurs on top of the hill and in the vicinity of this the eastern leg has been excavated for a considerable width. Continuing on southward 150 feet south of Little Poverty Gully to outcrop again, becomes distinct and for 600 feet south both legs have been taken out down to water level. This work, I am informed, was done by small parties who held 60-ft claims in 1862.

North of Poverty Gully, 120 feet, is seen the old Eureka main engine shaft and from here developments northward were pushed forward on the western leg only, which dips to the west. From information received, I gather that no other than ordinary mining prospecting was attempted and that the great balk of quartz still remains in the different levels. From particulars of crushings taken out, the percentage of sulphides of iron, zinc and lead seemed to be large, and were of considerable value. From the Eureka main engine shaft little or no developments were attempted southward to catch the pay ore chutes, which were worked to such great advantage by the old pioneers under the outcrop on Poverty Hill and Pygmalion Hill.

I sampled and treated over 100 samples taken from Poverty Gully along line of reef to Pygmalion Hill. I discover that the remaining quartz is poor near Poverty Gully, but gradually improves going south to the apex of reef on Poverty Gully Hill.

This remarkable formation being a saddle one, to develop it at least cost, it would be necessary to sink, say, 11 ft by 4 ft 6 in., in the centre chanel in Little Poverty Gully. From this shaft both the east and west legs of the reef can be prospected north and south to Poverty Hill and Pygmalion Hill at a depth of 200 feet. It will be necessary, also, to continue sinking shaft down to the second saddle formation, which will be met at a depth of 400 or 450 feet. The Spring Gully mines, 1-1/2 miles to the south and at 300 feet lower level, are in the same channel and are mining a lower saddle formation with encouraging results.

It has been a cause of much surprise to me that a property of the nature of the Eureka has remained so long undeveloped at the south end. From Poverty to Pygmalion Hills a large bulk of the returns referred to by the late Mr T.L. Brown, mining surveyor, was extracted, viz. 160,000 oz. gold. These workings are practically surface ones.

The lode is no doubt heavily mineralized, and it is possible that the parties that worked these chutes of gold from 1862 and after years had no means of treating pyrites, and so long as the ore was free milling, were able to continue working at a profit. The surface stone shows evidence of previous sulphide contents, so it is reasonable to suppose

below water level the ore would be more or less refractory to treatment utilised by miners 30 years ago, especially as zinc blende and galena, with iron pyrites, are present in considerable quantities wherever a chute of gold is found. ⁸⁶

31 March 1902: South Eureka - will sink a new engine shaft about 200 feet south of prospecting shaft. ⁸⁷

12 March 1902: South Eureka - Stopped sinking new main shaft as negotiating with Davis and Party to amalgamate claims - if so, will then enlarge and deepen present prospecting shaft near Davis's boundary which is down 150 feet. ⁸⁸

26 May 1902: South Eureka - Negotiations completed with Davis and Party's claim, known as 'The Welshmans' - will cut down the present prospecting shaft into a main engine shaft as it is now well situated for that purpose. ⁸⁹

1902: Map shows Twomey and Co.'s shaft, in feeder gully to Cobblers Gully (near Dingo Farm); south of Twomey & Co. is Davis' shaft. Davis's claim includes a shaft on S side of gully; further south is the South Eureka shaft. ⁹⁰

1902: Map shows V.W.S race crossing Poverty Gully by a wooden flume. Just to the E of this flume, in the gully is the Eureka shaft. ⁹¹

Sept 1902: Map shows Eureka Vineyard shaft in Coombes Gully (Little Bendigo Gully) ⁹²

13 Oct 1902: South Eureka - Cutting down a prospecting shaft at south end of lease to 80 feet - will then drive north along promising reef. ⁹³

March 1903: South Eureka Co.: 27 ton crushed, 12oz gold. ⁹⁴

Sept 1903: South Eureka Co.: 23 ton crushed, 6oz gold. ⁹⁵

1904: The South Eureka Company is about erecting a steam-winding winch, in order to test the stone successfully worked by Davies and party down to water level, some two or three years ago. ⁹⁶

1904: South Eureka Co.: Steam winding winch to be erected. ⁹⁷

Dec 1904: South Eureka Co.: 39 ton crushed, 26oz gold. ⁹⁸

1904: South Eureka - 50 tons mined, average yield 24.1 dwt/ton, total yield 60 oz. - The South Eureka Company is about erecting a steam-winding winch, in order to test the stone successfully worked by Davies and party down to water level, some two or three years ago. ⁹⁹

31 March 1905: South Eureka - Half-yearly meeting - Machinery erected over main shaft. While waiting for rain to fill dam (for boiler water) have been prospecting a small reef about 200 yards west of main shaft; the stone was only a few inches thick on the surface but at a depth of 9 feet it has widened to 3 feet and gives fair prospects. Hope to strike gold in 145 feet north level of main shaft after unwatering the shaft. The company has bought the Welshman's claim. ¹⁰⁰

1905: The South Eureka Company has confined work (mostly) to shaft sinking. The shaft is now down 162 feet, and sinking operations are still in progress. An average of seven men has been employed by this company. ¹⁰¹

March 1905: South Eureka Co.: 9 ton crushed, 5oz gold. ¹⁰²

May 1906: South Eureka Co.: 32 ton crushed, 13oz gold. ¹⁰³

June 1906: South Eureka Co.: 36 ton crushed, 8oz gold - D. Fraser, Castlemaine, Legal Manager. ¹⁰⁴

1907: The South Eureka Mine, Fryerstown, Near Castlemaine
This mine lies in a direction a little west of north from Fryerstown, and is 2 miles distant from that place...
A shaft has been sunk 245 feet. At the 145-ft. level there is a cross-cut driven east for 30 feet, and a quartz reef 1 foot thick occurs at the end of it...Immediately to the north of the shaft are Davis' old workings, and others still further north. These are reported to have yielded rich returns in the past. ¹⁰⁵

March 1937: Chewton Mining Boom

Rush Days Recalled

Due largely to the remarkable success of the Wattle Gully Mine, which is paying shareholders large sums in dividends and bonuses, the Chewton field now presents a scene of activity reminiscent of the "gold rush" days. Central Wattle Gully, which was floated on Wednesday, had all its 60,000 shares taken up on the day of flotation. Miners believe that there are large bodies of payable ore in the district which have never been properly investigated. Twenty companies have now taken up leases, and eight of them have begun their prospecting work. Wattle Gully is the only company passed the prospecting stage.

The companies which have begun shaft sinking are:- South Wattle Gully, North Chewton, Golden Wattle, Upper Barkly, Post Office Hill, North Wattle Gully, Chewton, and Wattle Gully Extended. Other companies which have not yet begun operations are :- Chewton Prospecting Syndicate, Eureka Vineyard, Hog's Reef, New Garfield Gold, Nimrod Development, Central Wattle Gully, Chapman Gold mines, Mimisa United, Argus Hill, and also Juniper and Maddigan's sluicing party working alluvial ground on Chewton's G.M. area. Almost all these companies have been launched since Wattle Gully struck its payable reef.¹⁰⁶

May 1937: Eureka Vineyard: Main shaft: Water lowered 11ft., timber in good condition. Plant: Completed change house, framing, poppet heads, boiler in position, brickwork proceeding, piers for winch and compressor completed.¹⁰⁷

July, 1938: Eureka Central, Chewton- The adit has been extended, and a winze sunk at 250 feet is down 25 feet with 2 feet of stone showing in the bottom Commenced sinking shaft (now to 62 feet) in the centre country south of the adit workings, at which operations have been suspended.¹⁰⁸

Jan 1939: Notes on Chewton Mines

Eureka Central- This is situated on the Eureka line but further south than the vineyard. During the year operations at the adit were suspended, and a new centre country shaft was sunk to 145 feet. Some prospecting was possible from the bottom of the shaft, but owing to the continued water restrictions, which preclude the company from crushing at its own battery, operations have been temporarily suspended.¹⁰⁹

July 1939: Eureka Central, Chewton - operations suspended.¹¹⁰

1945: Mines likely to re-open in the Chewton area in the near future are :- New Garfield, Argus Hill, and Eureka Vineyard.¹¹¹

Mar 1990: Eureka Vineyard mine re-opened in the depression years. It was re-opened in the 1930's, along with a lot of other mines. It was managed by a Mr Redman. When the mine closed, Mr Redman went onto manage North Wattle Gully. They put up a steam engine, and sunk the shaft with the country. The engine room was located east of the shaft, and the change room to the north. Set of poppet legs. [I described to Verne the iron bucket which I observed in the gully, he said it sounded like the top of a bailing tank, which was lowered down the shaft to dewater the mine.] [re. tunnel sunk north from Poverty Gully into Eureka Reef. Verne Hooper worked in this tunnel during the depression years.] After we ran out of gold in the tunnel...the manager, who was Bert Miller, moved us to the hill opposite the Dingo Farm. Here we sank a shaft down with a horse, kibble and whip... We sank it down about 120ft, all hand labour... We hit the lava of the dyke, the hanging wall that's in the tunnel. The hill was the site of the Eureka Central gold-mine...it was re-worked in depression years. Only shallow stuff on the hill, nothing there deeper than 100ft. There was deeper workings down in the gully.

South Eureka mine/Cobblers Gully - located near the standing chimney stack, on the south side of the Dingo Farm. The shaft was filled in by the Mines Dept. There was a poppet head here for years, roughly 60 square feet. Also the old bailing tanks were here and there was quite a bit of machinery lying around. Eventually they came in and took it away for scrap. ¹¹²

DESCRIPTION :

Site 29

The extensive open-cutting/stopping along the line of the reef belongs to an early phase of quartz working, dating from 1854 to 1860s. During the late 1850s about eleven batteries were involved in crushing the extraordinarily wide body of quartz which made up the Eureka Reef.

Located between the northern and southern arms of Poverty Gully is an extensive line of open-cutting/stopping and some filled shafts. The workings continue south.

Site 30

The locations of the early machinery and battery sites found in Poverty Gully match well with the positions of the Eureka's Co.'s 35 hp engine and the adjoining engine site shown on a 1861 mining survey map. The two machinery sites in Poverty Gully were well and truly ruins by the time the Campbell's Creek water race came through in the 1870s-80s.

Site 30.0 - Remains of an early machinery site. A flue leads from the base of a small stone chimney stack to a boiler setting. The section of the stone-lined flue nearest the boiler setting has been partly quarried away, revealing the inner channel of the flue, which is 40cm wide. The stone walls were probably sealed by slabs of stone. Some sections of the boiler setting are intact. They suggest a structure about 5.5m wide and 6.5m long. The stone walls of the boiler setting are 50cm thick, and rubble resulting from the demolition of the boiler has been cut by a water race. 8m S of the boiler house is a stone structure. The surviving sections of its walls suggest it had two rooms. The most southern room is still intact, measuring 3.3m x 3.8m, with its walls standing to a height of 1.2m. S of the two-roomed structure is the start of an earthen dam. The dam wall is about 25m long and has a well-constructed outer facing of stone. This dam traps water coming down from a feeder gully to Poverty Gully.

Site 30.1 - On the opposite side of the dam to Site 30.0 is an early crushing battery. This site consists of an excavation for a boiler which is 4.8m wide and 6.8m long. In this excavation are some fragments of granite bed stones (35cm thick). A flue uphill leads from this excavation, for a distance of 90m. It is stone-lined, and, in places, capped with slabs of stone. Some of the stone slabs have been removed, exposing the stone sides of the flue. The inner channel of the flue is 50cm wide. The flue has been cut by the V.W.S water race near where it joins to a round stone chimney base. The chimney base has 70cm thick walls, and an internal diameter of 60cm (20").

Next to the excavation which housed the boiler are some stone walls. They suggest a room 4.6m square. The walls are 45cm thick and the E wall is 4.6m long and stands to a height of 1.5m. 14m W of the excavation is a large dump of battery sand.

Site 31

The remains of the battery etc. appear to belong to the Eureka Consolidated. (1870s/1880s)

Site 31 - On the crown of the hill on the N arm of Poverty Gully, near the Poverty Gully Branch water race syphon, are some stone house sites and a long tramway embankment which heads W and terminates at a battery site. The latter contains the remains of stone boiler setting, flue and stone chimney base, stamper footings, untreated tailings, and stone-lined dam. The battery site is littered with hand-made red chimney bricks.

Site 32

The remains of the battery, and engine mounting blocks, shaft and tunnel near the water race branch, belongs to the Central Eureka Co. which worked during the 1930s. The set of shear legs was erected in the 1950s. Site 32.0 - Near the syphon point of the Poverty Gully Branch water race, on the N side of Poverty Gully, is a set of wooden shear legs, still in place above a shaft. The triangular set of shear legs is about 7m high. Next to the shear legs is a tunnel, driven north towards the Eureka Reef.

Site 32.1 - On the opposite side of the gully to the set of shear legs, is a battery site. This consists of two small concrete mounting blocks, side by side. The most northerly one is 1.4m long and 50cm wide. It has a wooden beam through which four 3/4" iron bolts protrude. 1.3m from this small engine block is larger one, 1.7m by 1.3m, with 6 iron bolts protruding (diameter 3/4"). Three metres W of the engine mounting blocks are two parallel wooden beams, both about 1.3m long, 10" square, and situated 1.2m apart. Seven metres further W are some battery footings set in concrete. The three blocks are each 1 1/4ft square, and have iron bolts through them, which would originally have held wooden strengthening plates. The bolts have a diameter of 1 1/4". To the N of the battery footings is a stone wall, measuring 1.5m long and 30cm thick. Its E end is buried by sand and mullock.

Site 33

State of preservation of the galvanised iron vats and tank suggests they belong to cyaniding operations carried out in 1950s

Site 33.0 - Eighty-three metres W of Site 35.1 are the remains of three galvanized iron lined vats. They have a diameter of 4.5m (15ft). Alongside the vats is a 1,000-gallon water tank standing on wooden foundations. Large lettering on the tank reads: POISON AL WATER. SE of the vats is a dump of lime.

To the S are some substantial stone footings relating to an earlier building. The standing stone walls suggest the building was about 5.3m square. Surviving walls are of stone and clay mortar, and measure 40cm thick. The S wall is 1m thick and at its W end has a circular mound of stone. This mound has a diameter of about 1.7m. There are three dumps of battery sand in the confines of the structure, suggesting it was re-used for storage during the operation of the cyanide plant.

Site 33.1 - At the head of the southern arm of Poverty Gully, just W of the junction of Eureka Road and track to the Chewton-Fryerstown main road, are the remains of some stone walls, as well as a lot of battery sand, and some circular depressions. The site is very overgrown with blackberries and other weeds.

Site 34 (also recorded as Site 95: Poverty Gully Branch - see Site 95 for historical data on race)

The race in Poverty Gully is part of the V.W.S scheme which was built to supply water from the Coliban River to Bendigo and district, as well as to Castlemaine, Maldon, Newstead and Guildford, for both mining and domestic purposes. Originally, the race crossed Poverty Gully via wooden flumes, as shown on a 1902 mining survey plan. According to a local historian, the flumes were replaced with syphons during the 1930s.

Site 34.0 - The race runs around the slopes of Poverty Gully. It is still being used for irrigation purposes. At the head of the southern arm of Poverty Gully the water crosses the gully via a syphon system. Both syphon points are constructed of brick and concrete and measure 95cm wide and 82 cm long. The depth of syphon is 1.4m. The two side walls of the northern syphon consist of one course of bricks, with the front wall having two courses. The brick would have originally been rendered with concrete. The race leading into the syphon point has been cut through stone and measures 70cm wide and 1.55m deep.

Site 34.1 - On the ridge between the two arms of Poverty Gully, W of the Eureka reef can be seen the outline of another underground syphon, which is part of the water race.

Site 35

Later 19th-century house sites. Race supplied water to Spring Gully.

Site 35. - To the S of Site 33, in the next small gully running into the southern side of Poverty Gully, are the remains of several stone structures. One is a substantial building, whose walls still stand, which someone has recently converted into a humpy.

Site 37

Machinery footings belong to the Eureka-Vineyard Company who operated the mine in Coombs' Gully during the 1930s. The quartz workings found above the Eureka-Vineyard mine site probably range in date from 1862 to 1870s.

Site 37 - On the E side of Coombs' Gully are the remains of a machinery site, consisting of two concrete engine mounting blocks, the larger measuring 2.4m x 2.9m, the smaller 2.9m x 1.2m. Both stand to a height of 1m. Also present are two parallel concrete footings terminating with a concrete floor, a collapsed engine shaft, a large working area and stone-faced loading bay. Near the machinery footings are several deep, open shafts. An iron baling tank is situated in the gully, NW of the engine shaft.

South of the mine site, near the head of the gully, west side, are some shallow reef workings. These include some small mullock heaps, shafts and open cut. Also the remains of a forge which is 1.1m square, stands to a height of 50cm, and is enclosed on three sides by stone walls. The rear wall retains a mullock heap coming from a shaft.

Site 38

The early battery site in Cobbler's Gully cannot easily be matched with the historical record, but the nature and type of construction, leaving aside its later re-use as a blacksmith shop, suggests it is contemporary to the two early machinery sites found in Poverty Gully. This site may be associated with the opening up of Higgings' Reef, which appears to be a southerly continuation of Eureka Reef.

Site 38. - 30m south of the Dingo Park turn-off, take the track heading east. Forty-five metres along, the track branches and heads down Cobbler's Gully to an early battery site, and quartz workings connected with the southerly continuation of the Eureka Reef. The remains consist of a round chimney stack, constructed of stone and mud mortar, approx. 2m in diameter and standing to a height of 5m. A short flue (2.2m) runs from the chimney stack to a stone building with three walls, standing to a maximum height of 1.9m. The rear wall is 3.2m wide and the side walls are 4m. Tree growth is directly threatening one of the walls. A forge is located in the SW corner, and in the middle of the building is a wooden anvil post. Six metres east of the building is an earthen-walled dam. Two metres south of the chimney stack is a stone wall, 3.4m long, approx. 40cm thick and standing to a height of 50cm. Near this wall is another forge, measuring 1m x 90cm, and 50cm high.

Site 39

Early machinery site probably dating to late 1850s.early 1860s

Site 39 - Located near the SE corner of the Dingo Park, on the E side of Cobbler's Gully, are the remains of a stone structure. Little survives to indicate its original form, but the remains are vaguely circular, suggesting that it may have been a chimney stack base. There is a large dam in the gully below. A road heads S from this site to join with the 'Old Coach' Road.

Site 40

The two shafts and working paddocks were certainly being worked in the early 1900s. The one nearest the chimney stack is Twomey and Co.'s shaft, and the other is Davis' shaft. In 1902, Davis' claim and the adjoining South Eureka mine were amalgamated and machinery plant was erected in 1903. According to local sources, the poppet head of the South Eureka remained standing for many years, until it was taken away for scrap after the Second World War. All that survives are two forges, and a spread of mullock where the Mines Department filled in the shaft during the 1950s.

Site 40.0 - About 50m S of Site 38 are two deep, open shafts, associated with storage/loading paddocks extended out into the gully through the construction of stone retaining walls.

Site 40.1 - On the opposite side of the gully to Site 40.0 are the remains of a mullock heap, near which are the remains of two forges. The first forge is located on the southern edge of the gully, and measures about 1.1m square. The second is located up the slope, is also 1.1m square, and stands about 60cm above the ground. This forge is associated with some fire bars from a boiler, and is being pushed over by a tree trunk.

PHOTOS: Black and white, colour slides and prints.

ARTEFACTS: None visible

INTEGRITY/CONDITION: Good

THREATS:

CULTURAL SIGNIFICANCE:

Sites 29, 30.0, 30.1, 31, 38 and 39 have :

- Historical Significance - The focal points of the pioneering years of quartz reefing (mid to late 1850s) were large surface exposures of auriferous quartz. These locations were quickly divided up into numerous claims, each worked by a small party of miners. Along with this intensive form of early mining came the formation of mining villages, and the erection, in the vicinity of the workings, of a number of small crushing batteries. Eureka reef was no exception to this rule. In 1854 a body of quartz 69 ft. wide. was discovered and the line of reef was divided up into 300 mining claims and extensively open cut/stoped and worked by shafts to the water level. A mining village formed around the workings, complete with hotel. In 1859, the claim holders on the southern section of the reef all sold out to the Eureka Mining Co. At the time of sale there were 11 claims, at least 10 of which had small steam-driven batteries. Today, the Eureka Reef is the only locality yet discovered in Victoria where this kind of groupings (open cut/stoping, primitive batteries and mining village) is illustrated by existing remains (Sites 29, 30.0, 30.1, 31, 38 and 39)
- Social Significance - Eureka Reef (Site 29) and stone chimney stack (Site 38) are both a favoured tourist attraction for locals

Sites 34.0 and 34.1 have:

- Historical Significance - Associated with the Coliban Water Supply Scheme (See Site 95)
- Scientific Significance - One of the few water races still operating

All the site have:

- Cumulative Value - The various sites recorded along Eureka Reef, stretching from Coombs' Gully, across Poverty Gully to Cobbler's Gully, have considerable scientific significance due to their age, rarity and ability to document a wide range of mining practices. These sites are contained in an area approximately 0.4 x 2.5km . The stone chimney stack (Site 38) is the only one of its type and age surviving in the Central Victorian goldfields.
- The sites are also located in an attractive, rugged bush setting.

Significance ranking	Sites 29, 30.0, 30.1, 31, and 38	National Estate
	Sites 32.0, 32.1, 33.0, 33.1, 34.0, 34.1, 35, 37, 39 40	Regional

CONSERVATION POLICY:

The Eureka sites (namely Sites 29, 30.0, 30.1, 31 and 38) have considerable significance because they form the most comprehensive set of mid 19th century quartz mining features yet recorded in Victoria. Their high significance and rarity are compounded by the existence of complementary sites (mining and residential) within the vicinity. Eureka Reef is one of the most significant mining places in Victoria.

RECOMMENDATIONS FOR IMPLEMENTATION:

All sites be protected. Sites 29, 30.0, 30.1, 31, and 38 nominated for the National Estate. An interpretive track established that links Sites 29 to 52.

Assessor: David Bannear **Date: 1993**

- 1 The Australian Mining Journal Vol. 44, 20 July 1910
- 2 Gaulton, W. (24 June 1881) in Records of the Castlemaine Pioneers, Rigby Ltd., 1972, p26
- 3 Mount Alexander Mail, as summarized in Clive Willman collection
- 4 Milner, P. 1989 Mining Sites in Specimen Hill Area, for Newmont, p25
- 5 Mining Surveyors' monthly reports, Castlemaine and Fryer's Creek Divisions
- 6 Mining Surveyors' monthly reports, Castlemaine and Fryer's Creek Divisions
- 7 Mining Surveyors' monthly reports, Castlemaine and Fryer's Creek Divisions
- 8 Mining Surveyors' monthly reports, Castlemaine and Fryer's Creek Divisions
- 9 Mining Surveyors' monthly reports, Castlemaine and Fryer's Creek Divisions

10 Mining Surveyors' monthly reports, Castlemaine and Fryer's Creek Divisions
11 Mining Surveyors' monthly reports, Castlemaine and Fryer's Creek Divisions
12 The Australian Mining Journal Vol. 44, 20 July 1910
13 Mining Surveyors' monthly reports, Castlemaine and Fryer's Creek Divisions
14 Mining Surveyors' monthly reports, Castlemaine and Fryer's Creek Divisions
15 Mining Surveyors' monthly reports, Castlemaine and Fryer's Creek Divisions
16 Mining Surveyors' monthly reports, Castlemaine and Fryer's Creek Divisions
17 Mining Surveyors' monthly reports, Castlemaine and Fryer's Creek Divisions
18 Mining Surveyors' monthly reports, Castlemaine and Fryer's Creek Divisions
19 Mining Surveyors' monthly reports, Castlemaine and Fryer's Creek Divisions
20 Mining Surveyors' monthly reports, Castlemaine and Fryer's Creek Divisions
21 Milner, P. 1989 Mining Sites in Specimen Hill Area, for Newmont, p25
22 Mining Surveyors' monthly reports, Castlemaine and Fryer's Creek Divisions
23 Mining Surveyors' monthly reports, Castlemaine and Fryer's Creek Divisions
24 Mining Surveyors' monthly reports, Castlemaine and Fryer's Creek Divisions
25 Mining Surveyors' monthly reports, Castlemaine and Fryer's Creek Divisions
26 1861 Mines Department map, ref. 1290/G/3, Kitto, 3/9/1861
27 Nov. 1861 Mines Department map, ref. GF16
28 The Australian Mining Journal Vol. 44, 20 July 1910
29 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
30 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
31 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
32 Mining Surveyors' monthly reports, Castlemaine and Fryer's Creek Divisions
33 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
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35 Mining Surveyors' monthly reports, Castlemaine and Fryer's Creek Divisions
36 Mining Surveyors' monthly reports, Castlemaine and Fryer's Creek Divisions
37 Mining Surveyors' monthly reports, Castlemaine and Fryer's Creek Divisions
38 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
39 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
40 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
41 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
42 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
43 Milner, P. 1989 Mining Sites in Specimen Hill Area, for Newmont, p25
44 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
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63 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
64 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions

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 66 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
 67 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
 68 Mount Alexander Mail, as summarized in Clive Willman collection
 69 Mount Alexander Mail, p2
 70 Mount Alexander Mail, as summarized in Clive Willman collection
 71 Mount Alexander Mail, as summarized in Clive Willman collection
 72 Mining Surveyors' Annual Reports, as summarized in Clive Willman collection
 73 Mount Alexander Mail, as summarized in Clive Willman collection
 74 Mount Alexander Mail, as summarized in Clive Willman collection
 75 Mount Alexander Mail, as summarized in Clive Willman collection
 76 Mount Alexander Mail, as summarized in Clive Willman collection
 77 Mount Alexander Mail, p2
 78 Mount Alexander Mail, as summarized in Clive Willman collection
 79 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
 80 Mount Alexander Mail, as summarized in Clive Willman collection
 81 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
 82 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
 83 The Australian Mining Journal Vol. 44, 20 July 1910
 84 Mount Alexander Mail, as summarized in Clive Willman collection
 85 Mount Alexander Mail, as summarized in Clive Willman collection
 86 Mount Alexander Mail, as summarized in Clive Willman collection
 87 Mount Alexander Mail, as summarized in Clive Willman collection
 88 Mount Alexander Mail, as summarized in Clive Willman collection
 89 Mount Alexander Mail, as summarized in Clive Willman collection
 90 Baragwanath, W. 1903 No. 2 The Castlemaine Gold-Field, Department of Mines,
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 91 Baragwanath, W. 1903 No. 2 The Castlemaine Gold-Field, Department of Mines,
 Melbourne
 92 Baragwanath, W. 1903 No. 2 The Castlemaine Gold-Field, Department of Mines,
 Melbourne
 93 Mount Alexander Mail, as summarized in Clive Willman collection
 94 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
 95 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
 96 Annual Report, 1904
 97 Annual Report of the Secretary for Mines and Water Supply, Victoria (P. Milner, On
Mining Machinery Sites in the Castlemaine and Fryers Creek Divisions, November 1989), p71
 98 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
 99 Mining Surveyors' Annual Reports, as summarized in Clive Willman collection
 100 Mount Alexander Mail, as summarized in Clive Willman collection
 101 Mining Surveyors' Annual Reports, as summarized in Clive Willman collection
 102 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
 103 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
 104 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
 105 Records of the Geological Society of Victoria, Vol III, 1912, pp172-3
 106 Bendigo Advertiser, 1/1/1937
 107 Bendigo Advertiser, 5/5/1957
 108 Mining and Geological Journal, July 1938, pp37-48
 109 Mining and Geological Journal, January 1939, p38-40
 110 Mining and Geological Journal, July 1939, pp25-31
 111 Annual Report, 1945.
 112 Notes summarizing a day-trip to Spring Gully with Verne Hooper, 16 March 1990

SITE NO. & NAME: 36 Spring Gully Monk Co.

LOCATION: The Monk, Chewton

DIRECTIONS: 3km south west of Chewton. Sites located either side of Eureka Street.

MAP/GRID REFERENCE: Castlemaine 1:25,000 - 548.909

PARCEL NUMBER: P126763

MUNICIPALITY: Metcalfe

LAND STATUS: Unreserved Crown Land/proposed Castlemaine Historic Reserve

EXISTING HERITAGE CLASSIFICATION: None

PRESENT MANAGEMENT/USE: LCC Rec - J1

HISTORY:

May 1859: the Deadman's Gully is worked up to Monk's Hill Reef... (548909). ¹

August 1859: 1 claim working, 2 miners, 320 feet claim. ²

Sept 1860: On the Monk a reef has been worked unproductively for many months, but is yielding 1 oz. per ton. ³

Dec 1860: Quartz Reefs actually proved to be auriferous: Monks Hill Reef

No. of claims: 2

Extent of claim: 456 feet

No. of men employed: 7

Extent of Reef prospected: 800 feet

1 oz. per ton; splendid specimens. ⁴

Sept 1864: Quartz Reefs, and no. of claims and men: Monks: 1 claim, 2 men ⁵

5 Sept 1899: Spring Gully Monk Co. intend to put a tunnel through the hill. The main Spring Gully line runs through the centre (of this lease) and 100 feet west is a reef known as Bastians, about 3 feet in width and from this splendid yields were obtained and it has not been prospected further than 80 feet deep and for about 300 feet along the line. ⁶

3 Oct 1899: Have put up blacksmith shop and magazine and laid tramway across the government race. ⁷

6 Dec 1899: The tunnel is in about 140 feet ⁸

24 April 1900: Driven along saddle and stoped on west leg; stone on saddle, 1 foot thick, showing minerals and a little gold. Will discontinue work here for a while. ⁹

24 May 1900: Have cut down the prospecting shaft (west of tunnel on hill) total of 29 feet. ¹⁰

24 Aug 1900: Half-yearly meeting - Erected bridge across water race, also built stone magazine, and erected blacksmith's shop. Cut into hill 60 feet to leave sufficient height to form entrance to tunnel... Total distance of tunnel 224 feet... Cut down old shaft further south on hill. Passed through body of stone 6 feet thick and broke into old workings. Cut down shaft 38 feet and timbered 30 feet. Made and fixed ladders in shaft. ¹¹

DESCRIPTION :

Spring Gully Monk Company (1899/1900)

Site 36 Towards the head of Coombs' Gully, close to the junction of the Eureka Road with the Poverty Gully Reservoir track, is a tunnel, driven E into Monk Hill. The V.W.S water race cuts through the mullock paddock at the entrance to this tunnel. Above this tunnel, on the E side of Eureka Road, is another tunnel and associated mullock paddock. This tunnel, is also driven E into Monk Hill.

PHOTOS: Black and white

ARTEFACTS: None visible

INTEGRITY/CONDITION: Good

THREATS:

CULTURAL SIGNIFICANCE:

The site has:

- | | |
|-------------------------|---|
| Scientific Significance | - Two well preserved adits |
| Cumulative Value | - The various sites recorded along Eureka Reef, stretching from Coombs' Gully, across Poverty Gully to Cobbler's Gully, have considerable scientific significance due to their age, rarity and ability to document a wide range of mining practices. These sites are contained in an area approximately 0.4 x 2.5km |
| | - The sites are located in an attractive, rugged bush setting. |

Significance ranking: Regional Significance

CONSERVATION POLICY:

The significance of the site's come from their intactness and from being part of a network of mining features.

RECOMMENDATIONS FOR IMPLEMENTATION:

Sites to be protected. An interpretive track established that links Sites 29 to 52.

Assessor: David Bannear Date: 1993

- 1 Mining Surveyors' monthly reports, Castlemaine and Fryer's Creek Divisions
- 2 Mining Surveyors' monthly reports, Castlemaine and Fryer's Creek Divisions
- 3 Mining Surveyors' monthly reports, Castlemaine and Fryer's Creek Divisions
- 4 Mining Surveyors' monthly reports, Castlemaine and Fryer's Creek Divisions
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- 9 Mount Alexander Mail, summarised by Clive Willman
- 10 Mount Alexander Mail, summarised by Clive Willman
- 11 Mount Alexander Mail, summarised by Clive Willman

SITE NO. & NAME: **COBBLER GULLY SITES**
41. Old Coach Road/Accommodation Paddocks
42. Puddling Machine Site
43. Deeply Sluiced Gully
44. Quartz Roasting Kiln

LOCATION: **Cobblers/Rocky Gully**

DIRECTIONS: Cobblers Gully, the lower reaches of which is locally known as Rocky Gully. Old Coach Road runs along the east side of the gully . Head of gully located to the west of the Dingo Farm.

MAP/GRID REFERENCE: Site 41: Castlemaine 1:25,000 - 547.901
 Site 42: Castlemaine 1:25,000 - 550.900
 Site 43: Castlemaine 1:25,000 - 548.895
 Site 44: Castlemaine 1:25,000 - 549.891

PARCEL NUMBER: Site 41 - None
 Sites 42 to 44 - P121231

MUNICIPALITY Newstead

LAND STATUS: Site 41: Road Reserve and Freehold Land/Proposed Castlemaine Historic Reserve
 Sites 42 to 44: Unreserved Crown Land/Proposed Castlemaine Historic Reserve

EXISTING HERITAGE CLASSIFICATION: None

PRESENT MANAGEMENT/USE: LCC Rec - J1

HISTORY:

30 Nov 1855: At the upper end of Spring Gully, and a short distance only from Dr Meears' steam crushing machine [Specimen Hill], is in play one of Wilson's and Crease's pendulum lever crushing machines, and this appears the nearest approach to simplicity, next after the hammer and block. A man pulls a rope towards him at an angle of 45 degrees, with the horizon, and draws a long vertical iron lever, which near the middle parts into two rods, at the end of which hangs suspended a strong gox charged to the brim with heavy stones, and which answers to the pendulum bob. The machine certainly appears to possess an advantage not to be seen in others. The pull is of course so much labor bestowed, but the return stroke confers a force due only to gravitation, and not to muscular exertion; the oscillation of the pendulum carries a curved surface of furrowed steel backwards and forwards against a steel surface adapted to it, not much unlike the manner in which the top of the thigh-bone plays in the socket of the pelvis. The quartz, burnt and broken to small a size, slides into this mill through a common wooden shoot. The machine appeared to crush very finely, and to be worked very easily, so much so that it would seem as if one strong horse would be motive power enough for a dozen pendulums. It is expected that one machine will turn out three tons daily when got into full play, after the lengthening of the leverage. It certainly has the recommendations of simplicity, facility of working, portability, and above all the wearing parts are so made that they can be easily copied and replaced at a very small expense.¹

June 1859: 5 puddling machines.²

August 1860: There has been a small rush on a reef known as Higgings', in Cobbler's Gully, during the last month. Several shafts had been previously sunk on it at depths varying from 20 to 130 feet, but eventually abandoned. Higgings' party applied for an extended claim, and from the first crushing got 4 1/2 oz. to the ton; a large yield for the district. Hence the rush.³

Sept 1861: Map shows two engine sites at the head of Cobblers Gully. In a unnamed gully heading north from the point where Cobblers, Tucker and Shicer Gullies meet, the following are marked: (1) Caper's Stevens[?] Engine House (grid ref 55HBU555902) with associated dam and brick house; (2) to the north, Williams Engine House and large dam (grid ref 55HBU555903), with brick house marked nearby; (3) further up, near the head of the gully, are two house sites with associated gardens.⁴

Nov 1861: Map shows - Lease No 21, 20 acres S. Rodda and Company. On north section of the lease is Eureka Co.'s 35 hp engine (grid ref 55HBU545903); in the north-east corner of S. Rodda & Co.'s lease, in Poverty Gully, is a dam. Below, and to the south of, this dam, on the opposite side of a small feeder gully to the Eureka's engine, is another engine house (55HBU545903). In the north-east corner of Rodda's lease is the site of Trembath's engine (grid ref 55HBU547904).

Adjoining the north boundary of the S. Rodda and Co's lease - Lease No. 75 J. Whitehead, 9 acres 32 perches. (mid grid ref 55HBU545905)

Map shows two engine sites erected on the flat at the head of the most northern arm of Poverty Gully - Blyth's engine (grid ref 55HBU546906); slightly north of this engine is Harris and Co.'s lease, No. 177, showing Harris's engine (grid ref 55HBU546907).

To the east of South Eureka Reef, on the W side of Cobblers Gully the map shows an engine site (grid ref 55HBU548899), situated close to the gully and a large dam. ⁵

7 Oct 1861: Cobbler's Gully is a large gully, branching off in a NW direction from Spring Flat. Spring Gully branches to the NE at the same point.

Penpraze lease being worked near Eureka Reef (grid ref. 546897). This lease has a dam/puddling machine on its southerly boundary (grid ref. 547895).

Higgins reef is situated between Cobbler's Gully and a small gully heading north from California Gully. Pryor and Co. hold a lease on this reef (mid grid ref. 545894)

A lease stretches northward from the junction of Cobbler's and California Gullies, towards the small Penpraze lease. Between the junction of Spring Flat, Cobbler's Gully and California Gully is a puddling lease or claim held by W.

Jago. ⁶

March 1875: In a prospecting claim of Js. Carah and Co., at Cobbler's Gully, a new reef or lode has been struck, which appears to be highly auriferous. At a depth of 14 feet the lode is 1 foot thick, gold showing sufficiently to lead to the expectation of a yield of from 2 to 3 oz. to the ton; there has been no crushing yet. The ground has been taken up both north and south, and experienced quartz miners believe this will prove to be an important discovery. The shaft is now down 23 feet only. ⁷

June 1875: The new reef...has fully realized the expectation, in yield, of the discoverers (Messrs. Carah and Co.); from 37 tons a yield of 85 ozs... was obtained. ⁸

Dec 1879: A more extensive system of water supply for sluicing purposes might lead to important results. There is a site for a reservoir at Cobbler's Gully, near Eureka, well adapted for the storage of a large supply of water, which could be utilized to advantage in German and Spring Gullies and tributaries, and also extended to Old Pennyweight Hill, Strathloddon, and Mopoke, by contour races. ⁹

March 1889: Cobbler's Gully Reef, South Eureka. - No reliable particulars can now be ascertained with reference to this reef, which was opened out in 1869, the original prospectors having since died or removed to other districts. There have been two or three main shafts sunk, but not exceeding in depth 100 feet; 489oz. have been realized from 1,027 tons, averaging 91/2dwt. to the ton. The ground has been more or less worked, up to the year 1886, and apparently abandoned on account of the auriferous leaders being worked out. ¹⁰

1902: Map shows Twomey and Co.'s shaft in feeder gully to Cobblers Gully (near Dingo Farm); south of Twomey & Co. is Davis' shaft. Davis's claim also includes a shaft on south side of gully. ¹¹

Mar 1990: Top end of Cobblers Gully - sluiced from there down to Fryerstown, all done with a nozzle. A lot of the ground sluiced was original, there was no gold in the clay, had to shift a considerable depth of overburden before getting to the gold bearing stuff. Very deep sluicing. Bert Miller and his son sluiced from Californian Gully north up Cobblers Gully to just south of Dingo Farm. They stopped because of the depth of overburden. This was done in the depression years. This is where the last hydraulic sluicing was done...you can still see the gravel bank left from the last paddock taken out. An underground drain, all boxed in, made of old timber and stone, went under the tailing dump. Water only used once... they never returned the water or used it again and you can see how much clay is left in the tailing dump..[none]...the silts all went down the gully and silted up all the reservoirs. ¹²

March 1990: Quartz roasting kiln - west side of Cobbler's Gully...been built into the west side of the gully. ¹³

1990: Sluicing up Cobblers Gully - my brother [Brown] worked there with Bert Miller. It was forty foot deep there...they had to remove all that overburden. ¹⁴

March 1990: South Eureka mine/Cobblers Gully - located near the standing chimney stack, on the south side of the Dingo Farm. The shaft was filled in by the Mines Dept. There was a poppet head here for years, roughly 60 square feet. Also the old bailing tanks were here and there was quite a bit of machinery lying around. Eventually they came in and took it away for scrap.

[re. stone retaining walls in gully, associated with the two shafts near the standing chimney stack] When they worked a shaft and they didn't have a battery on it, they had to cart the quartz away. They made what they called a paddock ...[from the mullock]... on which they tipped the gold-bearing quartz. ¹⁵

*DESCRIPTION*Site 41

Cobbler's Gully's earliest surviving mining features are sections of a road which once connected Castlemaine and Fryerstown, originally constructed in early 1852. This road is now known locally as the 'Old Coach Road'. This was a major thoroughfare for diggers coming from Melbourne in the early 1850s. The stone-walled paddock would have been an 'accommodation paddock' for grazing of horses - the equivalent of today's multi-level carpark.

Site 41 - Turning off Eureka Road, on the southern side of the Monk, a road leads E to the main Chewton to Fryerstown road. 200m E of the turn-off are the remains of a large, irregular-shaped, stone paddock. It is aligned with the old Fryerstown-Castlemaine coach road. The N wall of the paddock is 110m long, E wall 80m, S wall 140m and W wall 150m. All walls have a base measurement of 1m, and are lined with stone on both faces, with an inner core of clay. On the SE corner of the paddock are the remains of a building, with some walls still standing, but largely hidden by dense blackberry growth.

Site 42

The puddling site in Cobbler's Gully would date from some time in the period 1854 to c.1880s.

Site 42 - 150m W from the NE corner of the stone-walled paddock, on W side of Cobbler's Gully, is the site of a puddling machine. The diameter of the inner mound is 3m, and a fragment of the central wooden post is still visible. The puddling trough is 1.6m wide and 50cm deep, and the outer mound is about 2m thick - total diameter is approx. 9m. The outlet channel from the trough is still visible. A dam survives in the gully. [55HBU551900]

Site 43

The deep hydraulic sluicing in Cobbler's Gully was the work of Alf Cox and Bert Miller in the 1930s.

Site 43 - Following the old coach road south, past the South Eureka mine, the last paddock sluiced in Cobbler's Gully is reached. This area was very deeply sluiced (up to 20m deep) because of the depth of overburden that had to be removed before washdirt obtained. [approx 55HBU547895]

Site 44

The Chilean mill located would date from the mid-1850s-60s.

Site 44 - Continue along road that runs N through the settlement of Spring Gully. Once the last boundary fence marking private property is reached, cross to the E side of Cobbler's Gully (this stretch of gully is also referred to as Rocky Gully). About 150m N, along the gully's edge, is the site that is reputed to be a Chilean mill. The most visible remains are of a quartz roasting kiln, which was evidently constructed by excavating a large hole in an exposed sandstone reef and building up the sides and front walls, where necessary, with stone and mud mortar. The walls, of natural reef and built stone, are approx. 50cm thick. The kiln is 3.2m wide, 2.8m long and at least 2.6m deep, and has a short flue in the front wall (60 cm square).

Above the kiln is a levelled working area, from which a well-constructed road heads S. I

Immediately in front of the kiln's entrance is another levelled area containing several sections of stone footings, which are difficult to interpret, as they are largely covered with soil. The footings are certainly extensive, and excavation would be likely to reveal substantial remains of what must have been a sizeable quartz treatment plant.

PHOTOS: Colour slides and prints

ARTEFACTS: None visible

INTEGRITY/CONDITION: Good

THREATS:

CULTURAL SIGNIFICANCE:

Sites have :

- | | |
|---------------------|--|
| Historical | - Cobblers Gully contains one of the last relatively untouched sections of one of the original gold-rush routes to the world famous Mount Alexander diggings. The track, known now as the 'Old Coach Road', is made an even more valuable heritage item by the fact that it offers a unique range of heritage attractions: it connects significant mining remains at Eureka Reef and Spring Gully; brings visitors into close contact with of different types on mining sites (Sites 42, 43 and 44); and passes through the early mining township of Spring Gully. |
| Social Significance | - The 'Old Coach Road' is a favoured walking track |
| Cumulative Value | - The section of the road that survives runs from the Dingo Farm, down Cobbler's Gully to Spring Gully. The survival of a stone-walled paddock (originally built for the safe accommodation and agistment of horses being used on the road), opposite the Dingo Farm, adds to the integrity of the |

route. The puddling machine site near the accommodation paddock also holds considerable historic and scientific significance because of the rarity in finding one so well preserved, complete with storage dam. The quartz-roasting kiln found on the eastern side of Cobbler's Gully is of great scientific value. The kiln would certainly be of early date; perhaps associated with, or contemporary with, a Wilson and Crease's pendulum lever crushing machine operating in upper Spring Gully in 1855. There are also numerous house sites, blacksmith forges and small lines of reef workings.

- The sites are located in an attractive, isolated bush setting.

Significance ranking: All sites : National Estate

CONSERVATION POLICY:

The significance of the Cobblers Gully network comes from the historical importance of the 'Old Coach Road' and from the heritage attractions that surround the road. The quartz roasting kiln is also extremely significant due to its age, rarity and intactness.

RECOMMENDATIONS FOR IMPLEMENTATION:

All sites be protected and Sites 41 to 44 nominated for the National Estate. An interpretive track established that links Sites 29 to 52.

Assessor: David Bannear

Date: 1993

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- 1 Mount Alexander Mail, p2
 - 2 Mining Surveyors' monthly reports, Castlemaine and Fryer's Creek Divisions
 - 3 Mining Surveyors' monthly reports, Castlemaine and Fryer's Creek Divisions
 - 4 1861 Mines Department map, ref. 1290/G/3: Kitto, 3/9/1861
 - 5 Nov. 1861 Mines Department map, ref. GF16
 - 6 7 October 1861 Mines Department map: Castlemaine Mining District, Fryer's Creek Division
 - 7 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
 - 8 Mining Surveyors' monthly reports, Castlemaine and Fryer's Creek Divisions
 - 9 Mining Surveyors' monthly reports, Castlemaine and Fryer's Creek Divisions
 - 10 Mining Surveyors' monthly reports, Castlemaine and Fryer's Creek Divisions
 - 11 Milner, P. 1989 Mining Sites in Specimen Hill Area, for Newmont
 - 12 Notes summarizing a day-trip to Spring Gully with Verne Hooper, 16 March 1990
 - 13 Verne Hooper/David Bannear April 1990 - Preliminary field notes
 - 14 George O. Brown/David Bannear March 1991- Preliminary field notes
 - 15 Notes summarizing a day-trip to Spring Gully with Verne Hooper, 16 March 1990

SITE NO. & NAME: 45 **Blacksmith (Spring Gully) Reservoir**

LOCATION: **Blacksmiths Gully**

DIRECTIONS: Gully drains east from Specimen Hill (Chewton to Fryerstown Main Road)

MAP/GRID REFERENCE: Castlemaine 1:25,000 - 553.891

PARCEL NUMBER: P121231

MUNICIPALITY Newstead

LAND STATUS: Unreserved Crown Land/Proposed Castlemaine Historic Reserve

EXISTING HERITAGE CLASSIFICATION: None

PRESENT MANAGEMENT/USE: LCC Rec - J1

HISTORY:

July 1860: Little work being done at present. ¹

Dec 1860: Auriferous reefs include Blacksmith Reef, 4 miners working. ²

March 1861: There is only 1 quartz claim within the area [of Fryerstown], and that employing only 4 men. This reef, although little in this particular locality, is I believe as much worked as any reef in Victoria. It is a southerly continuation of Ferron's Reef, and the latter is believed to be a continuation of Blacksmith's, El Dorado, Wattle Gully, (in the Castlemaine Division), Chewton and Sailors' Gully Reefs, and thence goes on to Barker's Creek... it is a remarkable fact that all the alluvial deposits around this line of quartz reefs have been extremely rich. ³

7 Oct 1861: Between the junction of Spring Flat and Spring Gully and the point where Blacksmith's Gully branches off to the east, are several puddling claims, held by James and Company, Thomas and Company, and Baistow. There is a reservoir at the junction of Spring and Blacksmith's Gully (grid ref. 554891) Nightingale and Company, working Eldorado Reef (continuation) have a lease situated to the north of Blacksmith's Gully and south of Two Foot Gully. (grid ref. 560891)

A lease abuts Blacksmith Gully's north side - D. Jackson, working Blacksmith's Reef. (grid ref. 561889) ⁴

10 March 1864: Blacksmith Gully - Alexander and Co. have erected 25 horsepower engine. ⁵

June 1864: The Alexandra Company have done nothing, until within the last few days, since my last report, a very great pity, seeing they possess a good mine and fair plant... Mr Price, one of the shareholders, has taken it on tribute from the others and will, I doubt not, make the mine pay. ⁶

Sept 1864: I am sorry to have to report, that the machinery on the Eldorado mine, Specimen Hill, as also that of the Alexander Company, Blacksmith's Gully, has been idle during the quarter. ⁷

Sept 1864: 60 miners at work. ⁸

Dec 1864: The machinery of the Alexandra Company Company, Blacksmith's Gully, has been sold to a party who intend working the White Horse Reef, Forest Creek. The Blacksmith, or Alexandra Company, scarcely had their machinery in position before dissensions arose in the party, and the consequence is a valuable plant has to be removed without having done a good week's work. ⁹

Dec 1864: 28 miners at work. ¹⁰

Dec 1865: 21 miners at work. ¹¹

June 1866: 10 miners at work. ¹²

March 1867: 20 miners at work. ¹³

1860s: The arrangement of the tracks [in Blacksmith's Gully] suggest that most of the stone taken out at the southern end was crushed at the battery on the southern end of the Prince of Wales line. Any stone taken out at the northern end was probably crushed at the battery which, to judge from the existence of battery sand in the vicinity, was located at the northern end of the Prince of Wales Reef. ¹⁴

March 1869: Blacksmith's Gully Company have been at work about a month, and have very favorable prospects... The reef is 4 feet thick; 15 men are employed. A new shaft is being sunk to strike the lode at a lower level. ¹⁵

Sept 1871: In [quartz] mining a further inducement is advanced by the successful operations of the Anglo Australian Company, situated between the Golden and Blacksmith's Gully. ¹⁶

1872: Ground occupied by Lord Lorne, Lady Lorne, Fryers Energetic and William Tell companies. ¹⁷

Sept 1876: A new rush has lately taken place at Blacksmith's Gully, on the western side of the main road, near Specimen Hill; the ground was originally taken up and pegged off during the "great rush" in the early part of 1872 but very little was done at that time in testing the value of the ground. Messrs. Weatherly and Co. have been prospecting in this neighborhood for many months past, with little or no encouragement until very recently; they have now succeeded in discovering auriferous quartz... A trial crushing of 6 tons has yielded 5 ozs. 10 dwts.; at present there is nothing like a properly defined reef to be seen... A great many claims have been taken up north and south of the prospectors', and a considerable amount of energy is being displayed in sinking, &c. ¹⁸

Dec 1876: The new rush at Blacksmith's Gully...has not been so energetically followed up as anticipate; but there are still some grounds for presuming that a series of reefs of a remunerative character will yet be discovered running on the western side of the main road between Golden Gully and Chewton. ¹⁹

1881: Ancient Briton Co., North Star Co. ²⁰

Sept 1882: ...arrangements are being made by Messrs. Hazlett and party for sluicing all the old workings between Specimen Hill and Church's Flat. ²¹

1883: In 1883 Hazlett's water race had been extended to Blacksmith's Gully, sluicing operations were in progress. ²²

March 1883: ...the example of Messrs. Hazlett and party is likely to be followed by other parties, so far as sluicing different portions of Spring gully and its tributaries is concerned. Hazlett and party are working vigorously in Blacksmith's Gully, and it may be safely surmised that their weekly earnings are satisfactory. ²³

Sept 1884: The general aspect of quartz mining in the Fryers district has never been less encouraging than at the present time. There seems to be prevalent idea, however, among the old residents that deep sinking on the main line of reef (Cattle's) should be proceeded with at once, as being the only way of solving the mystery as to the existence of a rich and well defined lode at a much lower level than has hitherto been attained. The tradespeople and principal mine-owners residing at and near Fryerstown, while being unanimously of opinion that deep sinking is alone required to develop our mineral resources, are yet comparatively apathetic as to adopting the necessary means in order to carry out the object aimed at. The diamond drill is in great request throughout the mining districts of the colony, and no doubt is calculated, by a judicious use, to assist in determining the position and peculiar characteristics of quartz reefs, as well as main gutters on deep alluvial leads. Therefore, it is confidently asserted that this novel mechanical appliance might with advantage be introduced into Fryerstown, with the view of testing the quality of reefs to depths hitherto unattainable by the ordinary process of sinking.

SITUATION AND CAPACITY (gallons) OF RESERVOIRS:

Crocodile Gully	5,407,462
Spring Gully	7,000,000
Solomon Gully	1,250,000 ²⁴

March 1887: Reef abandoned - 235 oz obtained from 819 tons at depths of between 16 and 80 feet. ²⁵

March 1889: Blacksmith's Gully Reef.- This line of reef is situated a few chains to the eastward of the Prince of Wales, and bears N. 2° W...very little prospecting has been done on this line since 1871. When the reef was first opened out, the quartz yielded from 31/2 to 14dwt. to the ton. The principal shaft has been sunk to a depth of 120 feet... The crushings, as recorded, are as follows: Surface to 50 feet, 121 oz.; to 100 feet, 10oz; to 150 feet, 37oz.; 598 tons average 5.6dwt. to the ton. The reef is abandoned for want of energy and capital to develop its resources. ²⁶

16 Dec 1889: Browning Brothers, Welshman's Reef, Blacksmith Gully, are working at a depth of 63 feet on the stone that they worked at the surface for 3.5dwt to the ton. ²⁷

Dec 1889: Browning Brothers - working since September for the Fryerstown Prospecting Association. ²⁸

June 1891: Messrs. Browning and party...continue to work payable stone in their mine at Blacksmith's Gully, the gold averaging 9dwt. to the ton. ²⁹

15 Oct 1894: Browning and Knowles - 1oz from one ton. ³⁰

6 July 1897: Blacksmith Gully Gold Mining Co. - sinking shaft. ³¹

7 March 1898: Blacksmith Gully United Co. - Meeting to decide whether to take over claims north and south. Trial crushing of 90 tons have yielded 67oz... The company has a lease 1600 feet along the line of reef. ³²

March 1898: Blacksmith's Gully Co.: 66ton crushed, 118oz gold. ³³

25 April 1898: Blacksmith Gully United Co. - started crushing. ³⁴

25 April 1898: North Blacksmith Gully Co. - Shares on market. ³⁵

2 May 1898: Blacksmith Gully Extended Co. - Cleaned and logged No. 1 shaft - good yield obtained here in paast - squared up No. 2 shaft. ³⁶

June 1898: Blacksmith's Gully Co.: 178 ton crushed, 186oz gold. ³⁷

Sept 1898: Blacksmith's Gully Extended Co.: 16 ton crushed, 3oz gold. ³⁸

20 Dec 1898: Amalgamated Meeting of Blacksmith's Gully Companies - ...set forth the following resolutions:- "That a company be formed to take over the leases of the Blacksmith's Gully United, North Blacksmith's Gully, and Blacksmith's Gully Extended Co.'s, to be called the Blacksmith's Gully Consolidated Co...

The Chairman, on behalf of the North Blacksmith's Gully Co., Mr Sheridan for the Blacksmith's Extended, and Mr W. Newham on behalf of the Blacksmith's United, stated their companies were in favour of amalgamation - Mr Newham adding that they were pretty well all agreed that they had done enough scratching about the surface; the Blacksmith's United had had some good patches, but they had nipped out. It was desirable for all concerned that they obtain machinery and work the mine properly.

Mr Finlason asked how it was proposed to work the ground, as there were two lines of reef about 400ft apart.

Mr Felstead said they could sink between and crosscut to both lines, and drive on what was found to be best; to do this they must have machinery. ³⁹

9 Jan 1899: Ford & party are working on stone along the New Era Line at a mine called the Saxon adjoining the Blacksmith Gully Extended Co. ⁴⁰

3 June 1901: Blacksmith Gully Consolidated - prospecting shaft sunk 9ft - passed through 5ft of well mineralized stone, but of low grade. ⁴¹

1 Dec 1903: Blacksmith Gully Syndicate - Extended east crosscut 9ft - total 14ft. ⁴²

Sept 1903: Blacksmith's Gully Co.: 310 ton crushed, 18oz gold. ⁴³

March 1990: [On the east side of the road, on north side of Blacksmith's Gully] ...that's where the old candlestick factory was. My mum and dad told me that's where it was...just off the road. Above the gully, on the south side, is the site of a house. A bloke named Bill Loffel...he built a house there. Bill used to work at Wattle Gully. Lived there in the depression years. [Peter Milner's HSF 133 site]

[Blacksmith's Gully, west side of the road] ...just off the road, that's where a bloke called Thompson sank a shaft...in the depression years...got a fair bit of gold. ⁴⁴

March 1990: Blacksmith Gully was first sluiced by Bert Miller and then Alf Cox took over. ⁴⁵

DESCRIPTION

The remains of an earthen wall and substantial cobbled by-pass found near the junction with Blacksmith's and Two Foot Gullies, are the remains of the Spring Gully Reservoir, constructed in 1869.

Site 45: Turn W from the Chewton-Fryerstown main road down the dirt track that leads to the Scout Camp in Blacksmith's Gully. From the Scout Camp, follow the lower track for about 300m. Most of the high earthen wall of the Spring Gully Reservoir has been washed away, but on the S side of the surviving wall, is a long stretch of stone cobbling, marking the reservoir's by-pass.

Reef workings - Line of reef workings cross the gully downstream of the Reservoir. Traces of battery sand, but little other signs of a battery.

PHOTOS: Black and White

ARTEFACTS: None visible

INTEGRITY/CONDITION: Embankment has been breached, the stone by-pass is in good condition

THREATS:

SCIENTIFIC SIGNIFICANCE:

The site has:

Scientific Significance - Associated with efforts to overcome a water shortage problem.

Significance ranking: Local

CONSERVATION POLICY:

None required

RECOMMENDATIONS FOR IMPLEMENTATION:

None

Assessor: David Bannear **Date: 1993**

- 1 Milner, P. 1989 Mining Sites in Specimen Hill Area, for Newmont
- 2 Mining Surveyors' monthly reports, Castlemaine and Fryer's Creek Divisions
- 3 Mining Surveyors' monthly reports, Castlemaine and Fryer's Creek Divisions
- 4 7 October 1861 Mines Department map: Castlemaine Mining District, Fryer's Creek Division
- 5 Mount Alexander Mail, as summarized in Clive Willman collection
- 6 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
- 7 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
- 8 Milner, P. 1989 Mining Sites in Specimen Hill Area, for Newmont
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- 10 Milner, P. 1989 Mining Sites in Specimen Hill Area, for Newmont
- 11 Milner, P. 1989 Mining Sites in Specimen Hill Area, for Newmont
- 12 Milner, P. 1989 Mining Sites in Specimen Hill Area, for Newmont
- 13 Milner, P. 1989 Mining Sites in Specimen Hill Area, for Newmont
- 14 Milner, P. 1989 Mining Sites in Specimen Hill Area, for Newmont, p37
- 15 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
- 16 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
- 17 Milner, P. 1989 Mining Sites in Specimen Hill Area, for Newmont
- 18 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
- 19 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
- 20 Milner, P. 1989 Mining Sites in Specimen Hill Area, for Newmont, p129
- 21 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
- 22 Milner, P. 1989 Mining Sites in Specimen Hill Area, for Newmont, p37
- 23 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
- 24 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
- 25 Milner, P. 1989 Mining Sites in Specimen Hill Area, for Newmont

26 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
27 Mount Alexander Mail, as summarized in Clive Willman collection
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32 Mount Alexander Mail, as summarized in Clive Willman collection
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40 Mount Alexander Mail, as summarized in Clive Willman collection
41 Mount Alexander Mail, as summarized in Clive Willman collection
42 Mount Alexander Mail, as summarized in Clive Willman collection
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44 Verne Hooper/David Bannear April 1990 - Preliminary field notes
45 Notes summarizing a day-trip to Spring Gully with Verne Hooper, 16 March 1990

SITE NO. & NAME: 46. JOE'S GULLY BATTERY SITE

LOCATION: Spring Gully area

DIRECTIONS: 0.5km south east of Spring Gully. North side of Spring Gully Fire Track.

MAP/GRID REFERENCE: Castlemaine 1:25,000 - 552.885

PARCEL NUMBER: P120482

MUNICIPALITY: Newstead

LAND STATUS: Unreserved Crown Land/proposed Castlemaine Historic Reserve

EXISTING HERITAGE CLASSIFICATION: None

PRESENT MANAGEMENT/USE: LCC Rec - J1

HISTORY:

1990: Travelling down dirt track to Spring Gully. This track follows the south side of Joe's Gully - The first dam encountered was put there by Alf Cox...when he was sluicing in Spring Gully. This was his pressure dam, this is where he got his water from. It was fed by a race..he used to bring the water in from the Coliban race right around the hills, and from here he would take it to Spring Gully.

Next dam along the track (W) is Joe Thompson's. Joe put this in as a stock dam.

Below the stock dam, just before the track branches - the site of a battery. I can remember the time the chimney stack was knocked down. It was about 35 feet high, all brick. I think it was square. On the opposite side of the road, in Jimmy Cole's property is a house site...where Alf Cox used to have a house [all that remains are some footings, scatter of bricks and galvanised iron] ¹

DESCRIPTION

Battery site (name unknown, but would probably date to late 19th century)

Take the track to Spring Gully that runs from the Chewton-Fryerstown road. Just above where the track branches, on the S side of the track, is a battery site. The site consists of a stone-faced loading ramp, levelled battery platform, and depressions probably marking the positions of engine, boiler, flue and chimney stack. There is a spread of bricks around the vicinity of the boiler house. The bricks are handmade, red, with no frog. To the N of the plant, on the S side of the gully, is a dump of battery sand and a small dam, and E of the loading ramp is a small fireplace and forge.

PHOTOS: Black and white

ARTEFACTS: None visible

INTEGRITY/CONDITION: Poor

THREATS:

CULTURAL SIGNIFICANCE:

The site appears to have little historical significance and its integrity is poor. The site therefore has little heritage value

Significance ranking: Local

CONSERVATION POLICY:

None required

RECOMMENDATIONS FOR IMPLEMENTATION:

None

Assessor: David Bannear

Date: 1993

¹ Verne Hooper/David Bannear April 1990 - Preliminary field note

SITE NO. & NAME: 47 SPRING GULLY CO. MINE

LOCATION: Emu Reef

DIRECTIONS: 700m to the south of Spring Township, east side of Spring Gully

MAP/GRID REFERENCE: Castlemaine 1:25,000 - 549.879

PARCEL NUMBER: P120482

MUNICIPALITY: Newstead

LAND STATUS: Unreserved Crown land/proposed Castlemaine Historic Reserve

EXISTING HERITAGE CLASSIFICATION: None

PRESENT MANAGEMENT/USE: LCC Rec - J1

HISTORY:

1855: Emu Reef, Spring Gully. - At the time this reef was discovered by Jeff and party, in 1855, crushing and other appliances were very imperfect, and, after the first shoot of gold was worked out, the reef was neglected for a long period.¹

1855: Emu Reef.... This reef...was first opened in 1855, a large outcrop of quartz standing several feet above the surface attracting attention while the alluvial deposits were being worked. This reef, from 20 to 40 feet in width, was a saddle formation, and was extensively worked by small parties. In 1855, the original finders, Jeff and party, obtained 60 ounces to the ton; Tregallis and party 23 ounces to the ton; Lindsay and party, 20 ounces to the ton; Shepherd and party, 3 to 9 ounces to the ton; Howard and Harvey, 14 ounces to the ton; Cartwright and party, 33 ounces to the ton; and Searle and Stacey, from a reef 21/2 feet thick, 5 ounces to the ton for a distance of 61 feet.²

27/3/1857: Most successful reefs to date - El Dorado, Specimen Hill; Eureka, Poverty Gully; the Emu Reef near Spring Flat; the Old Specimen Hill Reef and the small reefs or leaders on Wattle Gully.³

June 1859: Spring Gully - Rowe and Co. - one 10hp horizontal engine, 8 stamps; crush 18 tons in 24 hours.
Spring Gully - Flaxman, Lawler, and Co. - one 12hp horizontal engine, 4 stamps; crushes 40 tons per week, 24 hours per day.

Spring Gully - Lindsay and Co. - one 8hp steam engine, 4 stamps; crushes 50 tons per week, 24 hours per day.⁴

June 1859: Emu Reef:

Rowe & Co. Crushed 150 ton in past month. Yield per ton - 8 dwt. Depth from surface - 8, 40 and 80.

Sutton & Co. Crushed 4 ton in past month. Yield per ton - 36 oz. Depth from surface - 8 feet.

Lindsay & Co. Crushed 30 ton in past month. Yield per ton - 9 1/2 dwt. Depth from surface - 25 feet. (This party have been repairing their machinery during the past month.)

Lawlor & Co. Crushed 160 ton in past month. Yield per ton - 0. Depth from surface - 35 feet.⁵

July 1859: The Emu Creek Gold Mining Company - A short time previous to the existence of the above company, the original proprietors had registered their claim, and I believe for two reasons - 1st., that they could amalgamate with an adjoining claim; and, 2nd, to furnish an opportunity of establishing a company, in order that a sufficient amount of capital might be raised for better conducting their operations, improving their machinery, etc. They have now 370 feet run of the reef

Sutton, Smith, and Co. (private company). - [no machinery as yet]

Rowe and Co. - [adjoining claim to Sutton, Smith and Co.] ...they have a steam engine and crushing machine. [Table of monthly yields] list Lindsay and Co., Sutton, Smith and Co., Rowe and Co. as working the reef.⁶

July 1860: Emu Company - This is in status quo for want of funds. They have a large strong lode to operate on, but in their part of the reef they have not as yet sunk sufficiently deep to strike the shoots of gold.⁷

August 1860: On the Emu and El Dorado the few private parties are making average wages.⁸

August 1860: The Emu Company has become bankrupt.⁹

Sept 1860: No. 1 claim (Rowe's) on this reef is turning out very well just now, as also is No. 2. The other part of the reef, held by Emu Company, has been rushed; but it being in the hands of the Court of Mines, the miners were obliged to retire. ¹⁰

Nov 1860: On the southern continuation of the Emu Reef, the Spring Gully Prospecting Association have discovered the main lode, after spending a great amount of time and money. They tried a prospect last week, which produced 12 dwt. to the ton. ¹¹

Nov 1860: Stephens and Company, on the Emu, got 60 oz. of gold from 100 tons of stone. ¹²

Dec 1860: Auriferous reefs include Emu Reef, 16 miners working. ¹³

April 1861: The Emu has again started to work under the direction of the purchaser of the plant, who is engaged in prospecting the ground. ¹⁴

May 1861: The Ferron's Reef Company are still idle, as also is the Emeu Company. ¹⁵

August 1861: The new plant of Odgers and Company (lately the property of the Emeu ...[or Emu] ...Company) is in full working order. Mr Odgers informed me that the tailings and refuse thrown away in washing and sluicing will produce 2 dwt. to the ton, and the produce will give the shareholders £6 per week. ¹⁶

Dec 1861: Odgers and Company have netted £40 per man for the past month, certainly no bad result from *debris* and tailings which had been pronounced worthless. ¹⁷

June 1864: The Hand of Friendship Company, on the Old Emu Reef, is doing well. From the commencement, the mine has been giving a profit over working expenses...a new shaft being met by the yields from the mine. The engine shaft, from which no stone has been crushed by the present proprietors, shows good stone. ¹⁸

Dec 1864: The Hand of Friendship Company have been engaged up to the present time in crushing headings and other *debris* lying about the mine; as also in sinking a new engine shaft, on which they are placing a new whim, for the purpose of obtaining supplies of quartz from the deeper parts of the mine. ¹⁹

June 1865: The Hand of Friendship Company, Emu Reef, have suspended operations, for the purpose of making some alteration in the share list, and other improvements. ²⁰

Sept 1866: The Hand of Friendship Mine, on the Old Emu Reef, after various failures, has at length begun to pay. The shareholders consider their prospects sufficiently encouraging to warrant their removing their engine from one part of the mine to another; and have decided on sinking a new engine shaft. ²¹

1866: Parties reporting yields from quartz crushings in 1866: Hand of Friendship. ²²

1867: Parties reporting yields from quartz crushings in 1867: Hand of Friendship. ²³

Sept 1868: The Emu Company.[Hand of Friendship?] - This Company are about reorganizing, as it is found the plant as at present is not adequate to perform the work required. The returns for the quarter, although small, would be remunerative to a company with a powerful plant. ²⁴

Dec 1868: Some parties are prospecting the southern end of the Emu with fair indications. ²⁵

1868: Parties reporting yields from quartz crushings in 1868: Hand of Friendship. ²⁶

Dec 1885: Quick and party have lately been prospecting the old Emu line of reef, Spring gully, a trial crushing giving 4 dwt. to the ton... the sinking of a main shaft has been commenced. ²⁷

Dec 1886: A new and important discovery has been recently made in Spring Gully by a party of Chinese and Europeans, viz., the striking of a quartz reef near the surface, which, in the first trial crushing, yielded 11/2oz. to the ton. The leader is very flat, and is supposed to be a continuation of the Emu line of reef, being contiguous thereto, and near the old workings. This particular reef was known to some Chinese twenty years ago, but it was never worked, the adjoining alluvial ground claiming their undivided attention, as they were entirely ignorant of quartz mining. ²⁸

March 1887: Rosewall and Party, Spring Gully, have been compelled to suspend mining operations owing to the great influx of water into their shaft from underground drainage. A short time ago this party had very encouraging prospects...but, not being able to obtain machinery at once, through misunderstandings or disorganization, a temporary cessation of work was the result. The party consists of Chinese and Europeans, but the combination up to the present time has not proved very satisfactory so far as working the mine and general management is concerned. There are several other companies whose blocks adjoin Rosewall's lease. ²⁹

June 1888: Quick and party have recently discovered a new quartz reef at the foot of Spring Gully Hill, adjoining Windlass Flat, a short distance west from, and running parallel with the No Surrender line of reef, which was opened out some fifteen years ago, but abandoned without being properly tested... Another line of reef nearer Spring Gully, about 20 or 30 chains west of Quick's line, has also been re-opened during the past fortnight (June 30th); it is supposed to be identical with the Emu. A great deal of activity is being displayed, and some good specimens obtained...but the party (Messrs. McLean and Roberts) have had no crushing up to the present time. ³⁰

Sept 1888: Woo Sung and party, Emu Reef, Spring Gully, have resumed active mining operations. ³¹

1893: In 1893, the Spring Gully Company started to exploit the continuation of [the Emu] line of reef at a depth, with the result that large bodies of auriferous stone were opened up and profitable employment found for a considerable number of miners. ³²

1894-8 It was in August, 1894, that the property, which includes a lease of 21 acres, upon which a considerable amount of work had previously been done, was purchased by the present holders [Spring Gully Co.]. Several shafts had been sunk by the former proprietors, one of which, 88 feet deep, was sunk another 42 feet. After considerable unprofitable prospecting an auriferous spur was struck in a crosscut out 500 feet. It was decided to sink a new shaft 700 feet south of the old one, and when this was down 212 feet winding gear was erected. ³³

27 Jan 1898: Spring Gully Co. - 19 loads crushed, for 15-1/4 oz yield. Cleaned out 50 ft of south drive from old shaft to improve ventilation. Mine Manager: W.G. Blackham. ³⁴

2 March 1898: Spring Gully Co. - Half-yearly report by Mine Manager, A. Schonfelder. £759-11-11d gold attained. Crushed 177 loads for a yield of 195 oz 18 dwt. ³⁵

March 1898: Spring Gully Gold Mining Co.: 134 ton crushed, 89oz gold. ³⁶

25 April 1898: Spring Gully Co. - (Report by Bendigo journalist) - The shaft is 213 feet deep - 12 feet for well... To the north of this mine gold was struck in a 40-foot shaft by Quick, with whom negotiations have been made and the property placed on the market. ³⁷

June 1898: Spring Gully Gold Mining Co.: 673 ton crushed, 575oz gold. ³⁸

Sept 1898: Spring Gully Gold Mining Co.: 318 ton crushed, 306oz gold. ³⁹

12 Oct 1898: Spring Gully Mine - Washed off 30 loads crushed at new battery, for 29 oz 5 dwt gold. ⁴⁰

26 Oct 1898: Spring Gully Mine - Bricks arrived for new chimney stack. ⁴¹

1 Nov 1898: The Spring Gully Co. has arranged with Mr McBean, contractor, to supply bricks to complete the stack, which is now at a height of 30 feet, and should be finished within a fortnight. ⁴²

26 Nov 1898: The Spring Gully Mine...now ranks as our only dividend-paying venture within the Castlemaine radius... It is only during the past few years that this mine has sprung into notoriety as a good gold producer... The battery of 20 heads is of the Langland pattern, and the stamps weigh about 7 cwt. each. At the end of the copper plates are Halley's percussion tables and blanket tables, which deliver the tailings to a chute, that carries the material to the tyes outside the main buildings. The engine driving the battery has a 16 in. cylinder and 36 in. stroke making 60 strokes per minute. In addition to driving the battery it works the supply pump by means of spur gear of the usual description. An Arastra pan is continually in motion, grinding mundic, and everything works very smoothly, and is compact and handy. The battery-house is commodious and built of iron and woodwork, with concrete floor throughout. There is a tramway over the battery on which a trolley runs the stamps in and out with the greatest ease. The winding gear has fast and loose drums 7ft 6in. in diameter driven by a 16in. cylinder and 36in.

stroke, provided with all the necessary attachments for making it effective. Steam is generated by a couple of Jackass boilers each 17ft long and 5ft 6in. in diameter. ⁴³

7 Dec 1898: Spring Gully Co. - Now sinking air or mullock shaft from surface. ⁴⁴

1898: Spring Gully, 3939 tons mined, average yield 17.4 dwt/ton, total yield 3433 oz., dividend-paying mine. ⁴⁵

1 March 1899: Spring Gully Co. - New company to be formed to work the south end of the lease. To be called Williams' No. 1 Spring Gully Co. ⁴⁶

22 March 1899: Spring Gully Co. - main engine shaft sunk 8 feet - total 244 feet - fixed Tangye pump. ⁴⁷

March 1899: Spring Gully Gold Mining Co.: 1010 ton crushed, 1036oz gold. ⁴⁸

March 1899: Spring Gully Junction Co.: 399 ton crushed, 195oz gold. ⁴⁹

1 June 1899: Spring Gully. - Spring Gully is another revival in the immediate neighborhood of Castlemaine which promises to greatly improve the mining prosperity until a comparatively recent period, like many of the surrounding localities, it remained in practically the same state as it was left by the pioneers of the fifties, whose general rule of procedure was to merely "scratch" the surface wherever a rich prospect was obtained, and then leave for a fresh field. After the superficial areas had been thus treated, and the rich gullies apparently exhausted, Spring Gully became almost a thing of "past glories." Occasionally a spasmodic effort was made to work the various quartz veins that were known to exist, but no organised attempt at development took place till quite recently, when operations were resumed with satisfactory results.

The principal mine on the field is the Spring Gully, worked by a local company formed with a capital of £6000 in 24,000 shares... Since regular crushing from the reef, at present under operation, 6664 loads have been crushed for 5914oz., an average of 17.5dwt. to the load. Dividends amounting to 9s. 6d. per share, absorbing £11,400, have been paid. The company is in possession of a fine plant, and only 5s. 2d. per share has been called up. For a long time the crushings barely paid working expenses; but now, owing to the large extent - 14 feet - of the reef, which pitches south, and the excellent quality of the crushing dirt, the company proposes to pay regular dividends, and is adding 20-head of stampers to the battery, 10 of which will be placed at the disposal of the public. ⁵⁰

1899: Spring Gully Mine - 10874 tons mined, average yield 14.1 dwt/ton, total yield 7681 oz. - dividend-paying mine. ⁵¹

May 1900: Spring Gully Gold Mining Co.: 1310 ton crushed, 597oz gold. ⁵²

June 1900: Spring Gully Gold Mining Co.: 1775 ton crushed, 467oz gold. ⁵³

23 Aug 1900: Spring Gully Co. - On 9th June Mr Schonfelder tendered his resignation as mining manager, and Mr F. Jolley was appointed in his stead. Since taking charge, he has increased the output by about 220 tons per fortnight with practically the same expense. ⁵⁴

Oct 1900: Spring Gully Gold Mining Co.: 500 ton crushed, 236oz gold. ⁵⁵

1900: Spring Gully - 17541 tons mined, average yield 6.7 dwt/ton, total yield 5888 ozs, dividend-paying mine. ⁵⁶

26 Feb 1901: Spring Gully Co. - Cross-cut has been driven to meet Chinamens Shaft. Hand of Friendship Shaft cleaned out to 200 feet.

The value of the property was greatly enhanced by striking of the Hand of Friendship reef about 130 feet west and 228 feet south of our main shaft. ⁵⁷

Feb 1901: Spring Gully Gold Mining Co.: 1020 ton crushed, 243oz gold. ⁵⁸

May 1901: Spring Gully Gold Mining Co.: 630 ton crushed, 106oz gold. ⁵⁹

June 1901: Spring Gully Gold Mining Co.: 10 inch x 20 inch x 30 inch compound steam battery engine. ⁶⁰

August 1901: Spring Gully Gold Mining Co.: Thompson 9 inch punger workings ⁶¹

Sept 1901: Spring Gully Gold Mining Co.: 1740 ton crushed, 538oz gold. ⁶²

1901: Spring Gully - 13593 tons mined, average yield 7.3 dwt/ton, total yield 4989 oz. - dividend-paying mine. ⁶³

1902: Spring Gully Mine - 17007 tons mined, average yield 8.1 dwt/ton, total yield 6920 oz. - production to date: 63129 tons mined, total yield 28993 oz. ⁶⁴

May 1902: Spring Gully Gold Mining Co.: Thompson egg-ended air receiver, 25 feet x 5 feet 6 inches ⁶⁵

July 1902: Spring Gully Gold Mining Co.: 1390 ton crushed, 774oz gold. ⁶⁶

1902: Spring Gully Gold Mining Co.: 40 head battery ⁶⁷

26 Aug 1902: Spring Gully Co. - East cross-cut from 318 ft south level has been driven 48 feet from drive...is going out for Thompson's reef which should be cut shortly. ⁶⁸

17 Feb 1903: Spring Gully Co. - Main shaft sunk total 532 feet. ⁶⁹

16 March 1903: Spring Gully Co. - East cross-cut started 100 feet south of shaft...to intersect Thompson's reef, last worked at 242 feet. ⁷⁰

March 1903: Spring Gully Gold Mining Co.: 4890 ton crushed, 848oz gold. ⁷¹

Sept 1903: Spring Gully Gold Mining Co.: 2643 ton crushed, 732oz gold. ⁷²

1903: Spring Gully Mine - 13702 tons mined, average yield 4.4 dwt/ton, total yield 3017 oz. ... The principal quartz mine in this division, viz., the Spring Gully Company's mine, after paying £58,800 in dividends, has of late, I regret to have to state, been barely paying expenses. The directors of this company, I also regret to have to state, decided (almost immediately the stone ceased to yield a profit) to stop all work in the lower and bottom levels, where there (in my opinion) was a probability of something being found that would again place the mine in the front rank of dividend payers, and started, what few wages men they continued to employ, fossicking about in the old backs over the 318 and 240 feet levels. They also let portions of the backs, over the same levels, to several parties of tributers... Development work in this mine, has, in my opinion, been sadly neglected, the main shaft being only about 550 feet deep, when at the very least it should have been twice that depth. ⁷³

1903: Spring Gully Company - This company is engaged working a large spurry reef formation in the vicinity of the old Emu Reef, from which profitable returns were obtained in early days. The main shaft is sunk to a depth of 390 feet. ⁷⁴

19 Feb 1904: Mr C.W. Steiner, of Castlemaine, has just completed a survey of underground workings of the Spring Gully and No. 1 mines at Fryerstown, and has forwarded to the legal manager's office his plans and report of same.

The reef that has been worked with such success by the Spring Gully Co. during the last six years is shown to be a western formation, making away from the main "axial line" or centre country, visible on the surface 200 feet east of the Spring Gully shaft. This formation has been worked with splendid results down to 378 feet level, but at this point a disturbance in the reef has taken place, in consequence of it striking the axial line of the Hand of Friendship reef (worked with good results in the early days).

Centre country is situated about 90 feet west of the shaft. From the 378 feet level down to the 560 feet level the ground, which has only been prospected by the extension of cross-cuts at 480 feet and 560 feet, is recommended by the surveyor to be further prospected to test the legs of saddle reefs that should be found making away from the caps of reefs presumed to exist on this untried line. The payable reef in the No. 1 mine is proved conclusively to be the Spring Gully lode, and the Spring Gully Co. should intersect this stone shortly at the 242 feet level.

The No. 1 reef at 275 feet is presumed to be the cap of a formation having a strong eastern leg which should be met with by the extension of the 300 feet east cross-cut a further 20 feet, as recommended by the report. ⁷⁵

2 Dec 1904: Spring Gully Co. - Marley and Party obtained specimen gold, 246 oz, at 242 feet level. ⁷⁶

1904: Spring Gully Mine - 8410 tons mined, average yield 4.6 dwt/ton, total yield 1952 oz. - production to date: 84,441 tons mined, total yield 33,962 oz ... Practically no prospecting work has been done in the Spring Gully Company's mine, which is the principal mine in the division. The directors are apparently working this mine with the object of either shutting it down as soon as the upper levels are worked out, or are trusting to the Government to eventually provide the funds to do the developmental work... Two dividends of sixpence each were declared by this

company during the last quarter of the year. One of these was obtained from a rich patch discovered by one of the parties of tributers working in the old stopes. This makes the total amount paid in dividends by this company £50,000. ⁷⁷

1 March 1905: Spring Gully Co. - Marley and Party, tributers, chanced upon a nest of nuggets totalling 247 oz., the largest nuggets of which weighed 79 oz., 59 oz., and 49 oz. ⁷⁸

13 July 1905 ...The longitudinal extension of the reef is considerable judging by the mine workings and surface outcrops - probably not less than half a mile of unbroken quartz in the vicinity of the Spring Gully mine.

Report by W.H. Candy, Geological Surveyor, of Bendigo: The Reef upon which the Spring Gully and Spring Gully No. 1 Co.'s are now working is formed on a slide making from the Hand of Friendship channel of reef country and having a bearing of south 16° south west. In its course south it diverges from the Hand of Friendship Reef, and going northward would junction with it at a point opposite to the Spring Gully shaft... I consider that the Hand of Friendship reef (in proximity to the centre country) will be found to be the main reef channel of this locality, and it would be as well to keep this in mind and not neglect it in following too closely other subsidiary reef formations. ⁷⁹

20 Dec 1905: Main shaft sunk total 616 feet. ⁸⁰

1905: Spring Gully Mine - 9682 tons mined, average yield 8.4 dwt/ton, total yield 4098 oz. - production to date: 94123 tons mined, total yield 38400 oz. ... South Spring Gully - 86 tons mined, average yield 4.4 dwt/ton, total yield 19 oz ...the Spring Gully Company's mine... gave the profitable yield of 4,098 ozs. of gold. This enabled the directors to distribute £8,400 in dividends... A shallow shaft near the north boundary of the lease was sunk during the year from 96 to 256 feet .. The average number of men employed by the company (not including wood carters and cutters and timber getters, who really should be counted) was 68, of whom 47 worked below ground. ⁸¹

24 Nov 1906: Meeting of all three Spring Gully mining companies to consider offer from English company - Spring Gully Co., Spring Gully No. 1, and South Spring Gully. ⁸²

Spring Gully Mine - 7909 tons mined, average yield 6.8 dwt/ton, total yield 2672 oz. - production to date: 102030 tons mined, total yield 40733 oz ... The Spring Gully Company has during the year...equip[ed] the north shaft with a steam winding plant... An average of 66 men have been employed, 21 on the surface, and 45 underground. ⁸³

1907: Spring Gully Mine - 6390 tons mined, average yield 4.3 dwt/ton, total yield 1381 oz. - production to date: 108420 tons mined, total yield 42114 oz. ... The Spring Gully Company... Fifty-four men have been employed, on an average, 40 below ground, and 14 on the surface. ⁸⁴

1908: Spring Gully Mine - 4889 tons mined, average yield 4.2 dwt/ton, total yield 1017 oz. - production to date: 113309 tons mined, total yield 43130 oz. ⁸⁵

1909: Spring Gully Mine - 5878 tons mined, average yield 7.2 dwt/ton, total yield 2119 oz. - production to date: 119187 tons mined, total yield 45250 oz. ⁸⁶

1910: Spring Gully Mine - 6804 tons mined, average yield 6.0 dwt/ton, total yield 2055 oz. - production to date: 125991 tons mined, total yield 47305 oz ... The Spring Gully Company has continued to crush stone... with barely payable results. I understand this company now proposes to connect its main shaft with a rise that it had put up from the 700 ft. level of the Spring Gully No. 1 Company's shaft. ⁸⁷

March 1910: Spring Gully Gold Mining Co.: 1788 ton crushed, 785oz gold. ⁸⁸

Sept 1910: Spring Gully Gold Mining Co.: 1940 ton crushed, 521oz gold. ⁸⁹

1911: Spring Gully Mine - 3957 tons mined, average yield 5.5 dwt/ton, total yield 1097 oz. - production to date: 129948 tons mined, total yield 48377 oz. ... Hooper and Co. - 9 tons mined, average yield 21.2 dwt/ton, total yield 10 oz. ⁹⁰

Sept 1911: Hooper and Co. ⁹¹

Sept 1911: Spring Gully Gold Mining Co.: 543 ton crushed, 272oz gold. ⁹²

1912: Spring Gully Mine - 1552 tons mined, average yield 4.6 dwt/ton, total yield 359 oz. - production to date: 131500 tons mined, total yield 48736 oz.

Hooper and Co. - 17 tons mined, average yield 6.0 dwt/ton, total yield 5 oz. ⁹³

1913: Spring Gully Mine - 6082 tons mined, average yield 10.8 dwt/ton, total yield 3304 oz. - production to date: 137582 tons mined, total yield 52040 oz.

Following on the success of the Spring Gully Company, the Spring Gully No. 1 and the South Spring Gully companies have resumed work...

A syndicate known as the Spring Gully Freehold (situated a little to the north of the Spring Gully Company's mine) has opened up a well-defined reef. ⁹⁴

June 1913: Spring Gully Gold Mining Co.: 1220 ton crushed, 733oz gold. ⁹⁵

Sept 1913: Spring Gully Gold Mining Co.: 1763 ton crushed, 1630oz gold. ⁹⁶

Dec 1913: Spring Gully Gold Mining Co.: 2141 ton crushed, 674oz gold. ⁹⁷

1914: Spring Gully Mine - 1537 tons mined, average yield 5.9 dwt/ton, total yield 459 oz. - production to date: 139119 tons mined, total yield 52449 oz. Hooper and Co. - 28 tons mined, average yield 16.5 dwt/ton, total yield 23 oz. ⁹⁸

1915: Spring Gully Mine - 412 tons mined, average yield 3.5 dwt/ton, total yield 73 oz. - production to date: 140126 tons mined, total yield 52518 oz. ⁹⁹

1916: Fryerstown. - The Spring Gully Company is the only one working in this part. Developmental work has been carried as far as the finances would allow - 750 feet of ground being opened up and 805 tons treated, yielding 118 ozs. of gold. Hooper and party of two men, working under Mining Development Act, are prospecting a line of reef. ¹⁰⁰

1917: Spring Gully Gold Mining Co.: Mine closed, plant and machinery sold ¹⁰¹

1917: The Spring Gully Quartz Company closed down early in the year, and sold off plant. Hooper and party are driving on stone carrying a little gold. ¹⁰²

1917: The Spring Gully Quartz Company closed down early in the year, and sold off plant. Hooper and party are driving on stone carrying a little gold. ¹⁰³

1918: Hooper and Co. - 30 tons mined, total yield 4 oz. - crushings at Govt. Battery, Chewton. ¹⁰⁴

July 1936: Spring Gully - For the next week or two operations will be mainly confined to making preparations to go down the central main shaft (which is 9ft. x 4ft. and only about 300ft. in depth), and extend the 100ft. east crosscut under the present workings. ¹⁰⁵

7 Feb 1939: At the general meeting of shareholders in Spring Gully Gold No Liability today, the chairman of directors (Mr E.H. Williams) said...the mine had been closed for the past six or eight months as the results were disappointing in the north shaft and Thompson's lease, which was purchased last year. All the gold-bearing stone had been cut out and that accounted for the present position. After a long delay they had got a report from the Mines Department, but what was suggested was greatly beyond the finances of the company. ¹⁰⁶

June 1947: In the Castlemaine district there has been an increase in quartz mining activity. The Argus Hill mine at Chewton has been reopened and work has commenced at the Emu at Spring Gully and the Coliban at Taradale. ¹⁰⁷

Mar 1990: Spring Gully mine - sequences

phase 1 (earliest working) - Emu Reef open cut.

phase 2 - after the open cut, the reef was followed through shaft sinking. Mullock from these shafts was dumped into southern end of open cut. Still observable in the southern end of the open cut. One shaft survives from this phase, the Emu shaft.

phase 3 - Spring Gully mine operating, second phase of mullock dumping.

phase 4 - Spring Gully mine re-opened in the 1930s and more mullock dumped in the open cut..

Description of Spring Gully ...the remains there today are much the same as when we re-opened the mine. When we re-worked it, we didn't touch it. We put our plant on the southern side and didn't interfere with much of the old stuff. Wooden battery foundations, each one represents 5 head of stamps, all in all there were 40 to 50 head. Quartz from Spring Gully No.1 and South Spring Gully was also crushed here in the old days. The reason the battery area has

been excavated, for the recovery of lost amalgam and gold. Bin behind the stamps was for loading the stamps, shoots would feed quartz into the battery. You can still see the original blacksmith shop and forge.

When mine re-worked in the 1930's, Verne Hooper helped build the concrete engine mountings blocks that lie close to the shaft. The engine room had one big shaft over it, and contained link motion winding engine with a standing boiler; Cornish boiler; steam driven air compressor; generator for power; and a steam engine for driving generator. Operations went for 5 or 6 years. Further over, near the open cut was the store shed and office.

Spring Gully No. 1 - To the south of Spring Gully, remains consist of engine mounting block, site of winding engine, boiler and ash pit. Closer to the shaft is an excavation which once contained a Cornish draw-lift pump. We tried to work this mine, but we lost our pump down the shaft. We didn't work it, all the remains are pre-1930s. 108

DESCRIPTION & INTERPRETATION:

Machinery remains represent two phases of working. The large loading bay, the long line of battery footings, at least six mounting blocks of various sizes, the chimney base and collapsed stack, and the odd sections of stone walls - all belong to the workings of the Spring Gully Co. which mined Emu Reef from 1898 to 1916.

The concrete footings lying to the W of the large loading ramp date to the 1930s. The engine house contained a link-motion winding engine with a standing Cornish boiler; a steam-driven air compressor; a generator for power; and a steam engine for driving the generator. Mining operations went on for five or six years, ending in 1939. The store shed and office were located near the open cut.

Verne Hooper remembers the remains of the old Spring Gully mine looking much the same in the 1920s and '30s as they do today. His memories and experiences on the site also decipher a deeper stratigraphy to the site than that which is reflected by the machinery remains:

- mid 1850s - Emu Reef open-cut.
- 1860s - After the open-cut, the reef was worked through shafts by the Hand of Friendship Co. Mullock from these shafts was dumped into the southern end of the open-cut. One shaft from this phase still survives.
- 1894 to 1916 - Spring Gully Co. mine operated in a big way. They dumped their mullock on top of that already in the open-cut. The battery was also crushing quartz from surrounding mines.
- 1930s - Spring Gully mine re-opened and dumped its mullock over the top of the existing heap.

Description of site 47 - Site consists of a well-constructed loading ramp (15m long x 11.5m), with high stone and mortar walls. Below the loading ramp are the remains of massive wooden battery footings, very decayed, but each originally measuring about 1.5m long and 80cm thick. In places you can still see the wooden strengthening plates set in a rough concrete. Below the battery lies an area, 16m by 11.5m, where the remains of a concrete floor are visible. This whole area has been ripped up by fossickers looking for lost gold and amalgam.

Sixteen metres S of the battery footings are several engine- and winding-mounting blocks, in reasonable condition. The most easterly block is on the W side of a comparatively recent iron humpy (built by fossicker for shelter). It is a small engine-mounting block, constructed of brick with a thin capping of concrete, from which protrude two sets of four iron bolts (1" diam.). Six metres to the W is a large stone and brick mounting block, 6.1m long and 1.4m wide. The stonework forms the bulk of the footings, on which sits a brick engine-mounting block measuring 4.8m by 1.2m. At its highest point, the block stands 1.7m. Three metres to the W is a small brick engine-mounting block. It survives only at ground level, and measures 2.4m by 85cm. About 11m to the W is another large stone and brick mounting block, 5.7m long and 1.4m wide. Again, stone work forms the base, upon which sits brickwork, through which protrude parallel lines of iron bolts, running along the length of the brickwork. A wooden plate (10" x 10") is still attached to the W row of bolts.

Further to the W is an area covered by rubble, but partly visible are the remains of the footings for the winding drum. The footings appear to be made from a mixture of stone and rough concrete. On the western side of the footings is a section of stone wall, 4.5m long and 30 to 40cm thick. Above these footings is a thick stone base, approx 5m square, which may have been the chimney base. This interpretation is supported by a long scatter of broken bricks, stretching for 12m in a SW direction - probably what remains of the collapsed brick chimney stack. The bricks are machine-made, with a long, wide frog on one side, in which is impressed NORTHCOTE. 24m S of the winding plant is a large pepper tree, a dump of boiler ash, and the collapsed Hand of Friendship shaft.

The remains of the 1930s plant lie 20m to the W of the large loading ramp. These are constructed of concrete and are in poor condition. There are five discrete features here. The largest mounting block measures 4.1m by 3.5m and stands 45cm. All the plant was housed in a galvanised iron shed, about 13m by 10m, of which only the concrete footings survive. The shaft lies to the S of the plant, and has been capped. 8m to the SE is a small dump of carbide, emptied from miners' lamps.

A large open-cut runs along the W side of the machinery remains. It has been partly filled by mullock from a succession of re-workings.

PHOTOS: Colour, black and white and slides

ARTEFACTS: Scraps of iron etc.

INTEGRITY/CONDITION: Good

THREATS:

CULTURAL SIGNIFICANCE:

The site has:

- | | |
|-------------------------|--|
| Historical Significance | - The site is associated with a long history of mining at Emu Reef. In the late 1890s the Spring Gully Co. was the chief mine operating in the Fryers Creek Mining Division. It was responsible for a mining boom in 1898 which saw a number of other mines open up on the reef. |
| Social Significance | - There appears to be a consensus in the community (amongst its more elderly residents) that the mine has the best set of relics to found in the area. |
| Scientific Significance | - Spring Gully mine site has one of the most comprehensive ranges of mining foundations and earthworks in the Central Victorian goldfields. The relics illustrate a mining sequence (from open cut mining to shaft sinking) that spans some 80 years. |
| Cumulative Value | - The place (made up of Sites 47 to 52) is also significant because of its clear ability to demonstrate certain aspects of quartz mining which no longer remain elsewhere., notably the phenomenon of a quartz mining boom, when the success of a mine (in this case Spring Gully Co. in the late 1890s) inspired the formation of a host of new mining companies.
- The sites are located in an attractive isolated bush setting |

Significance ranking: National Estate

CONSERVATION POLICY:

Key site of the Emu Reef network of sites. The site itself is exceptionally rare because of its ability to clearly demonstrate a number of mining phases, a line of contemporary 1890s mines, and a broad range of components. Its high significance and rarity are compounded by the existence of complementary sites within the vicinity. The site and associated network is one of Victoria's most significant mining places.

RECOMMENDATIONS FOR IMPLEMENTATION:

Site to be protected and the network (Sites 47 to 52) nominated for the National Estate. An interpretive track established that links Sites 29 to 52.

Assessor: David Bannear

Date: 1993

- 1 Mining Surveyors' monthly reports, Castlemaine and Fryer's Creek Divisions. March
- 1889
- 2 Milner, P. 1989 Mining Sites in Specimen Hill Area, for Newmont, p24
- 3 Mount Alexander Mail, as summarized in Clive Willman collection
- 4 Mining Surveyors' monthly reports, Castlemaine and Fryer's Creek Divisions
- 5 Mining Surveyors' monthly reports, Castlemaine and Fryer's Creek Divisions
- 6 Mining Surveyors' monthly reports, Castlemaine and Fryer's Creek Divisions
- 7 Mining Surveyors' monthly reports, Castlemaine and Fryer's Creek Divisions
- 8 Mining Surveyors' monthly reports, Castlemaine and Fryer's Creek Divisions
- 9 Mining Surveyors' monthly reports, Castlemaine and Fryer's Creek Divisions
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- 11 Mining Surveyors' monthly reports, Castlemaine and Fryer's Creek Divisions
- 12 Mining Surveyors' monthly reports, Castlemaine and Fryer's Creek Divisions
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- 17 Mining Surveyors' monthly reports, Castlemaine and Fryer's Creek Divisions
- 18 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
- 19 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
- 20 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
- 21 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
- 22 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions

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 29 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
 30 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
 31 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
 32 Milner, P. 1989 Mining Sites in Specimen Hill Area, for Newmont, p24
 33 Australian Mining Standard, 1899 pp124-5
 34 Mount Alexander Mail, as summarized in Clive Willman collection
 35 Mount Alexander Mail, as summarized in Clive Willman collection
 36 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
 37 Mount Alexander Mail, as summarized in Clive Willman collection
 38 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
 39 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
 40 Mount Alexander Mail, as summarized in Clive Willman collection
 41 Mount Alexander Mail, as summarized in Clive Willman collection
 42 Mount Alexander Mail, as summarized in Clive Willman collection
 43 Mount Alexander Mail,
 44 Mount Alexander Mail, as summarized in Clive Willman collection
 45 Mining Surveyors' Annual Reports, as summarized in Clive Willman collection
 46 Mount Alexander Mail, as summarized in Clive Willman collection
 47 Mount Alexander Mail, as summarized in Clive Willman collection
 48 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
 49 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
 50 Australian Mining Standard, 1899 pp124-5
 51 Mining Surveyors' Annual Reports, as summarized in Clive Willman collection
 52 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
 53 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
 54 Mount Alexander Mail, as summarized in Clive Willman collection
 55 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
 56 Mining Surveyors' Annual Reports, as summarized in Clive Willman collection
 57 Mount Alexander Mail, as summarized in Clive Willman collection
 58 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
 59 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
 60 Annual Report of the Secretary for Mines and Water Supply, Victoria (P. Milner, On
Mining Machinery Sites in the Castlemaine and Fryers Creek Divisions, November 1989)
 [10.801]
 61 Annual Report of the Secretary for Mines and Water Supply, Victoria (P. Milner, On
Mining Machinery Sites in the Castlemaine and Fryers Creek Divisions, November 1989)
 [13.701]
 62 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
 63 Mining Surveyors' Annual Reports, as summarized in Clive Willman collection
 64 Mining Surveyors' Annual Reports, as summarized in Clive Willman collection
 65 Annual Report of the Secretary for Mines and Water Supply, Victoria (P. Milner, On
Mining Machinery Sites in the Castlemaine and Fryers Creek Divisions, November 1989)
 [48.02]
 66 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
 67 Annual Report of the Secretary for Mines and Water Supply, Victoria (P. Milner, On
Mining Machinery Sites in the Castlemaine and Fryers Creek Divisions, November 1989), p29
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102 Mining Surveyors' Annual Reports, as summarized in Clive Willman collection
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105 Bendigo Advertiser, 17/8/1936
106 Unsourced press cuttings, held by Department of Industry and Economic Planning,
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108 Notes summarizing a day-trip to Spring Gully with Verne Hooper, 16 March 1990

SITE NO. & NAME: 48 SPRING GULLY NO. 1 MINE

LOCATION: Spring Gully

DIRECTIONS: 200m south of Spring Gully Co., east side of Spring Gully

MAP/GRID REFERENCE: Guildford 1:25,000 - 549.876

PARCEL NUMBER: P120482

MUNICIPALITY: Newstead

LAND STATUS: Unreserved Crown land/proposed Castlemaine Historic Reserve

EXISTING HERITAGE CLASSIFICATION: None

PRESENT MANAGEMENT/USE: LCC Rec - J1

HISTORY:

5 April 1900: Spring Gully No. 1 Mine - Official Opening... The mine is situated about 700 ft south of the main Spring Gully mine, and about 1000 ft north of the South Spring Gully, and the intention is to keep No. 1 shaft going down, thus draining the mines on each side of it. The water from the three mines will be pumped from the No. 1 shaft. With this object in view, a first class winding and pumping plant was obtained consisting of two engines 16 in. cylinder and 3 ft stroke; the winding engine is geared 2 to 1, and the pumping engine 6 to 1. The winding drums are 8 ft in diameter. The shafting on the pumping gear is 8 1/2 in. in diameter, and the lift is 9 in. The boiler is a multitubular 6 ft x 20 ft - one of Thompson and Co.'s best. ¹

2 May 1900: Official opening of Spring Gully No. 1. ²

13 Aug 1900: Spring Gully No. 1 - expect to cut Spring Gully reef in 20 feet east, and similar distance to the west should tap the Hand of Friendship reef. The two reefs gradually work together as they go south and are expected to be within 60 feet of one another. ³

21 Sept 1900: Spring Gully No. 1 - Shaft sunk to 314 feet. ⁴

3 Oct 1901: Spring Gully No. 1 shaft is 764 feet south of Spring Gully main shaft. ⁵

21 Jan 1902: Spring Gully No. 1 - Main shaft is down 502 feet. ⁶

19 March 1902: Spring Gully No. 1 - At surface 140 feet north of main engine shaft a prospecting shaft has been sunk 58 feet, the first 30 feet sunk was through the old workings. ⁷

1902: No. 1 Spring Gully - 180 tons mined, average yield 3.6 dwt/ton, total yield 33 oz. ⁸

Sept 1903: Spring Gully No. 1 Co.: 209 ton crushed, 20oz gold. ⁹

1903: No. 1 Spring Gully - 524 tons mined, average yield 1.9 dwt/ton, total yield 49 oz ... The Spring Gully No. 1 Company, on the south of the Spring Gully Company, have not yet found anything payable. Its main shaft is 600 feet in depth, being the deepest on the line of reef. Here, as in the Spring Gully mine, no work has been done for some time below the 300-ft. level. ¹⁰

1903: Spring Gully No. 1 Company - This company is working the southern portion of the Spring Gully Company's lease. As the payable formation in the parent mine pitches south, the No. 1 company sunk a shaft, in the hope of meeting with its continuation, to a depth of 500 feet. ¹¹

19 Feb 1904: Mr C.W. Steiner, of Castlemaine, has just completed a survey of underground workings of the Spring Gully and No. 1 mines at Fryerstown, and has forwarded to the legal manager's office his plans and report of same.

The reef that has been worked with such success by the Spring Gully Co. during the last six years is shown to be a western formation, making away from the main "axial line" or centre country, visible on the surface 200 feet east of the Spring Gully shaft. This formation has been worked with splendid results down to 378 feet level, but at this point a disturbance in the reef has taken place, in consequence of it striking the axial line of the Hand of Friendship reef (worked with good results in the early days).

Centre country is situated about 90 feet west of the shaft. From the 378 feet level down to the 560 feet level the ground, which has only been prospected by the extension of cross-cuts at 480 feet and 560 feet, is recommended by the surveyor to be further prospected to test the legs of saddle reefs that should be found making away from the caps of reefs presumed to exist on this untried line. The payable reef in the No. 1 mine is proved conclusively to be the Spring Gully lode, and the Spring Gully Co. should intersect this stone shortly at the 242 feet level.

The No. 1 reef at 275 feet is presumed to be the cap of a formation having a strong eastern leg which should be met with by the extension of the 300 feet east cross-cut a further 20 feet, as recommended by the report. ¹²

1904: No. 1 Spring Gully - 3389 tons mined, average yield 4.5 dwt/ton, total yield 776 oz. - production to date: 4095 tons mined, total yield 857 oz ... The Spring Gully No. 1 Company, which is managed practically by the same board of directors as the Spring Gully Company, has confined its operations to a large body of stone discovered over the 300-foot level, with results that have proved scarcely payable. The company's main shaft is 500 feet deep. ¹³

5 July 1905: Spring Gully No. 1 struck off Bendigo Stock Exchange listing. ¹⁴

1905: No. 1 Spring Gully - 3023 tons mined, average yield 9.2 dwt/ton, total yield 1396 oz. - production to date: 7131 tons mined, total yield 2252 oz ... The Spring Gully No. 1 Company, which adjoins the Spring Gully on the south, is the next largest contributor... This company's shaft is the deepest on the line, being now 625 feet deep, and I am pleased to report that the company has again commenced shaft sinking. This is the only shaft in Spring Gully equipped with pumping machinery. Thirty men, on the average, were employed on the mine during the year, of whom four only were employed on the surface. ¹⁵

1905: Spring Gully No. 1 Co.: Pumping machinery erected on a shaft down 625 feet. ¹⁶

1905: The Spring Gully No.1 Company, which adjoins the Spring Gully on the south ... This company's shaft is the deepest on the line, being now 625 feet deep, and I am pleased to report that the company has again commenced shaft sinking. This is the only shaft in Spring Gully equipped with pumping machinery. ¹⁷

24 Nov 1906: Meeting of all three Spring Gully mining companies to consider offer from English company - Spring Gully Co., Spring Gully No. 1, and South Spring Gully. ¹⁸

1906: Spring Gully No. 1 - 1442 tons mined, average yield 4.8 dwt/ton, total yield 350 oz. - production to date: 8573 tons mined, total yield 2603 oz ... The Spring Gully No. 1 Company... An average of 23 men was employed of whom five only worked on the surface. ¹⁹

1907: Spring Gully No. 1 - 552 tons mined, average yield 3.0 dwt/ton, total yield 84 oz. - production to date: 9124 tons mined, total yield 2687 oz. ²⁰

1908: Spring Gully No. 1 - 72 tons mined, average yield 2.4 dwt/ton, total yield 9 oz. - production to date: 9162 tons mined, total yield 2696 oz. ²¹

1909: Spring Gully No. 1 - 1199 tons mined, average yield 5.5 dwt/ton, total yield 328 oz. - production to date: 10325 tons mined, total yield 3016 oz. ²²

June 1909: Spring Gully No. 1 Co.: 36 ton crushed, 4oz gold. ²³

1910: Spring Gully No. 1 - 35 tons mined, average yield 7.2 dwt/ton, total yield 13 oz. ²⁴

March 1910: Spring Gully No. 1 Co.: 35ton crushed, 3oz gold. ²⁵

Sept 1910: Spring Gully No. 1 Co.: 9oz gold. ²⁶

1913: Following on the success of the Spring Gully Company, the Spring Gully No. 1 and the South Spring Gully companies have resumed work. ²⁷

DESCRIPTION & INTERPRETATION:

Spring Gully No. 1 mine. Plant was erected in 1899 and operated until 1916. In the 1930s, an attempt was made to re-open the No. 1 shaft, but the pump was lost down the shaft and operations ceased. The machinery remains at this mine consist of a large engine-mounting block, 4.1m x 4.8m, constructed of stone and brick. Galvanized iron tubes (approx. 4" diam) protrude 1.5m from the top of the block. To the W of the engine

block are the stone and brick footings of a winding drum, measuring 4.2m by 2.3m. Further footings are only discernible by the odd engine bolt protruding from the rubble and soil that covers most of the site. The site of the boiler lies to the E of the large engine block. All that is visible of the boiler-setting is an outline of some stone walls, and a flue leading to a stone chimney base (2.4m square). A spread of red, handmade brick rubble lies to the N, although most of the whole bricks have been taken away.

7.8m to the N of the large engine block is a stone-lined pit, approx. 2.2m wide and 6.7m long. Verne Hooper remembers this as the site of a Cornish-lift pump. The shaft is located on the N end of the stone-lined pit. Large mullock heaps run around the W and N sides of the machinery remains.

PHOTOS: Colour slides and prints

ARTEFACTS: None visible

INTEGRITY/CONDITION: Good

THREATS:

CULTURAL SIGNIFICANCE:

The site has:

- | | |
|-------------------------|--|
| Historical Significance | - One of the mines formed during the late 1890s Spring Gully mining boom |
| Scientific Significance | - The site has a range of mining foundations and earthworks that provide a clear illustration of several aspects of the operations of a turn of the century quartz mine. |
| Cumulative Value | - The place (made up of Sites 47 to 52) is also significant because of its clear ability to demonstrate certain aspects of quartz mining which no longer remain elsewhere., notably the phenomenon of a quartz mining boom, when the success of a mine (in this case Spring Gully Co. in the late 1890s) inspired the formation of a host of new mining companies.
- The sites are located in an attractive isolated bush setting |

Significance ranking: National Estate

CONSERVATION POLICY:

The site 's significance comes from being part of a network of contemporary 1890s mines sites. This network is one of Victoria's most significant mining places.

RECOMMENDATIONS FOR IMPLEMENTATION:

Site to be protected and the network (Sites 47 to 52) nominated for the National Estate. An interpretive track established that links Sites 29 to 52.

Assessor: David Bannear

Date: 1993

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- 1 Mount Alexander Mail, p2
 - 2 Mount Alexander Mail, as summarized in Clive Willman collection
 - 3 Mount Alexander Mail, as summarized in Clive Willman collection
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- 15 Mining Surveyors' Annual Reports, as summarized in Clive Willman collection
16 Annual Report of the Secretary for Mines and Water Supply, Victoria (P. Milner, On
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17 Annual Report, 1905.
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27 Mining Surveyors' Annual Reports, as summarized in Clive Willman collection

SITE NO. & NAME: 49 SOUTH SPRING GULLY CO. MINE

LOCATION: Spring Gully

DIRECTIONS: 200m south of Spring Gully No 1., East side of Spring Gully.

MAP/GRID REFERENCE: Guildford 1:25,000 - 549.874

PARCEL NUMBER: P120482

MUNICIPALITY: Newstead

LAND STATUS: Unreserved Crown land/proposed Castlemaine Historic Reserve

EXISTING HERITAGE CLASSIFICATION: None

PRESENT MANAGEMENT/USE: LCC Rec - J1

HISTORY:

30 Nov 1898: South Spring Gully - Mine manager's half-yearly report - The main shaft was 10 ft x 14 ft and sunk to a depth of 120 feet when I took over this mine on Oct. 17. ¹

8 Feb 1899: South Spring Gully - Put in a drive 6 ft north and started to rise on old workings... Erected windlass on old shaft on western workings to meet rise. ²

29 Nov 1900: South Spring Gully - main shaft sunk from 227 to 293 feet. Sinking stopped due to water. ³

24 Feb 1902: South Spring Gully - Sinking main shaft to 300 feet. ⁴

31 March 1902: South Spring Gully - Work suspended - too expensive without machinery. ⁵

29 May 1902: South Spring Gully - Half-yearly meeting - sinking in main shaft stopped on account of difficulty of hauling with a whip. Started a prospecting shaft on hill north of main shaft, and sunk to 45 feet. ⁶

25 Nov 1904: South Spring Gully - machinery purchased. ⁷

28 Nov 1904: South Spring Gully - Half-yearly meeting - Decided to abandon prospecting shaft, and instead to sink new prospecting shaft on eastern formation. ⁸

1905: South Spring Gully - 86 tons mined, average yield 4.4 dwt/ton, total yield 19 oz ... South Spring Gully Company's mine, as its name indicates, is situated to the south of the Spring Gully No. 1. Its shaft is 300 feet deep. ⁹

24 Nov 1906: Meeting of all three Spring Gully mining companies to consider offer from English company - Spring Gully Co., Spring Gully No. 1, and South Spring Gully. ¹⁰

South Spring Gully - 382 tons mined, average yield 9.2 dwt/ton, total yield 176 oz. - production to date: 461 tons mined, total yield 190 oz ... The South Spring Gully Company... An average of twelve men has been employed, of whom four were surface hands. ¹¹

1907: South Spring Gully - 33 tons mined, average yield 4.4 dwt/ton, total yield 7 oz. - production to date: 494 tons mined, total yield 197 oz. ¹²

1913: Following on the success of the Spring Gully Company, the Spring Gully No. 1 and the South Spring Gully companies have resumed work. ¹³

1914: South Spring Gully - 11 tons mined, average yield 2.2 dwt/ton, total yield 1 oz. ¹⁴

DESCRIPTION & INTERPRETATION:

Spring Gully South Co. mine. Plant was erected around 1898 and operated until 1908.

Little survives of the machinery erected at this mine. The shaft has been filled by bulldozing the mullock heap. There is an impressive large mullock dump and the remains of a blacksmith shop (4.6m by 3m) containing a forge (1.2m x 1.6m). On the E side of the blacksmith shop can be seen the site of the boiler setting. Broken bricks litter the area. Some intact ones still survive - they measure 22cm x 11cm x 7cm, and are handmade, red and frogless.

PHOTOS: Colour prints, black & white, and colour slides

ARTEFACTS: None visible

INTEGRITY/CONDITION: Good

THREATS:

CULTURAL SIGNIFICANCE:

The site has:

- | | |
|-------------------------|--|
| Historical Significance | - One of the mines formed during the late 1890s Spring Gully mining boom |
| Scientific Significance | - The mine has some scientific significance because of the existence of a well preserved blacksmith shop. |
| Cumulative Value | - The place (made up of Sites 47 to 52) is also significant because of its clear ability to demonstrate certain aspects of quartz mining which no longer remain elsewhere., notably the phenomenon of a quartz mining boom, when the success of a mine (in this case Spring Gully Co. in the late 1890s) inspired the formation of a host of new mining companies.
- The sites are located in an attractive isolated bush setting |

Significance ranking: National Estate

CONSERVATION POLICY:

The site 's significance comes from being part of a network of contemporary 1890s mines sites. This network is one of Victoria's most significant mining places.

RECOMMENDATIONS FOR IMPLEMENTATION:

Site to be protected and the network (Sites 47 to 52) nominated for the National Estate. An interpretive track established that links Sites 29 to 52.

Assessor: David Bannear **Date: 1993**

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- 4 Mount Alexander Mail, as summarized in Clive Willman collection
- 5 Mount Alexander Mail, as summarized in Clive Willman collection
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- 9 Mining Surveyors' Annual Reports, as summarized in Clive Willman collection
- 10 Mount Alexander Mail, as summarized in Clive Willman collection
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- 14 Mining Surveyors' Annual Reports, as summarized in Clive Willman collection

SITE NO. & NAME: 50 SPRING GULLY JUNCTION CO. MINE

LOCATION: Spring Gully

DIRECTIONS: 200m south of Spring Gully township, east side of Spring Gully.

MAP/GRID REFERENCE: Castlemaine 1:25,000 - 548.885

PARCEL NUMBER: P120482

MUNICIPALITY: Newstead

LAND STATUS: Unreserved Crown land/proposed Castlemaine Historic Reserve

EXISTING HERITAGE CLASSIFICATION: None

PRESENT MANAGEMENT/USE: LCC Rec - J1

HISTORY:

29 June 1898: Spring Gully Junction - shaft sunk 18 ft - total 36 ft. ¹

31 Jan 1899: The Spring Gully Junction holds 450 yards along the reef, and has started a new shaft. ²

17 Feb 1899: Spring Gully Junction - A few months ago this company put a shaft down on the west portion of their lease, 98 feet. Finding nothing there, a tribute block was acquired from the Spring Gully Co., and another shaft sank upon it... The company have 420 yards along the line of reef and their east ground takes in a portion of the Irish reef, which had a good reputation in olden days. ³

6 March 1899: Spring Gully Junction - have started a north shaft and sunk same 28 feet. ⁴

1 June 1899: The Spring Gully Junction is the next in importance on the field. Here the shaft has been sunk on the north side of the gully, which runs between it and the parent mine. At a depth of 45 feet stone was met, and the next 30 feet was in quartz. The footwall was then reached, and in the neighborhood good gold was obtained. The reef in this mine is directly opposite in pitch to that in the Spring Gully... The company has a 12-head battery and high-class winding plant.

The Spring Gully Freehold lies further north again, while on the western side the North Spring Gully is proving the existence of the reef in that direction. ⁵

2 June 1899: Spring Gully Junction - Half-yearly Mine Manager's Report - In the north shaft situated about 100 yards from your northern boundary, we have done a fair amount of prospecting... In the tribute shaft we have extended the level on the large slide 103 feet... Finding no improvement and poor ventilation, it was decided to stop both of these shafts and sink a main shaft 135 feet from your southern boundary, just east of centre country. This shaft, 9 ft x 4 ft in the clear and three compartments, has been sunk to 118 ft. ⁶

April 1900: Spring Gully Junction Co.: 210 ton, 157oz gold. ⁷

June 1900: Spring Gully Junction Co.: 627 ton, 265oz gold. ⁸

1900: Spring Gully Junction Mine - 4766 tons mined, average yield 9.1 dwt/ton, total yield 2171 oz. - dividend-paying mine. ⁹

May 1901: Spring Gully Junction Co.: 123 ton crushed, 51oz gold. ¹⁰

Sept 1901: Spring Gully Junction Co.: 499 ton crushed, 104oz gold. ¹¹

1902: Spring Gully Junction - 2077 tons mined, average yield 8.8 dwt/ton, total yield 910 oz. - total yield to date: 4036 oz. ¹²

March 1903: Spring Gully Junction Co.: 261 ton crushed, 114oz gold. ¹³

Sept 1903: Spring Gully Junction Co.: 845 ton crushed, 333oz gold. ¹⁴

1903: Spring Gully Junction - 2543 tons mined, average yield 9.4 dwt/ton, total yield 1197 oz. ... The Spring Gully Junction Company's mine, on the north of and adjoining, the Spring Gully Company's lease, has, during the latter half of the year, more than paid its way, and its prospects appear to be fairly satisfactory. The Spring Gully No. 1 Company, on the south of the Spring Gully Company, have not yet found. ¹⁵

1903: Spring Gully Junction Company - work at this mine has been confined to operations on the eastern side of centre country. ¹⁶

1904: Spring Gully Junction - 477 tons mined, average yield 4.2 dwt/ton, total yield 101 oz. - production to date: 13,003 tons mined, total yield 5333 oz. ... The Spring Gully Junction Company's operations during the year have principally been of a developmental character. The main shaft has been sunk to a depth of 485 feet. ¹⁷

1905: Spring Gully Junction - 690 tons mined, average yield 20.1 dwt/ton, total yield 695 oz. - production to date: 13,693 tons mined, total yield: 6027 oz ... The Spring Gully Junction Company, whose shaft is 485 feet deep... Twenty men, on the average, were employed, six of whom worked on the surface. This mine is well equipped with winding and crushing machinery. ¹⁸

1905: Spring Gully Junction Co.: Shaft down 485 feet; winding and crushing machinery erected. ¹⁹

1905: The Spring Gully Junction Company, whose shaft is 485 feet deep, while continuing to prospect the lower levels throughout the year without any profitable results ... Twenty men, on average, were employed, six of whom worked on the surface. This mine was well equipped with winding and crushing machinery. ²⁰

Spring Gully Junction - 262 tons mined, average yield 7.2 dwt/ton, total yield 95 oz. - total yield to date: 6122 oz ... The Spring Gully Junction Company... An average of fifteen men has been employed during the year, five on the surface, and ten underground. ²¹

1907: Spring Gully Junction - 2032 tons mined, average yield 6.2 dwt/ton, total yield 635 oz. - total yield to date: 6757 oz. ²²

1908: Spring Gully Junction - 177 tons mined, average yield 2.5 dwt/ton, total yield 22 oz. - total yield to date: 6779 oz. ²³

1909: Spring Gully Junction - total yield 40 oz. - total yield to date: 6819 oz. ²⁴

1910: Spring Gully Junction - 925 tons mined, average yield 6.1 dwt/ton, total yield 284 oz. - total yield to date: 7102 oz ... The Spring Gully Junction Company resumed work during the year by letting a portion of the mine to a party of tributers, who have not yet met with the success deserved. ²⁵

March 1910: Spring Gully Junction Co.: 107 ton crushed, 29oz gold. ²⁶

Sept 1910: Spring Gully Junction Co.: 196 ton crushed, 69oz gold. ²⁷

1911: The Spring Gully Junction Company closed down, and there does not seem to be any immediate prospects of its re-opening. ²⁸

DESCRIPTION & INTERPRETATION:

Spring Gully Junction Co. mine. This company operated a 12-head battery and winding plant from around 1898 to 1911. The mine was not worked during the 1930s. The dam that supplied water to the Junction Mine is located on the N side of the road leading down the hill to the settlement of Spring Gully. It has been enlarged with a bulldozer.

Located on W side of Spring Gully. The remains here include a long line of wooden battery footings set in concrete. The full extent of the footings is masked by debris coming down the slope. Next to the battery footings is a stone engine-mounting block, measuring 2.4m wide, 3.9m long and standing to a height of over 1.5m. At least two iron bolts can be seen protruding from it. Adjoining the engine block, is another, also of stone. This one is longer and narrower, being 1.3m by 6.4m. It has several iron bolts in position.

To the E of the engine mounting blocks are the footings of the winding equipment. These stone footings stand over 1.5m high and are 5.1m square. The shaft, which is still open, is 24m S of the winding plant.

At the western end of the two engine mounting blocks is a stone building. The walls are 60cm thick, and still stand to at least 1m above the existing ground level. The building has only side and back walls and measures approx

8m by 3.5m. A levelled area exists at the front of the building, over which is a spread of brick rubble. The bricks which litter the site are all handmade reds, but are a mixture of a no-frog type, and ones with a wide, long, single frog.

PHOTOS: Colour print, black & white and colour slide

ARTEFACTS: None visible

INTEGRITY/CONDITION: Good

THREATS:

CULTURAL SIGNIFICANCE:

The site has:

- | | |
|-------------------------|--|
| Historical Significance | - One of the mines formed during the late 1890s Spring Gully mining boom |
| Scientific Significance | - Site has a comprehensive range of well preserved relics that illustrate the type of machinery plant operated by the Spring Gully Junction Company. |
| Cumulative Value | - The place (made up of Sites 47 to 52) is also significant because of its clear ability to demonstrate certain aspects of quartz mining which no longer remain elsewhere., notably the phenomenon of a quartz mining boom, when the success of a mine (in this case Spring Gully Co. in the late 1890s) inspired the formation of a host of new mining companies.
- The sites are located in an attractive isolated bush setting |

Significance ranking: National Estate

CONSERVATION POLICY:

The site 's significance comes from its intactness and from being part of a network of contemporary 1890s mines sites. This network is one of Victoria's most significant mining places.

RECOMMENDATIONS FOR IMPLEMENTATION:

Site to be protected and the network (Sites 47 to 52) nominated for the National Estate. An interpretive track established that links Sites 29 to 52.

Assessor: David Bannear

Date: 1993

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- 3 Mount Alexander Mail, as summarized in Clive Willman collection
- 4 Mount Alexander Mail, as summarized in Clive Willman collection
- 5 Australian Mining Standard, 1899, pp124-5
- 6 Mount Alexander Mail, as summarized in Clive Willman collection
- 7 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
- 8 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
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- 18 Mining Surveyors' Annual Reports, as summarized in Clive Willman collection
- 19 Annual Report of the Secretary for Mines and Water Supply, Victoria (P. Milner, On Mining Machinery Sites in the Castlemaine and Fryers Creek Divisions, November 1989), p98

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- 20 Annual Report, 1905.
 - 21 Mining Surveyors' Annual Reports, as summarized in Clive Willman collection
 - 22 Mining Surveyors' Annual Reports, as summarized in Clive Willman collection
 - 23 Mining Surveyors' Annual Reports, as summarized in Clive Willman collection
 - 24 Mining Surveyors' Annual Reports, as summarized in Clive Willman collection
 - 25 Mining Surveyors' Annual Reports, as summarized in Clive Willman collection
 - 26 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
 - 27 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
 - 28 Mining Surveyors' Annual Reports, as summarized in Clive Willman collection

SITE NO. & NAME: 51 NORTH SPRING GULLY CO. MINE

LOCATION: Spring Gully

DIRECTIONS: 100m west of Spring Gully Junction. West side of Spring Gully

MAP/GRID REFERENCE: Castlemaine 1:25,000 - 548.884

PARCEL NUMBER: P120482

MUNICIPALITY: Newstead

LAND STATUS: Unreserved Crown Land/proposed Castlemaine Historic Reserve

EXISTING HERITAGE CLASSIFICATION: None

PRESENT MANAGEMENT/USE: LCC Rec - J1

HISTORY:

25 April 1898: North Spring Gully - Tenders for sinking new shaft 60 feet accepted. ¹

16 May 1898: North Spring Gully - This claim is immediately north of Spring Gully Co. ²

8 Aug 1898: North Spring Gully - The new main shaft was started on Tuesday last, and is now down 37 feet in good country. ³

10 Oct 1898: North Spring Gully - cleaned up a small trial at Schraeder's battery - 5 tons yielded 5 dwts. ⁴

1 May 1899: North Spring Gully - Main shaft sunk to 215 feet. Tenders have been called to sink a new prospecting shaft near our eastern boundary. This work will now be proceeded with, and at the same time a further effort will be made to dispose of forfeited shares at present in the hands of the company - if this is successful we will then sink the engine shaft a further 100 feet. The new shaft will be between the Junction Co.'s and the main engine shaft. ⁵

1 June 1899: The Spring Gully Freehold lies further north ... [of Spring Gully Junction] ... again, while on the western side the North Spring Gully is proving the existence of the reef in that direction.. ⁶

8 Oct 1900: North Spring Gully - Company reorganized - east shaft abandoned and sinking of main shaft resumed. ⁷

24 Dec 1900: North Spring Gully - main shaft sunk total 307 feet. ⁸

29 Jan 1901: North Spring Gully - The company presented a petition to the court last week praying that the company be wound up - the application was granted. ⁹

5 Aug 1901: Cumberland and Phoenix Co. have accepted tenders for removal of North Spring Gully's winding plant and poppet legs - work starts today. ¹⁰

DESCRIPTION & INTERPRETATION:

The North Spring Gully mine operated for a very short time, from 1898 to 1900. Remains include an intact mullock heap, filled shaft and section of tramway.

PHOTOS: Black and White and Colour Print

ARTEFACTS: None visible

INTEGRITY/CONDITION: Poor

THREATS:

CULTURAL SIGNIFICANCE:

The site has:

Historical Significance - One of the mines formed during the late 1890s Spring Gully mining boom

- Cumulative Value
- The place (made up of Sites 47 to 52) is also significant because of its clear ability to demonstrate certain aspects of quartz mining which no longer remain elsewhere., notably the phenomenon of a quartz mining boom, when the success of a mine (in this case Spring Gully Co. in the late 1890s) inspired the formation of a host of new mining companies.
 - The sites are located in an attractive isolated bush setting

Significance ranking: National Estate

CONSERVATION POLICY:

The site 's significance comes from being part of a network of contemporary 1890s mines sites. This network is one of Victoria's most significant mining places.

RECOMMENDATIONS FOR IMPLEMENTATION:

Site to be protected and the network (Sites 47 to 52) nominated for the National Estate. An interpretive track established that links Sites 29 to 52.

Assessor: David Bannear Date: 1993

- 1 Mount Alexander Mail, as summarized in Clive Willman collection
- 2 Mount Alexander Mail, as summarized in Clive Willman collection
- 3 Mount Alexander Mail, as summarized in Clive Willman collection
- 4 Mount Alexander Mail, as summarized in Clive Willman collection
- 5 Mount Alexander Mail, as summarized in Clive Willman collection
- 6 Australian Mining Standard, 1899, pp124-5
- 7 Mount Alexander Mail, as summarized in Clive Willman collection
- 8 Mount Alexander Mail, as summarized in Clive Willman collection
- 9 Mount Alexander Mail, as summarized in Clive Willman collection
- 10 Mount Alexander Mail, as summarized in Clive Willman collection

SITE NO. & NAME: 52 SPRING GULLY CENTRAL CO. MINE

LOCATION: Spring Gully

DIRECTIONS: 100m south of Spring Gully Junction, west side of Spring Gully.

MAP/GRID REFERENCE: Castlemaine1:25,000 - 548.888

PARCEL NUMBER: P120482

MUNICIPALITY: Newstead

LAND STATUS: Unreserved Crown land/proposed Castlemaine Historic Reserve

EXISTING HERITAGE CLASSIFICATION: None

PRESENT MANAGEMENT/USE: LCC Rec - J1

HISTORY:

History to be collected - 1930s mine

DESCRIPTION & INTERPRETATION:

All that survives at this mine, located N of Spring Gully Junction mine, is one small engine-mounting block (measuring 1.9m x 3m, with four 1" diam. iron bolts) and a spread of bricks. The majority are firebricks, bearing the inscription DARLEY F.B. Co. According to Verne Hooper, the shaft at this mine was sunk to a depth of about 120ft, and was re-worked in the 1930s with an air-winch.

Opposite this mine, on the east side of the gully, is the site of the Chinaman's Shaft. In the 1930s a prospecting shaft cut some of the cross-cuts from this old Chinese shaft. Also near the Chinaman's Shaft is Thompson's shaft, sunk after sluicing operations exposed a new reef.

PHOTOS: Colour slide and prints

ARTEFACTS: None visible

INTEGRITY/CONDITION: Poor

THREATS:

CULTURAL SIGNIFICANCE:

The site has:

- | | |
|-------------------------|--|
| Historical Significance | - One of the mines formed during the late 1890s Spring Gully mining boom |
| Cumulative Value | - The place (made up of Sites 47 to 52) is also significant because of its clear ability to demonstrate certain aspects of quartz mining which no longer remain elsewhere., notably the phenomenon of a quartz mining boom, when the success of a mine (in this case Spring Gully Co. in the late 1890s) inspired the formation of a host of new mining companies. |
| | - The sites are located in an attractive isolated bush setting |

Significance ranking: National Estate

CONSERVATION POLICY:

The site 's significance comes from being part of a network of contemporary 1890s mines sites. This network is one of Victoria's most significant mining places.

RECOMMENDATIONS FOR IMPLEMENTATION:

Site to be protected and the network (Sites 47 to 52) nominated for the National Estate. An interpretive track established that links Sites 29 to 52.

Assessor: David Bannear

Date: 1993

SITE NO. & NAME: **RED HILL SITES**
53..0 Dump of Sluicing Pipes
53.1 Sluice Head and Dump of Sluicing Pipe
53.2 Sluiced Hill
53.3 Stone Structure
53.4 Stone Cairns and House Sites
53.5 House Site
53.6 Sluiced Hill
53.7 Sluice Head
53.8 Sluice Head
53.9 Sluicing Paddock
53.10 Sluice Head
53.11 Dump of Sluicing Pipe
53.12 House Site
53.13 Stone Cairn
53.14 House Site
53.15 Red Knob (Sluiced Hill)

LOCATION: **Red Hill**

DIRECTIONS: Fryerstown to Campbells Creek main road. Take the dirt track that heads south from the main road to Murdering Flat.

MAP/GRID REFERENCE: Site 53.0 to 53.2: Guildford 1:25,000 - 532.853
Site 53.3 and 53.4: Guildford 1:25,000 - 534.852
Site 53.5: Guildford 1:25,000 - 537.853
Site 53.6: Guildford 1:25,000 - 539.851
Site 53.7 and 53.8: Guildford 1:25,000 - 535.849
Site 53.9: Guildford 1:25,000 - 537.848
Site 53.10: Guildford 1:25,000 - 539.848
Site 53.11: Guildford 1:25,000 - 539.849
53.12: Guildford 1:25,000 - 540.848
53.13: Guildford 1:25,000 - 540.849
53.14: Guildford 1:25,000 - 538.851
53.15: Guildford 1:25,000 - 530.840

PARCEL NUMBER: P124013

MUNICIPALITY: Newstead

LAND STATUS: Unreserved Crown Land/proposed Castlemaine Historic Reserve

EXISTING HERITAGE CLASSIFICATION: None

PRESENT MANAGEMENT/USE: LCC Rec - J1

HISTORY:

22 June 1855: Since...last week, there has been a slight rush to the old Red Hill, opposite Sullivan's Welcome Inn. A number of diggers are at work, and are reported to be doing well. Although the hill was partially worked out some two or three years ago, it appears there is still plenty of gold left. ¹

30 Nov 1855: The new rush at New Year's Flat is turning out well, the old ground from the flat to the junction being very remunerative. ²

22 Feb 1856: New Year's Flat continues to bear well. ³

21 March 1856: The diggings in New Year's Flat and Spring Flat and Gully still maintain a large population. ⁴

June 1859: 10 puddling machines in New Year's Flat & Vaughan; 70 non-Chinese puddlers working Chok'em & New Year's Flats; 28 Chinese puddlers working New Year's Flat; 50 non-Chinese engaged in ordinary mining on Chok'em & New Year's Flats; and 282 Chinese engaged in ordinary mining on New Year's Flat. ⁵

June 1859: 20 puddling machines in Red Hill & neighbourhood, operated by 90 non-Chinese; 110 non-Chinese engaged in ordinary mining in Red Hill and neighbourhood. ⁶

March 1865: Mining population of New Year's Flat and Bald Hill: 218. ⁷

Dec 1865: Although there are hundreds of acres of auriferous hills in this locality that will pay for being sluiced, no attempt has been made to bring water to bear on the ground referred to. A scheme is now on the *topis* propounded by Messrs. Wardle and Amos, which is in my opinion practicable, if the money can be obtained to carry on the works. The persons referred to contemplate taking their supply from the river Loddon, in the vicinity of Holcombe, and bringing it by a contour race to the heads of the various gullies at Fryer's Creek. They do not propose to dam the river, but to divert as much water as the race will carry while the river is running. As this stream runs, on the average, only for seven or eight months in the year, it will be for that period only that the sluicers will be enabled to work. While the water lasts, they contemplate both night and day work. ⁸

1865-70: the story of the water race began in 1865. Trial surveys from either end set the pattern, and it was intended that the race should cross the saddle at ground level, but Mr Mark Amos, who surveyed the race, did not allow for human frailty. In the cutting of the race a lot of level was lost so that the tunnel [Rocky Gully, near Ridge Road] had to be tunnelled through at this depth to reach the main sphere of usage for the water on the north side of the range.

The race is 12 miles 26.8 chains long and cut with a fall of eight feet to the mile. It would have an elevation of about 250 feet above the Loddon Valley at Vaughan. At its upper end it takes water from the river just below the Kangaroo Creek junction, not so very far north of the township of Glenlyon. There are eleven flumings over valleys, including two over the river in the first mile. The total length of the flumings is about half a mile...

The flumings have 18 inch diameter pipes at the top half, and 16 this end. On this side of the range there is a smaller race cut through to Vaughan, about three miles in length, and also a small shorter race cut below the main race, to Glenluce.

It is interesting to see how the race builders...used rock walling here and searched out every barrow-load of adjacent clay for the banks of the race. There was a small bank thrown across Rocky Gully to divert water into the Vaughan race. Formerly it held six or seven feet of water...

In 1865-70 these valleys [heading south to Glenluce Springs], eleven in number, were crossed by pinewood boxing, or fluming, supported by trestle bridging... Some of the bridging at the far end of the race was eighty or ninety feet high in places. ⁹

March 1866: In quartz mining there has been considerable briskness; quite a new feature has presented itself in this branch of industry; Chinese are, for the first time in this locality, engaged in quartz mining. A Chinaman at New Year's Flat, named Ti Pang, uncovered a strong lode while working the alluvial soil; gold being visible in small quantities, the Chinaman immediately secured a quartz claim, and a trial crushing has yielded 1 oz. 16 dwts. to four tons of stone. There are ten Chinese working in this and the adjoining claims on the reef. I fear, however that their efforts will be useless, from their want of experience in working quartz rock. ¹⁰

Dec 1866: The race which was being constructed by Messrs. Wardle and Amos, to bring water from the Upper Loddon to a portion of the Fryers Creek gold field, is at a stand still. It appears that there is a want of funds to carry on the enterprise. If this work had been vigorously carried out, the company would undoubtedly have received a dividend by this. ¹¹

1866: Parties reporting yields from quartz crushings in 1866: Ti Pang. ¹²

June 1869: The Red Hill Company hold about 1,200 feet along supposed line of reef, south of the No Surrender Company [Windlass Flat]. This company consists at present of thirty shareholders, who...contribute weekly to the prospecting of the ground held by them. A shaft of dimensions above the ordinary prospecting was commenced sinking a fortnight back upon the Red Hill, and is now down 22 feet, being well timbered ...It may be worthy remark, that of the No Surrender and Red Hill Companies, the greater number of shares are held by tradesmen and working men in the immediate locality, many of whom were not known previously to evince an interest and faith in the quartz mines of the neighborhood. ¹³

Dec 1870: The River Loddon and Tributaries Water Supply Company have completed their main and some branch races, and the entire scheme is nearly carried out. The supply of water at the present time (December 31st) from the Loddon source is from 10 to 12 heads, allowing 3 to 4 sluice heads to run free at the point of divergence, viz., the head of the main race, Rae's Hill. The whole work has been completed in a very satisfactory manner, the fluming being especially well constructed.

It is now five years since the scheme was first projected, and at that time under discouraging circumstances, owing to insufficient capital and lack of proper engineering supervision.

The present company have succeeded in initiating a system very much needed in this district, and which will in the end prove a great boon to the miners who have still to depend upon the old alluvial workings for the means of subsistence.

With the commencement of the new year it is expected that many parties will be fully in work, so in the next quarter's report I may be enabled to give results: at present it would be premature to hazard any opinion, as in a few months

experiment will have been tried as to whether ground sluicing can be made remunerative in workings long abandoned. ¹⁴

March 1871: The introduction of water to many of our old rich hills in the neighborhood of Nuggety Gully and Sullivan's Hill has led to sluicing being adopted generally, in lieu of puddling ordinarily; but I do not think the ground has proved so remunerative as expected... The company are now about cutting a branch race to the Bald Hill. [10]

June 1871: Puddling. -...Very little is now being done in this branch of mining, many of our oldest puddlers have adopted sluicing, and others directed their attention and labors to quartz mining... ere long this system of mining will cease to exist.

Sluicing. - Sluicing operations...have been carried on to a considerable extent, but returns therefrom have not generally been considered sufficiently remunerative...

It must not, however, be inferred that our ground for sluicing purposes is of inferior quality, but that the price of water is too much to leave a fair rate of current wages for the miner...

Quartz Mining. - The returns from our quartz workings are far greater than hitherto...

The different rates charged for one sluice-head of water (20 square inches) per week are as follows:-

Heron's Hill, &c., near Glenluce	£4 10 0
Bald Hill, &c., near Vaughan	£ 6 0 0
Irishtown, Turk's Hill, Red Hill, &c., in the neighborhood of Nuggety Gully and the Welsh Mount	£ 5 0 0

Supplied by the River Loddon Water Supply Company . ¹⁵

Sept 1871: Of sluicing operations I am glad to say...the River Loddon and Tributaries Company have, at this time, a demand for more water or sluice-heads than they can supply; hence proving that water for sluicing-purposes is valuable.

The company are now letting 14 heads of water, at prices ranging from £4 to £6 per week - in the aggregate returning £68 10s. Seventy men are employed. Seven more sluice-heads are applied for.

During the past quarter the race has been extended to the Bald Hill, near Vaughan, and as the majority of those employed seem satisfied with their returns, it is anticipated that an extension of the race would afford profitable employment to miners and an equal benefit to the company...

Charges for one sluice-head of water. - Loddon Company

Heron's Hill, and near Glenluce	£4 0 0
Bald Hill, near Vaughan	6 0 0
Belle Vue Hotel locality	5 0 0 [10]

Dec 1871: The Loddon Water Supply Company have been very fortunate in the number of sluice-heads they have been enabled to supply, and a great portion of the Bald Hill, Vaughan, and other hills in the vicinity, have been reduced under this system of mining. The returns are considered remunerative.

This mining property will eventually prove highly valuable to the mining community, and equally satisfactory to the proprietary, when operations are still further extended...

Bald Hill. - Ten heads used, at £6 per head per 24 hours

Belle Vue and neighborhood of Welsh Mount. - Ten heads used, at £5 per head per 24 hours

There is a demand for more heads. ¹⁶

March 1872: Loddon Sluicing and Water Supply Company charges for sluice-heads of water £1 and £5 per head. From three to five heads have been available since Christmas. ¹⁷

June 1872: Sluice-heads

Loddon Company, Vaughan and Glenluce:-

1 Head, per week	£3 10s
2 Heads, per week	£6 10s
3 Heads, per week	£9. ¹⁸

Sept 1872: Water Supply - Charges for sluice-heads:- 1. River Loddon Water Supply Company, 14 heads supplied, 24 hours per day; one head, £3 10s; two heads, £6 10s.; three heads, £9. ¹⁹

March 1874: A company are erecting a water-wheel at the foot of the Red Hill, Chokem Flat, to drive a small battery to reduce the cement upon that hill and the Welsh Mount; they contemplate obtaining water from Fryers Creek in the winter months generally, and from the River Loddon and Tributaries Company when the creek fails them. ²⁰

June 1874: Water Power for Crushing Cement. - Messrs. Broad and Company have recently erected a 20-foot overshot water-wheel. They are using four heads of water from the Loddon Company, and driving 10 heads of

stamps, thus re-working a block of ground which would otherwise be considered useless. They are crushing cement taken from the Old Red Hill, Chokem Flat (famed in the early days for its rich alluvial deposits). ²¹

Sept 1875: The Loddon Water Supply Co. at the present time are supplying a good number of men engaged in sluicing, but their charges have always been considered exorbitant, and not regulated according to the quality of the ground or the means of the miners; a reduction in the charges would be instrumental in causing a larger area of ground being taken up, and worked to advantage, by a class of miners who would be satisfied with reasonable wages. ²²

Sept 1876: The Loddon Sluicing Company continue to supply a limited number of European miners, but the supply of water for sluicing purposes has not been sufficient to pay the company for some time past; it is considered that too high a price has been charged for sluice-heads, considering the comparative poverty of the soil operated on. ²³

late 1870s: Unfortunately for the first Loddon River Co., the Coliban water came into the head of the Fryer's Creek at about the same time as their water reached here, thereby depriving them of many potential customers. ²⁴

Sept 1878: Sale and Cost of Water, &c. - The Loddon Sluicing and W.S. Company. - NOTE. - the Company have sublet the race and water rights to R.P. Addley at a rental of £100 per annum, the works to be kept in a reasonable state of repair...

Sale of water for the quarter ended 30th June, 1878:-	
460 heads at 4s. 2d. per head	£95 16s.
Sundry odd heads, &c., say	£4 4s.
Expenses during quarter:-	
Rent	£25
Wages, including lessee	£78
Repairs	£6

The water is used day and night (24 hours) and a head is reckoned - 100,000 gallons. [10]

Sept 1878: Sale and Cost of Water, &c. - The Loddon Sluicing and W.S. Company. - NOTE. - the Company have sublet the race and water rights to R.P. Addley at a rental of £100 per annum, the works to be kept in a reasonable state of repair. ²⁵

Dec 1876: Parties puddling or sluicing: Riddle and Co., New Year's Flat; Brewer and Co., New Year's Flat; Stephens and Co., New Year's Flat; Williams and Co., New Year's Flat; and Trethewey and Co., New Year's Flat. ²⁶

Sept 1878: Sale and Cost of Water, &c. - The Loddon Sluicing and W.S. Company. - NOTE. - the Company have sublet the race and water rights to R.P. Addley at a rental of £100 per annum, the works to be kept in a reasonable state of repair. [10]

March 1879: The Loddon Company's race has ceased running for some time, and the dry weather has seriously affected the fluming, which stands much in need of repair, but the company have no particular reason to incur extra expenses, as the dividends have been very small and far between... No water sold during the quarter. ²⁷

Dec 1879: there is now some likelihood of Middleton's Reef, Vaughan, being taken up and re-worked, also an old line of reef intersecting New Year's Flat... Mr Edhouse, lately a resident of the Bald Hill, Vaughan, is about introducing capital into the district, having great faith in the auriferous character of certain special localities. ²⁸

Dec 1880: Chokem and New Year's Flats continue to give fair returns to the various puddling machines engaged. ²⁹

n.d.: Trethewey and party, New Year's Flat, 10 feet from surface, had a crushing of 16 tons for 6oz. ³⁰

Sept 1889: a party of seven or eight Chinamen [are] working the old ground at the head of Spring Flat... There are two or three other parties doing moderately well in the neighbourhood of Church's Flat and New Year's Flat. ³¹

1906-7: The race was...re-opened in 1906-7, again lapsed... At one time, during the second lifetime of the race, both Loddon and Coliban waters were delivered here, to be measured out from either end of the tunnel, as though it were a mixing dam. ³²

1937: The race was...re-opened in 1937. On this occasion it was a co-operative venture by several groups of alluvial miners, eleven altogether, my father, brother and myself [Ray Bradfield] among them. We had government assistance after a long campaign of pressurisation...

Bushfires had burnt out nearly all [the fluming] before 1937, when we put in these pipelines for the first time (my father and I relaid these lines again after the last war). Here at Salters one lone leg still stood on that far side, and we

cut off the top half of that to make a supporting set from them both. Here and there are still some bits of the old timbers, mostly old bed plates used in the old sets. ³³

September 1953: Bradfield Sluicing, Vaughan. This plant was mostly idle owing to lack of water. Sludge dams have been built up and sluicing has recommenced, fair results being expected whilst water is available. ³⁴

March 1954: Bradfield's Sluicing, Vaughan. Intermittent sluicing, whilst water was available, yielded a total of 57 fine oz. ³⁵

c. 1980s One can easily make out the ends of the fluming across Sailors Gully, for Peter Moyles race. What is not now apparent, is that at one time, a pipeline was swung across the river from the Bald Hill opposite, to this side, Water was then being delivered to the sluicers on Bald Hill from the Loddon-Fryers water race... If we cross the dam [in Oven Gully] and take the little gully on the other side, which also has a dam bank across it, and ascend, we will find a well-defined road just below the ridge. We have to turn right (south)... as we pass through the low saddle, the water race on the left of the road was one used to bring the dredge feed-water into the Oven gully dam. That was water from the Loddon-Fryers system, and later on, we will see the other end of the channel. It was brought to the crown of an open, basalt-crowned hill near Glenluce spring, and crossed the Loddon valley in what must have been a long, deep invert syphon of piping. On this side, the outfall was about a half a mile or so north of this saddle. ³⁶

c. 1980s [Tunnel at Rocky Gully, off Ridge Road, Irishtown] It is 618 feet long and cut in a fairly easily workable green slate. There is a slight bend halfway... the story of the water race began in 1865. Trial surveys from either end set the pattern, and it was intended that the race should cross the saddle at ground level, but Mr Mark Amos, who surveyed the race, did not allow for human frailty. In the cutting of the race a lot of level was lost so that the tunnel had to be tunnelled through at this depth to reach the main sphere of usage for the water on the north side of the range.

The race is 12 miles 26.8 chains long and cut with a fall of eight feet to the mile. It would have an elevation of about 250 feet above the Loddon Valley at Vaughan. At its upper end it takes water from the river just below the Kangaroo Creek junction, not so very far north of the township of Glenlyon. There are eleven flumings over valleys, including two over the river in the first mile. The total length of the flumings is about half a mile...

The flumings have 18 inch diameter pipes at the top half, and 16 this end. On this side of the range there is a smaller race cut through to Vaughan, about three miles in length, and also a small shorter race cut below the main race, to Glenluce.

It is interesting to see how the race builders of over a hundred years ago used rock walling here and searched out every barrow-load of adjacent clay for the banks of the race. There was a small bank thrown across Rocky Gully to divert water into the Vaughan race. Formerly it held six or seven feet of water...

...the outfall end of the tunnel. This is the head of Devils Gully, and one can see the Coliban Race on the right, which formerly brought the water from Fryers, and the Irishtown race heading westward...

We take the Ridge Road again, climbing higher... we leave the Ridge Road at the dam by the roadside [Hunter's Road]... We travel down this branch of Salters Creek... After a half mile or so, we leave this track, the turn-off being marked by...blaze marks on our right. We go right down into the gully, or close to it, before turning uphill again, and then southward again.

Presently we park the cars and walk down the hill to have a look at Salters Flume. The pipes are still in place, although the supporting timbers are rotting...

In 1865-70 these valleys, eleven in number, were crossed by pinewood boxing, or fluming, supported by trestle bridging. Bushfires had burnt out nearly all of this before 1937, when we put in these pipelines for the first time (my father and I relaid these lines again after the last war). Here at Salters one lone leg still stood on that far side, and we cut off the top half of that to make a supporting set from them both. Here and there are still some bits of the old timbers, mostly old bed plates used in the old sets. Some of the bridging at the far end of the race was eighty or ninety feet high in places.

Retuning up the slope to the cars, we soon come to the point, not far from the open paddocks where we turn eastwards again, down off this ridge. Turn-off is indicated by...blaze marks. Soon we rejoin Hunters Road again... Soon we cross Stony Creek, and then turn right on an old track. This will take us past the Stony Flume on our right.

³⁷

DESCRIPTION

Red Hill and neighbourhood appear to have been worked by alluvial miners from the mid- to late 1850s, and by quartz miners in the 1870s.

The sluicing landscape - massive holes and piles of stacked rocks, numerous dams, and slopes stripped of soil - would date from the mid-1870s, when the River Loddon and Tributaries Water Supply Co. first supplied water to this region, by water race. The gullies were hydraulically sluiced in the early stages of this century, the last work in the area being done by Ray Bradfield in the 1940s. The pipe found in the various dumps probably relates to Ray Bradfield's final sluicing operations.

The various stone fireplaces, and stone cairns, appear to pre-date the hydraulic phase of sluicing, so probably represent later 19th-century occupation by miners and sluicers. The stone cairns are probably boundary markers for different claims.

Site 53.0 - Site consists of a dump of sluicing pipe and large earthen dam. The dam's earthen wall is approx. 60m across and about 1.5m high. A by-pass is situated on the southern end. Up the slope, 35m E of the dam is a dump, containing eight sections of iron pipe, all about 7m in length and of the overlapping, rivetted type. The pipes have two different diameters - 37cm (15") and 51cm (20"). The majority of pipes present are of the smaller diameter. All the pipe is in poor condition, very rusty and corroded. The dump of pipe is on a hillside which has been completely stripped of soil by sluicing. In some places, especially on the higher ground, the hill slope still bears the traces of numerous water races and smaller channels.

Site 53.1 - Two hundred metres E of Site 53.0 is a second dump of iron pipe, together with a water race and sluice-head. The remains are located on the SE margin of Red Hill.

A water race comes in from the E to meet a sluice-head, shaped like a big 7. The sluice-head is an earthen embankment, approx 18m long, which is faced on the inside with stone. A tree obscures the actual take-off point. A channel runs W from the take-off point, and 60m along the channel is a large dump of sluicing pipe. This dump covers an area of about 30m x 6m and contains about 12 sections of pipe, in 7m lengths. There are two different types and sizes of pipe present: all of the large sections of pipe are of the rivetted-overlapping type with a diameter of 51cm (20"); several smaller sections (about 3m in length) of a rivetted-panel type have a diameter around 70cm (27").

Site 53.2 - The bulk of this alluvial ridge, part of Red Hill, has been quarried and sluiced away. The large excavation would contain thousands of tons of stacked stones. The slopes on all sides of the ridge have been sluiced, in places down to bedrock, and contain a network of water channels and small dams.

Site 53.3 - 160m NE of Site 53.2, on the W side of a gully that drains W, is a stone structure. The middle of the structure has been either sluiced or eroded away. Its overall dimensions would have been 10.5m long by about 2.6m. A semi-circular fireplace, or perhaps small stack, protrudes 1.2m from the S corner of the building. Walls of the building are stone and clay mortar, well-built with faced stone. They measure 40cm thick and in several places still stand to a height of 1m. No bricks were observable.

Site 53.4 - A small gully to the E of the Site 53.3 drains to the W. This gully has been deeply sluiced, to a depth of more than 10m. The sheer sides are very impressive. On the N side of this gully, on the summit of a ridge, are two stone cairns. Both are triangular at the base (each side measuring 1.5m) and come to a point about 1.1m above the ground. They are difficult to spot because of dense scrubby growth (mainly coffee bush). The cairns are situated in an area which has not been sluiced to bedrock and are surrounded by numerous piles of stone.

One hundred metres W of the stone cairns, on the S side of the next gully, are some more stone structures. The visible remains consist of twin fireplaces, 2m apart, both facing N. They are well-built, of stone faced on both sides, and their external measurements are 1.7m x 1.10m. Walls are 40cm thick. Both structures have small not-so-well-built compartments attached. The northern fireplace stands to a height of 1.7m; the other to a height of 1.3m. Seven metres NE of the northern fireplace is another stone building. It is U-shaped and has no E wall, and its external measurements are 2.6m x 2.8m. Walls are 50cm thick and still stand to a height of 1m, but they are not as well built as the twin fireplaces.

Site 53.5 - On the opposite of the gully to Site 53.4 are the remains of a small house site. The 30cm-thick walls of the small stone house survive only as an outline (4.5m x 2.5m) and rubble. The fireplace is well-built of stone faced on both sides, and still stands to a height of 70cm. Some red brick fragments are present. All are of handmade bricks. One fragment measures 11cm wide and 7 cm thick, and has a wide rectangular frog on one face, approx. 12cm long, 4cm wide and 1.5cm deep.

The gully between this site and Site 53.4 has been sluiced to a depth of about 10m for most of its length.

Site 53.6 - Located on the S side of the Fryerstown-Campbells Creek main road, and N of Red Hill. Like the neighbouring Red Hill, Sullivan's Hill has largely been quarried and sluiced away. The slopes on all sides have been sluiced and contain a network of water channels and dams.

Located on the N side of a large excavation is a sluice head consisting of a small section of stone and earth wall through which pokes a section of galvanized pipe (9" diam).

On the W side of the same large excavation are some very deep, narrow gutters. The longest of these is 80cm wide and has a maximum depth of 2.10m. It runs 30 m W to a gully.

Thirty metres NW of the long gutter is a stone cairn, situated on the line of the reef and surrounded by numerous piles of stone. It has a triangular base (sides 1.5m long) and comes to a point 1.1m above the ground. Difficult to spot, due to dense cover of coffee bush.

Site 53.7 - At the heads of two deeply sluiced gullies are two long earthen embankments linked to a water race. Both embankments curve around a hill slope forming dam-like features. The lower embankment is about 100m long, and its wall stands about 1.5m high. A sluice-head is located at the mid point of the embankment, which directs water to the W. The sluice-head still has its wooden valve, consisting of a set of legs (bush timber) standing 3.8m high.

Site 53.8 - 60m E of Site 53.7 is a sluice head. This building is located at the bottom of a hill on which are located an open-cut and at least one shaft. The 1m-thick earthen walls have both outer and inner facings of stone. The structure

is oval in shape, measuring 7.5m x 4.6m. The entrance appears to have been at the S end, and the rear end has been washed away. Running past the structure is a water race.

Site 53.9 - 100m E of Site 53.8 is a sluicing paddock, near the head of an large gully. The paddock measures about 100m long, 50m wide and 15 deep. The tailing heap still survives. There is a section of sluicing pipe protruding from the W corner of the tailing heap.

Site 53.10 - 140m E of the sluicing paddock is a sluice head consisting of a curved earthen embankment and a galvanized iron outlet pipe (10" diam).

Site 53.11 - 200m N of Site 53.10 is a dump of sluicing pipe, running E-W. The bulk of the sluicing pipe present is of the rivetted-panel type. There are three sections of pipe (ranging from 3m to 6m in length) at the E end of the dump, with two different diameter measurements - 60cm (24") and 70cm (28"). In the middle of the dump are nine sections (about 3m-4m in length). There is also one small section of the rivetted-overlapping type pipe.

Site 53.12 - 150m SE of Site 53.11 are two stone structures. The northern structure consists of a small section of wall standing to a height of 70cm. The southern structure consists of the ground-level outline of a single room, and the partial remains of a fireplace. The room would have measured 3.6m long by 2.50 wide. Walls are 30 cm thick. The fireplace protrudes from the E corner about 70cm., is about 1.3m wide and stands to a height of 70cm.

Site 53.13 - 100m E of Site 53.11 is a stone cairn. This cairn is located on a hillslope which has been sluiced to bedrock. The cairn is roughly 1m square at the base and stands to a height of 90cm. About eight distinct mounds of rock surround the cairn. These mounds stand to a height of about 40cm, and range from small circles of stone (e.g. 90cm diameter) to long rectangular mounds (e.g. 2.2m x 1.4m wide).

Site 53.14 - 250m NW of cairn, on the E side of a gully, are the remains of a stone building. Only a small section of curving wall and a spread of rubble survive.

Site 53.15 - On north side of Fryerstown-Vaughan road, just before Vaughan, is the sluiced landmark known as Red Knob. This resulted from the sluicing activities of Ray Bradfield, in the 1940s. The poplar trees in the valley near Red Knob were planted by Bradfield after he finished sluicing of the area.

PHOTOS: Black and White

ARTEFACTS: Domestic rubbish exposed by treasure hunters and sluicing pipes etc.

INTEGRITY/CONDITION: Good

THREATS:

CULTURAL SIGNIFICANCE:

The site has:

- | | |
|-------------------------|---|
| Scientific Significance | - The Red Hill sites hold scientific value in respect that they represent a particular process developed to overcome the persistent problem on these goldfields of periodical water shortages. The sites cover an approximate area of 1.75km x 1.5km |
| Cumulative Value | - The Red Hill network of sites are associated with the mining of cemented gravels or conglomerates. This type of mining played an important part of the early history of the Central Victorian goldfields, but today physical evidence is rare due to the obliteration of workings by gravel quarrying operations. The Red Hill landscape (Sites 53.0 to 53.15), unscathed as yet by gravel quarrying, is one of the few places left in Central Victoria where visitors can see the nature and effects of cement mining. The heritage value of Red Hill is enhanced by the survival of the River Loddon water race (site 54) which was constructed in the 1870s to provide water for sluicing the gravel-capped hills and auriferous hillslopes and gullies. |

Significance ranking: National Estate

CONSERVATION POLICY:

Significance of the place comes from its intactness and comprehensiveness. The significance is enhanced by the survival of the water race constructed by the River Loddon and Tributaries Water Supply Company.

RECOMMENDATIONS FOR IMPLEMENTATION:

All sites be protected and the nework (Sites 53.0 to 53.15, 54 and 119) nominated for the National Estate. Comprehensive archaeological survey conducted to establish the true extent of sites associated with the water race.

Assessor: David Bannear

Date: 1993

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- 1 Mount Alexander Mail, p2
 2 Mount Alexander Mail, p2
 3 Mount Alexander Mail, p4
 4 Mount Alexander Mail, p5
 5 Mining Surveyors' monthly reports, Castlemaine and Fryer's Creek Divisions
 6 Mining Surveyors' monthly reports, Castlemaine and Fryer's Creek Divisions
 7 Mining Surveyors' monthly reports, Castlemaine and Fryer's Creek Divisions
 8 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
 9 Bradfield, R.A. n.d. (c. early 1980s) Excursion to Salter's Creek' (unpublished notes)
 10 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
 11 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
 12 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
 13 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
 14 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
 15 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
 16 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
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 25 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
 26 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
 27 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
 28 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
 29 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
 30 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions, March
 1889
 31 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
 32 Bradfield, R.A. n.d. (c. early 1980s) Excursion to Salter's Creek' (unpublished notes)
 33 Bradfield, R.A. n.d. (c. early 1980s) Excursion to Salter's Creek' (unpublished notes)
 34 Mining and Geological Journal, September 1953, p43&45
 35 Mining and Geological Journal, March 1954, p50
 36 Bradfield, R.A. n.d. (c. early 1980s) 'A Bush Walk from Vaughan Springs'
 (unpublished notes)
 37 Bradfield, R.A. n.d. (c. early 1980s) Excursion to Salter's Creek' (unpublished notes)

SITE NO. & NAME: **RIVER LODDON AND TRIBUTARIES WATER SUPPLY CO.**
54.0 Adit
54.1 Flume

LOCATION: **Loddon River, Vaughan**

DIRECTIONS: Race runs from Loodon River through such places as Rocky Gully, Devil's Gully, Glenluce Springs, Salter's Creek and Stony Creek.

MAP/GRID REFERENCE: Site 54.0: Guildford 1:25,000 - 549.837
 Site 54.1: Guildford 1:25,000 - 559.811

PARCEL NUMBER: P124013

MUNICIPALITY: Newstead

LAND STATUS: Unreserved Crown Land/proposed Castlemaine Historic Reserve

EXISTING HERITAGE CLASSIFICATION: None

PRESENT MANAGEMENT/USE: LCC Rec - J1

HISTORY:

Dec 1865: Although there are hundreds of acres of auriferous hills in this locality that will pay for being sluiced, no attempt has been made to bring water to bear on the ground referred to. A scheme is now on the *topis* propounded by Messrs. Wardle and Amos, which is in my opinion practicable, if the money can be obtained to carry on the works. The persons referred to contemplate taking their supply from the river Loodon, in the vicinity of Holcombe, and bringing it by a contour race to the heads of the various gullies at Fryer's Creek. They do not propose to dam the river, but to divert as much water as the race will carry while the river is running. As this stream runs, on the average, only for seven or eight months in the year, it will be for that period only that the sluicers will be enabled to work. While the water lasts, they contemplate both night and day work. ¹

Dec 1866: The race which was being constructed by Messrs. Wardle and Amos, to bring water from the Upper Loodon to a portion of the Fryers Creek gold field, is at a stand still. It appears that there is a want of funds to carry on the enterprise. If this work had been vigorously carried out, the company would undoubtedly have received a dividend by this. ²

1865-70: the story of the water race began in 1865. Trial surveys from either end set the pattern, and it was intended that the race should cross the saddle at ground level, but Mr Mark Amos, who surveyed the race, did not allow for human frailty. In the cutting of the race a lot of level was lost so that the tunnel [Rocky Gully, near Ridge Road] had to be tunnelled through at this depth to reach the main sphere of usage for the water on the north side of the range. The race is 12 miles 26.8 chains long and cut with a fall of eight feet to the mile. It would have an elevation of about 250 feet above the Loodon Valley at Vaughan. At its upper end it takes water from the river just below the Kangaroo Creek junction, not so very far north of the township of Glenlyon. There are eleven flumings over valleys, including two over the river in the first mile. The total length of the flumings is about half a mile... The flumings have 18 inch diameter pipes at the top half, and 16 this end. On this side of the range there is a smaller race cut through to Vaughan, about three miles in length, and also a small shorter race cut below the main race, to Glenluce.

It is interesting to see how the race builders...used rock walling here and searched out every barrow-load of adjacent clay for the banks of the race. There was a small bank thrown across Rocky Gully to divert water into the Vaughan race. Formerly it held six or seven feet of water...

In 1865-70 these valleys [heading south to Glenluce Springs], eleven in number, were crossed by pinewood boxing, or fluming, supported by trestle bridging... Some of the bridging at the far end of the race was eighty or ninety feet high in places. ³

Dec 1870: The River Loodon and Tributaries Water Supply Company have completed their main and some branch races, and the entire scheme is nearly carried out. The supply of water at the present time (December 31st) from the Loodon source is from 10 to 12 heads, allowing 3 to 4 sluice heads to run free at the point of divergence, viz., the head of the main race, Rae's Hill. The whole work has been completed in a very satisfactory manner, the fluming being especially well constructed.

It is now five years since the scheme was first projected, and at that time under discouraging circumstances, owing to insufficient capital and lack of proper engineering supervision.

The present company have succeeded in initiating a system very much needed in this district, and which will in the end prove a great boon to the miners who have still to depend upon the old alluvial workings for the means of subsistence.

With the commencement of the new year it is expected that many parties will be fully in work, so in the next quarter's report I may be enabled to give results: at present it would be premature to hazard any opinion, as in a few months experiment will have been tried as to whether ground sluicing can be made remunerative in workings long abandoned. ⁴

March 1871: The introduction of water to many of our old rich hills in the neighborhood of Nuggety Gully and Sullivan's Hill has led to sluicing being adopted generally, in lieu of puddling ordinarily; but I do not think the ground has proved so remunerative as expected... The company are now about cutting a branch race to the Bald Hill. [10]

June 1871: Puddling - Very little is now being done in this branch of mining, many of our oldest puddlers have adopted sluicing, and others directed their attention and labors to quartz mining... ere long this system of mining will cease to exist.

Sluicing. - Sluicing operations...have been carried on to a considerable extent, but returns therefrom have not generally been considered sufficiently remunerative...

It must not, however, be inferred that our ground for sluicing purposes is of inferior quality, but that the price of water is too much to leave a fair rate of current wages for the miner...

Quartz Mining. - The returns from our quartz workings are far greater than hitherto...

The different rates charged for one sluice-head of water (20 square inches) per week are as follows:-

Heron's Hill, &c., near Glenluce	£4 10 0
Bald Hill, &c., near Vaughan	£ 6 0 0
Irishtown, Turk's Hill, Red Hill, &c., in the neighborhood of Nuggety Gully and the Welsh Mount	£ 5 0 0

Supplied by the River Loodon Water Supply Company. ⁵

Sept 1871: Of sluicing operations I am glad to say...the River Loodon and Tributaries Company have, at this time, a demand for more water or sluice-heads than they can supply; hence proving that water for sluicing-purposes is valuable.

The company are now letting 14 heads of water, at prices ranging from £4 to £6 per week - in the aggregate returning £68 10s. Seventy men are employed. Seven more sluice-heads are applied for.

During the past quarter the race has been extended to the Bald Hill, near Vaughan, and as the majority of those employed seem satisfied with their returns, it is anticipated that an extension of the race would afford profitable employment to miners and an equal benefit to the company...

Charges for one sluice-head of water. - Loodon Company

Heron's Hill, and near Glenluce	£4 0 0
Bald Hill, near Vaughan	6 0 0
Belle Vue Hotel locality	5 0 0 [10]

Dec 1871: The Loodon Water Supply Company have been very fortunate in the number of sluice-heads they have been enabled to supply, and a great portion of the Bald Hill, Vaughan, and other hills in the vicinity, have been reduced under this system of mining. The returns are considered remunerative.

This mining property will eventually prove highly valuable to the mining community, and equally satisfactory to the proprietary, when operations are still further extended...

Bald Hill. - Ten heads used, at £6 per head per 24 hours

Belle Vue and neighborhood of Welsh Mount. - Ten heads used, at £5 per head per 24 hours

There is a demand for more heads. ⁶

March 1872: Loodon Sluicing and Water Supply Company charges for sluice-heads of water £1 and £5 per head.

From three to five heads have been available since Christmas. ⁷

June 1872: Sluice-heads

Loodon Company, Vaughan and Glenluce:-

1 Head, per week	£3 10s
2 Heads, per week	£6 10s
3 Heads, per week	£9. ⁸

Sept 1872: Water Supply - Charges for sluice-heads:- 1. River Loodon Water Supply Company, 14 heads supplied, 24 hours per day; one head, £3 10s; two heads, £6 10s.; three heads, £9. ⁹

Sept 1875: The Loodon Water Supply Co. at the present time are supplying a good number of men engaged in sluicing, but their charges have always been considered exorbitant, and not regulated according to the quality of the ground or the means of the miners; a reduction in the charges would be instrumental in causing a larger area of ground being taken up, and worked to advantage, by a class of miners who would be satisfied with reasonable wages. ¹⁰

Sept 1876: The Loddon Sluicing Company continue to supply a limited number of European miners, but the supply of water for sluicing purposes has not been sufficient to pay the company for some time past; it is considered that too high a price has been charged for sluice-heads, considering the comparative poverty of the soil operated on. ¹¹

late 1870s: Unfortunately for the first Loddon River Co., the Coliban water came into the head of the Fryer's Creek at about the same time as their water reached here, thereby depriving them of many potential customers. ¹²

Sept 1878: Sale and Cost of Water, &c. - The Loddon Sluicing and W.S. Company. - NOTE. - the Company have sublet the race and water rights to R.P. Addley at a rental of £100 per annum, the works to be kept in a reasonable state of repair...

Sale of water for the quarter ended 30th June, 1878:-

460 heads at 4s. 2d. per head	£95 16s.
Sundry odd heads, &c., say	£4 4s.

Expenses during quarter:-

Rent	£25
Wages, including lessee	£78
Repairs	£6

The water is used day and night (24 hours) and a head is reckoned - 100,000 gallons. [10]

Sept 1878: Sale and Cost of Water, &c. - The Loddon Sluicing and W.S. Company. - NOTE. - the Company have sublet the race and water rights to R.P. Addley at a rental of £100 per annum, the works to be kept in a reasonable state of repair. ¹³

Sept 1878: Sale and Cost of Water, &c. - The Loddon Sluicing and W.S. Company. - NOTE. - the Company have sublet the race and water rights to R.P. Addley at a rental of £100 per annum, the works to be kept in a reasonable state of repair. [10]

March 1879: The Loddon Company's race has ceased running for some time, and the dry weather has seriously affected the fluming, which stands much in need of repair, but the company have no particular reason to incur extra expenses, as the dividends have been very small and far between... No water sold during the quarter. ¹⁴

1906-7: The race was...re-opened in 1906-7, again lapsed... At one time, during the second lifetime of the race, both Loddon and Coliban waters were delivered here, to be measured out from either end of the tunnel, as though it were a mixing dam. ¹⁵

1937: The race was...re-opened in 1937. On this occasion it was a co-operative venture by several groups of alluvial miners, eleven altogether, my father, brother and myself [Ray Bradfield] among them. We had government assistance after a long campaign of pressurisation...

Bushfires had burnt out nearly all [the fluming] before 1937, when we put in these pipelines for the first time (my father and I relaid these lines again after the last war). Here at Salters one lone leg still stood on that far side, and we cut off the top half of that to make a supporting set from them both. Here and there are still some bits of the old timbers, mostly old bed plates used in the old sets. ¹⁶

c. 1980s One can easily make out the ends of the fluming across Sailors Gully, for Peter Moyles race. What is not now apparent, is that at one time, a pipeline was swung across the river from the Bald Hill opposite, to this side, Water was then being delivered to the sluicers on Bald Hill from the Loddon-Fryers water race... If we cross the dam [in Oven Gully] and take the little gully on the other side, which also has a dam bank across it, and ascend, we will find a well-defined road just below the ridge. We have to turn right (south)... as we pass through the low saddle, the water race on the left of the road was one used to bring the dredge feed-water into the Oven gully dam. That was water from the Loddon-Fryers system, and later on, we will see the other end of the channel. It was brought to the crown of an open, basalt-crowned hill near Glenluce spring, and crossed the Loddon valley in what must have been a long, deep invert syphon of piping. On this side, the outfall was about a half a mile or so north of this saddle. ¹⁷

c. 1980s [Tunnel at Rocky Gully, off Ridge Road, Irishtown] It is 618 feet long and cut in a fairly easily workable green slate. There is a slight bend halfway... the story of the water race began in 1865. Trial surveys from either end set the pattern, and it was intended that the race should cross the saddle at ground level, but Mr Mark Amos, who surveyed the race, did not allow for human frailty. In the cutting of the race a lot of level was lost so that the tunnel had to be tunnelled through at this depth to reach the main sphere of usage for the water on the north side of the range.

The race is 12 miles 26.8 chains long and cut with a fall of eight feet to the mile. It would have an elevation of about 250 feet above the Loddon Valley at Vaughan. At its upper end it takes water from the river just below the Kangaroo Creek junction, not so very far north of the township of Glenlyon. There are eleven flumings over valleys, including two over the river in the first mile. The total length of the flumings is about half a mile...

The flumings have 18 inch diameter pipes at the top half, and 16 this end. On this side of the range there is a smaller race cut through to Vaughan, about three miles in length, and also a small shorter race cut below the main race, to Glenluce.

It is interesting to see how the race builders of over a hundred years ago used rock walling here and searched out every barrow-load of adjacent clay for the banks of the race. There was a small bank thrown across Rocky Gully to divert water into the Vaughan race. Formerly it held six or seven feet of water...

...the outfall end of the tunnel. This is the head of Devils Gully, and one can see the Coliban Race on the right, which formerly brought the water from Fryers, and the Irishtown race heading westward...

We take the Ridge Road again, climbing higher... we leave the Ridge Road at the dam by the roadside [Hunter's Road]... We travel down this branch of Salters Creek... After a half mile or so, we leave this track, the turn-off being marked by...blaze marks on our right. We go right down into the gully, or close to it, before turning uphill again, and then southward again.

Presently we park the cars and walk down the hill to have a look at Salters Flume. The pipes are still in place, although the supporting timbers are rotting...

In 1865-70 these valleys, eleven in number, were crossed by pinewood boxing, or fluming, supported by trestle bridging. Bushfires had burnt out nearly all of this before 1937, when we put in these pipelines for the first time (my father and I relaid these lines again after the last war). Here at Salters one lone leg still stood on that far side, and we cut off the top half of that to make a supporting set from them both. Here and there are still some bits of the old timbers, mostly old bed plates used in the old sets. Some of the bridging at the far end of the race was eighty or ninety feet high in places.

Retuning up the slope to the cars, we soon come to the point, not far from the open paddocks where we turn eastwards again, down off this ridge. Turn-off is indicated by...blaze marks. Soon we rejoin Hunters Road again... Soon we cross Stony Creek, and then turn right on an old track. This will take us past the Stony Flume on our right.

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DESCRIPTION

The Loddon-Fryerstown water race was surveyed and partly constructed by Messrs Wardle and Amos in late 1860s. It was completed by the River Loddon and Tributaries Water Supply Co. by the early 1870s. The tunnel was probably constructed by the later company, although its route was surveyed by Amos. The Salter's Creek flume, and others that still exist, have been rebuilt on several occasions. The ones now surviving were re-constructed by Ray Bradfield and others in the 1940s.

Site 54.0 - Travel up Irishtown Track to the intersection with Smutta's Track. A tunnel is located on both sides (N & S) of the Irishtown Track and on the west side of Smutta's Track. Tunnel is aligned N-S and driven through slate. It measures 1.1m wide and is about 130m long. Tunnel is partly silted up, and its inside height is approx. 70cm from silt to tunnel roof.

Site 54.1 - Turn S down Hunters Road and travel about 2km. For most of this distance, the track travels E; however, after crossing Salter's Creek, it turns W. At the 2km mark, stop and walk to the creek, which is on the N side of the road, then follow the creek W for about 750m. The Salter's Creek flume crosses the creek on three sets of wooden legs, supporting the single galvanized iron pipe about 5m above the creek. The pipe is somewhat collapsed in the centre of the span. The N abutment is faced with rough bush stone and stands 1.4m high, 3.5m wide and 10m long. The S abutment is of similiar size and construction. The pipe has a diameter of 40cm (16"), and is constructed from rivetted sheets in six foot sections. These sections are bolted through lugs on the sides, and sealed with hessian. The pipe still bears traces of its outer coating of tar.

PHOTOS: Black and White

ARTEFACTS: None visible

INTEGRITY/CONDITION: Good

THREATS:

CULTURAL SIGNIFICANCE:

The site has:

Scientific Significance - The remains of the water race have considerable historic and scientific value, as they clearly illustrate an ambitious early commercial undertaking to bring water to the miners, which made extensive and uninterrupted ground sluicing possible for the first time in the District. The remains also possess aesthetic value, as their intactness and extent are evocative testimony of the inventive modification of the landscape by alluvial miners. The site covers an area of 3km x 0.5 km .

Cumulative Value - The River Loddon water race is associated with the Red Hill network of sites (Sites 53.0 to 53.15, and 119) .

Significance ranking: National Estate

CONSERVATION POLICY:

Significance comes from the intactness of the water race and the associated alluvial workings (Sites 53.0 to 53.15 and 119)

RECOMMENDATIONS FOR IMPLEMENTATION:

Site be protected and the network (Sites 53.0 to 53.15, 54 and 119) nominated for the National Estate

Assessor: David Bannear**Date: 1993**

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- 1 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
 - 2 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
 - 3 Bradfield, R.A. n.d. (c. early 1980s) Excursion to Salter's Creek' (unpublished notes)
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 - 7 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
 - 8 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
 - 9 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
 - 10 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
 - 11 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
 - 12 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
 - 13 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
 - 14 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
 - 15 Bradfield, R.A. n.d. (c. early 1980s) Excursion to Salter's Creek' (unpublished notes)
 - 16 Bradfield, R.A. n.d. (c. early 1980s) Excursion to Salter's Creek' (unpublished notes)
 - 17 Bradfield, R.A. n.d. (c. early 1980s) 'A Bush Walk from Vaughan Springs'
(unpublished notes)
 - 18 Bradfield, R.A. n.d. (c. early 1980s) Excursion to Salter's Creek' (unpublished notes)

SITE NO. & NAME: **BUTCHERS GULLY SITES**
55 Chinese House Site
56.1 Puddling Machine Site
56.2 Alluvial Adit
56.3 Puddling Machine Site
56.4 Alluvial Adit
56.5 House Site

LOCATION: **Vaughan**

DIRECTIONS: Take Porcupine Ridge Track from Vaughan.

MAP/GRID REFERENCE: Site 55: Guildford 1:25,000 - 525.829
 Site 56.1: Guildford 1:25,000 - 526.829
 Site 56.2: Guildford 1:25,000 - 526.830
 Site 56.3 to 56.5: Guildford 1:25,000 - 526.827

PARCEL NUMBER: P120405

MUNICIPALITY: Newstead

LAND STATUS: Unreserved Crown Land/proposed Castlemaine Historic Reserve

EXISTING HERITAGE CLASSIFICATION: None

PRESENT MANAGEMENT/USE: LCC Rec - J1

HISTORY:

26 Aug 1854 : Butchers' Hill and Gully are being reworked, but with only casual success - making a living, and no more. ¹

18 Jan 1855: The late rush at Butcher's Hill, promises to result satisfactory... Several claims are bottomed, and nuggets, varying from half and ounce to thirteen ounces are not uncommon. The principal workings are over Jackson's Hill, towards Kangaroo. ²

31 Aug 1855 : the hill [Ballarat] ... opened out near the head of Butcher's Gully has turned out very largely. ³

28 Sept 1855: There appears to be what may be termed three new rushes from Kangaroo. One on the side of the hill opposite to it on the southern side, where a very hard conglomerate has to be gone through. All sorts of depths prevail here from mere surfacing to sixty feet... The washing stuff (pipe-clay and small quartz gravel intermingled) lies for the most part upon a bed of sandstone, which is nearly even with Kangaroo Hill. ⁴

19 Oct 1855: On Butcher's Hill, near the Hard [Kangaroo] Hill, many are doing exceedingly well. ⁵

2 Nov 1855: The great rush seems at present to incline towards the Butcher's and Sailor's gullies; here there is a population of some hundreds recently tented. ⁶

18 Jan 1855: The late rush at Butcher's Hill, promises to result satisfactory... The flat was re-attempted last week, and gold found near the slaughteryard. ⁷

5 Feb 1856: The rush at Butcher's Hill...is a disappointment to most concerned. ⁸

June 1859: 22 puddling machines in Butcher's Gully, Sailor's Gully & Middleton Creek
 28 Chinese puddlers in Butcher's Gully, Sailor's Gully & Middleton Creek
 35 non-Chinese puddlers in Butcher's Gully
 100 non-Chinese engaged in ordinary mining in Butcher's Gully
 80 Chinese engaged in ordinary mining in Butcher's Gully, Sailor's Gully & Middleton Creek
 12 Chinese sluicing in Butcher's Gully, Sailor's Gully & Middleton Creek. ⁹

June 1859: Butchers Hill: 16 non-Chinese engaged in tunnelling; 18 non-Chinese engaged in deep hill sinking. ¹⁰

June 1859: 4 tunnels are in work. ¹¹

March 1865: Butcher's Hill - Parties crushing quartz: Thomas and Company. ¹²

1865: Butcher's Hill - Parties reporting yields from quartz crushing during 1865: Thomas and Company, Perseverance Company. ¹³

1866: Parties reporting yields from crushings of quartz tailings/cement in 1866: Perseverance Company. ¹⁴

March 1867: Sailor's Gully, Butcher's Gully, and Middleton's Creek - These localities contain a scattered population, whose means of subsistence from mining would be uncertain, the cultivation of small plots of ground being important auxiliaries to their support. ¹⁵

1867: Parties reporting yields from crushings of quartz tailings/cement in 1867: Perseverance Company. ¹⁶

June 1867: the returns for cement crushing will show a falling off in those localities which have ere now been famed for alluvial deposits. The localities referred to comprise Pennyweight, Kangaroo, Table, Butcher's, and Guildford Hills. That these hills are becoming exhausted, and the yields therefrom inadequate to pay the current rate of wages, is becoming painfully apparent. ¹⁷

Dec 1871: Middleton's Reef, Vaughan, will shortly be at work. This reef is situated in an almost entirely unprospected district, which, however, is known to abound in good reefs. ...years back such brilliant returns were obtained from this ground at a depth above water-level. ¹⁸

March 1872: Middleton's Reef, Vaughan. - A company has been formed for working this mine, and are progressing favorably. A shaft is being sunk near the old workings to strike the reef at a depth of 100 feet...

The results of this company are very anxiously looked forward to, situated as it is in a hitherto rich alluvial locality, but the reefs almost undeveloped. ¹⁹

Sept 1872: The Middleton Company, by yield from stone crushed, occupy the premier position... This company have erected a water-wheel, 20 feet in diameter and 2 feet wide at point of delivery from the buckets. The latter are 56 in number, set 12 1/2 inches apart, and 15 1/2 inches at outer angle. The buckets are of 1-inch shelving boards, holding about 7 gallons. To this water-wheel is attached pumping gear to drain their mine, which must be of vital importance to the company, notwithstanding the splendid yields heretofore obtained; but from the fact that although a comparatively small depth is yet attained, the situation of these appliances is about three-quarters of a mile south-east from Vaughan, upon the Loddon slope of Butcher's Hill, some 20 feet from water-level and 2 feet above highest known flood; it is therefore, obvious that such appliance will drain the ground above, and all quartz existing can be readily worked. It seems that a better system could not have been devised. I consider this subject of vital importance to many interested in mining, and therefore beg to dilate upon it:-

1. The advantages as exemplified, are simply an attainment of power by water (which is generally super-abundant at low levels), and by the storage and utilization of water at higher levels it follows that great benefits must accrue.
2. At the time of my visit not more than half a sluice-head (10 inches) of water was being used or delivered; this was ample to work the pumps freely and smoothly.
3. The cost of this water is £2 per week, which is little more than adequate to the feed of two horses daily, which work the wheel was doing; this is reckoning the horses as working twelve hours per day.
4. The greatest of all considerations in this power is the saving of firewood, now so important an item in reducing quartz or even alluvium.
5. The actual cost to erect a whim and pumps similar to those erected would be at least £120, to suffice for the work now being done by the water-wheel, &c.
6. It is not alone the great advantages accruing to the company from this local novelty that any basis can be founded, but a deduction can be drawn from the utilization of water as a motive-power generally.
7. I consider the water-wheel was doing the work of one horse (only 10 inches of water running at a slow rate), five revolutions per minute; this was draining the ground to a depth of 30 feet.
8. The party are supplied by water from a small water-race contouring from Middleton's Creek, with a very slight fall; indeed the race itself was cut by Nolan and Co., generally by the waterflow from the source, consequently the weight of water is slight. This can be increased immensely by widening and trimming the race to a uniform fall, when (if such is done) I am of opinion that a sluice-head of water would drain the mine to a depth of 100 or 150 feet and drive a battery of 6 heads without intermission, unless the mine makes more water. I regard this as a great epoch in our local mining history, not alone from its novelty, simplicity, or utility, but practicability generally where water can be stored to command ground of an auriferous nature. This will undoubtedly lead others to the erection of smaller wheels upon the course of the River Loddon; and not only upon the river itself but upon the aqueduct of the River Loddon Company ample scope exists, and the elevation necessary to utilize water in lieu of horses by puddling operations; and I fancy ere long plenty will follow the excellent example set by Middleton's Company. I may here remark that this water-wheel should soon command the attention it deserves; for, with a confident expectation that ere long the Coliban scheme will be completed, many of our reefs or auriferous quartz lodes now dormant can be

profitably worked; and in addition to this, an impetus will be given to mining that must ultimately lead to fresh discoveries; and further, that ere long we shall have great improvements upon this water-power appliance. ²⁰

March 1873: Middleton's Reef - From this reef excellent stone has been obtained lately at a depth of 70 feet; the stone averages in thickness eight inches. As the reef yielded well years back, when cartage and labour were more expensive. ²¹

Dec 1876: Parties puddling or sluicing - Gurr and Co., Butcher's Hill. ²²

Dec 1879 : there is now some likelihood of Middleton's Reef, Vaughan, being taken up and re-worked... Mr Edhouse, lately a resident of the Bald Hill, Vaughan, is about introducing capital into the district, having great faith in the auriferous character of certain special localities. ²³

June 1888: Brown, Viney and party at Butcher's Hill, Vaughan...are now engaged sinking a new shaft. ²⁴

March 1889: Middleton's Reef, Butcher's Hill. - This reef was discovered accidentally in sinking for alluvial deposits during the year 1871, but, although the stone was exceedingly rich to a certain extent, the discovery was valueless, so far as opening out a line of reef of a permanent character... The shaft was sunk to a depth of 50 feet... The total number of tons crushed was ten, averaging 6 oz. to the ton... The reef was abandoned after a short trial, as the auriferous stone could not be traced either in a northerly or southerly direction. ²⁵

1990: Butcher's Gully - Spencer Horner was involved, with others, in sluicing this gully. Also involved in sluicing a part of McCann's Gully. After leaving Butcher's Gully, Spencer Horner/Ray Bradfield went up Dan Smith's Gully...they sluiced that out. After Dan Smith's...went into the bottom of Nuggetty Gully and Ray Bradfield went into Red Knob. ²⁶

DESCRIPTION

The remains found in Butcher's Gully all appear to relate to alluvial mining and dwellings. The puddling machine sites probably date from the mid-1850s to 1880s. The tunnelling was probably carried between 1855 and 1867. The house sites, one of which is almost certainly Chinese, could date from any time in the 19th century, or early this century.

Site 55 - Turn-off Porcupine Ridge Road, onto track that leads to Ballarat Hill and the head of Butcher's Gully. At the end of the track, on the N side of Butcher's Gully and on the edge of the main channel, is a stone house site. This consists of two rooms, overall dimensions 6.7m by 7m. There is no sign of any fireplace. The remains are in poor condition - the walls, which are approx. 30cm thick and standing just above ground level, are constructed from rough bush stone and large pebbles bound together by thick clay. The only artefacts found were ceramic sherds of Chinese manufacture.

Site 56.1 - 100m N of the Chinese house site is a puddling machine site, in good condition, located about 5m from the main channel of the gully. The inner mound has a diameter of 2.3m, the puddling channel is 1.6m wide and 60cm deep, and the outer bank is more than 2m wide. Both inlet and outlet channels are visible on the S and N sides of the trough. The width of the puddling channel may reflect its having been dug out by later prospectors for gold (this occurred during the 1930s depression).

Site 56.2 - Above the puddling machine site, on private property (McDonald's property) in a small feeder gully running into Butcher's Gully, are several different types of sites. Immediately inside the boundary fence is a machinery site consisting of a small concrete engine block, 1.5m long, 660cm wide and 25cm high. It has four iron bolts (3/4" diameter). In front, or E, of the mounting block is a rectangular depression (1.9m by 3.3m) containing part of a square galvanized iron tank. Above the plant is a small pressure or gravity dam (constructed for hydraulic sluicing). At the head of the gully is an alluvial tunnel, driven W into Ballarat Hill.

Site 56.3 - On the S side of Butcher's Gully, is a feeder gully that runs down from Deal's property. Walking up the E side of this gully, a track is crossed and 20m further on is a puddling machine site. The inner mound has a diameter of 3.2m and the post hole is 30cm in diameter. The puddling channel is 2m wide and 60cm deep. The outer bank has been eroded in several places, but would have been over 2m wide. The puddling channel had probably been dug out by prospectors for lost gold.

Site 56.4 - On the W side of the feeder gully, near the boundary fence of Deal's property, high up on the ridge, is an alluvial tunnel driven W into the hill.

Site 56.5 - Below the tunnel are the remains of a single-roomed stone house with fireplace located in the middle of the back wall. The house is aligned E-W. The fireplace still stands to a height of 40cm; its stonework is 60cm thick. The fireplace protrudes 1.6m and is 1.5m wide. The house site has been excavated into the side of the ridge and the levelled platform is 4.3m long and 3.3m wide. The house appears to have been constructed over the top of an earlier road.

PHOTOS: Black and White

ARTEFACTS: Chinese ceramics

INTEGRITY/CONDITION: Good

THREATS:

CULTURAL SIGNIFICANCE:

The sites have:

- Cumulative Value - The alluvial tunnels and puddlers possess some scientific value as they clearly illustrate different alluvial mining methods. The house site associated with Chinese pottery has high archaeological potential.

Significance ranking: Regional

CONSERVATION POLICY:

The significance of the place come from the network of sites which illustrate various aspects of alluvial mining. The house sites, with Chinese ceramics visible, has considerable archaeological significance.

RECOMMENDATIONS FOR IMPLEMENTATION:

Sites be protected

Assessor: David Bannear

Date: 1993

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 - 23 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
 - 24 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
 - 25 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
 - 26 David Avery, David Horner and David Bannear April 1990 - Preliminary field notes

SITE NO. & NAME: **SAILORS GULLY SITES**
57 Shallow Alluvial Workings and House sites
60 Sluicing Paddock

LOCATION: **Vaughan**

DIRECTIONS: Sailors Gully runs south from Vaughan

MAP/GRID REFERENCE: Site 57: Guildford 1:25,000 - 527.812
Site 60: Guildford 1:25,000 - 529.824

PARCEL NUMBER: P120405

MUNICIPALITY Newstead

LAND STATUS: Reserved Forest /proposed Castlemaine Historic Reserve

EXISTING HERITAGE CLASSIFICATION: None

PRESENT MANAGEMENT/USE: LCC Rec - J1

HISTORY:

26 Aug 1854: Near Sailors' Gully a new rush has been made lately, and most of the holes paid well, although it was had a deep sinking. ¹

27 April 1855: Going from Fryer's Creek, the Loddon is crossed at the bottom of a narrow and very rugged gully, near the Bald hill; ascending a steep range, Sailor's Gully is reached: this has been a rich and favourite spot of the diggers in the locality of the Loddon, and is of considerable length. ²

12 Oct 1855: Within the past day or two there has been a great rush towards Sailor's Gully... A large nugget, weighing more than 7 lbs. was taken out last week of the Old Hill.. ³

2 Nov 1855 : The great rush seems at present to incline towards the Butcher's and Sailor's gullies; here there is a population of some hundreds recently tented. ⁴

16 Nov 1855: the rush is towards the banks of the Loddon and old Sailor's Gully. At that place there is great population, and daily increasing. ⁵

June 1859: 22 puddling machines in Sailor's Gully, Butcher's Gully & Middleton Creek, operated by 28 Chinese - 25 non-Chinese puddlers in Sailor's Gully
150 non-Chinese engaged in ordinary mining in Sailor's Gully
80 Chinese engaged in ordinary mining in Sailor's Gully, Butcher's Gully & Middleton Creek
12 Chinese sluicing along Sailor's Gully, Butcher's Gully & Middleton Creek . ⁶

Sept 1860: I have to report the discovery of a new reef at the head of Sailor's Gully. The discoveries have realised 2 oz. per ton from the first crushing. ⁷

March 1865: Mining population of Sailor's Gully and Middleton's: 69. ⁸

March 1867: Sailor's Gully, Butcher's Gully, and Middleton's Creek - These localities contain a scattered population, whose means of subsistence from mining would be uncertain, the cultivation of small plots of ground being important auxiliaries to their support. ⁹

1867: Parties reporting yields from quartz crushings in 1867 - J. Greenwood. ¹⁰

March 1868: Messrs. Greenwood and Co. have also made arrangements for erecting suitable machinery at the head of Sailor's Gully, near their present workings. ¹¹

June 1887: Quartz Mining. - The Liverpool and Greenwood's Reefs, Sailor's Gully, have again attracted attention. Some Melbourne speculators have recently taken up under lease two blocks of land in the locality mentioned, and have started mining operations in a *bodâ fide* manner. ¹²

Sept 1888: McLaren and party, Sailor's Gully, near Vaughan, are working on the Liverpool line of reef, which was highly remunerative in the early days; they have got a 10-horse power engine and battery of eight stampers, but at present they have an insufficient supply of water for crushing purposes. ¹³

1903: A good number of co-operative parties and individual miners have been engaged during the year, in this division, in working with alluviums ... here is also one registered public company, and two co-operative companies, hydraulic sluicing the old (said to be worked out) creeks and gullies. The public company, viz. the Loddon Gold Dredging Company, has had a fairly successful year, having sluiced 6 acres, averaging about 26 feet in depth, for a yield of 1,664 oz. 14dw. of gold, out of which £3,318 17s. was paid in wages, £1,027 10s. in fuel, and £1,250 in dividends. A bucket dredging plant is in course of erection near Vaughan, and there is talk of hydraulic sluicing plants being erected in other parts of the division. ¹⁴

1915: The Vaughan Dredging Company and a number of co-operatives parties continued to treat alluviums with satisfactory results. ¹⁵

c. 1980s We arrive at the big chimney butt, opposite Oven Gully, and the top dredge paddock. One can see signs of many habitations, along the way we have walked so far, indicating that the gully once held quite a large population.

Up here, the gully shows many signs of the puddlers, who were the last to work here on a large scale. There are 'dry-stacks', headings, overburden carted back to allow the extraction of the payable wash, left by the first miners, in their shafts and drives.

Now we come upon a puddling machines site, very much as it was left, even to the small culvert, through which the sludge flowed, allowing the horse to walk easily, in its circular track around the machine. There are not many of these sites left in such good condition, now.

Looking across the gully, you can see that the run of gold was over there, rather than on this side, here. The water-course has been 'stoned-up', so that he gully can actively erode, acting as a natural sluice, for the fossicker to clean up after winter freshets. This was common practice, but it was not always the fossicker who stoned-up the gully, who was first on the job, after the rains. ¹⁶

c. 1980s Just below the bank [in a holding dam, for Nolan's water-race, on the east side of the northern end of Sailor's Gully], and submerged under the blackberry, I think that one would still find some engine retaining bolts driven into the bedrock. These were put in by Bill McLaren and my father, about seventy years ago, when a partnership (Fred Smith and Joe Greenwell) were installing a steam-powered dredging plant, to take out Sailor's Gully. In the event, they were not permitted to take out the old dam bank, and had to move the plant above the bank, to get started.

As we go up Sailor's it is interesting to see the heads of tailings dumps, and to speculate on the great change brought about in the nature of the gully, and its ecology by this damming up...

Over on the other (eastern) side of the gully, above the old bank, are the ruins of an old hut, a tiny place, about 6 x 4. Here lived, and died, an old Chinese fossicker...

The main gully was dredged out as far up as Oven Gully. It was a rich gully in the first place, although rather patchy, over its whole length. It did not pay well for dredging.... There was a good deal of coarse gold about. Running parallel to it, on this western side, and over the low range into Sebastopol Gully, perhaps six or seven miles, there are lines of auriferous quartz reefs. Mostly small bodies of stone they were profitably worked in places, and enriched the gully, here and there along its whole tract. Greenwood's Liverpool Reef was probably the best of the quartz shows.

The best walking is on this side, and we pass by several old house sites, some of the dwellings being of some size...

A chimney...is about opposite Oven Gully, and at the top end of the last paddock. Here it can be seen that the gully is now in its original, natural form, as a fairly deep water-course...

We should cross over the watercourse here, and I call your attention to the shafts here, many of them real 'copy-book' jobs, with stone-walled washdirt paddock on one side of the shaft, and mullock on the other. All fallen in of course, and the timber frames around their 'heads', rotted out a long time ago. ¹⁷

DESCRIPTION

Sailor's Gully witnessed both alluvial and quartz mining. The long stretch of alluvial workings, and the numerous small stone fireplace, found in the tangle of gullies which form the headwaters of Sailor's Gully suggested the environment described when the gully was rushed in 1855. They are thus some of the earliest surviving alluvial workings in the two mining divisions. The lower reaches of Sailor's Gully were bucket-dredged in the 1920s.

Site 57 - The bush track leads N down a feeder gully that joins with Sailor's Gully. All along the feeder gully is a very extensive area of early alluvial workings, which continue into Sailor's Gully. They must stretch several kms N along the flat towards Vaughan, and S up Sailor's Gully into Stone's Gully. Scattered throughout the alluvial workings are many small stone fireplaces. In one location, at the junction of the feeder gully with Sailor's Gully, are three fireplaces and a forge are grouped together. The fireplaces all have stone and clay mortar walls 30cm thick, are around 1.3m wide, with side walls 1m to 1.1m. There is not a brick in sight. This spot has been well dug over by bottle hunters.

Site 60 - Near the junction of Ovens and Sailor's Gullies is the last or top dredge paddock taken out by Ray Bradfield's father, c.1920s-30s. The gully to the south of the top dredge paddock has been ground-sluiced. S along

Sailor's Gully from the top dredge paddock are numerous early alluvial workings, mainly confined to the E side of the sluiced gully. The W extremity of the alluvial workings has been sluiced away. The sluiced channel is very deep, as the men sluicing had to get through about 3 to 5m of clay before reaching the gold-bearing gravels.

PHOTOS: Black and White

ARTEFACTS: 19th century domestic rubbish unearthed by treasure hunters

INTEGRITY/CONDITION: Good

THREATS:

CULTURAL SIGNIFICANCE:

Site 57 has:

- | | |
|-------------------------|---|
| Historical significance | - The alluvial workings and stone fireplaces surviving in the tangle of gullies which form the head of Sailor's Gully hold considerable historic value because they are the scene of relatively early alluvial rush (1855) and because of the rarity of such an undisturbed and extensive area of this type elsewhere in the proposed Historic Area. These workings, due to their extent, also hold considerable aesthetic value, evoking, through their physical appearance, the human scale of the early gold-rushes. |
| Cumulative Value | - The association of the alluvial workings with a magnificent line of quartz reef workings (Sites 59.0 and 59.1) provides the area with added scientific significance, clearly illustrating the different technology involved. All the surviving mining relics combine to provide the place with an ambience of abandonment (and a sense of discovery for the visitor) that is not experienced at many of the more accessible sites.
- Sites are located in a very isolated bush setting |

Site 60 has:

- | | |
|-------------------------|---|
| Scientific Significance | - Relatively well preserved and identified dredge dam |
|-------------------------|---|

Significance ranking: **Site 57 National Estate**
 Site 60 Local

CONSERVATION POLICY:

Significance of the shallow alluvial workings in Sailor's Gully (Site 57) comes from their age, intactness and association with numerous camp sites. The place's significance is enhanced by an ambience of abandonment and isolation.

RECOMMENDATIONS FOR IMPLEMENTATION:

All sites be protected and the place (Sites 57, 59.0 and 59.1) nominated for the National Estate

Assessor: David Bannear

Date: 1993

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- 13 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions

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- ¹⁴ Annual Report, 1903
¹⁵ Annual Report, 1915
¹⁶ Bradfield, R.A. n.d. (c. early 1980s) 'Walking Tour: Sailor's Gully, Stone's Gully, Ridge
Road'
¹⁷ Bradfield, R.A. n.d. (c. early 1980s) 'A Bush Walk from Vaughan Springs'

SITE NO. & NAME: **GREENWOOD/LIVERPOOL REEFS**
58 Cyanide Vats and House Site
59.0 Greenwood's Battery /Tubal Caine mine
59.1 Greenwoods Reef workings

LOCATION: **Vaughan**

DIRECTIONS: Head of Sailor's Gully, south of Vaughan

MAP/GRID REFERENCE: Site 58 and 59.0: Guildford 1:25,000 - 528.810
 Site 59.1: Guildford 1:25,000 - 527.812

PARCEL NUMBER: P120405

MUNICIPALITY Newstead

LAND STATUS: Unreserved Crown Land/proposed Castlemaine Historic Reserve

EXISTING HERITAGE CLASSIFICATION: None

PRESENT MANAGEMENT/USE: LCC Rec - J1

HISTORY:

1854-5: Liverpool Reef, Sailors' Gully. - The bearing of this reef is N. 9° W... The reef was discovered by J. Greenwood in 1854 or 1855, and was worked from the surface to a depth of 30 or 40 feet on payable quartz. ¹

14 Dec 1860: A Splendid Yield... On Saturday, I saw, in the window of Moore Bros., Fryers Town, a cake of amalgamated gold, from the Liverpool Reef, Sailors Gully, Kangaroo, the weight of the whole thing being 275 ounces. 250 ounces of this was the produce of only six tons, the remaining 25 ounces being from refuse mineral. Greenwood & Co., the owners of the rich claim, it will be remembered, obtained about three weeks ago, 101 ounces more from 11 tons. The crushings in both cases, took place at the Vaughan Gold Mining Co.'s machine. ²

1860: The Liverpool Reef is well known in the district, situated about three miles from Vaughan township, and was originally discovered by John Greenwood, one of the early pioneers, who realized a large amount of gold in a very short time, but opened out the reef only to a very limited extent... "The ground was taken up by Greenwood and party in the year 1860, and from near the surface two or three leaders were struck realizing from 3 to 31/2 oz. to the ton. In December, 1860...a total of 274oz. of gold from 31 tons of crushing stuff." ³

Oct 1860: Liverpool Reef... situated at the head of Sailor's Gully there are four distinct leaders ... The leader at D [referring to a plan] had a shaft sunk on it some years since, which was eventually abandoned as unproductive. Sometime since, Greenwood and Company, who hold the prospecting claim were working a shaft ... and discovered the leader A ... they abandoned that shaft and sunk another new one. ⁴

Nov. 1860: From the prospector's claim on the Liverpool Reef ten tons of stone were crushed, producing (101) one hundred and one ounces of gold. This is a most astonishing yield for this district. ⁵

Dec 1860: Quartz reefs actually proved to be auriferous [include]: Liverpool Reef, 82 miners employed. ⁶

Dec 1860: The prospecting claim on the Liverpool Reef has been turning out remarkably well. Six tons of stone produced over 41 oz. to the ton and 25 tons of refuse over 1 oz. to the ton, making a total of 274 oz. of gold from 31 tons of stuff. ⁷

May 1861: By May [1861], the Mail was reporting that the gold had petered out. But Greenwood continued to work on. ⁸

Oct 1862: In October, '62 the Mail reported a return from Greenwood's reef, of 58 ounces from 25 tons, together with rich pyrites (mineral). Assays showed 1 dwt. to the pound weight, or about 100 ounces to the ton in this mineral. ⁹

1865: Parties reporting yields from quartz crushing during 1865: Thomas and Company . ¹⁰

1867: Parties reporting yields from quartz crushings in 1867: (Sailor's Gully) J. Greenwood ¹¹

March 1868: Greenwood's Reef, Sailor's Gully - Messrs. Greenwood and others having recently taken up the ground formerly occupied by J.C. Atkinson, from inquiries and observations it would appear there are many reefs of a very promising character in the neighbourhood; the want of machinery on the spot has prevented them being properly tested. Mr. Greenwood has lately had 4 tons crushed, giving 1/2 oz. to the ton, a most satisfactory result. ¹²

March 1868: Messrs. Greenwood and Co. have also made arrangements for erecting suitable machinery at the head of Sailor's Gully, near their present workings. ¹³

March 1868: Messrs. Greenwood and Co. have also made arrangements for erecting suitable machinery at the head of Sailor's Gully, near their present workings. ¹⁴

June 1868: Table showing depths of some shafts, which have been sunk during the past six or seven years -
 Liverpool Reef Depth of shaft 145 feet
 Greenwood's Reef Depth of shaft 135 feet. ¹⁵

March 1885: During the past quarter an old reef has been re-opened on the Sebastopol line, about four or five miles south from Vaughan, and probably identical with Greenwoods and the Liverpool and Body's line of reef at Kangaroo Hill. ¹⁶

June 1887: Quartz Mining. - The Liverpool and Greenwood's Reefs, Sailor's Gully, have again attracted attention. Some Melbourne speculators have recently taken up under lease two blocks of land in the locality mentioned, and have started mining operations in a *bodâ fide* manner... A great deal of prospecting has been done on the same line of reef by various parties during the past twenty years, but no permanent or payable lode has yet been discovered. There are other auriferous reefs in the neighbourhood, viz., to the south and east, but they are allowed to remain unworked and unnoticed. ¹⁷

Sept 1888: McLaren and party, Sailor's Gully, near Vaughan, are working on the Liverpool line of reef, which was highly remunerative in the early days; they have got a 10-horse power engine and battery of eight stampers, but at present they have an insufficient supply of water for crushing purposes. ¹⁸

March 1889: Liverpool Reef, Sailors' Gully. - The bearing of this reef is N. 9° W... The reef was discovered by J. Greenwood in 1854 or 1855, and was worked from the surface to a depth of 30 or 40 feet on payable quartz; the auriferous stone was, however, richer near the surface, and some 500oz. were taken out in the course of a few weeks. The ground has been taken up repeatedly during the past twenty years, and subsequently abandoned without being properly prospected. The main shaft is about 100 feet in depth, but several shafts have been sunk on the main line extending a distance of 40 or 50 chains in a northerly direction from the original prospecting claim. ¹⁹

c. 1980: Coming down again on the other side of Crimea [gully], we can see some of the quartz workings, the northern end of the Tubal Caine/Liverpool line of reef. Here it is mostly sandstone, as in the inclined shaft, and the costeans, on the southern hillside. The old hut on this side has been quite a place, actually still showing traces of its former internal plastering, and a chimney still stands...

Many companies have looked at the area in more modern times, but it is not really 'big company' mining, and in the opinion of many of the older men, now passed on, who worked in the area, there is a lot of payable stone left, in the small shows dotted along the line of reef.

As we go on, there are more costeans, we get an idea of the amount of work done. You could follow this line for another three or four miles, almost to the Porcupine Ridge. ²⁰

1990 : Tubal Cain workings - line of parallel reefs spanning two gullies (Sailors and Stones Gully; and running south across Sebastopol Gully and Browns Gully, Middleton Creek. Whole are riddled with patches of workings - well formed shafts, open cuts, costeaning, tunnels, mullock dumps and associated stone buildings. The workings run over a confusing tangle of gullies that form the watersheds of the main gullies. ²¹

DESCRIPTION & INTERPRETATION:

More historical research required. The reefs in the area appear to have been first worked by John Greenwood in 1860. After mining and prospecting for eight years, Greenwood erected crushing machinery. Little appears to have taken place at the mine during the 1870s and early 1880s. In the late 1880s McLaren and party were reported operating a 8-head stamping battery. The well preserved blacksmithy suggests that the mine was also worked during the 20th century, most probably during the 1930s.

Site 58 - On the S side of Sailor's Gully is a large earthen dam, which has been breached in the middle. The dam still holds some water. On the down or N side of the dam are four circular cyanide pits, with a diameters of 4.5m (15 ft). The pits probably had wooden sides originally, which now rotted away. There is no sign of any galvanised iron.

27m from the E end of the dam, in a NE direction, are some levelled platforms and depressions. A water race cuts through one of the platforms. There is no sign of any structures, but a few fragments of iron fire bars (from a boiler) suggest there may have been some machinery sited here.

On the ridge, above the W side of the dam, is a large stone fireplace. The fireplace is well-built, with the stone being faced on both sides. It probably belonged to a single-roomed house, and an outline of clay suggests it was of wattle and daub construction. The house was aligned E-W and would have been 4.5m long and 2.7m wide, with walls 30 to 40cm thick. The fireplace protrudes 1.1m, is 1.8m wide and stands about 2m. Up the gully, about 50m S of the breached dam, is a higher dam. On the W end of this dam are four square cyanide tanks. Each is 8ft square, and they are separated by 3ft baulks. The tanks are now mostly filled with vegetation, but their present depth is 50cm.

Site 59.0 - 10m above the square cyanide vats is a battery site. The battery footing, a 4m length of 12" x 18" timber, are just visible. The timber is decaying badly. Above the battery footing is the boiler setting. Parts of the S and N walls are visible. Some mullock (possibly part of the loading bay construction) covers some of the stonework. A square, stone-lined flue enters through the SW corner of the boiler house. This flue has side walls 30cm thick, an inner channel 50cm wide and at least 60cm deep, and it was once sealed by slabs of stone. The flue travels 44m up a hill to a circular stone chimney base. This stack base has an inner diameter of 50cm and walls 50cm thick. Seven metres S of the battery footings is a forge, 1.1m square, and 15m up the hill from the forge is a deep shaft. On the hill slope S of the chimney stack, are several deep shafts, some of which still have timber work. There is also a tramway embankment leading from a collapsed haulage adit to the battery site. Associated with the shafts is a well-built stone fireplace, the walls of which are 40cm thick, 1.2m long side walls, and 1.9m wide at the rear. The building would have faced E. In the gully below the fireplace is a blacksmith shop. The forge is in fine condition, is 1.1m square, stands 30cm, and still has its central depression containing charcoal. Bits of iron are scattered about the forge. 40cm from the S end of the forge is an anvil stump. The wood is in good condition, standing 40cm high, with a diameter of 37cm. The butts of several wooden posts surround the forge, suggesting the blacksmith shop was 3.8m wide and 5.5m long. Scraps of galvanized iron in the vicinity suggest it was a tin shed. 10m SE of the forge is a haulage tunnel. To the E, up on the next hill, is a U-shaped powder magazine consisting of an earth embankment, about 1m thick, faced on all sides with stone. The walls stand 1m high, and the internal compartment is 2.1m long and 1.15m wide.

Continuing S on the line of reef, are many patches of workings. These workings include numerous very long costeans, deep shafts (some of which still have pick-marks) and occasional tunnels and open-cuts.

Site 59.1 - Heading over the ridge, from the chimney stack base, there are some more workings and structures. The first thing encountered is a small open-cut and shaft. There is a loading bay in front of the open-cut. In the gully below are several shafts, with mullock. Associated with these workings are the remains of two structures, 5m apart and both about 5m square. The most easterly still has an inner lining of stone - its walls stand to a height of 1m and are 40- 50cm thick. There are air ports on the side walls. 80cm in front of the entrance is a small, rectangular stone structure - 2.6m long and 1.5m wide. A similiar mound is located in front of the other dug-out.

PHOTOS: Black and white

ARTEFACTS: None visible

INTEGRITY/CONDITION: Good

THREATS:

CULTURAL SIGNIFICANCE:

The site have:

- | | |
|------------------|---|
| Historical | - The site of Greenwood's late-1860s battery and workings hold historical significance in its own right as it is linked to the work of the region's pioneering prospector. The line of workings, due to their intactness and integrity have scientific value as evidence of early quartz mining and prospecting in Victoria. |
| Cumulative Value | - The association of the alluvial workings (Site 57) with Greenwoods Reef workings provides the area with added scientific significance, clearly illustrating the different technology involved. All the surviving mining relics combine to provide the place with an ambience of abandonment (and a sense of discovery for the visitor) that is not experienced at many of the more accessible sites.
- Sites are located in a very isolated bush setting |

Significance ranking: National Estate

CONSERVATION POLICY:

The significance of the place comes from its age, intactness and comprehensiveness. Its significance is enhanced by its proximity to the alluvial workings in Sailors Gully. The place also shares with the nearby alluvial workings an ambience of abandonment and isolation.

RECOMMENDATIONS FOR IMPLEMENTATION:

All sites be protected and the place (Site 57, 59.0 and 59.1) be nominated for the National Estate.

Assessor: David Bannear

Date: 1993

- 1 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions, March
1889
- 2 Mount Alexander Mail
- 3 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions, June
1887
- 4 Mining Surveyors' monthly reports, Castlemaine and Fryer's Creek Divisions
- 5 Mining Surveyors' monthly reports, Castlemaine and Fryer's Creek Divisions
- 6 Mining Surveyors' monthly reports, Castlemaine and Fryer's Creek Divisions
- 7 Mining Surveyors' monthly reports, Castlemaine and Fryer's Creek Divisions
- 8 Bradfield, R.A. n.d. (c. early 1980s) 'Walking Tour: Sailor's Gully, Stone's Gully, Ridge
Road'
- 9 Bradfield, R.A. n.d. (c. early 1980s) 'Walking Tour: Sailor's Gully, Stone's Gully, Ridge
Road'
- 10 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
- 11 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
- 12 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
- 13 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
- 14 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
- 15 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
- 16 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
- 17 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
- 18 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
- 19 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
- 20 Bradfield, R.A. n.d. (c. early 1980s) 'Walking Tour: Sailor's Gully, Stone's Gully, Ridge
Road'
- 21 David Avery, David Horner and David Bannear April 1990 - Preliminary field notes

SITE NO. & NAME: **SEBASTOPOL REEF SITES**
61 Sanger's wattle and daub house site
62 Williams and Party's battery
63.0 Water Dam
63.1 Circular Stone Structure
63.2 Sebastopol Reef workings
63.3 House sites

LOCATION: **Vaughan**

DIRECTIONS: Follow the Porcupine Ridge Track and take the Wewak Track. 300m passed the turn-off to the Loop Track take the bush track that heads N. Vaughan

MAP/GRID REFERENCE: Sites 61 and 62: Guildford 1:25,000 - 527.782
 Site 63:0 Guildford 1:25,000 - 528.785
 Sites 63.1 to 63.3: Guildford 1:25,000 - 529.786

PARCEL NUMBER: 5 of 6 Holcombe

MUNICIPALITY Newstead

LAND STATUS: Reserved Forest/proposed Castlemaine Historic Reserve

EXISTING HERITAGE CLASSIFICATION: None

PRESENT MANAGEMENT/USE: LCC Rec - J1

HISTORY:

11 Jan 1856: a serious disturbance occurred, on Friday last, at Middleton's Gully... It appears that for some months past a party of Italians, who had gained a reputation for their orderly and respectable conduct, had succeeded in lighting on several claims of a remunerative character. Their success excited the cupidity of a mob of Irishmen, by whom the claims were rushed. ¹

18 Jan 1856: The latest rush, which is creating quite a *furor* here, is at Middleton's Creek at the top of Sailor's Gully, in the direction of the Jim Crow ranges, of which these diggings are essentially a continuation. Several stores are erected there... The digging is alluvial; in long, narrow gullies. The chief drawback is the absence of water, Middleton's Creek, which is nearest to the present spot, being nearly a mile distant. About one thousand persons are already busy there... The claim there, which occasioned the recent dispute between the Irish and Italians, is believed to have washed out from one ounce to seven ounces to the tub. ²

29 Jan 1856: [Population]... Sebastopol, 1000. The last named place is situated near Middleton's Creek, at the locality where a disturbance recently occurred between the Irish and Italians. ³

5 Feb 1856: Middleton's Creek has proved a failure. ⁴

22 Feb 1856: Sebastopol (Middleton's Creek) is almost abandoned... Little remains of the late rush at Middleton's Creek but mementoes, in the shape of unclad tent-poles. ⁵

March 1877: on the old Sebastopol Reef, Middleton Creek; a party of miners (Messrs. Williams and Company) have taken up a claim there, which promises to pay very well. This small co-operative company have purchased and removed the engine and plant formerly in possession of the Cattle's Reef Company, at Fryerstown; the machinery is not very extensive or of great value, but will probably answer the purpose of the company, who will be able to crush their quartz on the spot, and thus save the serious item of cartage.

The re-working of this reef is expected to lead to the prospecting of the ranges in the immediate neighborhood the indications being highly favorable to the existence of numerous quartz reefs. Claims have already been taken up and operations commenced in the immediate locality. ⁶

June 1877: McLaren and Company, Sebastopol Reef. - Crushing operations have been carried on during the past quarter; and, although not quite answering their expectations, the yield has been of an encouraging nature. ⁷

March 1885: During the past quarter an old reef has been re-opened on the Sebastopol line, about four or five miles south from Vaughan, and probably identical with Greenwoods and the Liverpool and Body's line of reef at Kangaroo Hill...

Attention has recently been directed to the numerous parties working out gullies and flats in the vicinity of Middleton Creek, Brown's Gully, Sebastopol, &c., and it has been suggested that a large extent of auriferous land exists which would prove moderately remunerative with an adequate supply of water for sluicing purposes... as this locality was very rich in the shape of nuggets during the early days, or at the first rush, it is considered there is ample scope for mining enterprise and speculation.

Mr James Hunt, residing at the Dry Diggings, Mount Franklin, is in possession of a splendid water race, which has furnished an abundant supply of water for many years to the miners located in the neighbourhood. This water right has proved exceedingly remunerative up to the present time, but now that the old alluvial workings have become comparatively exhausted, fresh fields are sought after. Mr Hunt now proposes to supply fourteen or fifteen sluice-heads to the Sebastopol and Middleton Creek locality. ⁸

c. 1900 Ground Sluicing - Martin brought the water around from the dry diggings at Daylesford. He brought the water with him...he started digging the race after a rough survey...as he went along he sluiced out a lot of the little gullies. He also sold water to others so that they could ground sluice. Talking around the turn of the century. His water race crosses the Porcupine Ridge Track, it was a major engineering feat...and his idea was to ground sluice out Sebastopol Gully. He finally got the water through to Sebastopol Gully, down near the bottom and started sluicing. He sold water rights to Nuggetty Gully (which runs into Browns Gully, Middleton Creek). He thought it would take them 7 to 8 years to sluice out Nuggetty Gully - he would have a steady income over those years - but it turned out that the gully was very rich and so they put on lots of men and sluiced the gully out in one year. ⁹

c.1910s [Wattle and Daub hut site at head of Sebastopol Gully] - Sanger used to live in this one...he was the last declared bushranger in Australia. He had about a half a dozen huts out here in the bush and used to travel from one to the other to evade the police. ¹⁰

DESCRIPTION

The main phase of quartz working on the Sebastopol line of reef appears to have occurred in the late 1870s, probably ending sometime in the 1880s. The battery appears to have been erected by Williams and Party in 1877.

Site 61 - 100m off the Wewak track, on the S side of the road, are the remains of a wattle and daub hut. Only a faint trace of clay marks the outline of the hut. The stone fireplace still survives. There are some bricks in the rubble - all red ones, handmade, with no frog.

Site 62 - 120m W of Site 61 is a battery site, consisting of a dump of battery sand, loading bay, a stone and clay mortar engine-mounting block, and a forge. The engine-mounting block is approx. 4.5m long, 1.5m wide and stands to a height of 1.5m. Instead of iron bolts, it has four large wooden bolts (diameter 20cm) poking out from the top. 20m NW from the engine block is a forge. This forge is 1.2m by 1m and stands 70cm. The quartz workings that lie near the plant, above the loading bay to the SE, have been badly disturbed by bulldozing. There is a puddling machine site near the battery sand.

Site 63.0 - Heading down Sebastopol Gully from the battery site, at the point where the two branches join to form the main gully, is a large earthen-walled dam. There are well-defined by-passes on either end of the dam (N and S). The wall of this dam would be at least 4m high, has been breached in the middle, and is faced with stone.

Site 63.1 - 130m downstream of this dam, on the E edge of the channel, is a circular sunken feature. This feature is not well-defined, due to vegetation growth, but appears to be stone-lined (diameter of 2.7m and is 1.1m deep). The stone lining is about 1m thick.

Site 63.2 - 60m further downstream from Site 63.1, on the W side, is a haulage tunnel. This tunnel runs into the N end of a long, but relatively narrow, open cut., and connects to a deep shaft. There is a levelled platform in front of the tunnel, measuring 4m x 4m. 6m N of the tunnel is a forge, partly buried by a mullock heap. On the other side of the mullock dump, is a second forge, situated on a working platform which has a facing of stone. The forge stands to a height of 40cm and is 1.2m square. There is a scatter of bricks and iron around it. The bricks are red, handmade, and have no frog. Below is a second working platform. This one has escaped being covered by mullock and is about 20m long and 17m wide. The E side of the platform is a well-constructed stone retaining wall. There are no structural remains on this platform, but there is a deep shaft in the NW corner, and a spread of handmade red bricks. Just below the NE corner of the platform is a circular mound of stone. There is battery sand in the gully below.

Site 63.3 - On the E side of Sebastopol gully are two large stone fireplaces. The first fireplace is opposite Site 63.2. It is 2.15m wide and stands to a height of 1.5m. The stone is faced only on the inside. The surrounding area has been bulldozed rather severely. 150m to the S of the fireplace, on the easternmost arm of the twin branches that make up the head of Sebastopol Gully, is the second fireplace. It is of similar size and construction, suggesting the two are contemporary. 9m from this house is a forge, 1m square and with charcoal still in the central hole.

PHOTOS: Black and White

ARTEFACTS: None visible

INTEGRITY/CONDITION: Good

THREATS:

CULTURAL SIGNIFICANCE:

Only one site has significance by its own right. This is site 62 (battery), which has

- Scientific Significance - An early battery site with an unusual feature (instead of iron mounting bolts the engine bed has wooden bolts.)

The sites have some:

- Cumulative Value - The line of workings and associated footings, due to their intactness and integrity have scientific value as evidence of early quartz mining and prospecting in Victoria.
 - Sites occur in a rugged bush setting.

Significance ranking: Local

CONSERVATION POLICY:

None required

RECOMMENDATIONS FOR IMPLEMENTATION:

None

Assessor: David Bannear Date: 1993

- 1 Mount Alexander Mail, p2
- 2 Mount Alexander Mail, p2
- 3 Mount Alexander Mail, p2
- 4 Mount Alexander Mail, p5
- 5 Mount Alexander Mail, p4
- 6 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
- 7 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
- 8 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
- 9 David Avery, David Horner and David Bannear April 1990 - Preliminary field notes
- 10 David Avery, David Horner and David Bannear April 1990 - Preliminary field notes

SITE NO. & NAME: **SPECIMEN HILL SITES**
64.0 Specimen Hill open cut
64.1 Eldorado Co.
64.2 Renaissance Co.
64.3 Cyanide works

LOCATION: **Chewton-Fryerstown**

DIRECTIONS: 2.4km south of Chewton, east side of Fryerstown Road.

MAP/GRID REFERENCE: Chewton 1:25,000 - 560.899

PARCEL NUMBER: P121483

MUNICIPALITY Newstead

LAND STATUS: Reserved Forest/proposed Castlemaine Historic Reserve

EXISTING HERITAGE CLASSIFICATION: None

PRESENT MANAGEMENT/USE: LCC Rec - J1

HISTORY:

1852-3: In the first rush the whole of the surface was puddled and sluiced to a depth of from 12 to 18 inches with highly satisfactory results. ¹

late 1853: [At Chewton] two young diggers, who brought to the tent regularly every evening a small "billy" full of nuggets, found by sinking a hole in the creek where the ground was very wet. On inquiring where more could be obtained, they directed me to Specimen Hill, where pieces of quartz impregnated with gold were plentifully strewn on the surface. This spot was a customary Sunday resort in search of these curiosities, but, without the remotest idea of extracting the gold therefrom. ²

'1853': there had been but a large mortar on old Specimen Hill, which I carted up for a party in 1853. ³

13 May 1854: Specimen Hill & New Red Hill, Forest Creek - The former of these hills is still the scene of active mining operations, large quantities of gold having been recently taken from it, by fortunate speculators. It has acquired tragic interest by the death of the individual who was caught stealing from the claim of a Spaniard a few days ago. ⁴

1854-5: Jacob Braché was a young Prussian engineer, who was deemed slightly cranky. Near Castlemaine in 1854 he asserted that the outcrops of white quartz were richer in gold than the gravels, and if men would only help him he would prove his theory. he gathered twenty-two men from Chile and Peru, Spain, France, Italy, and England, and offered them £1 a day and a share in his venture. Braché himself had £2000 earned as an engineer in the Americas, and he bought a steam engine and Chilean mill and set them up near his quartz reef at Chewton. His was possibly the first serious attempt in Victoria to mine quartz rock systematically, and if he succeeded a more permanent form of mining would quickly spread over the goldfields.

When bullock teams hauled in his steam engine he was hooted. Many diggers feared that machinery would enable capitalists to win more than their due share of gold, and they mimicked Braché's Prussian accent and stole water from his dam and threatened to destroy his machinery. On the outbreak of the Eureka riot most of the local policemen went to Ballarat, and his cleaming engine was unprotected. He so feared the Tasmanians who camped at what he named 'The Old Lag's Settlement' that he guarded his plant all night with two armed men. His efforts to extract gold from the hard rock were so thwarted, he said, that he lost his men and money. But he did not lose his argument that gold could be profitably wrung from the reefs, and even today the Wattle Gully mine works near the scene of his failure. ⁵

5 Jan 1855: Steam Saw Mills ...Timber of all sizes, quartering of all scantlings, boards and planks of well-seasoned iron bark made on the shortest notice. F. Brache and Co., Specimen Hill, between Forest and Fryer's Creeks, head of Spring Gully and Wattle Flat

A sawing machine worked by steam engine, which is also intended to be attached to a quartz crushing machine has been erected on the Specimen Hill. The supply of sawn timber has hitherto been quite inadequate to the demand of this place. ⁶

2 Feb 1855: Notice is hereby given that the partnership lately carried on between us...in the trade or business of Quartz Crushing, Amalgamating Gold, Mining, and Sawing, at Specimen Hill, Forest Creek, and elsewhere, under

the firm of Jacob Braché and Co., has been this day dissolved by mutual consent. The undersigned, Denis Eisenstaedter, will carry on the business as usual..⁷

23 March 1855: Many persons are at present located on Specimen Hill, Spring Gully, where a store is about to be opened. Most of them are engaged in erecting puddling machines for the winter.⁸

6 April 1855: During the week we paid a visit to the establishment of Mr Eisenstaedler, at the Fryer's Creek, and were much gratified with the inspection. The machinery is driven by a steam engine of eight horse power, and is constructed on the principle invented by Dr Otway. The quartz is placed in a cast iron basin, about seven feet in diameter, and is reduced by the action of two cast iron cheeses, each weighing thirty-two cwt., which revolve on their edges in the basin. A pump, worked by the engine, supplies water to the basin, some quicksilver is added, and when the mixture is about the consistency of pea soup, it is allowed to escape through a plug hole into a steam rocked cradle. From thence, the auriferous slush is conveyed to a second cradle, which, as well as the former one, contains quicksilver. The amalgamated gold and quicksilver is then dealt with according to the ordinary process, and the water passes off to be used over again. The arrangements for economising labor, and extracting the maximum amount of work from the engine are very complete, and exhibit some ingenuity. The quartz is procured by blasting from a neighboring hill, and conveyed by trucks on a double tramroad, down an inclined plane. These trucks are so managed that the empty one is dragged up the hill for replenishment by the weight of the descending full one, and a constant supply of material is thus delivered at the machine, at a comparatively trifling cost. A saw mill is set in motion by the engine, and this forms an additional source of profit... At present, owing to a scarcity of water, the works are not in full operation; a reservoir has been dug, however, and when the rain does come, there will be plenty of water procurable in the driest season. It has been found that the quartz, in order to be effectually pulverised, requires to be broken into small pieces, and stamping machinery for this purpose is in the course of construction. The stamps will be driven by the same engine as the crushing apparatus, and will greatly facilitate the process of the extraction of the gold from the quartz. The total cost of the plant when completed will be about £3000, exclusive of labor, and the profits from the quartz crushing alone are expected to yield a handsome interest on this outlay. Pending the erection of the stamps, the machine is used for crushing cement, which yields on an average about six ounces of gold per day; greater results are expected from the quartz. The works, when in full operation, will give employment to twenty men; at present seven or eight are sufficient to keep the thing going.⁹

8 June 1855: Public Auction...at Specimen Hill, between Spring and Wattle Gulleys, Forest Creek, a Steam Quartz Crushing Machine, and Materials.¹⁰

24 Aug 1855: For Auction at the Castlemaine Auction Mart... A Quartz Crushing Machine, situate on Specimen Hill, Forest Creek, capable of crushing from 3 to 4 tons daily. The rollers are of granite.¹¹

5 Oct 1855: a great quartz reef which has been for some time worked at Specimen Hill, runs away in the usual direction towards Moonlight Flat... A short distance from the top of Spring Gully, Fryer's Creek this reef is being worked by a party (French and Italian) who rent Brache and Eisenstaedler's engine from Dr Meeers, the last purchaser. They have not cut the reef to a very great depth (20 feet or thereabout in that part)... Some are breaking up the quartz with hammers, and paying themselves from gold they can see. The party, mentioned before, cart the stones (broken up much as if done for the road by contract) to the machine, (Dr Otway's patent). A five-horse power puffer engine moves two heavy rollers in a circular engine track which fits their shape, the middle segment of a sphere. The quartz crushed partly to an impalpable powder, but mostly to a small gravel, passes into a trough underneath, and is shovelled into a long tom, a stream of water raised by the engine carries the gold through the plate to the ripple box, and the escape of any is still further provided against by several stops, which check the current before it is finally let off... The renters of the engine and crushing machine, practical intelligent men, regard the 12 cwt. rollers as a great mistake; they should have been three tons each, with very solid bearings for the basin. There is no attempt at amalgamation, and part of the gold they secure seems fine enough to float away upon the current, but the use of cowhide or sheepskin, with the hair turned against the stream, seems very effectual... The rent, fuel, oil, and other miscellaneous items for these crushing works, cost the party weekly £20. The average of 80 loads put through weekly gives a result which repays the above, pays wages and all, and leaves a satisfactory surplus... This reef is said to extend from Moonlight, across Forest Creek to Spring Gully, Blacksmith's Gully, Golden Point, Fryer's Creek, and thence, southwards towards Jim Crow.¹²

13 June 1856: Proceeding to the top of [Wattle] gully...we find ourselves on Specimen hill. Four quartz claims are being worked with variable success.

Mr Hall and party are busy crushing quartz in a machine, driven by a steam-engine of 7 horse power. This machine, we believe, belongs to Dr Mears, and is rented by Mr Hall and party, who intend we are told making considerable alterations and adding four stampers. At present they crush five tons in 12 hours. When the four stampers are attached they will be able to crush double the quantity.

Another machine is being fitted up with a small engine.

Numbers of puddling machines are profitably worked on this hill and Spring Gully. Surfacing was for a considerable length of time a most profitable occupation, Specimen Hill being decidedly the best surface hill in the neighbourhood.¹³

27 March 1857: Most successful reefs to date - El Dorado, Specimen Hill; Eureka, Poverty Gully; the Emu Reef near Spring Flat; the Old Specimen Hill Reef and the small reefs or leaders on Wattle Gully. ¹⁴

1 April 1857: Shanks and Co. - two shafts - 50 ft and 73 ft. ¹⁵

3 April 1857: Fletcher and party - 2 amalgamated claims, 2 shafts down 100 and 60 feet respectively; yields range from 20 to 50 oz per ton; stone treated in a combined Chilian mill and stamper which runs 24 hours per day. ¹⁶

Thompson and Co. - 2 amalgamated claims with 3 shafts, the deepest of which is 80 feet; crushing with a hand mortar; stone crushed recently at Shanks mill went 40 to 50 ounces per ton; purchased a one horse Chilian mill at the Wombat for 500 pounds including carriage and pumps. In operation for 2 months at 15 tons of stone per week averaging 30 ounces per ton.

Treacher and party.

Shepperd and party - shaft down 62 feet.

Robson and party - shaft down 70 feet on western face of reef; erecting Chilian mill on three Speck Creek. ¹⁷

22 May 1857: Robson and party - at 40 ft depth have struck a new lead - also previously at 72 ft (on east side of reef).

Thatcher and Party - struck gold at 30 feet on the western side of the hill. ¹⁸

17 July 1857: Treacher and Co. - working 7 ounce stone. ¹⁹

22 July 1857: Shanks and Co. - after sinking 30 ft through non-auriferous quartz, struck a new lead - getting 7 to 15 oz per ton. ²⁰

5 Nov 1858: More activity recently with crushings of debris from earlier workings at the Forest Creek mill.

Jenkins and party.

Goldsworthy and Co. - set of stamps added to their Chilian mill. ²¹

28 Jan 1859: Shanks and Co. - north of Specimen Hill. ²²

June 1859: Specimen Hill - Wilding and Co - one 5hp vertical engine, 8 stamps; crushes from 35 to 40 tons per week, 18 hours per day.

Specimen Hill - Gibbs, Pringle and Co - one 6hp beam-engine, 4 stamps and Chilian mill; crushes 13 tons in 24 hours. ²³

June 1859: Gibbs, Pringle and Co. - This was the first reported installation of a beam engine of mines in Victoria. ²⁴

June 1859: 5 puddling machines, operated by 26 non-Chinese; 28 non-Chinese engaged in ordinary mining; 30 non-Chinese engaged in quartz mining. ²⁵

June 1859: Gibbs, Pringle & Co. 126 ton crushed in past month. (This crushing, with the exception of about 3 tons, comprises the refuse quartz raised from the clay at different times and considered unremunerative.) Yield per ton - 8 dwt.

Gibbs, Pringle & Co. 31 ton crushed in past month. (This was composed of cement, running parallel with the quartz leaders.) Yield per ton - 5 dwt.

Stockdale & Co. (This party have worked from the surface to a depth of 15 feet during the past twelve months - that is previous to the past month; and they have crushed from their claims 1,350 tons, averaging 8 dwt. per ton.) Depth from surface - 120 feet.

Wilding & Co. 52 tons crushed in past month. Yield per ton - 13 dwt.

Jenkins & Co. 70 ton crushed in past month. Yield per ton - 9 dwt. Depth from surface - 80 feet.

Howard & Co. 21/2 ton crushed in past month. Yield per ton - 16 dwt. ²⁶

Nov 1859: The Eldorado have formally taken possession of their purchase. ²⁷

end of 1859: the Eldorado Company was formed with both Melbourne and local shareholders to take over and to amalgamate all the existing claims, and to pursue mining both at depth and a more substantial scale. ²⁸

6 July 1860: Eldorado Co. erecting machinery. ²⁹

27 July 1860: Agitation to improve road to Fryerstown along Wattle Gully as access to Specimen Hill. ³⁰

July 1860: El Dorado - This company have one of the largest reefs in the colony to operate on, and it seems they intend working it in a systematic manner, from the style in which they are erecting their machinery and preparing for work. They have, in addition to an eight horse-power engine, purchased of the claimholders a sixty horse-power vertical engine, to which they are attaching a battery of twenty-four head of stamps. They have also constructed two splendid reservoirs, to collect storm water, as they will have to sink at least 350 feet to get a supply of the limpid element from the lode. ³¹

10 Aug 1860: Eldorado Company - engine shed of Wilding and Co. fitted up as a retort house with tramway from tunnel to battery. ³²

August 1860: On the Emu and El Dorado the few private parties are making average wages. ³³

August 1860: Among the companies in the division, the El Dorado stands pre-eminently foremost. Their machinery have a preliminary start, and they expect next week to commence in earnest. I imagine mining speculation here will rise and fall in proportion to the success or otherwise of the El Dorado. I stated in my last month's report that the engine was of 60 horse-power; it is of 65 horse-power. The engine and stampers (24 in number) are erected on the most economic principle, but very substantial. The lifting power is somewhat different to ordinary ones. In most cases, there is an axle to every eight heads; here, however, they have separate axles for every 4 heads, keyed on the same shaft.

The ripples are on the Bendigo principle, and are fixed in such a position that when cleaned out can be run into a small Chilean mill erected for the purpose, and worked by the engine. By this process a saving of at least three-fourths of the time ordinarily required in cleaning is effected.

The pumping arrangements for supplying the stampers are as good as the position will admit of. The reservoir is 40 feet below the level of the stampers, the water is brought to the latter through a lobby (drive) or adit, and pumped from the shaft sunk on it. The stamp heads are perfectly square, and are keyed to an iron shaft. These shafts are of a style I have not seen, and are of first-class workmanship, having been forged at the foundry of Mr Chambers, Melbourne.

The arrangements for feeding the stampers with mineral are admirable. From a tunnel in the hill, laden trucks are brought by a tramway to the stampers: these are run on a traverse table, which feeds the whole of the 6 passes (shoots). ³⁴

7 Sept 1860: Eldorado Co. - awaiting copper for ripples before starting. ³⁵

Sept 1860: Eldorado Company - The splendid plant on this mine is still standing idle, with no appearance of immediate commencement of operations. It appears there is a dispute between the manager and the contractor, as to the style of ripples to be used. ³⁶

5 Oct 1860: Eldorado Co. - not yet fully at work as ripples defective. ³⁷

12 Oct 1860: Eldorado Co. - replacing Melbourne-made amalgamators. ³⁸

26 Oct 1860: Eldorado Co. - at work with 20 head; but for slight accident would have had all 60 head at work; to erect Chilian/Tyrolese mill for cleaning up; 30 men employed. ³⁹

Oct 1860: The Eldorado Reef is one of the largest quartz reefs in the colony and one of the first worked, it is of immense thickness occupying a width of from 60 to 70 feet. It underlays to the west, carrying on the west side a regular wall, but on the east is split in several branches. The western portion is the most productive part of the reef. ⁴⁰

Oct 1860: El Dorado - This has at last commenced active operations, employing 40 men, with good prospects. The machinery has been going night and day for the last three weeks; the results are not yet made public. ⁴¹

9 Nov 1860: Eldorado Co. - poor returns from crushing refuse; awaiting completion of tunnel into reef. ⁴²

23 Nov 1860: Eldorado Co. - last clean-up returned 3.5 dwt per ton; 3 dwt covers expenses. ⁴³

30 Nov 1860: Eldorado Co. - 6 dwt per ton obtained from the last crushing. ⁴⁴

Nov 1860: The El Dorado Company is working steadily, and making very fair average returns. ⁴⁵

14 Dec 1860: Eldorado Company - barely paying expenses; 30 men employed; putting through 300 tons per week. ⁴⁶

28 Dec 1860: Eldorado Co. - returns increasing; large engine not economical; little pumping required as yet. ⁴⁷

Dec 1860: Quartz reefs actually proved to be auriferous: [include] El Dorado - No. of miners employed: 50. ⁴⁸

25 Jan 1861: Eldorado Co. - William Morgan Brown, mine manager and engineer, sacked because he couldn't get returns of 5 dwt. per ton. ⁴⁹

23 Feb 1861: Eldorado Co. - earthworks on Specimen Gully reservoir now 25 feet high at the centre and partially filled with water. ⁵⁰

Feb 1861: The El Dorado Company's prospects are decidedly improving; they are making a small profit on a produce of 3 dwt. to the ton. ⁵¹

1 March 1861: Eldorado Co. - returns now 3 dwt. per ton and paying expenses; 30 oz returned from last crushing; to sink shaft to 300 ft at the northern end. ⁵²

March 1861: There is only 1 quartz claim within the area [of Fryerstown], and that employing only 4 men. This reef, although little in this particular locality, is I believe as much worked as any reef in Victoria. It is a southerly continuation of Ferron's Reef, and the latter is believed to be a continuation of Blacksmith's, El Dorado, Wattle Gully, (in the Castlemaine Division), Chewton and Sailors' Gully Reefs, and thence goes on to Barker's Creek... it is a remarkable fact that all the alluvial deposits around this line of quartz reefs have been extremely rich. ⁵³

April 1861: The El Dorado Company are busily at work, employing 38 men; their returns are very moderate, barely clearing working expenses. ⁵⁴

May 1861: The El Dorado Company promise fair to become remunerative at last. ⁵⁵

7 June 1861: Eldorado Co. - temporarily stopped to fit new false bottoms in the mortar boxes; worn out at the result of the many thousands of tons crushed by the company. ⁵⁶

June 1861: The El Dorado is idle, awaiting some repairs to the stamping machinery. ⁵⁷

24 July 1861: Eldorado Co. - company failing. ⁵⁸

13 Sept 1861: Eldorado (now Achilles) Company - new owners to let mine on tribute pending repairs to the battery. ⁵⁹

Sept 1861: The El Dorado works are still suspended. ⁶⁰

7 Oct 1861: Nightingale and Company, working Eldorado Reef (continuation) have a lease situated to the north of Blacksmith's Gully and south of Two Foot Gully. (grid ref. 560891) ⁶¹

18 Oct 1861: Achilles Co. - repairs nearing completion. ⁶²

4 Nov 1861: Achilles Co. - satisfactory returns from first crushing; Tyrolese amalgamators, the only ones in the district, working well; operating on 16 head with other 8 idle. ⁶³

22 Nov 1861: Achilles Co. - richer specimens extracted from former shaft of Gibbs Pringle and Company. ⁶⁴

20 Dec 1861: Achilles Company - operations profitable; Tyrolese mills working well; to sink a prospecting shaft 250 feet deep. ⁶⁵

Dec 1861: The Achilles (late El Dorado) Company are busily at work, and with much better success than attended their former efforts. ⁶⁶

- 17 Jan 1862: Meirs and Co. - 31 oz obtained from Specimen Hill Reef. ⁶⁷
- 31 Jan 1862: Achilles Co. - crushing with 2 heads; dams full of water. ⁶⁸
- 4 April 1862: Achilles Co. - sinking has stopped. ⁶⁹
- 6 June 1862: Achilles Co. - using novel washing contrivances to save amalgam in tailings. ⁷⁰
- 14 Nov 1862: Achilles Co. - driving eastwards in search of leaders. ⁷¹
- 14 Jan 1863: Meir and Co. - 36 oz at better than 1 oz per ton. ⁷²
- 13 Oct 1863: Achilles Co. - purchased by Mr Ross, the original Melbourne manager; Opie and Company to put in a tender to work the eastern leaders in the mine on tribute. ⁷³
- 7 Dec 1863: Achilles Co. - Opie and Co. not to take up tribute; let to Sandhurst party. ⁷⁴
- Sept 1864: I am sorry to have to report, that the machinery on the Eldorado mine, Specimen Hill, as also that of the Alexander Company, Blacksmith's Gully, has been idle during the quarter. ⁷⁵
- 23 Nov 1864: Vulcan and Co. - crushing from tunnel and deep shaft. ⁷⁶
- Dec 1864; The machinery of the Eldorado Mine, Specimen Hill, is removed to Inglewood. The removal entails a loss of crushing power to this place of equal to 60 horses. ⁷⁷
- 18 July 1865: Vulcan Quartz Mining Co. - working Fairbairn's shaft - now 270 ft deep. Prospecting on ground around Jolly's shaft. ⁷⁸
- 1866: Parties reporting yields from quartz crushings in 1866: Winterbottom and Company. ⁷⁹
- 1868: Parties reporting yields from quartz crushings in 1868: Rowland and Company, Blomfield and Company, Badcock and Company. ⁸⁰
- March 1869: Cattle's, Ferron's, Heron's, Prince of Wales, Cemetery, and Specimen Hill Reefs constitute nearly one continuous, unbroken line of reef, although there are what are denominated the eastern and western lodes, 9 or 10 chains apart, with numerous veins and leaders running at different angles between them ⁸¹
- Dec 1869: Messrs Sorensen have struck a new leader at the foot of Specimen Hill (on the Fryer's Creek side) which promises to rival many of our best reefs already opened on this line. Although this is a new lode, it is, in all probability, a continuation of Specimen Hill Reef, which has been worked to a considerable extent and depth during the past twelve years. ⁸²
- Dec 1870: Sorensen and Company have still been doing well, although at no greater depth than 30 feet. The party are about sinking a main shaft to test the ground economically at a greater depth. ⁸³
- 15 Aug 1871: Sorensen and Party, Myers and Co. ⁸⁴
- 4 Sept 1871: Thyra and Co. - prospectus issued - ground to be three old leases (20 acres in all). One of the leases is Sorensen's. ⁸⁵
- 10 June 1872: Bendigo Co. - the tunnel is progressing slowly. ⁸⁶
- June 1873: The Thyra Company, at Specimen Hill, have struck very promising stone at the 240-foot level - this may lead to the testing of ground both north and south at greater depths than hitherto. ⁸⁷
- 10 Feb 1874: Thyra Co. - This company is now working a shaft near the crown of the hill - by windlass. ⁸⁸
- 16 Feb 1874: Thyra Co. - have timbered old shaft. ⁸⁹

March 1875: The Daphne, near Specimen Hill. - The machinery and plant of this company is now being removed ... the company have been persevering for a long period without obtaining anything satisfactory. ⁹⁰

13 Nov 1876: Sorensen (late Thyra Co.) - 21 oz 19 dwt. ⁹¹

Dec 1876: Parties reporting yields of gold from quartz crushed: Sorensen and Co., Specimen Hill. ⁹²

March 1877: Sorensen and Company, Specimen Hill, have sunk a new shaft 120 feet deep. ⁹³

1 Oct 1877: Thyra Co. mine being worked by Sorensen and Co. ⁹⁴

2 Dec 1878: Renaissance Co. - Besides its water power, the company has purchased the plant of the Chewton United Co. [Chewton Reef] ⁹⁵

1879: In 1879, as the result of the proximity of the recently constructed Poverty Gully water race at the northern end of Specimen Hill, further attempts were made to rework the ground on a large scale. ⁹⁶

10 Jan 1879: Renaissance Co. - Advertising for a water wheel. ⁹⁷

14 April 1879: Renaissance Co. - Shaft to be set in thorough order to 220ft - will work the mine on the same principal as New Era (i.e. crushing all stone for low grades). ⁹⁸

June 1879: Renaissance Quartz Mining Company, Specimen Hill. - This company, recently formed, and under able management, is making great preparations for an extensive and comprehensive system of working the old ground. Thousands of tons of quartz have been crushed from the various workings on this hill during the past twenty years, and in some instances the yields have been exceedingly rich. Expensive machinery has been erected and removed at various times with more or less profit to the companies who have invested large amounts of capital under different systems of management. The present company have great faith in the ultimate success of their endeavors, and an outlay of £4,000 will be incurred in order to complete the undertaking, comprising erection of machinery, plant, &c. A 20-head battery is now being erected, which is to be driven by water-power derived from the Coliban aqueduct, which runs near the company's claim; thus stone of an inferior quality will be made to pay for crushing on an economic mode of operation. If the Coliban waters can be utilized for such purposes in a satisfactory manner, a new era will be commenced in connection with quartz crushing highly advantageous to the mining public. ⁹⁹

17 July 1879: Renaissance Co. - On May 17th your directors accepted the tender of Thompson and Co. for the supply and erection of a 20-head battery, and a water wheel 20 feet in diameter and 6 feet wide, for the sum of £1395 and the old battery. ¹⁰⁰

Sept 1879: Renaissance Company, Specimen Hill. - The water wheel alluded to in my last report has been placed in position, and it is expected to start in a few days; in the meantime the battery of 20 heads is being worked by steam power, so that it may be stated active operations have commenced. A vast quantity of stone can be easily obtained, and can be made to pay by cheap crushing. The success of this company will materially influence the future prospecting and development of the large extend of auriferous ground lying to the south and connecting with the Anglo-Australian and New Era Companies' works. ¹⁰¹

6 Oct 1879: Renaissance Co. - Machinery completed, and crushing commenced. ¹⁰²

1879-1887: Towards the end of 1879 Jessen (or Jensen) and Company began sluicing at Specimen Hill. Over the next eight years, together with Oban (or Ohan) and party who started operations in March 1887, they removed some 29,000 tons of washdirt to a depth of between one and 12 feet over quite extensive areas - evidently from the western and southern slopes of the hill - and obtained 347 ounces of gold. ¹⁰³

March 1880: Renaissance Company, Specimen Hill. - The mining manager reports that the various crushing trials have not hitherto proved satisfactory, but he anticipates improved prospects in the course of a short time. Everything connected with crushing and winding is accomplished by water-power; and there is no expense for firewood, as steam-power is used. ¹⁰⁴

26 Jan 1881: Renaissance Co. - Work in the mine has suspended owing to a dispute with Thompson and Co. re. payment of battery and water wheel. [Work recommenced soon after] ¹⁰⁵

20 Jan 1882: Renaissance Co. - With a view of effecting a saving in the cost of water for battery purposes, your directors had a dam constructed, so as to use the water over again, and succeed in obtaining a reduction to one half the former cost. The tribute let to Brown and party expired in the beginning of November, and as the yield during the preceding six months had somewhat improved, your directors considered that the best mode of making the mine pay would be by letting it on tribute again on a more extensive scale, so as to keep both batteries fully employed, and having obtained your sanction for letting it for two years, a specification was prepared and applications invited. The tender of Dial and Barnes was accepted on the following terms:- The company to wind, crushing, and provide timber, the tributers to employ at least 12 miners and the necessary truckers and landers. ¹⁰⁶

March 1882: Renaissance Company, Specimen Hill, Chewton. - The ground occupied by this company was formerly very rich near the surface, and some thousands of pounds have been spent on machinery at different periods. The present yield is only 1 dwt. to the ton, but the mining manager reports that 1 1/2 dwt. to the ton would pay wages and working expenses. It is somewhat remarkable that pieces of gold, varying in size from 1/4 oz. to 1 oz., are occasionally found under the stamp heads. ¹⁰⁷

Sept 1882: arrangements are being made by Messrs. Hazlett and party for sluicing all the old workings between Specimen Hill and Church's Flat. A race has been surveyed and levelled for about four miles, following a contour at a very high elevation, with a fall of 8 feet in the mile. Small dams will be constructed at suitable places along the course. The Coliban water is to be used, and taken from the aqueduct a little above the Renaissance Company's works, Specimen Hill. It is not expected that a large supply of water will be available, nevertheless it is presumed that, by prudent economy, a considerable quantity can be stored in small reservoirs during the night and judiciously distributed during the day. It is well known that the old gullies were exceedingly rich during the early days, and that although the tub and cradle and puddling machine have done much towards clearing away the rich alluvial deposits, sufficient gold is still left to remunerate the sluicer, whose expenses will be but trifling, with a moderate supply of water at command. ¹⁰⁸

Dec 1882: Messrs. Hazlett and party have made a fair start in sluicing the old shallow gullies and workings along the course of the new race from Specimen Hill... The race, which has been surveyed for about four miles, has been cut to the extent of about one mile. ¹⁰⁹

Dec 1882: A new rush has recently taken place on the Cemetery line of reef, Two-foot Gully, near Specimen Hill... About three months ago, the ground was occupied by Conrad Frank... Mr E. Petersen, of Specimen Hill, was the first to take possession of a portion of the leased ground immediately after forfeiture. ¹¹⁰

2 April 1883: Renaissance Co. - Extraordinary meeting - company voluntarily wound up. ¹¹¹

March 1887: Oban (or Ohan) and party started sluicing operations in March 1887. ¹¹²

March 1887: Not worked at present - 1438 oz taken from 14,462 tons of stone at depths between 10 and 110 feet. ¹¹³

March 1889: Specimen Hill, Chewton. - No reliable particulars touching the early history of this reef can now be obtained, but certain traditional information is so far available, conveying an idea of the extraordinary yields of gold taken from the surface to a depth of 40 feet. Some thousands of ounces were obtained by different parties from 1855 to 1860. From 1867 to 1883, no properly organized system of working the ground has been carried out. There is an open cutting on the hill, 10 or 12 chains in length, running north and south; on the eastern and western sides, large blocks of quartz are exposed to view lying horizontally, which show that large quantities of stone have been excavated from the intermediate spaces, and proved more or less auriferous... The bearing of the main line of reef is N. 3° 30' W... The ground is occupied at the present time (March 1889), but not being worked, the present lessees evincing a great antipathy to engaging in active mining operations. ¹¹⁴

Feb 1900: Shaft being sunk 200 feet west of the open cut. ¹¹⁵

1903: the ground was all occupied by the Specimen Hill Company which had a main shaft south west of the open cut and another on the south east side of the hill... the company does not appear to have been successful as there are no reports of production between 1903 and 1918. ¹¹⁶

1903: Considerable amount of time and money spent on prospecting shallow levels without payable results by the present company. ¹¹⁷

1918: Government battery erected at the NW corner of Specimen Hill adjacent to Fryers Road at the close of the year. ¹¹⁸

1935: The main shaft [Specimen Hill Co.] was subsequently used by the South Wattle Gully Company in 1935. ¹¹⁹

1948: Last reported crushing at the Government battery on Specimen Hill. ¹²⁰

DESCRIPTION

Peter Milner (1989) designated the following sites as relating specifically to historic mining activities at Specimen Hill [they are arranged more or less in order of importance].

1. the open cut
2. the entrance to the adit
3. the shaft site and machinery foundations at the Eldorado mine
4. the shaft site, machinery foundations, dam and mullock dump at the Renaissance mine
5. Sorensen's workings at the south end of Specimen Hill
6. the areas of sluiced ground to the south and west of the open cut
7. the shaft site, machinery foundations and mullock dump at the South Wattle Gully mine
8. the site of the Government battery.

At none of these sites is there now any machinery, plant or equipment. The only pieces which have survived within the area are the remains of a poppet head pulley - presumably left after the head frame of the South Wattle Gully shaft was removed - and a corrugated iron cyanide vat. This is the only one of a set of four which had been installed there at some time. It may have been part of the South Wattle Gully installation in the 1930's, or it may have been constructed after 1945 to reprocess some of the tailings.

PHOTOS: To be taken

ARTEFACTS: poppet head pulley

INTEGRITY/CONDITION: Poor

THREATS:

CULTURAL SIGNIFICANCE:

Site 64.0 to 64.2 have:

- | | |
|-------------------------|--|
| Historical significance | <ul style="list-style-type: none"> • Specimen Hill has considerable historic significance, being the site of many firsts with respect to quartz mining technology: • some of the earliest quartz workings in the Mining Division (1852-3) • the earliest extant steam-powered quartz crushing machinery in the Mining District (late 1854) • the first beam engine installation in Victoria (1859) [Milner: 50: 1989] <p>Specimen Hill still retains some physical remains that form a sequence detailing several phases of working. However, like Quartz Hill, the locality's history is attested to primarily by documentary sources, rather than by traces remaining on the ground. Excavation of the site of the earliest beam engine installation may yield information of some scientific value.</p> |
|-------------------------|--|

Site 64.3 has:

- | | |
|-------------------------|----------------------------|
| Scientific Significance | - Remains of cyanide works |
|-------------------------|----------------------------|

Significance ranking: All sites have local significance

CONSERVATION POLICY:

None required

RECOMMENDATIONS FOR IMPLEMENTATION:

None

Assessor: David Bannear

Date: 1993

¹ Milner, P. 1989 Mining Sites in Specimen Hill Area, for Newmont

- 2 Hughes, J.F. (30 September 1887) in Records of the Castlemaine Pioneers, Rigby Ltd.,
1972, p3
- 3 Gaulton, W. (24 June 1881) in Records of the Castlemaine Pioneers, Rigby Ltd., 1972,
p26
- 4 Mount Alexander Mail, p 3
- 5 Milner, P. 1989 Mining Sites in Specimen Hill Area, for Newmont, p64
- 6 Mount Alexander Mail, pp 1-2
- 7 Mount Alexander Mail, p5
- 8 Mount Alexander Mail, p2
- 9 Mount Alexander Mail, p3
- 10 Mount Alexander Mail, p3
- 11 Mount Alexander Mail, p1
- 12 Mount Alexander Mail, p2
- 13 Mount Alexander Mail, p6
- 14 Mount Alexander Mail, as summarized in Clive Willman collection
- 15 Mount Alexander Mail, as summarized in Clive Willman collection
- 16 Milner, P. 1989 Mining Sites in Specimen Hill Area, for Newmont
- 17 Milner, P. 1989 Mining Sites in Specimen Hill Area, for Newmont
- 18 Milner, P. 1989 Mining Sites in Specimen Hill Area, for Newmont
- 19 Milner, P. 1989 Mining Sites in Specimen Hill Area, for Newmont
- 20 Mount Alexander Mail, as summarized in Clive Willman collection
- 21 Milner, P. 1989 Mining Sites in Specimen Hill Area, for Newmont
- 22 Mount Alexander Mail, as summarized in Clive Willman collection
- 23 Mining Surveyors' monthly reports, Castlemaine and Fryer's Creek Divisions
- 24 Milner, P. 1989 Mining Sites in Specimen Hill Area, for Newmont, p8
- 25 Mining Surveyors' monthly reports, Castlemaine and Fryer's Creek Divisions
- 26 Mining Surveyors' monthly reports, Castlemaine and Fryer's Creek Divisions
- 27 Mining Surveyors' monthly reports, Castlemaine and Fryer's Creek Divisions
- 28 Milner, P. 1989 Mining Sites in Specimen Hill Area, for Newmont, p8
- 29 Mount Alexander Mail, as summarized in Clive Willman collection
- 30 Milner, P. 1989 Mining Sites in Specimen Hill Area, for Newmont
- 31 Mining Surveyors' monthly reports, Castlemaine and Fryer's Creek Divisions
- 32 Milner, P. 1989 Mining Sites in Specimen Hill Area, for Newmont
- 33 Mining Surveyors' monthly reports, Castlemaine and Fryer's Creek Divisions
- 34 Mining Surveyors' monthly reports, Castlemaine and Fryer's Creek Divisions
- 35 Milner, P. 1989 Mining Sites in Specimen Hill Area, for Newmont
- 36 Mining Surveyors' monthly reports, Castlemaine and Fryer's Creek Divisions
- 37 Milner, P. 1989 Mining Sites in Specimen Hill Area, for Newmont
- 38 Milner, P. 1989 Mining Sites in Specimen Hill Area, for Newmont
- 39 Milner, P. 1989 Mining Sites in Specimen Hill Area, for Newmont
- 40 16 October 1860 Mines Department map, ref. 1290/S/1
- 41 Mining Surveyors' monthly reports, Castlemaine and Fryer's Creek Divisions
- 42 Milner, P. 1989 Mining Sites in Specimen Hill Area, for Newmont
- 43 Milner, P. 1989 Mining Sites in Specimen Hill Area, for Newmont
- 44 Milner, P. 1989 Mining Sites in Specimen Hill Area, for Newmont
- 45 Mining Surveyors' monthly reports, Castlemaine and Fryer's Creek Divisions
- 46 Milner, P. 1989 Mining Sites in Specimen Hill Area, for Newmont
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- 48 Mining Surveyors' monthly reports, Castlemaine and Fryer's Creek Divisions
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61 7 October 1861 Mines Department map: Castlemaine Mining District, Fryer's Creek
Division

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103 Milner, P. 1989 Mining Sites in Specimen Hill Area, for Newmont, p9
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SITE NO. & NAME: **GERMAN GULLY**
65.0 German Gully puddlers
65.1 Tarrs Reef workings
65.2 Hands Across the Sea Co.
65.3 Golden Hill Co.
65.4 McDonald's Reef Co.

LOCATION: **Off Fryers Town-Campbells Creek Road**

DIRECTIONS: Tarrs Reef Workings - Head of Hectors Gully, west arm of German Gully
Hands Across the Sea Co. - Head of German Gully, east of Eureka Road.
Golden Hill mine - Located on east side of gully, between Hands Across the Sea and McDonald's Reef mines.
McDonalds Reef mine. North of Golden Hill mine site.

MAP/GRID REFERENCE: German Gully puddlers: Castlemaine 1:25,000 - 535.876
Tarrs Reef Workings: Castlemaine 1:25,000 - 536.881
Hands Across the Sea: Castlemaine 1:25,000 - 534.881
Golden Hill Co.: Castlemaine 1:25,000 - 532.876
McDonalds Reef Co. : Castlemaine 1:25,000 - 834.885

PARCEL NUMBER: P120432

MUNICIPALITY Newstead

LAND STATUS: Sites 65.0 to 55.3 on Reserved Forest/proposed Castlemaine Historic Reserve. Site 65.4 on Freehold Land

EXISTING HERITAGE CLASSIFICATION: None

PRESENT MANAGEMENT/USE: LCC Rec - J1

HISTORY:

10 June 1854: Pearce Martin was charged by one Joseph Savey, of German Gully, Fryer's Creek, with threatening to blow his brains out. Defendant...said he was unfortunately encircled by bad neighbors, who had intruded very unceremoniously into his tent. ¹

26 Aug 1854: German Gully has a very healthy appearance, and something appears to be doing on, if one may judge from the increased number of tents there. The diggers there have traced the line of gold up a blind gully, running due north in the direct route for Castlemaine, and, in most cases, are earning a livelihood, as they are sticking close and constantly at their work there. ²

9 March 1855: A new rush has taken place on a quartz hill, German Gully. The holes not being yet bottomed, the result is unknown. ³

22 June 1855: .it is generally supposed that the whole neighborhood of German Gully will be profitably worked this winter. ⁴

22 June 1855: Mr Denis O'Callaghan, Storekeeper, German Gully, Fryer's Creek. ⁵

13 July 1855: Several leases of quartz reefs have been taken out in German Gully. ⁶

30 Nov 1855: There have been disturbances with [the Chinese] in Mopoke Gully, and German Gully, on account of water ⁷

7 Dec 1855: Mr Buttler, storekeeper, German Gully, Fryer's Creek. ⁸

4 Jan 1856: [For Sale] Quartz Reef, German Gully, Fryer's Creek - yielding from 10 to 15 oz. to the ton. Together with one Berdan's One-horse Crushing and Amalgamating Machine ⁹

April 1859: In German Gully a new reef has been opened, styled the 'Cornish Reef.' This is not a reef in reality, but simply a series of small leaders, running at different angles of inclination from the surface. ¹⁰

June 1859: 16 puddling machines, operated by 64 non-Chinese; 170 non-Chinese involved in ordinary mining

30 non-Chinese involved in quartz mining ¹¹

April 1859: In German Gully a new reef has been opened, styled the 'Cornish Reef.' This is not a reef in reality, but simply a series of small leaders, running at different angles of inclination from the surface. ¹²

May 1859: This reef, from its first being worked, promised well, not only in the prospecting claim, but in three or four others adjoining, and in every claim gold has been struck. Since my last Report, the average yield has been from 2oz. to 3oz. to the ton. This yield has so far satisfied the parties that it would not answer their purpose to sink deeper in search of richer veins. A party next to the prospecting claim have recently discovered a leader at a depth of 24 feet from the surface. This vein commenced at about 1 inch in thickness, gradually increasing to 3 feet... The stone from this surpasses any in richness ever discovered in the district. It is calculated to yield from 30oz. to 40oz. to the ton. The stone is coated with a layer of slate, and loose gold has been found imbedded in it to the depth of 1 inch. In a dishful of this conglomerate half an ounce of gold was washed at a trial. ¹³

June 1859: Prospecting claim (the best crushing from this reef has been 5 oz. to the ton, 17 3/4 oz. from 31/2 tons).
Yield per ton - 1 oz. 5 dwt. Depth from surface - 10 feet.
Young & Co. Yield per ton - 2 oz. Depth from surface - 20 feet.
Neale & Co. Yield per ton - 2 oz. Depth from surface - 35 feet.
Baxter & Co. Yield per ton - 1 oz. Depth from surface 50 feet. ¹⁴

July 1859: [Table of monthly crushings] lists Prospecting Claim and Dunne and Co. ¹⁵

The Cornish and Spanish Reef, which some time since promised to turn out exceedingly well, is almost entirely abandoned, only two or three parties working on it. ¹⁶

Dec 1860: Auriferous reefs include Cornish and Spanish Reef, 20 miners working ¹⁷

July 1861: Quantity of quartz crushed last month lists - Tarr and Company, Dunn and Company, and Gingell and Company as working Cornish Reef. ¹⁸

Sept 1861: Companies/parties crushing quartz in past month : Tarr - 4 ton crushed for 16 dwt. gold ¹⁹

Sept 1861: Tarr and Company [have had a good crushing] from the German Gully Reef. ²⁰

1865: Parties reporting yields from quartz crushing during 1865: Alliance Company ²¹

Sept 1872: The Eagle Company have a small lease in German Gully, upon Tarr's Reef, which was opened some seventeen years back, and excellent returns obtained. The present company...have obtained the excellent yield of 3/4 oz. per ton, which seems to be sufficient inducement for erection of a crushing plant in this locality; a want much required, as the gully is noted for its auriferous character of gold-bearing stone. ²²

June 1873: The old Cornish and Spanish reef, about 30 chains south of the Eagle Company, has been taken up by a party of Sandhurst miners, who have every faith that the excellent returns years back to water level was sufficient to justify them in seeking gold at greater depths. ²³

June 1872: Wilson and McDonald, whose lease is situated in German Gully, about half-a-mile north of Chapel Hill, have had an excellent crushing of 11/2 ozs. to the ton from a hitherto unexplored lode. The depth of sinking is about 90 feet. This, in addition to the fine and regular yields they had at shallower depths, shows their claim to be very valuable. ²⁴

Sept 1872: The Eagle Company have a small lease in German Gully, upon Tarr's Reef, which was opened some seventeen years back, and excellent returns obtained. The present company...have obtained the excellent yield of 3/4 oz. per ton, which seems to be sufficient inducement for erection of a crushing plant in this locality; a want much required, as the gully is noted for its auriferous character of gold-bearing stone.
McDonald and Wilson, German Gully, at a depth of 25 feet, have averaged over 2 ozs. per ton; this lease is situate about 4 chains west of the Eagle or Tarr's line, and about 50 chains south; generally supposed to be a continuation of the old Chapel Hill Reef. ²⁵

June 1873: The most noticable feature in the past quarter being the yield from the Eagle Company, situated at the head of German Gully, which gave the excellent average of 14 dwts. per ton at water level...This has led to the

occupation of the ground south, and a determination on the part of the proprietors to prosecute their labors vigorously. ²⁶

June 1873: it is contemplated by a company who now hold the Old Chapel Hill ground to provide for the erection of a crushing plant for public purposes in connection with their mine - a more central position could not be proposed, seeing the excellent returns from Wilson and McDonald's, the Eagle, and those of the Little Nugget, near New London, all of whom cart to, and crush at, Small's, in Fryerstown; cartage costs therefrom 4s. per ton, hence it is obvious that a great impetus would be given to quartz mining by the erection of the plant proposed. ²⁷

June 1875: Kaiser and Co., adjoining [Wilson and McDonald's], south, obtained 151/2 ozs. from 11 tons, being 1 oz. 8 dwts. and more to the ton, at a depth of 40 feet ²⁸

Sept 1876: Some of the puddling machines have done very well of late; one in particular, situate in German Gully, Pennyweight, gives a return of 210 ozs. for the past three months, thus showing the old abandoned workings are still worthy of notice ²⁹

Dec 1876: Parties puddling or sluicing: Vosti and Co., German Gully ³⁰

June 1881: McDonald and party, German Gully. - This small party have been working with varied success for many years past, sometimes moderately payable, at others unremunerative; at the present time quartz is being raised and crushed...which is likely to yield 3/4 oz. to the ton. This locality has not received that attention in respect to its mineral wealth which it undoubtedly deserves at the hands of the mining investor and speculator ³¹

Dec 1881: McDonald and Wilson, German Gully, are working two lease blocks ³²

March 1882: McDonald and party, German Gully, are still making fair wages, having been engaged working the claim for nearly twenty years past... The reef which they are working is presumed to be on the same line as the reef at Chapel Hill, where a company has recently been started. ³³

June 1884: McDonald and party, German Gully, continue to find payable stone in their claim... There is plenty of new ground in the immediate neighbourhood, both north and south, which would in all probability pay for prospecting ³⁴

March 1885: McDonald's claim has turned out exceptionally good, 2oz. to the ton being the average yield from 16 tons crushed ³⁵

June 1885: A party has recently found payable gold in a reef cropping from the surface, near the Old Eagle Company's claim, German Gully ³⁶

Sept 1885: Messrs. Sheehan and party, of German Gully...crushing returns give an average of 11 1/4 dwt. to the ton. ³⁷

March 1889: Cornish and Spanish, German Gully Hill. - This reef was discovered in the year 1858, by Coleman and Cross, who realized 1,000 oz. from a series of crushings, the leader was about 6 inches wide, and depth from surface, 60 feet. Dunn and party crushed 7 tons for 36oz., 20 feet in depth, the leader from 1 inch to 6 inches in thickness. The claim adjoining the prospectors proved very rich to a depth of 24 feet... The bearing of the reef is N. 4° W... There are two principal shafts, 100 and 120 feet respectively. There has been no prospecting done since 1867, which requires special notice. The reef has been abandoned, owing to the hardness of the rock in sinking and driving. ³⁸

March 1889: McDonald and Party, German Gully. - A large extent of ground has been worked by this party with varying success, the driving and sinking having proved exceedingly hard... The strike of the main line of reef is N. 1° 21' E... There are two shafts, of 170 feet each... The yields at various depths are as follows:- to 20 feet, 284oz.; to 100 feet, 596oz.; to 150 feet, 342oz.; to 200 feet, 55oz.; to 300 feet, 4oz.; 1,647 tons averaging 16dwt. to the ton... The reef is abandoned, the party not being able to prospect for new shoots of gold...

Eagle Reef Company, German Gully. - This reef was opened out in 1857 by R. Dunn and party, who realized 20oz. to the ton. M. Roberts and party got 7oz. to the ton from shallow workings, the leaders being about 18 inches in thickness. The reef bears N. 5° W.... There have been several shafts sunk on the line, the main shaft being about 150 feet in depth; there is also an open cutting, 140 feet long by 30 feet deep. A great deal of prospecting has been done in the locality, but nothing of a permanent character in the shape of a lode has yet been discovered... During the years 1872 and 1873, 188 tons were raised and crushed from the 120 and 150-foot levels, averaging 181/2dwt. to the ton... The reef has been abandoned for a long time, partly from its being comparatively unknown to the mining speculator. ³⁹

June 1891: A party of miners from Broken Hill have taken up 30 acres of ground at German Gully, and they intend re-working the old Pennyweight Hill by sluicing. ⁴⁰

March 1898: Chapel Hill Extended Co.: 7 ton crushed, 2dwt gold ⁴¹

June 1898: Chapel Hill North Co.: 45 ton crushed, 30oz gold ⁴²

1902: Hands Across the Sea - 3086 tons mined, average yield 4.7 dwt/ton, total yield 732 oz. ⁴³

1903: The Hands Across the Sea and the McDonalds Reef Companies have suspended operations for sometime, and I am afraid the possibilities of an early resumption are somewhat remote. ⁴⁴

1903: Hands Across the Sea - 4640 tons mined, average yield 1.1 dwt/ton, total yield 256 oz ... The Hands Across the Sea and the McDonald's Reef Companies have suspended operations for some time and I am afraid the probabilities of an early resumption are somewhat remote. Neither of these mines has been anything like thoroughly tested. ⁴⁵

Dec 1904: German Gully Hydraulic Sluicing Co.: [listed] ⁴⁶

1907: The Golden Hill Company commenced the year with very bright prospects, but during the second half of the year the shoot of golden stone appears to have been lost. ⁴⁷

March 1908: McDonald and Co./ McDonald's Reef Co.: 42 ton crushed, 9oz gold - A.G. McDonald, Chewton, Legal Manager [10]

1909: The New Golden Hill Company has been working on a strong body of stone within . 50 feet of the surface, from which a number of highly payable crushings have been taken. ⁴⁸

1910: Prospecting work has been carried on by the Golden Hill Company, but without success. ⁴⁹

Sept 1910: German Gully Hydraulic Sluicing Co. ⁵⁰

1911: The ground formerly held and abandoned by the Golden Hill Company has been taken up by a syndicate, and two men are now endeavouring to locate the lost shoots of payable stone. ⁵¹

1912: Mining in this division has continued to be very dull throughout the year, and I regret to report with no indication of an early revival ... The Golden Hill Syndicate, after finding some payable stone, suspended operations, and endeavored to float a company without, so far as I can learn, having so far succeeded. ⁵²

June 1913: German Gully Hydraulic Sluicing Co.: 30oz gold ⁵³

1913: McDonald and Co./ McDonald's Reef Co.: 4 head battery. ⁵⁴

1913: The New Golden Hill Company has had an unsuccessful year, having failed to find the downward continuation of the rich stone formerly worked.

The McDonald's Reef Company was successfully floated late in 1913, with the object of further testing the well-known McDonald's line of reef. A winding plant is being erected to unwater the main shaft which was sunk some years ago to a depth of between 200 and 300 feet. ⁵⁵

Sept 1913: German Gully Hydraulic Sluicing Co.: 42oz gold . ⁵⁶

Dec 1913: German Gully Hydraulic Sluicing Co.: 10oz gold ⁵⁷

1914: The McDonald's Reef Company completed the erection of a winding plant, sunk the main shaft a further depth of 80 feet, crosscut east and west to the lode channels, and drove north and south on the line of reef with unsatisfactory results. ⁵⁸

1914: McDonald and Co./ McDonald's Reef Co.: Winding plant erected. ⁵⁹

1915: McDonald's Reef Company suspended operations during the year.⁶⁰

DESCRIPTION & INTERPRETATION:

German Gully Alluvial Workings - both puddlers probably date to the mid to late 19th century.

Below (west) of large dam which still retains water is a weathered-looking puddler. The puddler has a diameter of 22ft and its inner mound (no pivot post) and trench is well defined. The gully below has been deeply sluiced.

150m north of the large dam is another weathered puddler

Quartz workings - To the south of the dam is a patch of quartz workings consisting of closely packed both round and rectangular holes. The shafts have been filled and are located approx. 8m apart.

Tarrs Reef Workings - reef first worked in the early 1860s

Workings located at the head of Hectors Gully and consist of narrow open cut which has been partially filled; several partially bulldozed mullock paddocks and some small costeans.

Hands Across the Sea Co. - late 1890s to 1907

Site consists of a small intact mullock heap, approx 6m high and 15m in diameter. The filled shaft (slightly collapsed) appears to be a 3-compartment one. To the north of the mullock heap, is a 5m square excavated platform containing a small concrete engine bed with 1/2in mounting bolts. The partly buried concrete bed is not aligned with the shaft and measures 6 x 2-1/2ft. A stone blacksmith forge is visible on the south side of the excavated platform.

The gully running past the eastern side of the mullock heap has been deeply sluiced. On the eastern side of the sluiced channel is a tramway embankment which runs down the side of the gully for some 200m before terminating at a stone retained loading ramp.

At the base of the loading ramp are the concrete footings, stump holes and 1-1/2in mounting bolts belonging to two 5-head battery boxes. Demolished concrete footings suggests there may have been at least one other battery box. 9ft to the north is a well preserved, but largely buried, brick engine bed measuring 16 x 4ft with 1-1/2in mounting bolts. The bed is construction of red, hand-made bricks, set in a hard mortar. 7ft to the north is a largely buried stone boiler setting. From the rear (west) of the boiler runs a short flue depression which terminates at a square excavation (stack site). Lying around the area are shattered red bricks.

Below the battery is a remains of a small tailings dump. The middle portion of the dump has been sluiced away.

To the south west of the battery site is a small open cut (filled with water), and to the north east is a sluicing dam. A drain runs from this dam to the next gully to the west.

Golden Hill Co.'s mine - 1907 to c.1913

Intact mullock heap with two dumping lines

McDonald's Reef Co. - late 1890s to 1915

Intact mullock heap. Deserted house built on the east side of the heap. No machinery footings visible.

PHOTOS:

German Gully Workings

1. Puddler no 1

Hands Across the Sea Co.

1. Battery boxes
2. Battery boxes
3. Engine bed and stone boiler setting

ARTEFACTS:

None visible

INTEGRITY/CONDITION:

Good

THREATS:

CULTURAL SIGNIFICANCE:

Sites 65.1, 65.3 and 65.4 have little cultural significance

Site 65.0: Two puddlers in German Gully have some:

- | | |
|-------------------------|--|
| Scientific Significance | - Survival of puddlers are quite rare in the Castlemaine area. One of the few areas left where one can observe how close puddlers were to one another. |
|-------------------------|--|

Site 65.2: Hands Across the Sea site has:

- | | |
|-------------------------|---|
| Scientific Significance | - Relatively well preserved late 1890s battery with carting track and loading platform. |
|-------------------------|---|

Significance ranking

Sites 65.0 and 65.2

Local

Sites 65.1, 65.3 and 65.4 None

CONSERVATION POLICY:

None required

RECOMMENDATIONS FOR IMPLEMENTATION:

None

Assessor: David Bannear

Date: 1993

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 - 3 Mount Alexander Mail, p.2
 - 4 Mount Alexander Mail, p.2
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 - 44 Annual Report, 1903
 - 45 Mining Surveyors' Annual Reports, as summarized in Clive Willman collection

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- 46 Mining Surveyors' Annual Reports, as summarized in Clive Willman collection
47 Annual Report, 1907.
48 Annual Report, 1909.
49 Annual Report, 1910.
50 Mining Surveyors' Annual Reports, as summarized in Clive Willman collection
51 Annual Report, 1911.
52 Annual Report, 1912
53 Mining Surveyors' Annual Reports, as summarized in Clive Willman collection
54 Annual Report of the Secretary for Mines and Water Supply, Victoria (as summarised in
P. Milner, On Mining Machinery Sites in the Castlemaine and Fryers Creek Divisions, p37
55 Annual Report, 1913
56 Mining Surveyors' Annual Reports, as summarized in Clive Willman collection
57 Mining Surveyors' Annual Reports, as summarized in Clive Willman collection
58 Annual Report, 1914
59 Annual Report of the Secretary for Mines and Water Supply, Victoria (as summarised in
P. Milner, On Mining Machinery Sites in the Castlemaine and Fryers Creek Divisions, p93
60 Annual Report, 1915

SITE NO. & NAME: 66 Anglo-Australian Co. Mine

LOCATION: Herons Reef, Fryerstown

DIRECTIONS: W side of the main road from Chewton to Fryerstown.

MAP/GRID REFERENCE: Chewton 1:25,000 - 561.877

PARCEL NUMBER: None

MUNICIPALITY: Newstead

LAND STATUS: Freehold

EXISTING HERITAGE CLASSIFICATION: National Trust (Victoria) classification

PRESENT MANAGEMENT/USE: Tourist venture run by current landowner

HISTORY:

May 1859: Heron's Reef, which has been worked during the past two years, is now comparatively deserted. ¹

July 1859: [Table of monthly returns] lists Brown and Co., Stock and Co., Sullivan and Co., Redhouse and Co., Tait and Co., Fincher and Co., as working Heron's Reef. ²

Dec 1860: Quartz Reefs actually proved to be auriferous [include]: Heron's Reef, 10 miners employed ³

April 1861: The Turon's [?] Reef Company are at a standstill. ⁴

July 1861: Jackson and Company crushed 70 tons for 3oz/ton; Dalglish and Company crushed 58 tons for 3oz/ton. ⁵

August 1861: Jackson and Co. - crushed 120 tons of debris from the surface for 2 dwt/ton.; Dalgliesh and Co. - crushed 33 tons of seconds from near surface for 4 dwt/ton. ⁶

Sept 1861: Dalgliesh and Company (This party is sinking a new shaft); Jackson and Company (engaged in repairing machinery) ⁷

1865: Parties reporting yields from quartz crushing during 1865 - Rowe Brothers (crushing for hire) ⁸

1868: Parties reporting yields from quartz crushings in 1868 - Davis and Company, Redhouse and White, Stock and Company, Ferron and Company ⁹

March 1869: Cattle's, Ferron's Heron's Prince of Wales, Cemetery, and Specimen Hill Reefs constitute nearly one continuous, unbroken line of reef, although there are what are denominated the eastern and western lodes, 9 or 10 chains apart, with numerous veins and leaders running at different angles between them. ¹⁰

16 Oct 1869: ANGLO-AUSTRALIAN GOLD MINING COMPANY. - The prospectus of this company has been issued to-day. It is brought out under the auspices and management of the Australian United Company, the property being in the same district and on the same rich auriferous reefs. ¹¹

23 Aug 1870: [Claim] No. 15 is the Sir Roderick Murchison, belonging to the Anglo-Australian Company, lately formed by Mr Lamb, the agent for the English capitalists. The machinery here is to be like that at the Duke of Cornwall, and part of it is now on the ground, wher an engine-house is being erected. Two shafts are being sunk, that at the eastern end is 180 feet down, and is being worked by a whim, while that in the western is 60 feet down and stopped by water. ¹²

28 Feb 1870: Anglo-Australian. - Mr Kitto forwards the following report on the works from Capt. Raisbeck, Feb. 28. - By your request I have honour to report upon the different works of the Sir Roderick Murchison Mine. The smiths' shop and the reservoir are completed according to instructions given by you. The contractors of No. 1 shaft have sunk 66 feet, and secured 30 feet with timber... The contractors of No. 2 shaft sunk 60 feet, and secured same with timber, as required by contract. Operations are suspended for the present at this shaft on account of too much water; struck quartz at bottom of shaft. I have commenced to take out the earthworks for the foundation of engine-house,

&c., and will be finished in about eight days. I have also, as you ordered, opened a quarry convenient to the engine-house, and am pleased to report that you will have good stone for the buildings. ¹³

June 1870: The Anglo-Australian Company. - This company have commenced operations. They are preparing everything necessary to erect machinery, which is shortly expected from England. The miners are employed quarrying and sinking. ¹⁴

Sept 1870: The Anglo-Australian G.M. Company have erected (or nearly so) a stone engine-house to receive a 200 horse-power engine now on the ground, are sinking shaft to depth of 200 feet, and generally preparing for extensive operations. ¹⁵

5 Dec 1870: Anglo-Australian. -... Mr Kitto writes..."...The whole of both consignments of machinery, ex Merrie Monarch and Mikado, has arrived, and is in good condition, except the piston of the 25-engine, which had to be taken to the local foundry for the purpose of being fitted with rings. The engine-house is nearly finished; the bob is in position, as also are the cylinder and well-work." Capt. Raisbeck writes... The engine and boiler house is finished, so far as the mason work is concerned. The stack will be finished today, and the outside loading will be completed in the course of eight or nine days. ¹⁶

Dec 1870: The Anglo Australian Company - This company have already completed the erection of a splendid plant. A Cornish beam-engine, 75 horse-power, nominal, with pumping and all other appliances; also a 40 horse-power engine, with ordinary winding gear. At a depth of 93 feet they struck a lode 18 inches thick; the stone is supposed to be of a highly auriferous character, yet the proprietors intend sinking until a depth of 300 feet is attained before they raise any quartz for crushing. ¹⁷

27 Feb 1871: Anglo-Australian - ...Mr Kitto reports - "The engine is in good order, and works capitally; the cost of erection is much less than could be reasonably anticipated; this is in consequence of the workmen beginning to understand this kind of engine... The principal engine is fixed, and works well. The engine-house is finished, with exception of doors, windows, painting, &c. Pumps have to be placed in the two principal shafts, and these carried down another 100 ft. or so; another shaft deepened to cut the eastern lode... The stamping-house we need not commence until we raise sufficient quartz to test its paying qualities. There are the rods to make and fix from the engine to the two main shafts, and the winding-engine to erect after the loading is built up." ¹⁸

March 1871: The Anglo-Australian Company have not yet completed their plant ¹⁹

29 Sept 1871: Duchess of Cornwall Gold Mining Co. - lease is 900 ft on the line of the reef which traverses Rowe Brothers' claim...and extends into Anglo-Australian Co. ²⁰

Sept 1871: In [quartz] mining a further inducement is advanced by the successful operations of the Anglo Australian Company, situated between the Golden and Blacksmith's Gully. ²¹

6 Nov 1871: Anglo-Australian. -... Mr Kitto writes:- "... The engineers are rather slow in preparing their plans of stamps, but as they are very careful, painstaking men a little delay is, perhaps, not to be regretted." ²²

4 Dec 1871: Anglo-Australian.- Mr Kitto writes -"Since I last wrote you we have discovered what appears to be a good lode about 100 feet from the southern boundary of our mine (within) at a depth of 40 feet from the surface. Tradition said that some 17 years ago a Mr O'Sullivan obtained 20 ozs. from 11/4 ton from this spot, and it appears quite likely, judging from the appearance of the stone struck by us. Tenders have been called...for the supply and erection of 15 heads of revolving stamps with amalgamating apparatus, together with the necessary buildings and connecting gear of sufficient strength to drive 50 heads." ²³

Jan 1872: Anglo-Australian. - Mr Kitto writes: "...I am informed that the successful tenderer [for a battery of 15 heads of stamps] is proceeding rapidly with his work, the whole is to be delivered on the ground by Feb. 6th. We have a large quantity of quartz to crush, so that in another six months I hope to be obtaining remunerative returns" ²⁴

1 Feb 1872: Anglo-Australian.-...Mr Kito writes:-"...No. 2 engine shaft west has been sunk 12 feet since last report, and secured with timber to a depth of 31 ft., including a frame set of timber, 8 in. by 8 in., for bearers. Shaft now timbered to a depth of 192 ft. ²⁵

29 Feb 1872: Anglo-Australian. - Mr Kitto, Fryerstown, Feb. 29 writes - "The contractors are getting on well with the stamping batteries. Vivian and Sons have delivered nearly the whole of the castings, and the contractor for the erection (Summerland) has already nearly finished the building, in addition to having the foundation for the 'horses' bedded in concrete.... Capt. Raisbeck, Feb. 28, reports - "...The contractor has delivered most of the ironwork for the

15-head battery, and it appears quite satisfactory. The contractor for the erection of the stamp-house and machinery has got the house covered in, most of the bed logs laid, and has commenced with the iron work; when finished we shall have a first-rate little battery, easily added to if required." ²⁶

28 Mar 1872: Anglo-Australian - John Raisbeck, mine agent, March 28:...Tarlings done for reserving water for battery will require an additional 2 feet to complete, and clay-faced to waterproof it. ²⁷

23 April 1872: Capt. Raisbeck, April 23: "...In clearing out some of the old workings we have come upon a fine-looking spur from 12 to 18 in. thick; as the spurs immediately above this have yielded above 2 ozs. per ton, it is very probable that this will prove equally good. There will be a large amount of stone ready for the battery from the south end of the claim (open cutting). The tailing dams will be completed in two or three days. Several old shafts have been lately cleared out, and in all these there have been found several gold-bearing spurs, which have been worked to great profit in olden days at a higher level." Mr Kitto writes - "...There are...on the ground scores of small shafts by former workers, and in two or three places open cuttings. From these points (unavailable for future extensive workings) we shall obtain the principal supply of quartz for a year or two to come... The little shafts referred to by Capt. Raisbeck in his report are old ones sunk by former proprietors very many years ago. The battery will be at work in a fortnight." ²⁸

10 Sept 1872: Anglo-Australian. - Mr Kitto writes - "Operations have not been actively resumed at the mine. A party of tributers (two) have, however, been working on some branches in the shaft immediately to the east of the the east shaft (engine), and obtained 25 ozs. of gold from 34 tons of quartz... I think it will be a good plan to sink only the eastern engine-shaft, and drain the numberless branches there, for the purpose of letting them on tribute pending the thorough development of this lode at (say) the 600 feet level." ²⁹

2 Jan 1873: Anglo-Australian. - Capt. Raisbeck reports to Mr Kitto:- "...East Shaft: The men have sunk since [5th Dec] 12 ft., put in a frame set 8 in. by 8 in. for carrying lift, and secured with timber 21 ft. of shaft; present depth of shaft 234 ft. ³⁰

27 Mar 1873: Anglo-Australian. - Capt. Raisbeck: ...I have let on tribute a portion of ground adjoining Redhouses's claim, at 12s. in £1. ³¹

13 July 1873: Anglo-Australian. - Capt. Raisbeck:... We have crushed for the public during the month 10 tons. I have had the boiler cleaned and the machinery thoroughly examined, which is now in excellent working order. I have also cut through the embankment on the south water dam, put in box drain and flood-gate, to tap dam when required. This is extra expense, but necessary work. ³²

3 Nov 1874: Anglo-Australian. - Cap Raisbeck reports - We have crushed for the month 25 tons of stone; result, 5 ozs. 7 dwts. retorted gold. We have also crushed for the public 20 tons of quartz. As we did not succeed in purchasing a suitable winding-engine, we have contracted with Mr Vivian, ironfounder, to make and erect a suitable winding-gear for £38 2s 9d in connection with the present engine, but we shall not be able to crush and wind at the same time...I shall be able to haul 5 tons per hour from the 400 ft., which is more than we can break with the men we shall be able to employ. We can then crush 18 hours per day if required... I expect to be ready for winding in three weeks if we can purchase good second-hand trucks and cages. ³³

30 Dec 1874: Anglo-Australian. - Capt. Raisbeck:... Mr Vivian has finished his contract very satisfactorily, but we did not get the pit head pulleys until the 16th inst. We have purchased second-hand trucks, cages, flat sheets, and 500 ft. of iron rails, all in good condition, very cheap. These will be sufficient for our present use. I expect to haul with the engine in six days from date... We have crushed for the public during the month 31 tons of stone. ³⁴

Dec 1874: The Anglo, Golden Gully. - The company are driving at the 300 and 320-foot levels, and erecting winding machinery. ³⁵

19 April 1875: Anglo-Australian - J. Raisbeck, Fryerstown:... On the 9th and 10th inst. we cleaned the boiler and flues, and had the engine and machinery thoroughly examined and rectified. We have crushed for the public during the month 74 tons of stone. ³⁶

17 May 1875: Anglo-Australian. - Capt Raisbeck, Fryerstown:... We have constructed 100 ft. of tramway from east shaft to the battery, and will put in catches as soon as convenient. When finished we shall have a good road from the underground workings to the battery. - Rise 200 ft. Cross-cut: ...The contractors do not give entire satisfaction with the work, but I think they will finish it, as the ground will be more favourable for them as they proceed. I have been obliged to put in a water-blast and air-pipes from the surface to the rise, as the contractors could not get on without it. ³⁷

14 June 1875: Anglo-Australian. - Capt Raisbeck: ...Probably you think we have spent a large sum of money in getting to our present workings, but we had no alternative. When commencing operations on the mine our working plan was laid out upon too large a scale for the capital, and, unfortunately, our engine-shafts were placed in wrong positions, our east shaft being too far west for our present depth. ³⁸

5 Oct 1875: Anglo Australian. - Captain Raisbeck:... I have 45 tons of stone in the battery, which does not look so well, but I think is good payable stone... The rings in the piston are getting weak, and consequently lose steam, and we are placing steel rings inside to strengthen them. There will be no extra cost beyond wages, as I think we can do the work ourselves. We have crushed for the public during the month 35 tons of quartz. ³⁹

Dec 1876: Parties reporting yields of gold from quartz crushed: Anglo Mine. ⁴⁰

Sept 1877: Anglo-Australian G.M. Company has lately been re-organized, sufficient English capital having been imported to enable the manager to open out and develop the mine in a satisfactory manner. ⁴¹

March 1880: English Australian Gold Mining Company. - The company are making good progress in their underground operations, and preparing for a more extended field for the employment of labor, by erecting additional steam machinery... From a recent inspection, the mine appears to be well managed, all kinds of improved appliances being in use to ensure the safety of the men employed on the works. ⁴²

June 1880: English-Australian Gold Mining Company. - A new winding engine is now in course of erection, which will greatly facilitate the underground operations; and mining will be pushed on with increased vigor, now that the reef is better defined, and its direction more clearly indicated. The main shaft is 430 feet in depth, and preparations are now being made for sinking another 100 feet. ⁴³

March 1881: English Australian Gold Mining Company, Golden Gully. - ...The company have not sufficient stamping power to clear away the immense quantity of quartz available for crushing purposes. ⁴⁴

Sept 1881: English-Australian Company, Golden Gully. - The returns from this company have proved highly satisfactory for the past three months, which will, no doubt, be very gratifying to the English shareholders. ⁴⁵

Dec 1881: The English-Australian Gold Mining Company... The company have nearly 30 acres of land on the main line of reef connected with the New Era, Royal Saxon, and Rowe Brothers, &c., &c. ⁴⁶

June 1886: Diamond Drill. - The drill is still engaged on the English Australian Company's ground, having attained a depth of 714 feet (No. 4 bore) during the past quarter. ⁴⁷

Dec 1886: The English, the Australian, Rowe Brothers, the Perseverance, and the Golden Eagle Companies are all likely to make a fresh and energetic start before many weeks have elapsed. All these companies have been languishing for a long time past, but English capital is expected to arrive shortly, when new life and vigor will be imparted; and the different managers will have ample scope for testing the deep and untried ground by diverging more to the westward than has hitherto been considered advisable or expedient. The diamond drill has done something well calculated to guide and encourage those who are disposed to take advantage of its discoveries. ⁴⁸

March 1887: The Fryer's Creek Gold Mining Company (formerly English Australian).- This company have got into fair working order again...there are 16 men employed at the present time. The manager reports that they have now attained a total depth of 500 feet... There appears to be a great deal of vitality in the management of this hitherto unfortunate mine. ⁴⁹

March 1889: Fryer's Creek Gold Mining Company, Heron's Reef (late Anglo-Australian). - The ground held under lease by this company has been worked by English capital during the past twenty years. Messrs. R.L.M. Kitto and H.W. Lamb originated the first company - the Anglo-Australian - and succeeded in placing a splendid plant on the ground; but, notwithstanding the large amount of capital expended, skill employed, and perseverance shown in the development of the mine, the results have been so far unsatisfactory. It may be stated that the various re-constituted companies in connexion with this mine have dispensed with the aid of Victorian capital throughout, excepting in the instance of the present company - Fryer's Creek Gold Mining Company - who have availed themselves of the assistance afforded by the Prospecting Board... Touching the early history of this reef, the information available is of a meagre character, as no reliable records can be found or traced. Messrs. Tate, Scotson, and others, operated on a large extent of ground, now described as worked out, from surface down to 50 feet... The strike or bearing of the eastern line of reef is N. 2° 30'W... The reef has been worked continuously about 700 feet to a depth of 420 feet. The main engine-shaft (east) is 628 feet; western shaft, 320 feet in depth. The water-level is represented as 100 feet from surface... The yields at various depths are as follows:- Surface to 50 feet, 642oz.; to 100 feet, 529oz.; to 150

feet, 360oz.; to 200 feet, 895oz.; to 300 feet, 868oz.; to 400 feet, 4,980 oz. Total 41,855 tons, averaging 4dwt. to the ton.⁵⁰

Dec 1889: The New Era, Chapel Hill, and Fryer's Creek G.M. Companies have had a long struggling career, and it is not from any simple reasons that they have been reluctantly compelled to stop work, and in some cases to sell and remove their plant.⁵¹

DESCRIPTION

Anglo Australian mine (1869 to 1889)

Site has two shafts (both capped), extensive undisturbed mullock heap, masonry foundations for winding engine and winding drum, location for battery and balance bob pit, and to the S are several stone fireplaces.

Heron's Reef.

Collection of shafts, small mullock heaps, small slate quarry, two dams (principal shaft is Redhouse shaft)

Site descriptions taken from: Milner, P. 1987 The Anglo Australian Mine Site at Fryerstown Report to the Industrial History Committee of the National Trust (Vic) (Technology Citation No. TC 87/7)

PHOTOS: Black and White

ARTEFACTS: None visible

INTEGRITY/CONDITION: Good

THREATS:

CULTURAL SIGNIFICANCE:

The site has:

- | | |
|-------------------------|--|
| Historical Significance | - Site of one of the main mines to operate in the Fryers Creek Mining Division in the 1870s/1880s |
| Social Significance | - Intrical part of the Herons Reef Tourist venture |
| Scientific Significance | - Well preserved mine workings and machinery plant foundations. |
| Cumulative Value | - Part of a comprehensive network of quartz and alluvial mining sites asociated with Herons, Ferrons and Cattles Reefs, and Golden Gully. (Sites 66, 67, 68, 69, 70.0 to 70.3, and 71.0) |

Significance ranking: Regional significance

CONSERVATION POLICY:

The significance of the site comes from its historical importance and intactness. The site's significance is enhanced by surrounding sites who, when viewed together, form a network of sites which illustrates the many aspects that characterized the history of mining activity in the Fryerstown area. The key site in this network is the Duke of Cornwall engine house (Site 70.0)

RECOMMENDATIONS FOR IMPLEMENTATION:

Site be protected

Assessor: David Bannear

Date: 1993

- 1 Mining Surveyors' monthly reports, Castlemaine and Fryer's Creek Divisions
- 2 Mining Surveyors' monthly reports, Castlemaine and Fryer's Creek Divisions
- 3 Mining Surveyors' monthly reports, Castlemaine and Fryer's Creek Divisions
- 4 Mining Surveyors' monthly reports, Castlemaine and Fryer's Creek Divisions
- 5 Mining Surveyors' monthly reports, Castlemaine and Fryer's Creek Divisions
- 6 Mining Surveyors' monthly reports, Castlemaine and Fryer's Creek Divisions
- 7 Mining Surveyors' monthly reports, Castlemaine and Fryer's Creek Divisions
- 8 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions

9 Mining Surveyors' monthly reports, Castlemaine and Fryer's Creek Divisions
10 Mining Surveyors' monthly reports, Castlemaine and Fryer's Creek Divisions
11 The Mining Journal, Railway and Commercial Gazette, London, 16/10/1869, p.772
12 The Mining Journal, Railway and Commercial Gazette, London, 5/11/1870, p.924
13 The Mining Journal, Railway and Commercial Gazette, London, 22/4/1870, p.351
14 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
15 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
16 The Mining Journal, Railway and Commercial Gazette, London, 28/1/1871, p.80
17 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
18 The Mining Journal, Railway and Commercial Gazette, London, 22/4/1871, p.347
19 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
20 Mount Alexander Mail, as summarized in Clive Willman collection
21 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
22 The Mining Journal, Railway and Commercial Gazette, London, 30/12/1871, p.1174
23 The Mining Journal, Railway and Commercial Gazette, London, 27/1/1872, p.190
24 The Mining Journal, Railway and Commercial Gazette, London, 24/2/1872
25 The Mining Journal, Railway and Commercial Gazette, London, 23/8/1872, p.298
26 The Mining Journal, Railway and Commercial Gazette, London, 20/4/1872, p.374
27 The Mining Journal, Railway and Commercial Gazette, London, 18/5/1872, p.470
28 The Mining Journal, Railway and Commercial Gazette, London, 15/6/1872, p.572
29 The Mining Journal, Railway and Commercial Gazette, London, 2/11/1872, p.1054
30 The Mining Journal, Railway and Commercial Gazette, London, 22/2/1873, p.216
31 The Mining Journal, Railway and Commercial Gazette, London, 17/5/1873, p.528
32 The Mining Journal, Railway and Commercial Gazette, London, 5/9/1873, p.979
33 The Mining Journal, Railway and Commercial Gazette, London, 26/12/1874
34 The Mining Journal, Railway and Commercial Gazette, London, 20/2/1875,p.212
35 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
36 The Mining Journal, Railway and Commercial Gazette, London, 12/6/1875,p.652
37 The Mining Journal, Railway and Commercial Gazette, London, 10/7/1875,p.765
38 The Mining Journal, Railway and Commercial Gazette, London, 7/8/1875
39 The Mining Journal, Railway and Commercial Gazette, London, 27/11/1875,p.1305
40 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
41 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
42 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
43 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
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50 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
51 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions

SITE NO. & NAME: 67 Royal Saxon Co. Mine

LOCATION: Clarks Reef, Fryerstown

DIRECTIONS: 500m east side of Fryerstown Road. Herons Reef Tourist venture.

MAP/GRID REFERENCE: Chewton 1:25,000 - 560.881

PARCEL NUMBER: None

MUNICIPALITY: Newstead

LAND STATUS: Freehold

EXISTING HERITAGE CLASSIFICATION: National Trust (Victoria) classification

PRESENT MANAGEMENT/USE: Herons Reef tourist venture

HISTORY:

7 Dec 1857: New reef discovered near Golden Gully. ¹

May 1859: The prospecting claim of this reef, which was remarkably rich, is now entirely deserted. ²

Dec 1864: Parties crushing quartz: Rowe Brothers. ³

1866: Parties reporting yields from quartz crushings in 1866 - H. White ⁴

Dec 1870: Redhouse and Company, who hold a claim within the above lease, obtained at about 100 feet level 43 ozs. from 40 tons; this was from line of Clark's Reef. ⁵

June 1880: Royal Saxon Company. - The ground taken up by this company under the Leasing Regulations has been previously lying idle for a considerable period. A large body of quartz, about 7 feet in thickness, runs through the centre of the block, and stone is being raised from a depth of 95 feet; 130 tons have been recently crushed, averaging 19 dwts. to the ton. In this mine there is an immense quantity of stone in sight, which can be easily obtained, so that the future prospects of the company may be considered highly satisfactory. The reef intersecting the ground was formerly known as 'Clark's' and many years ago was worked from the surface to a depth of from 30 to 40 feet, with indifferent management and expensive crushing appliances; some splendid returns, however, were realized, viz., from 20 to 30 ozs. to the ton. Several parties have worked this reef at different periods during the past twenty years with more or less profitable results. The present party have simply resumed operations at a point where their predecessors left off, and are extending the workings in a northerly direction; the line of reef is no doubt identical with that running through the Ferron's and English-Australian Company's ground. Several new leases have been recently applied for on ground lying to the north, which includes the line of reef running through the Royal Saxon Company's claim, so that prospecting is now likely to be carried on in an energetic manner, and some important discoveries made ere many months shall have elapsed. ⁶

5 July 1880: Royal Saxon - Abundance of stone available for crushing - the adjoining ground has been taken up by Tolstrup and party and a shaft commenced to get same run as Royal Saxon. ⁷

12 July 1880: North Royal Saxon Co. - This company formed by Tolstrup and Co. - sinking a shaft 100 feet to north of run of stone in Royal Saxon Mine. ⁸

March 1881: The Royal Saxon Company are about erecting machinery on their ground, having a large quantity of stone to operate of, which is expected to pay well, the expense of cartage being done away with. Arrangements are also being made for cutting a water race to supply the engine, &c., from the head of Crocodile Creek. ⁹

18 April 1881: Royal Saxon Co. - have purchased a plant with a 10-head battery. ¹⁰

25 July 1881: North Royal Saxon - Mining Manager's Report - During the past six months I have opened out at the 170 feet level. ¹¹

30 Aug 1881: Royal Saxon Co. - Whim shaft sunk an additional 25ft until all underground work was stopped in order to complete battery. ¹²

Sept 1881: Royal Saxon Company. - ...a fine plant has been erected on the ground, comprising a 24 horse-power steam engine, working 10 heads of stamps, with an unailing supply of Coliban water... The total cost of the plant is £1,500. ¹³

22 Nov 1881: The Ancient Britain Co., Fryers Creek, north of the Royal Saxon Co., cleaned up a trial crushing of 51 tons for 8 oz 6 dwt. The reef is 3 to 4 ft thick, and looking very well. ¹⁴

Dec 1881: The Royal Saxon Company...The ground occupied by the present company proved highly auriferous in the early days, when Clark and party made their £40 and £50 per week per man by simply scratching the surface. The ground is now being opened out both north and south, with very favorable indications; and the line of reef extending north to Specimen Hill may be said to have a fair chance of being properly tested and opened out during the ensuing twelve months. ¹⁵

9 Jan 1882: North Royal Saxon - Shaft sunk to 216 feet. On the next claim, the Royal Princess, a shaft is being sunk - down 50 feet. ¹⁶

23 Jan 1882: North Royal Saxon - ...the mine has been thoroughly prospected from the surface to the 170 ft level and the result is that a number of leaders have been discovered varying in thickness from a few inches to 6 or 8 ft. Several trial crushings have been taken out yielding 2 to 3 dwts per ton, a yield too low to pay except by having a large crushing plant on the ground. Under the circumstances...directors deemed it most advisable to sink the shaft and search for better stone, and tenders were therefore called for sinking 50ft. That of W. Quick at 19s per foot was accepted ¹⁷

28 Feb 1882: Royal Saxon Co. - The machinery is in good working order. A small boiler was procured for exhaust pipe to get hot water to supply engine, thereby saving at least a tone of wood a day. Seeing the cost of water, £12 10s per month, to be a very serious item, your directors are constructing a dam to use the water over again, and had accordingly applied to the Water department to receive half-a-million gallons at half the cost, £6 5s per month. ¹⁸

7 March 1882: Royal Prince[ss?] - shaft is down 90 feet - several leaders passed through - expect to cut North Saxon stone in another 70 feet. ¹⁹

15 Aug 1882: Royal Saxon Co. - Hope to cut the eastern lode and open up new country on the same line as the English Australian Co. and New Era. ²⁰

27 Feb 1883: Royal Saxon Co. - An offer has been received from the adjoining company, North Saxon, proprietors, to amalgamate the two leases, and your directors have for that purpose secured the forfeited shares, and offered 4000 to the shareholders of the North Saxon Company for their lease, which offer as yet has not been accepted ... The ground is broken, and tumbled about, showing similarity to country in view in the New Era and English Australian Mines... The water race has been repaired, preventing leakage to White and Readhouse's claim by putting in boxes round the rocky points about 600 feet. The machinery is in good working order, repairs to piston having been completed. ²¹

27 Aug 1883: Royal Saxon Co. - Your directors have the honour to report that the purchase of the North Saxon lease and plant under offer at last half-yearly meeting has been completed, and part of the ground let on tribute to Wind, Meyer and party, for a term of three years. To facilitate working same direct from the company's shaft, the 130 feet level north has been extended 104 feet, driven by the tributers, and subsidised by the company giving them 5s per foot... A block in the company's ground was let to Wm. Jenkin and party, but after taking out a small crushing it was abandoned. ²²

28 Feb 1884: Royal Saxon Co. - A tribute has been let of the southern portion of your lease to the Royal Saxon No. 2 Tribute Company. ²³

June 1884: The Royal Saxon Company, Clark's Reef...have...been compelled to temporarily stop their works, owing to the unremunerative character of the crushings during the past twelve months. ²⁴

March 1889: Royal Saxon, Clark's Reef. - This reef was remarkably rich during the early days of quartz mining, but the original prospectors (Clark, Featherston, and party) never worked the mine in a *bonâ fide* manner, and they only paid periodical visits when their funds were exhausted. The richer workings were from the surface to a depth of 20 feet, but payable ground extended to a depth of 100 feet. It was a common occurrence to knock out 10 or 12oz. of gold with a hammer from a ton of quartz, previous to the stone being sent to the crushing machine. The reef was first opened out in about 1855 or 1856; but there are no means at the present time of estimating, even approximately, the vast quantity of gold which was obtained by the original prospectors. Since 1867, several parties have taken up the

ground, worked it for a certain period, and then abandoned it as not payable. Messrs. Rowe, Conrad Frank, C. Tolstrop, and others, have more or less tested the ground at different levels, viz., 100, 150, 200, and 300 feet, respectively; but the gold has proved, so far, to be very sparingly diffused through the stone and laminae. The strike of the reef is N. 2° 30' W.... The depth of the main shaft is about 300 feet. The yields of gold, as recorded from 1871 to 1884, are as follows:- Surface to 50 feet, 54oz.; to 100 feet, 946oz.; to 150 feet, 286oz.; to 200 feet, 30oz.; to 300 feet, 126 oz. Total number of tons 6,718; average, 4 1/4 dwt. to the ton... The reef has not been abandoned, but is not being worked at the present time; the claim is protected by being held under lease. ²⁵

DESCRIPTION

Royal Saxon mine, Clark's Reef, (1880s)

Shaft, small mullock heap, fire place and footings of blacksmith shop, small cluster of shafts, haulage adit, battery sand, stone fire place and another blacksmith shop.

Site descriptions taken from: Milner, P. 1987 The Anglo Australian Mine Site at Fryerstown Report to the Industrial History Committee of the National Trust (Vic) (Technology Citation No. TC 87/7)

PHOTOS: To be taken

ARTEFACTS: None visible

INTEGRITY/CONDITION: Good

THREATS:

CULTURAL SIGNIFICANCE:

The site has:

- | | |
|-------------------------|---|
| Social Significance | - Part of the Herons Reef Tourist venture |
| Scientific Significance | - Well preserved 1880s mine workings |
| Cumulative Value | - Part of a comprehensive network of quartz and alluvial mining sites associated with Herons, Ferrons and Cattles Reefs, and Golden Gully. (Sites 66, 67, 68, 69, 70.0 to 70.3, and 71.0) |

Significance ranking: **Regional significance**

CONSERVATION POLICY:

The significance of the site comes from its intactness. The site's significance is enhanced by surrounding sites who, when viewed together, form a network of sites which illustrates the many aspects that characterized the history of mining activity in the Fryerstown area. The key site in this network is the Duke of Cornwall engine house (Site 70.0)

RECOMMENDATIONS FOR IMPLEMENTATION:

Site to be protected

Assessor: David Bannear

Date: 1993

- 1 Mount Alexander Mail, as summarized in Clive Willman collection
- 2 Mining Surveyors' monthly reports, Castlemaine and Fryer's Creek Divisions
- 3 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
- 4 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
- 5 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
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SITE NO. & NAME: 68 GOLDEN GULLY

LOCATION: Fryerstown

DIRECTIONS: East side of Fryerstown Road. Herrons Reef Tourist venture.

MAP/GRID REFERENCE: Chewton 1:25,000 - 558.880

PARCEL NUMBER: None

MUNICIPALITY: Newstead

LAND STATUS: Freehold

EXISTING HERITAGE CLASSIFICATION: National Trust (Victoria) classification

PRESENT MANAGEMENT/USE: Herons Reef Tourist Park

HISTORY:

8 March 1852:: The Golden Gully is nearly worked out, and the carriage to the Loddon is far more trouble and expense than the general value of the remaining soil warrants. A few holes here, however, do well. ¹

1853: Washdirt at Miner's Point realized 4 to 5 ounces per tub. ²

6 June 1853: The Port Philip and Colonial Gold Mining Company have advices from their resident director at Melbourne... He was in negotiation with the Government for the lease of a tract of mineral land at Golden Gully, Fryer's Creek [see also Windlass Hill and Golden Point], under the new regulations which had just been issued, enabling public companies to carry on their operations.³

12 July 1853: PORT PHILIP AND COLONIAL GOLD COMPANY

SIR, - In your Journal of the 9th inst., there appears what is called a "memorandum" of the Port Philip and Colonial Gold Company; it does not, however, appear to me by any means a satisfactory account of the affairs of the company. The superintendent states, what he terms "the results of six weeks' gold digging, ending the 6th of March;" he says, "an average of 16 Cumberland men produced 175 1/2 ozs., and an average of about 24 Cornishmen gave in 82 ozs.;" he proceeds to say, "that he has no doubt that a considerable amount of gold has been secreted by the latter party" - that is, the Cornishmen; and this, he comfortably assures us, cannot be avoided. I, for one, would like to know the reason why it cannot; and I think it worth a little more trouble to know the why than our worthy superintendent seems to take about it; the difference between the Cumberlandmen and the Cornish secreters (I won't call them "thieves," although I cannot see much difference between the two), is so large as to be worth a very full investigation. For instance, we will suppose the Cumberlandmen to be honest fair workmen, and we will suppose the Cornishmen to be equally clever, and equally well situated for gold finding, the result of the first 16 men is 175 1/2 ozs.; the result of the second gang, of 24 men, by the same rule, ought to be 263 1/4 ozs... On the whole, I consider the account or memorandum (whatever it may be) to be extremely unsatisfactory, and would suggest the following queries for the consideration of the management:- 1. Whether there are no means to detect dishonesty, and no law to punish it when detected. - 2. Whether it is not possible, and much more to the interests of the company, to discharge such men, their produce not being much more than 1/2 oz. per week each man, in all probability less than the wages they are receiving for their labour; and, lastly, whether it would not be possible to employ a quantity of Chinamen, as is done by some other company or companies, at a much cheaper rate, and in lieu of lazy or dishonest Cornishmen... W.P. ⁴

23 July 1853: PORT PHILIP AND COLONIAL GOLD COMPANY

The alluvial washing has been sufficiently proved to pronounce high success upon the removal of certain local and legal difficulties, which compel them to sink fresh pits every 8 ft., instead of pursuing Hopkins's system of cutting a drainage at the dip, and by carrying a broad excavation before them, clearing the whole of the gold from the bed of its deposit.

The gold melting and assay offices are now in full and successful operation, and will doubtless prove a source of great revenue.

The machinery for mining-proper, or crushing, is fixed, and its results will speak for themselves.⁵

6 Aug 1853 : ...none of the English companies [have] done more than buying gold, excepting the Port Philip Company, which, under the management of Mr Hopkins, has attempted to work alluvial soil. The rate of wages in the colony for both skilled and unskilled labour prevents any successful operations on the part of companies. ⁶

5 Nov 1853: At Fryer's Creek, Mount Alexander, the miners were petitioning against the lease of land there (worked by 500 persons) to the Port Philip and Colonial Gold Company; while in summer as many as 1500 persons reside

there for the benefit of the water. It is to be feared the miners would offer forcible opposition to the company, and it is evident the authorities will have to be on the alert. ⁷

1853-4: Next day we reached Fryers Creek, and got permission to occupy a hut close to Windlass Hill, the property of the Port Phillip Gold Mining Company. This company was formed of English capitalists who had subscribed £100,000 to work the goldfields of Victoria. The company had camps at Clunes, Fryers and Forest Creeks, and, I believe, other places. They employed men to prospect, many of whom they brought from the old country, giving them 20/- and 30/- per day.

About the time we reached Fryers the camp there was about to be abandoned on account of non-success. The same ill-luck attended the company in their operations elsewhere, and it was only when the whole of the capital was absorbed and orders were on their way from England to abandon all stations and sell everything saleable that gold was got in the quartz at Clunes in payable quantities, which has recouped the shareholders their original outlay, I suppose, fifty-fold. ⁸

26 Aug 1854: Golden Point and Golden Gully still retain their usual number of inhabitants, and no person seems to be complaining. ⁹

6 April 1855 : A Monster Nugget - We have for some time been looked upon as an exhausted and impoverished field, but...the finest and most complete nugget of solid gold ever found, has been taken out of an old hole in Golden Gully, Fryer's Creek. ...it weighs 1022 ounces, and is worth about £4000, completely eclipsing all former nuggets. It was found in an old pillar in 20 ft sinking, by two young men named Davis and Harris, who have only been out about eight months... they had offered the hole in the morning for two ounces of gold, but could not sell it... The owners of the nugget, out of courtesy to our worthy Commissioner, Mr Heron, named it the 'Heron nugget'... The place where it was found was turned over very hastily two or three years since, and...there are several pick-marks observable on the nugget... There seems to be a general inclination to try hill sinking in the vicinity and, from what we can gather, all the hills will pay for working, and will, in all probability be opened this winter. ¹⁰

2 Nov 1855: There are many parties working in Golden Gully, but it is impossible to arrive at anything like an accurate conclusion as to the richness of the claims. ¹¹

29 Feb 1856: Fryer's Town - The Quartz Reefs in the neighbourhood are abandoned... the one which promised so favorably on Golden Gully, is also vacated. ¹²

13 May 1856: 66.5 oz from a reef on Golden Gully. ¹³

May 1859: Golden Gully. - Pelcher and party, who have been working quartz-reefs for the last three years with some degree of success, are now erecting an eight horse-power horizontal steam-engine, and to drive 12 heads of stamps, weighting 4½ cwt. each, and three shaking-tables. They will have sufficient power to crush 80 tons of quartz a week, 24 hours a day. This party will be in a position to crush for the public to the extent of 40 tons per week, at the rate of £1 per ton, exclusive of cartage... The prospects of the Golden Gully Reefs [Ferron's, Heron's & Clark's] are not particularly flourishing at the present time. ¹⁴

June 1859: Pilcher and Co. (16 men in party) - one 18hp expensive steam-engine, 12 heads of stamps; crushes 30 tons in 24 hours. Employing 11 men at average rate £3 per week. Crushed 300 ton in past month. Yield per ton - 5 dwt. Depth from surface - 70 & 100 feet.

Holywell and Co - one horizontal high-pressure engine 10hp engine, 8 stamps, and Chilian mill; crushes 8 tons in 24 hours.

Andrews and Co. (1 in working party) - one 6hp high pressure engine, 4 stamps, crushes 10 tons in 24 hours. Crushed during past month - 70 tons. Yield per ton - 11 dwt. Depth from surface - 25 feet.

Andrews & Co. prospecting an abandoned claim. Crushed 25 ton in past month. 2½ dwt. yield per ton. Depth from surface - 85 feet.

Andrews & Co. employing 14 men by contract, raising stone at 9 shillings per ton. Crushed 20 ton in past month. Yield per ton - 6½ dwt. Depth from surface - 20 feet.

Andrews & Co. Crushed 15 ton in past month. Yield per ton - 3 dwt. Depth from surface - 60 feet.

Pilcher and Co - one 2hp steam engine, 4 stamps; crushes 6 tons (calcined) in 24 hours.

Brown and Co. (5 in the party) - one 5hp portable engine, 4 stamps, crushes 6 tons in 24 hours. Crushed in the past month - 50 tons. Yield per ton - 1½ oz. Depth from surface - 4, 10 and 30 feet.

Glew & Co. (2 in the party). Crushed 25 ton in past month. Yield per ton - 1 oz. 14¾ dwt. Working a surface leader. ¹⁵

June 1859: 18 puddling machines operated by 90 non-Chinese
35 non-Chinese involved in ordinary mining
65 non-Chinese involved in quartz mining. ¹⁶

July 1860: Golden and Spring Gullies appear at present to be the favoured localities [for puddling], there being scarcely a foot of ground in these places unoccupied. ¹⁷

Dec 1860: Quartz reefs actually proved to be auriferous [include]: Golden Gully (German Reef) - 4 miners employed. ¹⁸

Nov 1861: Tyack and Co. - getting between 4 and 15 pounds per week for the past six months. ¹⁹

Jan 1862: Most puddlers doing exceedingly well; those working with tub and cradle are meeting with very indifferent success. ²⁰

10 July 1862: Returns from the puddlers now negligible. ²¹

June 1864: Most puddlers making good wages. ²²

June 1865: Puddlers able to work making good wages. ²³

June 1866: Adequate supply of water now for puddling. ²⁴

March 1867: These gullies have ever been remarkable for apparently inexhaustible mineral wealth. Alluvial mining operations are, as heretofore, confined to puddling. The claims have been in work for some years, and from the systematic and energetic manner in which the operations were conducted, the permanent dwellings erected, and the blocks of ground cultivated, it is not unreasonable to suppose the average earnings of the puddlers are satisfactory. ²⁵

March 1867: Stevens and Company, Golden Gully, are erecting a 10-horse power engine, with 8 heads of stamps. This having proved one of the best paying claims in the neighbourhood, it seems worthy of remark, that this will be the third engine erected upon the same site, for crushing purposes, during the past few years. ²⁶

June 1867: The only changes or addition in machinery consist in the erection of a new engine by the Free Italian Company, Guildford, and another by Stevens and Davis of Golden Gully; the latter has been well employed during the past two months, to the benefit both of owners and quartz miners in the locality. ²⁷

June 1867: In the neighborhood of Golden and Spring Gullies, places which have been most prospected, from time to time veins or spurs have been struck which for a short period have paid well, but ultimately had to be abandoned.

The ranges between and on either side of these gullies are intersected by innumerable quartz veins, apparently almost at equal distances apart. It is to be hoped that the day is not far distant when prospecting at a great depth will be carried on with energy and spirit; previous returns establish the fact that nearly all our best crushings have resulted from the deeper workings. ²⁸

Sept 1867: The Golden Gully reefs have now been worked successfully for the past ten years, to a depth not exceeding 100 feet; several distinct lodes running parallel and nearly coincident with the magnetic meridian, have been traced and found richly impregnated with gold. One of these lodes [Cattle's Reef], now being worked by Mills, Hilton, and Company, is yielding brilliantly. The quartz veins in this part of the district have never been fairly tested below the water level. The want of powerful machinery and lack of mining enterprise has hitherto prevented the solution of a problem which has been solved in other districts with astonishing effects. ²⁹

1867: Parties reporting yields from quartz crushings in 1867 - Rowe and Company, Cattle and Company, Stevens and Company, Little and Davis ³⁰

March 1868: During the past three months the returns show an improvement in this branch of mining, more particularly on Cattle's Reef and Ferron's Reef, Golden Gully. Messrs. Rowe give an average of 9 dwts. to the ton, while Stevens and Co. have realised 1 1/4 oz. to the ton. Mills and Co., who occupy the adjoining claim to Messrs. Rowe have been principally engaged sinking a new shaft during the past two months, with the view of striking the reef below the hill, and so trace the main lode intersecting Commissioner's Flat. ³¹

June 1868: Messrs. Mills, Hilton and Co., who occupy a claim about 200 feet to the south of the Duke of Cornwall, have already sunk a shaft to a depth of 140 feet, and 76 feet below the water level ³²

Dec 1868: A reef or lode (in continuation of Clark's or Ferron's) has been struck in Golden Gully, which yielded 7 dwts. to the ton; there is a good body of stone, and the quartz now being raised looks well. ³³

1868: Parties reporting yields from quartz crushings in 1868 - Rowe and Company, Stevens and Company, Cattle and Company, Mills and Company ³⁴

4 Jan 1871: The Fryer's Creek Reefs - On Monday last I made a tour of inspection of the Fryer's Creek mines, and returned highly pleased with the result of my inspection. The first mine I visited was the northern one of the Anglo-Australian, an English proprietary; this claim is managed and supervised by J. Lamb, Esq., an English gentleman of easy manners, and who did the agreeable on the occasion of my visit. This company is erecting a beam engine of about 100-horse power, which is in an advanced state of completion and the prospects of the company I should consider are very fair, judging from some of the stone shown me, taken from a leader struck in the cross-cut. They have a large number of men employed on the works, and are building their own boiler on the ground, for the which Vivian and Co., of Castlemaine are the contractors and all on this claim is bustle and activity.

South-east of the Anglo is the claim of Stephens and Company, on the Ferron's reef. The yields from this claim are very irregular, sometimes paying handsome dividends to the shareholders. Latterly the yields have declined, but never below the wages point. One year since this was one of the first claims in the district, and I doubt not before long it will be up the front again. And then passing over a few small claims of lesser note we come to that of the Australian United. This also is an English company under the directorship of R.L.M. Kitto, Esq., M.P. On this is erected a beam engine, a horizontal engine, and a small winding engine. The stone now being crushed from the claim is of good quality, and at the south-east boundary of this claim a downright shaft sunk to the depth of 300 feet would strick the large body of stone now being worked by Rowe Bros. with such brilliant results. This claim if persistently worked cannot fail to yield handsome returns, and will repay the large outlay invested.

Next south of the slide comes the claim of Cattle and Co. This claim has been famous for its steady yields, and still continues to give very fair returns whenever they are working in quartz, but being so near the slide the lode is rather abrupt and broken. This party have called in the aid of a few other working men; they are now sinking adownright shaft to intercept the eastern reef, worked by Rowe Bros., which they expect to strike at a depth of 250 feet.

Next south in a direct line is the famous claim of Rowe Bros, the yields from which are so well known I need not recapitulate them here. This much I may state, it is challenged to be the first claim of the colony, i.e. for durability, extent of stone, and average yield, and I think it would carry off the palm.

Then I must say south-west from Rowe Bros. (for here south-east comes in another chain) comes the rich claim of Hilton, Mills, and Co., from which at a very recent date there was exhibited in the window of a storekeeper at Fryer's Creek two tin dishes of stone valued at £600 sterling, and only a few days since there were taken from the claim lumps of gold weighing nine, six, and three ounces respectively. Intersecting, or dividing this claim east and west is the road-claim of 99 feet from north to south of Rowe, Kitto and Co. The average yield from this claim has been over one ounce per ton with 99 feet of stone. They are now sinking a downright east of their present shaft to strike the lode of Gill and Co. This claim, on the private property of C.L. Cartheries, quite of recent date, and considered by men well up in mining to be outside the line altogether, has turned out very good yields. They struck the eastern lode at a depth of 120 feet, nine feet rise, underlay east, easy to break, and the yield fully up to one ounce per ton. This lode traverses the road-claim of Rowe, Kitto and Co., then into the southern portion of Hilton, Mills and Co.'s claim, and then into the large claim of the Fryer's Company. This claim is under the limited liability act, launched on the Ballarat and Castlemaine markets about twelve months since; the proprietary are of Castlemaine and Ballarat. They have commenced work on this mine with something like system, sinking a downright 300 feet, and then extending cross-cuts east and west at the several levels; they have a large area of ground on the line of the eastern and western lodes. About 20 days since some very good stone was struck at the 180 feet cross-cut west with gold throughout the entire stone. The stone thus struck is precisely similar in appearance to that of Rowe Brothers, Small and party, and Hilton, Mills and Co. Stone that in any other part of the Castlemaine district would be considered worthless is on the line of reef gold bearing. They are still continuing the cross-cut west to intersect the lode worked by Small and Co., whose claim adjoins them on the west. Taking all the circumstances of this company into consideration, with gold surrounding them at every point, I have no hesitation in saying that eventually, and not very far distant, this claim will excel any claim within a radius of many miles held by a public company. In taking a casual survey of the eastern line of lode from the claim of Gill and Co., through that of Hilton, Mills and Co., to that of the Fryer's Company I should say this company would strike the eastern lode at about 150 feet cross-cut. At the 180 feet level, then supposing the underlie to continue the same as that in the claim of Gill and Co., I am of opinion this claim will give a healthy and enduring impetus to mining by public company in this district and will tend to disperse the fallacy that in Castlemaine we have no reefs of any note.

Small and Co.'s claim is to the west of the Fryers Co., and do not embrace any portion of the eastern reef. Notwithstanding they have a rich claim, a steady yield, a large body of stone, and easy of access, and a splendid battery of their own to boot, all of which has been erected out of the profits of their mine during the last fifteen months. In fact the whole of Commissioner's Flat is studded with lodes of more or less richness, and all are paying well for being worked. Next, south-east of the Fryers Co., is the claim known as the Black Hawk, held by Kitto, Lamb and Co. They are not sufficiently deep in this mine to intersect any of the lodes in the foregoing claims.

West of the Black Hawk is the claim of the Cumberland Co. I have not yet inspected this claim, but will write of it anon.

As I have enumerated all the claims on this line of reef, I must wind up by saying I was never more prepossessed in favour of a reef than that of the Commissioner's Flat line at Fryer's Creek. This lode is durable, and of great thickness, inexpensive to work, and the average yield is excellent. ³⁵

1872-5: Between 1872 and 1875 Neilson and Company removed almost 13,000 tons of material for a return of about 230 oz. of gold. Their operations seem to have been hampered by the lack of an adequate source of cheap water. ³⁶

March 1873: Little alluvial mining at Golden Gully. ³⁷

Dec 1877: Duke and Duchess United, Golden Gully. - This company has been a long time working with considerable spirit and energy, and payable gold has been struck. ³⁸

June 1885: New Era Gold Mining Company, Golden Gully ³⁹

11 May 1889: If any of the people, who at one time, not many years back, were to visit Fryerstown at present, they, no doubt, would be very much surprised to see the condition of the mining industry at that place. What was once a long line of reef, employing large numbers of men, is now one succession of idle machinery and solitary chimney stacks. At the most southern end of the line is the Burdett-Coutts Company, which swallowed up a large sum of money. A little further north is the Golden Eagle mine, with two engines, one for crushing, and one for winding, both standing idle. Continuing north is the old Cumberland mine, from which the machinery was recently removed to Newstead; adjoining, is the Hope Tribute Co., from which two or three good yields were obtained, and about two years ago was partly purchased by a Melbourne syndicate. Then there is the Fryers Company's claim, upon which many thousands of pounds were expended. Almost alongside of the Fryers is the site of Small's plant, but latterly called the Enterprise, which yielded a large amount of gold. Then comes the New Perseverance Tribute Gold-Mining Company, which has only recently suspended operations, and on which there are most powerful winding, crushing, and pumping engines. Opposite the Perseverance is the famous Mosquito mine of Rowe Brothers, from which tons of gold have been obtained, and there is no doubt if sufficient capital was judiciously expended, the Mosquito would yield up its wealth as of yore. On the top of the hill, over the Mosquito is a powerful winding engine. Continuing south is the famous Duke of Cornwall mine, with one of the most powerful engines in the colony upon it, capable of pumping and hauling from almost any depth. On the same lease is another winding engine, but which has been idle for many years. Northward again, alongside of the main road, is a large brick stack, which marks the site of the Duchess mine. A little eastward of this are the remains of what was once the Ferron's Reef Company, and is the property of Rowe Brothers. Then we come to the New Era, which was the pride and hope of Fryerstown, and also of the whole of the Castlemaine district, but which decided a couple of weeks ago to suspend operations, and they are now engaged drawing the pumps and other movables out of the mine preparatory to winding up the affairs of the company. Upon it there is a most complete and powerful plant, capable of doing any work. Adjoining the New Era lease is that of the Fryers Creek Gold Mining Company, but which is mostly called by its old name as the Anglo. This is the most northernmost claim on the line of reef that is working, and it is to be hoped that the shareholders, who reside in England, will ere long be repaid for the large amount of capital they have expended on the mine. Consequently, on the suspension of work in the mines the miners have been obliged to seek work elsewhere, which, of course, tends to draw the population away from the district. ⁴⁰

March 1898: Sanger and Party (sluicing): 94oz gold ⁴¹

June 1898: Sanger and Party (sluicing): 5oz gold ⁴²

1903: Golden Gully Hydraulic Co.: Pumped sluicing plant operating ⁴³

1904-14 : In 1904 the Golden Gully Hydraulic Sluicing Company began pumped sluicing operations. This was a co-operative party of 13 working shareholders who used gravity feed of water to their nozzle from a raceway constructed along the western side of the gully, and then pumped the resulting slurries over the sluices with an 8 inch gravel pump driven by a 20 horsepower portable steam engine. To the end of 1914 they treated well over 14 acres of ground... The return was just over 3,700 ounces of gold. ⁴⁴

1904: Ford's Dredge or Ford Brothers: Pumped sluicing plant operating at Fryer's Creek (also at Campbell's Creek).⁴⁵

1904: Golden Gully Hydraulic Co.: Pumped sluicing plant operating⁴⁶

Dec 1904: Golden Gully Hydraulic Co.: 106oz gold ⁴⁷

1905: Golden Gully Hydraulic Co.: Pumped sluicing plant operating. ⁴⁸

1905: Ford's Dredge or Ford Brothers: Pumped sluicing plant operating at Fryer's Creek and Campbell's Creek⁴⁹

Jan 1905: Ford's Dredge or Ford Brothers: 184oz gold ⁵⁰

Feb 1905: Golden Gully Hydraulic Co.: 63oz gold ⁵¹

1906: Golden Gully Hydraulic Co.: Pumped sluicing plant operating. ⁵²

1906: Ford's Dredge or Ford Brothers: Pumped sluicing plant operating at Fryer's Creek and Campbell's Creek. ⁵³

1907: Golden Gully Hydraulic Co.: Pumped sluicing plant operating: gravity feed of water, 8 inch gravel pump, 20 horsepower portable engine ⁵⁴

1908: Golden Gully Hydraulic Co.: Pumped sluicing plant operating . ⁵⁵

1909: Golden Gully Hydraulic Co.: Pumped sluicing plant operating . ⁵⁶

June 1909: Golden Gully Hydraulic Co.: 16oz gold ⁵⁷

June 1909: Ford's Dredge or Ford Brothers: 30oz gold ⁵⁸

March 1910: Golden Gully Hydraulic Co.: 88oz gold ⁵⁹

March 1910: Ford's Dredge or Ford Brothers: 32oz gold ⁶⁰

Sept 1910: Golden Gully Hydraulic Co.: 128oz gold ⁶¹

Sept 1911: Golden Gully Hydraulic Co.: 177oz gold ⁶²

June 1913: Golde: Gully Hydraulic Co.: 77oz gold ⁶³

Sept 1913: Golden Gully Hydraulic Co.: 60oz gold ⁶⁴

Dec 1913: Golden Gully Hydraulic Co.: 78oz gold ⁶⁵

1990: Site of Heron's nugget find - on western side of Chewton-Fryerstown Road, opposite southern boundary fence of property on south corner of Taradale Road intersection... Dad showed me the spot when I was a boy and his dad showed him...my grandfather saw the actual nugget when it was found.

Duchess of Cornwall - west side of road, near the Duke of Cornwall - they never went very deep there. ⁶⁶

DESCRIPTION

Golden Gully - Gully first rushed in 1851. Reworked on numerous occasions after this time. Extensively sluiced in the late 1890s to c.1914)

Hydraulic sluicing. Extensive operations, deep sluiced banks up to 20 feet. [Chewton 1:25,000 - 558880]

Ground sluicing. Parallel channels and assoc. small paddocks.

Quartz mining/residential. Battery sand, traces of roadway, several stone fireplaces [Chewton 1:25,000 - 808765]

Residential. Several fireplaces, one single room house (still standing); stone walled paddock, fruit trees, dam, several small water races. [Chewton 1:25,000 - 561875]

Site descriptions taken from: Milner, P. 1987 The Anglo Australian Mine Site at Fryerstown Report to the Industrial History Committee of the National Trust (Vic) (Technology Citation No. TC 87/7)

PHOTOS: None taken

ARTEFACTS: None visible

INTEGRITY/CONDITION: Good

THREATS:

CULTURAL SIGNIFICANCE:

The site has:

Historical Significance	- The first and richest of the alluvial gullies to be worked in the Fryers creek Mining Division
Social Significance	- Intrical part of the Herons Reef Tourist venture
Scientific Significance	- Place contains a comprehensive range of alluvial mining relics. Many of the sites (eg. remains of houses) have high archaeological value.
Cumulative Value	- Part of a comprehensive network of quartz and alluvial mining sites associated with Herons, Ferrons and Cattles Reefs, and Golden Gully. (Sites 66, 67, 68, 69, 70.0 to 70.3, and 71.0)

Significance ranking: Regional

The significance of the place comes from the survival of a comprehensive range of alluvial mining relics. The significance of the place is enhanced by surrounding sites who, when viewed together, form a network of sites which illustrates the many aspects that characterized the history of mining activity in the Fryerstown area. The key site in this network is the Duke of Cornwall engine house (Site 70.0)

RECOMMENDATIONS FOR IMPLEMENTATION:

Site to be protected

Assessor: David Bannear Date: 1993

- 1 Argus (newspaper), Melbourne, 8/3/1852,p.2
- 2 Milner, P. 1989 Mining Sites in Specimen Hill Area, for Newmont
- 3 The Mining Journal, Railway and Commercial Gazette, London,20/8/1853, p.513
- 4 The Mining Journal, Railway and Commercial Gazette, London,16/7/1853,p.428
- 5 The Mining Journal, Railway and Commercial Gazette, London,23/7/1853, p.445
- 6 The Mining Journal, Railway and Commercial Gazette, London,6/8/1853, p.481
- 7 The Mining Journal, Railway and Commercial Gazette, London, 28/11/1854, p.56
- 8 Mitchell, R. (30 June 1882) in Records of the Castlemaine Pioneers, Rigby Ltd., 1972, pp37-38
- 9 Mount Alexander Mail, p.4
- 10 Mount Alexander Mail, p.2
- 11 Mount Alexander Mail, p.2
- 12 Mount Alexander Mail, p.4
- 13 Mount Alexander Mail, as summarized in Clive Willman collection
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- 18 Mining Surveyors' monthly reports, Castlemaine and Fryer's Creek Divisions
- 19 Department of Mines, Mining Surveyor's/Registrar's Reports, as summarized by P. Milner
- 20 Department of Mines, Mining Surveyor's/Registrar's Reports, as summarized by P. Milner
- 21 Mount Alexander Mail, as summarized by Milner
- 22 Department of Mines, Mining Surveyor's/Registrar's Reports, as summarized by P. Milner
- 23 Department of Mines, Mining Surveyor's/Registrar's Reports, as summarized by P. Milner
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 43 Annual Report of the Secretary for Mines and Water Supply, Victoria (as summarised in P. Milner, On Mining Machinery Sites in the Castlemaine and Fryers Creek Divisions, November 1989)
- 44 Milner, P. 1989 Mining Sites in Specimen Hill Area, for Newmont, p.43
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⁶⁶ George O. Brown/David Bannear March 1991- Preliminary field notes

SITE NO. & NAME: 69 NEW ERA CO. MINE

LOCATION: Ferrons Reef, Fryerstown

DIRECTIONS: Junction of Fryerstown and Crocodile Reservoir Roads. Fryerstown. Battery located on Freehold Lnad, approx 250m north-east of the mullock heap.

MAP/GRID REFERENCE: Drummond 1:25,000 - 561.873

PARCEL NUMBER: P120481

MUNICIPALITY: Newstead

LAND STATUS: Mine site is on Unreserved Crown Land/proposed Castlemaine Historic Area
Battery located on Freehold land

EXISTING HERITAGE CLASSIFICATION: None

PRESENT MANAGEMENT/USE: LCC Rec - J1

HISTORY:

23 July 1858: Yielding well. ¹

10 Sept 1858: Stabbing and Co. - 10 ton from 120-ft level yielded 8 oz. ²

8 Oct 1858: Pilcher and Co. - 102 oz. ³

May 1859: The claims upon Ferron's Reef are furnishing good wages to those employed. ⁴

June 1859: Ferron's & Heron's Reefs - Pilcher & Co. 8 in the party. During the past month this party have been erecting a new engine, machinery, etc., and are making a new dam.

Sullivan & Co. Crushed 30 ton in past month. Yield per ton - 15 dwt. Depth from surface - 30 feet.

Davis & Co. Crushed 3 ton in past month. Yield per ton - 1 oz. 2 dwt. Depth from surface - 10 feet.

Stock & Co. Crushed 32 ton in past month. Yield per ton - 1 oz. 3 dwt. Depth from surface - 20 feet.

Matthews & Co. (party prospecting).

Grodge & Co. Crushed 12 ton in past month. Yield per ton - 17 dwt. Working surface leader.

Ferron & Co. In this claim there is an immense body of quartz, or series of connected leaders, all more or less auriferous, so the whole is raised and crushed. They have already worked to a depth of 70 feet... The yields of the last month indicate the general patchy nature of this gold. ⁵

July 1859: [Table of monthly return] lists Matthews and Co., and Rowe and Co. as working Ferron's Reef. ⁶

July 1860: Ferron's Reef Company - This company is also doing nothing pending the settlement of a law suit in the Court of Mines between the former claim holders and the present proprietors. ⁷

August 1860: The Ferrons Reef has been also the scene of a small rush, in consequences of Pilcher's party having struck a leader which produces 1 1/2 oz. to the ton. ⁸

Sept 1860: Ferron's Reef - The claimholders on this reef are doing well; and most of the ground, at one time either registered or entirely abandoned, has been again taken up. ⁹

Oct 1860: Ferron's Reef - This has also made a start, having, I trust a splendid future. They have not as yet cleaned up their crushing, but the stuff looks well. ¹⁰

Nov 1860: The Ferron's Reef Company has been doing remarkably well, some of the quartz producing over 1 oz. to the ton. ¹¹

Dec 1860: Quartz Reefs actually proved to be auriferous [include] - Ferron's Reef, 50 miners employed ¹²

March 1861: There is only 1 quartz claim within the area [of Fryerstown], and that employing only 4 men. This reef, although little in this particular locality, is I believe as much worked as any reef in Victoria. It is a southerly continuation of Ferron's Reef, and the latter is believed to be a continuation of Blacksmith's, El Dorado, Wattle

Gully, (in the Castlemaine Division), Chewton and Sailors' Gully Reefs, and thence goes on to Barker's Creek... it is a remarkable fact that all the alluvial deposits around this line of quartz reefs have been extremely rich. ¹³

May 1861: The Ferron's Reef Company are still idle. ¹⁴

July 1861: Monthly quartz crushing returns lists - Pilcher and Company, and Ferron's Reef Company as obtaining quartz from Ferron's Reef ¹⁵

August 1861: Monthly quartz crushing returns lists - Pilcher and Company, and Ferron's Reef Company as obtaining quartz from Ferron's Reef ¹⁶

Sept 1861: The Ferron's Reef Company are busy, as also are Pilcher and party. ¹⁷

Sept 1861: Quartz crushed & gold obtained in past month: C. Pilcher, 110 feet from surface, 150 tons yielded 6 dwt.; Ferron's Reef Company, 70 feet from surface, 360 ton yielded 4 dwt. ¹⁸

Dec 1861: The Ferron's Reef Company is showing faint signs of improvement. ¹⁹

17 Oct 1862: Ferron's Reef Co. - getting gold. ²⁰

1865: Parties reporting yields from quartz crushing during 1865: Ferron's Company, Rowe Brothers (crushing for hire) ²¹

Sept 1866: Stevens and Company, of the Old Ferron's Reef, have just struck that reef, to the north of the old workings, and expect a yield of at least one ounce to the ton. ²²

1866: Parties reporting yields from quartz crushings in 1866: Davis and Company, Ferron's Company, Stephens and Company, Little and Company ²³

1867: Parties reporting yields from quartz crushings in 1867: Wyatt and Company, Davis and Stevens, Rowe Brothers, Steven and Davis ²⁴

1868: Parties reporting yields from quartz crushings in 1868: Stevens and Company, Davis and Little, Bear and Company, Rowe and Company, Stephens and Company, Little and Company ²⁵

March 1869: Cattle's, Ferron's, Heron's, Prince of Wales, Cemetery, and Specimen Hill Reefs constitute nearly one continuous, unbroken line of reef, although there are what are denominated the eastern and western lodes, 9 or 10 chains apart, with numerous veins and leaders running at different angles between them. ²⁶

23 Aug 1870: [Claim] No. 12 is the second claim of Rowe Bros., including the claim of Ferron, Mathews, and others, from which such rich returns were once realised. At present it is just paying. Next in order to the west, and parallel, is the claim of Redhouse and Co., on the western line of reef, and embracing the old Golden Gully. It was in this claim that the celebrated Heron nugget of 1008 ozs. was found. No. 14 is the claim of Stephens and Co., where is an engine of 12 horse-power and 12 stampers. There, too, water has been a visitor, and the claim may be said to be just paying. ²⁷

Dec 1870: Another shaft, about 300 feet east is being sunk, in order to work the eastern lode of Ferron's Reef. ²⁸

2 Aug 1871: Ferron's Reef Gold Mining Co. - shaft has been sunk to 150 ft. Tributers are working the old workings to the south of the company's claim. ²⁹

29 Sept 1871: Duchess of Cornwall Gold Mining Co. - lease is 900 ft on the line of the reef which traverses Rowe Brothers' claim...and extends into Anglo-Australian Co. ³⁰

June 1872: The Ferron's Company are working their mine to advantage. The average yield is 6 dwts. to the ton. The reef underlies easterly; and it is contemplated by the manager that, as a greater depth is attained, the eastern lode of Ferron's will amalgamate therewith. This company are sinking a new shaft northerly. ³¹

Dec 1872: The Duke and Duchess Extended (between Ferron's and Anglo Company's ground), at a depth of 111 feet in their main shaft, struck a reef about 3 feet thick containing gold; and as the leaders or feeders thereto were all gold-

bearing, it is expected that the lode when developed will prove payable; this will not, I believe, be tested for a time, as the company are anxious to proceed with their main shaft. ³²

Sept 1873: The Ferron's Reef company are also erecting a 25 horse-power, horizontal engine, with 20 heads of revolving stamps, for crushing only; their present engine to be exclusively employed in pumping and winding when present one is completed ³³

Dec 1873: The Ferron's Reef Company have erected a fine 25 horse-power engine and battery of 10 revolving heads, with single friction winding gear; the house is erected to contain a battery of 30 heads. The entire plant has cost over £3000. ³⁴

8 Jan 1874: Ferron's claim was worked by Ferron and party for about four years. The party commenced breaking stone from the surface, and attained a depth of 2-1/2 feet, where a leader was three inches thick, and which yielded 11-3/4 oz per ton. They sank to a depth of 35 feet, where they struck the lode, which was from 20 to 24 feet thick, dipping west, and gradually tapering to a thread. I cannot do better than quote Mr Ferron's statement, given to me many years back:- "Our washing of quartz was by ordinary tub and cradle process, and we obtained £40 per week for 3-1/2 years. Most of the refuse we stacked, although hundreds of tons were buried up that yielded 1oz to the ton. We afterwards crushed with an imperfect battery, that was only capable of putting through one ton at most per day, the average yield of which was 4oz to the ton. We crushed a great quantity from the eastern lode - in the writer's opinion, Clarke's reef - varying from 2oz to 5dwt to the ton. The latter yield was got at a depth of 60 feet; the lode varied in thickness at that depth of from six inches to 2-1/2 feet. We paid £4 per week wages, and £4 per ton crushing, in addition to cartage, and we were compelled to well burn the stone ere crushing." Upon its abandonment, Pilcher and company, who had been working ground adjoining from the opening of the reef, took possession, and, for a period of six years or more, crushed therefrom to a depth of 60 feet on the eastern lode and 70 feet on the main lode. Excellent returns were obtained by this party, and it seems somewhat remarkable that at the time they - a co-operative party - could barely make 5 dwt to the ton pay expenses, when we now have a public company declaring dividends upon an average yield under 4.5 dwt. Rowe and company's crushings during the long period they had possession obtained from 3 dwt to 5 oz to the ton from the eastern lode, which varied in thickness from 9 to 30 inches. From the main lode the party crushed about 1000 tons, varying from 3 dwt to 4oz to the ton, and averaging 9 dwt. Stevens and party, the predecessors of the present company, in four years crushed about 7000 tons, averaging 9 dwt to the ton, and only attained a depth of 80 feet, which in other localities would simply be regarded as shallow workings... The new plant of the company consists of a 25 horse-power horizontal engine, 16-1/4 inch cylinder, 3 feet stroke, fly-wheel 12 feet diameter, boiler 28 feet long and 6 feet diameter, single friction winding-gear, 10-head battery of revolving stamps, horses of best Sandhurst timber, ripple tables of 20 feet 6 inches. The whole substantially and neatly covered in with a house adequate for receiving 30 head of stamps. ³⁵

27 Jan 1874: Ferron's Reef Co. - The various plant contracts have been carried out in a highly satisfactory manner by Messrs Horwood Bros., ironfounders; Jorgensen and Co., carpenters, and Curtis and Co., bricklayers, under the able supervision of Mr P. Wright, engineer, and your directors are gratified to be able to congratulate you on the possession of one of the best and most efficient plants in the district, consisting of a 16-1/4-inch cylinder engine, with 20 head of stamps, to which 10 more will be added whenever required, and a 10-inch cylinder engine for pumping and winding. The total cost will be about £3500. ³⁶

28 Jan 1874: Ferron's Reef Co. - The new engine is from the foundry of Messrs Wright and Edwards, Melbourne, and is a model of an horizontal pattern. ³⁷

2 Feb 1874: Ferron's No. 1 - New shaft down 42 feet. ³⁸

2 March 1874: The Ferron's Co., having driven to their north boundary, have granted No. 1 permission to work from this level and send the stone up engine shaft. In the new shaft near Anglo boundary a west cross-cut is being put in. ³⁹

30 April 1874: Ferron's No. 3 Tribute Co. - half-yearly meeting - ...I have every confidence that...this leader will bring us on to a body of quartz, some of which was worked years ago from an old shaft... when I found that there was a big block of stone left alongside of old workings, which have all the appearance of being payable, I thought it would be advisable to take out a trial crushing, and commenced last week with two men to break quartz. The Ferron's Company having a battery available, started crushing at once. ⁴⁰

11 May 1874: Ferron's No. 3 Tribute Co. - Rowe Bros., to south, have struck gold near the boundary at 240 feet. ⁴¹

1 June 1874: Ferron's No. 1 - Half-yearly meeting - New shaft was commenced at northern boundary - sunk to 50 feet then cross-cut west. Then worked Ferron's Co. level... The tributers working adjoining ground recently struck stone east of engine shaft yielding 8 to 10 dwt to the ton, which they have followed to our boundary. ⁴²

1 Sept 1874: Ferron's No. 3 Tribute - The tribute agreement has been cancelled by the directors as the tributers did not employ the required no. of miners - the area will be let on 'pitches'. ⁴³

14 Sept 1874: Another 'pitch' has been let to Bennett and party who have commenced stoping at the 200-ft level, north of No. 2 shaft. ⁴⁴

Sept 1874: The Ferron's are opening out in an easterly direction, having discovered good indications outside their present workings. ⁴⁵

18 May 1875: Ferron's No. 1 Tribute Company - Half-yearly Meeting - ...The quantity of stone raised was 1954 tons, yielding 345 oz 19dwt. Great difficulty and delay has been experienced in working, owing to the extraordinary amount of timbering required in a portion of the ground, otherwise even the low yield obtained, averaging 3 dwt 13 gr. per ton, would have proved profitable.

Mine Manager's Report - ... I would like to have done something more in the shape of prospecting the mine, but our means being so limited, we failed to do so. I believe if the mine had been fairly opened up our prospect would be good, but this cannot be until the Ferron's Company sink their engine shaft. ⁴⁶

22 Nov 1875: A new tribute has been let to Hill and party (Southern) comprising the ground previously held by No. 3 Tribute Co. ⁴⁷

31 Jan 1876: Ferron's Reef Co. - There has passed through the battery 4725 tons of stone, for a gross yield of 711 oz 11 dwt 12 gr retorted gold as follows:- For the Company, 2389 tons, for 374 oz 1 dwt; No. 1 Tribute, 1052 tons, for 161 oz; Bennet's Tribute, 516 tons for 112 oz 11 dwt; Eastern Tribute, 606 tons, for 54 oz 15 dwt 12 gr; Southern Tribute, 145 tons, for 8 oz 9 dwt; and Hill and party, 17 tons, for 15 dwt. ⁴⁸

2 June 1876: Ferron's No. 1 Tribute - Half-yearly meeting - ...sufficient stone can now be raised, with the present number of men (twelve) to keep 10 head of stamps constantly going. ⁴⁹

June 1876: The Ferron's Reef Company. - This company have been very energetic and prosperous during the past three months, having crushed over 4,000 tons of quartz, yielding on the average 3 dwts. to the ton, and employed regularly forty-three men. Their engine shaft has been sunk to a depth of 284 feet from the surface, or about 50 feet below the level where the gold has been obtained. ⁵⁰

Sept 1876: Ferron's Reef Q.M. Company. - This company have been very successful during the past three months, having crushed 3,700 tons, yielding 726 ozs., and employing 44 men. ⁵¹

Dec 1876: The Ferron's Reef Company are working at the 280-foot level, in payable stone, which is likely to continue in a northerly direction, intersecting the Duke and Duchess and Anglo claims. ⁵²

Dec 1876: Parties reporting yields of gold from quartz crushed: Ferron's Reef Company, Ferron's Reef; Rowe Brothers, Ferron's Reef ⁵³

June 1877: The Ferron's Reef Company. ..The company have now suspended crushing operations, and discharged about 30 men, in order to cut down the engine shaft from the surface, and make it the full size of 9 feet x 4 feet in the clear; this will enable them to work two cages, and make provision for more extended mining operations underground. The directors have also decided on erecting new winding engine, poppet legs, gangway, &c., which will probably occupy two months in completion... It appears there is an unlimited supply of auriferous stone within this claim, and years of profitable labor in prospective. ⁵⁴

Sept 1877: The Ferron's Reef Company. - This company have completed the various additions and improvements alluded to in last report, viz, erected a new winding engine of 25 horse-power, new winding gear, poppet legs, two new cages (with coverings), enlarged and cut the main shaft down 200 feet; the total cost being about £900. ⁵⁵

17 Dec 1877: Ferron's No. 1 Tribute - Sinking a new shaft on northern part of ground down to 50 feet. ⁵⁶

Dec 1877: The Ferron's Reef Company. - This company temporarily suspended mining operations during a crisis, owing to a law-suit, but recently has been reorganized, and is now proceeding with vigor... Various improvements and additions have been effected in connection with the machinery and plant during the past six months, viz., a new boiler and winding-engine erected; the main shaft (9 feet x 4 feet) has also been cut down from the top to a depth of

354 feet; and new poppet-heads, gangway, &c., have been constructed. The company...has crushed during the past quarter 3,345 tons, at an average of nearly 51/2 dwts. to the ton. ⁵⁷

March 1878: The Ferron's line of reef appears now to be more profitably worked than the Cattle's, the latter having generally been considered the more important line, and better defined. ⁵⁸

Dec 1878: Rowe Brothers and the Ferron's...can succeed with a low average, in consequence of their splendid mechanical appliances, the vast quantity of stone at command, and the economical mode of working the ground. The Ferron's (New Era Company) employ 67 men and boys, and have used during the past twelve months 4,000 tons of firewood, at a cost of £1,100; they have raised during the past three months 5,477 tons of quartz from the 380-foot level, averaging 3 dwts. 14 grs. per ton. Rowe Brothers have crushed 1,508 tons of quartz, averaging nearly 9 dwts. to the ton, from the 175-foot level, and the general prospects of the mine are highly favorable... This company, in their Ferron's Reef claim, are now driving at the 300-foot level, but are not progressing so satisfactorily as might be desired. ⁵⁹

20 Jan 1879: New Era - You are aware that considerable difficulty was formerly experienced in disposing of the tailings, your directors are pleased to inform you that an arrangement has been made with the Water Supply department, by which the company now obtain a constant supply of water for sluicing away the sand from the batteries, and a considerable saving will thus be effected, not only in labour in shifting the sand, but in steam power, the tailings pump having been dispensed with. ⁶⁰

2 June 1879: Ferron's No. 1 Tribute Co. - half-yearly meeting - ...There has passed through the battery 3848 tons for a yield of 530 oz smelted gold, being an average of 2 dwt 18 gr. to the ton. ⁶¹

Sept 1879: New Era Company...gives good dividends to the shareholders... The total depth of the main shaft is now 514 feet. ⁶²

13 Oct 1879: New Era Co. - ...Such...was the impression conveyed by an examination of the 230 feet level, which when being driven 70 feet to cut the eastern lode passed through several bodies of quartz. These were followed upwards by rises till within 100 feet of the surface, and all to good purpose. The Tribute Co. also found them profitable for a distance of 340 feet, which brought them to the boundary of the Anglo Co. ⁶³

1 Dec 1879: Ferron's No. 1 Tribute Co. - half-yearly meeting - ... An application was made by George Wilde for assistance, he having been injured last March, when working for the company. His medical adviser informed he would be unable to do mining work for two years, and he was recommended to learn shoemaking. It was resolved to allow him 10s a week for twelve months. ⁶⁴

19 Jan 1880: New Era Co. - From the sale of pyrites a sum of £443 8s 7d has been obtained. A valuable addition has been made to the property of the Company by the purchase from the Duke and Duchess United Company Limited, of the northern portion of their lease, comprising an area of 10 acres 1 rood 13 perches. ⁶⁵

March 1880: New Era Company. - ...The company has been very fortunate during the past quarter, the yield of gold having greatly increased, principally from having struck payable stone in their new ground, formerly held by the Duke and Duchess Extended Company.... Seventy men are constantly employed, and preparations are now being made for the employment of a large additional number of miners. ⁶⁶

17 May 1880: Messrs Tolstrup and Elsbury have taken up a claim on tribute from Messrs Rowe Brothers in which a shaft is sunk and which they intend sinking still deeper from 80 ft to 100 ft - to the south of the New Era... The lease taken up by Tolstrup and Elsbury is between the New Era and the mine of Messrs Rowe Brothers. ⁶⁷

31 May 1880: Ferron's Reef Company (Messrs Tolstrup, Elsbury & Co.) - First crushing for the new company (between New Era and Rowe Bros. claims) ⁶⁸

June 1880: Ferron's Reef Company. - A new company has been recently started, working, on tribute, on an area of ground held by Rowe Brothers (under the Leasing Regulations) contiguous to and in direct line with the New Era Company's workings. Tenders are being called for supplying a winding engine, to be erected at once. The main shaft has been sunk to a depth of 315 feet. ⁶⁹

19 July 1880: Ferron's Reef Company - Putting main shaft in order - timbered to 225 feet and son finished to bottom at 315 feet. ⁷⁰

26 July 1880: Ferron's Reef Co. - Let blocks to tributers. ⁷¹

26 July 1880: New Era Mining Co. - At the 184 feet level the No. 1 Tribute Company has extended the north drive to their boundary, when it was continued by us through to the 'Duchess' shaft for ventilation..⁷²

16 Aug 1880: Ferron's Reef Co. - About to commence sinking another 40 feet. Crushing for Royal Saxon Co. ⁷³

25 Oct 1880: Ferron's Reef Co. - erecting engine. ⁷⁴

26 Jan 1881: Ferron's Reef Co. - half-yearly meeting - Shaft repaired and two opening sets put in at 320-ft level. It has been divided into three compartments. Present depth 370 feet. Have let several tributes. ⁷⁵

25 July 1881: Ferron's Reef Co. - half-yearly meeting - Shaft 430 feet deep. There has been crushed for the Company and Tributers 760 tons of quartz, for a yield of 92 oz 7.5 dwts of retorted gold, being an average of 2.5 dwts to the ton; also 434 tons for the public. ⁷⁶

1 Dec 1881: Ferron's No. 1 Tribute Co. - half-yearly meeting - There has passed through the battery 3547 tons of quartz for a yield of 949 ozs 17.5 dwts of melted gold, being an average of 5 dwts 8 gr. per ton. ⁷⁷

6 Jan 1882: At the south end of the New Era is the Ferrons. ⁷⁸

March 1882: New Era Company have had very good returns of late, no signs of exhaustion in the mine, and 80 men constantly are employed. The company have crushed nearly 5,000 tons quartz, yielding about 900 ozs... Fifty tons of pyrites have also been operated on, yielding 1 oz. 8 dwts. to the ton; the proportion of pyrites is equal to about 1 per cent. on the total amount of quartz crushed. ⁷⁹

24 April 1882: Ferron's No. 1 Tribute Co. - final crushing. ⁸⁰

June 1882: New Era Company...[have]...procured and erected a new pumping engine of 25-horse power, at a cost of £800, which will enable them to attain a depth of 1,000 feet, and thoroughly drain the mine at all the lower levels. The machinery, which works admirably, has been supplied by Messrs. Thompson and Co. ⁸¹

Sept 1882: The Ferron's Reef Company... The ground occupied by the company is held on tribute from Rowe Brothers, and immediately adjoins the New Era Company on the south. ⁸²

Dec 1882: The New Era Company have sunk their main shaft a further depth of 56 feet during the past year it has now attained a total depth of 569 1/2 feet from the surface... From the mining manager's statement, it would appear that the underground workings are in good condition, well ventilated, and securely timbered; and considering the large number of men (88) working within an area not exceeding 7 1/2 acres it is a matter for congratulation that so few accident has occurred. ⁸³

29 Jan 1883: Ferron's Reef Co. - half-yearly meeting - H.O. Rowe presided. ...a marked improvement has taken place in the prospects of the Company during the half-year just terminated. The Company's share of the gold amounted to £1624 3s 1d, of which the first dividend of 6d per share, amounting to £500, has been declared. It is the painful duty of your directors to report that a fatal accident occurred in the mine on the 2nd December last, to a youth by name, Samson Thomas, through a fall of quartz... Your directors beg to inform you that they have since the termination of the half-year paid £120 as compensation to the father of the young man alluded to. ⁸⁴

29 Jan 1883: New Era Co. - Your Directors were fortunate enough to secure a very valuable addition to the Company's property, by the purchase of Finney's freehold for the sum of £317 2s 6d. The acquisition of this property, situate as it is in the heart of the company's lease, is of great importance to the Company, not only for mining, but also for surface purposes... The main shaft has been sunk a further depth of 56ft, making 569-1/2 ft. from the surface... The No. 3 (or 330 ft) level has been extended south on very large stone to the Ferrons Co.'s boundary... During the half-year about 99 men and boys have been employed, all in the day shift, with the exception of those at the battery and those sinking the shaft. ⁸⁵

March 1883: Two of the more important companies have, comparatively speaking, suspended operations, viz., the "New Era", and "Rowe Brothers"; the manager of the former company, unfortunately, had a dispute with one of his workmen, which led to the discharge of the latter, when a general strike took place among all the miners employed; various attempts to adjust the difficulty have been made, but hitherto without success, so that a large number of men

are out of profitable and permanent employment. A miners' association has been organized at Fryerstown, which assumes to itself the right to dictate terms, and regulate the proceedings between employer and employed. ⁸⁶

June 1883: The New Era Company...have recently purchased the Duke and Duchess Company's lease block, which had been idle for a very long time. The mine (New Era) is again in full working order, the recent difficulty with the workmen on strike having been satisfactorily adjusted. There are 85 men employed...but, as the adjoining block of over 20 acres has been secured, it is anticipated more men will be employed.⁸⁷

30 July 1883: New Era Co. - Your Directors have much pleasure in informing you that they have effected a purchase of the southern portion of the lease formerly held by the Duke and Duchess United Company, together with the machinery on it. ⁸⁸

Sept 1883: New Era Gold Mining Company. -...the mining manager has no difficulty providing employment for a large number of miners, and keeping fifteen heads of stamps constantly going. ⁸⁹

28 Jan 1884: New Era Co. - The mine is in first-class working order, and the whole of the underground work is carried on by about sixty men in the day shift. ⁹⁰

March 1884: Ferron's Reef Co. wound up and plant &c. disposed of by tender or auction. ⁹¹

June 1884: New Era Company. - Some two months since, this company considered it expedient to suspend mining operations, and discharge all the workmen, 80 in number, representing that the mine had ceased to be payable. The action taken by the directors caused a considerable amount of surprise and consternation amongst the miners and different tradesmen interested. However, after a few days, it was proposed to work the mine on the tribute system; but the terms submitted were not acceptable to the workmen, and it was feared the works would be stopped for an indefinite period; but, as it was foreseen that the stoppage would entail great hardship on a number of hardworking and industrious men, the directors, on further consideration, determined to re-commence operations under the old system, the number of men to be reduced. There are now about 40 miners employed, and recent crushings show that, by careful management, the mine is still capable of paying expenses. ⁹²

June 1885: New Era Gold Mining Company, Golden Gully, have now sunk their main shaft a total depth of 645 feet. ⁹³

Sept 1885: New Era Gold Mining Company. - This company has now succeeded in sinking their main shaft a total depth of 671 feet, the greatest depth yet attained in the Fryer's district. ⁹⁴

March 1886: The diamond drill at Fryerstown is now engaged on the New Era Company's lease, the depth bored during the quarter being 725 feet, but up to the present time (March 31st) no bodies of quartz have been intersected... Cowling's patent safety cage and appliances have been recently tested at this mine (New Era) in the presence of many practical miners, and found to work admirably. The cage, when disconnected from the rope, was immediately arrested in its descent by the grippers securely adhering to the guides in the shaft; two or three experiments proved highly satisfactory. ⁹⁵

25 July 1887: New Era Co. - The main object for the past half-year has been to push on the sinking of the shaft as energetically as possible. A depth of nearly 900 ft has now been attained, and...no payable stone has yet been discovered⁹⁶

Dec 1887: New Era Gold Mining Company. - This company have now reached a total depth in their main shaft of 1,000 feet, the greatest depth ever attained in the Fryer's district...but the prospects are not particularly encouraging so far. ⁹⁷

23 July 1888: New Era Co. - The present depth of the shaft is 1078 ft, and 22 ft more will finish the present contract, which will make the total of 1100 ft. ⁹⁸

March 1889: the original discoverer of Ferron's reef, now an inmate of the Castlemaine Hospital, declares that himself and party realized from the reef, which bears his name, £20,000 worth of gold, which was squandered away in the most reckless manner during a period of two or three years...

New Era Gold Mining Company (formerly Ferron's Reef Quartz Mining Company). - The ground occupied by this company was taken up in the year 1871, but prior to this date several parties had possession and worked the ground to considerable advantage, viz., D. Ferron (the original discoverer), followed by Messrs. Pilcher, Jac Jung, Wyatt, Davis, and Stephens; but no reliable returns can be furnished at the present time, touching the various yields prior to the year 1867. The New Era Company have been very successful up to a certain period, but more particularly during

the years 1878, 1879, and 1880, viz., 11,566oz. being realized, and dividends paid, £16,400. during the years 1871 to 1877 inclusive, the total yield was 10,531 oz.; dividends, £6437. The present company have worked the reef 700 feet in length, in separate shoots, to a depth of 330 feet. The strike of the Reef is N. 7° W.... The depth of the main shaft is 1,100 feet, but nothing payable has been found at that depth. The depth of water-level is 50 feet. Although this claim has been remarkable for the vast quantity of quartz raised and crushed, and payable at a low average, still no properly-defined reef has yet been discovered. The mining manager (Mr. Bell) is very sanguine of making some startling discoveries, touching a so-called *second formation* below 1,000 feet... The yields from various depths are as follows:- Surface to 50 feet, 946oz.; to 100 feet, 1,138oz.; to 150 feet, 2,485oz.; to 200 feet, 3,296oz.; to 300 feet, 3,986oz.; to 400 feet, 2,453oz.; to 600 feet, 748oz.; to 800 feet, 594 oz. Total number of tons, 202,517; average 3.7dwt. to the ton. the reef is in work at the present time (March, 1889), driving and cross-cutting, but very little quartz is being raised and crushed from the higher levels. ⁹⁹

29 April 1889: Seeing that enough money was not procurable from call paying shareholders, the directors felt unable to sink another 100 feet as proposed, so that they recommend that steps be made to wind up the company. ¹⁰⁰

June 1889: New Era and Perserverance Gold Mining Companies. - After being in existence a great many years, these companies have collapsed through an inability to pick up the lost lead in other claims. The New Era...main shaft has been sunk to a depth of 1,100 feet; but in reaching that depth, some 800 feet of barren country had to be passed through ... it is to be hoped that a new company will be started to work the higher levels (with a new shaft) more to the westward, where in all probability the Cattle's line of reef will be intercepted. The plant should not be removed unless under very pressing circumstances. ¹⁰¹

9 Jan 1899: Ford & party are working on stone along the New Era Line at a mine called the Saxon adjoining the Blacksmith Gully Extended Co. ¹⁰²

DESCRIPTION

New Era Co. (formerly Ferron's Reef Quartz Mining Co.) 1871 to c.1889

Partially quarried mullock heap. To the north east are large dumps of treated tailings. The tailings dumps have been quarried. At the western end of the tailings is the remains of a sludge embankment.

On freehold land to the west of the mullock heap, only metres from a residence is the remains of the New Era Co.'s battery (stone boiler setting and base of circular stone chimney stack base).

PHOTOS: None taken

ARTEFACTS: None visible

INTEGRITY/CONDITION: Mine workings and tailings dump have poor integrity. Only features of any value are what survives of the battery and the tailings embankment)

THREATS:

CULTURAL SIGNIFICANCE:

The site has some:

Scientific Significance - Trace of battery foundations on freehold land and remains of tailings embankment on Crown Land.

Cumulative Value - Part of a comprehensive network of quartz and alluvial mining sites associated with Herons, Ferrons and Cattles Reefs, and Golden Gully. (Sites 66, 67, 68, 69, 70.0 to 70.3, and 71.0)

Significance ranking: Local

CONSERVATION POLICY:

None required

RECOMMENDATIONS FOR IMPLEMENTATION:

None

Assessor: David Bannear

Date: 1993

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25 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
26 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
27 The Mining Journal, Railway and Commercial Gazette, London, 5/11/1870,p.924
28 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
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SITE NO. & NAME: **CATTLES REEF SITES**
70.0 Duke of Cornwall Company
70.1 Mosquito Co.Mpany (Rowe Brothers)
70.2 Cattles Reef whim shaft

LOCATION: **Cattles Reef, Fryerstown**

DIRECTIONS: Duke of Cornwall engine house on west side of the Fryerstown Road, 0.7km south of the junction with Crocodile Reservoir Road. Other two sites on the east side of the road.

MAP/GRID REFERENCE: Site 70.0 Drummond 1:25,000 - 559.866
 Site 70.1 Drummond 1:25,000 - 559.864
 Site 70.2 Drummond 1:25,000 - 560.865

PARCEL NUMBER: Site 70.0 - none
 Sites 70.1 and 70.2 - P129390

MUNICIPALITY Newstead

LAND STATUS: Site 70.0 - Freehold Land
 Sites 70.1 and 70.2 - Unreserved Crown Land/proposed Castlemaine Historic Reserve

EXISTING HERITAGE CLASSIFICATION: Duke of Cornwall on the registers of the National Estate and Historic Buildings Council (Victoria)

PRESENT MANAGEMENT/USE: LCC Rec - J1

HISTORY:

15 Oct 1858: Reef opened eighteen months previously and soon abandoned - Watts and Party have taken up deserted shafts. ¹

July 1859: [Table of monthly returns] lists Hazlitt and Co., and Tait and Co. as working this reef to a depth of 30 feet. ²

17 Aug 1860: Hazlett and Co. - washing 160 loads with 4 horses and 2 mills ³

March 1861: There is only 1 quartz claim within the area [of Fryerstown], and that employing only 4 men. This reef, although little in this particular locality, is I believe as much worked as any reef in Victoria. It is a southerly continuation of Ferron's Reef, and the latter is believed to be a continuation of Blacksmith's, El Dorado, Wattle Gully, (in the Castlemaine Division), Chewton and Sailors' Gully Reefs, and thence goes on to Barker's Creek... it is a remarkable fact that all the alluvial deposits around this line of quartz reefs have been extremely rich. ⁴

14 April 1862: Lease again taken up - up to 7 oz per ton. ⁵

6 June 1862: Cattle and Co., Ridgeway and Co. ⁶

3 June 1864: Duke of Cornwall - prospectus £3,000 capital, 300 shares - lease adjoins Cattle and Co. ⁷

June 1864: A company named the Duke of Cornwall is being formed for working a lease of 12 acres applied for by Stoneman and others on Cattle's Reef. The proprietors have good prospects, but not sufficient capital to work the mine properly, the water at 30 feet from the surface being considerably beyond the power of hand baling.

The next claim to the Duke of Cornwall, owned by Cattle and Company (the original discoverers of the reef), is yielding some extraordinary stone at the present time; up to the time that I visited the claim, fully sixty ounces of gold had been taken out for 6 days work by one man, and this without crushing; it was pure gold knocked out, besides sending quartz to the mill which expected to yield very handsomely. I have not, during my experience, seen an equally good show of specimens. One piece of gold weighed 41/2 oz.

Rowe Brothers have the next ground south of Cattle, and at a depth of 110 feet from the surface, are obtaining over an ounce to the ton, from a reef of great thickness. I believe Cattle Reef to be the best known in this division. ⁸

Sept 1864: Cattle and Co. have been engaged during the last two months in removing their crushing machinery from its old site (about three-quarters of a mile from the claim) to a point in the immediate vicinity. They expect to resume work in about eighteen days. ⁹

Dec 1864: Cattle and Co. have their machinery in working order on the new site near the mine; they obtain yields that give them a fair income per man. The yields from the Duke of Cornwall mine, adjoining Cattle, are improving... Rowe Brothers continue to do well. ¹⁰

March 1865: The Duke of Cornwall Company, on Cattle Reef, have erected a crushing machine, and will commence crushing as soon as their shaft has been sunk to a sufficiently low level to drain the old workings and give a fair height of dry ground or backs for working to advantage. The Croesus commenced crushing last week. ¹¹

June 1865: The Duke of Cornwall Company have not yet been able to reduce the water so as to work the main reef, and the result of their crushing thus far is, therefore no criterion of the value of their claim. ¹²

1865: Parties reporting yields from quartz crushing during 1865 - Cattle and Company, Duke of York [Cornwall?] Co., Rowe Brothers ¹³

Sept 1866: In Rowe's No. 2 claim, although it adjoins Cattle's (the latter is the best claim in the sub-division), gold could not be obtained in paying quantities, after five years work had been spent on it, until they sunk about 30 feet below the water level, where they have struck a splendid lode. The Duke of Cornwall claim - immediately to the north of Cattle's - has yielded nothing worth consideration, although it has been worked for nearly three years. ¹⁴

1866: Parties reporting yields from quartz crushings in 1866 - Cattle and Company, Duke of Cornwall Company, Rowe Brothers ¹⁵

1867: Parties reporting yields from quartz crushings in 1867 - Cattle and Company, Stewart and Company, Duke of Cornwall, Little Davis, Rowe Brothers, Mills, Hilton and Company. ¹⁶

8 Feb 1868: AUSTRALIAN UNITED GOLD MINING COMPANY (LIMITED)

Attention is called to the prospectus of the above company, which appears in...this day's Journal... The Australian United Gold Mining Company is, it may be hoped, not only the forerunner of many that must follow, but takes the initiative in opening a new, vast, and profitable field for the safe investment of some of our unused and at present commercially worthless capital...

Hilton and Co., working one of the lodes which runs through the Duke of Cornwall Mine (one of those to be worked by the Australian Company), about 180 yards from the South boundary, have discovered within the last six months a shoot of gold which is giving each of the working partners over £100 weekly...

The two mines to be worked by the Australian United Gold Mining Company are so well reported on that no doubt is entertained as to the result. The high official position of Messrs. Kitto and Ulrich, in connection with the Mining and Geological Survey of Victoria, is a sufficient guarantee to intending investors. The report of Capt. Rowe is attested by Capt. Charles Thomas, of Dolcoath Mine, Cornwall, a fact that brings the evidence as to the value of these properties to our very doors. ¹⁷

March 1868: Duke of Cornwall Company - This company, who occupy a large area of ground, have been reluctantly compelled to suspend operations. They have already expended a large sum, with the view of striking the main reef below the water-level. ¹⁸

June 1868: Table showing depths of some shafts, which have been sunk during the past six or seven years, includes - Rowe and Co, Cattle's Reef Depth of Shaft 140 feet ¹⁹

Sept 1868: The United Australian Gold Mining Company, who occupy a large area of ground, have been busily engaged erecting engine house, sinking two shafts, and otherwise preparing for the proper working of the mine. The shafts are respectively 90 and 70 feet. Within five weeks an engine of 50 horse-power is expected from England, with the usual appliances, and a battery of 48 stamps.

Mills and Co. have touched (in their new shaft) one of the lodes previously worked upon to the north, and towards Rowe, Cattle, and the Australian United Companies; and although much troubled with water, by the drainage of higher ground, yet sufficient has been seen to satisfy them that the lode is equally rich as in their more northern workings. ²⁰

1868: Parties reporting yields from quartz crushings in 1868 - Rowe and Company, Cattle and Company, Mills and Company. ²¹

1 Feb 1869: Duke of Cornwall Mine..[Advice from Kitto, Manager]. Engine: The boiler has been fixed some time; the beam, or "bob", is in position, as also the cylinder, while the other portions will be arranged as rapidly as possible... Mr Rowe reports every portion of the building erected to a nicety (for the reception of the machinery)

seldom to be met with, the more especially in the absence of the engineer...not a single workman engaged in connection with it ever saw a Cornish engine-house before. ²²

March 1869: Cattle's, Ferron's, Heron's, Prince of Wales, Cemetery, and Specimen Hill Reefs constitute nearly one continuous, unbroken line of reef, although there are what are denominated the eastern and western lodes, 9 or 10 chains apart, with numerous veins and leaders running at different angles between them...

...very payable stone is now being raised at the 135-foot level (Cattle's Reef) - half and three-quarter oz. to the ton...

The Australian United Gold Mining Company have succeeded in placing their plant upon the ground, but their large engine is only erected. The total value of the plant is about £8,500, consisting of a vertical double-acting engine, with a 9-foot stroke in cylinder, with a nominal horse-power of 70, but can be worked to 200, with 24 head of stamps; one 25 horse-power horizontal engine for winding; one 1 horse-power portable engine for sawing timber. The company have three working shafts, one 84 feet deep, one 145 feet, and one 135 feet. It is proposed to sink the 145-foot shaft to a depth of 1,000 feet. A large quantity of quartz has already been raised, something like 1,500 tons, from the 135-foot level; the quality is of a highly auriferous character, and is estimated to yield from 8 to 10 dwts. to the ton. The stamping machinery will be erected in the course of two months, and crushing operations commenced; but the claim will not be in full working order for nine or twelve months.

Mills, Hilton, and Co. - This company is proceeding energetically; the lode is well defined, 9 feet wide at a depth of 110 feet, and averaging 15 dwts. to the ton; but a large body of water has to be encountered, which much impedes their operations.

Cattle and Co. have been sinking and driving in order to strike the lode which the Australian Company are at present working. They have been unable to crush during the past three months. ²³

April 24 1869: Duke of Cornwall Mine: [Advice from Kitto, Manager]... The workings of the old shaft and those of Daukes's have been connected by means of a winze sunk from the bottom level of the old shaft to that of Daukes's; the result is the thorough ventilation of the mine. The pumps will be connected with the engine in one week from this date, , when sinking will be resumed. I have purchased a sale sundry light railway iron for my surface and underground tramways, at an average cost of less than £6 per ton; together with 32 iron trucks, &c., equally cheap... Immediately the pumps are at work at the Duke of Cornwall I shall instruct Mr Rowe to erect the engine at this mine, as the loadings are ready to receive it. ²⁴

22 May 1869: Duke of Cornwall Mine: [Advice from Kitto, Manager]... Before the departure of the next mail I hope to have 24 head of stamps at work, by which at least 300 tons of stone will be reduced weekly. ²⁵

June 1869: The Australian United Gold Mining Company have completed the erection of their first battery of 24 heads, and are crushing day and night...

Hilton and Company are working with their usual averages, but are much impeded in their underground operations by having a large body of water to contend against. ²⁶

23 Oct 1869: [Australian United Gold Mining Company - first ordinary general meeting]... In the prospectus it was stated "It is expected that in one year the Central Mine [Malmsbury] will be in full work, and the Duke of Cornwall in 18 months." In July 1868, the works were begun at the latter mine, and on June 19, 1869, Mr Kitto advised the starting of 24-heads of stamps, which he stated working admirably... On July 17 Mr Kitto wrote that he had crushed 80 tons of the quartz at the Duke of Cornwall, which had yielded about 55 ozs. of gold, or at the rate of about 13 dwts. per ton... But Mr Kitto further reports, "as the furnaces for roasting the pyrites and the apparatus for collecting it were not completed, I had an assay made of the tailings, which showed that I was losing just three times as much gold as I was collecting, the yield from the tailings being over 2 ozs. per ton. I at once ceased crushing, nor will I recommence until every appliance for saving the precious metal is perfected." In his next and last letter (dated Aug. 14) he states that fully three weeks must elapse before he has the separators, concentrators, &c., completed, but adds "under the circumstances you will have a dividend by the end of the year."...

Mr GILL asked if there was any danger of the supply of timber falling off? - Mr LAMB replied that the first contract was for some thousands of tons at 3s. 6d. per ton. There was sufficient timber to last for a century within carting distance. - Mr FIELDER said that some large deposits of lignite had been discovered in the neighbourhood. ²⁷

Nov 1869: Extracts from a private letter from Mr Gill to Mr Lamb, dated Fryer's Town, Nov. 7:- I can understand how thoroughly impatient you are getting, but I am afraid you will have to wait longer yet if you are dependent upon us for good news. I certainly did anticipate that before this mail went out we should be able to report that everything was in working order - furnaces erected, buddles, &c., in work, and that some definite information could be sent home in reference to the value of our pyrites. Such, however, is not the case. It will be yet some two or three weeks before a start can be made, and then some little time must be allowed for practice in their manipulation. We have chiefly been crushing from our shallow (85 ft.) level, and as the ground is so broken and treacherous we have not been able to keep the batteries going much more than half the time. Every day brings us fresh proofs of the greater value of our deep ground. A few weeks back James Rowe sunk his shaft (on the hill opposite your house) to 180 ft., or about 40 ft. deeper than the original level; at 60 ft. from the shaft he struck the lode, and has already driven into it between 50 ft. and 60 ft., and not through it yet - a solid wall of stone; and if you could have seen his copper-plates you would have opened your eyes. He told us that the reef carries gold with it through its entire breadth. I could not

obtain any results from their crushing, as they had not cleaned off; but they all say that it is the richest reef they have had yet. Now, with these facts before us, it is only right to suppose we shall have a slice of the same luck, as they are not more than 200 yards from our boundary, and we are cross-cutting for precisely the same reef, at a greater depth than they are. We are labouring under one great disadvantage - hard rock, which precludes dispatch in prospecting, and is also very expensive...

Extracts from a private letter from Mr Kitto to Mr Lamb, dated Fryer's Town, Nov. 8:- The masons have not yet finished the furnaces, but expect to do so in about another week. The buddles are at work collecting pyrites, of which we have any quantity, and Chilian mills ready. I am told on every side that the gold is in the pyrites, and should it yield only half the assay contents the stuff will pay well...

Duke of Cornwall. - From Captain W.H.T. Williams...In Daukes's, stopes, in the 133 feet level, we have crushed 200 tons of quartz in the past month from the stopes in this mine, and very much to my astonishment and regret the yield is very small, I can only account for it by the broken nature of the lode, and the widely scattered condition of the quartz. ²⁸

Dec 1869: The returns from Rowe and Kitto's claim (situated between Small's and Mill's and Rowe's), are very satisfactory...and only two men and a boy engaged in the raising. ²⁹

28 Feb 1870: Of the Duke of Cornwall Mine, Mr Kitto writes:- "The yield of gold from the batteries during the past month has been 111 ozs. 10 dwts., retorted. Quartz treated 729 tons. ³⁰

June 1870: The Australian United Gold Mining Company. - This company, under the management of R.L.M. Kitto, Esq., has met with a misfortune during the past quarter, to such extent that no crushing returns can be reported. A part of the crushing machinery broke, causing a serious loss, and necessitating the dismissal of a large number of employés. A new battery is now being erected, comprising 20 revolving stamp-heads. The main shaft is being sunk to a depth of 300 feet.

Rowe and Company (road claim). - This claim is paying handsomely; £80 per man per month (five shareholders)... The ground occupied and now being worked is between Rowe Brothers' ordinary claim and Small and Co.'s, and comprises the main road, held under a grant from the district road board.

Rowe Brothers' Claim (Cattle's Reef). - The returns from this claim (which for years has paid handsomely) cannot but establish a great degree of confidence in the value of this line of reef... To those who hold upon the course of the reef or lodes, it should suffice to read the returns from this claim - Cattle and Co., Small and Co., Mills and Co. - from time to time given, and the expenditure of Small and Co., the Fryers, the Black Hawk, the Bonshaw, and the Cumberland Company, all upon or near the same line. I am informed by Messrs. Rowe that the deeper they work their mine the richer the stone...

...Within the past quarter the Australian United Company have operated upon tailings with results astonishing - 1/2 oz. to the ton from tailings of ordinary crushing. The extraction of this may not pay... The mode of operation is - 1st, quartz well burnt at the kilns, thence through the Chilian amalgamating mills, and from thence through an arastra. ³¹

9 July 1870: [Australian United G.M.C. -special meeting of shareholders] ...[proposed] to increase the capital of the company by a sum not exceeding £15,000, by the issue of new shares at £2 10s. each, to bear a preferential dividend not exceeding 15 per cent. per annum out of the first profits...

...the purchase-money of the two mines was £25,000, in shares and money. The vendors, after receiving £11,000 in cash, took 2200 shares, paying cash for them like any other shareholder. Mr Kitto had since then purchased shares, as had also some influential people in the colony. The total expenditure upon the mines by the company was £26,100, of which £2200 had been spent upon machinery. The liabilities amounted to £5000...

...it is absolutely necessary to increase the capital of the company by £10,000, at least. There is no doubt the original working capital was too small for the work on hand; it might have sufficed had the surface quartz, and that from the first levels, been of a paying quality: this, no doubt, Mr Kitto calculated upon in his estimate. Another help to the failure of capital has been the very hard nature of the sinking at the Duke...of late little had been done at the Duke in the way of development on account of the want of funds. ...neighbours, at less than 100 feet deep, are getting large bodies of payable quartz, the Messrs. Rowe's last week obtained 200 ozs. of gold from 200 tons of stone. Their quartz is of the same nature as ours, and has increased in value with depth. We have not the means to pay for sinking, and will be compelled to leave off unless we receive remittances. ³²

23 Aug 1870: The following is an extract from the Castlemaine Representative, of Aug. 23

"No. 8 is a venture of Gill and Co., for working the eastern lode, and the partners in this claim appear to be well satisfied with their chances. It is immediately south of Rowe Brothers' claim, and the reef has been struck in such a way as to give every ground for expecting rich yields, fifty very nice looking specimens having been got out of one bucket of quartz raised for trial. No. 9, the claim I next visited, is that of Messrs. Rowe Bros., the claim par excellence of Fryerstown, the results of which are likely to eclipse all the old glories of Commissioner's Flat. For nine years its owners have been working steadily on, declaring large dividends every month, except two, and now they have very chance of becoming something very like millionaires. I was prepared to believe almost anything of this claim, especially as I had heard of a Ballarat visitor being helped away breathless with astonishment at what he had seen, and it takes a great deal to make a Ballarat speculator breathless. But I found it all true. The reef in the north share of the claim is 80 feet wide, and has been yielding 15 dwts. to the ton, while in the south shaft the reef has been driven into for 100 feet, and not through yet. The last washing gave 1 1/2 oz. to the ton. A claim like this

ought to go far towards making the prosperity of a district, but I was sorry to find, with all these brilliant yields, Fryerstown is under a little cloud. It may not be bigger than a man's hand, but still it is a cloud. Rowe Bros. have no engine on the ground, but at some distance off they have an engine of 17-horse power, with 15 revolving stampers. Lately the roads to this engine have been impassible, and the works have been stopped, throwing 40 men out of work. It don't seem to affect the Brothers, but it is rough on the men, who only share in the profits arising from this splendid property in the shape of wages. No. 10 is the claim of Cattle and Co., the original discoverers of the reef... This claim is only 60 yards, and is worked by a co-operative party of five men, with an engine of 12-horse power and six stampers. Next to this and on the top of a slight rise is No. 11, or the well-known Duke of Cornwall, to which so much time, money and energy have been devoted. It is the property of an English corporation got together by Mr Kitto, and though hitherto no fortunes have been made out of it, the shareholders are not disheartened. The appliances for working are, of course, of a much more advanced order than at the other claims, and the engine of 80 nominal horse-power, but capable of working up to 200 at a very slight cost of fuel, is what experts call "a little beauty." In this time, too, are Chilian mills - unpleasantly suggestive of ground bones - for working up pyrites, and huge furnaces for blowing the same. I looked in at the open door of one of these and saw the flames rushing onward and upward like a river of lava, until the fumes of arsenic and sulphur made my head dizzy, and I was glad to have the door closed and get away from what looked very like a rehearsal for Hades. The deepest shaft in this mine is 260 feet down, at which level it is expected in five or six weeks to strike Rowe's lode, what is believed to be the top of it having been struck at the 200 feet level. Considerable delay has been caused in the working of this company owing to an accident to a portion of the machinery, but this has been repaired, and it is expected that work will be resumed tomorrow.³³

Sept 1870: The Australian U.G.M. Company have been cross-cutting for the reef or lode now being worked by Rowe Brothers and Gill and Co., upon ground east of the originally supposed lines of Cattle's and Ferron's Reefs. Mills, Hilton, and Co. - I have from time to time alluded to the reefs or lodes which generally are intituled as the Fryerstown Reefs. In some of my previous reports I described the tract or belt of country between Cattle's Reef and some chains both east and west as auriferous. I have for many years known that the eastern lode of Ferron's Reef had yielded well. I also knew that it had not been much worked, or even prospected, hence I could not do more than pass an unbiassed opinion as to its continuance and ultimate value. From the east of the recognized line of Cattle's Reef splendid stone has been obtained, and during the past few days exhibited. As an exhibit of specimens, I think they have never been surpassed, at least within this locality. It is evident that the eastern part of the tract or belt of country I have alluded to previously is highly auriferous, as Gill and Co. are obtaining numerous and beautiful specimens, far east of the line of reef of Small and Co., and with such prospects that a payable yield may be expected.³⁴

5 Nov 1870: [Australian United G.M.C. - ordinary general meeting of shareholders] ... The directors still feel confident that success is only deferred, if funds sufficient to carry on the works can be raised. It is shown by the balance-sheet that the capital of the company has been exhausted, and that the liabilities amount, so far as ascertained by advices to Aug. 13 last, from Australia, to £8793 3s. 3d, of which £5049 13s. 2d. has been voluntary advanced by Mr Kitto and Mr Lamb, without any special security... ..The great fault had been that Mr Kitto had been too sanguine, and had, therefore, put the capital at too small an amount.³⁵

Dec 1870: Gill and Company (who are working upon private property, on the supposed eastern lode of Ferron's Reef), between Rowe Bros. and Mills and Company, have had most satisfactory returns. They have crushed 350 tons from a depth of 120 feet, yielding 14 dwts. per ton. The reef or lode underlays east... This is considered most promising for those holding ground easterly upon this line of reef. The Australian United Gold Mining Company are actively engaged in cross-cutting for the eastern lode... Rowe Bros, Cattle's Reef - The returns of this party are very good, and notwithstanding that they have for years past obtained excellent averages, yet the proprietors are confident that at greater depths their returns will be much above anything hitherto obtained.³⁶

March 1871: Gill and Co. have been engaged...securing their shaft and erecting a whim. The Road Claim, Cattle and Co., and Stevens and Co., have been and now are sinking.³⁷

20 May 1871: Rowe Brothers - yields about £800 per month.³⁸

17 June 1871: Rowe Brothers have yielded 550 oz in last two weeks.³⁹

mid-1871: [Australian United G.M.C. - general meeting of shareholders]... Mr Kitto proposed to sell the Duke of Cornwall, for which he hoped to obtain a price that would not only pay off all the debts of the company, but leave a sufficient margin to work the Central Mine; but the directors hoped an effort would be made by the shareholders to prevent that mine passing out of their hands.⁴⁰

June 1871: The new machinery already constructed and in operation consists of six Carpenter's patent separators; these machines are erected on a site contiguous to the crushing plant of Rowe Brothers, Golden Gully; the object

which the proprietors have in view is to operate on the vast quantity of quartz tailings which have accumulated from many years crushings; there are some thousands of tons of tailings available at the present time, and 60 tons can be disposed of per day of twenty-four hours... their present process simply extracts all minerals from the quartz tailings, these minerals hereafter will be separated by some peculiar process at present unexplained, but the separation of the gold from the pyrites will in all probability be the chief object. ⁴¹

9 Sept 1871: Australian United. - The directors have received advices from Mr Kitto to Sept. 9, in which he states that the Duke of Cornwall Mine has been sold to a local company for £14,000 cash, which, he says, after paying all the liabilities of the company, will leave £2,000 to carry on the Central Mine. ⁴²

29 Sept 1871: Duchess of Cornwall Gold Mining Co. - lease is 900 ft on the line of the reef which traverses Rowe Brothers' claim...and extends into Anglo-Australian Co. ⁴³

March 1872: Rowe Brothers. - This mine continues to hold the premier position, and improves in returns. I am informed that it is proposed to form a company in England to work the mine; and it is confidently expected that the excellent returns from this claim, and many adjacent, will prove an impetus to mining in this locality. ⁴⁴

June 1872: The Duke of Cornwall Company, from a depth of 110 to 120 feet, with stone averaging 6 feet thick, yields 12 dwts. to the ton; this is considered so far satisfactory that the company have accepted a tender for erection of fifteen revolving heads, at a cost of £1450. ⁴⁵

Dec 1872: The Duke of Cornwall, upon whose ground £35,000 has been expended during the past nine years, are sanguine of good returns from their mine at no very distant period. ⁴⁶

Sept 1873: Great Southern Reefs Company, Nuggety Gully... A shaft has been sunk on the ground (supposed Cattle's line of reef) to the depth of 105 feet. ⁴⁷

Dec 1873: The Duke of Cornwall Company have a new battery of 15 revolving heads (in lieu of their old one) at a cost of £1500.

Rowe Bros'. claim still maintains its position as one of the best in the district; the stone yields at the rate of half an ounce to the ton at a depth from surface of 160 feet, the lode being from 60 to 110 feet wide. ⁴⁸

June 1874: The Fryers, Cumberland, Black Hawk, Small's, Rowe Brothers', and Cattle's claims are now nearly all connected by underground workings, well ventilated and drained.

Rowe Brothers. - The yield from this claim is superior to anything hitherto, and when the great quantity of crushing stuff is considered (20 to 100 feet thick), and that the claim has been tested some 20 feet deeper, equally promising, it must be regarded as indicative of a long continuance of highly payable returns, and an inducement to all adjacent holders to prosecute their works zealously. ⁴⁹

3 Aug 1874: News reached here on Saturday morning that a fatal accident had occurred in a quartz claim at Golden Gully, Fryers, belonging to Rowe Brothers, the victim being a young man of the name of Owen Ferron... He was a native of Ireland and arrived here when he was about a year old. He was unmarried. ⁵⁰

22 July 1875: On the Claim of the DUKE OF CORNWALL GOLD MINING COMPANY, Fryerstown, Castlemaine...

MOST IMPORTANT SALE

Of the whole of the

POWERFUL MINING MACHINERY

Also

GOLD MINING LEASES

Of the above-mentioned company, in lots to suit the demand of purchasers

Charles C. White has been favoured with instructions from the board of directors of the Duke of Cornwall Gold Mining Company, to dispose of by Public Auction, on Friday, 23rd instant, at half-past ten o'clock.

The whole of the first-class winding, crushing, and pumping machinery, on the claim, Fryerstown, near Castlemaine, consisting of -

1 beam engine, 25-inch cylinder, 9 feet stroke, with Cornish boiler 31 feet long, 7 feet diameter.

260 feet 6-inch pumps, with rods and all connections complete in the 260 feet level

1 horizontal 10-inch cylinder winding engine, with winding gear complete, and 500 feet flat rope.

15 head battery, all complete, in excellent order, recently erected, with all latest improvements, by Roberts and Sons, Sandhurst

Retorting house, with iron roof, with smelting furnaces, retorts, copper-plates, etc.

Friction gear, with winding drums and plummer blocks

150ft 12-in cast-iron pipes, with draw-lift and workings.

Pyrites furnaces

200ft heavy timbered double tramway laid with iron rails

Weatherboard engine-house, 48ft x 28ft, corrugated iron roof.

Office and store houses, 33ft x 24ft, 11ft walls, corrugated iron roof, lined inside with T and G. boards.

Blacksmith's shop, with bellows, anvils, vices; mining tools, quantity round and flat iron, assorted cast and shear steel, crane, horse drays, wheelbarrows, carpenters' benches, tools, timber, etc.

Gold mining lease in close proximity to the celebrated claim of Rowe Brothers, embracing an area of 34 acres, or on the line of reef 520 yards.

Besides the above there will be submitted a large an miscellaneous assortment of tools and useful appurtenances always required in conducting mining pursuits.⁵¹

26 July 1875: Rowe Brothers purchased the Duke of Cornwall mine for £1850 - 'the cheapest mine and plant ever sold in this district.'⁵²

Sept 1875: Messrs. Yeats and Co. have completed the erection of a quartz tailings machine, worked by steam-power, with buddles, situated in Gold [sic] Gully, close to Rowe's crushing machine; their object is to operate on the vast heap of quartz tailings which have accumulated during the past twelve or fifteen years... Mr Yeats has had considerable experience in the treatment of quartz tailings in various parts of the Castlemaine district.⁵³

June 1876: Rowe Brothers' claim. - This celebrated mine is still apparently inexhaustible, as the yield of gold varies but little every succeeding quarter; the present average yield per ton being over 16 dwts., with a large body of stone in view to operate on. No idea can be formed as to what the extent of the underground workings will be, at some future time. A large number of men are constantly employed in connection with the claims owned by the Rowe Brothers; and it may be said the future development of the mines in the immediate vicinity will probably owe a great deal to their energy and enterprise.⁵⁴

Sept 1876: Duke of Cornwall Company. - The large extent of ground lately occupied by this company has fallen into the hands of Messrs. Rowe and Co., whose success in quartz mining has been so remarkable for many years past. The apathy displayed in the management of this mine heretofore has now ceased, the present owners having already proved the existence of a payable reef, which promises to be more remunerative as their operations are extended. The present manager has resumed work 100 feet west from Lamb's shaft, where the late proprietors suspended work, and at this point a body of auriferous quartz has been struck, intermixed with sandstone and slate, about 60 feet wide, at 180-foot level. Other parts of the claim are being prospected, which under the present management will no doubt ultimately prove productive.⁵⁵

Dec 1876: Parties reporting yields of gold from quartz crushed:

Rowe Brothers, Cattle's Reef

Rowe Brothers, Cattle's Reef (road claim)

Duke of Cornwall, Cattle's Reef

Mills and Co., Cattle's Reef⁵⁶

5 Feb 1877: Duke of Cornwall mine is now in full swing and very good payable quartz is being crushed from it.⁵⁷

March 1877: on the old Sebastopol Reef, Middleton Creek; a party of miners (Messrs. Williams and Company) have taken up a claim there... This small co-operative company have purchased and removed the engine and plant formerly in possession of the Cattle's Reef Company, at Fryerstown; the machinery is not very extensive or of great value⁵⁸

June 1877: Rowe Brothers and Duke of Cornwall Company. - The proprietors of these extensive and valuable mines continue to employ a large number of men in a profitable manner. The Duke of Cornwall Company's mine, which in its early days was especially noted for its unremunerative returns, is now by skilful management becoming much talked about, and likely to prove of great value and importance.⁵⁹

6 Aug 1877: The Rowe Brothers have struck gold in their Mosquito claim.⁶⁰

Sept 1877: The Duke of Cornwall Company have been doing a great deal of dead work during the past quarter, twelve men having been constantly employed putting in cross-cuts and levels. The claim is principally worked by tributaries; the lode being worked is from 5 to 6 feet wide, and likely to pay very well.

Rowe Brothers', Cattle's Reef, still maintains a high average yield, viz., 9 dwts. to the ton, at a depth from the surface of 155 feet; the lode 7 feet in thickness. Some magnificent specimens were unearthed a short time since.⁶¹

Dec 1877: Duke of Cornwall Company. - The present mining manager of this important mine (Mr E.W.H. Rowe) reports that, from previous experience and observation, he has great hopes of improved prospects respecting its ultimate value.

Rowe Brothers, Cattle's Reef. - This claim is not progressing quite so satisfactorily as previous experience would lead to expect, the present average being 6 dwts. to the ton... Rowe Brothers are, however, very enterprising and energetic.⁶²

March 1878: The Ferron's line of reef appears now to be more profitably worked than the Cattle's, the latter having generally been considered the more important line, and better defined.⁶³

7 Oct 1878: Rowe Brothers - For something like 17 years immense bodies of auriferous quartz have been raised from one level, and it is only but a few months back there was found any necessity to sink the shaft. In the second formation, which has recently been cut, which is as rich in gold as what was found above, the depth is but 200 feet. A tunnel is being driven from the old Duke of Cornwall mine that is owned by the Messrs Rowe, and on which there is powerful crushing and winding machinery that will be used for raising and reducing the quartz of the Mosquito claim. Though the lode in the latter has not been traced to any distance south yet it is thought that of the second formation will be discovered. This has influenced the tribute company to work Small's claim. Another stimulus is the discovery by Williamson of the supposed line of Ferron's Reef.⁶⁴

18 Nov 1878: Rowe Brothers - Got another handsome return from 185ft level. They have passed through quartz in the level they are driving from the Duke of Cornwall mine to connect with the Mosquito, and so soon as the crosshead from Cattle's reef is got through auriferous quartz is expected to be reached.⁶⁵

Dec 1878: Rowe Brothers and the Ferron's...can succeed with a low average, in consequence of their splendid mechanical appliances, the vast quantity of stone at command, and the economical mode of working the ground... Rowe Brothers have crushed 1,508 tons of quartz, averaging nearly 9 dwts. to the ton, from the 175-foot level, and the general prospects of the mine are highly favorable.⁶⁶

March 1880: Rowe Brothers are still energetically at work developing their mine; a large number of men continue to be profitably employed, and the crushing returns keep up to the average.⁶⁷

12 April 1880: Rowe Brothers - Calling for tenders for sinking a shaft in Mosquito Claim in a central position in order to reach deeper levels than those tried before.⁶⁸

June 1881: Rowe Brothers have recently erected a 28 horse-power engine to work the Mosquito claim on Cattle's Reef, the appliances heretofore having been very inefficient for working a mine of such magnitude. The underground workings being very extensive rendered it necessary to sink a new main shaft, which is being proceeded with at the present time⁶⁹

Dec 1881: Rowe Brothers, Cattle's Line of Reef. - This claim continues payable, with no signs of being worked out, although not so remunerative as in former years.⁷⁰

March 1882: Rowe Brothers. - ..The company have been doing a great deal of dead work of late, driving and sinking, and are now about sinking a new main shaft, tenders having been invited for 100 feet.⁷¹

March 1883: Two of the more important companies have, comparatively speaking, suspended operations, viz., the "New Era", and "Rowe Brothers"... The Rowe Brothers claim is only being worked by a few miners at the present time, but it is expected there will shortly be a re-organization..⁷²

Sept 1884: There seems to be prevalent idea...among the old residents that deep sinking on the main line of reef (Cattle's) should be proceeded with at once, as being the only way of solving the mystery as to the existence of a rich and well defined lode at a much lower level than has hitherto been attained.⁷³

25 May 1885: From the prospectus of the Messrs Rowe Brothers, published in another column, it will be seen they are offering to the public their mines and plant for £7250. Some years ago, when there was a rush for reefs, they could then have disposed of their property for ten times the amount they are now accepting. For this change in the valuation there are two reasons, one of which is the death of one of the proprietors rendering it necessary to wind up the partnership, the other is that an estimated outlay of from £1000 to £1500 is required to make the mine dividend-paying...

Prospectus - This Company is projected to purchase for £7250, and work the well-known rich gold mine belonging to Rowe Brothers at Fryerstown, which, owing to the death of one of the brothers, is now placed on the market.

During the past twenty-three years this mine has yielded over £200,000 worth of gold...

One of the Government diamond drills is now at work in a neighbouring claim on this line of reef, and will shortly be at work in this mine to test the deep ground, the sites for the bores having been selected by Mr Reginald Murray, Government Geological Surveyor, after a careful examination of this and the adjoining mines...

The machinery now erected on the property cost £11,000, and is valued at the present time for working the mine at £6,100, being nearly the amount asked by the owners for the entire property...

The 'Perseverance Co.' (the adjoining claim) are driving on the reef at the 312 feet level, which has yielded 6 dwt per ton. This stone continues to improve as the drive is extended towards Rowe Brothers' claim, from which it is less than 200 feet distant, and their pumping operations are draining Rowe Brothers' mine. ⁷⁴

Sept 1885: The Diamond Drill. - ... The drill has now (October 3rd) been removed to the Duke of Cornwall mine, about 40 chains further north..⁷⁵

Dec 188: Cattle's Line of Reef.-... The future development of this line of reef must necessarily depend upon the importation of foreign capital, as the local residents have already gone to a great extent in prospecting, and have contributed liberally on all occasions when reasonable prospects of success were apparent...

The diamond drill is now at work on the Duke of Cornwall lease, the bore having attained a depth of 837 feet 10 inches.⁷⁶

March 1886: Rowe Brothers are now employing about fifteen men, and working at comparatively shallow depths for moderate returns. ⁷⁷

Dec 1886: The English, the Australian, Rowe Brothers, the Perseverance, and the Golden Eagle Companies are all likely to make a fresh and energetic start before many weeks have elapsed. All these companies have been languishing for a long time past, but English capital is expected to arrive shortly, when new life and vigor will be imparted; and the different managers will have ample scope for testing the deep and untried ground by diverging more to the westward than has hitherto been considered advisable or expedient. The diamond drill has done something well calculated to guide and encourage those who are disposed to take advantage of its discoveries. ⁷⁸

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12 March 1888: The mine of Rowe Brothers was reported to have been sold by Mr James Thompson to a syndicate in London. The syndicate have withdrawn their offer owing to the action of some claim jumpers - even though the Minister of Mines decided in favour of Messrs. Rowe Brothers concerning the claim. ⁸⁰

March 1888: Rowe Brothers, Cattle's Reef. - The owners of this once celebrated mine are now actively engaged repairing No. 1 or main shaft, also overhauling the whole of the extensive machinery connected with the large block of land held under the Leasing Regulations. The energy now displayed is in consequence of the necessity that has arisen for getting everything in good working order, preparatory to resuming active mining operations on a large scale, in view of a London syndicate taking possession of the mine under the most favorable conditions. ⁸¹

March 1889: Rowe and Party, Cattle's Reef. - The original claim owned by Rowe Brothers, and generally described as the "Mosquito," has proved remarkably rich down to the 162-foot level, situated at the southern end of their present lease. The reef, or general run of quartz, bears N. 14°W.... At No. 11 shaft, and between 10 and 11, the strike is undefined, consisting of a conglomerated mass of quartz, slate, and flucan, and floating sandstone in detached portions, nearly all being payable crushing stuff. This refers to a depth, from surface, of 162 feet, now worked out. The length to which reef has been worked cannot be ascertained, as during the past twenty years there has been no record kept by the different mining managers. The main Mosquito shaft has been sunk to a depth of 453 feet... The depth of water-level is given as 40 feet... The yields are as follows:- Surface to 50 feet, 3,078 tons, 540oz.; to 100 feet, 5,315 tons, 1038 oz.; to 150 feet, 14,463 tons, 17,811oz.; to 200 feet, 34,910 tons, 18,840oz.; to 300 feet, 15,833 tons, 3,914oz.; to 400 feet, 9,920 tons, 1,438 oz.; total 83,519 tons, averaging 10 to 10 1/2 dwt. to the ton... The total area of ground occupied by Rowe Brothers is 78 acres, extending from the New Perseverance Company to the New Era... The whole extent of ground is more or less auriferous...

Duke of Cornwall Company. - This company was originally started by R.L.M. Kitto, mining engineer, who secured a large amount of English capital in order to work and properly develop the mine. Mr Kitto was local director and manager, and devoted a great deal of time and energy in order to succeed in the venture. Very expensive and elaborate machinery was erected on the ground, with all the most approved mechanical appliances in connection with mining; but the company eventually collapsed, the plant and ground being transferred to Rowe Brothers. With reference to this company, it may be stated that the large amount of capital expended on the surface in the first instance was considerably disproportionate to the requirements of the mine, in view of the small extent of prospecting which had been previously accomplished. The anticipations as to grand results, founded on the close proximity to the Mosquito claim, were never realized, and up to the present time it may be said the prospects are equally discouraging... The results from various crushings may be enumerated as follows:- Surface to 50 feet, 47oz.; to 100

feet, 443 oz.; to 150 feet, 727 oz.; to 200 feet, 824oz.; to 300 feet, 817oz.; to 400 feet, 73 oz. The total number of tons crushed, 14,324, averaging 4dwt. to the ton... The ground is still occupied by Rowe Brothers, but there is nothing going on at the present time requiring special notice. ⁸²

12 April 1897: The newly found reef is located within 100 yards and north of Rowe Bros.' mine. ⁸³

17 May 1897: Rowes' Fryers Mine - The new shaft is sunk a depth of 49 feet. ⁸⁴

26 July 1897: Rowes' Fryers Mine - Crosscut east at 88 feet level complete, having broken through to the Mosquito shaft, a distance of 144 feet. The reef struck a week ago is 90 feet from the new shaft, and between it and the Mosquito several strong flucans, carrying a little quartz have been intersected.⁸⁵

1982: Duke of Cornwall Mine, Fryerstown, Victoria

Introduction - The engine house of the Duke of Cornwall Mine, located near Fryerstown, Victoria has been classified by the National Trust of Australia (Victoria), included in the Australian Heritage Commission's register of the National Estate and is given statutory protection by its inclusion on the register of the Historic Buildings Preservation Council...

Existing remains - A considerable amount of physical evidence of the mine has survived. These elements...include the engine house, the magazine and the manager's house and evidence of sites including the two main shafts, the offices and reservoir.

Engine House - The building is constructed predominately of rough hewn local stone, although windows and other wall openings are dressed with brick, which was also used for the upper half of the chimney and at the corners of the buildings. Granite was used for the main 'loadings' on the 'bob wall'. Very little evidence remains of the timber parts of the structure such as roof trusses and internal floors. One unusual aspect off the engine house is the location of the chimney in the central position on the end wall, rather than the usual corner or free-standing positions. The foundations which supported the flywheel, axle and crank are evident and the probable location of the boiler house is marked by a low stone wall on the southern side of the engine house.

Crushing Battery - Little evidence remains of the battery which is apparently located on the northern side of the engine house, in an area which is now mostly overgrown with pepper trees.

Shafts - Dauke's shaft was located on the eastern side of the Fryerstown to Chewton Road and the pumps in this shaft were operated by the beam engine. Some evidence of stonework associated with the shaft can be identified and most of the mullock heap remains. A short section of tramway rail, presumably from the overhead tramway connecting the shaft and the battery has been located. Lambs shaft is marked by a mullock heap on the side of a gully approximately 150m to the northeast. Two other shafts were identified but neither can be named with any degree of certainty.

Powder magazine - Constructed of stone at a cost of £16 in 1865, the circular structure remains largely intact.

Managers House - The House constructed for H.W. Lamb survives although in a substantially altered condition.

Office Foundations - Foundations associated with the offices indicated on the 1868 plan can be identified.

Foundations of Engine House - On theeastern side of the road, substantial foundations of an additional engine house have survived in avery deteriorated condition. The exact purpose of the engine-house is unclear, but is may have been used for a winding engine, associated with a shaft between the foun dations and the road.

The Dam - Evidence of the dam can be identified in the gully although most of the dam wall has disappeared. ⁸⁶

DESCRIPTION

Duke of Cornwall Company (1864 to late 1880's)

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Site descriptions taken from: Mark Whitmore 1982 , The Duke of Cornwall mine, Fryerstown, Victoria in Historic Environment, Vol. 2, No. 3, 1982, pp. 5-21

Mosquito Co.

Filled, but slightly collapsed shaft with a large intact mullock heap spilling down the southern side of a high ridge. 15m to the west of the shaft is a large stone engine bed measuring 7.5 x 3 metres and standing 1.5 metres high. The stone is set in a soft lime mortar and all the mounting bolts have been ripped out. To the north of the bed is a stone boiler bed, measuring 6.8 x 3.5 metres. There is evidence of a stone chimney stack base near the rear (western end) of the boiler setting.

Below the mine's mullock heap, at the base of the ridge, is a collapsed adit and a small mullock heap.

Whim shaft, Cattles Reef

To the east of the Mosquito Co.'s mine is a line of shallow reef workings. The workings, related to the working of Cattles Reef, run north towards the Duke of Cornwall mine and consist of several filled, but subsiding shafts, and some large mullock paddocks. Adjoining Cattles shaft is a well preserved, stone retained whim platform. The whim platform is located 150 metres north-east of the Mosquito Co.'s shaft.

PHOTOS:

1. Mosquito Co.'s stone engine bed
2. Duke of Cornwall Co.'s engine house
3. Mosquito Co.'s stone engine bed
4. Whim shaft
5. Mosquito Co.'s mullock heap

ARTEFACTS: None visible

INTEGRITY/CONDITION: Good

THREATS:

CULTURAL SIGNIFICANCE:

The cultural significance of the Duke of Cornwall engine house and associated structures (Site 70.0) has already been as having high historic, social and scientific significance. The site is currently on the Register of the National Estate and also the Historic Buildings Council (Victoria).

Sites 70.1 has:

Historical Significance	- The mine has the distinction of having the record as the richest gold producer for the Fryers Creek Mining Division in the 1870s/1880s
Scientific Significance	- Well preserved mullock heap and some machinery plant footings.
Cumulative Value	- Part of a comprehensive network of quartz and alluvial mining sites associated with Herons, Ferrons and Cattles Reefs, and Golden Gully. (Sites 66, 67, 68, 69, 70.0 to 70.3, and 71.0)

Site 70.2 has:

Scientific Significance	- Well preserved whim platform. The only such relic yet found recorded in the Castlemaine/Fryers Creek area.
Cumulative Value	- Part of a comprehensive network of quartz and alluvial mining sites associated with Herons, Ferrons and Cattles Reefs, and Golden Gully. (Sites 66, 67, 68, 69, 70.0 to 70.3, and 71.0)

Significance ranking: All sites - National Estate

RECOMMENDATIONS FOR IMPLEMENTATION:

The significance of the place comes mainly from the Duke of Cornwall engine house. However, sites lying to the south of this structure (Mosquito mine and whim shaft) also hold high heritage values on the historical and scientific grounds. The whim site is particularly rare. The key site in this network is the Duke of Cornwall engine house (Site 70.0)

RECOMMENDATIONS FOR IMPLEMENTATION:

All sites to be protected

Assessor: David Bannear

Date: 1993

1 Mount Alexander Mail, as summarized in Clive Willman collection
2 Mining Surveyors' monthly reports, Castlemaine and Fryer's Creek Divisions
3 Mount Alexander Mail, as summarized by Milner
4 Mining Surveyors' monthly reports, Castlemaine and Fryer's Creek Divisions
5 Mount Alexander Mail, as summarized in Clive Willman collection
6 Mount Alexander Mail, as summarized in Clive Willman collection
7 Mount Alexander Mail, as summarized in Clive Willman collection
8 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
9 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
10 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
11 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
12 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
13 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
14 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
15 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
16 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
17 The Mining Journal, Railway and Commercial Gazette, London
18 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
19 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
20 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
21 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
22 The Mining Journal, Railway and Commercial Gazette, London, 27/3/1869, p.236
23 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
24 The Mining Journal, Railway and Commercial Gazette, London, 19/6/1869, p.452
25 The Mining Journal, Railway and Commercial Gazette, London, 17/7/1869, p.528
26 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
27 The Mining Journal, Railway and Commercial Gazette, London, 23/10/1869, p.788
28 The Mining Journal, Railway and Commercial Gazette, London, 1/1/1870, p.4
29 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
30 The Mining Journal, Railway and Commercial Gazette, London, 22/4/1870, p.351
31 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
32 The Mining Journal, Railway and Commercial Gazette, London, 9/7/1870, p.571
33 The Mining Journal, Railway and Commercial Gazette, London, 5/11/1870, p.924
34 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
35 The Mining Journal, Railway and Commercial Gazette, London, 5/11/1870, p.923
36 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
37 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
38 Mount Alexander Mail, as summarized in Clive Willman collection
39 Mount Alexander Mail, as summarized in Clive Willman collection
40 The Mining Journal, Railway and Commercial Gazette, London,
41 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
42 The Mining Journal, Railway and Commercial Gazette, London,4/11/1871, p.982
43 Mount Alexander Mail, as summarized in Clive Willman collection
44 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
45 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
46 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
47 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
48 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
49 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
50 Mount Alexander Mail, as summarized in Clive Willman collection
51 Mount Alexander Mail, as summarized in Clive Willman collection
52 Mount Alexander Mail, as summarized in Clive Willman collection
53 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
54 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions

55 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
56 Mount Alexander Mail, as summarized in Clive Willman collection
57 'A Bank Official' 1888 Banking under Difficulties or Life on the Goldfields
58 Mount Alexander Mail, as summarized in Clive Willman collection
59 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
60 Mount Alexander Mail, as summarized in Clive Willman collection
61 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
62 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
63 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
64 Mount Alexander Mail, as summarized in Clive Willman collection
65 Mount Alexander Mail, as summarized in Clive Willman collection
66 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
67 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
68 Mount Alexander Mail, as summarized in Clive Willman collection
69 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
70 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
71 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
72 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
73 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
74 Mount Alexander Mail, as summarized in Clive Willman collection
75 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
76 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
77 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
78 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
79 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
80 Mount Alexander Mail, as summarized in Clive Willman collection
81 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
82 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
83 Mount Alexander Mail, as summarized in Clive Willman collection
84 Mount Alexander Mail, as summarized in Clive Willman collection
85 Mount Alexander Mail, as summarized in Clive Willman collection
86 Mark Whitemore 1982 The Duke of Cornwall mine, Fryerstown, Victoria in
Historic Environment, Vol. 2, No. 3, 1982, pp. 5-21

SITE NO. & NAME: 70.3 PERSEVERANCE CO. MINE

LOCATION: Cattles Reef, Fryerstown

DIRECTIONS: Immediately south of Mosquito Co.'s mullock heap. South side of road.

MAP/GRID REFERENCE: Drummond 1:25,000 - 559.861

PARCEL NUMBER: P129384

MUNICIPALITY: Newstead

LAND STATUS: Unreserved Crown Land/proposed Castlemaine Historic Reserve

EXISTING HERITAGE CLASSIFICATION: None

PRESENT MANAGEMENT/USE: LCC Rec - J1

HISTORY:

1867: Parties reporting yields from quartz crushings in 1867 - Cattle and Company, Stewart and Company, Duke of Cornwall, Little Davis, Rowe Brothers, Mills, Hilton and Company. ¹

March 1868: New Machinery - Messrs. Mills, Hilton, and Co., at Cattle's Reef, have recently purchased an engine and plant, which they are about erecting near their claim. ²

June 1868: Messrs. Mills, Hilton and Co., who occupy a claim about 200 feet to the south of the Duke of Cornwall, have already sunk a shaft to a depth of 140 feet, and 76 feet below the water level ³

1868: Parties reporting yields from quartz crushings in 1868 - Rowe and Company, Cattle and Company, Mills and Company ⁴

March 1869: Mills, Hilton, and Co. - This company is proceeding energetically; the lode is well defined, 9 feet wide at a depth of 110 feet, and averaging 15 dwts. to the ton; but a large body of water has to be encountered, which much impedes their operations. ⁵

June 1869: Hilton and Company are working with their usual averages, but are much impeded in their underground operations by having a large body of water to contend against. ⁶

Dec 1871: Mills and Co. (Cattle's). - This company...have a most valuable property. From their engine-shaft, the deepest and easterly, very good stone is obtained, 180 feet deep; but although the reef is very large at this depth, the company consider it advisable to erect a more powerful plant, in order to pump water from the mine and crush stuff. ⁷

Dec 1870: Mills and Company's returns are exceedingly good, the yield being 1/2oz. per ton, the crushing stuff taken from 6 to 14 feet wide. ⁸

28 Jan 1874: Perseverance Co. - Are raising stone from the 120 feet level. ⁹

March 1877: Perseverance Company. - This company are working energetically, but their returns are very moderate. ¹⁰

29 Oct 1877: Perseverance Co. - Worked on tribute by Mills and party - taken from boundary of Rowe's claim. ¹¹

19 Nov 1877: Perseverance is claiming well. ¹²

Dec 1877: The Perseverance Company (Tribute). - This company, under the management of Mr A. Mills, has succeeded during the past quarter in proving that the Cattle's line of reef is still worthy of consideration, the result of the total crushing being 150 tons, equal 140 ozs. ¹³

17 March 1879: The Perseverance Co.'s claim, next to the Rowe's Mosquito, is being opened up and sunk with a view to getting to the same run, from which the Rowe's are crushing to good purpose. ¹⁴

March 1880: The Perseverance Company have been doing dead work, but expect to be reimbursed at no very distant date; they have had one or two good crushings. ¹⁵

17 Aug 1880: Perseverance - Mr Mills has entered into negotiations to purchase plant and claims of Small, and Cumberland Co. and Fryers Co. - to work these companies under one management and sink to 1000 feet. ¹⁶

9 June 1882: Perseverance Co. - First meeting of shareholders held - work will start in a few days and crushing within a few weeks. ¹⁷

26 June 1882: Perseverance Co. - The paddock shaft will be repaired during the week; as soon as that is down sinking will be commenced. ¹⁸

June 1882: Perseverance Company. - This company has re-commenced mining operations, having been reorganized; there are now about twelve men employed. ¹⁹

3 July 1882: Perseverance Co. - The No. 2 shaft has been repaired and sinking commenced. ²⁰

7 Aug 1882: Perseverance Co. - During ensuing weeks, will put pumps in. ²¹

27 Nov 1882: Perseverance Co. - The workings have been worked since company formed, from the whim shaft but now (to comply with regulations) will drive a level from the engine shaft. The level at bottom of shaft (230 feet) has been extended 20 feet during week. ²²

Sept 1883: Perseverance Company, Fryerstown. -...The company have recently purchased a valuable plant from the Tarilta Gold Mining Company, which is now being removed from Vaughan. The old plant is being shifted. ²³

14 Nov 1883: Perseverance Co. - Main shaft has been cut down 71 feet and timbered 50 feet. ²⁴

19 Dec 1883: Perseverance Co. - In August last a large crushing plant was purchased from Messrs D. Munro and Co. for the sum of £1035, the terms being very liberal. A contract was let on the 19th October to Messrs Clarkson and Heffernan, for the sum of £855 12s, to remove and erect the whole of the plant, the time given being four months; they are now busily engaged with the work. The plant, when erected, will consist of one 16-inch cylinder engine, to drive the 20-head battery; one new 14-inch cylinder engine for winding, the gearing being also new, and of the most improved pattern, one 10 1/2-inch cylinder engine for pumping. Steam will be supplies from two boilers, each engine being laid down to do its own special work. The whole of the machinery will be under one roof, and when finished will be one of the most complete plants in the district. ²⁵

Dec 1883: Perseverance Company. - The engine and battery lately removed from Vaughan, and for some time in use by the Tarilta Gold Mining Company, are now being erected in the company's leased block at Fryerstown... It is known that this claim is intersected by Cattle's main line of reef. ²⁶

March 1884: The Perseverance Company are now engaged erecting a substantial plant, consisting of three steam engines for winding, pumping, and crushing, with an aggregate of 50 horse-power; the estimated cost, including fixing, is £3,000. The machinery is to be completed within about a month. ²⁷

13 June 1884: Ceremony for starting machinery. The Perseverance has been partly worked, 800 tons giving 227 oz... Shaft is 91/2 ft x 3 1/2 feet. ²⁸

June 1884: Perseverance Company. - The company have now completed the erection of their machinery, which consists of one 25 horse-power steam-engine for crushing, with 20 heads of stamps; one 20 horse-power engine for winding; and one ten horse-power engine for pumping. The steam is supplied by two boilers. The total cost of machinery and appliances is £3,500. ²⁹

9 Sept 1884: Perseverance Co. - Main shaft at 275 feetdeep. ³⁰

25 May 1885: The 'Perseverance Co.' (the adjoining claim) are driving on the reef at the 312 feet level, which has yielded 6 dwt per ton. This stone continues to improve as the drive is extended towards Rowe Brothers' claim, from which it is less than 200 feet distant, and their pumping operations are draining Rowe Brothers' mine. ³¹

Sept 1885: Perseverance Company. - The term of the original lease of the ground held by this company having expired through effluxion of time (15 years), a renewed application has recently been made, which will comprise nearly double the area. During the long period referred to, every effort has not been rewarded with success. ³²

18 Oct 1886: Perseverance Co. - The Diamond Drill has passed through an old level 61/2 feet high at 139 feet. ³³

8 Nov 1886: Perseverance Co. - Mines Department regulations state drilling cannot be done on private leaseholds, or to pass through broken ground lest the diamonds might be fractured by going through timber. ³⁴

15 Nov 1886: A second strike of gold in the Diamond Drill has encouraged the re-organizing of Perseverance Co. ³⁵

22 Nov 1886: The New Perseverance Tribute Co. has been floated - the drill is working within 6 feet of one of its shafts. ³⁶

21 Dec 1886: Perseverance Co. - work started in mine - dewatering mine. ³⁷

Dec 1886: The English, the Australian, Rowe Brothers, the Perseverance, and the Golden Eagle Companies are all likely to make a fresh and energetic start before many weeks have elapsed. All these companies have been languishing for a long time past, but English capital is expected to arrive shortly, when new life and vigor will be imparted; and the different managers will have ample scope for testing the deep and untried ground by diverging more to the westward than has hitherto been considered advisable or expedient. The diamond drill has done something well calculated to guide and encourage those who are disposed to take advantage of its discoveries. ³⁸

March 1889: New Perseverance Company (originally Mills and party). - The ground occupied by this company is favorably situated, being contiguous to that of Rowe Brothers' south boundary. The bearing or strike of the so-called reef is N. 14°W. (Cattle's line), but there is no regular underlay... up to the present time (March 1889), it may be safely affirmed that no properly defined or permanent lode has yet been discovered traversing the company's ground. The depth of the main shaft is 460 feet; water-level 10 feet... The yields, from various depths are as follows:- Surface to 100 feet, 685oz.; to 150 feet, 2,163oz.; to 200 feet, 2,231oz.; to 300 feet, 221oz.; to 400 feet, 755oz. Total number of tons crushed, 14,832, averaging 8.1dwt. to the ton... The company is still actively engaged sinking and prospecting, and there are indications of more favorable results following in the course of a short period. ³⁹

June 1889: New Era and Perserverance Gold Mining Companies. - After being in existence a great many years, these companies have collapsed through an inability to pick up the lost lead in other claims... The Perseverance Company have been struggling for years past, and...nothing of a permanently payable nature has yet been discovered. ⁴⁰

June 1891: Messrs. Delaroy and Mills..., after sinking among the old holes on the Old Perseverance Company's ground, struck payable gold at the bottom of their first shaft. They have followed up the lead, and in every instance the ground has proved payable. It is said that 40 or 50 oz. have been obtained in six weeks, including a 12-oz. nugget. ⁴¹

1990: Perseverance Mine - mullock heap on the side of the road, W of Amos's house...all that survives. There's a couple more mullock heaps in the paddock. ⁴²

DESCRIPTION & INTERPRETATION:

Perseverance mine (mid 1870/1880s)

Large intact mullock heap. Between the road and the mullock heap (eastern end) is an open shaft. The shaft is not fenced and is full of water. To the west of the shaft are the remains of a stone engine bed and some concrete footings. The latter are obscured by mullock and vegetation.

PHOTOS: None taken

ARTEFACTS: None visible

INTEGRITY/CONDITION: Mullock heap is intact, machinery foundations are largely buried.

THREATS:

CULTURAL SIGNIFICANCE:

The site has:

Scientific Significance: - Survival of an intact large mullock heap, open shaft and machinery plant foundations. Has archaeological potential .

Cumulative Value - Part of a comprehensive network of quartz and alluvial mining sites associated with Herons, Ferrons and Cattles Reefs, and Golden Gully. (Sites 66, 67, 68, 69, 70.0 to 70.3, and 71.0)

Significance ranking: National Estate

CONSERVATION POLICY:

The significance of the site comes from the prominence of the mine’s mullock heap. The site’s significance is enhanced by surrounding sites who, when viewed together, form a network of sites which illustrates the many aspects that characterized the history of mining activity in the Fryerstown area. The key site in this network is the Duke of Cornwall engine house (Site 70.0)

RECOMMENDATIONS FOR IMPLEMENTATION:

Assessor: David Bannear Date: 1993

- 1 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
- 2 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
- 3 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
- 4 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
- 5 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
- 6 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
- 7 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
- 8 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
- 9 Mount Alexander Mail, as summarized in Clive Willman collection
- 10 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
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- 19 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
- 20 Mount Alexander Mail, as summarized in Clive Willman collection
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- 31 Mount Alexander Mail, as summarized in Clive Willman collection
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- 33 Mount Alexander Mail, as summarized in Clive Willman collection
- 34 Mount Alexander Mail, as summarized in Clive Willman collection
- 35 Mount Alexander Mail, as summarized in Clive Willman collection
- 36 Mount Alexander Mail, as summarized in Clive Willman collection

37	<u>Mount Alexander Mail</u> , as summarized in Clive Willman collection
38	Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
39	Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
40	Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
41	Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
42	George O. Brown/David Bannear March 1991- Preliminary field notes

SITE NO. & NAME: 71.0 FRYERS CO. MINE

LOCATION: Cattles Reef, Fryerstown

DIRECTIONS: Immediately south of Perseverance Co.'s mullock heap.

MAP/GRID REFERENCE: Drummond 1:25,000 - 560.859

PARCEL NUMBER: P129408

MUNICIPALITY: Newstead

LAND STATUS: Unreserved Crown Land/proposed Castlemaine Historic Reserve

EXISTING HERITAGE CLASSIFICATION: None

PRESENT MANAGEMENT/USE: LCC Rec - J1

HISTORY:

June 1872: The Black Hawk Company, holding a lease of 25 acres 171/2 perches, situated about a quarter of a mile south-east of the court house, Fryerstown, south of the Cumberland and Fryer's Companies, and north of the Burdett Coutts Company, have, after four years' prospecting and indomitable perseverance, been rewarded by a magnificent yield. The stone now being raised looks not only equally promising, but the reef or lode is of a permanent character. The few comprising this company, I believe, expended some £1600 ere seeing any return - this was in sinking three shafts. They are obtaining their gold at a depth of 160 feet, from a lode 4 feet thick. The proprietors are about sinking a new shaft, 200 feet deep, with a view of cross-cutting therefrom both east and west. ¹

June 1874: The Fryers, Cumberland, Black Hawk, Small's, Rowe Brothers', and Cattle's claims are now nearly all connected by underground workings, well ventilated and drained. ²

12 March 1877: At Fryers, the example shown by the Fryers Co., the Black Hawk, and Perseverance has borne fruit, and an attempt is now being made to form a company to work Small's celebrated claim, adjoining the Fryers Co. ³

March 1880: The Fryers, Small's, Cumberland, Black Hawk, and Burdett Coutts miners are all idle. The Black Hawk, under a new name, will resume work shortly. ⁴

June 1885: The diamond drill has now been in operation at Fryerstown [Commissioner's Flat] about two months, but no important discoveries have been made up to the present time (June 30th). The total depth attained is 476 feet... It is intended to bore to a depth of 1,000 feet before shifting to a different position on the main line of reef. ⁵

DESCRIPTION

Fryers Company (1870s)

Large intact mullock heap, no sign of any machinery footings.

PHOTOS: None taken

ARTEFACTS: None visible

INTEGRITY/CONDITION: Intact mullock heap

THREATS:

CULTURAL SIGNIFICANCE:

The site has some historical significance because of its:

- Cumulative Value - Part of a comprehensive network of quartz and alluvial mining sites associated with Herons, Ferrons and Cattles Reefs, and Golden Gully. (Sites 66, 67, 68, 69, 70.0 to 70.3, and 71.0)

Significance ranking: Regional

CONSERVATION POLICY:

The significance of the site comes from the prominence of the mine's mullock heap. The site's significance is enhanced by surrounding sites who, when viewed together, form a network of sites which illustrates the many aspects that characterized the history of mining activity in the Fryerstown area. The key site in this network is the Duke of Cornwall engine house (Site 70.0)

RECOMMENDATIONS FOR IMPLEMENTATION:

Site to be protected

Assessor: David Bannear

Date: 1993

- 1 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
- 2 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
- 3 Mount Alexander Mail, as summarized in Clive Willman collection
- 4 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
- 5 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions

SITE NO. & NAME: 71.1 CUMBERLAND CO. MINE

LOCATION: Cattles Reef, Fryerstown

DIRECTIONS: Immediately south of Fryers Co. mine (Site 71.0)

MAP/GRID REFERENCE: Drummond 1:25,000 - 560.857

PARCEL NUMBER: P129406

MUNICIPALITY: Newstead

LAND STATUS: Unreserved Crown Land/proposed Castlemaine Historic Reserve

EXISTING HERITAGE CLASSIFICATION: None

PRESENT MANAGEMENT/USE: LCC Rec - J1

HISTORY:

June 1872: The Black Hawk Company, holding a lease of 25 acres 171/2 perches, situated about a quarter of a mile south-east of the court house, Fryerstown, south of the Cumberland and Fryer's Companies, and north of the Burdett Coutts Company, have, after four years' prospecting and indomitable perseverance, been rewarded by a magnificent yield. ¹

June 1873: The Black-hawk Company, who have certainly shown indomitable energy for the past few years, have at length an excellent yield of 15 dwt. to the ton, with a large and well defined lode. This is regarded by experienced miners as satisfactory to their neighbours south (the Burdett Coutts, to the Cumberland Company north), and will eventually end in operations being carried out still further south. ²

June 1874: The Fryers, Cumberland, Black Hawk, Small's, Rowe Brothers', and Cattle's claims are now nearly all connected by underground workings, well ventilated and drained. ³

DESCRIPTION & INTERPRETATION:

Cumberland Co. (1870s)

Large, partly quarried mullock heap. Bulldozed mullock makes it difficult to establish whether any machinery footings survive.

PHOTOS: None taken

ARTEFACTS: None visible

INTEGRITY/CONDITION: Poor

THREATS:

CULTURAL SIGNIFICANCE:

The site has little historical significance or integrity

Significance ranking: Local

CONSERVATION POLICY:

None required

RECOMMENDATIONS FOR IMPLEMENTATION:

None

Assessor: David Bannear **Date: 1993**

¹ Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions

² Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions

³ Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions

SITE NO. & NAME: 71.2 BLACK HAWK (LATER GOLDEN EAGLE) CO. MINE

LOCATION: Cattles Reef, Fryerstown

DIRECTIONS: Immediately south of Cumberland mine (Site 71.1)

MAP/GRID REFERENCE: Drummond 1:25,000 - 560.857

PARCEL NUMBER: P129415

MUNICIPALITY: Newstead

LAND STATUS: Unreserved Crown Land/proposed Castlemaine Historic Reserve

EXISTING HERITAGE CLASSIFICATION: None

PRESENT MANAGEMENT/USE: LCC Rec - J1

HISTORY:

June 1870: The Black Hawk Company. - In sinking their main shaft, the proprietors of this supposed valuable ground on the main line of reef have struck the water level, and, in consequence of the superabundance of water, have suspended operations, except in preparations on surface for machinery, buildings, &c. In the course of a short time it is expected that suitable machinery will be erected to overcome the difficulty mentioned. ¹

June 1870: The Bonshaw Company. - This company have suspended operations in consequence of having been unable to provide proper appliances for disposing of the excess of water in sinking their shaft; they have already sunk to a depth of 132 feet, and expended £600, but are now awaiting the erection of machinery prior to recommencing operation. ²

Sept 1870: The Bonshaw Company are employing eight men driving to the eastward. It is very evident that the *position* of the ground was judiciously chosen, and forms a continuation of the Black Hawk Company. This company have sunk to a depth of 75 feet; they have now four men employed. The water at this depth completely overcame ordinary operations. A 12 horse-power engine is about being erected by the proprietors, in order to properly drain the mine, and secure a vigorous prosecution of works required. A powerful plant...is to be erected when the ground has been opened out ³

April 1871: The Black Hawk Company have purchased an engine of considerable power, which they intend fixing as soon as possible. ⁴

June 1872: The Black Hawk Company, holding a lease of 25 acres 171/2 perches, situated about a quarter of a mile south-east of the court house, Fryerstown, south of the Cumberland and Fryer's Companies, and north of the Burdett Coutts Company, have, after four years' prospecting and indomitable perseverance, been rewarded by a magnificent yield. The stone now being raised looks not only equally promising, but the reef or lode is of a permanent character. The few comprising this company, I believe, expended some £1600 ere seeing any return - this was in sinking three shafts. They are obtaining their gold at a depth of 160 feet, from a lode 4 feet thick. The proprietors are about sinking a new shaft, 200 feet deep, with a view of cross-cutting therefrom both east and west. ⁵

Dec 1872 : The Black Hawk Company, who have been constantly prospecting since their occupancy, have struck a lode at a depth of 167 feet, from which the splendid prospect of 1 oz. 3 grs. per ton was obtained. This was obtained from their western shaft, which I am inclined to think is the continuation of Rowe's western workings on Cattle's Reef. ⁶

June 1873: The Black-hawk Company, who have certainly shown indomitable energy for the past few years, have at length an excellent yield of 15 dwt. to the ton, with a large and well defined lode. This is regarded by experienced miners as satisfactory to their neighbours south (the Burdett Coutts, to the Cumberland Company north), and will eventually end in operations being carried out still further south. ⁷

18 July 1873: Black Hawk - Situated about 200 yards east by south of courthouse. Four shafts have been sunk. The eastern one 6ft x 3ft 3in. to a depth of 70ft. The engine shaft, 9ft 6 in. x 3ft 6in., depth 163 ft - now now being used. A shaft, 6ft x 3ft 3in. is 56ft deep. ⁸

Sept 1873: The Black Hawk Company have obtained excellent yields during the quarter - 310 tons averaging 1 oz. 15 dwts. to the ton. This must be regarded as one of the best paying claims in the neighborhood. ⁹

Dec 1873: The Black Hawk Company are obtaining excellent yields, considering the great quantity of stone they have. A new shaft has been sunk and driven to meet the southern shaft level; very rich stone is being obtained...

The Burdett Coutts Company are still persevering in their efforts to discover a permanent and gold-bearing reef; at a depth of 235 feet from surface they have struck a body of stone 6 feet thick, in a very hard ground; they have had trial crushings from the small leaders or veins, which, although not satisfactory, have yielded over 3 dwts. to the ton. ¹⁰

28 Jan 1873: Small and Co. - The battery is kept fully engaged crushing for the public - at present for the Black Hawk. ¹¹

June 1874: The Fryers, Cumberland, Black Hawk, Small's, Rowe Brothers', and Cattle's claims are now nearly all connected by underground workings, well ventilated and drained. ¹²

Sept 1874: The Black Hawk...contemplate erecting a crushing plant of their own. ¹³

Dec 1874: The Black Hawk Company, Fryerstown. - This company, originally started by Messrs. Kitto and Lamb, are progressing very satisfactorily, 35 men are regularly employed, the mine being under able management... The company are erecting a new engine, 25-horse power, to drive a battery of 15 stamps. ¹⁴

March 1875: The Black Hawk Company. - A new crushing plant has been erected upon the lease of this company, comprising a battery of 15 stamps, driven by a non-condensing engine of 25 horse-power, with a 3 feet stroke, the total cost £2,000. ¹⁵

12 March 1877: At Fryers, the example shown by the Fryers Co., the Black Hawk, and Perseverance has borne fruit, and an attempt is now being made to form a company to work Small's celebrated claim, adjoining the Fryers Co. ¹⁶

Dec 1877: The Blackhawk Company. - For some considerable time this company was in a rather depressed condition; it was originally started by Mr H.W. Lamb, and some splendid returns were realized in the early days. Recently some experienced miners have been working the mine under the tribute system. These men would appear to have had some special knowledge of the nature of the ground and the direction of the lead of gold, as their mining knowledge and industry brings up the average to very good figures, viz., 13 1/4 dwts. to the ton. over 500 ozs. have been realized during the past three months in this claim. ¹⁷

14 July 1879: Black Hawk Co. - The whole of the property and effect was sold to Mr J. Rowe - will form a new company under the title of New Constitution Mining Co. ¹⁸

Sept 1879: Black Hawk Company. - The old company having collapsed, and the lease having been forfeited, a new party is being organized under the management of Mr Tolstrup, whose successful supervision in other directions will inspire confidence in the new directory. The works are now at a standstill, but a fresh start will be made in two or three weeks. ¹⁹

March 1880: The Fryers, Small's, Cumberland, Black Hawk, and Burdett Coutts miners are all idle. The Black Hawk, under a new name, will resume work shortly. ²⁰

28 July 1880: Golden Eagle Mining Co. - Prospectus - This company is being formed for purchasing and working the Black Hawk Co.'s property. The lease is 25 acres 2 roods and 11 perches. The engine shaft is 9ft x 3ft 6in. and 322ft deep. There is also a large dam on the land. Sixty-six crushings have yielded 6441oz. The reef has only been partially worked to a depth of 170ft, and the engine shaft now being 152ft below the workings and two crosscuts to the west having been put in to strike the reef. ²¹

March 1881: Golden Eagle, Fryerstown. - The company is progressing very fairly, payable crushing stuff being obtained from the 320-foot level (new ground); they are still sinking. ²²

Dec 1882: The Golden Eagle Claim, Fryerstown, is beginning to show something of its old form, when under a different title (Black Hawk), and owned by Mr Lamb. ²³

20 Feb 1883: Golden Eagle Co. - Directors' Report. - The directors have much pleasure in observing that a great change for the better has taken place, and that there is every appearance of continued prosperity. We believe that in the course of time the mine will afford employment to a large number of miners, and become highly payable to the shareholders. It will be remembered that the lease comprises 25 acres 7 roods 11 perches of auriferous land. The

engine shaft is 9ft x 3ft 6in., securely slabbed and divided for winding and pumping; present depth 403ft. There is also a large dam on the land. ²⁴

2 April 1883: Golden Eagle - This mine has been let to a strong party of tributers who commenced work last Thursday. The tribute is for three years, at 50 per cent. The miners who have taken the tribute are all well acquainted with the lodes at Fryerstown, and therefore the company will reap the benefit of their combined experience. ²⁵

June 1883: Golden Eagle Quartz Mining Company. -...It is generally believed that a rich and well-defined lode exists at a considerable depth, much lower than has ever been tested up to the present time; this lode probably extends in a northerly direction for some miles, and is connected with the Chewton reefs. If prospecting for deep lodes is to be initiated on an improved system, no better field could be selected for exploration than the Fryerstown reefs. these reefs have invariably proved auriferous at all depths and levels, from 200 to 500 feet. ²⁶

Dec 1883: Golden Eagle Quartz Mining Company. - This claim is worked by a tribute party... The machinery has been lately overhauled, and found to be in good working order. ²⁷

8 Feb 1884: Golden Eagle Co. - During the past half-year your mine has been worked on tribute under the superintendence of Mr Matthew Potter, as mining manager, and Mr Wm. Eudey, engineer and surface manager. The tribute party having decreased in number prevented them completing the work of driving towards the northern boundary of the company's leasehold, where it was expected to cut the stone worked by the adjoining company referred to in our last report, attention being directed to the south end at the 320 feet level working on gold-bearing stone...

Engineer's Report. - Since your last half-yearly meeting the tributers have sent 360 tons of quartz to the battery, which was crushed for a yield of 147oz 19dwt 6gr of gold, or an average of 8dwt 5gr per ton. During the holidays the boiler was cleaned out, and machinery overhauled. Everything connected with the surface works of the mine are in good working order. ²⁸

June 1884: the Golden Eagle Company, Fryerstown have...been compelled to temporarily stop their works, owing to the unremunerative character of the crushings during the past twelve months. ²⁹

1 Sept 1884: Golden Eagle Co. - A shareholder asked in reference to there being no extraordinary meeting held. The chairman explained that there was not a sufficient number of shareholders in attendance at the time fixed for holding such a meeting, but it was decided by them to allow all matters that were to be then discussed to stand over until the present meeting. He, however, advised the shareholders to hold on a little while longer to the property, or else take the necessary steps to re-organise the company or to sell the plant if a favourable opportunity arose. ³⁰

June 1885: The diamond drill has now been in operation at Fryerstown [Commissioner's Flat] about two months, but no important discoveries have been made up to the present time (June 30th). The total depth attained is 476 feet... It is intended to bore to a depth of 1,000 feet before shifting to a different position on the main line of reef. ³¹

Dec 1886: The English, the Australian, Rowe Brothers, the Perseverance, and the Golden Eagle Companies are all likely to make a fresh and energetic start before many weeks have elapsed. All these companies have been languishing for a long time past, but English capital is expected to arrive shortly, when new life and vigor will be imparted; and the different managers will have ample scope for testing the deep and untried ground by diverging more to the westward than has hitherto been considered advisable or expedient. The diamond drill has done something well calculated to guide and encourage those who are disposed to take advantage of its discoveries. ³²

1 Aug 1887: Golden Eagle - the offer, which was made by a Melbourne syndicate, for the Golden Eagle plant and leasehold at Fryerstown, was agreed to but the transfer is reported to be still pending until some conditions are conformed with respecting leases. ³³

March 1889: Black Hawk Company. - The operations of this company have been rather of an extensive character, although mining has been suspended for a considerable time. The reef was first opened out by H.W. Lamb, in 1868. The strike of the reef is N. 14° W.... At the 320 level the reef has been worked north and south 330 feet; no quartz has been raised from a lower level... The ground is still held under lease. 17,715 tons have been crushed, at an average of 8dwt. to the ton. ³⁴

1 May 1900: New Black Hawk Co. - Contract for sinking shaft to 100ft completed. ³⁵

DESCRIPTION & INTERPRETATION:

Black Hawk mine (1870s/1880s)

All that survives is a large mullock heap

PHOTOS: None taken

ARTEFACTS: None visible

INTEGRITY/CONDITION: Poor

THREATS:

CULTURAL SIGNIFICANCE:

The site has little historical importance or integrity

Significance ranking: Local

CONSERVATION POLICY:

None required

RECOMMENDATIONS FOR IMPLEMENTATION:

None

Assessor: David Bannear Date: 1993

- 1 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
- 2 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
- 3 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
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- 29 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
- 30 Mount Alexander Mail, as summarized in Clive Willman collection
- 31 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
- 32 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
- 33 Mount Alexander Mail, as summarized in Clive Willman collection
- 34 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions

Mount Alexander Mail, as summarized in Clive Willman collection

SITE NO. & NAME: 71.3 BURDETT COUTTS CO. MINE

LOCATION: Cattles Reef, Fryerstown

DIRECTIONS: Immediately south of Black Hawk mine (Site 71.3)

MAP/GRID REFERENCE: Drummond 1:25,000 - 560.852

PARCEL NUMBER: P120467

MUNICIPALITY Newstead

LAND STATUS: Unreserved Crown Land/ proposed Castlemaine Historic Reserve
Unreserved Crown Land/ proposed Castlemaine Historic Reserve

EXISTING HERITAGE CLASSIFICATION: None

PRESENT MANAGEMENT/USE: LCC Rec - J1

HISTORY:

June 1872: The Black Hawk Company, holding a lease of 25 acres 17 1/2 perches, situated about a quarter of a mile south-east of the court house, Fryerstown, south of the Cumberland and Fryer's Companies, and north of the Burdett Coutts Company, have, after four years' prospecting and indomitable perseverance, been rewarded by a magnificent yield. ¹

Dec 1872 : The Burdett Coutts Company, which had previously obtained good prospects at their 240 foot level, have obtained better prospects still, and as the stone they are obtaining is well impregnated with gold, and charges with mundic and other minerals, it is contemplated that the valuable stone is near, although a greater depth may have to be attained ere a compact reef or lode is opened. ²

June 1873: The Black-hawk Company, who have certainly shown indomitable energy for the past few years, have at length an excellent yield of 15 dwt. to the ton, with a large and well defined lode. This is regarded by experienced miners as satisfactory to their neighbours south (the Burdett Coutts, to the Cumberland Company north), and will eventually end in operations being carried out still further south. ³

Dec 1873: The Burdett Coutts Company are still persevering in their efforts to discover a permanent and gold-bearing reef; at a depth of 235 feet from surface they have struck a body of stone 6 feet thick, in a very hard ground; they have had trial crushings from the small leaders or veins, which, although not satisfactory, have yielded over 3 dwts. to the ton. ⁴

12 Feb 1874: Burdett Coutts Co. - Our attention for a long time was chiefly directed to the western ground, where long crosscuts were put in at two levels, for the purpose of intersecting the same lode that the adjoining claim (the Black Hawk) was working on and which was proving so rich. Not finding it, after driving a considerable distance, we were forced to the conclusion that the lode worked by us 40 feet west of shaft was the lode, and from surveys made it was proved to be so. ⁵

March 1874: The Burdett Coutts Company, in sinking main shaft some few weeks back, cut through a quartz lode some 3 feet thick showing gold freely, depth 270 feet, and are now opening out. The lode alluded to is supposed to be the Black Hawk continuation. ⁶

15 Feb 1875: Burdett Coutts Co. - The works during the last six months have principally been confined to prospecting at the 183 feet level - rising, driving, and sinking has been done, with the view of finding payable quartz, and to prove whether we had the Black Hawk lode or not, there being a great difference of opinion on that point. This we consider is now placed beyond doubt by the above work... Your mine is now well opened up, there being over 900 feet of crosscuts, levels, &c., driven. Main engine-shaft down 274 feet, and everything in connection done with a view of carrying on work on a large scale. ⁷

18 Aug 1879: Burdett Coutts Co. ...the engine-shaft is sunk to a depth of 275 ft., all secure by slabbing with two-inch sawn-timber, and divided into three compartments with plats cut at four levels, all securely timbered. ⁸

29 March 1880: Burdett Coutts Co. - The mine is at a standstill due to shareholders not answering calls. ⁹

March 1880: The Fryers, Small's, Cumberland, Black Hawk, and Burdett Coutts miners are all idle. The Black Hawk, under a new name, will resume work shortly. ¹⁰

3 May 1880: Burdett Coutts Co. - New directors appointed - will commence work. ¹¹

June 1881: The Burdett Coutts Company are engaged sinking their two main shafts. The manager is very sanguine of striking the main Cattle's line of reef at no very distant date, and so establishing a connection between the auriferous lodes intersecting the Black Hawk (now Golden Eagle) and Rowe Brothers' claims, both lying northerly. ¹²

5 Aug 1881: Burdett Coutts Co. - Some of the large veins I would have followed as I believe they are connected with large blocks of quartz, but the air being so bad prevented me from doing so. Having calculated the cost of putting air pipes down, I found that for all purposes a new shaft would be the best and cheapest in the end and would thoroughly ventilate the mine besides cutting various reefs in sinking this. I recommended this to be done. The new shaft was started on the 23rd of May last, and is now down 102 feet from brace. The dimensions of same are 6 feet by 3 feet in the clear divided into two compartments and slabbed with 1 1/2 inch sawn timber. Strong ladders are being placed in position. A contract was entered into for sinking 100 feet at 14s per foot, this will be completed in a few days; the sinking is still good. ¹³

Sept 1881: Burdett Coutts Company are sinking a new shaft. ¹⁴

5 Feb 1882: Burdett Coutts Co. - At date of last half-yearly meeting the eastern shaft was down 102 feet from brace. The sinking was continued until we holed through to the crosscut at a depth of 202 feet, the time taken to put the shaft down was twenty-two weeks. ¹⁵

June 1883: The Burdett-Coutts Company have suspended operations for the present, owing to funds becoming exhausted; however, it is the intention of the directors to re-organize and raise additional capital, and to re-commence working at an early date. Hitherto, the company have met with little or no encouragement, notwithstanding that their efforts have been persistent, and the capital expended very considerable, viz., £6,000. ¹⁶

June 1885: The diamond drill has now been in operation at Fryerstown [Commissioner's Flat] about two months, but no important discoveries have been made up to the present time (June 30th). The total depth attained is 476 feet... It is intended to bore to a depth of 1,000 feet before shifting to a different position on the main line of reef. ¹⁷

March 1889: Burdett-Coutts Company.- A great deal of prospecting has been done by this company during a period of fifteen years, but no payable quartz has been discovered. The reef bears N. 8° 30' W...285 tons of quartz have been raised and crushed, for an average of 5dwt. to the ton. The reef has been abandoned for some time, inasmuch that no payable lode could be discovered. ¹⁸

DESCRIPTION & INTERPRETATION:

Burdett-Coutts Co (1870s/1880s)
All that survives is a mullock heap

PHOTOS: None taken
ARTEFACTS: None visible
INTEGRITY/CONDITION: Poor
THREATS:

CULTURAL SIGNIFICANCE:

The site has little historical importance or integrity

Significance ranking: Local

CONSERVATION POLICY:

None required

RECOMMENDATIONS FOR IMPLEMENTATION:

None

Assessor: David Bannear

Date: 1993

- 1 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
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SITE NO. & NAME: 72 CHINESE GROUND SLUICES

LOCATION: Butchers Gully , Chewton

DIRECTIONS: Turn W from Eureka Road into Henry Street. Cross Butchers Gully and travel to the W end of a patch of hill slope which has been sluiced to bedrock.

MAP/GRID REFERENCE: Castlemaine 1:25,000 - 554.921

PARCEL NUMBER: P121231

MUNICIPALITY: Metcalfe

LAND STATUS: Unreserved Crown Land/proposed Castlemaine Historic Reserve

EXISTING HERITAGE CLASSIFICATION: None

PRESENT MANAGEMENT/USE: LCC Rec - J1

HISTORY:

13 Oct 1860: Butcher's Gully - sludge channel and culvert, 2 puddling machines. ¹

Nov 1860: Numbers & Occupations of Miners: -Europeans: 10 puddlers, 6 tub and cradle workers; Chinese: 3 tub and cradle workers, 3 puddling machines ²

DESCRIPTION

Ground sluices - 19th century

The sluicing site was shown to me by Don Duus. As a boy he lived in a house on the E side of Wattle Flat. His Dad, Phillip Duus, during the depression years, did some hydraulic sluicing in Adelaide Gully. During this time the sluicing channels were already relics, and stones that had been placed in the sluicing channel as ripples to catch the gold were removed in the search for any lost gold. Phillip Duus's Dad told him that the sluices had been operated by the Chinese. As the ground sluices used water from one of the channels connecting to the V.W.S race, they would date post date the 1870's. The small shafts that are found near the ground sluices, according to Don Duus, were dug by Doug Maltby's Dad in the depression years.

Description - Located on the ridge between Butchers and Adelaide Gullies, on the S side of Henry street, are several ground sluices and associated paddocks. At least two sluicing channels run parallel to a track which heads S from Henry Street. The channel's walls are constructed from clay, are both approx 45 cm thick and stand to a height of 40cm. The internal race is 35 cm wide. One channel, sluice A, runs for about 40m from a water race towards Henry Street. The race has been eroded away in places. Excavated paddocks, up to 3m wide, are still visible in places. A second channel, sluice B, whose take-off point from the water race is located 16m to the E, appears to curve around and join with sluice A near Henry Street. About 35m E of Sluices A & B are the remains of two more channels. These sluices are located on the W edge of an extensive patch of hillslope sluiced to bedrock. In Sluice C large stone blocks have been used to help retain the clay sluicing channel. Sluice D has almost disappeared. Several small shafts are located to the W of Sluice A & B, and some are near Sluices D & C.

Fire clay adit - On the crown of the ridge, to the S of the ground sluices are some mine workings. In one of the larger of the open cuts is a tunnel, driven N. Although originally dug for gold in the 20th century, the main claim to fame of this tunnel was that it yielded a high quality fireclay which was sent to Melbourne to be used in painting hearths. [Castlemaine - 1:25,000 554918]

PHOTOS: Showing ground sluices

ARTEFACTS: None visible

INTEGRITY/CONDITION: Good

THREATS:

CULTURAL SIGNIFICANCE:

The site has:

Historical Significance: Possibility that the site is associated with Chinese alluvial mining.

Scientific Significance: Well preserved system of ground sluices and surfacing paddocks. The ground sluices are unusually wide compared to others found elsewhere in the Castlemaine/Fryers Creek Mining Divisions.

Significance ranking: Regional

CONSERVATION POLICY:

The significance of the site comes from the possible association of the ground sluices with Chinese miners; their the intactness and unusual size.

RECOMMENDATIONS FOR IMPLEMENTATION:

Site to be protected

Assessor: David Bannear Date: 1993

- 1 13 October 1860 Mines Department map, ref. 1288/M/12, Survey of Forest Creek and Castemaine
- 2 Mining Surveyors' monthly reports, Castlemaine and Fryer's Creek Divisions

SITE NO. & NAME: 73 QUARTZ ROASTING KILN

LOCATION: Crocodile Gully, near Fryerstown

DIRECTIONS: Located on north side of track that runs to Crocodile Reservoir, 350m from its junction with Taradale Road.

MAP/GRID REFERENCE: Drummond 1:25,000 - 564.875

PARCEL NUMBER: P120481

MUNICIPALITY: Newstead

LAND STATUS: Unreserved Crown Lands/proposed Castlemaine Historic Reserve

EXISTING HERITAGE CLASSIFICATION: None

PRESENT MANAGEMENT/USE: LCC Rec - J1

HISTORY:

None collected. Quartz was being burnt prior to crushing as early as the mid 1850s. In most areas this practice disappeared by the mid 1860s.

DESCRIPTION & INTERPRETATION:

The type and condition of the site suggests it date to the mid 1850s/early 1860s.

Roasting kilns

Two small ground-level quartz kilns which have 1-1/2ft thick stone roasting bowls. The two roasting bowls are set 17ft apart, are partially-filled, and have upper diameters of 7ft. The interiors of the bowls have been coloured an orange-red colour by the heat. Only the western roasting bowl's portal or flue is visible. A water race has been cut through the slope below the front (north) of the kilns. Below the water race, slightly to the east, is a levelled working platform. At the platform's wester end is a small dump of very coarse tailings.

Water dam

Above the kilns, on the opposite side of the Crocodile Reservoir track, is a small dry dam.

PHOTOS:
 1. Roasting bowls
 2. Roasting bowls

ARTEFACTS: None visible

INTEGRITY/CONDITION: Good

THREATS:

CULTURAL SIGNIFICANCE:

The site has:

- Scientific Significance** - Rare type of early quartz mining site, which so far has only been recorded in two other locations (Boswarva Hill and Green Gully) in the Central Victorian goldfield.
- Cumulative Value** - Site located in a rugged isolated gully, close to the Crocodile Reservoir. The Herrons/Ferrons/Cattles Reefs-Golden Gully network of sites lie to the north,south and west.

Significance ranking: National Estate

CONSERVATION POLICY:

The significance of the site comes from its age, intactness and rarity.

RECOMMENDATIONS FOR IMPLEMENTATION:

Site to be protected

Assessor: David Bannear

Date: 1993

SITE NO. & NAME: 74 CROCODILE RESERVOIR REEF WORKINGS

LOCATION: Crocodile Reef, near Fryerstown

DIRECTIONS: Workings located 400m along track from the reservoir, 220m west, at the head of a small gully.

MAP/GRID REFERENCE: Chewton 1:25,000 - 572.883

PARCEL NUMBER: P120481

MUNICIPALITY: Newstead

LAND STATUS: Unreserved Crown Land/proposed Castlemaine Historic Reserve

EXISTING HERITAGE CLASSIFICATION: None

PRESENT MANAGEMENT/USE: LCC Rec - J1

HISTORY:

June 1871: A new (so-called) reef has been discovered in the neighborhood of Crocodile Gully Reservoir... there are three separate parties working. The original discoverers obtained gold in the red clay and a small quartz vein near the surface; they realized something like 2 ozs. to the ton from their first crushing; at a depth of 6 or 7 feet the crushing stuff is equally promising... There are three or four claims working north and south of the prospectors, but nothing of consequence has yet been discovered. ¹

Sept 1884 : SITUATION AND CAPACITY OF RESERVOIRS: Crocodile Gully 5,407,462 ²

25 May 1903: On the other side of Fryerstown towards the Elphinstone Tunnel, and near the Crocodile reservoir, Smart Bros. have come on a body of stone at shallow depth, and last week a crushing of 5 tons yielded 23 oz 14 dwts. The Smart Bros. have been prospecting in the Fryers district for a number of years, generally with success, and their present show promises well as there is a lot of similar value stone in sight. ³

DESCRIPTION & INTERPRETATION:

Quartz workings (early 1870s)

Small line of workings consisting of two open, deep shafts which have large intact mullock paddocks, and several shallow shafts and small sections of trenching. Associated with the largest, most eastern, of the two mullock paddocks are the remains of a single-roomed, 12ft square, stone building. The stone structure has 2ft thick walls and contains evidence of being used as a blacksmithy - an anvil post and a forge in one of the corners. Associated with the other mullock paddock is a stone fireplace and a small forge.

Alluvial sinkings

Below the quartz workings there is a narrow band of alluvial sinkings that run down the gully to the track.

PHOTOS:

1. Stone building
2. Largest of the mullock paddocks.

ARTEFACTS: None visible

INTEGRITY/CONDITION: Good

THREATS:

CULTURAL SIGNIFICANCE:

The site has:

Scientific Significance - Intact shallow reef mining site. Once an extremely common type of site, now extremely rare due to obliteration by subsequent mining operations and/or the 1950s-70s shaft filling program.

Cumulative Value - Site located in a rugged isolated gully, close to the Crocodile Reservoir and the small roasting kilns (Site 73). The Herrons/Ferrons/Cattles Reefs-Golden Gully network of sites also lie in close proximity.

Significance ranking: National Estate

CONSERVATION POLICY:

The significance of the site comes from its age and intactness.

RECOMMENDATIONS FOR IMPLEMENTATION:

Site to be protected

Assessor: David Bannear

Date: 1993

- 1 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
- 2 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
- 3 Mount Alexander Mail, as summarized in Clive Willman collection

SITE NO. & NAME: 75 CHAPEL HILL CO. MINE
LOCATION: Chapel Hill, Fryerstown-Campbells Creek

DIRECTIONS: 600m south-east of junction of Kemps Bridge and Campbells Creek-Fryers Road. South side of the road

MAP/GRID REFERENCE: Guildford 1:25,000 - 533.858

PARCEL NUMBER: P120422

MUNICIPALITY: Newstead

LAND STATUS: Unreserved Crown Land

EXISTING HERITAGE CLASSIFICATION: None

PRESENT MANAGEMENT/USE: LCC Rec - U1

HISTORY:

21 Dec 1855: Talbot Inn, Chapel Hill, Fryer's Creek ¹

July 1859: The Chapel Hill Quartz Mining and Crushing Company - This company has been formed by storekeepers and others for the purpose of working the Chapel-hill Reef, which has been abandoned for some considerable time.....The company are at the present making arrangements for a steam engine and crushing apparatus. ²

July 1860: Chapel Hill Company - This has failed, as any intelligent miner might have predicted. They started to work a series of leaders, without searching for the main lode (if there is one in the vicinity) ³

August 1860: The Chapel Hill Company is about to be re-organised, under the name of Excelsior. ⁴

Nov 1860: The Chapel Hill Company's engine, of 20 horse-power, is...the property of working men, and is being removed to Vaughan...for crushing cement. ⁵

March 1861: On the Sebastopol Reef [Castlemaine division] the claimholders have wisely combined for the purpose of erecting steam machinery for draining, having purchased, and are now erecting the engine and pumping apparatus formerly belonging to the Chapel Hill Company, Fryer's Creek division. ⁶

March 1868: This reef ...[Chapel Hill Reef]...was worked by a public company some years ago, and furnished satisfactory returns for a space of two or three months, the quartz having been excavated to an average depth of 20 feet. The company sunk a shaft to water-level, but never properly tested the quality of the lode. The ground is now occupied by a private company, who are raising quartz from the water-level and otherwise exploring the mine. ⁷

June 1871: The Chapel Hill Reef, the Adelaide Reef, Frenchman's, Mopoke, and the Bristol Reef are now again held by parties who evidently desire soon to prove their value. ⁸

Sept 1872: McDonald and Wilson, German Gully, at a depth of 25 feet, have averaged over 2 ozs. per ton; this lease is situate about 4 chains west of the Eagle or Tarr's line, and about 50 chains south; generally supposed to be a continuation of the old Chapel Hill Reef. ⁹

June 1873: .it is contemplated by a company who now hold the Old Chapel Hill ground to provide for the erection of a crushing plant for public purposes in connection with their mine - a more central position could not be proposed, seeing the excellent returns from Wilson and McDonald's, the Eagle, and those of the Little Nugget, near New London, all of whom cart to, and crush at, Small's, in Fryerstown; cartage costs therefrom 4s. per ton, hence it is obvious that a great impetus would be given to quartz mining by the erection of the plant purposed. ¹⁰

March 1881: Chapel Hill Company. - A new company has been formed for working the reef, which proved moderately remunerative some years ago; the main shaft has been cleaned out and timbered, and the old workings properly drained. ¹¹

March 1882: McDonald and party, German Gully... The reef which they are working is presumed to be on the same line as the reef at Chapel Hill, where a company has recently been started. ¹²

June 1882: Chapel Hill Company will soon be in a position to crush their own quartz, having recently purchased a plant, which is about to be removed and re-erected on their own ground. ¹³

Sept 1883: Chapel Hill Gold Mining Company. - Now that the company have succeeded in securing a valuable plant, comprising two steam engines and crushing machine, and all fixed in most convenient position, it is found that the supply of auriferous quartz for the battery is exceedingly limited. ¹⁴

March 1889: Chapel Hill Company. - The Chapel Hill reef was first opened out by a public company in 1860, and the quartz taken from an open cutting, 738 tons averaging 8dwt. to the ton from a large body of quartz. Prior to 1860, several private parties worked near the surface, th yield of gold averaging 1oz. to the ton. The bearing of the reef is N. 19° 44' W... The reef has been worked continuously 250 feet in length to a depth of 86 feet... The yields from various depths are as follows:- Surface to 100 feet, 173oz.; to 200 feet, 6oz.; 1,300 tons average 3dwt to the ton... The reef is still in work, but not proving remunerative. ¹⁵

Dec 1889: The New Era, Chapel Hill, and Fryer's Creek G.M. Companies have had a long struggling career, and it is not from any simple reasons that they have been reluctantly compelled to stop work, and in some cases to sell and remove their plant. ¹⁶

March 1898: Chapel Hill Co.: 30 ton crushed, 4oz gold ¹⁷

March 1898: Chapel Hill Extended Co.: 7 ton crushed, 2dwt gold ¹⁸

June 1898: Chapel Hill North Co.: 45 ton crushed, 30oz gold ¹⁹

1903: Delmenico and party found stone on the old Chapel Hill line of reef, which they have worked successfully during the year, and their prospects for 1904 appear bright. ²⁰

1904:Delmenico and party appear to have abandoned their mine at Chapel Hill. ²¹

DESCRIPTION & INTERPRETATION:

Chapple Hill Co. (Battery installed in early 1880s)

Remnant of once large mullock heap. No sign of shaft, but possible machinery site marked by brick rubble.

The mullock heap fills the western part of an open cut.

At the base of what remains of the mullock heap is a battery site. All that survives is a hint of a linear depression (decayed battery stumps), remnant of a loading ramp and a scatter of brick rubble. Below the batery site are traces of insitu tailings and a large dump of treated tailings.

PHOTOS: None taken

ARTEFACTS: None visible

INTEGRITY/CONDITION: Poor

THREATS:

CULTURAL SIGNIFICANCE:

The site has little historical importance or integrity .

Significance ranking: None

CONSERVATION POLICY:

None required

RECOMMENDATIONS FOR IMPLEMENTATION:

None

Assessor: David Bannear **Date: 1993**

1	<u>Mount Alexander Mail, p.2</u>
2	Mining Surveyors' monthly reports, Castlemaine and Fryer's Creek Divisions
3	Mining Surveyors' monthly reports, Castlemaine and Fryer's Creek Divisions
4	Mining Surveyors' monthly reports, Castlemaine and Fryer's Creek Divisions
5	Mining Surveyors' monthly reports, Castlemaine and Fryer's Creek Divisions
6	Mining Surveyors' monthly reports, Castlemaine and Fryer's Creek Divisions
7	Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
8	Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
9	Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
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18	Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
19	Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
20	Annual Report, 1903
21	Annual Report, 1904

SITE NO. & NAME: **NUGGETTY REEF SITES**
76.0 Little Nuggetty Co.
76.1 Adit
76.2 Nuggetty Co.

LOCATION: **Nuggetty Reef, Campbells Creek**

DIRECTIONS: Little Nuggetty Co - 2.35km along Fryerstown Road from Campbells Creek Railway Crossing. In 400m from south side of road. Adit lies over the hill, to the west of the Little Nuggetty Co.'s site. Nuggetty Co. - 1.55km along Fryerstown Road from Campbells Creek Railway Crossing. 400m in from the south side of the road.

MAP/GRID REFERENCE: Site 76.0 Castlemaine 1:25,000 - 521.885
Site 76.1 Castlemaine 1:25,000 - 521.881
Site 76.2 Castlemaine 1:25,000 - 521.894

PARCEL NUMBER: Site 76.0 - P120437/8
Site 76.1 - None
Site 76.2 - P121279

MUNICIPALITY Newstead

LAND STATUS: Sites 76.0 and 76.2 - Unreserved Crown Land
Site 76.1 - Freehold Land

EXISTING HERITAGE CLASSIFICATION: None

PRESENT MANAGEMENT/USE: LCC Rec : Site 76.0 - S6
Site 76.2 - N/A

HISTORY:

1850s: This reef, so called on account of the heavy character of the gold obtained from surface workings, was first worked to water-level (75 feet) by a number of small claim-holders for yields up to 12 ozs. per ton. ¹

21 March 1856 At one reef, called Nuggetty Reef, 5 tons of quartz were crushed last week, and yielded 341 ounces. ²

June 1859: Three new scenes of active mining operations have been opened during the past month - one at the back of the Camp, Castlemaine, and two in Campbell's Creek. The sinking, as usual in this division, is from 6 to 15 feet in depth... [Chinese] near Nuggetty Reef are working among the sandstones which crop out on the surface, obtaining gold from ...?... found in the interstices. In each place a large area remains unprospected³

June 1859: The best yields from quartz during the month... [include]: Nuggetty Reef, 4 tons 66 oz. 17 dwt. ⁴

August 1859: 6 claims working, 16 miners. ⁵

Sept 1859: Yield of quartz: Nuggetty Reef - Horson and Co., 1 ton yielded 3 oz. ⁶

October 1859: Above 3/4 of a mile intervening between the Cumberland and Nuggetty Reefs has been taken up, some claims yielding exceedingly well. One ton of quartz from the northern extension have 49 oz. 1 dwt. being the largest yield of matrix gold yet obtained on the creek (Campbell's). The lucky party who found this rich quartz, commenced a prospecting shaft only six weeks ago at the end of the old workings on Nuggetty... Neat and Company, in the next claim north, have also struck a payable lead. ⁷

Dec 1859: Parties reporting yields of quartz: North & Co. ⁸

May 1860: Parties reporting yields of quartz: Neate, North & Company ⁹

June 1860: The Nuggetty Reef Company - have purchased a fine engine of 30-horse power, with stamping, winding, and pumping machinery, and are busily employed in erecting it on the reef; the plant will be very complete and it will enable the claim holders to compete with the immense current of water which has hitherto so retarded their operations. ¹⁰

Nov 1860: During the month, the Nuggetty Associated Quartz Mining Company have commenced crushing with their 30 horse-power engine and 12 stamps, which has been removed from Campbell's Creek and very substantially erected on the reef by some of the shareholders... Hobby's machine, erected on a continuation of the same reef, has also been started, causing this formerly dull locality to become, with its long line of working shafts, as lively and promising a scene of mining operations as we have in the division. ¹¹

Dec 1860: Quartz Reefs actually proved to be auriferous: Nuggetty Reef
 No. of claims: 8
 Extent of claim: 920 feet
 No. of men employed: 24
 Extent of Reef prospected: 2,650 feet
 Quartz Reefs actually proved to be auriferous: Nuggetty Company
 No. of claims: Lease
 Extent of claim: 1,134 feet ¹²

Dec 1860: Quartz leases applied for and surveyed, but not yet demised: [include]
 Nuggetty Reef Company
 Applicant: W.F. Osborne and Company
 Area: 16 acres 2 rod 11 perches
 Feet on reef: 1,134
 Machinery: Thirty horse-power engine, twelve stamps, pumping and winding gear
 Number of men employed: 26 ¹³

Feb 1861: Nuggetty Reef, at Campbell's Creek, which for about four years has produced an immense amount of gold, continues in richness as the claimholders descend in depth, and for a long length of reef gold is now being obtained, the pumping machinery of the Nuggetty Reef Amalgamating Company enabling the party to go below what was formerly considered water level. ¹⁴

March 1861: The Nuggetty Reef Company are vigorously and successfully working their reef and machinery, having during the past two months paid off liabilities of nearly £400, and purposing this week to pay a dividend of from £5 to £6 per share (shares £100 each) which for the two months' work give high expectations of success as the mine becomes opened. ¹⁵

April 1861: A prospect ton obtained from a continuation of the Nuggetty gave 1 oz. 4 dwt. ¹⁶

May 1861: The Nuggetty Company is still improving. ¹⁷

June 1861: The Nuggetty Reef is not only continuing successful, but again yielding up its treasures as of yore. North and Company's claim, from which between £3000 and £4000 was obtained in about two months, has returned 139 oz. of gold from four tons; a second lot of three tons gave 78 oz. ... The Nuggetty Company crushed 300 tons, realizing 135 1/2 oz. of gold ... Roberts and Company on the same reef received nearly 12 oz. from four tons, and Neate and Company 30 oz. from four tons. ¹⁸

August 1861: Another party of working miners, under the style of the Cornish United Mining Company, have applied for a lease on the Poverty Flat Reef... The ground applied for has been prospected, and rich quartz found, but abandoned in consequence of water: the present holders intend to overcome that difficulty by erecting suitable machinery. ¹⁹

Sept 1861: The Nuggetty Reef maintains its character, 6 tons from Moore and Company's claim having yielded 118 oz. 1 dwt.; Neate and Company, 14 tons gave 20 oz. 21/4 dwt.; and the Nuggetty Company from 647 tons, broken and crushed indiscriminately, realized 323 oz. of gold. ²⁰

Sept 1861: Companies/parties crushing quartz in past month: Nuggetty Company, Gingle, Moore, Neate, North. - 750 ton crushed for 29 oz gold ²¹

Oct 1861: The Nuggetty Reef continues...to pay handsomely... Claims in continuation have been taken up, but as yet without striking gold. ²²

Nov 1861: Parties crushing quartz: Nuggetty Company, North, Moore, Neate, Sidley ²³

Nov 1861: The Nuggetty Reef returns continue good... The Cornish United Company, working on the Poverty Flat Reef, have struck gold-bearing quartz at a depth of 85 feet, but they have considerable work to keep down the water with the inefficient appliance of horse-whim, and contemplate erecting a steam engine. ²⁴

Dec 1861: Parties crushing quartz: Rover, Cornish United. ²⁵

Sept 1864: The Nuggetty Company's mine and plant have been let on tribute: the terms are, 75 per cent. of the produce of the mine, less half cost of wear and tear of machinery. ²⁶

Sept 1864: Quartz Reefs, and no. of claims and men - Nuggetty: 6 claims, 38 men ²⁷

June 1865: In consequence of the stoppage of the Nuggetty Company's machinery, the adjoining claimholders are flooded out; no other provision being made for draining the reef, work is suspended. ²⁸

June 1865: In June, 1865, after working to a depth of 170 feet, and meeting with a large amount of water, stopped mining, but continued draining the reef for adjoining claims and crushing quartz for the small parties. ²⁹

1865: Parties reporting yields from quartz crushings in 1865: Moore, North, Nuggetty Company ³⁰

March 1866: The Nuggetty Reef is again to be worked, the company having arranged with adjoining claimholders to drain the reef and to receive a percentage of the gold obtained, and to crush all quartz raised at the company's machine. ³¹

Dec 1866: At Campbell's Creek, the Nuggetty is wholly idle, being flooded in consequence of the stoppage of the company's machinery, which has lately been sold. ³²

1866: Parties reporting yields from quartz crushings in 1866: North, Moore, Bennett's, Hodge ³³

March 1867: The Nuggetty Mine has been drained, the machinery being worked in connection with the Frenchman's reef. North and Co. have re-commenced work. ³⁴

1867: Parties reporting yields from quartz crushings in 1867: (Nuggetty Mine Reef) Royal Oak ³⁵

June 1867: The Royal Oak Company, who purchased the Nuggetty mine and plant, are very successful. ³⁶

Dec 1867: During the past quarter there has been a gradual decrease in mining population, and a very decide retrograde movement by public companies and tribute parties. The Argus Company, the Royal Oak, and the Guildford have been sold off by the creditors. ³⁷

March 1868: .another party of twelve men have taken the Nuggetty mine on a four-years' tribute. Tratham and Co, north of the Nuggetty mine, are following their new leader, obtaining over 12 ozs. per ton. ³⁸

June 1868: The Nuggetty tributors have been crushing for 2 dwts per ton until last week when they received 16 ozs. from 13 tons; much of the old workings have fallen in, the attle having been raised to the surface, instead of supporting the mine. They have a good engine shaft 270 feet deep ³⁹

1868: Parties reporting yields from quartz crushings in 1868: Tratham and others, Tributors. ⁴⁰

March 1871: The United Nuggetty Tributing Company have drained their mine (Nuggetty Reef), but are unable to work for foul air; their engine-shaft is 260 feet deep, and a level is driven thence to another perpendicular shaft; but communication is stopped, and all known methods to remove the foul air have been tried in vain; below the 150-foot level it remains a dense vapor, in appearance to that immediately after an underground blast, and so impure that lights are instantly extinguished and man dare not venture. ⁴¹

June 1871: On the Nuggetty Reef the amalgamated leases of Hayes and North's, and Moor's claim, are in full work, nineteen men employed. The water is kept clear by working quarter time; prospecting levels are being driven from the engine shaft at 280 feet... The whole of this line of reef is taken up under lease northerly to the Cumberland Reef - continuation of which also is taken up, both north and south. ⁴²

Sept 1871: On the Nuggetty Reef all available ground is taken up under lease. The United Nuggetty Tributing Company continues to obtain good returns from portions of their ground known as North's and Moore's... The several new companies who have taken up the adjoining ground have not commenced working. ⁴³

Dec 1871: The Nuggetty Reef Company are progressing in opening out in deeper ground; in driving a level at 170 feet gold is seen, as also in a level 100 feet south of engine shaft, in which direction but little work has yet been done. In North's lease, at 190 feet, in driving a cross sourse 40 feet through slate and sandstone, several leaders were cut. ⁴⁴

June 1872: On the Nuggetty line of reef some alluvial fossickers found a rich quartz leader; a rush and disputed ownership results. On the South Nuggetty, Dyason and Co., have obtained 2421/4 ozs. from 75 tons. ⁴⁵

Sept 1872: The Phoenix Company [on Cumberland Reef], after several disappointments, have struck a leader, in which heavy coarse gold is freely distributed; it is believed to be the northerly continuation of the Nuggetty Reef. ⁴⁶

June 1873: At the South Nuggetty Reef, Dyason and Co. obtained 182 ozs. from 29 tons, and are now raising even richer stone ⁴⁷

Sept 1873: the...Nuggetty Lease is entirely occupied by tributing parties, who have repaired the machinery, and had crushings amounting to 85 tons which yielded nearly 781/2 ozs. of gold. ⁴⁸

Sept 1875: The Bolivia, Nuggetty, Manchester, and Burns Reefs are again being profitably worked. ⁴⁹

Dec 1877 : The Ajax, Devonshire, White Horse, Manchester, Nuggetty, Cumberland, Burns, Caledonia, Old Quartz Hill, Sebastopol, and other noted reefs, continue unworked. ⁵⁰

March 1878: The old Nuggetty machinery has been removed. ⁵¹

Sept 1878: The Nuggetty Company have purchased the Energetic plant, including two engines, 12-head battery, pumping and winding gear, &c., which is being erected. ⁵²

March 1880: Four engines only are employed in drainage, viz., on Wattle Gully, Argus Flat, Eureka, and Nuggetty Reefs. ⁵³

Dec 1880: The Nuggetty Company are sinking, in order to drain that line of reef. ⁵⁴

June 1881: The Nuggetty Company have sunk their shaft 360 feet, including a 10-foot well, and have cut a plat, and are now cross-cutting for the reef. ⁵⁵

March 1882: The Nuggetty Company have drained all that line of reef, and are sinking and prospecting on three lease blocks. ⁵⁶

Dec 1882: Unfortunately, only four steam engines are employed in draining quartz reefs, these [include]:-...the Nuggetty Company, shaft 392 feet deep, draining the Nuggetty and Little Nuggetty reefs. ⁵⁷

March 1885: In quartz mining there is a diminution of men in consequence of the cessation of work on the Nuggetty line of reefs. ⁵⁸

June 1885: In quartz mining all machinery has been removed from the Nuggetty and Cumberland lines of reef, which are now wholly unworked. ⁵⁹

5 Aug 1901: Cumberland and Phoenix Co. have accepted tenders for removal of North Spring Gully's winding plant and poppet legs - work starts today. ⁶⁰

25 Jan 1902: Cumberland and Phoenix Gold Mining Company - First Half-Yearly Meeting - Mine Manager's Report: On 13 September 1901, I started to clean out the old Phoenix shaft, which was a difficult task, seeing that it was making 6000 gallons of water per hour, and that the old pump lifts had to be removed therefrom. ⁶¹

27 Feb 1902: The lease is about 30 acres - has two lines of reef, viz.: Cumberland on the east and Phoenix or Nuggetty on the west, the distance between them being 400 feet. The early mines were of great richness. The Ajax mine, some distance to the north, crushed in round numbers 58,000 tons for 32,000 oz. and the Nuggetty mine on the

south obtained 15,000 ozs. from 21,000 tons. On the lease itself some of the richest yields were obtained, but as in nearly every line of the district, water caused abandonment of works.

The present shaft is on the Phoenix line - the shaft had been sunk to 185 feet. The shaft is on the flat and water is close to surface.

At 129 feet a little work has been done by the pioneers on a large reef met near the shaft - not payable... The main workings are at 181 feet north, where the reef was cut in the shaft. Here it is 10 feet wide and as solid as a bell, carrying much better gold than in the upper level ... No work done south of shaft. ⁶²

14 May 1902: Action taken against the Company by Mr M. Sheehan who claims equal interest in the syndicate from whom the Company purchased the lease. ⁶³

14 July 1902: Settlement made with M. Sheehan. Will now start driving in south level at 130 feet. ⁶⁴

31 July 1902: The bottom level, 180 feet level, was extended to 240 feet. ⁶⁵

22 Jan 1903: The shaft is situated about 200 feet from the southern boundary. ⁶⁶

1913: The Little Nuggetty Company was recently promoted to further prospect the Nuggetty line of reef. Up to the end of 1913 a main shaft has been cut down and timbered to water level, and a winding plant is in the course of erection. ⁶⁷

1914: The Little Nuggetty Company, after completing the erection of a good winding plant, 1 10-head crushing plant, cutting down the main shaft to the required depth, and opening up the drives below ground preparatory to commencing crushing, found it necessary, late in the year, to suspend operations for a time. ⁶⁸

1915: There are only two quartz mines in this division, viz., the South Wattle Gully and the Little Nuggetty, and neither has had a successful year. ⁶⁹

1916: The Little Nuggetty Company sank main shaft to 373 feet, drove 286 feet, cut formation and treated 60 tons for 5dwts. of gold per ton. ⁷⁰

1917: The Little Nuggetty Company, Campbell's Creek, opened up a good deal of ground in driving, stoping and rising, and treated 550 tons for 252 ozs. of gold. ⁷¹

1918: Quartz mining is very dull. The Little Nuggetty Company suspended work at its mine at Campbell's Creek, and has directed attention to sinking a shaft on Post Office Hill, Chewton. ⁷²

DESCRIPTION & INTERPRETATION:

Little Nuggetty Co. (battery erected 1914)

The mine is located at the base of a steep hill. Visible from a track that runs west from the Fryerstown Road is a small section of once extensive mullock heap. At the rear (south) of the mullock heap is a battery site which has three burnt battery stumps (representing one battery box of 5-head of stamps) and the concrete footings/stump slots for another similarly sized battery box. Associated with the battery stumps and stump slots are 1-1/2 inch mounting bolts. Below the battery stumps are sections of a rough concrete floor and a small concrete mounting bed. The floor would have been approximately 8m square. At the rear of the battery stumps, 2-1/2m away, are a set of two well preserved concrete engine beds. The southern bed is the largest, measuring 18-1/2 x 4ft, and standing 4ft high. The other bed, is much narrower (9 x 1-1/2ft) but stands 30cm higher. Both beds have 1 inch mounting bolts. On the north side of the engine beds are the remains of a loading ramp, and on the other side of the engine beds, are some largely buried concrete footings (boiler setting) and red (hand-made) brick rubble.

Water dams - In a gully situated to the northwest of the mine are two large water dams.

Adit

400m south from the South Nuggetty (following the line of reef south over the hill and into the next gully) is an open adit and an intact mullock dump. The tunnel has been driven west into the hill. In the gully below the adit is a large sluice dam. Quartz workings also found on the crown of the next hill to the south of the dam. These have been bulldozed and consist of filled shafts and a small open cut.

Nuggetty Co. (commenced work in 1860)

Mine site and bulldozed machinery site - The site has a large, largely intact, mullock heap which has six dumping lnes. The heap is approx. 5m high and extends 40m west from a filled shaft site. To the north-west of the shaft is a bulldozed machinery site: red (hand-made) bricks, stone rubble and mortar.

Traces of tailings at the base of the mullock heap, north side, suggests that the mine once had a battery. The foundations for the battery appears to have suffered the same fate as those belonging to the mine's mining plant.

PHOTOS: None taken

ARTEFACTS: None visible

INTEGRITY/CONDITION: Poor

THREATS:

CULTURAL SIGNIFICANCE:

Site 76.0 has:

- Scientific Significance - Relatively well preserved set of relics belong to a battery erected just prior to the First World War.

Site 76.1 has:

- Scientific Significance - Open adit with intact mullock heap

Site 76.2 has little historical importance of integrity.

Significance Ranking: All sites have local significance

CONSERVATION POLICY:

None required

RECOMMENDATIONS FOR IMPLEMENTATION:

None

Assessor: David Bannear Date: 1993

1 Milner, P. 1989 Mining Sites in Specimen Hill Area, for Newmont, p.26
 2 Mount Alexander Mail, p.5
 3 Mining Surveyors' monthly reports, Castlemaine and Fryer's Creek Divisions
 4 Mining Surveyors' monthly reports, Castlemaine and Fryer's Creek Divisions
 5 Mining Surveyors' monthly reports, Castlemaine and Fryer's Creek Divisions
 6 Mining Surveyors' monthly reports, Castlemaine and Fryer's Creek Divisions
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26 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
27 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
28 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
29 Milner, P. 1989 Mining Sites in Specimen Hill Area, for Newmont, p.26
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SITE NO. & NAME: 77 BENDIGO AND FRYERS CO. MINE

LOCATION: Mopoke Reef/Gully, near Campbells Creek

DIRECTIONS: 0.9km south east along Blanket Gully Road from its junction with Donkey Gully Road (east branch). Located 100m west of the road

MAP/GRID REFERENCE: Castlemaine 1:25,000 - 519.877

PARCEL NUMBER: None

MUNICIPALITY: Newstead

LAND STATUS: Freehold

EXISTING HERITAGE CLASSIFICATION: The water wheel abutments in Mopoke Gully have been classed as significant in two reports - A Proposal for a Castlemaine Goldfields Park, National Parks Service (October 1979); and Historic Sites Survey: North Central Study Area. Prepared by Jacobs Lewis Vines Architects and Conservation Planners (1979). The former incorrectly associates the abutments with the Champion Company who operated in the gully in the early 1870's. In fact the water wheel was erected by the Bendigo and Fryer's Gold Mining Company in 1887. The site has now been placed on the Register of the National Estate.

PRESENT MANAGEMENT/USE: Pastoral

HISTORY:

22 June 1855: There are many parties working satisfactorily at More Pork Gully, and it is generally supposed that the whole neighborhood of German Gully will be profitably worked this winter. ¹

28 Sept 1855: A digger in Mopoke Gully, Fryer's Creek, writing to the Age says - "At the end of the Gully, the stranger is struck by the appearance of a fence which has been put up across the gully, together with a notice threatening with imprisonment all persons trespassing, thereby stopping all digging operations beyond this boundary. This fence encloses an area of one square mile of highly auriferous ground, which has been tried and proved to contain...gold in large quantities. Now, Sir, is it right that a large tract of rich ground like this, capable of giving employment to upwards of 3000 diggers, should thus be withheld from the public, whilst hundreds in this worked-out locality can scarcely obtain a living..." ²

5 Oct 1855: For Sale, a Quartz Claim, at the head of Mopoke Gully, Fryer's Creek, yielding from four to ten ounces to the ton. Apply to William Strain, on the reef. ³

2 Nov 1855: Mopoke Gully seems to be the favorite spot just now; the quartz reefs are turning out exceedingly rich. ⁴

30 Nov 1855: There have been disturbances with [the Chinese] in Mopoke Gully, and German Gully, on account of water..⁵

June 1859: Mopoke Reef - 4 non-Chinese involved in quartz mining. ⁶

June 1859: Mopoke Reef - Finlay & Co. (The gold is very patchy and nuggety; pieces of 1/2 oz. and 1 oz. are frequently found in small stones. This is the only claim working on the reef; several shafts have been sunk on both sides, and much driven, but no gold or even quartz was found.) 28 ton crushed past month. Yield - 0. Depth from surface - 70 feet. ⁷

June 1859: Mopoke Gully - 8 puddling machines, operated by 30 non-Chinese; 30 non-Chinese involved in ordinary mining; and 4 non-Chinese involved in quartz mining ⁸

August 1860: The Alliance Company - This little company are progressing steadily, and deriving a small weekly profit. ⁹

Sept 1860 : Alliance Company - The works of this company have been retarded through the falling in of a portion of their mine, the damage has been partially repaired, and they are going on again smoothly, so much so, that a dividend is expected in a week or two. ¹⁰

Oct 1860: Alliance Company - This has been doing very little lately, merely paying their way, with, as yet, no sign of profit. ¹¹

Dec 1860: The Alliance Company is to be wound up. ¹²

Dec 1860: Quartz reefs actually proved to be auriferous [include]: Mopoke Reef, 4 miners employed ¹³

Feb 1861: The Alliance Company's plant has been purchased by Messrs. McTavish and Co., of Castlemaine, who have applied for a lease of 4 acres of quartz on Mopoke Reef. ¹⁴

April 1861: The Alliance company's affairs are still in the hands of the Court of Mines. ¹⁵

July 1861: Monthly quartz crushing returns lists - Scotson and Company (late Alliance Company) as obtaining quartz from Frenchman's and Mopoke Reefs; and McTavish and Company obtaining quartz from Mopoke Reef ¹⁶

Sept 1861: Gingell and Company have had a good crushing from the Frenchman's Reef, Mopoke ¹⁷

Sept 1861: Quartz crushed & gold obtained in past month: S. Scotson, near surface, 240 ton yielded 3 dwt; A.D. McTavish, 60 feet from surface, 140 ton yielded 9 dwt. ¹⁸

June 1864: An engine of 18 horse-power, with 12 stamps, pumping and winding gear, is being erected upon Fairbairn's lease, Wattle Gully, which has been brought by Mr Scotson from Mopoke Gully, Fryer's Creek division. ¹⁹

June 1864: Mr Scotson has been making extensive alterations in his plant. He has just completed an addition of 6 new heads to his battery at Mopoke. ²⁰

1866: Parties reporting yields from quartz crushings in 1866: S. Scotson ²¹

1867: Parties reporting yields from quartz crushings in 1867: S. Scotson ²²

1868: Parties reporting yields from quartz crushings in 1868: S. Scotson, Tearle and Company, H.W. Lamb and Company ²³

June 1871: The Chapel Hill Reef, the Adelaide Reef, Frenchman's, Mopoke, and the Bristol Reef are now again held by parties who evidently desire soon to prove their value...a new engine and crushing machine is now being erected at Mopoke, to work the Frenchman's Reef and the reefs near it. ²⁴

Dec 1871: Champion Company, Mopoke. - About 70 tons of stone have been sent to the Ajax machine as a trial crushing; this taken from a reef of immense thickness - about 40 feet in places... Gold has also been struck in several other parts of the mine. There can be little doubt now as to the permanent value of the mine, a good plant only being required to reduce the vast quantity of auriferous stone..²⁵

June 1883: The Mopoke Reef (Scotson's) is also about to be re-worked, a lease of a block of ground having been secured. It is intended to erect machinery on the ground and operate on a vast body of stone, which can be easily got at and raised, not being more than from 20 to 30 feet from the surface. In the early days, 3 to 4 dwt. to the ton, with a body of stone 10 to 15 feet wide, was not considered worthy of notice, even with a crushing plant upon the ground. At the present time, with improved mechanical appliances and more skilful management, it is supposed, this comparatively poor quartz would prove moderately remunerative. ²⁶

Sept 1884: Shill, Woods, and party, Mopoke Gully. - This party, having lately secured a lease of their ground, are still working vigorously... There is plenty of auriferous ground in this neighbourhood, which would undoubtedly pay for working. The Champion Reef, Scotson's, Frenchman's, Aberdeen's, &c., &c., are all in the immediate locality, and probably connected. ²⁷

Sept 1885: N. Woods and party, of Mopoke Gully... when they first took up the claim, and for a long time subsequently, they had little or no encouragement... The reef had been originally worked at shallow depths with moderately remunerative returns, but the run of auriferous quartz suddenly disappeared, when mining operations were suspended, and the ground left unworked for a considerable period. The Mopoke Gully quartz reefs are now attracting attention, two or more leases having been recently applied for by Messrs. Aberdeen and Walker, who contemplate erecting suitable machinery for crushing.²⁸

March 1887: The Bendigo and Fryer's Gold Mining Company (formerly Woods and party, Mopoke Gully) have done very little underground work during the past quarter, the principal work having been confined to the surface, viz. - making excavations for water-wheel pit, and erection of masonry. A 10-head battery is about being erected, which will do all the crushing by water power. The water-wheel is overshot, 60 feet in diameter, with 20 inches breast (or waterway). The wheel will be set in motion by a supply of water from a race 19 chains long, with a fall of 3/4 inch to the chain, and connected with the main Government race; the supply of water is estimated at 21/2 million gallons per day...the manager is of opinion, they will be able to crush about 120 tons per week.²⁹

Sept 1887: The Bendigo and Fryer's Company, Mopoke Gully, have now a fair supply of water for driving the water-wheel, which keeps the stampers in motion for crushing purposes.³⁰

March 1888: Bendigo and Fryer's Company, Mopoke Gully. - This company has suspended mining operations... The company intend to extend their operations by securing blocks of land within a short distance of their present workings, where it is well known (Champion Reef) that large blocks of auriferous quartz exist.³¹

March 1889: Bendigo and Fryer's (late Woods), Mopoke Gully. - The discoveries made on this particular line of reef are comparatively of recent date, as there are no official records to which reference can be made prior to 1884; the original proprietors of the claim, have, however, made representations as to extraordinary yields from certain crushings at an earlier period, which would be very interesting if capable of verification. The bearing of the reef is N. 6° W... The main shaft is 100 feet deep... The yields from various depths are as follows:- Surface to 50 feet, 410oz.; to 100 feet, 222oz.; 1,505 tons averaging 8.4dwt. to the ton... The reef is being worked, at the present time (March, 1889), by a party of tributers, and paying good wages. The crushing machinery is driven by water-power, the supply of water being derived from an open race, working an over-shot, and connected with the main Coliban aqueduct... Scotson's Reef, Mopoke Gully. - This reef was first opened out in 1854, gold having been found in a small leader near the bottom of the alluvial formation. From certain favourable indications, a shaft was then sunk and good payable quartz struck at 80 feet, which continued payable to 90 feet in depth... On the north side of the north cross-course the Champion reef joined, at which junction the yield of gold from the stone was very good for a distance of 10 or 12 feet along the reef in a northerly direction... The line of reef bears N 8° W... The names of the original discoverers of the reef cannot now be ascertained, but, after (as alleged) realizing about £5,000 from a small block of ground, they sold their rights to Mr Scotson for £1,200. The Alliance Company was then formed, but after working for two years, collapsed from some unexplained cause; it may be stated, however, that their first crushing gave 4oz. to the ton. Mr Scotson retained possession of the ground for many years, but the yields were very irregular; altogether some 10,000oz. were obtained at various depths down to 100 feet, up to the year 1867. During the years 1867 and 1868, 5,400 tons were crushed, yielding 2.2dwt. to the ton on average. During the latter part of the time the ground was occupied by Mr Scotson, the reef was not payable, but it is, nevertheless, supposed there is a good opening for further prospecting north of the old workings, and inclusive of the Champion line of reef. ³²

DESCRIPTION

The Bendigo and Fryer's Gold Mining Company (1887 to 1888)

Two massive stone abutments set into the side of a hill. On the west side of the abutments is a large stone retained loading ramp. Below the ramp is a levelled floor containing squarish depression belonging to decayed stamper stumps. An underground stone-lined culvert drains from the base of the water wheel pit. There is also a small intact tailings dump in the gully below the abutments. The mine workings located above the battery are very ordinary .

PHOTOS: To be taken

ARTEFACTS: None visible

INTEGRITY/CONDITION: Good

THREATS:

CULTURAL SIGNIFICANCE:

Site has been placed on the Register of the National Estate due to the place's historical and scientific significance.

Significance ranking: National Estate

CONSERVATION POLICY:

The significance of the site comes from its age, intactness and rarity.

RECOMMENDATIONS FOR IMPLEMENTATION:

Site to be protected

Assessor: David Bannear

Date: 1993

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SITE NO. & NAME:	78 WATTLE GULLY CO. MINE
LOCATION:	Wattle Gully, Chewton
<i>DIRECTIONS:</i>	1.5Km south of Chewton. East side of Fryerstown Road
<i>MAP/GRID REFERENCE:</i>	Chewton 1:25,000 - 558.909
<i>PARCEL NUMBER:</i>	P121526
<i>MUNICIPALITY</i>	Metcalfe/Newstead
<i>LAND STATUS:</i>	Unreserved Crown land/proposed Castlemaine Historic Reserve
<i>EXISTING HERITAGE CLASSIFICATION:</i>	None
<i>PRESENT MANAGEMENT/USE:</i>	LCC Rec - J1

HISTORY:

1850s: Phillip's reef, first discovered under the alluvial workings near the head of Wattle Gully, has been one of the most continuous and probably the most highly auriferous in the Castlemaine district. Above water-level it yielded from 9 to 12 ounces to the ton, and to the west of the main wall, which underlies west, a mass of spurs known as the Wattle Gully Reef, had the appearance of a large solid body of white stone studded with gold. The nuggets were broken out with pick and hammer, the refuse yielding about 12 ounces to the ton. This solid body soon gave place to leaders and stringers of quartz, dipping south from 15° to 30° and intermixed with layers of slate and sandstone. Some of these leaders were exceedingly rich. ¹

13 June 1856: A number of hopeful men acquainted with Wattle Gully continue to work there in spite of every discouragement; sinking is about thirty feet deep, and the shafts require to be slabbed. Floods have so frequently destroyed mining operations here, and so many holes have been partially sunk, and then left on account of water, that justice will never be done to this gully until the introduction of powerful machinery takes place, and then we can say with safety, this will be one of the very best paying spots on Forest Creek. An excellent quartz reef runs up the right hand side of this gully, towards Specimen Hill... A party of six, whose quartz claim is nearly run out, possess a machine of their own on the Chilian principle, which, by doing all the work themselves, and having two blacksmiths in the party, they managed to put up at a trifling cost, and hving done so are enabled to crush their own quartz, even the poorest of it which would otherwise be thrown away... Two Spaniards and one Englishman have been working a claim for the last twelve months, and have done well; their claim is nearly worked out. Another party has been working about eleven months; they are not getting their quartz crushed, but are laying it aside for a future time... There are three machines here, viz., the before mentioned one belonging to a party of six, crushes 30 cwt. in one day with one horse; could crush double the quantity with two horses. One belonging to Mr Brown who has a quartz claim. This is a very superior machine, with improved amalgamator. One belonging to Mr Rogers, not yet in working order. ²

20 June 1856: Five hundred and thirty-three ounces of gold from two tons of quartz, at Wattle Gully, Forest Creek. [Mackin and Radford, from a depth of 40 ft.] ³

20 Oct 1856: Wattle Gully Reef - Redford and party - 2 ton yielded 400oz. ⁴

10 April 1857: Wattle Gully - worked now for over three years - work confined to the leaders. ⁵

26 Nov 1858: Phillips Reef - Phillips and Co. - discovered 3 or 4 weeks ago in the alluvial ground at a depth of 30 or 40 ft from the surface. ⁶

1858: Gibber's, or West Wattle Gully Reef, was worked on the surface in 1858 over a length of about 1,400 feet. ⁷

1859: The first company formed to work the [Wattle Gully] reefs, in 1859, was the first Wattle Gully Company, with a capital of £35,000. Within two months the company expended over £18,000 in machinery, surface and preparatory works. Three separate plants were erected, but after expending £28,000 the company collapsed and the lease was forfeited. The ground was then taken up by miners, who formed co-operative parties, erected small plants... ⁸

4 Feb 1859: Wattle Gully Reef - Meldrum's claim - 1/2 oz per ton. ⁹

25 March 1859: Phillip's Reef considered by some to be a continuation of Chewton Reef. ¹⁰

May 1859: Wattle Gully, Forest Creek, which is situated near the Monk, one of the district landmarks, is one of the richest localities in the colony for auriferous quartz. It may be properly termed a "bed of gold mines." Auriferous quartz may be found in the gully and adjacent ranges for a width of 1,200 feet.

The depth of sinking in the main alluvial workings is from 25 to 30 feet, through decomposed rock and fragmentary quartz, sandstone, and shale. The drifts contained gold for a depth of 6 feet, and were exceedingly rich, lying on blue slate bedding rock. Now, after six year's working, it is yielding a living to many families. This gully, like many sections of this division, supplies incontrovertible proofs that alluvial gold in the flats and gullies is derived from, and is the result of disintegration of quartz; the gold having been liberated therefrom, and deposited by natural causes. The principal run of gold in this gully is traced from the outcrop of reef No. 1, claim 1, and each of the branch gullies were supplied from the outcrop of a quartz-dyke... Where a gully continues above such outcrop of quartz, little, if any, gold is found, and neighboring gullies running parallel and precisely similar in geological formation, but not having quartz-reefs, are also non-auriferous.

Quartz-Mining. - Quartz-mining commenced on the outcrop of claim 1, reef 1, which was from 3 to 4 feet wide, and with the imperfect disintegration of that time, yielded 12oz. per ton. This was supposed to be a reef, but was found at the depth of a few feet to run into leaders underlying each other at irregular distances, and, at the greatest depth yet attained the leaders are found to run out and come in, as they were found near the surface... Exceedingly rich patches have been extracted from these workings. The vein, showing on the surface in claim No. 1 was struck in No. 2, at 30 feet deep extraordinarily rich, two tons yielding 402 oz.; a second two tons, 533 oz.; and from half a bucket of specimens 286 oz. were obtained. Claim No. 3 struck the same vein at 80 feet, but it soon run out, and other veins came in. The last crushing from the deepest shaft (claim 6) below the water-level yielded 45 oz. per ton, the gold generally coarse - ounce nuggets, and even five ounce pieces being found, yet much of the quartz is so poor as scarcely to pay for workings.

Workings No. 2 - Phillips' Reef (558908-559913) was discovered under the alluvial workings... Claims 1 to 6 have worked to the water level, obtaining from 9 to 12 oz. per ton; and claims from 7 to 11 inclusive have not yet reached the reef.

No. 3. - Shank's Reef (c.559905-559909) is a continuation of Specimen Reef (El dorado), in Fryer's Division...it passes under private property...miners in sinking their shafts magnetic north in claim 2 cut the reef at 38 feet; at 3a at 60 feet; and at 3b at 95 feet. (These numbers refer to the plan.) The other parties having sunk in the line to avoid private property will have to go in deeper...before striking the reef. Claim No. 2 has just struck a second vein, in which the precious metal shows very promisingly at 84ft.

No. 4 - The Upper Wattle Gully Reef (c. 558910)...has been prospected a length of 1,400 feet. From 8 to 10 dwt. of gold per ton of quartz was obtained, but it was abandoned for more paying workings. ¹¹

May 1859: Workings No. 2 [Wattle Gully] - Phillips' Reef was discovered under the alluvial workings... Claims 1 to 6 have worked to the water level, obtaining from 9 to 12 oz. per ton; and claims from 7 to 11 inclusive have not yet reached the reef. ¹²

May 1859: The Upper Wattle Gully Reef...has been prospected a length of 1,400 feet. From 8 to 10 dwt. of gold per ton of quartz was obtained, but it was abandoned for more paying workings. ¹³

May 1859: Shank's Reef is a continuation of Specimen Reef (El dorado), in Fryer's Division...it passes under private property...miners in sinking their shafts magnetic north in claim 2 cut the reef at 38 feet; at 3a at 60 feet; and at 3b at 95 feet. (These numbers refer to the plan.) The other parties having sunk in the line to avoid private property will have to go in deeper...before striking the reef. Claim No. 2 has just struck a second vein, in which the precious metal shows very promisingly at 84ft. ¹⁴

July 1859: a portion of Phillips Reef, Wattle Gully. It has been payable from the surface, the main reef yielding 5oz. to 6oz. to the ton. In driving a cross adit, several lodes were cut, two of which...were afterwards cut in sinking the water shafts, and from their declination these will join the main reef. When the water-shaft struck quartz at 85ft, the rush of water was so great as to prevent further operations. ¹⁵

1871: In 1871, Wattle Gully Reef was again taken up by registered companies, among which were the South Wattle Gully, the Central Wattle Gully and the Wattle Gully companies. The South Wattle Gully Company's ground included Captain Teague's lease, upon which two shafts were equipped with plants and sunk to work the reefs below water-level. The Wattle Gully, which included eight of the richest claims at and near surface, erected a complete plant and sunk shaft to a depth of 334 feet, but below 200 feet, no payable results were obtained, and the company did not prospect in a southerly direction. ¹⁶

Sept 1874: The prospects on Wattle Gully reefs have improved. Mr Teague's machinery has commenced working, and he is cross-cutting for the reef.

The Central Company, the New Wheal Terrill, and the United Wattle Gully, are all on payable stone, and likely so to continue. ¹⁷

1 Dec 1874: It was rumoured in Castlemaine yesterday that the Central Wattle Gully Co. had struck some exceedingly rich quartz, specimens worth £500 or £600 being exhibited in Chewton. ¹⁸

Sept 1875: The Central Wattle Gully Company continue upon payable stone, and have their machinery nearly re-erected. The Wattle Gully Company have driven their 450-foot level into a fine country... These are the deepest workings in the Castlemaine division. ¹⁹

Sept 1877: The Central Company have erected a new 15-head battery of revolving stamps, and made other improvements. ²⁰

March 1881: The Central Wattle Gully Company continue to employ a good number of men. They have now taken the Wheal Terrell ground on tribute; this they can work by their own shafts and machinery. ²¹

26 June 1882: A project is underfoot for making one company out of Central, Wheal Terril and Crown claims ²²

Sept 1882: The Central Wattle Gully Company have refitted their machinery and added a "Morton's Condenser", which is stated to both save firewood and increase steam power. ²³

June 1883: The Central (private company) Wattle Gully, obtained 463 oz. from their own leased ground, and 109 1/2 oz. from their Wheal Terrill Tribute. They employ 40 men, and hold one of the best mines in the division. ²⁴

1 Oct 1883: An agreement has been reached for amalgamation of Central Wattle Gully with Crown and Wheal Terril claims to form a public company. ²⁵

15 Oct 1883: Old Wattle Gully - Will form public company. ²⁶

19 Nov 1883: Central Wattle Gully Mining Co.- is projected to supersede three private co-operative mining companies, known as the 'Central Wattle Gully', 'Wheal Terrill', and the 'Crown Claim,' for the purpose of more efficiently and economically working these mines. This valuable property comprises a total area of 14 acres 2 roods 3 perches, held under Gold Mining Leases, adjoining each other, and including the 'Old Wattle Gully', 'Phillips', also the 'Western' or 'Jibbers' Quartz Reefs, for over one thousand feet in length. Also a superior Mining Plant and Machinery, complete and in full and profitable workings...

There is at present at work on the Central mine the following machinery, all in good working order:- A substantial crushing plant, comprising first-class 15 head battery, with copperplates, blanketing, &c., complete. One 15 inch cylinder engine (by Tennant) with condenser attached, surface pumps and all suitable appliances; about 410 feet of 7 inch pumps, (Plunger and Drawing Lift) driven by said engine. One 10 inch cylinder winding engine, with friction gear, together with good wire ropes, safety cages, &c. One Cornish-flue boiler 24 feet by 6 feet 6 inches. Three blacksmith's shops with tool, &c. The whole plant is in first-class order. ²⁷

June 1884: The Central Wattle Gully Company continue to extend their 250 and 350 foot levels south through the Old Wheal Terrell, towards the Crown claim... This once rich claim was formerly worked only by windlass and whim to 180 feet in depth. ²⁸

Sept 1884: The Central Wattle Gully Company are sinking a new engine shaft in the western slate country, in which rich leaders are known to exist. ²⁹

June 1886: One party of tributers in the Central Wattle Gully Co. averaged over 1 oz to the ton with good prospects before them - Jenkins and party 33 oz 2dwt from 32 tons - other tributers 4oz 18dwt. Becks Nicholson and McDonald parties have an improved appearance..³⁰

22 July 1886: Lease 2673, of the Forest Creek Wattle Gully Company, is situated at the point where Deadman's Gully joins Wattle Gully. (mid grid ref. 559917).

Immediately south of the above lease are those of the Wattle Gully quartz mines - Leases 2673 (most northerly), 1739 and 2175 (Central Wattle Gully Mine), the South Wattle Gully Mining Company, and Leases 2212 and 2358 - all working Wattle Gully Reef, Old Specimen or Shanks Reef (mid grid ref. 559905). ³¹

July 1886: Central Wattle Gully - The main shaft is at 234 ft - sinking ceased due to decrease of call paying shares. The winding engine is pulling two important tributaries in the old shaft. The tributaries are worked by 24 men. 948 tons have yielded 275oz 2dwt. ³²

Feb 1887: Central Wattle Gully Co. - Beck and party, after considerable amount of labor, having abandoned operations at the 80ft level, it being too poor. Jenkins and party, when last reported, possessed an excellent prospect at the 300ft level... Nicholson and party have a good show of stone in Crown claim, it being 8ft in thickness, from which good prospects are obtained. Kidd and party working leader country west of lode... We have 6 tribute parties in full work in different portions of your mine, in all 13 men, all doing good prospecting work. Machinery in good order; boiler tested; mundic appliances approved and extended.³³

March 1888.: the South Wattle Gully Company...obtained 1,252 oz. 6dwt. for the quarter. Of this 1,212oz. 8dwt. was from 571 tons from Shanks' Reef by McDonald and Sons, a party of six tributors, who receive 50 per cent. or about £2,400 for their three months' work...

The adjoining company is the Central Wattle Gully, of whose shares 20,000 had become forfeited and were purchased at 1s. per share; the full number (25,000) being subject to calls. This leasehold is 1,010 feet long; the workings since 1866 have been from 60 to 80 feet in width..³⁴

n.d.: Adjoining the S boundary of the FCWG Co. lease, is the lease of the Central Wattle Gully Co., with machinery, dam, 400ft shaft and a new shaft (558909). A race runs from the dam, S along the lease's W boundary, and connects into the main VWS supply. Another race leads from the dam to a surface sluicing claim, W of the lease's W boundary and E of Long Gully. Four shafts on the W boundary of the Central Wattle Gully Co. lease, and three shafts on the E.³⁵

Sept 1891: After cross-cutting 161 feet from the shaft the Central Wattle Gully Company cut Gibber's Reef, which is well mineralized and gold bearing.³⁶

Oct 1899: Southern Cross and Central Wattle Gully Co.: 102 ton crushed, 25oz gold³⁷

1932-1938: Rising gold prices after the depression led to the 3rd era of mining activity at the old shaft (Wattle Gully). Wm. Baragwanath, the Government Geologist, suggested to a group of mining investors to take up the Wattle Gully leases and prospect west to pick up the east dipping strata and associated formations of the West Wattle Gully anticlinal fold that had proved so rich on the surface in the 1850's but had hardly been worked at depth below.

In 1933 Wattle Gully Gold Mines N.L. was formed ... What followed was an investors dream came true. By 1938 ... Wattle Gully has paid \$175,000 in dividends and much more was to come.³⁸

Oct 1936: Wattle Gully Gold Mines - A 20 head battery was installed ... Prior to this ... ore was crushed at the small Government Battery on Specimen Hill operated by Mr Alf. Cocks.³⁹

Oct 1936: Wattle Gully - New plant, air compressor engine, air compressor and battery engine running satisfactory. Erection of other plant nearing completion.⁴⁰

Feb 1937: Need For Caution
Stags Likely in Chewton Floats
20 Companies Try Luck

Four new Chewton shows have ben floated this week, and others are pending. The glamour of Wattle Gully's success has attracted speculators, and the field is pegged for miles in all directions.

Some of the new issues are certain to be staged. With twenty concerns now on the field, there are bound to be failures. In the nature of mining, successes are usually few ... Mining "booms" in the past have been outstanding for the trail of minor reekage left in their wake.

Misleading Company Names

Nomenclature of the mines should be subject to some better control. Already there have been two South Wattle Gullys. At least one other mine has the words Wattle Gully in its name without having, in fact, any association with the Wattle Gully country at all.

Neither the South Wattle Gully, nor the new Central Wattle Gully, formed this week, are in Wattle Gully, or even on the Wattle Gully line.

The field is worth prspecting - but investors must remember that outside the Wattle Gully mine, the other propositions are far from proved.⁴¹

March 1937: Chewton Mining Boom
Rush Days Recalled

Due largely to the remarkable success of the Wattle Gully Mine, which is paying shareholders large sums in dividends and bonuses, the Chewton field now presents a scene of activity reminiscent of the "gold rush" days. Central Wattle Gully, which was floated on Wednesday, had all its 60,000 shares taken up on the day of flotation. Miners believe that there are large bodies of payable ore in the district which have never been properly investigated. Twenty companies have now taken up leases, and eight of them have begun their prospecting work. Wattle Gully is the only company passed the prospecting stage.

The companies which have begun shaft sinking are:- South Wattle Gully, North Chewton, Golden Wattle, Upper Barkly, Post Office Hill, North Wattle Gully, Chewton, and Wattle Gully Extended. Other companies which have not yet begun operations are :- Chewton Prospecting Syndicate, Eureka Vineyard, Hog's Reef, New Garfield Gold, Nimrod Development, Central Wattle Gully, Chapman Gold mines, Mimisa United, Argus Hill, and also Juniper and Maddigan's sluicing party working alluvial ground on Chewton's G.M. area. Almost all these companies have been launched since Wattle Gully struck its payable reef.⁴²

April 1937: States Best Producer - Wattle Gully mine

Victoria's best gold producer, the Wattle Gully Gold Mine, at Chewton, looks like becoming one of the State's best gold mines in this century. In its short life it has already paid(out a large dividend) amassed a large reserve fund and erected a most modern plant for the development of its huge lease ... The success of the Wattle Gully mine has caused a big revival in gold mining at Chewton, and the district is enjoying the most prosperous period since the eighties. Several companies are actively engaged on the Wattle Gully line of reef, and other well known reefs in the area are receiving attention.⁴³

July 1937: Considerable mining activity is taking place in this district and many new mines are being opened up. With the exception of the Wattle Gully, mines on the Chewton field are in the preliminary stages and some encouraging developments are already reported. This field, which has vast possibilities, is after a long period of neglect now receiving much attention. Capital has been attracted to the district and much good work is being done in sinking new shafts and re-opening old ones. The area from Castlemaine to Fryerstown is largely held under lease or lease application.⁴⁴

22 Oct 1937: The Wattle Gully Gold Mining Co. - This company was formed with the intention of cleaning out and repairing the old Central shaft (which had been sunk to 200 feet in the early days), and then to sink a further 400 ft to test the deeper ground previously worked profitably by the Forest Creek Wattle Gully Co. to 840 ft.

If this programme had been adhered to, the Wattle Gully Co. would have cut the gold within a few months of starting sinking. Unfortunately they spent a lot of time and a lot of money working at the 200ft level. When things were looking desperate, the Government diamond drill was obtained and the last bore hole went through 11ft of stone assaying 5oz to the ton. On the strength of this the company started to sink and at 500ft from the surface cut into payable stone. All the material from the shaft was put through the State battery for an average of about 10 dwt. A 20-head battery with stone cracker and Wilfley tables was installed and 700 tons fortnightly have been crushed for an average of about 13 dwt of smelted gold, not including minerals, which are of good content. From January 1 to September, 1937, 8464 oz gold were obtained.⁴⁵

Jan 1938: Mining activity in this district has been well maintained during the past six months. A considerable amount of developmental work, including the erection of machinery, the unwatering and reconditioning of old mines, the sinking of new shafts, and crosscutting and driving, has been carried out. In some cases the results have not been as satisfactory as was anticipated, but there is reason for the belief that with continued activity further reefs of a profitable nature will be discovered.

Whilst a few mines have closed down owing to their failure to meet with early success and for want of capital, several new ones have commenced operations.

The now famous Wattle Gully Mine still maintains its yields and is becoming noted as a regular dividend payer. A recent sink to 800 feet is completed and a new level will be opened out to develop the deeper parts of the formation... The deep alluvial mines in this district have not made much headway, only two - Yandoit and Guildford Plateau - have survived.⁴⁶

August 1938: Wattle Gully Beats Gordon's Record

The latest crushing of Wattle Gully Gold Mines Ltd N.L., which was for the fortnight ended today, showed an average grade of 13.1dwt., 720 tons yielding 471oz 8dwt. of smelted gold, excluding mineral. This shows an improvement on the last two crushings, which were 12.1 and 12.9 dwt. grade, and brings Wattle Gully's yield for the year to 8072-3/4oz. which is more than any Victorian mine won during the whole of 1936. Last year Gordon Gold won 7857oz.⁴⁷

1938: Wattle Gully Gold Mines - the shaft had been sunk to 800 feet and was still maintaining its high yields.⁴⁸

July 1939: The Wattle Gully mine has maintained its output and regular dividends throughout the term; dividends to date amount to £118,500 ... The additional ten head of stamps will shortly be in commission, thus increasing the mill to 30 heads.

Wattle Gully, Chewton - An assay laboratory has been erected and work on the installation of an electric lighting plant is in progress.⁴⁹

1939: In July 1939 an assay laboratory was installed and an electric lighting plant.⁵⁰

September, 1940: The output of the Wattle Gully mine continues to exceed 600 tons weekly and the ore reserves have been maintained.⁵¹

1940: In July 1940 a new 10 head battery was added and concentrating tables to compliment the existing 20 head battery. Output of mines was thus lifted to 600 tons weekly.⁵²

1940: The Castlemaine district shared the increasing prosperity of the mining in 1940, and three companies appear on the dividend list. The outstanding gold producer for the State is the dredge operated by the Victoria Gold Dredging Company at Newstead, which declared dividends totalling £131,250 during the year and brought the aggregate distribution to £287,500 or 23s. per share.

The Wattle Gully mine at Chewton maintained a steady profitable output, and the company was able to declare dividends totalling £57,000, increasing aggregate to £207,000.⁵³

March, 1942: The Wattle Gully mine at Chewton is the outstanding quartz mine in the district, but is at present greatly handicapped by the loss of many experienced miners who have left to take up various tasks associated with the war effort.⁵⁴

1942: Production of Victoria Gold Dredging Co. at Newstead and Wattle Gully at Chewton was well maintained despite the manpower position, and the dividends totalling £81,250 and £40,500 respectively were distributed by these companies during the year.⁵⁵

1944: There are only two mines of any consequence in this area, both being situated at Chewton, viz:- Wattle Gully and Chewton.

Wattle Gully has maintained production, working one shift per day. A total of 5,850 tons of ore crushed returned 2,323 ozs. of gold, averaging 8 dwts. per ton. Dividends paid being £18,000 ... Sixteen men are employed and work is confined to one shift per day.⁵⁶

1945: Wattle Gully Mine, Chewton, Had another successful year, obtaining 5,114 oz. of gold from 13,529 tons of ore, and paying £18,000 in dividends. Ore reserves are considerable and prospects favourable for some years.⁵⁷

1946: The principal quartz mine during this year was the Wattle Gully mine where large bodies of gold-bearing stone are available ... 20,602 tons were crushed for 8,146 ounces of gold and the dividends amounted to 22,500 pounds.⁵⁸

March 1947: The principal quartz mine in the Castlemaine district is the Wattle Gully mine, which continued operations during the year with a reduced staff. Large bodies of gold-bearing stone are available, and the output of 20,602 tons yielded 8,146 ounces of gold. Dividends amounted to 22,500 pounds for the year.⁵⁹

June 1947: The Wattle Gully mine continues as a consistent producer, and during the period has paid 9,000 pounds in two dividends of 6d. per share.⁶⁰

1947: Although mining operations have been carried on successfully in some parts of these districts, they were restricted by the scarcity of the skilled labour and by the increasing cost of wages and materials.

Wattle Gully Gold Mines N. L. continued its regular production, and large reserves of ore in hand.⁶¹

March 1948: Wattle Gully Gold Mines N. L. continued its regular production and large reserves of ore are in hand. 18,759 tons of stone crushed yielded 4,444 oz. of gold, while dividends and bonuses were paid to the amount of 22,500 pounds.⁶²

September 1948: Mining operations for the first half of 1948 have again been quiet, but there is a renewed feeling of optimism in the industry following recent discussions on a proposed increase in the price of gold. The Wattle Gully mine at Chewton continues to be a consistent producer and large reserves of ore at hand. 10,546 tons were crushed for a yield of 4,141 oz. 1 dwt. of gold.⁶³

March 1949: The Wattle Gully mine at Chewton continued active production, crushing about 800-900 tons of stone per fortnight. The average grade is 7. 2 dwt. of gold per ton.⁶⁴

September 1949: Only three quartz mines have been operated during this period. The Wattle Gully mine at Chewton continued with the extraction of payable ore and 12,870 tons were crushed for a return of 2,419 oz. of gold.⁶⁵

1949: During the period under review the already outstanding record of the Wattle Gully mine at Chewton was further enhanced by the continued production of ore with an average value of 7 dwt. per ton. 21,361 tons of ore treated for 9,042 ounces of gold, dividend repayments of £31,500.⁶⁶

Sept 1950: Wattle Gully - A new winding engine has been installed and is running well.⁶⁷

1950: A new winding engine, steel head frame and 20 head of battery was purchased from the central Nell Gwynne mine of Bendigo. The winding engine and head frame were erected by 1951 and the battery commissioned in 1953 raising the crushing power to 50 heads.⁶⁸

1950: The Wattle Gully mine at Chewton continued its successful operations and 20,670 tons of stone were crushed for a return 8,360 fine oz. of gold. Dividends amounting to £54,000 were paid. ⁶⁹

March 1951: Wattle Gully, Chewton - A 20-head battery has been purchased from the Central Nell Gwynne G. M. Co. NL at Bendigo. ⁷⁰

1951: In spite of a slightly lower gold yield compared with the preceeding year, the Wattle Gully mine at Chewton maintained its position as one of the State's leading gold producers.⁷¹

March 1952: Wattle Gully, Chewton. During the calendar year 1951,20,223 tons of ore were crushed for a return of 7,875 oz. of gold, averaging 7 dwt. per ton.⁷²

1952: The Wattle Gully mine, Chewton, looks back over another year of successful operations. Large ore reserves are stilled to be worked, and the erection of another twenty head of battery stamps should be completed in the latter part of 1953.⁷³

1953: the Wattle Gully mine, Chewton., again had a successful year's operations, even though the output was slightly less than in the previous year. The erection of an additional twenty head of stamps was completed. In addition, a treatment plant was erected which commenced treating pyrites on 22nd of June. Exploration and development work disclosed large ore reserves. ⁷⁴

1954: Mr. Paul Clark took over as manager (Wattle Gully Gold Mines) in 1954 facing the declining output. His efforts proved effective for in 1954 10,444 ounces were covered from 32,225 tons. He embarked on a vigorous programme of activity. The shaft was deepened to the 11 level at 1100 feet, a large new ball mill was built and for 1956 14,000 ounces were recovered from 41,994 tons.⁷⁵

1954: At the Wattle Gully mine, Chewton, the tonnage treated and fine ounces of gold produced during the year were the highest recorded since the company commenced operations. ⁷⁶

March 1955: Wattle Gully, Chewton. For the calendar year 1954, 32,225 tons of ore were crushed which yielded 10,444 fine oz. of gold (including the yield from pyrites)- equivalent to an average grade of 7 dwt. per ton.⁷⁷

September 1955: Wattle Gully, Chewton. New poppet heads were installed.⁷⁸

1965: Rising employment costs and the static price of gold at \$32 per ounce forced the mine to close and on Friday 13th March 1969 62 men were paid ... the surface plant was old off to Petrocarb N.L. who dismantled the ball mill and removed it to Jervois in the Northern Territory.

Two weeks before the head frame and winding engine were due to be dismantled I ... (Felix Cappy) ... obtained permission from the Reserve bank to mine and hold a sample of gold for the National Trusts Market Museum.

With several volunteers we filled 120 sugar bags from a firing on No. 5 level which was known to obtain gold. The stone was crushed at the Maldon battery by Jack Cocks and 18 oz. recovered from approx. 5 tons.

The recovery encouraged Mr. Ken Wright, who had taken over the Wattle Gully Company, to re-work the mine and the head frame, winder and 20 head battery were bought back from Petrocarb.⁷⁹

1970/1980: work commenced to de-water the lower levels of the shaft and re-establish some of the previous good areas Some excellent returns were made from the No. 8 and No. 11 levels including 488 ounces from 305 tons in October 1974, and 763 ounces in August 1975 During the Wrights period from 1970 to 1976 12,004 ounces were recovered.

In 1978 A.F.Campbell and associates set up a carbon black plant to process the large sand tailings which were proved to contain over 1 pennyweight per ton of sand.

The rapid gold price rise towards the end of 1979 from \$200 per ounce to a record \$850 per ounce before dropping back to the present \$460 per ounce (1980) encouraged a joint venture with Swan Resources of Western Australia to re-establish underground mining at Wattle Gully. The joint venture officially commenced on January 4th 1980. At the time of writing this report considerable progress has been made in re-erecting a large treatment plant. Retimbering of the shaft to 300 feet has been completed and a program of diamond drilling on the field is at hand.⁸⁰

DESCRIPTION & INTERPRETATION:

Wattle Gully Gold Mining Co. (Company formed in 1933)

Mine now being worked by Consolidated Victorian Mining - mine buildings, steel poppet head (erected c.1950) and modern treatment plant.

PHOTOS: None taken

ARTEFACTS:

INTEGRITY/CONDITION: Good

THREATS:

CULTURAL SIGNIFICANCE:

The site has:

- | | |
|--------------------------|--|
| Historical Significance: | - Principal mine of the Castlemaine Mining Division and in the late 1930s was Victoria's premier gold producer. |
| Social Significance: | - There is wide community support for the property becoming a tourist mine when its comes to the end of its mining career. |
| Scientific Significance: | - Working mine that may still retain machinery plant from earlier periods of mining. |
| Cumulative Value | - Part of a network of contemporary 1930s mining sites (Sites 78, 79, 81, 83, 84, 85 and 114). Wattle Gully was the mine that promoted the mining boom that lay behind the formation of the other mines making up the network. Site also lies close to the historic mining village of Chewton. |

Significance ranking: National Estate

CONSERVATION POLICY:

The significance of the site comes from its history and high social value. The current mine is a symbol of 140 years of almost continuous mining and is closely linked to the historic mining village of Chewton.

RECOMMENDATIONS FOR IMPLEMENTATION:

After mining operations come to an end, site be protected, placed of the Register of the National Estate and developed as a tourist mine.

Assessor: David Bannear

Date: 1993

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- | | |
|----|---|
| 1 | Milner, P. 1989 <u>Mining Sites in Specimen Hill Area</u> , for Newmont, p.30 |
| 2 | <u>Mount Alexander Mail</u> , p.6 |
| 3 | <u>Mount Alexander Mail</u> , p.4 |
| 4 | <u>Mount Alexander Mail</u> , as summarized in Clive Willman collection |
| 5 | <u>Mount Alexander Mail</u> , as summarized in Clive Willman collection |
| 6 | <u>Mount Alexander Mail</u> , as summarized in Clive Willman collection |
| 7 | Milner, P. 1989 <u>Mining Sites in Specimen Hill Area</u> , for Newmont, p.51 |
| 8 | Milner, P. 1989 <u>Mining Sites in Specimen Hill Area</u> , for Newmont, p.30 |
| 9 | <u>Mount Alexander Mail</u> , as summarized in Clive Willman collection |
| 10 | <u>Mount Alexander Mail</u> , as summarized in Clive Willman collection |
| 11 | Mining Surveyors' monthly reports, Castlemaine and Fryer's Creek Divisions |
| 12 | Mining Surveyors' monthly reports, Castlemaine and Fryer's Creek Divisions |

13 Mining Surveyors' monthly reports, Castlemaine and Fryer's Creek Divisions
 14 Mining Surveyors' monthly reports, Castlemaine and Fryer's Creek Divisions
 15 Mining Surveyors' monthly reports, Castlemaine and Fryer's Creek Divisions
 16 Milner, P. 1989 Mining Sites in Specimen Hill Area, for Newmont, p.30
 17 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
 18 Mount Alexander Mail, as summarized in Clive Willman collection
 19 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
 20 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
 21 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
 22 Mount Alexander Mail, as summarized in Clive Willman collection
 23 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
 24 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
 25 Mount Alexander Mail, as summarized in Clive Willman collection
 26 Mount Alexander Mail, as summarized in Clive Willman collection
 27 Mount Alexander Mail, as summarized in Clive Willman collection
 28 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
 29 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
 30 Mount Alexander Mail, as summarized in Clive Willman collection
 31 22 July 1886 Mines Department map, ref. 1288/M/16, Parish of Faraday, Forest Creek
 Goldfield showing Quartz Reefs, also mining leases and claims
 32 Mount Alexander Mail, as summarized in Clive Willman collection
 33 Mount Alexander Mail, as summarized in Clive Willman collection
 34 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
 35 (c. 1885) Plan of Wattle Gully Mines, Mines Department ref. 1288/B/4
 36 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
 37 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
 38 Historic Outline of the Mines on the Wattle Gully leases, Felix Cappy, May 1980
 39 Historic Outline of the Mines on the Wattle Gully leases, Felix Cappy, May 1980
 40 Bendigo Advertiser, 17/10/1936
 41 The Herald, 27/2/1937
 42 Bendigo Advertiser, 1/1/1937
 43 Bendigo Advertiser, 30/4/1937
 44 Mining and Geological Journal, July 1937, p47
 45 Mount Alexander Mail, as summarized in Clive Willman collection
 46 Mining and Geological Journal, Jan 1938, p40
 47 Bendigo Advertiser, 14/8/1937
 48 Historic Outline of the Mines on the Wattle Gully leases, Felix Cappy, May 1980
 49 Mining and Geological Journal, July 1939, pp25-31
 50 Historic Outline of the Mines on the Wattle Gully leases, Felix Cappy, May 1980
 51 Mining and Geological Journal, September, 1940 p170
 52 Historic Outline of the Mines on the Wattle Gully leases, Felix Cappy, May 1980
 53 Annual Report 1940 p12.
 54 Mining and Geological Journal, March, 1942 p336.
 55 Annual Report, 1942.
 56 Annual Report, 1944.
 57 Annual Report, 1945.
 58 Annual Report, 1946. p10.
 59 Mining and Geological Journal, March 1947 . p 34
 60 Mining and Geological Journal, June 1947, p36-40
 61 Annual Report, 1947.
 62 Mining and Geological Journal, March 1948, p36.
 63 Mining and Geological Journal, September 1948, p26.
 64 Mining and Geological Journal, March 1949 p22 & 38-41
 65 Mining and Geological Journal, September 1949, p12-27
 66 Annual Report, 1949
 67 Mining and Geological Journal, Sept 1950. pp36-40

68 Historic Outline of the Mines on the Wattle Gully leases, Felix Cappy, May 1980
69 Annual report, 1950.
70 Mining and Geological Journal, March 1951, pp 30-35
71 Annual Report, 1951
72 Mining and Geological Journal, March 1952, p45-49
73 Annual Report , 1952 p25
74 Annual Report 1953. p13-14
75 Historic Outline of the Mines on the Wattle Gully leases, Felix Cappy, May 1980
76 Annual Report 1954. p14
77 Mining and Geological Journal, September 1954/March 1955, p60
78 Mining and Geological Journal, September 1955, p49
79 Historic Outline of the Mines on the Wattle Gully leases, Felix Cappy, May 1980
80 Historic Outline of the Mines on the Wattle Gully leases, Felix Cappy, May 1980

SITE NO. & NAME: 79 NORTH CHEWTON CO. MINE

LOCATION: Wattle Gully, Chewton

DIRECTIONS: North of Wattle Gully Co. , Chewton. Site is situated 150m south up Adelaide Street from its junction with the Chewton Road. Mine site situated 10m in from the west side of the street.

MAP/GRID REFERENCE: Chewton 1:25,000 - 558.923

PARCEL NUMBER: P121426

MUNICIPALITY Metcalfe

LAND STATUS: Unreserved Crown Land/Proposed Castlemaine Historic Reserve

EXISTING HERITAGE CLASSIFICATION: None

PRESENT MANAGEMENT/USE: LCC Rec - J1

HISTORY:

March 1937: Chewton Mining Boom

Rush Days Recalled

Due largely to the remarkable success of the Wattle Gully Mine, which is paying shareholders large sums in dividends and bonuses, the Chewton field now presents a scene of activity reminiscent of the "gold rush" days. Central Wattle Gully, which was floated on Wednesday, had all its 60,000 shares taken up on the day of flotation. Miners believe that there are large bodies of payable ore in the district which have never been properly investigated. Twenty companies have now taken up leases, and eight of them have begun their prospecting work. Wattle Gully is the only company passed the prospecting stage.

The companies which have begun shaft sinking are:- South Wattle Gully, **North Chewton**, Golden Wattle, Upper Barkly, Post Office Hill, North Wattle Gully, Chewton, and Wattle Gully Extended. Other companies which have not yet begun operations are :- Chewton Prospecting Syndicate, Eureka Vineyard, Hog's Reef, New Garfield Gold, Nimrod Development, Central Wattle Gully, Chapman Gold mines, Mimisa United, Argus Hill, and also Juniper and Maddigan's sluicing party working alluvial ground on Chewton's G.M. area. Almost all these companies have been launched since Wattle Gully struck its payable reef.¹

22 Oct 1937: The Wattle Gully zone in which the Wattle Gully, Chewton Gold, South Wattle Gully, Wattle Gully Extended, North Wattle Gully and North Chewton mines are operating has had a great history and apparently history will repeat itself.²

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22 Oct 1937: The Wattle Gully zone in which the Wattle Gully, Chewton Gold, South Wattle Gully, Wattle Gully Extended, North Wattle Gully and North Chewton mines are operating has had a great history and apparently history will repeat itself.⁴

30 Nov 1937: North Chewton - The shaft has been sunk to 160 feet and a plat was cut at about 150 feet.⁵

July, 1938: North Chewton, Chewton- The erection of plant has been completed and the shaft deepened to 95 feet, chiefly in sandstone with mineralised quartz leaders.⁶

July 1939: North Chewton - Work has been confined to 150-ft level ⁷

DESCRIPTION

North Chewton Company (1937 to c.1939)

Machinery foundations located on top of what survives of the mine's mullock paddock. Site consists of a 9ft square concrete winder bed having 1 inch mounting bolts. The concrete is in poor condition. 5ft to the west of the winder bed is a concrete boiler setting which is 24ft long and walls set 4-3/4ft apart. On the opposite side of the winder bed are two small concrete pads. Running across the rear of the winder bed is a well preserved, 28ft long, iron air-receiver which has a 3-1/2ft diameter. A stone wall runs along the north side of the iron cylinder. The site is littered with hand-made red bricks. 25m south of the winder bed is a capped shaft, abutting which, is a concrete baling pond.

PHOTOS: None taken

ARTEFACTS: None visible

INTEGRITY/CONDITION: Good

THREATS:

CULTURAL SIGNIFICANCE:

The site has:

- | | |
|-------------------------|--|
| Historical Significance | - One of the mines formed during the late 1930s Wattle Gully mining boom |
| Scientific Significance | - Set of well preserved machinery plant foundations. |
| Cumulative Value | - Part of a network of contemporary 1930s mining sites (Sites 78, 79, 81, 83, 84, 85 and 114). Wattle Gully was the mine that promoted the mining boom that lay behind the formation of the other mines making up the network. |

Significance ranking: Regional

RECOMMENDATIONS FOR IMPLEMENTATION:

Site be protected

Assessor: David Bannear Date: 1993

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- 1 Bendigo Advertiser, 1/1/1937
 - 2 Mount Alexander Mail, summarised by Clive Willman
 - 3 Bendigo Advertiser, 1/1/1937
 - 4 Mount Alexander Mail, summarised by Clive Willman
 - 5 Mining and Geological Journal, January 1939 , p38-40
 - 6 Mining and Geological Journal, July 1938, pp37-48
 - 7 Mining and Geological Journal, July 1939, pp25-31

SITE NO. & NAME: 80 SOUTH WATTLE GULLY CO. MINE

LOCATION: Wattle Gully, Chewton

DIRECTIONS: East side of Chewton-Fryerstown road. Overlooking the south end of the Wattle Gully Gold Mining Co.'s site.

MAP/GRID REFERENCE: Chewton 1:25,000 - 560.905

PARCEL NUMBER: P121526 and P121532

MUNICIPALITY: Metcalfe/Newstead

LAND STATUS: Unreserved Crown Land/Proposed Castlemaine Historic Reserve

EXISTING HERITAGE CLASSIFICATION: None

PRESENT MANAGEMENT/USE: LCC Rec - J1

HISTORY:

1911: The South Wattle Gully Company was formed during the year for the purpose of testing the Wattle Gully and Shank's lines of reefs. Work commenced on the old shaft on Shank's line of reef, which is being cut down and enlarged. This company has also erected a winding plant.¹

1913: Neither quartz nor alluvial mining has shown any improvements in this division during the year ... The South Wattle Gully Company has continued to develop its mine, and its prospects are now considered sufficiently good to warrant the erection of a 10-head crushing plant. The erection of the plant is now well under way, and crushing operations should commence early in the present year.²

1914: The South Wattle Gully Company completed the erection of a 10-head battery commenced in 1913, and for a short time kept it going on stone that yielded sufficient gold to cover working expenses; but of late the value of the stone crushed has been so low that the company has been obliged to so curtail expenses as to leave about three wages men only at work underground.³

1915: There are only two quartz mines in this division, viz., the South Wattle Gully and the Little Nuggetty, and neither has had a successful year. All underground operations in the South Wattle Gully Company's mine have been suspended for some months past, in order (it is said) to give the long-suffering shareholders a little breathing time.⁴

July 1936: South Wattle Gully - Reconditioned shaft to water level 185ft. ... Now levelling surface. Contractors for the erection of machinery making good progress.⁵

August 1936: South Wattle Gully - the company had purchased the machinery plant of the Sheepshead Company at Bendigo, and was calling for tenders for its immediate erection on the property.⁶

Feb 1937: Need For Caution
Stags Likely in Chewton Floats
20 Companies Try Luck

Four new Chewton shows have been floated this week, and others are pending. The glamour of Wattle Gully's success has attracted speculators, and the field is pegged for miles in all directions.

Some of the new issues are certain to be staged. With twenty concerns now on the field, there are bound to be failures. In the nature of mining, successes are usually few ... Mining "booms" in the past have been outstanding for the trail of minor wreckage left in their wake.

Misleading Company Names

Nomenclature of the mines should be subject to some better control. Already there have been two South Wattle Gullies. At least one other mine has the words Wattle Gully in its name without having, in fact, any association with the Wattle Gully country at all.

Neither the South Wattle Gully, nor the new Central Wattle Gully, formed this week, are in Wattle Gully, or even on the Wattle Gully line.

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March 1937: Chewton Mining Boom
Rush Days Recalled

Due largely to the remarkable success of the Wattle Gully Mine, which is paying shareholders large sums in dividends and bonuses, the Chewton field now presents a scene of activity reminiscent of the "gold rush" days. Central Wattle Gully, which was floated on Wednesday, had all its 60,000 shares taken up on the day of flotation. Miners believe that there are large bodies of payable ore in the district which have never been properly investigated. Twenty companies have now taken up leases, and eight of them have begun their prospecting work. Wattle Gully is the only company passed the prospecting stage.

The companies which have begun shaft sinking are:- South Wattle Gully, North Chewton, Golden Wattle, Upper Barkly, Post Office Hill, North Wattle Gully, Chewton, and Wattle Gully Extended. Other companies which have not yet begun operations are :- Chewton Prospecting Syndicate, Eureka Vineyard, Hog's Reef, New Garfield Gold, Nimrod Development, Central Wattle Gully, Chapman Gold mines, Mimisa United, Argus Hill, and also Juniper and Maddigan's sluicing party working alluvial ground on Chewtons G.M. area. Almost all these companies have been launched since Wattle Gully struck its payable reef.⁸

May 1937: South Wattle Gully - Will commence on Monday, May 24, to put through trial crushing of about 50 tons ... at Government battery.⁹

Sept 1937: South Wattle Gully - A bright future lay ahead of the South Wattle Gully, said the chairman of Directors (Cr. J.A. Michelsen) ... He stated that the company was in a strong financial position, and had erected a most efficient plant, which would enable it to carry on a large amount of developmental work ... The South Wattle Gully lease was one of the most extensive on the line and three reefs - Wattle Gully, Ferons and Jibbers - crossed the property.¹⁰

22 Oct 1937: The Wattle Gully zone in which the Wattle Gully, Chewton Gold, South Wattle Gully, Wattle Gully Extended, North Wattle Gully and North Chewton mines are operating has had a great history and apparently history will repeat itself.¹¹

28 Oct 1937: South Wattle Gully Co. - This company is operating on leases south of and adjoining Chewton Gold Mines. The leases enclose the Chewton lease, the Wattle Gully reef, and the western leg of the West Wattle Gully saddle reef. Operations underground are from the main shaft, which is only 194ft from the surface.¹²

July, 1938: South Wattle Gully, Chewton - Driving and stoping have been carried out on Ferron's formation at 206 feet east of the shaft at the 194-ft. level.¹³

Jan 1939: Notes on Chewton Mines

South Wattle Gully- This shaft is situated about 80 feet west of the Specimen Hill-Chewton anticline, and thus on the eastern limb of the Wattle Gully syncline.¹⁴

July 1939: South Wattle Gully - Three diamond drill bores yielded encouraging prospects at 194-ft level but developmental work proved disappointing, and is now suspended¹⁵

Mar 1990: Wattle Gully mine - where the air ventilator is positioned is the old Chewton Company's shaft. On the ridge above is the site of the Wattle Gully South mine.¹⁶

DESCRIPTION:

South Wattle Gully - battery erected in 1913

Battery site

100m east of the Fryerstown-Chewton Road is a large, partly bulldozed mullock heap. At the northern end of the mullock heap are the remains of the battery .

The battery site consists of a large brick engine bed measuring 15 x 3-1/2ft and standing 7ft high. The brick bed has 1-1/4 inch mounting bolts. Running parallel to it is a second brick bed. This bed stands slightly higher and measures 10-1/2 x 4-1/2ft. Running across the front of the two beds, 21 feet to the east, is a 26ft long, 9 inch thick, brick wall. The wall stands approx 3ft above existing ground level. At the base of the brick wall are some concrete footings. At the north end of the concrete footings is a 3-1/2ft square concrete pad, and at the other end, is a 14ft long, 1-1/2ft thick, brick bed which has 3/4 inch bolts. In the gully below the battery is the remains of a small tailings dump.

A largely buried concrete boiler setting is located at the rear (slightly to the north)of the battery's engine beds. Near the north end of the boiler setting is a mound of brick rubble (stack site). On top of the ridge, to the east of the battery site, is a dry dam.

Mine site

On the opposite side of the Chewton-Fryerstown Road is a mine site obscured by vegetation. The site is contained within the property of a working mine (Consolidated Victorian Mining). Remains visible include a base of a brick chimney stack and some engine beds.

PHOTOS: None taken

ARTEFACTS: None visible

INTEGRITY/CONDITION: Good

THREATS:

CULTURAL SIGNIFICANCE:

The site has:

- | | |
|-------------------------|--|
| Scientific Significance | - Traces of battery constructed in 1913 |
| Cumulative Value | - Lies close to the Wattle Gully network of 1930s sites and the historic mining village of Chewton. Part of the South Wattle Gully mining lease. |

Significance ranking: Local

CONSERVATION POLICY:

None required

RECOMMENDATIONS FOR IMPLEMENTATION:

None

Assessor: David Bannear **Date: 1993**

- 1 Annual Report, 1911.
- 2 Annual Report, 1913
- 3 Annual Report, 1914
- 4 Annual Report, 1915
- 5 Bendigo Advertiser, 26/10/1936
- 6 Bendigo Advertiser, 1/8/1936
- 7 The Herald, 27/2/1937
- 8 Bendigo Advertiser, 1/1/1937
- 9 Bendigo Advertiser, ?/5/1937
- 10 Bendigo Advertiser, 28/9/1937
- 11 Mount Alexander Mail, as summarized in Clive Willman collection
- 12 Mount Alexander Mail, as summarized in Clive Willman collection
- 13 Mining and Geological Journal, July 1938, pp37-48
- 14 Mining and Geological Journal, January 1939 , p38-40
- 15 Mining and Geological Journal, July 1939, pp25-31
- 16 Verne Hooper/David Bannear April 1990 - Preliminary field notes

SITE NO. & NAME:	81 WATTLE GULLY WEST MINE (South Wattle Gully lease)
LOCATION:	Wattle Gully, Chewton
DIRECTIONS:	East side of Fyerstown-Chewton Road, located approx 110m south of the South Wattle Gully Co. battery site (Site 80).
MAP/GRID REFERENCE:	Chewton 1:25,000 - 560.904
PARCEL NUMBER:	P121532
MUNICIPALITY	Newstead
LAND STATUS:	Unreserved Crown Land/Proposed Castlemaine Historic Reserve
EXISTING HERITAGE CLASSIFICATION:	None
PRESENT MANAGEMENT/USE:	LCC Rec - J1

HISTORY:

Site probably related to mining operations carried out on the South Wattle Gully lease.

July 1936: South Wattle Gully - Reconditioned shaft to water level 185ft.... Now levelling surface. Contractors for the erection of machinery making good progress.¹

August 1936: South Wattle Gully - the company had purchased the machinery plant of the Sheepshead Company at Bendigo, and was calling for tenders for its immediate erection on the property.²

Feb 1937: Need For Caution
Stags Likely in Chewton Floats
20 Companies Try Luck

Four new Chewton shows have been floated this week, and others are pending. The glamour of Wattle Gully's success has attracted speculators, and the field is pegged for miles in all directions.

Some of the new issues are certain to be staged. With twenty concerns now on the field, there are bound to be failures. In the nature of mining, successes are usually few ... Mining "booms" in the past have been outstanding for the trail of minor reckage left in their wake.

Misleading Company Names

Nomenclature of the mines should be subject to some better control. Already there have been two South Wattle Gullies. At least one other mine has the words Wattle Gully in its name without having, in fact, any association with the Wattle Gully country at all.

Neither the South Wattle Gully, nor the new Central Wattle Gully, formed this week, are in Wattle Gully, or even on the Wattle Gully line.

The field is worth prospecting - but investors must remember that outside the Wattle Gully mine, the other propositions are far from proved.³

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Rush Days Recalled

Due largely to the remarkable success of the Wattle Gully Mine, which is paying shareholders large sums in dividends and bonuses, the Chewton field now presents a scene of activity reminiscent of the "gold rush" days. Central Wattle Gully, which was floated on Wednesday, had all its 60,000 shares taken up on the day of flotation. Miners believe that there are large bodies of payable ore in the district which have never been properly investigated. Twenty companies have now taken up leases, and eight of them have begun their prospecting work. Wattle Gully is the only company passed the prospecting stage.

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May 1937: South Wattle Gully - Will commence on Monday, May 24, to put through trial crushing of about 50 tons ... at Government battery.⁵

Sept 1937: South Wattle Gully - A bright future lay ahead of the South Wattle Gully, said the chairman of Directors (Cr. J.A. Michelsen) ... He stated that the company was in a strong financial position, and had erected a most efficient

plant, which would enable it to carry on a large amount of developmental work ... The South Wattle Gully lease was one of the most extensive on the line and three reefs - Wattle Gully, Ferons and Jibbers - crossed the property.⁶

22 Oct 1937: The Wattle Gully zone in which the Wattle Gully, Chewton Gold, South Wattle Gully, Wattle Gully Extended, North Wattle Gully and North Chewton mines are operating has had a great history and apparently history will repeat itself.⁷

28 Oct 1937: South Wattle Gully Co. - This company is operating on leases south of and adjoining Chewton Gold Mines. The leases enclose the Chewton lease, the Wattle Gully reef, and the western leg of the West Wattle Gully saddle reef. Operations underground are from the main shaft, which is only 194ft from the surface.⁸

July, 1938: South Wattle Gully , Chewton - Driving and stoping have been carried out on Ferron's formation at 206 feet east of the shaft at the 194-ft. level.⁹

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 South Wattle Gully- This shaft is situated about 80 feet west of the Specimen Hill-Chewton anticline, and thus on the eastern limb of the Wattle Gully syncline.¹⁰

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Mar 1990: Wattle Gully mine - where the air ventilator is positioned is the old Chewton Company's shaft. On the ridge above is the site of the Wattle Gully South mine.¹²

DESCRIPTION & INTERPRETATION:

Probably part of the South Wattle Gully mining lease (late 1930s)

Mine workings and machinery site
 Mine workings are located 100m south of the mullock heap that adjoins the South Wattle Gully Co.'s battery site. The workings (running south) include a stone retained mullock paddock and open shaft, a short section of surface stoping, a small mullock paddock and open shaft, and a largely buried open cut. At the south end of the open cut is a large stone retained paddock that contains an open shaft. The mullock paddock also contains a machinery site consisting of concrete engine and winder beds. The winder bed measures 6 x 4-1/2ft (3/4 inch bolts, and the engine bed 10 x 2-1/2ft (1 inch bolts). The latter is in poor condition and partially buried. Running across the south end of the mounting beds is a concrete boiler setting. Running from the rear of the boiler setting is a short flue depression which terminates at a concrete stack base. Near the chimney base lays a decaying 30ft long circular iron chimney stack which has a diameter of 2-1/2ft. To the west of the shaft lies a small intact mullock heap. 90m further south is a small and relatively narrow open cut. Near this open cut stands the shell of a galvanised iron hut.

PHOTOS: To be taken
ARTEFACTS: None visible
INTEGRITY/CONDITION: Engine bed is in poor condition
THREATS:

CULTURAL SIGNIFICANCE:

The site has:

- Historical Significance - One of the mines formed during the late 1930s Wattle Gully mining boom
- Scientific Significance - Set of well preserved machinery plant foundations.
- Cumulative Value - Part of a network of contemporary 1930s mining sites (Sites 78, 79, 81, 83, 84, 85 and 114). Wattle Gully was the mine that promoted the mining boom that lay behind the formation of the other mines making up the network.

Significance ranking: Regional

CONSERVATION POLICY:

Significance of the site comes from its association with the 1930s mining boom, proximity to Chewton and the intactness of the foundations and mullock heap.

RECOMMENDATIONS FOR IMPLEMENTATION:

Site be protected

Assessor: David Bannear

Date: 1993

- 1 Bendigo Advertiser, 26/10/1936
- 2 Bendigo Advertiser, 1/8/1936
- 3 The Herald, 27/2/1937
- 4 Bendigo Advertiser, 1/1/1937
- 5 Bendigo Advertiser, ?/5/1937
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- 10 Mining and Geological Journal, January 1939 , p38-40
- 11 Mining and Geological Journal, July 1939, pp25-31
- 12 Verne Hooper/David Bannear April 1990 - Preliminary field notes

SITE NO. & NAME: 82 SOUTH WATTLE GULLY CO. MINE

LOCATION: Specimen Hill, Chewton-Fryerstown

DIRECTIONS: Specimen Hill, west side of Fryerstown-Chewton Road

MAP/GRID REFERENCE: Chewton 1:25,000 - 559.898

PARCEL NUMBER: P121483

MUNICIPALITY: Newstead

LAND STATUS: Reserved Forest/Proposed Castlemaine Historic Reserve

EXISTING HERITAGE CLASSIFICATION: None

PRESENT MANAGEMENT/USE: LCC Rec - J1

HISTORY:

July 1936: South Wattle Gully - Reconditioned shaft to water level 185ft. ... Now levelling surface. Contractors for the erection of machinery making good progress.¹

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July 1939: South Wattle Gully - Three diamond drill bores yielded encouraging prospects at 194-ft level but developmental work proved disappointing, and is now suspended ¹¹

30 Nov 1937: Central Wattle Gully mine is situated south of South Wattle Gully and is prospecting in the same belt of country. Their shaft is down about 150 ft and sinking is being continued. ¹²

DESCRIPTION :

Part of South Wattle Gully lease (late 1930s)

Mine site

Partly bulldozed mullock heap. The north or mining machinery side of the mullock heap, has been bulldozed around a bit and is now covered by thick gorse. There is no obvious trace of where the shaft had been but visible amongst the gorse are some concrete footings (probably a winder bed and boiler setting)

PHOTOS: None taken

ARTEFACTS: None visible

INTEGRITY/CONDITION: Poor

THREATS:

CULTURAL SIGNIFICANCE:

The site has:

Scientific Significance - Relatively intact mullock heap and possibility of buried relics.

Significance ranking: Local

CONSERVATION POLICY:

None required

RECOMMENDATIONS FOR IMPLEMENTATION:

Assessor: David Bannear Date: 1993

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- 1 Bendigo Advertiser, 26/10/1936
 - 2 Bendigo Advertiser, 1/8/1936
 - 3 The Herald, 27/2/1937
 - 4 Bendigo Advertiser, 1/1/1937
 - 5 Bendigo Advertiser, ?/5/1937
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 - 7 Mount Alexander Mail, as summarized in Clive Willman collection
 - 8 Mount Alexander Mail, as summarized in Clive Willman collection

-
- 9 Mining and Geological Journal, July 1938, pp37-48
10 Mining and Geological Journal, January 1939 , p38-40
11 Mining and Geological Journal, July 1939, pp25-31
12 Mount Alexander Mail, as summarized in Clive Willman collection

SITE NO. & NAME:	83 WATTLE GULLY EXTENDED CO. MINE
LOCATION:	Wattle Gully, Chewton
DIRECTIONS:	200 metres along Jacobs Track from its junction with the Fryerstown-Chewton Road
MAP/GRID REFERENCE:	Chewton 1:25,000 - 558.901
PARCEL NUMBER:	P121526
MUNICIPALITY	Newstead
LAND STATUS:	Unreserved Crown Land/Proposed Castlemaine Historic Reserve
EXISTING HERITAGE CLASSIFICATION:	None
PRESENT MANAGEMENT/USE:	LCC Rec - J1

HISTORY:

Feb 1937: Need For Caution
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May 1937: Wattle Gully Extended - Main shaft: Sunk 21ft. to 210ft. lode ... Will put through tiral crushing of shaft stone at Government battery.³

22 Oct 1937: The Wattle Gully zone in which the Wattle Gully, Chewton Gold, South Wattle Gully, Wattle Gully Extended, North Wattle Gully and North Chewton mines are operating has had a great history and apparently history will repeat itself. ⁴

28 Oct 1937: Wattle Gully Extended - (south of Wattle Gully Gold Mining and west of Chewton Gold Mines, and also west of South Wattle Gully G.M.) has sunk its main shaft close to the Chewton and South Wattle Gully boundaries.⁵

21 July 1938: Wattle Gully Extended - Main shaft 550 ft level, completed plat and installed air winch. Removed penthouse from 426ft level. Timbered shaft, connected air pipes, preparing to resume sinking. 220 ft level: West

drive off No. 2 rise driven 15 ft on 4ft of stone carrying mineral and a few colors of gold in dish prospects. Work at this level stopped.⁶

July, 1938: Wattle Gully Extended, Chewton - Main shaft deepened to 566 feet and a west-dipping fault.⁷

Jan 1939: Notes on Chewton Mines

Wattle Gully Extended - The shaft is situated to the south of the Chewton mine ... The shaft, now over 740 feet deep, will be sunk to 800 feet when crosscuts will prospect the country both east and west.⁸

July 1939: The North Wattle Gully and Wattle Gully Extended Mines, to the north and south respectively, are carrying on development work at 800 feet

Wattle Gully Extended - The main shaft has been deepened to 833 feet and a level opened at 800 feet where crosscuts ate to 189 feet west and 149 feet east.⁹

September, 1940: Other mines on the field are still in the prospecting stage and no developments of importance have been recorded by the North Wattle Gully, Wattle Gully Extended, and Argus Hill companies.¹⁰

DESCRIPTION & INTERPRETATION:

Wattle Gully Extended (late 1930s)

Machinery site

The site is located on the summit of a hill and contains well preserved concrete engine and winder beds. At the rear of the concrete mounting beds are several concrete air-receiver pads. Adjoining the winder bed is the shell of a Cornish Boiler. The boiler's brick setting has been removed. Lying near the boiler setting is a decaying circular iron chimney stack. The min's shaft has been filled and most of the mullock has been removed.

PHOTOS: To be taken

ARTEFACTS: None visible

INTEGRITY/CONDITION: Concrete in good condition, stack being to decay badly.

THREATS:

CULTURAL SIGNIFICANCE:

The site has:

- | | |
|-------------------------|--|
| Historical Significance | - One of the mines formed during the late 1930s Wattle Gully mining boom |
| Scientific Significance | - Set of well preseved machinery plant foundations. |
| Cumulative Value | - Part of a network of contemporary 1930s mining sites (Sites 78, 79, 81, 83, 84, 85 and 114). Wattle Gully was the mine that promoted the mining boom that lay behind the formation of the other mines making up the network. |

Significance ranking: Regional

CONSERVATION POLICY:

The significance of the site comes from its intactness and association with the 1930s Wattle Gully mining boom.

RECOMMENDATIONS FOR IMPLEMENTATION:

Site to be protected.

Assessor: David Bannear Date: 1993

- | | |
|---|---|
| 1 | The Herald, 27/2/1937 |
| 2 | Bendigo Advertiser, 1/1/1937 |
| 3 | Bendigo Advertiser, 5/5/1957 |
| 4 | <u>Mount Alexander Mail</u> , as summarized in Clive Willman collection |

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- 5 Mount Alexander Mail, as summarized in Clive Willman collection
6 Mount Alexander Mail, as summarized in Clive Willman collection
7 Mining and Geological Journal, July 1938, pp37-48
8 Mining and Geological Journal, January 1939 , p38-40
9 Mining and Geological Journal, July 1939, pp25-31
10 Mining and Geological Journal, September, 1940 p170

SITE NO. & NAME:	84 WATTLE GULLY UNITED CO. MINE
LOCATION:	Wattle Gully, Chewton
<i>DIRECTIONS:</i>	West side of Chewton-Fryerstown Raod.
<i>MAP/GRID REFERENCE:</i>	Chewton 1:25,000 - 558.892
<i>PARCEL NUMBER:</i>	P121531
<i>MUNICIPALITY</i>	Newstead
<i>LAND STATUS:</i>	Unreserved Crown Land/Proposed Castlemaine Historic Reserve
<i>EXISTING HERITAGE CLASSIFICATION:</i>	None
<i>PRESENT MANAGEMENT/USE:</i>	LCC Rec - J1

HISTORY:

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Some of the new issues are certain to be staged. With twenty concerns now on the field, there are bound to be failures. In the nature of mining, successes are usually few ... Mining "booms" in the past have been outstanding for the trail of minor reckage left in their wake.

Misleading Company Names

Nomenclature of the mines should be subject to some better control. Already there have been two South Wattle Gullys. At least one other mine has the words Wattle Gully in its name without having, in fact, any association with the Wattle Gully country at all.

Neither the South Wattle Gully, nor the new Central Wattle Gully, formed this week, are in Wattle Gully, or even on the Wattle Gully line.

The field is worth prsopecting - but investors must remember that outside the Wattle Gully mine, the other propositions are far from proved.¹

March 1937: Chewton Mining Boom
Rush Days Recalled

Due largely to the remarkable success of the Wattle Gully Mine, which is paying shareholders large sums in dividends and bonuses, the Chewton field now presents a scene of activity reminiscent of the "gold rush" days. Central Wattle Gully, which was floated on Wednesday, had all its 60,000 shares taken up on the day of flotation. Miners believe that there are large bodies of payable ore in the district which have never been properly investigated. Twenty companies have now taken up leases, and eight of them have begun their prospecting work. Wattle Gully is the only company passed the prospecting stage.

The companies which have begun shaft sinking are:- South Wattle Gully, North Chewton, Golden Wattle, Upper Barkly, Post Office Hill, North Wattle Gully, Chewton, and Wattle Gully Extended. Other companies which have not yet begun operations are :- Chewton Prospecting Syndicate, Eureka Vineyard, Hog's Reef, New Garfied Gold, Nimrod Development, Central Wattle Gully, Chapman Gold mines, Mimisa United, Argus Hill, and also Juniper and Maddigan's sluicing party working alluvial ground on Chewtons G.M. area. Almost all these companies have been launched since Wattle Gully struck its payable reef.²

22 Oct 1937: The Wattle Gully zone in which the Wattle Gully, Chewton Gold, South Wattle Gully, Wattle Gully Extended, North Wattle Gully and North Chewton mines are operating has had a great history and apparently history will repeat itself.³

July, 1938: Wattle Gully United , Chewton - Main shaft deepened to 221 feet.⁴

Jan 1939: Notes on Chewton Mines

Wattle Gully United -Shaft sinking was recommenced , and while deepening the shaft several well-mineralized spurs, making much water, were intersected. It is unfortunate that operations are temporarily suspended owing to lack of funds.⁵

DESCRIPTION & INTERPRETATION:

Wattle Gully United (late 1930s)

Machinery site

The track leading to the mine runs through the middle of the site. On the north side of the track, are a set of well preserved concrete winder and engine beds. At the rear of these beds are several air-compressor pads. To the east of the winder bed is a concrete boiler setting. An intact flue runs from the rear of the boiler setting to a square concrete chimney stack base. South of the track is a filled (slightly collapsed) shaft and the fragmented remains of a concrete baling pond. Most of the mine's mullock has been removed from the site

PHOTOS: To be taken
ARTEFACTS: None visible
INTEGRITY/CONDITION: Concrete in good condition

THREATS:

CULTURAL SIGNIFICANCE:

The site has:

- Historical Significance - One of the mines formed during the late 1930s Wattle Gully mining boom
- Scientific Significance - Set of well preserved machinery plant foundations.
- Cumulative Value - Part of a network of contemporary 1930s mining sites (Sites 78, 79, 81, 83, 84, 85 and 114). Wattle Gully was the mine that promoted the mining boom that lay behind the formation of the other mines making up the network.

Significance ranking: Regional

CONSERVATION POLICY:

The significance of the site comes from its intactness and association with the 1930s Wattle Gully mining boom.

RECOMMENDATIONS FOR IMPLEMENTATION:

Site be protected

Assessor: David Bannear Date: 1993

- 1 The Herald, 27/2/1937
- 2 Bendigo Advertiser, 1/1/1937
- 3 Mount Alexander Mail, as summarized in Clive Willman collection
- 4 Mining and Geological Journal, July 1938, pp37-48
- 5 Mining and Geological Journal, January 1939 , p38-40

SITE NO. & NAME: 85 CENTRAL WATTLE GULLY CO. MINE

LOCATION: Wattle Gully, Chewton-Fryerstown

DIRECTIONS: West side of Chewton-Fryerstown Road. 0.35km north from junction with Spring Gully Fire Track.

MAP/GRID REFERENCE: Chewton 1:25,000 - 558.888

PARCEL NUMBER: P121531

MUNICIPALITY: Newstead

LAND STATUS: Unreserved Crown Land

EXISTING HERITAGE CLASSIFICATION: None

PRESENT MANAGEMENT/USE: LCC Rec - J1

HISTORY:

Feb 1937: Need For Caution
Stags Likely in Chewton Floats
20 Companies Try Luck

Four new Chewton shows have been floated this week, and others are pending. The glamour of Wattle Gully's success has attracted speculators, and the field is pegged for miles in all directions. Some of the new issues are certain to be staged. With twenty concerns now on the field, there are bound to be failures. In the nature of mining, successes are usually few ... Mining "booms" in the past have been outstanding for the trail of minor wreckage left in their wake.

Misleading Company Names

Nomenclature of the mines should be subject to some better control. Already there have been two South Wattle Gullies. At least one other mine has the words Wattle Gully in its name without having, in fact, any association with the Wattle Gully country at all.

Neither the South Wattle Gully, nor the new Central Wattle Gully, formed this week, are in Wattle Gully, or even on the Wattle Gully line.

The field is worth prospecting - but investors must remember that outside the Wattle Gully mine, the other propositions are far from proved.¹

March 1937: Chewton Mining Boom

Rush Days Recalled

Due largely to the remarkable success of the Wattle Gully Mine, which is paying shareholders large sums in dividends and bonuses, the Chewton field now presents a scene of activity reminiscent of the "gold rush" days. Central Wattle Gully, which was floated on Wednesday, had all its 60,000 shares taken up on the day of flotation. Miners believe that there are large bodies of payable ore in the district which have never been properly investigated. Twenty companies have now taken up leases, and eight of them have begun their prospecting work. Wattle Gully is the only company passed the prospecting stage.

The companies which have begun shaft sinking are:- South Wattle Gully, North Chewton, Golden Wattle, Upper Barkly, Post Office Hill, North Wattle Gully, Chewton, and Wattle Gully Extended. Other companies which have not yet begun operations are :- Chewton Prospecting Syndicate, Eureka Vineyard, Hog's Reef, New Garfield Gold, Nimrod Development, Central Wattle Gully, Chapman Gold mines, Mimisa United, Argus Hill, and also Juniper and Maddigan's sluicing party working alluvial ground on Chewton's G.M. area. Almost all these companies have been launched since Wattle Gully struck its payable reef.²

April 1937: Central Wattle Gully - Have commenced erection of blacksmith's shop, changing house and office.³

April 1937: Central Wattle Gully - Commenced work at the mine on March 30, and have made roadway, cleared site for plant. Now engaged in sinking shaft and sunk same to 10ft ... Erected windlass and completed logging collar of shaft.⁴

May 1937: Central Wattle Gully - Shaft sunk 13ft, total depth from surface 50ft ... Contractors making good progress with the removal of plant for erection at mine..⁵

June 1937: Central Wattle Gully - Completed storage dam and timbering of the shaft to 64ft. Whip erected.⁶

22 Oct 1937: The Wattle Gully zone in which the Wattle Gully, Chewton Gold, South Wattle Gully, Wattle Gully Extended, North Wattle Gully and North Chewton mines are operating has had a great history and apparently history will repeat itself. ⁷

30 Nov 1937: Central Wattle Gully mine is situated south of South Wattle gully and is prospecting in the same belt of country. Their shaft is down about 150 ft and sinking is being continued. ⁸

August 1938: Central Wattle Gully - Shaft sunk a further 9ft, total 103ft ... Contractors almost completed erection of winding plant. ⁹

July, 1938: Central Wattle Gully, Chewton.-The main shaft has been deepened, and a bottom level opened out at 193 feet. ¹⁰

Jan 1939: Notes on Chewton Mines

Central Wattle Gully- The bottom level (192 feet) disclosed west-dipping faults in the west crosscut, while to the east the syncline was seen 170 feet east of the shaft. Before ceasing operations a diamond drill bored to 204 feet on the anticline near the west side of the shaft... ¹¹

DESCRIPTION & INTERPRETATION:

Central Wattle Gully (late 1930s)

Mine site

The mine site is located between two small gullies. The site is dominated by an intact, relatively large, mullock heap. The shaft associated with the heap has been filled. On the east side of the mullock heap is a set of well preserved concrete winder and engine beds associated with several concrete air-receiver pads. Near the eastern side of the winder bed is a concrete boiler setting. At the northern end of the boiler setting is a large dump of ash, and at the other end is a scatter of red bricks (suggesting a collapsed stack).

PHOTOS: To be taken

ARTEFACTS: None visible

INTEGRITY/CONDITION: Good

THREATS:

CULTURAL SIGNIFICANCE:

The site has:

- Historical Significance - One of the mines formed during the late 1930s Wattle Gully mining boom
- Scientific Significance - Set of well preserved machinery plant foundations. Of the subsidiary sites in the network, is the most intact.
- Cumulative Value - Part of a network of contemporary 1930s mining sites (Sites 78, 79, 81, 83, 84, 85 and 114). Wattle Gully was the mine that promoted the mining boom that lay behind the formation of the other mines making up the network.

Significance ranking: Regional

CONSERVATION POLICY:

The significance of the site comes from its intactness and association with the 1930s Wattle Gully mining boom.

RECOMMENDATIONS FOR IMPLEMENTATION:

Site be protected

Assessor: David Bannear

Date: 1993

¹ The Herald, 27/2/1937

-
- 2 Bendigo Advertiser, 1/1/1937
 - 3 Bendigo Advertiser, 26/4/1937
 - 4 Bendigo Advertiser, 12/4/1937
 - 5 Bendigo Advertiser, ?/5/1937
 - 6 Bendigo Advertiser, 5/6/1937
 - 7 Mount Alexander Mail, as summarized in Clive Willman collection
 - 8 Mount Alexander Mail, as summarized in Clive Willman collection
 - 9 Bendigo Advertiser, 14/8/1937
 - 10 Mining and Geological Journal, July 1938, pp37-48
 - 11 Mining and Geological Journal, January 1939 , p38-40

SITE NO. & NAME: 86 PUDDLER, DAM AND HOUSE SITES

LOCATION: Spring Gully Tributary

DIRECTIONS: East side of Spring Gully, 1km north-east of Fryerstown.

MAP/GRID REFERENCE: Guildford 1:25,000 - 547.862

PARCEL NUMBER: None

MUNICIPALITY: Newstead

LAND STATUS: Freehold

EXISTING HERITAGE CLASSIFICATION: None

PRESENT MANAGEMENT/USE: Pastoral

HISTORY:

No history collected

DESCRIPTION & INTERPRETATION:

The location and appearance of the puddler suggests it would date to mid/late 19th century.

Puddler

On the south side of a gully draining east into Spring Gully is a 20ft diameter weathered-looking puddler. The puddler's inner mound (no pivot post), trench and outlet drain are all still well defined. 20m upstream from the puddler is a breached dam. An channel leads from this dam to the puddler.

House sites

25m up the slope(south) from the puddler is the remains of a single-roomed stone house measuring 11 x 9-1/2ft. Located in the north east corner of the house site is a stone cairn (lease marker).

70m north east from the puddler is the remains of a similar sized stone house. The house site is located in the north east corner of a 13m square stone paddock.

Photos	1.	Puddler
	2.	Breached dam
	3.	First house site

ARTEFACTS: None visible

INTEGRITY/CONDITION: Good

THREATS:

CULTURAL SIGNIFICANCE:

The site has:

Scientific Significance	- Well preserved and isolated puddling machine site associated with several house sites. One of the house sites has the unusual feature of having a stone cairn (lease marker). Obviously the house was in ruins when the marker was erected.
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Significance ranking: National Estate

CONSERVATION POLICY:

The significance of the site comes from its age and intactness. The value of the site is enhanced by its association with two house site and one lease marker (stone cairn).

RECOMMENDATIONS FOR IMPLEMENTATION:

Site to be protected.

Assessor: David Bannear **Date:** 1993

SITE NO. & NAME: 87 NEW MIDDLE CREEK CO. MINE

LOCATION: Spring Gully

DIRECTIONS: East side of Spring Gully. 1km north-north-west of Fryerstown

MAP/GRID REFERENCE: Guildford 1:25,000 - 553.867

PARCEL NUMBER: None

MUNICIPALITY: Newstead

LAND STATUS: Freehold

EXISTING HERITAGE CLASSIFICATION: None

PRESENT MANAGEMENT/USE: Pastoral

HISTORY:

July 1937: This mine is situated on the northern boundary of the township of Fryerstown near the south-west corner of allotment 2 of section 4C. Prior to the commencement of operations by the present company in November, 1936, the area worked by B. Olsen and party.

This party, from a shaft 40 feet in depth worked a small reef From it approx. 40 tons of stone are reported to have been extracted for an average yield of 1 oz. per ton. Other quartz occurrences in the area are the saddle reef (up to 1 foot in width) ... and a reef 4 feet in width which outcrops 140 feet north of Olsen's shaft. This was sunk on for a depth of 20 feet where it pinched out. Values from this were apparently poor. There are several other small shafts in the area, the only one of note being on an apparently small reef known as Clarke's reef near the south-west corner of the prospecting area.

The New Middle Creek Company sunk a new three compartment shaft (9 feet x 4 feet).¹

DESCRIPTION & INTERPRETATION:

New Middle Co. (Late 1930s). The adit would predate the operation of this company.

Mine site

Site dominated by an open, 3-compartment shaft with still retains sections of its wooden collar. Shaft surrounded by intact mullock paddock which is retained in place by dry stone walling. 12m to the north of the shaft is a small engine bed measuring 5-1/2 x 2-1/2ft with 3/4in mounting bolts. Associated with the engine bed are two parallel winding drum beds. The winder beds measure 7 x 1-1/2ft and are set 4-1/2ft apart.

A track running from the shaft passes past the engine site and continues west. On the north side of the track is another mullock paddock and open shaft.

On the west side of the gully is an open adit.

PHOTOS: 1 Engine bed
2 Open adit

ARTEFACTS: None visible

INTEGRITY/CONDITION: Good

THREATS:

CULTURAL SIGNIFICANCE:

The site has:

- Scientific Significance - Well preserved relics from a small 1930s mine and an open adit from an earlier mining venture.

Significance ranking: Local

CONSERVATION POLICY:

None required

RECOMMENDATIONS FOR IMPLEMENTATION:

None

Assessor: David Bannear

Date: 1993

¹ Mining and Geological Journal July 1937, p26

SITE NO. & NAME: 88 Spring Gully Dredging Co.

LOCATION: Spring Gully

DIRECTIONS: South along Spring Gully from the township of Spring Gully.

MAP/GRID REFERENCE: Castlemaine 1:25,000 - 548.884

PARCEL NUMBER: P120482

MUNICIPALITY: Newstead

LAND STATUS: Unreserved Crown Land/Proposed Castlemaine Historic Reserve

EXISTING HERITAGE CLASSIFICATION: None

PRESENT MANAGEMENT/USE: LCC Rec - J1

HISTORY:

1903: Spring Gully Dredging Co.: Jet elevator pump plant operating ¹

1904: Spring Gully Dredging Co.: Jet elevator pump plant operating for a short time; reconstructing mine ²

1905: Spring Gully Dredging Co.: 3 head battery ³

1905: Spring Gully Dredging Co.: Pumped sluicing plant operating ⁴

1906: Spring Gully Dredging Co.: 3 head battery ⁵

1906: Pumped sluicing plant operating ⁶

1907: Spring Gully Dredging Co.: Pumped sluicing plant operating: 12 inch water pump, 10 inch gravel pump, 120 horsepower noncondensing steam engine ⁷

1908: Spring Gully Dredging Co.: Pumped sluicing plant operating ⁸

1909: Spring Gully Dredging Co.: Pumped sluicing plant operating: 10 inch water pump, 12 inch gravel pump, 120 horsepower condensing steam engine ⁹

June 1909: Spring Gully Dredging Co.: 129oz gold ¹⁰

March 1910: Spring Gully Dredging Co.: 66oz gold ¹¹

1910: Spring Gully Dredging Co.: Pumped sluicing plant operating: 120 horsepower noncondensing steam engine. ¹²

1911: Spring Gully Dredging Co.: Pumped sluicing plant operating ¹³

Sept 1911: Spring Gully Dredging Co.: 17oz gold ¹⁴

DESCRIPTION & INTERPRETATION:

Spring Gully Dredging Co. (1900s)

Alluvial workings

Deeply sluiced gully. On the bank, opposite Spring Gully Junction, is a remains of a blacksmith shop (brick chimney and post stumps). Lying near the brick chimney is a well preserved sluicing nozzle.

PHOTOS: Colour prints

ARTEFACTS: Scraps of iron associated with Blacksmith's forge; also sluicing nozzle.

INTEGRITY/CONDITION: Good

THREATS:

CULTURAL SIGNIFICANCE:

The site has:

- | | |
|-------------------------|--|
| Scientific Significance | - Evocative and very visible sluiced landscape and well preserved blacksmith shop. |
| Cumulative Value | - Sluice gully runs through the heart of the Spring Gully network of 1890s mining sites. |

Significance ranking: **Local**

CONSERVATION POLICY:

None required

RECOMMENDATIONS FOR IMPLEMENTATION:

None

Assessor: David Bannear **Date: 1993**

- 1 Annual Report of the Secretary for Mines and Water Supply, Victoria (as summarised in P. Milner, November 1989), p.53
- 2 Annual Report of the Secretary for Mines and Water Supply, Victoria (as summarised in P. Milner, November 1989), p.55
- 3 Annual Report of the Secretary for Mines and Water Supply, Victoria (as summarised in P. Milner, November 1989), p.44
- 4 Annual Report of the Secretary for Mines and Water Supply, Victoria (as summarised in P. Milner, November 1989), p.82-3
- 5 Annual Report of the Secretary for Mines and Water Supply, Victoria (as summarised in P. Milner, November 1989), p.42
- 6 Annual Report of the Secretary for Mines and Water Supply, Victoria (as summarised in P. Milner, November 1989), p.94-5
- 7 Annual Report of the Secretary for Mines and Water Supply, Victoria (as summarised in P. Milner, November 1989), p.114-5
- 8 Annual Report of the Secretary for Mines and Water Supply, Victoria (as summarised in P. Milner, November 1989), p.98-9
- 9 Annual Report of the Secretary for Mines and Water Supply, Victoria (as summarised in P. Milner, November 1989), p.106-7
- 10 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
- 11 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
- 12 Annual Report of the Secretary for Mines and Water Supply, Victoria (as summarised in P. Milner, November 1989), p.114-15
- 13 Annual Report of the Secretary for Mines and Water Supply, Victoria (as summarised in P. Milner, November 1989), p.106-7
- 14 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions

SITE NO. & NAME: 89 SPRING GULLY WATER RACE

LOCATION: Specimen Hill to Churches Flat

DIRECTIONS: Spring Gully water race - commencing on the west side of Specimen Gully and west of Fryers Road, running generally in a south-westerly direction along Specimen and Spring Gullies, and terminating at water storages above the junction of Spring and Cobbler's gullies ¹

MAP/GRID REFERENCE: Castlemaine 1:25,000 - 550.886

PARCEL NUMBER: P121483

MUNICIPALITY: Newstead

LAND STATUS: Reserved Forest/Proposed Castlemaine Historic Reserve

EXISTING HERITAGE CLASSIFICATION: None

PRESENT MANAGEMENT/USE: LCC Rec - J1

HISTORY:
No history found

DESCRIPTION

Disused race with well defined channel commencing on the west side of Specimen Gully and west of Fryers Road, running generally in a south-westerly direction along Specimen and Spring Gullies, and terminating at water storages above the junction of Spring and Cobbler's gullies

PHOTOS: None taken

ARTEFACTS: None visible

INTEGRITY/CONDITION: Good

THREATS:

CULTURAL SIGNIFICANCE:

The site has:

Scientific Significance - Well preserved water race

Significance ranking: Local

CONSERVATION POLICY:

None required

RECOMMENDATIONS FOR IMPLEMENTATION:

None

Assessor: David Bannear **Date:** 1993

¹ Milner, P. 1989 Mining Sites in Specimen Hill Area, for Newmont

SITE NO. & NAME: 90 PRINCE OF WALES REEF WORKINGS

LOCATION: Prince of Wales Reef, Fryerstown

DIRECTIONS: East side of Chewton - Fryerstown Road, 150 metres from junction with Spring Gully Fire Track.

MAP/GRID REFERENCE: Chewton 1:25,000 - 559.886

PARCEL NUMBER: P121483

MUNICIPALITY: Newstead

LAND STATUS: Reserved Forest

EXISTING HERITAGE CLASSIFICATION: None

PRESENT MANAGEMENT/USE: LCC Rec - J1

HISTORY:

17 Nov 1862: New reef found near Blacksmith Gully, between Specimen Hill and Golden Gully. Discovered by Mr Musgrave on Prince of Wales' birthday. Holman and Co. - colours showing in their claim. ¹

5 Dec 1862: Musgrave and Co. - 3 tons yielded average 17dwt/ton, at Pilcher's machine in Golden Gully. ²

8 Dec 1862: Hutton and Co. - 3 tons yielded 17 dwt/ton. ³

11 Dec 1862: Crushing at Fairbairn's machine in Wattle Gully. ⁴

14 Jan 1863: Morley - crushing at Fairbairn's machine. ⁵

5 Feb 1863: All claims either registered or abandoned. ⁶

19 Jan 1864: Bisser and Co. - struck leader with good specimens - have sparked a rush. ⁷

27 Jan 1864: Rossan and Co. - sinking a second shaft. ⁸

June 1864: A fresh discovery has been made by a party of Danes on the Prince of Wales Reef (north), where it traverses Cemetery Hill, Specimen Hill. The reef was struck by the prospectors at a depth of 60 feet... The result from the crushing of 11 tons of stone is 24 oz. 4 dwt. ⁹

Dec 1864: Parties crushing quartz: Miller and Company, from Prince of Wales (north). ¹⁰

1868: Parties reporting yields from quartz crushings in 1868: Manuel and Company ¹¹

1869: Parties reporting yields from quartz crushings in 1869: Bates and Co., Stephens and Co., Smith and Co. ¹²

1860s: The arrangement of the tracks [in Blacksmith's Gully] suggest that most of the stone taken out at the southern end was crushed at the battery on the southern end of the Prince of Wales line. Any stone taken out at the northern end was probably crushed at the battery which, to judge from the existence of battery sand in the vicinity, was located at the northern end of the Prince of Wales Reef. ¹³

March 1869: Cattle's, Ferron's, Heron's, Prince of Wales, Cemetery, and Specimen Hill Reefs constitute nearly one continuous, unbroken line of reef, although there are what are denominated the eastern and western lodes, 9 or 10 chains apart, with numerous veins and leaders running at different angles between them. ¹⁴

end of 1869: To all intents and purposes...production [on this reef] ceased at the end of 1869. ¹⁵

22 Sept 1871: William Tell Co. (Reando and Fiori) - now sunk to 200 ft and driving to cut the reef. ¹⁶

1871: During the revival of company mining in 1871 the ground was occupied by the Royal Prince and Princess companies, and it may have been at this time that the batteries were erected. ¹⁷

March 1889: Prince of Wales Reef, Blacksmith's Gully. - The bearing or strike of this reef is N. 9° W... The reef has not been traced or worked to any great extent either in length or depth, but a great number of the surface leaders have been taken out and crushed. The principal shaft is 100 feet in depth... The yields, so far as have been recorded, are as follows:- Surface to 50 feet, 72oz.; to 100 feet, 10oz.; 181 tons average 9 dwt. to the ton... The ground is occupied at the present time, but not being worked. ¹⁸

Feb 1900: Delaray: prospecting flat spurs west of the main workings - tunnel being driven on the reef. ¹⁹

1900: [Delaray] - tunnel being driven, presumably at the southern end of the reef, as a connection with the Royal Saxon workings was envisaged. Nothing seems to have come of all this. ²⁰

DESCRIPTION & INTERPRETATION:

Prince of Wales Reef (opened in 1862)

Reef workings
Partly bulldozed mine workings (filled shafts and mullock heaps)

PHOTOS: None taken

ARTEFACTS: None visible

INTEGRITY/CONDITION: Poor

THREATS:

CULTURAL SIGNIFICANCE:

The site has:

Scientific Significance - Line of relatively well preserved reef workings

Significance ranking: Local

CONSERVATION POLICY:

None required

RECOMMENDATIONS FOR IMPLEMENTATION:

None

Assessor: David Bannear

Date: 1993

- 1 Mount Alexander Mail, as summarized in Clive Willman collection
- 2 Milner, P. 1989 Mining Sites in Specimen Hill Area, for Newmont
- 3 Milner, P. 1989 Mining Sites in Specimen Hill Area, for Newmont
- 4 Milner, P. 1989 Mining Sites in Specimen Hill Area, for Newmont
- 5 Milner, P. 1989 Mining Sites in Specimen Hill Area, for Newmont
- 6 Milner, P. 1989 Mining Sites in Specimen Hill Area, for Newmont
- 7 Mount Alexander Mail, as summarized in Clive Willman collection
- 8 Mount Alexander Mail, as summarized in Clive Willman collection
- 9 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
- 10 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
- 11 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
- 12 Milner, P. 1989 Mining Sites in Specimen Hill Area, for Newmont
- 13 Milner, P. 1989 Mining Sites in Specimen Hill Area, for Newmont, p.37
- 14 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
- 15 Milner, P. 1989 Mining Sites in Specimen Hill Area, for Newmont, p.39

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- 16 Mount Alexander Mail, as summarized in Clive Willman collection
17 Milner, P. 1989 Mining Sites in Specimen Hill Area, for Newmont
18 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
19 Milner, P. 1989 Mining Sites in Specimen Hill Area, for Newmont
20 Milner, P. 1989 Mining Sites in Specimen Hill Area, for Newmont, p39

SITE NO. & NAME: 91 **BULLOCKS REEF WORKINGS**

LOCATION: **Bullocks Reef, Fryerstown**

DIRECTIONS: 500m west along Jacobs Track from its junction with the Chewton-Fryerstown Road.

MAP/GRID REFERENCE: Castlemaine 1:25,000 - 556.900

PARCEL NUMBER: P121231

MUNICIPALITY: Newstead

LAND STATUS: Unreserved Crown Land/Proposed Castlemaine Historic Reserve

EXISTING HERITAGE CLASSIFICATION: None

PRESENT MANAGEMENT/USE: LCC Rec - J1

HISTORY:

The reef was found to consist of a number of short shoots, or spurs, which underlayed east about 1 in 1. The gold was found associated with galena and pyrites, being generally of a fine nature, but occasionally in large nuggets in the ferruginous veins of the reef. ¹

19 May 1859: 2.75 oz per ton - reef was opened two weeks previously. ²

Sept 1859: 4 oz 4 dwt from 2 ton crushing ³

Dec 1859: Parties reporting yields of quartz : Gibbs, Pringle and Co., Tuelon and Co. ⁴

Dec 1859: Parties reporting yields of quartz : Gibbs, Pringle and Co., Tuelon and Co. ⁵

1 March 1861: Fernandez and Company - reef partially occupied again - getting 30 oz/ton in quartz leaders ⁶

12 April 1861: Fernandez and Co. - 2 crushings - 8 dwt and 1 oz per ton. ⁷

20 Dec 1861: 1.5 oz per ton crushing taken from near surface in a new leader and crushed at Fairbairn's machine. ⁸

31 Jan 1862: 14 or 16 tons at 2.5 oz per ton and some seconds at 0.5 oz per ton crushed at Meirs' Forest Creek machine. ⁹

7 Feb 1862: 16 tons at 2.5 oz per ton crushed at Meiers and Company's Dinah Flat machine. ¹⁰

2 May 1862: No regular lode, gold is from thin leaders. ¹¹

9 May 1862: 2 parties at work - one part had several crushings of 2 to 3 oz - stone in a reef with maximum width of 12 inches struck in a shaft east of the former workings. ¹²

22 Aug 1862: Meyer and Co. - shaft down 100 ft. ¹³

19 Sept 1862: Gluth and Co. - 15 tons yielded 15 oz. ¹⁴

14 Nov 1862: Meyer and Co. - just stuck gold after a long struggle - only two claimholders on the reef. ¹⁵

11 Feb 1863: Reef deserted. ¹⁶

16 April 1863: Mier and Co. - at work again. ¹⁷

26 Aug 1863: Crushings made at the German machine in Wattle Gully ¹⁸

20 Oct 1863: Last crushing below the usual average. ¹⁹

4 Nov 1863: Last crushing at the German machine in Wattle Gully at 0.5 oz per ton. ²⁰

Mar 1864 : between March 1864 and June 1865, a total of 2880 tons of stone was taken out
June 1865: and 1731 ounces of gold were obtained. This amounted to about half the total production ever reported from this reef. ²¹

Sept 1864: One fact, worthy of more than passing notice, is that the discovery by Meyer and Co. in their claim on Bullock Reef of about 70 oz. of pure gold in the crevices of the quartz rock, at a depth of 140 feet from the surface; one nugget weighed 14 oz. 13 dwts., and another 12 oz. 13 dwts. Pieces of gold that size are rarely found, I believe, at such depths from the surface. ²²

Dec 1864: Baker and Co. - making wages. ²³

Dec 1864: Roland and Co., of the Bristol Reef, Specimen Hill, are making good wages, as also are Meyer and Co., and Baker and Co., on Bullock Reef. ²⁴

1865: Parties reporting yields from quartz crushing during 1865 - Meyer and Company, Heath and Company ²⁵

1866: Parties reporting yields from quartz crushings in 1866 - Heath and Company ²⁶

June 1868: Table showing depths of some shafts, which have been sunk during the past six or seven years - Bullock Reef/Depth of Shaft 175 feet ²⁷

Dec 1868: Several new lines of reef are being prospected: [including]...In Long Gully, Wattle Flat, a continuation of Bullock Reef, a trial crushing yielded 11 oz. 3 dwts. from 16 tons. ²⁸

1868: Parties reporting yields from quartz crushings in 1868: Heath and Company ²⁹

1869: In 1869, a prospector named Pryor obtained 4 oz from 8 tons, taken from a depth of 140 feet. ³⁰

27 Feb 1872: North Middlesex Co. - depth 150 ft. ³¹

16 April 1872: Somerset and Co. - between Middlesex and Daphne - presently 70 ft down.; Bullock Reef - Middlesex Co. - 20 tons yielded 16 oz. ³²

20 Aug 1872: South Middlesex Quartz Mining Co., Ltd. Prospectus. - This company is formed to work a mining lease of 7 acres 1 rood 7 perches immediately adjoining the celebrated Middlesex Claim, near Specimen Hill, Fryers. The shaft of your company is distant 40 ft from the now celebrated Middlesex lease boundary. ³³

Sept 1872: The Middlesex Company have obtained during the past quarter some of the finest specimens ever found in Victoria, and the excellent yield of 135 ozs. from 95 tons. The lease is situate upon Bullock's Reef, about 8 chains west of Specimen Hill. Their workings are at a depth of 130 feet. ³⁴

1872: In 1872, the ground was taken up by the Middlesex Company, which, from a depth of 100 ft, obtained some of the finest specimens seen in the district. The company took up all the old workings, and commenced prospecting at a depth of 80 feet, where the reef, from 6 inches to 2 feet in width, averaged 17 dwts. per ton; good specimens were also obtained from 130 feet. The shaft was sunk to a depth of 300 feet. ³⁵

March 1873: The Middlesex Company are now exhibiting, from a depth of 100 feet, some of the finest specimens ever seen. The shaft is situate upon, and known originally as, Bullock's Reef, being about eight claims west of main road to Chewton from Specimen Hill. ³⁶

1874: In 1874, [Middlesex] company ceased operations. ³⁷

Dec 1876: Parties reporting yields of gold from quartz crushed: Brydges and Dale, Bullock Reef ³⁸

1876-1888: Bridges and Dale worked Bullock Reef. ³⁹

March 1887: 663 oz obtained from 1371 tons at depths between 50 and 230 feet. ⁴⁰

1887: the ground remained idle until taken up in 1887 by a private party, Messrs. Bridges and Co., who for some time worked small leaders to a depth of 100 feet for an average yield of about half-an-ounce to the ton. ⁴¹

March 1889: Bullock Reef, Specimen Hill. - This reef is situated on Crown lands, and has been more or less worked during the past 21 years; first by a public company, and more recently by a private party. There have been occasional patches found on this particular line, but the crushing stuff has generally proved to be only moderately payable. The bearing of the line of reef is N. 7° 30' W... The main shaft has been sunk to a depth of 300 feet... The yields from different levels are as follows:- Surface to 50 feet, 16oz.; to 100 feet, 190oz.; to 150 feet, 202oz.; to 200 feet, 187oz.; to 300 feet, 219oz. No date can be fixed by the present writer as to when this reef was first opened out, neither can the results of the earlier crushings be furnished in this report... Mining operations are suspended for the present, owing to the decease of the claim-holder. ⁴²

March 1890: 679 oz 12 dwt obtained from 1237 tons which is attributed to Pringle. ⁴³

DESCRIPTION & INTERPRETATION:

Bullocks Reef - (being worked by 1859)

Reef workings

350m long line of partly bulldozed mullock heaps and filled shafts. There are nine main heaps, two of which are of reasonable size. No machinery plant foundations were observed.

PHOTOS: None taken

ARTEFACTS: None visible

INTEGRITY/CONDITION: Good

THREATS:

CULTURAL SIGNIFICANCE:

The site has:

Scientific Significance - Relatively undisturbed line of reef workings

Significance ranking: Local

CONSERVATION POLICY:

None required

RECOMMENDATIONS FOR IMPLEMENTATION:

None

Assessor: David Bannear

Date: 1993

- 1 Baragwanath, W. 1903, p.21
- 2 Mount Alexander Mail, as summarized in Clive Willman collection
- 3 Milner, P. 1989 Mining Sites in Specimen Hill Area, for Newmont
- 4 Mining Surveyors' monthly reports, Castlemaine and Fryer's Creek Divisions
- 5 Mining Surveyors' monthly reports, Castlemaine and Fryer's Creek Divisions
- 6 Milner, P. 1989 Mining Sites in Specimen Hill Area, for Newmont
- 7 Mount Alexander Mail, as summarized in Clive Willman collection
- 8 Milner, P. 1989 Mining Sites in Specimen Hill Area, for Newmont
- 9 Milner, P. 1989 Mining Sites in Specimen Hill Area, for Newmont
- 10 Milner, P. 1989 Mining Sites in Specimen Hill Area, for Newmont
- 11 Mount Alexander Mail, as summarized in Clive Willman collection

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- 12 Milner, P. 1989 Mining Sites in Specimen Hill Area, for Newmont
13 Milner, P. 1989 Mining Sites in Specimen Hill Area, for Newmont
14 Mount Alexander Mail, as summarized in Clive Willman collection
15 Milner, P. 1989 Mining Sites in Specimen Hill Area, for Newmont
16 Milner, P. 1989 Mining Sites in Specimen Hill Area, for Newmont
17 Milner, P. 1989 Mining Sites in Specimen Hill Area, for Newmont
18 Milner, P. 1989 Mining Sites in Specimen Hill Area, for Newmont
19 Milner, P. 1989 Mining Sites in Specimen Hill Area, for Newmont
20 Milner, P. 1989 Mining Sites in Specimen Hill Area, for Newmont
21 Milner, P. 1989 Mining Sites in Specimen Hill Area, for Newmont, p.51
22 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
23 Milner, P. 1989 Mining Sites in Specimen Hill Area, for Newmont
24 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
25 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
26 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
27 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
28 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
29 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
30 Baragwanath, W. 1903,p.21
31 Mount Alexander Mail, as summarized in Clive Willman collection
32 Mount Alexander Mail, as summarized in Clive Willman collection
33 Mount Alexander Mail, as summarized in Clive Willman collection
34 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
35 Baragwanath, W. 1903 ,p.28
36 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
37 Baragwanath, W. 1903 , p.21
38 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
39 Milner, P. 1989 Mining Sites in Specimen Hill Area, for Newmont, p.140-41
40 Milner, P. 1989 Mining Sites in Specimen Hill Area, for Newmont
41 Milner, P. 1989 Mining Sites in Specimen Hill Area, for Newmont
42 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
43 Milner, P. 1989 Mining Sites in Specimen Hill Area, for Newmont

SITE NO. & NAME: 92 CASTLEMAINE STATE BATTERY

LOCATION: Specimen Hill, Chewton-Fryerstown

DIRECTIONS: Located south-east of the junction of Fryerstown-Chewton Road and Specimen Hill track

MAP/GRID REFERENCE: Chewton 1:25,000 - 559.899

PARCEL NUMBER: P121483

MUNICIPALITY: Newstead

LAND STATUS: Reserved Forest

EXISTING HERITAGE CLASSIFICATION: None

PRESENT MANAGEMENT/USE: LCC Rec - J1

HISTORY:

1918: At the close of the year a State battery was erected in the district.¹

Oct 1936: Wattle Gully Gold Mines - A 20 head battery was installed ... Prior to this ... ore was crushed at the small Government Battery on Specimen Hill operated by Mr Alf. Cocks.²

May 1937: Wattle Gully Extended - Main shaft: Sunk 21ft. to 210ft. lode ... Will put through trial crushing of shaft stone at Government battery.³

May 1937: South Wattle Gully - Will commence on Monday, May 24, to put through trial crushing of about 50 tons ... at Government battery.⁴

DESCRIPTION & INTERPRETATION:

Government Battery (erected 1918)

Battery site

The battery site has two levels. On the upper level are 3 well preserved stamper stumps and some decaying bedlogs. At the rear of the stumps (east) is the remains of a loading ramp. The lower level consists of a concrete floor which has some drains and four small concrete mountings beds. The remains of galvanised sheets of iron lie scattered about the site. There are traces of tailings in the gully below the battery. A dam lies to the south-east.

PHOTOS: To be taken

ARTEFACTS: Sheets of galvanised iron

INTEGRITY/CONDITION: Good

THREATS:

CULTURAL SIGNIFICANCE:

The site has:

- Historical Significance - Associated with the 1930s Wattle Gully mining boom.
- Scientific Significance - Site still has some well preserved foundations.

Significance ranking: Local

CONSERVATION POLICY:

None required

RECOMMENDATIONS FOR IMPLEMENTATION:

None

Assessor: David Bannear

Date: 1993

- 1 Annual Report, 1918.
- 2 Historic Outline of the Mines on the Wattle Gully leases, Felix Cappy, May 1980
- 3 Bendigo Advertiser, 5/5/1957
- 4 Bendigo Advertiser, ?/5/1937

SITE NO. & NAME: 93 **GOLDEN POINT WATER RACE (or Forest Creek branch)**

LOCATION: **Expedition Pass Reservoir, Golden Point, to Sailors and associated gullies**

DIRECTIONS: Commences at Expedition Pass Reservoir and runs down south down Golden Point and then curves around Burns Hill and heads north around (and across) Sailors, Dirty Dicks, Scotchman's, Fiddler's, Dog Leg, Lady's, Racehorse's, and Nicholson's Gullies. The race joins with the Barkers Creek East Branch, to the north of Nicholson's Gully.

MAP/GRID REFERENCE: Expedition Pass Reservoir : Chewton 1:25,000 - 574.958
Take-off point for Garfield waterwheel: Castlemaine 1:25,000 - 564.934

PARCEL NUMBER: Various

MUNICIPALITY Metcalfe

LAND STATUS: Crown Land

EXISTING HERITAGE CLASSIFICATION: None

PRESENT MANAGEMENT/USE: Parts of race in LCC Rec - J1

HISTORY:

Sept 1873: Whilst the old alluvial workings serve as a *dernier resort* for those who have exhausted their means in prospecting quartz reefs, or in fencing and cultivating their agricultural holdings, a new feature is being developed in utilizing the water from the Government reservoir at Expedition Pass. Three companies have commenced, and others are contemplating doing so, the Government having conceded the use of said water at a rate that should pay for the reworking of all our old workings. ¹

Sept 1884: SITUATION AND CAPACITY OF RESERVOIRS:

Expedition Pass	128,000,000
Old Post Office Hill	2,000,000
Barker's Creek	611,500,000
Red Hill	1,250,000
Commissioner's Gully	7,000,000 ²

30 Aug 1886: The Garfield, which is at the present time most prominent, has now been in existence some four years. The original lease was for about ten acres, and was first held by a small co-operative party, who worked some spurs and small bodies of stone to shallow depths with highly remunerative results. The Garfield Company first started with this lease, but have since greatly added to their ground by taking in 3 other leases, giving a total of over 50 acres in their present holding ... Prior is pushing on with this work the battery has to be removed, as despite their having left the large block of ground standing below at 120 ft, under the works, the ground is subsiding so fast as to endanger their foundation. The directors have determined to take advantage to the removal to make an alteration in the motive power, and the present steam power is to be superseded by water. The battery (23 heads) will be removed to about 500 ft south of the present site, in the vicinity of the Government water race, and be worked by a large water wheel over 50 ft in diameter. This will be very much less expensive than steam power, and in this case will be even less than usual, as the water will be conducted from the wheel to drive two others lower down the hill, thus reducing the cost to one-third. In connection with the lease being taken up so as to include the Energetic reef, the company are now preparing to prospect from an old shaft on the ground. This shaft was sunk by the original holders of the ground to about 140 or 150 ft, and rich stone worked, but getting poor, and water becoming troublesome, was abandoned. A good portable engine has now been erected here, and everything necessary for pumping is being prepared. ³

March 1887: The Garfield Company have confined their operations to pulling down and re-erecting their crushing plant adjacent to a new water-wheel of 70 feet in diameter, in form like the large wheel of a bicycle. The water to be obtained from the V.W.S. race, carried by flume about 790 feet long, on a sapling frame from 20 to 58 feet high, is intended, after discharge from this 70-foot wheel, to be conducted by flume and race, to work the Manchester 40-foot wheel. The plan, construction, and efficiency of these extensive hydraulic works have yet to be tested. Both wheels are made to revolve backward (the reverse of the ordinary over-shot wheel), the motive power being thus limited to the gravity or weight of water in the buckets. ⁴

June 1888: The Burns Reef Company... have purchased a 15-head battery, which they purpose driving by water-power. The V.W.S. race runs across their leases. ⁵

4 Aug 1938: New Garfield - operations still suspended owing to inability to obtain water from Government race for boiler purposes. ⁶

DESCRIPTION

Golden Point water race (constructed early 1870s) - also recorded as Sites 9.3 and 17

Disused race, with well defined channel and one tunnel (near Quartz Hill). The race commences at Expedition Pass Reservoir and runs south down Golden Point and then curves around Burns Hill and heads north around Sailors, Dirty Dicks and Scotchman's gullies. East of Quartz hill the race runs underground through a tunnel between Sailors and Dirty Dicks gullies.

PHOTOS: None taken

ARTEFACTS: None visible

INTEGRITY/CONDITION: Good

THREATS:

CULTURAL SIGNIFICANCE:

The site has:

- | | |
|-------------------------|---|
| Historical Significance | - Golden Point race supplied water to drive the Garfield Co.'s massive water wheel. (Site 12.0). Also supplied water for at least two other waterwheels (Energetic Co. - Site 14, and Burns Reef Co. - Site 23). Race also supplied water for alluvial sluicing purposes. |
| Social Significance | - Race has some community value due to its associated with Expedition Reservoir and the Garfield water wheel. |
| Scientific Significance | - Relatively well preserved water race. |
| Cumulative Value | - The water race, due to the utilisation of the water its carried for mining purposes, links a number of quartz and alluvial mining sites (including Sites 11, 12, 14, 16-20, and 23.1) Also passes close to other mining sites (including Site 13 and 9.1) |

Significance ranking: National Estate

CONSERVATION POLICY:

The significance of the site comes from its historical associations, age and intactness. This significance is enhanced by the number of historic mining sites the race serviced, or passes near to.

RECOMMENDATIONS FOR IMPLEMENTATION:

Site be protected

Assessor: David Bannear **Date: 1993**

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- 1 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
 - 2 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
 - 3 Mount Alexander Mail, as summarized in Clive Willman collection
 - 4 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
 - 5 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
 - 6 Source unknown

SITE NO. & NAME: 94 SPECIMEN GULLY WATER RACE (EAST BRANCH)

LOCATION: Harcourt channel

DIRECTIONS: Comes off Harcourt Channel approxiametely 2km north of Expedition Pass Reservoir and runs in a south-westerly direction across Long, Mosquito, Specimen and Lancashire Gullies , and then along the west side of Moonlight Flat to Castlemaine.

MAP/GRID REFERENCE: Harcourt Channel take-off: Chewton 1:25,000 - 578.982
Specimen Quartz Mining Assoc (Site 2) Chewton 1:25,000 - 565.980

PARCEL NUMBER: Various

MUNICIPALITY Metcalfe

LAND STATUS: Crown Land

EXISTING HERITAGE CLASSIFICATION: None

PRESENT MANAGEMENT/USE:

HISTORY:

June 1881: At Barker's Creek, the cutting of contour races from the Victorian Water Supply Works, to permit the large extent of auriferous hills and gullies to be worked, is creating very much satisfaction; the miners anticipating profitable sluicing operations from a district which has always suffered for want of water.¹

Sept 1881: At Barker's Creek, the race from the Coliban water supply has been nearly completed. large areas are being taken up by sluicing parties, who are now busy preparing sluice-boxes, dams, tail-races, &c., in anticipation of long, steady, and profitable employment. ²

Sept 1902: Map shows Specimen Reef Company's property - workings shown comprise a tunnel driven W from the head of a small feeder gully (N side of gully), extensive patch of working on crown of hill, the main shaft in the gully, upstream (E) of the gully Potter's dam, and on the slope on the s side of the gully, some more workings. The V.W.S race crosses the head of the gully, running along both side. ³

DESCRIPTION

Barkers Creek East Branch (constructed early 1880s)

Water race

Disused water race, but the channel is still well defined. The race runs passed Specimen Gully Quartz Mining Co. (Site 2)

PHOTOS: None taken

ARTEFACTS: None v isible

INTEGRITY/CONDITION: Good

THREATS:

CULTURAL SIGNIFICANCE:

The site has:

Scientific Significance - well preserved water race

Significance ranking: Local

CONSERVATION POLICY:

None required

RECOMMENDATIONS FOR IMPLEMENTATION:

None

Assessor: David Bannear

Date: 1993

- 1 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
- 2 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
- 3 Baragwanath, W. 1903 Memoirs of the Geological Survey of Victoria: No. 2 The
Castlemaine Gold-Field, Department of Mines, Melbourne

SITE NO. & NAME: 95 WATER RACE - POVERTY GULLY BRANCH

LOCATION: Poverty Gully, Chewton

DIRECTIONS: Commences at Main Coliban water channel, north-west of McCay Reservoir and crosses Fryerstown-Chewton Road north of Specimen Hill

MAP/GRID REFERENCE: Fryerstown-Chewton Road crossing - Chewton 1:25,000 - 559.901

PARCEL NUMBER: Various

MUNICIPALITY: Newstead/Metcalf

LAND STATUS: Crown Land

EXISTING HERITAGE CLASSIFICATION: None

PRESENT MANAGEMENT/USE: Parts of race in LCC Rec - J1

HISTORY:

13 July 1875: There is little appearance of work to indicate that the Government intend to carry the Coliban water supply into Fryer's Creek. Only one contract for a tunnel of 32 chains, near to Elphinstone, has been let to Mr Cooper, who is now engaged sinking shafts to raise the stuff from drives yet to be opened. The hill being of granite formation longer time will be required to complete the contract than any other to be undertaken on the route... This important work will, when finished, not only save nine miles of channelling, but will command an elevation of fifty feet over a previous survey, an advantage of immense consequence when it is considered the increased force the water will have when brought to play on soils to be sluiced. The Minister of Mines should now be prepared to call for further contracts, as the survey has been completed to the Spring Gully reservoir, and the miners are naturally impatient to test the value of the auriferous soils in proximity to the surveyed route. Her it may be instructive to mention some of the readily recognised places at which the channel will pass. First of these, after the tunnel, is the point at which it will cross the railway, and which, by the way, formed a problem, not of easy solution, on account of the level... Instead of a flume carried over the railway, or a cutting too close to the rails...it was determined to carry the water through a culvert under the railway, now in existence, thus saving expense, and avoiding danger. The channel will pass near to this by a syphon close to the railway reservoir; follow the contour of the country till it is carried towards Specimen Hill, where it will bifurcate, one branch leading to Fryers, and the other to Chewton. The water will be carried by a flume at a height of 35 feet above the level of the Specimen Hill road... The part at which the water will be carried from Specimen Hill towards Fryers is about eight chains beyond the quartz mining plant at the extreme head of Wattle Gully, owned by Teague and Co. The elevation at which the water is to be conveyed here may be easily ascertained by comparing its height with that of the top of the stack of Messrs Teague, it being four feet higher... Amongst the changes which will be noticed in the proposed race to Fryers in contradistinction to that from the Coliban is this: the latter, it will be generally known, consists of an immense cutting five feet in width and depth, in which the water only rises about a foot. Thus the proportionate size of the channel to requirements, is extravagant, and the superfluous cost which the extra cutting entailed was a mere waste. Of course an absurdity so patent could not be repeated, so it will be found that the Fryers channel will be only three feet deep and three feet wide. The sides will be vertical, or straight down without any slope, but the advantage of this may not be so obvious. A certain attrition of the sides will take naturally, which, in ordinary water courses, tends to undermining. There is, however, a difference between a water race, and a channel liable to be washed by impetuous floods, during the rains of winter. The water race will not be like the other, subjected to be similarly abraded by intermittent down-pourings, but will have a steady and continuous flow of equal depth. The survey, though completed as before stated to Spring Gully reservoir, has gone no further in that direction, nor been extended to Vaughan or even to Fryerstown. It has likewise to be continued along the northern face of the ranges, in Forst Creek as which lie in the same parallel as Specimen Hill, till it will extend to Campbell's Creek. The engineering difficulties are all, however, overcome, as the contour of the country, by being followed, does not present any obstacles, but may be easily surmounted. The water will e at a height to command all the gullies and auriferous hills that have been worked in the ordinary course of labour, but which will, under this super-added force, lay them again under contribution to the miner.¹

29 July 1875: The Fryer's Creek Water Supply - Cooper's Tunnel - The tunnel is about 31/2 miles south-east of Chewton, and is reached by (in some portions) a very pleasant drive along the main road to within a mile and a half of Elphinstone; here the road diverges to the left, the metal is left, and the traveller has to pick his way along a bush track, in all its pristine irregularities, twists and turns, and keep a sharp look out for stumps.... Arriving at the head of Green Gully, the number of tents scattered up and down gives the appearance of a new rush of diggers in some quiet secluded spot, and this impression is still further heightened by the heaps of debris around the shafts sunk, the framework over the windlasses and whips, and the number of men at work, - quite a little mining township... The 'race' commences at a peg marking 16 miles 56 chains from Malmsbury, on the line of the main Sandhurst and Castlemain channel, where it forms a junction, the width of the entrance being 30 feet for the distance of one chain. From the junction to the tunnel entrance there is a distance of five chains two links, earthwork, the channel gradually

widening all the way till at the terminus it is over 90 feet wide; the ground rises slightly all the way. ... the tunnel...is driven eastward 250 feet. ²

June 1877: I have to report a very considerable decrease in our mining population, many miners having left to cultivate their selections under the Land Act, and a number being temporarily employed excavating the contour races for goldfields water supply. Also the yield of gold, especially from quartz, is much below the average. None of the companies have been working to profit. Throughout the district there is a general depression...

Much of the machinery in this division, both quartz and alluvial, from long disuse and neglect, is becoming much deteriorated, and should be broken up to prevent accidents. ³

March 1878: : The past quarter has been the dullest and most unprofitable ever experienced in the Castlemaine division. In alluvial mining, the sluicing parties have been mostly idle, awaiting the completion of contour races, and have not yet got into working order under the new system of water supply. From ordinary puddling and tomming operations the yield of gold is small. ⁴

Sept 1878: There has been a little better supply of water from the Coliban race, but as yet very inadequate to supply the demand or to give much employment... The quantity of water sold for sluicing purposes during the quarter - 112,470,00 gallons, at 1/2d. per 1,000 gallons. ⁵

Dec 1878: In alluvial mining there is an increased number of men anxious to obtain a supply of water for sluicing purposes from the Coliban contour-race; the extensive area of abandoned auriferous ground of older, newer, and post pliocene formation promising years of steady remunerative labor. The total returns of water sold for sluicing during the past twelve months is 383,958,000 gallons, or only 7,383,800 gallons per week; whereas, if the five million gallons per day was made available, reservoirs formed to conserve what now runs to waste, and greater care taken in its use, a much larger number of men would find employment.

The quantity of water sold during the quarter for mining purposes was 150,300,000 gallons, at 1/2d. per 1000 gallons; 750,000 gallons, at 4d. per 1000 gallons. - Total, 151,050,000 gallons. ⁶

June 1879: The quantity of water sold for sluicing purposes, 165,490,000 gallons, at 1/2d. per 1,000 gallons; and 750,000 gallons, at 4d. for quartz crushing. ⁷

Sept 1879: The extension of races from the Coliban Water Supply gives much satisfaction. An immense area of old alluvial workings, as also large tracts of surface-hills up to the quartz outcrops, will be available for sluicing.

The quantity of water sold during the quarter was 177,246,000 gallons, at 1/2d. per 1,000; 750,000 gallons, at 4d. per 1,000; 240,000 gallons, at 2d. per 1,000. ⁸

Dec 1879: The number of quartz miners have much decreased, and those remaining are generally working old runs near the surface. Several claims and tributes have been abandoned, and no prospecting is attempted, the men finding employment in sluicing tailings, cutting water-races, or harvesting. Mining having fallen to zero, we hope to successfully rise with the new year... The quantity of water sold during the quarter was 162,308,000 gallons, for sluicing purposes, at 1/2d. per 1,000 gallons; and 750,000 gallons, for quartz mining, at 4d. per 1,000 gallons - making a total of 658,584,000 gallons for the year, and giving employment to over 200 men, more now utilizing the tail water. ⁹

March 1880: Four engines only are employed in drainage, viz., on Wattle Gully, Argus Flat, Eureka, and Nuggetty Reefs; others are only occasionally employed crushing...

The quantity of water sold during the quarter for mining purposes was - 191,294,000 gallons at 1/2d. per 1,000, and 750,000 gallons at 4d. per 1,000. ¹⁰

June 1880: In the old alluvial workings, a larger number of men avail themselves of the Coliban Water Supply for sluicing operations...The quantity of water sold during the quarter for mining purposes was - 240,970,000 gallons at 1/2d. per 1,000 gallons, 750,000 gallons at 4d. per 1,000 gallons. ¹¹

Sept 1880: In ordinary alluvial workings a heavy rainfall and increased sale of water from the Victorian Water Supply has caused an increase in the product of gold. ¹²

Dec 1880: The quantity of water sold...911,704,000 gallons sold for the year. ¹³

March 1881: The sluicers continue to use the valuable water supplied to them, fair wages being the usual result. From Castlemaine to Guildford there is a fine stream of "tailwater" from these sluicing operations, which runs over and through old gold-workings all the way, yet it is almost unused, the major portion of Castlemaine miners not knowing how to utilize it, while mine proprietors from Beechworth express surprise at the apparent waste of water. ¹⁴

Dec 1881: The quantity of water sold...941,302,000 gallons for the year 1881, and much more would be taken if obtainable. ¹⁵

DESCRIPTION

Poverty Gully Branch - constructed mid1870s. (also recorded as Site 34)

Water race - still being used.

PHOTOS: None taken

ARTEFACTS: None visible

INTEGRITY/CONDITION: Good

THREATS:

CULTURAL SIGNIFICANCE:

The site has:

- Historical Significance - Association with the Coliban Water Supply Scheme
- Scientific Significance - Working water race
- Cumulative Value - Water race is linked, or passes close, to alluvial and quartz mining sites around Eureka Reef and Poverty Gully.

Significance ranking: Local

CONSERVATION POLICY:

None required

RECOMMENDATIONS FOR IMPLEMENTATION:

None

Assessor: David Bannear **Date: 1993**

- 1 Mount Alexander Mail, as summarized in Clive Willman collection
- 2 Mount Alexander Mail, as summarized in Clive Willman collection
- 3 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
- 4 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
- 5 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
- 6 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
- 7 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
- 8 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
- 9 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
- 10 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
- 11 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
- 12 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
- 13 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
- 14 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
- 15 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions

SITE NO. & NAME: 96 WATER RACE - GERMAN GULLY BRANCH

LOCATION: Eureka Reef to Campbells Creek

DIRECTIONS: Comes off main Poverty Gully Branch, 0.4km south of Poverty Gully Reservoir and runs in a south-westerly direction down (and across) German Gully to Pennyweight Hill.

MAP/GRID REFERENCE: Eureka Reef syphon (Site 34): Castlemaine 1:25,000 - 546.903
Mopoke Water Wheel (Site 77): Guildford 1:25,000 - 518.867

PARCEL NUMBER: Various

MUNICIPALITY: Newstead

LAND STATUS: Crown Land

EXISTING HERITAGE CLASSIFICATION: None

PRESENT MANAGEMENT/USE: Parts of race in LCC Rec - J1

HISTORY:

Both the Poverty Gully and Spring Gully water races were part of a scheme to supply water from the Coliban River at Malmsbury to Bendigo and district, and to Castlemaine, Maldon, Newstead and Guildford for both mining and domestic purposes. The scheme was investigated by Brady in 1862 and completed shortly after 1871 [BRADY(1864), CHRISTOPHERSON (1868), SANKEY (1871)]. In laying out the course of the Poverty Gully water race it had been initially been suggested that a tunnel would have been cut from White Horse Gully into Long Gully so as to permit the water race to run around the southern and western slopes of Specimen Hill. At the south western end there was to have been a junction with branch races to Fryers Creek and to Spring Gully. ¹

Sept 1876: Some of the puddling machines have done very well of late; one in particular, situate in German Gully, Pennyweight, gives a return of 210 ozs. for the past three months, thus showing the old abandoned workings are still worthy of notice. ²

Dec 1876: Parties puddling or sluicing: Vosti and Co., German Gully ³

c 1879: A more extensive system of water supply for sluicing purposes might lead to important results. There is a site for a reservoir at Cobbler's Gully, near Eureka, well adapted for the storage of a large supply of water, which could be utilized to advantage in German and Spring Gullies and tributaries, and also extended to Old Pennyweight Hill, Strathloddon, and Mopoke, by contour races ⁴

March 1885: In ground sluicing operations at Forest and Barker's creeks much of the ground is becoming worked out and abandoned, but at Campbell's Creek there remains a large area of old alluvial workings waiting for a supply of water from the Coliban races. ⁵

June 1885: A party has recently found payable gold in a reef cropping from the surface, near the Old Eagle Company's claim, German Gully. ⁶

Sept 1885: More prosperous times are anxiously anticipated at Campbell's Creek from the speedy supply of Victorian Water Supply water for sluicing purposes. ⁷

June 1891: A party of miners from Broken Hill have taken up 30 acres of ground at German Gully, and they intend re-working the old Pennyweight Hill by sluicing. ⁸

Dec 1904: German Gully Hydraulic Sluicing Co.: [listed] ⁹

March 1908: McDonald and Co./ McDonald's Reef Co.: 42 ton crushed, 9oz gold - A.G. McDonald, Chewton, Legal Manager ¹⁰

Sept 1910: German Gully Hydraulic Sluicing Co.: [listed] ¹¹

June 1913: German Gully Hydraulic Sluicing Co.: 30oz gold ¹²

1913: McDonald and Co./ McDonald's Reef Co.: 4 head battery ¹³

1914: McDonald and Co./ McDonald's Reef Co.: Winding plant erected ¹⁴

Sept 1913: German Gully Hydraulic Sluicing Co.: 42oz gold ¹⁵

Dec 1913: German Gully Hydraulic Sluicing Co.: 10oz gold ¹⁶

DESCRIPTION

German Gully Branch (constructed late 1880s)

Main channel of race still in use. The water race is associated with a number of alluvial mining relics in German Gully.

PHOTOS: None taken

ARTEFACTS: None visible

INTEGRITY/CONDITION: Good

THREATS:

CULTURAL SIGNIFICANCE:

The site has:

Scientific Significance - well preserved water race branching off from the main Poverty Gully channel.

Cumulative Value - Associated with a number of alluvial mining sites in German Gully (including stone retained sluice heads, dams and ground sluicing relics). Only one of these site (Sites 121) has been recorded.

Significance ranking: Local

CONSERVATION POLICY:

None required

RECOMMENDATIONS FOR IMPLEMENTATION:

None

Assessor: David Bannear Date: 1993

-
- 1 Milner, P. 1989 Mining Sites in Specimen Hill Area, for Newmont
 - 2 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
 - 3 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
 - 4 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
 - 5 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
 - 6 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
 - 7 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
 - 8 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
 - 9 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
 - 10 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
 - 11 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
 - 12 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
 - 13 Annual Report of the Secretary for Mines and Water Supply, Victoria (P. Milner, On Mining Machinery Sites in the Castlemaine and Fryers Creek Divisions, 1989), p.37
 - 14 Annual Report of the Secretary for Mines and Water Supply, Victoria (P. Milner, On Mining Machinery Sites in the Castlemaine and Fryers Creek Divisions, 1989), p.93

-
- 15 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
16 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions

SITE NO. & NAME: 97 HAZLETTS WATER RACE
LOCATION: Specimen Hill to Church's Flat, Fryerstown

DIRECTIONS: Commencing at the Poverty Gully water race north east of Specimen Hill running generally in a south-westerly direction around Long, Lost and Blacksmith's gullies, and terminating above Spring Gully opposite Church's Flat ¹.

MAP/GRID REFERENCE: Fryers Road crossing: Chewton 1:25,000 - 558.886

PARCEL NUMBER: Various

MUNICIPALITY Newstead

LAND STATUS: Crown Land

EXISTING HERITAGE CLASSIFICATION: None

PRESENT MANAGEMENT/USE: Parts in LCC Rec - J1

HISTORY:

In 1882 Hazlett set out to make good what the government scheme had failed to achieve when the branch race to Fryers Creek was relocated further to the east. Hazlett seems to have been engaged in puddling and sluicing operations within the division for at least twenty years before this, as a miner of that name was mentioned in a report for 17 August 1860 in the Mount Alexander Mail as carrying out a successful puddling operation in Golden Gully. By September 1882 four miles of race way had been surveyed at a general fall of 8 feet to the mile, with small dams to be constructed wherever the race had to cross any large gullies. These had the added benefit of supplementing the water supply available and of substantially increasing the holding capacity of the system. Towards the end of that year one mile of raceway had been cut and the party were at work sluicing all the old gullies near Specimen Hill. In March 1883 the raceway party was reported to be vigorously at work in Blacksmith's Gully. The mining surveyor's reports for the period do not indicate just how successful this whole operation was, but sufficient must have been found to allow construction of the long run south towards Church's Flat across elevated country in which few reefs had been discovered and opportunities for sluicing were rare.

It is not known for how long Hazlett continued to use his race, or for how long the water continued to flow along it after he finished with it. But as a small branch race was constructed to supply water to the storage dam for the Spring Gully mine on Spring Flat, the water must have flowed as far south as this until the mine closed in 1917. In 1926/27, when mining in the area was practically at a standstill, some 12 acre of feet water was driven off. This compares favourably with the Fryers branch which supplied about 19 acre feet, and it indicates that the race was being used for other than purely mining purposes at this time. In 1937 the branch race constructed along the southern slopes of Lost Gully - originally intended for sluicing the lower sections of Blacksmith's Gully - was being used by the Wattle Gully United Company, and this presumably continued until the company ceased operations in 1948. What almost certainly would have stopped the flow beyond Lost Gully was the sluicing operation at the northern end of Cemetery Reef; but exactly when this occurred has not yet been determined. ²

Sept 1882: The distribution over the different localities is also considerably affected...arrangements are being made by Messrs. Hazlett and party for sluicing all the old workings between Specimen Hill and Church's Flat. A race has been surveyed and levelled for about four miles, following a contour at a very high elevation, with a fall of 8 feet in the mile. Small dams will be constructed at suitable places along the course. The Coliban water is to be used, and taken from the aqueduct a little above the Renaissance Company's works, Specimen Hill. It is not expected that a large supply of water will be available, nevertheless it is presumed that, by prudent economy, a considerable quantity can be stored in small reservoirs during the night and judiciously distributed during the day. It is well known that the old gullies were exceedingly rich during the early days, and that although the tub and cradle and puddling machine have done much towards clearing away the rich alluvial deposits, sufficient gold is still left to remunerate the sluicer, whose expenses will be but trifling, with a moderate supply of water at command... general returns connected with quartz mining this quarter...[show]...a considerable improvement over the preceding one, viz., an increase of 600 ounces. The average yield was 3 3/4 dwts. to the ton all round. ³

March 1883: .the example of Messrs. Hazlett and party is likely to be followed by other parties, so far as sluicing different portions of Spring Gully and its tributaries is concerned. ⁴

DESCRIPTION

Hazlett's water race (constructed early 1880s)

Water race

Disused water race but still has well defined channels and sluice heads. Hazlett's water race - commencing at the Poverty Gully water race north east of Specimen Hill running generally in a south-westerly direction around Long, Lost and Blacksmith's gullies, and terminating above Spring Gully opposite Church's Flat

Peter Milners fieldwork on the Newmont lease found the following features:

Hazlett's water race	entrance and first tunnel	Chewton 1:25,000 - 561.900
	first dams	Chewton 1:25,000 - 563.896
	first flume	Chewton 1:25,000 - 560.894
	second tunnel	Chewton 1:25,000 - 560.892
	Fryers Road crossing	Chewton 1:25,000 - 558.886
	second dam	Castlemaine 1:25,000 - 555.885 ⁵

PHOTOS: None taken

ARTEFACTS: None visible

INTEGRITY/CONDITION: Good

THREATS:

CULTURAL SIGNIFICANCE:

The site has:

- Scientific Significance - Well preserved water race
- Cumulative Value - Race associated with a number of alluvial mining sites.

Significance ranking: Local

CONSERVATION POLICY:

None required

RECOMMENDATIONS FOR IMPLEMENTATION:

None

Assessor: David Bannear Date: 1993

- 1 Milner, P. 1989 Mining Sites in Specimen Hill Area, for Newmont
- 2 Milner, P. 1989 Mining Sites in Specimen Hill Area, for Newmont
- 3 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
- 4 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
- 5 Milner, P. 1989 Mining Sites in Specimen Hill Area, for Newmont

SITE NO. & NAME: 98 **GOLDEN GULLY WATER RACE**

LOCATION: **Crocodile Reservoir to Fryerstown**

DIRECTIONS: Race commences at reservoir and runs down the northern side of Crocodile Gully and then down the western side of Golden gully. Another race appears to head in a southerly direction and run around the west side of Fryerstown.

MAP/GRID REFERENCE: Crocodile Reservoir: Drummond 1:25,000 - 565.876
Fryers Road crossing: Chewton 1:25,000 - 557.882

PARCEL NUMBER: None

MUNICIPALITY: Newstead

LAND STATUS: Freehold and Crown Land

EXISTING HERITAGE CLASSIFICATION: None

PRESENT MANAGEMENT/USE:

HISTORY:

Both the Golden Gully and the Upper Cobbler's Gully water races were constructed to support sluicing operations in their vicinity. The first of these was brought into operation in 1904 for the Golden Gully Hydraulic Sluicing Company and was used until 1914, and the latter was brought into operation in 1906 for sluicing in Cobbler's Gully. Golden Gully water race - commencing at the reservoir in Lot 2, Crown Allotment 36, and running in a generally southerly direction along the western slope of Golden Gully. ¹

DESCRIPTION

Golden Gully water race (constructed c.1904)
Water Race - disused channel associated with alluvial mining sites along Golden Gully.

PHOTOS: None taken

ARTEFACTS: None visible

INTEGRITY/CONDITION: Good

THREATS:

CULTURAL SIGNIFICANCE:

The site has:

- Scientific Significance - Well preserved water race
- Cumulative Value - Runs along the deeply sluiced channel of Golden Gully.

Significance ranking: **Local**

CONSERVATION POLICY:

None required

RECOMMENDATIONS FOR IMPLEMENTATION:

None

Assessor: David Bannear **Date: 1993**

¹ Milner, P. 1989 Mining Sites in Specimen Hill Area, for Newmont

SITE NO. & NAME: 99 MOYLES WATER RACE
LOCATION: Glenluce mineral springs to Vaughan Area

DIRECTIONS: Runs from River Loddon (near McLaren's place, Glenluce Mineral Springs) in a mainly westerly direction to Vaughan. At Vaughan the water race is located below Nolans race.

MAP/GRID REFERENCE: Commences approx. Guildford 1:25,000 - 539.831

PARCEL NUMBER: Various

MUNICIPALITY: Newstead

LAND STATUS: Crown Land

EXISTING HERITAGE CLASSIFICATION: None

PRESENT MANAGEMENT/USE:

EXISTING HERITAGE CLASSIFICATION:

PRESENT MANAGEMENT/USE:

HISTORY:

June 1872: Sluice-heads - Moyle, Vaughan and Glenluce, 1 head, 10 hours per day - per week, per head £2 8s ¹

Sept 1872: Water Supply - Charges for sluice-heads:- ... Edwd. Moyle, Vaughan, 1 head supplied, 10 hours per day; one head for 10 hours, 8s. ²

June 1873: Edward Moyle and Co., Vaughan 10 hours per day. £2 - 8s. ³

1980s: Leaving the cars parked at the Springs Reserve, we cross the river and climb the golden stairs to Moyles Race, which we walk along to Butchers Gully. We cross the gully, noting the Pussy Willow, at the base of the broken sluidge dam. It is 43 years old, having been planted by my father when we were sluicing in this end of this gully.

We used this water-race for the purpose, having renovated it over its length of about three miles. ⁴

c. 1980s [Across the Loddon River from the Vaughan Springs Reserve] Ten feet above us ...[Moyles water race] ... is the...Nolan's race...cut by Nolan and Sons in the sixties. It picks up water from the river just after it receives Middleton's Creek, above Glenluce. At a point just about opposite Glenluce Postoffice (that was), the water was transferred to this (western side) by means of a fluming swung on a plaited, flat wire rope. It has been largely ploughed out across the paddocks, but is plainly visible on the hillside on the rise, near Warburton's Bridge (over the Loddon at Glenluce). In order to avoid a road crossing here, it was popped through a short tunnel, near the road... Both of the races were extended down past Vaughan and Tarilta, to Table Hill - for the tunnellers, mostly...

[In Sailor's Gully] We can now follow Nolan's, which as we can see, was cut through hard rock, above Moyles. Now, if you look across Sailor's gully to the Sailor's Hill, you can make out the race level of Nolan's, just about the line of the basalt capping of the hill, and fifty or sixty feet higher than we are now. It was dropped down into a holding dam across Sailor's, before being released into this channel. ⁵

1980s: [On opposite side of Loddon River from Vaughan Spring's Reserve]...a short steep climb will put us on the bank of Peter Moyle's water race. This is about forty to fifty feet above river level, from which it is derived about three miles up...

Moyle's race is just over the century old, and derives from the river, below McLaren's place. We will see something of it again near the Glenluce springs. Used mostly for mining purposes, it provided water for the treatment of the washdirt from the tunnels into the old lead under the hills - Bald, Butcher's, Kangaroo, Table, in that order. It also drove a waterwheel just below us here, the site submerged below the weir. The Chinese used it for irrigating their extensive market gardens at Central Springs, below Sailor's Hill. We gave it a further lease of life around 1935, for working a small jet-elevating plant in the lower end of Butcher's Gully, at the top end of the weir... Both of the races ... [Moyles and Nolans] ... were extended down past Vaughan and Tarilta, to Table Hill - for the tunnellers, mostly. ⁶

DESCRIPTION

Moyles water race (constructed early 1870s)

Water race

Disused water race that runs from River Loddon (near Glenluce Mineral Springs) in a mainly westerly direction to Vaughan. At Vaughan it runs in close proximity to Nolan's runs, albeit at a lower level. Parts of the water race has been utilized as a walking track to the Glenluce Mineral Springs.

PHOTOS: None taken
ARTEFACTS: None visible
INTEGRITY/CONDITION: Now utilized as a walking track
THREATS:

CULTURAL SIGNIFICANCE:

The site has:

- Scientific Significance - Still has some interpretive value even though now used as a walking track.
- Cumulative Value - Now utilised as a walking track through the Vaughan Mineral Springs Reserve.

Significance ranking: Local

CONSERVATION POLICY:

None required

RECOMMENDATIONS FOR IMPLEMENTATION:

None

Assessor: David Bannear Date: 1993

- 1 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
- 2 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
- 3 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
- 4 Bradfield, R.A. n.d. (c. early 1980s) 'Walking Tour: Sailor's Gully, Stone's Gully, Ridge Road'
- 5 Bradfield, R.A. n.d. (c. early 1980s) 'A Bush Walk from Vaughan Springs'
- 6 Bradfield, R.A. n.d. (c. early 1980s) 'A Bush Walk from Vaughan Springs'

SITE NO. & NAME: 100 NOLANS WATER RACE

LOCATION: Middletons Creek to Vaughan/Table Hill Diggings (Tarilta)

DIRECTIONS: Commences at Middleton's Creek, above Glenluce. and runs to Vaughan and continues in a mainly westerly direction towards Tarilta.

MAP/GRID REFERENCE: Junction of Middletons Creek and Loddon River Guildford 1:25,000 - 553.798

PARCEL NUMBER: Various

MUNICIPALITY: Newstead

LAND STATUS: Public Purposes Reserve

EXISTING HERITAGE CLASSIFICATION: None

PRESENT MANAGEMENT/USE:

HISTORY:

June 1872: Sluice-heads - Nolan and Co., Vaughan and Glenluce, 2 heads, 24 hours per day - per week, per head £3
1

Sept 1872: [Middleton Co's water-wheel, Butcher's Hill, is] supplied by water from a small water-race contouring from Middleton's Creek, with a very slight fall; indeed therace itself was cut by Nolan and Co., generally by the waterflow from the source, consequently the weight of water is slight...

Water Supply - Charges for sluice-heads:-... 2. James Nolan and Co., Vaughan and Glenluce, 2 heads supplied, 24 hours per day; one head, £3. 2

June 1873: Joseph Nolan and Co., Vaughan and Glenluce, 2 heads, 24 hours per day-per week £3 3

c. 1980s [Across the Loddon River from the Vaughan Springs Reserve] Ten feet above us is the...Nolan's race...cut by Nolan and Sons in the sixties. It picks up water from the river just after it receives Middleton's Creek, above Glenluce. At a point just about opposite Glenluce Postoffice (that was), the water was transferred to this (western side) by means of a fluming swung on a plaited, flat wire rope. It has been largely ploughed out across the paddocks, but is plainly visible on the hillside on the rise, near Warburton's Bridge (over the Loddon at Glenluce). In order to avoid a road crossing here, it was popped through a short tunnel, near the road... Both of the races were extended down past Vaughan and Tarilta, to Table Hill - for the tunnellers, mostly...

[In Sailor's Gully] We can now follow Nolan's, which as we can see, was cut through hard rock, above Moyles. Now, if you look across Sailor's gully to the Sailor's Hill, you can make out the race level of Nolan's, just about the line of the basalt capping of the hill, and fifty or sixty feet higher than we are now. It was dropped down into a holding dam across Sailor's, before being released into this channel. 4

DESCRIPTION

Nolans Race (constructed early 1870s)

Water race
Disused water race with well defined channel.

PHOTOS: None taken

ARTEFACTS: None visible

INTEGRITY/CONDITION: Good

THREATS:

CULTURAL SIGNIFICANCE:

The site has:

- Scientific Significance - well preserved water race channel
- Cumulative Value - Passes through the Vaughan Mineral Springs Reserve

Significance ranking: **Local**

CONSERVATION POLICY:

None required

RECOMMENDATIONS FOR IMPLEMENTATION:

None

Assessor: David Bannear

Date: 1993

- 1 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
- 2 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
- 3 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
- 4 Bradfield, R.A. n.d. (c. early 1980s) 'A Bush Walk from Vaughan Springs'

SITE NO. & NAME: 101 HUNTS WATER RACE

LOCATION: Dry Diggings (Mt Franklin) to Sebastopol Diggings, Vaughan

DIRECTIONS: Commences near Mt. Franklin and runs in a northerly direction around Sebastopol Diggings, Middletons Creek.

MAP/GRID REFERENCE: Crosses Porcupine Ridge track: Guildford 1:25,000 - 520.759

PARCEL NUMBER: Various

MUNICIPALITY Daylesford & Glenlyon/Newstead

LAND STATUS: Crown Land

EXISTING HERITAGE CLASSIFICATION: None

PRESENT MANAGEMENT/USE:

HISTORY:

Dec 1872: Sluicing - a large and influential company is in the process of formation, initiated by Messrs. R.L.M.Kitto and Co.; the company propose to utilize the head waters of the Loddon, and construct a reservoir at Glenlyon, thence by race crossing the Porcupine Ridge, following its contour to Kangaroo, Table Hill and Guildford, and Pennyweight, commanding all the basaltic hills and auriferous gullies in its course. ¹

March 1885: Mr James Hunt, residing at the Dry Diggings, Mount Franklin, is in possession of a splendid water race, which has furnished an abundant supply of water for many years to the miners located in the neighbourhood. This water right has proved exceedingly remunerative up to the present time, but now that the old alluvial workings have become comparatively exhausted, fresh fields are sought after. Mr Hunt now proposes to supply fourteen or fifteen sluice-heads to the Sebastopol and Middleton Creek locality..²

c. 1900: Ground Sluicing - Martin brought the water around from the dry diggings at Daylesford. He brought the water with him...he started digging the race after a rough survey...as he went along he sluiced out alot of the little gullies. He also sold water to others so that they could ground sluice. Talking around the turn of the century. His water race crosses the Porcupine Ridge Track, it was a major engineering feat...and his idea was to ground sluice out Sebastopol Gully. He finally got the water through to Sebastopol Gully, down near the bottom and started sluicing. He sold water rights to Nuggetty Gully (which runs into Browns Gully, Middleton Creek). He thought it would take them 7 to 8 years to sluice out Nuggetty Gully - he would have a steady income over those years - but it turned out that the gully was very rich and so they put on lots of men and sluiced the gully out in one year.³

DESCRIPTION

Hunts water race (constructed mid 1880s)

Water race

Disused water race that commences near Mt. Franklin and runs in a northerly direction around Sebastopol Diggings, Middletons Creek. There are numerous sluice heads and channel offshoots associated with this race.

PHOTOS: None taken

ARTEFACTS: None visible

INTEGRITY/CONDITION: Good

THREATS:

CULTURAL SIGNIFICANCE:

The site has:

- Scientific Significance - well preserved water race and associated sluice heads.
- Cumulative Value - Race supplied water for sluicing the old Middletons Creek diggings. As this area is isolated and very rugged, the associated sluicing sites are well preserved and have great interpretive value.

Significance ranking: **Regional**

CONSERVATION POLICY:

The significance of the site comes from its intactness, and the well preserved sluicing sites associated with the race in the Middletons Creek area.

RECOMMENDATIONS FOR IMPLEMENTATION:

Site to be protected

Assessor: David Bannear Date: 1993

- 1 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
- 2 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
- 3 David Avery, David Horner and David Bannear April 1990 - Preliminary field notes

SITE NO. & NAME: 102 COBBLERS GULLY WATER RACE

LOCATION: Specimen Hill to Cobblers Gully

DIRECTIONS: The Cobbler's Gully water race commences on the west side of Fryers Road opposite the Poverty Gully water race drop, and runs in a south-westerly direction across Abraham Gully to Cobblers Gully.

MAP/GRID REFERENCE: Castlemaine 1:25,000 - 556.898

PARCEL NUMBER: Various

MUNICIPALITY: Newstead

LAND STATUS: Crown Land

EXISTING HERITAGE CLASSIFICATION: None

PRESENT MANAGEMENT/USE:

HISTORY:

Both the Golden Gully and the Upper Cobbler's Gully water races were constructed to support sluicing operations in their vicinity. The first of these was brought into operation in 1904 for the Golden Gully Hydraulic Sluicing Company and was used until 1914, and the latter was brought into operation in 1906 for sluicing in Cobbler's Gully.¹

Mar 1990: Top end of Cobblers Gully - sluiced from there down to Fryerstown, all done with a nozzle. A lot of the ground sluiced was original, there was no gold in the clay, had to shift a considerable depth of overburden before getting to the gold bearing stuff. Very deep sluicing. Bert Miller and his son sluiced from Californian Gully north up Cobblers Gully to just south of Dingo Farm. They stopped because of the depth of overburden. This was done in the depression years. This is where the last hydraulic sluicing was done...you can still see the gravel bank left from the last paddock taken out. An underground drain, all boxed in, made of old timber and stone, went under the tailing dump. Water only used once... they never returned the water or used it again and you can see how much clay is left in the tailing dump..[none]...the silts all went down the gully and silted up all the reservoirs.²

1990: Sluicing up Cobblers Gully - my brother [Brown] worked there with Bert Miller. It was forty foot deep there...they had to remove all that overburden.³

DESCRIPTION

Cobblers Gully Race (constructed early 1900s)

Water race

Disused water race with well defined channel and associated sluice heads.

Peter Milner's fieldwork in the Nemont lease saw the following features of the race identified:

Cobblers Gully water race	entrance	55HBU558897
	first flumes	55HBU558801
	first tunnel	55HBU558899
	second flumes	55HBU556899
	third flume	55HBU556898 ⁴

PHOTOS: None taken

ARTEFACTS: None visible

INTEGRITY/CONDITION: Good

THREATS:

CULTURAL SIGNIFICANCE:

The site has:

- Scientific Significance - Well preserved water race with associated sluice heads.

Cumulative Value - Associated with the deeply sluiced channel of Cobblers Gully (Site 43) and other alluvial mining sites.

Significance ranking: Regional

CONSERVATION POLICY:

The significance of the site comes from its association with the deep sluicing in Cobblers Gully , which is part of the Eureka Reef - Spring Gully network of alluvial and quartz mining sites.

RECOMMENDATIONS FOR IMPLEMENTATION:

Site be protected and more comprehensive survey undertaken to determine the extent of the alluvial sites associated with the water race.

Assessor: David Bannear

Date: 1993

-
- 1 Milner, P. 1989 Mining Sites in Specimen Hill Area, for Newmont
 - 2 Notes summarizing a day-trip to Spring Gully with Verne Hooper, 16 March 1990
 - 3 George O. Brown/David Bannear March 1991- Preliminary field notes
 - 4 Milner, P. 1989 Mining Sites in Specimen Hill Area, for Newmont

SITE NO. & NAME: 103 CHAMPION REEF MINE

LOCATION: Mopoke Gully , near Campbells Creek

DIRECTIONS: 700m south down German Gully track, south side of Fryerstown Road. Turn right (east), at 1.2km mark cross German Gully. At 2km mark there is a mine site on the north side of the road.

MAP/GRID REFERENCE: Guildford 1:25,000 - 517.867

PARCEL NUMBER:

MUNICIPALITY Newstead

LAND STATUS:

EXISTING HERITAGE CLASSIFICATION: None

PRESENT MANAGEMENT/USE:

HISTORY:

Sept 1884: Shill, Woods, and party, Mopoke Gully. - This party, having lately secured a lease of their ground, are still working vigorously... There is plenty of auriferous ground in this neighbourhood, which would undoubtedly pay for working. The Champion Reef, Scotson's, Frenchman's, Aberdeen's, &c., &c., are all in the immediate locality, and probably connected. ¹

June 1885: The Old Champion Reef has been recently taken up and applied for on lease by W. Aberdeen, of Yapeen, who proposes to form a strong company, and erect suitable machinery with the view of properly developing and working this much neglected line of reef. ²

Sept 1885: The Mopoke Gully quartz reefs are now attracting attention, two or more leases having been recently applied for by Messrs. Aberdeen and Walker, who contemplate erecting suitable machinery for crushing. ³

DESCRIPTION & INTERPRETATION:

Champion Reef (worked in mid 1880s)

Mine site

Located on the edge of a pine planation is a section of a once large mullock heap. The mine are hidden by vegetation but there may be some battery foundations. Below the site are some tailings.

PHOTOS: None taken

ARTEFACTS: None visible

INTEGRITY/CONDITION: Poor

THREATS:

CULTURAL SIGNIFICANCE:

The site has little historical significance or integrity

Significance rankin: None

CONSERVATION POLICY:

None required

RECOMMENDATIONS FOR IMPLEMENTATION:

None

Assessor: David Bannear

Date: 1993

-
- 1 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
 - 2 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
 - 3 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions

SITE NO. & NAME: 104 MIDDLETONS CREEK SURFACING WORKS

LOCATION: MIDDLETONS CREEK

DIRECTIONS: Middletons Creek, 0.7km south-west from the junction of Drummon-Vaughan Forest road and Green Gully Road. West side of Middletons Creek.

MAP/GRID REFERENCE: Guildford 1:25,000 - c.544.785

PARCEL NUMBER: 5 Of 6 Holcombe

MUNICIPALITY: Newstead

LAND STATUS: Reserved Forest

EXISTING HERITAGE CLASSIFICATION: None

PRESENT MANAGEMENT/USE: LCC Rec - M1H?

HISTORY:

c. 1855: ..."Kangaroo" broke out. Finding a place called "Middleton's Creek" a suitable place for a store, I again started for myself, which I carried on with but moderate success..¹

11 Jan 1856: a serious disturbance occurred, on Friday last, at Middleton's Gully... It appears that for some months past a party of Italians, who had gained a reputation for their orderly and respectable conduct, had succeeded in lighting on several claims of a remunerative character. Their success excited the cupidity of a mob of Irishmen, by whom the claims were rushed..²

June 1859: 22 puddling machines in Middleton Creek, Butcher's Gully & Sailor's Gully
 30 non-Chinese puddlers in Middleton Creek
 28 Chinese puddlers in Middleton Creek, Butcher's Gully & Sailor's Gully
 100 non-Chinese engaged in ordinary mining in Middleton Creek
 80 Chinese engaged in ordinary mining in Middleton Creek, Butcher's Gully & Sailor's Gully
 12 Chinese sluicing in Middleton Creek, & Butcher's & Sailor's Gullies ³

March 1865: Mining population of Sailor's Gully and Middleton's: 69 ⁴

March 1867: Sailor's Gully, Butcher's Gully, and Middleton's Creek - These localities contain a scattered population, whose means of subsistence from mining would be uncertain, the cultivation of small plots of ground being important auxiliaries to their support ⁵

1868: Parties reporting yields from quartz crushings in 1868: (Collier's Reef) Bn Collier and Company ⁶

Sept 1872: [Middleton Co.'s water-wheel, Butcher's Hill, is] supplied by water from a small water-race contouring from Middleton's Creek, with a very slight fall; indeed the race itself was cut by Nolan and Co., generally by the waterflow from the source, consequently the weight of water is slight. ⁷

Dec 1884: Collyer's Reef, Middleton Creek. - This old reef has been again taken up, it may be for the fifth or sixth time, and a party from Malmsbury are about commencing operations. Many years ago this reef was worked to advantage, and although the leaders were very narrow, the quartz was exceedingly rich in places. ⁸

March 1885: Attention has recently been directed to the numerous parties working out gullies and flats in the vicinity of Middleton Creek, Brown's Gully, Sebastopol, &c., and it has been suggested that a large extent of auriferous land exists which would prove moderately remunerative with an adequate supply of water for sluicing purposes... as this locality was very rich in the shape of nuggets during the early days, or at the first rush, it is considered there is ample scope for mining enterprise and speculation.

Mr James Hunt, residing at the Dry Diggings, Mount Franklin, is in possession of a splendid water race, which has furnished an abundant supply of water for many years to the miners located in the neighbourhood. This water right has proved exceedingly remunerative up to the present time, but now that the old alluvial workings have become comparatively exhausted, fresh fields are sought after. Mr Hunt now proposes to supply fourteen or fifteen sluice-heads to the Sebastopol and Middleton Creek locality.⁹

March 1889: Collyer's Reef, Middleton Creek. - This so-called reef is situated about four miles south from Vaughan, and was accidentally discovered by Collyer and party in sinking for alluvial deposits... The total yield of gold from 22 tons of stone was 107oz.; averaging 4oz. 17dwt. to the ton.¹⁰

DESCRIPTION

Hunt's race constructed in the mid 1880s

Surfacing

An isolated, but extremely well defined (relatively small patch) of deep surfacing. Small heaps of rocks associated with the workings. A water race runs from the surfacing, part of Hunt's (Sebastopol Diggings) water race.

PHOTOS: To be taken
ARTEFACTS: None visible
INTEGRITY/CONDITION: Good
THREATS:

CULTURAL SIGNIFICANCE:

The site has:

- Scientific Significance - undisturbed and isolated patch of surfacing
- Cumulative Value - one of the many alluvial sites associated with Hunt's water race

Significance ranking: Regional

CONSERVATION POLICY:

The significance of the site comes from its intactness and from being part of an extensive network of alluvial sites associated with Hunt's water race.

RECOMMENDATIONS FOR IMPLEMENTATION:

Site to be protected.

Assessor: David Bannear Date: 1993

1 Freebody, T. (30 January 1885) in Records of the Castlemaine Pioneers, 1972, p.54
 2 Mount Alexander Mail, p.2
 3 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
 4 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
 5 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
 6 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
 7 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
 8 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
 9 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
 10 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions

SITE NO. & NAME:	105 STONES GULLY WORKINGS
LOCATION:	Stones Gully, Vaughan
<hr/>	
<i>DIRECTIONS:</i>	Runs approx. 1km in a northerly direction off Sailors Gully
<i>MAP/GRID REFERENCE:</i>	Guildford 1:25,000 - 531.800
<i>PARCEL NUMBER:</i>	P120405
<i>MUNICIPALITY</i>	Newstead
<i>LAND STATUS:</i>	Unreserved Crown Land/Proposed Castlemains Historic Reserve
<i>EXISTING HERITAGE CLASSIFICATION:</i>	None
<i>PRESENT MANAGEMENT/USE:</i>	LCC Rec - J1

HISTORY:

27 April 1855: There has been a general rush during the week from the old spots of Fryer's Creek towards a newly discovered gold-field the other side of the Loddon... Going from Fryer's Creek, the Loddon is crossed at the bottom of a narrow and very rugged gully, near the Bald hill; ascending a steep range, Sailor's Gully is reached: this has been a rich and favourite spot of the diggers in the locality of the Loddon, and is of considerable length; having left Sailor's Gully behind and proceeding straight ahead, through the same kind of gully for a mile and a half, the new diggings make their appearance. The gully is terminating near Jim Crow, so, should the ground be rich, we have a splendid gold-field for the people of Fryer's Creek. Several hundreds of claims were marked out, but the day being wet not many diggers were at work; two holes were bottomed at a depth of 35 feet, and were reported as doing remarkably well, the report was they would not take £100 a foot for their claims. Tents were arriving fast, and judging from the appearance of the place another week will make it a busy thriving spot. The immediate neighborhood of the gully looks very healthy, smaller gullies running into the larger one, and plenty of quartz hills, and there being a continuation of a rich gully like that of Sailor's Gully would auger greatly of its future. ¹

4 May 1855: The new rush at Stone's Gully has not turned out so well as was anticipated... So promising was the appearances of the new place, that several storekeepers were tempted to try their fortune there, but we understand they all returned disappointed. ²

11 May 1855: Stone's Gully - This locality, which has lately been the scene of a rather extensive rush is reached by crossing the Loddon, near the Bald Hill, Fryer's Creek, and following the direction of Sailor's Gully for about two miles. Some months ago a prospecting party was established at Fryer's Creek, by whom Stone's gully was opened about three weeks since. The presence of gold was very soon ascertained, and the indications were so promising as to give rise to rumors that the whole ground was of an exceedingly auriferous character. A rush was the result, and a large number of holes were sunk without realising the golden hopes that had been entertained. The place became deserted as rapidly as it was filled, and on Monday last...there were not more than fifty men working on the ground. It does not appear to us, however...that the place has been given a fair trial. Firstly, the entire absence of water prevented any experimenting on the washing stuff, unless after a walk of more than a mile to the nearest water-holes... [In] the last ten days, ...from one load of washing stuff not a grain has been obtained, while the next, from the same heap, yielded six ounces and upwards. This stuff has to be carted to the Loddon, a distance of two miles, at a cost of 20s. per load... Another cause for the unfavourable opinion entertained of this gully may be found in the peculiarity of the bottom... Occasionally, this bottom consists of a 'black mullocky soil'..., in other places it appears as a mixture of sand and slate. No one seemed to imagine that the 'black mullocky soil' formed the bottom, until lately, when a large piece being broken a nugget weighing an ounce and a quarter was discovered... There are now between twenty and thirty windlasses in operation, all working in a line in the centre of the gully, through which it is supposed a vein of patchy gold must run in a zig-zag course. The sinking varies from twenty-five to nearly forty feet. Stone's gully...is a continuation of Sailor's gully, whose prolific yields of gold are well remembered. It extends...a distance of about twelve miles. Throughout its whole length it presents precisely the same features as the richest, of the older gullies, having branches from the north and south, and abundance of quartz; we believe it will be ultimately extensively worked. The easy distance of the ground from Fryer's Creek renders a walk to and fro easy... One storekeeper is so confident of the gully turning out well that he is 'making fixings' for the winter..³

c. 1980s: Getting back to the main gully, there are many traces of the rich alluvial worked here, in what can now be called Stones Gully. Over on the east side, you can see one of the old square, rivetted, water tanks which were sent out here in thousands, filled with goods for the colonies, on the old wind-jammers. 'Containers', if not as big as the container ships of today. There is a big old tree, felled, probably for a bee-hive. This gully has always been a great place for bee-trees. ⁴

DESCRIPTION

Stones Gully (first rushed in 1855)

Alluvial workings

Band of well defined alluvial sinkings. Located on either side of the gully are stone fireplaces. Also some quartz workings, including adits.

PHOTOS: None taken

ARTEFACTS: None visible

INTEGRITY/CONDITION: Good

THREATS:

CULTURAL SIGNIFICANCE:

The site has:

Scientific Significance - Relatively well preserved shallow lead alluvial landscape

Significance ranking: Local

CONSERVATION POLICY:

None required

RECOMMENDATIONS FOR IMPLEMENTATION:

None

Assessor: David Bannear Date: 1993

- 1 Mount Alexander Mail, p.2
- 2 Mount Alexander Mail, pp.2-3
- 3 Mount Alexander Mail, p.2
- 4 Bradfield, R.A. n.d. (c. early 1980s) 'Walking Tour: Sailor's Gully, Stone's Gully, Ridge Road'

SITE NO. & NAME: 106 NUGGETTY GULLY WORKINGS

LOCATION: Middletons Creek

DIRECTIONS: Tributary to Middletons Creek. Located on eastern side

MAP/GRID REFERENCE: Guildford 1:25,000 - c.524.700

PARCEL NUMBER: 5 of 6 Holcombe

MUNICIPALITY: Newstead

LAND STATUS: Reserved Forest

EXISTING HERITAGE CLASSIFICATION: None

PRESENT MANAGEMENT/USE: LCC Rec - M1H?

HISTORY:

Part of Sebastopol Diggings (see Site 62). According to local information the gully was sluiced by water from the Mt Franklin-Sebastopol Diggings water race, which was constructed by Hunt in the 1880s.

DESCRIPTION

Hunt's water race constructed mid 1880s

Ground sluicing
Intensively sluiced gully with an system of sluicing channels and mounds of rocks. The alluvial workings are particularly intact and evocative.

PHOTOS: None taken

ARTEFACTS: None visible

INTEGRITY/CONDITION: Good

THREATS:

CULTURAL SIGNIFICANCE:

The site has:

- Scientific Significance - Remarkably well preserved sluicing landscape. Has high interpretive value.
- Cumulative Value - One of the many alluvial sites associated with Hunt's water race

Significance ranking: Regional

CONSERVATION POLICY:

The significance of the site comes from its remarkable intactness (and hence interpretive value) and from being part of an extensive network of alluvial sites associated with Hunt's water race.

RECOMMENDATIONS FOR IMPLEMENTATION:

Site to be protected

Assessor: David Bannear **Date: 1993**

SITE NO. & NAME: **WHITE HORSE REEF SITES**
107.1 Uphill flue and stack site
107.2 White Horse Co.

LOCATION: **White Horse Reef, Chewton**

DIRECTIONS: West side of White Horse Gully, 0.8km south-east of Wattle Gully Gold Mine (Site 78)

MAP/GRID REFERENCE: Chewton 1:25,000 - 565.905

PARCEL NUMBER: P121532

MUNICIPALITY Metcalfe

LAND STATUS: Unreserved Crown Land/Proposed Castlemaine Historic Reserve

EXISTING HERITAGE CLASSIFICATION: None

PRESENT MANAGEMENT/USE: LCC Rec - J1

HISTORY:

23 March 1855: Wattle and Dinah Flats and White Horse Gully have now a considerable fixed population. ¹

14 Sept 1855: Adelaide Flat - From White Horse Gully, through the flat, down the high road and the line of the creek, matters seem very much the same as they have recently been. Old chums...can manage to pick up a living, but it seems beyond question that the cream of this valley is gone - at least for diggers on the small scale. Audible growlings against the Chinese are continual, especially from older residents, and hints are thrown out of an intention to expel them from this locality, and break up their camps. ²

5 Oct 1855: White Horse Gully looks like the joint patrimony of a small number of parties. The working population is thought not to exceed 70... Their way of speaking of their gettings is also very modest, but people do not make a drive 35 feet long from one hole for nothing..³

21 Aug 1857: Launcelist, Hartley, Woess and Gooch - discoverers of new reef - 25 ft deep shaft. ⁴

August 1859: 1 claim working, 2 miners, claim of 320 feet, abandoned reef. ⁵

1859: Dinah Flat - Good workings and 3 dams and 3 puddling machines, at northern end of flat. Sinking 30 ft. in middle of flat - very rich. Sinking 25 ft., towards southern end of flat - very rich.

White Horse Flat - surface workings at northern end - very good. ⁶

Nov 1860: Numbers & Occupations of Miners - White Horse Gully: - Europeans: 6 puddlers, 10 tub and cradle workers; Chinese: 7 tub and cradle workers ⁷

Nov 1860: Numbers & Occupations of Miners: - Dinah Flat

Europeans: 8 puddlers, 3 tub and cradle workers

Chinese: 12 tub and cradle workers

5 puddling machines. ⁸

Dec 1860: Quartz Reefs actually proved to be auriferous: White Horse Reef

No. of claims: --

Extent of claim: --

No. of men employed: --

Extent of Reef prospected: 4,500 feet ⁹

Feb 1861: Within the ground now being excavated to form the Dinah Flat Reservoir, heavy gold has been obtained, but like other finds on these old diggings is the result of luck, (colonially speaking) as many miners who have been working the site for years, and who still reside in the immediate neighbourhood long since considered the ground non-payable. ¹⁰

April 1861: In quartz mining, a considerable impetus has been given by the accidental discovery of a rich quartz reef under the alluvium in the basin of the Dinah Flat reservoir. A miner casually picked up a specimen, and sinking 12

feet on the larger portion of the reservoir before unworked, came upon a wide reef; a rush was the result, there are now 20 claims working, 4 of them..having struck gold; Smith and Company having obtained a few oz.; Campbell and Company, 182 oz. in 9 days; Coffee and Company, 111 oz. in 10 days; Skipper and Company, first crushing, 4 oz. from 5 tons, and others are getting good prospects... The quartz is...very loose and mullocky, having every appearance of a floating reef. ¹¹

April 1861: The Dinah Flat reservoir is shown [on surveyor's plan] with water line after the late flood. The reservoir being filled, the nine-inch pipe remaining open, in about four hours the puddling and pumping machine houses, tents and gardens being almost completely under water, and of course all claims swamped. ¹²

31 May 1861: Musset and Co. - 20 tons yielded 40 oz. ¹³

May 1861: The Whitehorse or Reservoir Reef maintains its position as the best at present working in the district... Coffee and Hall (2) have obtained 115 oz. 4 $\frac{1}{2}$ dwt. during the month. Campbell and Company (4) have obtained during the month, 309 oz. 14 dwt. Mussett and Company, (4) from 189 tons, including 40 tons of refuse, 135 $\frac{1}{2}$ oz. None other of the workers on the reef have as yet struck the main lead of gold. ¹⁴

July 1861: Quartz crushed for last month lists Mussett and Company, Tyrrell and Company, Coffee and Company, and Campbell and Company as working Whitehorse Reef. ¹⁵

16 Aug 1861: Morris and Co. - 10 ton yielded $\frac{1}{2}$ oz/ton; Coffee and Hall - 50 oz. ¹⁶

Sept 1861: Companies/Parties crushing quartz & obtaining gold - Dinah Flat: Campbell, Dale, Morrison, Tyrrell. 155 tons yielded 4 oz. ¹⁷

Sept 1861: Dinah Flat and White Horse Gully - Europeans: 11 puddlers, 6 ordinary miners ¹⁸

Oct 1861: Quartz crushed during the month, and gold obtained therefrom - Dinah Flat: Neate, Tyrrell, Campbell, Morrison, Langley, Graves - 171 tons crushed. ¹⁹

Dec 1861: The White Horse Reef has not yielded nearly so much gold lately. This is partially accounted for, as several claims are worked to water level. The miners contemplate amalgamating their interests, for the purpose of obtaining steam pumping apparatus. ²⁰

1861-4: The alluvial gold in Milkman's Gully and White Horse Gully near the outcrop of [White Horse] reef was of a very heavy nature, pieces from 2 to 14 dwts. being found as late as 1864. ²¹

2 May 1862: Coffee and Hall have got a pick prospect in their new shaft; Muset and Co. - average 8 dwts. ²²

5 Sept 1862: Arrangements made to pump water - Campbell and Co. have struck a rich surface leader. ²³

12 Sept 1862: Pumping arrangements fell through. ²⁴

19 Sept 1862: Not being worked - water-logged. ²⁵

26 Sept 1862: Erecting a pump. ²⁶

20 Nov 1862: Campbell and Co. - mining has resumed after draining of claims - mining has been suspended for six months. ²⁷

22 April 1863: Musset and Co. - pumps stopped. ²⁸

13 May 1863: Work has nearly ceased - engine being removed - deepest shaft 50 to 60 feet. ²⁹

20 Oct 1863: New reef called Post-hole Reef. ³⁰

Dec 1864: The machinery of the Alexandra Company Company, Blacksmith's Gully, has been sold to a party who intend working the White Horse Reef, Forest Creek. ³¹

March 1866: The company holding the White Horse or Reservoir lease have just struck good stone, having drained the reef to the depth at which former claimholders were flooded out. ³²

1866: Parties reporting yields from quartz crushings in 1866: White Horse Reef ³³

Sept 1867: Above the White Horse Reservoir (now full of water) several claims have been taken up with good prospects. ³⁴

March 1869: At the White-horse reservoir a 15 horse-power engine, with winding gear, has been erected, and an engine-shaft is being sunk. ³⁵

June 1869: The Forest Creek Company, Whitehorse reef, have their engine-shaft down 100 feet, with regular formation of reef, and their machinery in efficient working. ³⁶

Dec 1869: Odger's company of 52 Chinese, on Dinah Flat, work very harmoniously; they have opened one paddock, from which a little over 100 ozs. of gold was washed. They find a great quantity of old props, &c. ³⁷

March 1870: The only new discoveries have been by Odger's Chinese party, in Dinah Flat, of a quartz leader under the alluvium, 16 tons from which returned 25 ozs. 7 dwts. ³⁸

Sept 1870: In paddocking the Chinese party working Dinah Flat were getting better paid just before being flooded out: their weekly returns were 20½ ozs., 17½ ozs., 20 ozs., 18½ ozs., and 11 oz ³⁹

March 1871: The Forest Creek Company's machinery has been sold and removed to Sandhurst; some parties have been crushing quartz raised and discarded by this company, which yields 7 dwts. to the ton. ⁴⁰

June 1871: The whole of the White Horse line, including the Reservoir, is again occupied. ⁴¹

Sept 1872: On the White-horse Reef, a 12 horse-power engine, 8-inch pumps and winding gear, has been erected; their shaft is down 100 feet, and it is intended to drain this reef, which, in 1861, above water-level, yielded 3264 ozs. from 2264 tons of quartz. ⁴²

Dec 1872: The White-Horse Company have driven along a fine reef averaging 5 feet thick; a trial crushing of 61 tons, taken from several portions of the mine, yielded 13 ½ dwts per ton, the prospects improving as the mine is developed. Another steam engine, to drive a 12-head battery, will be erected. ⁴³

June 1873: The White-Horse Company have deepened their shafts, extended their levels, raised a quantity of quartz ready for crushing, and nearly completed the erection of a second engine with 12-head battery. ⁴⁴

Dec 1877 : The Ajax, Devonshire, White Horse, Manchester, Nuggety, Cumberland, Burns, Caledonia, Old Quartz Hill, Sebastopol, and other noted reefs, continue unworked. ⁴⁵

March 1882: The once famous White Horse or Reservoir Reef...[is]...likely again to be worked. Companies are being formed, and machinery enquired for. ⁴⁶

Dec 1882: Several improvement and additions have been made to ...the Dinah Flat Pyrites Works, which are again in operation. ⁴⁷

5 Jan 1883: White Horse Co. - active operations are about being commenced. ⁴⁸

March 1883: The White Horse Company have contracted for the erection of machinery, a portion of which is delivered on the lease block. ⁴⁹

June 1883: The White Horse Company are progressing with the erection of machinery and housing, and should be ready for work in a fortnight. Their first and heaviest operation will be draining the mine, which has remained full of water for many years. ⁵⁰

16 Aug 1883: White Horse Quartz Gold Mining Co. - Melbourne directors of company paid a visit to their property with a view to inspecting the new pumping and winding plant. This they found in a very satisfactory state, the engine

being in motion and the pumps going well. The engine, which is 15 horse power with four feet stroke, went smoothly, and there is a large boiler capable of supplying steam for another engine of the same size. These are covered in by a well-built roomy weatherboard engine-house. The stack, which is substantially built, is 46 feet high, and the draught is excellent. The poppet heads are 46 feet high, the brace strong and wide, and the whole of the works are done with a view to strength and durability. The plant is erected on the site where a former one stood, when the same area the company now holds was occupied by a former company, who sank an engine shaft 113 feet, but collapsed when little work was done, like many other companies at that time of over-speculation. The water, which was within about 12 feet of the surface, is now down to 52 feet, and is being gradually lowered. Meantime a new shaft is being sunk at a little distance upon ground near to where Mussett and Co. got 510 oz gold from 528 tons quartz... A supply of water for the engine is obtained from a dam previously formed, water can be easily obtained from the Government race, that passes at a short distance. The alluvial workings of White Horse Gully were amongst the richest on Forest Creek, and the gold heavier than elsewhere. ⁵¹

Sept 1883: The White Horse Company have erected machinery, drained the old engine shaft to 100 feet deep, sunk another shaft to the south-west. ⁵²

14 July 1884: A new party is being formed to buy the Whitehorse lease and plant. ⁵³

Sept 1887: The Crown Nimrod mine has been purchased by a Melbourne syndicate, who also are in treaty for the White Horse mine. ⁵⁴

March 1888: The White Horse Reef proved rich in 1861-2, when 2,761 tons yielded 3,641 oz. of gold. It has recently been purchased with a view to working it. ⁵⁵

9 April 1888: The new company that purchased the Whitehorse has been registered, and Mr Spargo, who has been looking for machinery to erect upon it, has purchased the pumping and winding engine of the Cranky Ned, with battery and appliances. ⁵⁶

June 1888: Two other new companies have been registered during the quarter, viz., The White Horse Gold Mining Company, who have added a 10-head battery and extensive housing to their mining plant, and The Crown Nimrod Quartz Mining Company. ⁵⁷

Sept 1888: Eighty tons of black sand, brought from Stawell, were treated at Mr Yeats' Pyrites Works, and yielded 105oz. 6dw. of gold. ⁵⁸

Dec 1890: At White Horse a new find has been made of a reef 1 foot thick. ⁵⁹

6 May 1889: A prospectus is issued by the Chewton Consols Co. for working the leasehold, formerly held by the Whitehorse. ⁶⁰

21 May 1892: Chewton Consols - An additional lease of 20 acres on the south end of the claim has been taken up by the Company. Application has been made to the local Prospecting Board for participation in the grant for 1892-3, and we have reason for believing that a good sum will be allocated to this company, seeing that it is our intention to sink our shaft deeper. ⁶¹

30 Nov 1892: Chewton Consols - Mr Williams stated that at last meeting the directors were empowered to purchase additional stamps, but, inasmuch as there was a debt, it was not considered advisable to purchase a plant. They had now, however, paid off £550, leaving only the balance of £150. ⁶²

1 June 1893: Chewton Consols - Mine and machinery in good working order. On 26th December, I cleaned out the boiler and flues, fixed up the battery boxes and tables, and did other necessary repairs. Crushed 1889 tons stone for a yield of 439.5oz smelted gold. ⁶³

1 Dec 1893: Chewton Consols - During the past half-year the total yield from the mine has been 359 oz 9 dwts of gold. We have laid down 400 ft of tram lines, and erected an embankment for dam in the eastern gully. On October 23rd, cleaned out boiler and flues, made new joints, and tested the boiler to 70lbs to the square inch. The mine and machinery are now in good order. ⁶⁴

30 April 1895: Chewton Consols - Special meeting - The operations stopped on 10 August 1894 because shareholders were not responding to calls. ⁶⁵

28 May 1895: Chewton Consols - Will dispose of lease and plant. ⁶⁶

March 1898: Chewton Consols: 635 ton crushed, 171oz gold ⁶⁷

June 1898: Chewton Consols: 195 ton crushed, 50 oz. gold ⁶⁸

Sept 1898: Chewton Consols: 120 ton crushed, 15 oz. gold ⁶⁹

31 May 1899: Chewton Consols - ...after a long and tedious term of call-paying the prospects at the mine have now considerably improved, and that, instead of paying calls, they hoped that the shareholders will soon be rewarded for their long patience by the receipt of dividends... The battery has been repaired; also the winding and crushing engine. Have made new road for carting quartz from the south shaft to the engine shaft, which is 405ft. The total number of tons raised and crushed is 35, for the yield of 9oz gold. have also crushed for the public 12 tons. ⁷⁰

March 1905: United Dinah Flat Dredging Co.: 120oz gold ⁷¹

June 1906: United Dinah Flat Dredging Co.: 259oz gold - W.M. Bull, Castlemaine, Legal Manager ⁷²

March 1908: United Dinah Flat Dredging Co.: 26oz gold ⁷³

1911: The Bendigonia United Company has erected a good winding plant, and has almost completed the unwatering of the old White Horse Gully Company's mine, which has been abandoned for many years. The Bendigonia Gold Development Company Limited sunk a main shaft to a depth of about 200 feet, erected a winding plant, thereon, and is now about to open out to intersect the gold-bearing stone proved, by boring, to exist at that depth. ⁷⁴

17 Oct 1937: White Horse mine is about 1 mile to the east and north of the Wattle Gully mine, and is on the eastern fold of the Chewton saddle reef... White Horse reef was very rich in the early days, but sinking at depths was not gone on with. The present company have erected machinery and necessary buildings, and plant to work the mine and have repaired the shaft. ⁷⁵

July, 1938: White Horse, Chewton - The old main shaft has been unwatered to the 220-ft. plat with a well to 232 feet. ⁷⁶

July 1939: White Horse, Chewton - The north drive at the 160-ft level was extended to 528 feet and a crosscut at 332 feet to 349 feet in sandstone and slate. ⁷⁷

DESCRIPTION

Site 107.1 - Early battery site (probably date to late 1850s/early 1860s)

A long hillslope flue that terminates at a circular chimney stack depression. The stone capping of the flue has been removed, now visible as a narrow trench. Nothing survives above ground of the machinery associated with the flue.

Site 107.2: - White Horse mine (winder bed probably dates to the last mining operation - White Horse Co. in 1937)

Below the hillslope flue, obscured by gorse is a small dam, a square concrete winder base and traces of mullock

PHOTOS: None taken

ARTEFACTS: None visible

INTEGRITY/CONDITION: Poor

THREATS:

CULTURAL SIGNIFICANCE:

The site has:

Scientific Significance - Some value due to the evidence suggesting an early battery site. Possibility of buried relics

Significance ranking: Local

CONSERVATION POLICY:

None required

RECOMMENDATIONS FOR IMPLEMENTATION:

None

Assessor: David Bannear Date: 1993

- 1 Mount Alexander Mail, p.2
- 2 Mount Alexander Mail, p.2
- 3 Mount Alexander Mail, p.2
- 4 Mount Alexander Mail, as summarized in Clive Willman collection
- 5 Mining Surveyors' monthly reports, Castlemaine and Fryer's Creek Divisions
- 6 1859 Mines Department map, ref. 1288/M2
- 7 Mining Surveyors' monthly reports, Castlemaine and Fryer's Creek Divisions
- 8 Mining Surveyors' monthly reports, Castlemaine and Fryer's Creek Divisions
- 9 Mining Surveyors' monthly reports, Castlemaine and Fryer's Creek Divisions
- 10 Mining Surveyors' monthly reports, Castlemaine and Fryer's Creek Divisions
- 11 Mining Surveyors' monthly reports, Castlemaine and Fryer's Creek Divisions
- 12 Mining Surveyors' monthly reports, Castlemaine and Fryer's Creek Divisions
- 13 Mount Alexander Mail, as summarized in Clive Willman collection
- 14 Mining Surveyors' monthly reports, Castlemaine and Fryer's Creek Divisions
- 15 Mining Surveyors' monthly reports, Castlemaine and Fryer's Creek Divisions
- 16 Mount Alexander Mail, as summarized in Clive Willman collection
- 17 Mining Surveyors' monthly reports, Castlemaine and Fryer's Creek Divisions
- 18 Mining Surveyors' monthly reports, Castlemaine and Fryer's Creek Divisions
- 19 Mining Surveyors' monthly reports, Castlemaine and Fryer's Creek Divisions
- 20 Mining Surveyors' monthly reports, Castlemaine and Fryer's Creek Divisions
- 21 Milner, P. 1989 Mining Sites in Specimen Hill Area, for Newmont, p.32
- 22 Milner, P. 1989 Mining Sites in Specimen Hill Area, for Newmont
- 23 Milner, P. 1989 Mining Sites in Specimen Hill Area, for Newmont
- 24 Milner, P. 1989 Mining Sites in Specimen Hill Area, for Newmont
- 25 Milner, P. 1989 Mining Sites in Specimen Hill Area, for Newmont
- 26 Milner, P. 1989 Mining Sites in Specimen Hill Area, for Newmont
- 27 Milner, P. 1989 Mining Sites in Specimen Hill Area, for Newmont
- 28 Milner, P. 1989 Mining Sites in Specimen Hill Area, for Newmont
- 29 Milner, P. 1989 Mining Sites in Specimen Hill Area, for Newmont
- 30 Milner, P. 1989 Mining Sites in Specimen Hill Area, for Newmont
- 31 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
- 32 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
- 33 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
- 34 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
- 35 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
- 36 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
- 37 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
- 38 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
- 39 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
- 40 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
- 41 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
- 42 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
- 43 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
- 44 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
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- 46 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
- 47 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions

48 Mount Alexander Mail, as summarized in Clive Willman collection
49 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
50 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
51 Mount Alexander Mail, as summarized in Clive Willman collection
52 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
53 Mount Alexander Mail, as summarized in Clive Willman collection
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59 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Division
60 Mount Alexander Mail, as summarized in Clive Willman collection
61 Mount Alexander Mail, as summarized in Clive Willman collection
62 Mount Alexander Mail, as summarized in Clive Willman collection
63 Mount Alexander Mail, as summarized in Clive Willman collection
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67 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Division
68 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Division
69 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Division
70 Mount Alexander Mail, as summarized in Clive Willman collection
71 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Division
72 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Division
73 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Division
74 Annual Report, 1911.
75 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Division
76 Mining and Geological Journal, July 1938, pp37-48
77 Mining and Geological Journal, July 1939, pp25-31

SITE NO. & NAME: 108 DOCTOR'S HILL CEMENT WORKINGS

LOCATION: Doctor's Hill, Campbells Creek

DIRECTIONS: 1km south along Donkey Gully Road (west branch) from its junction with Donkey Gully Road.(east branch). Doctors Hill is situated on the west side of the road.

MAP/GRID REFERENCE: Puddler : Castlemaine 1:25,000 - 503.885

PARCEL NUMBER: Newstead

MUNICIPALITY None

LAND STATUS:

EXISTING HERITAGE CLASSIFICATION:

PRESENT MANAGEMENT/USE:

HISTORY:

Nov 1860: Numbers & Occupations of Miners: - Europeans: 3 tunnelling, 13 tub and cradle workers ¹

DESCRIPTION

Doctors Hill (being worked as early as November 1860)

Cement workings

Abutting the west side of Blanket Gully Road is a large open cut. On cement workings (shafts and mullock heaps) located on the hill above the open cut has been badly disturbed by gravel quarrying activities. A track runs from the west side of the open cut north to Donkey Gully Road (east branch). The workings east of this track are less disturbed and associated with the filled shafts and small mullock heaps is a dry dam and a very eroded puddler. Associated with the puddler is a large bank of wash.

PHOTOS: None taken

ARTEFACTS: None visible

INTEGRITY/CONDITION: Poor

THREATS:

CULTURAL SIGNIFICANCE:

The site has little historical importance or integrity. Has some scientific value as it is one of the few traces of a puddling machine to have been found in the Central Victorian goldfield associated with cement workings.

Significance ranking: Local

CONSERVATION POLICY:

None required

RECOMMENDATIONS FOR IMPLEMENTATION:

None

Assessor: David Bannear **Date: 1993**

¹ Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Division

SITE NO. & NAME: **BALD/WHITE HILLS**
109.0 Intact cement workings
109.1 Large open cut with immense mounds of rocks

LOCATION: **Campbells Creek**

DIRECTIONS: Cement workings are located on the east side of Blanket Gully Road, between track leading to Campbells Creek Tip and Donkey Gully road (east branch)

MAP/GRID REFERENCE: Site 109.0: Castlemaine 1:25,000 - 511. 886
 Site 109.1: Castlemaine 1:25,000 - 512. 882

PARCEL NUMBER: Newstead

MUNICIPALITY

LAND STATUS:

EXISTING HERITAGE CLASSIFICATION: None

PRESENT MANAGEMENT/USE:

HISTORY:

Nov 1860: Numbers & Occupations of Miners: - Europeans: 4 tunnelling, 35 tub and cradle workers ¹

Nov 1860: In Boots and adjacent gullies a few parties are still earning a living with tub and cradle, but their number is daily decreasing. The best instance of good luck in that locality that has come to my knowledge, was the discovery of a 39 oz. nugget in Clausen and Company's tunnel, Boots, Bald Hill. The party has been working there some time, now and again coming across a small nugget, but in consequences of an accident by which Clausen's brother unfortunately was killed, the ground was temporarily abandoned, but after some time fruitless prospecting elsewhere, it was re-occupied. ²

DESCRIPTION

Bald/White Hills being worked as early as November 1860.

Site 109.1: Cement workings

Complicated alluvial landscape. Running around the top of the ridge is a poorly defined water race. All workings above the water race have been removed by gravel quarrying. Below the water race is a sluiced landscape containing a maze of ground sluicing channels, areas protected by metre high walls of clay, and shafts protected by dome-like mounds of clay and pebbles. The gully at the base of the hillslope has been deeply sluiced.

Site 109.2: Quarry

Massive quarry with high sheer walls of brilliant white clay. The base of the open cut filled with high mounds of stacked pebbles and rocks.

PHOTOS: None taken

ARTEFACTS: None visible

INTEGRITY/CONDITION: Good

THREATS:

CULTURAL SIGNIFICANCE:

The site has:

Scientific Significance - The patch of unquarried cement workings on Bald Hill has features (small raised domes and walls of clay) which have not been observed on other cement diggings in the Central Victorian goldfields.

Cumulative Value - The patch of unquarried cement workings and the open cut on adjacent White Hills form a very interesting landscape.

Significance ranking: **Local**

CONSERVATION POLICY:

None required

RECOMMENDATIONS FOR IMPLEMENTATION:

None

Assessor: David Bannear

Date: 1993

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- 1 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Division
 - 2 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Division

SITE NO. & NAME: 110 SHICER HILL CEMENT WORKINGS

LOCATION: Campbells Creek

DIRECTIONS: Located north east of Donkey Gully Road (east branch) and south of Castlemaine-Maryborough Railway line

MAP/GRID REFERENCE: Centred: Castlemaine - 1:25,000 508.894

PARCEL NUMBER: Newstead

MUNICIPALITY: Unreserved Crown Land

LAND STATUS: None

EXISTING HERITAGE CLASSIFICATION:

PRESENT MANAGEMENT/USE:

HISTORY:

Nov 1860: Numbers & Occupations of Miners: - Europeans: 10 tunnelling, 7 tub and cradle workers ¹

Sept 1864: No./Location of Alluvial Miners: Shicer Hill - Europeans: 6 ordinary miners - Chinese: 5 puddler, 24 ordinary miners ²

DESCRIPTION

Shicer Hill was being worked in 1860

Cement workings

Band of fairly dispersed sinkings runs from Blanket Gully Road, parallel to the railway line. The sinkings terminate, at a large open cut (summit of Shicer Hill). The open cut is badly obscured by thick gorse. The hillslope below the open cut, and to the south has been extensively surfaced to bedrock. Little regrowth has taken place. The surfacing runs all the way to Blanket Gully Road. On the ridge line above the surfacing are intact workings (open cuts, trenches and piles of rock) heavily overgrown by gorse. Running down hill from the intact ground are at least 4 deep water channels. These channels are fringed with piles of rocks. The channels terminate at the base of the hill with large banks of wash.

PHOTOS: None taken

ARTEFACTS: None visible

INTEGRITY/CONDITION: Good

THREATS:

CULTURAL SIGNIFICANCE:

The site has:

Scientific Significance - Relatively well preserved sluiced landscape.

Significance ranking: Local

CONSERVATION POLICY:

None required

RECOMMENDATIONS FOR IMPLEMENTATION:

None

Assessor: David Bannear **Date:** 1993

¹ Mining Surveyors' monthly reports, Castlemaine and Fryer's Creek Division

² Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Division

SITE NO. & NAME: **STRATHLODDON SITES**
111.1 Puddler and chilian mill site
111.2 Cement workings
111.3 Strathloddon Gold Mining Co.

LOCATION: **Pennyweight Hill, Strathloddon**

DIRECTIONS: The Pennyweight cement workings are contained within the V created by Strathloddon, Vaughan Springs, and Kemps Bridge roads.

MAP/GRID REFERENCE: Site 111.1: Guildford 1:25,000 - 503.862
 Site 111.2: Guildford 1:25,000 - 505.858
 Site 111.3: Guildford 1:25,000 - 512.856

PARCEL NUMBER:

MUNICIPALITY Newstead

LAND STATUS:

EXISTING HERITAGE CLASSIFICATION: None

PRESENT MANAGEMENT/USE:

HISTORY:

27 May 1854: A considerable rush has been made on the preemptive rights belonging to Mr Taylor, at the lower part of Pennyweight Flat, leading towards the station. From 250 to 300 men were busily engaged sinking, some of which had nearly bottomed. By the nature of the ground being explained to them by the Commissioners, and an order given for them to desist, they very quietly left the spot. ¹

3 August 1855: A rush has taken place at Pennyweight Flat, German Gully...about 250 men are employed sinking deep holes in this locality. The leased quartz vein in German Gully is proving very remunerative. ²

2 Nov 1855: Much dissatisfaction is expected at some crown lands facing the Loddon (Pennyweight Flat) being marked out for sale. A number of diggers have represented to Mr Heron that in summer this is their principal washing place. ³

June 1859: Old Pennyweight Hill Co. - one 18hp high-pressure engine, working a Hart's patent puddling machine. ⁴

July 1859: The Strathloddon Gold Mining Company - Mr Rogers, an enterprising miner, has been instrumental in the establishment of a company upon the Old Pennyweight Hill, being the second now formed on the same hill, his grant being contiguous to Mr Cameron's grant.....They are working the ground from a tunnel, having a tramway running into the hill, and extending to a puddling machine, where the dirt is washed. During the past week they washed 50 loads, from which 10oz. were obtained. They have now suspended operations until steam machinery can be obtained ⁵

July 1860: The Old Pennyweight Hill, Strathloddon, Windlass Hill, and even the Ballaarat Company, are defunct. ⁶

Nov 1860: The Old Pennyweight Hill plant has been purchased by a party of miners who intend erecting it at Kangaroo, near the Table Hill, for cement crushing. ⁷

Dec 1860: The Kangaroo Crushing Company (Private) consists of ten working shareholders. They are busily engaged erecting the engine purchased from the Old Pennyweight Hill Company. ⁸

June 1867: the returns for cement crushing will show a falling off in those localities which have ere now been famed for alluvial deposits. The localities referred to comprise Pennyweight, Kangaroo, Table, Butcher's, and Guildford Hills. That these hills are becoming exhausted, and the yields therefrom inadequate to pay the current rate of wages, is becoming painfully apparent. ⁹

1867: Parties reporting yields from crushings of quartz tailings/cement in 1867: Sir Henry Barkly ¹⁰

1868: Parties reporting yields from crushings of quartz tailings/cement in 1867: Sir Henry Barkly, H. Bishop (Alpha Company) ¹¹

March 1871: there is a slight [population] increase over last quarter; this is principally to be attributed to the discovery of the supposed continuance of the lead or run of gold hitherto worked by and near the Sir H. Barkly Company: a good number have been attracted to the locality. ¹²

Dec 1876: Parties puddling or sluicing: Fox and Co., Pennyweight; T. Pearson, Pennyweight; Ah Chong and Co., Pennyweight; J. Scott and Co., Pennyweight ¹³

June 1891: A party of miners from Broken Hill have taken up 30 acres of ground at German Gully, and they intend re-working the old Pennyweight Hill by sluicing. ¹⁴

DESCRIPTION

111.1: Area first rushed in 1854. Difficult to date the puddler and associated structure - probably 19th century.

Alluvial site

Eroded puddler associated with a raised circular stone-retained structure. The structure, approx 5m in diameter, may be the remains of a grinding mill.

111.2 : Area first rushed in 1854.

Running south from Strathloddon is a wide, 0.5km long band of cement workings (mullock heaps, open cuts and shafts) which have been badly disturbed by gravel quarrying.

111.3: Strathloddon Gold Mining Co. (1859/1860)

Northwest of the junction of Vaughan Springs and Kemps Bridge roads is a large open cut which has been used for illicit rubbish dumping. At the western end of the open cut is a conglomerate mullock heap. Below the heap, at the base of the hill, is a haulage adit.

PHOTOS: None taken

ARTEFACTS: None visible

INTEGRITY/CONDITION: Puddler in poor condition, the raised circular structure is more intact . Cement workings obliterated by quarrying but the open cut and haulage adit have some integrity.

THREATS:

CULTURAL SIGNIFICANCE:

Site 111.1 has:

Scientific Significance	- Although the puddler is not well preserved it is associated with a circular (stone retained) raised structure. This structure may be the remains of a grinding mill used to treat cemented gravels prior to mpuddling. If so, this would be the only site of this type yet identified in the Central Victorian goldfields.
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Site 111.2 has:	- Little integrity or historical significance
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Site 111.3 has

Scientific Significance	- Well preserved open cut and haulage adit which appear to date to the late 1850s.
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Significance ranking:	Site 111.1	Regional
	Site 111.2	None
	Site 111.3	Regional

CONSERVATION POLICY:

The significance of Sites 111.1 and 111.3 come mainly from their age, intactness and rarity. As site 111.1 is the only one of its kind, it may well have higher significance and be upgraded to National Estate status at the end of the project.

RECOMMENDATIONS FOR IMPLEMENTATION:

Sites 111.1 and 111.3 be protected

Assessor: David Bannear

Date: 1993

- 1 Mount Alexander Mail, p.2
- 2 Mount Alexander Mail, p.2
- 3 Mount Alexander Mail, p.2
- 4 Mining Surveyors' monthly reports, Castlemaine and Fryer's Creek Division
- 5 Mining Surveyors' monthly reports, Castlemaine and Fryer's Creek Division
- 6 Mining Surveyors' monthly reports, Castlemaine and Fryer's Creek Division
- 7 Mining Surveyors' monthly reports, Castlemaine and Fryer's Creek Division
- 8 Mining Surveyors' monthly reports, Castlemaine and Fryer's Creek Division
- 9 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Division
- 10 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Division
- 11 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Division
- 12 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Division
- 13 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Division
- 14 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Division

SITE NO. & NAME: 112 GOLDEN PLATEAU GOLD MINE

LOCATION: Guildford Plateau

DIRECTIONS: Base of plateau, north side of Newstead-Guildford Road, 5km from Guildford.

MAP/GRID REFERENCE: Yandoit 1:25,000 - 437.857

PARCEL NUMBER: None

MUNICIPALITY: Newstead

LAND STATUS: Freehold

EXISTING HERITAGE CLASSIFICATION: None

PRESENT MANAGEMENT/USE: Pastoral

HISTORY:

1932: The Guildford Plateau Gold Mines Company N. L. was formed in October, 1932, to work leases 7967 and 8083, Castlemaine, in the parishes of Guildford and Strangways. The nominal capital of the company was originally £25,000 in 50,000 shares of 10s. each The main shaft is situated about 3/4 miles north-east of Strangways railway station, and the leases embrace a length along the Guildford Lead of approximately 2 miles. This lead (the ancient bed of the Loddon River) is fed by auriferous tributaries from Castlemaine, Chewton, Fryerstown, Daylesford, Yandoit, and Maldon, and thence continues as a main tributary of the Berry-Moolort-Loddon system which it joins at Baringhup, some 15 miles north-west of Guildford.¹

1933: Shaft sinking commenced in May 1933. A steam driven pump with a capacity of 8,000 gallons per hour was installed at first, but a burst of water at a depth of 50 feet necessitated a pump of increased capacity.²

Jan 1938: The deep alluvial mines in this district have not made much headway, only two - Yandoit and Guildford Plateau - have survived.³

July, 1938: Guildford Plateau, Guildford- The blocking -out of washdirt proceeded continuously up to M arch, when a shortage of boiler water led to the cessation of work. The average yield from 340 fathoms was 12dwt. of gold. The machinery has since been over hauled, and preparations made to resume underground operations..⁴

1938: The deep alluvial mines, however, have not made much headway. The Guildford Plateau mine closed down for want of boiler feed water, but its shallow workings are being exploited from tunnel level with promising results.⁵

May 1939: Up to the end of May, 1939, the company has treated 2,596 fathoms for a yield of 1,922 oz. of gold ... Winding is carried out by a steam-driven link motion winch (12-in cylinders) supplied by two Babcock and Wilcox boilers ... A 4-in Pomona pump with nine sets of impellers is driven by a 12-h.p. Southern Cross Diesel engine, and has a capacity of 9,000 gallons per hour. A compressor driven by a 25-h.p. Blackstone crude-oil engine supplies the underground workings. Ventilation is effected by a steam driven No. 4 Root's Blower, which delivers through a 12-in main for a distance of 1,000 feet Two puddlers (Cowley Bros.) are steam driven and have a capacity of 50 fathoms per week. The mine is equipped with a set of steel poppet legs 70 feet in height. [Photo include of mine]⁶

July 1939: The only deep alluvial mine is the Guildford Plateau, which is developing the lead some 1,700 to 1,800 feet north-east of the shaft⁷

DESCRIPTION

Golden Plateau Gold Co. (1932 to 1939)

Mine site

Located at the base of the escarpment is an mainly intact large mullock heap with three main dumping lines. On the north-west corner of the heap is an arrangement of high wooden posts. Also visible from the road is a collapsed iron chimney stack and some concrete mounting beds

PHOTOS: None taken

ARTEFACTS: None visible

INTEGRITY/CONDITION: Good

THREATS:

CULTURAL SIGNIFICANCE:

The site has:

- | | |
|-------------------------|--|
| Historical Significance | - Associated with the 1930s mining revival . The main deep lead mine to operate during this time in the Castlemaine Mining Division. |
| Scientific Significance | - Relatively intact small scale deep lead mine (including mullock heap, timberwork and machinery plant footings.) |

Significance ranking: Regional

CONSERVATION POLICY:

The significance of the site comes from its association with the 1930s mining revival, its intactness and setting against the Guildford Plateau escarpment.

RECOMMENDATIONS FOR IMPLEMENTATION:

Site to be protected

Assessor: David Bannear Date: 1993

-
- 1 Mining and Geological Journal, July 1939 pp 7-11
 - 2 Mining and Geological Journal, July 1939 pp 7-11
 - 3 Mining and Geological Journal, Jan 1938, p40
 - 4 Mining and Geological Journal, July 1938, pp37-48
 - 5 Annual Report, 1938, p15
 - 6 Mining and Geological Journal, July 1939 pp 7-11
 - 7 Mining and Geological Journal, July 1939, pp25-31

SITE NO. & NAME: 113 MEINS FREEHOLD DEEP LEAD MINE

LOCATION: Guildford Hill

DIRECTIONS: Line of three mullock heaps runs in a south easterly direction from Midland Highway, 1.6km north of Guildford.

MAP/GRID REFERENCE: Central mullock heap: Guildford 1:25,000 - 492.858

PARCEL NUMBER: None

MUNICIPALITY: Newstead

LAND STATUS: Freehold

EXISTING HERITAGE CLASSIFICATION: None

PRESENT MANAGEMENT/USE: Pastoral

HISTORY:

June 1876: Mein's Freehold Gold Mining Company. - This company have been very successful in their mining operations up to the present time, having raised a large amount of gold underlying the volcanic formation; the auriferous drift being 200 feet below the surface. A vast amount of work has already been accomplished, and preparations are now being made for more extensive operations underground. The yield of gold during the past quarter has been comparatively insignificant, owing to the ground in the vicinity of the old shaft being completely worked out. A new shaft has been sunk, and 320 feet driven to intersect the main lead, and payable gold obtained.¹

Dec 1876: Parties puddling or sluicing:Mein's Freehold, Guildford ²

June 1877: Mein's Freehold G.M. Company. - The company furnish no gold returns for the past quarter, having been engaged shifting machinery to the new shaft, which has been sunk to a depth of 217 feet on the old lead. The great influx of water was a serious obstacle to the sinking... They have now commenced driving on the main levels, and about 20 men engaged. ³

Dec 1877: Mein's Freehold Gold Mining Company. - This company have now got fairly to work in their new shaft; depth, 200 feet...36 men being constantly employed. ⁴

Sept 1878: Mein's Freehold Gold Mining Company have been very active and successful of late, working on private property at Guildford; there are now 42 men employed, the result of the last three months' washing being 436 ozs. 17 dwts., from 3,600 loads of dirt, which gives an average of nearly 2 1/2 dwts. to the truck. The company have still a large area of ground to operate on, and considering the lead is well defined, and known to traverse the Guildford basalt plains, some important discoveries must eventually be made in the direction of Newstead and Strangways. ⁵

Dec 1879: Mein's Freehold Gold Mining Company at Guildford continue to realize good returns from the alluvial workings... 4,050 tons of washdirt has been raised, which yielded 536 ozs. 13 dwts. The company employ 43 men. ⁶

June 1880: The long and successful working of the Golden Lead Company under Mr Mein's freehold, and their deep-lead of gold making toward the Guildford Plain, has led to the formation of 'The Extended Golden Lead Company,' who have taken on tribute from Dr Malcolm about 500 acres of the plain. They are now sinking an engine shaft near the base of the escarpment, where they will erect machinery and drive thence in the schist bed-rock. Companies are projected to develop other portions of the long-neglected Castlemaine deep leads. ⁷

June 1882: Mein's Freehold Gold Mining Company have made good progress in the development of their mine during the past six months. Within a portion of the period mentioned 582 ozs. of gold have been obtained from 7,000 loads of washdirt, from a depth of 230 feet, the lead being 100 feet in width. Some 300 men and boys are regularly employed.⁸

DESCRIPTION

Meins Freehold (Main period of mining appears to have been the Late 1870s to 1880s)

Mine sites

Three intact mullock heaps, no machinery foundations survive. The most northerly heap, overlooks the highway and is quite a landscape feature. The middle mullock heap has two parts - a heap of washed pebbles and a heap of mullock.

PHOTOS: None taken
ARTEFACTS: None visible
INTEGRITY/CONDITION: Mullock heaps only
THREATS:

CULTURAL SIGNIFICANCE:

The site has:

Social Significance - The mullock heap overlooking the Midland Highway is a local landmark.

Significance ranking: Local

CONSERVATION POLICY:

The significance of the site comes mainly from the most westerly mullock heap. This is a local landmark visible from the Midland Highway.

RECOMMENDATIONS FOR IMPLEMENTATION:

Most westerly mullock heap to be protected.

Assessor: David Bannear Date: 1993

- 1 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Division
- 2 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Division
- 3 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Division
- 4 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Division
- 5 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Division
- 6 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Division
- 7 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Division
- 8 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Division

SITE NO. & NAME: 114 NORTH WATTLE GULLY CO. MINE

LOCATION: Wattle Gully, Chewton

DIRECTIONS: Immediately north of Wattle Gully mine (Site 79).

MAP/GRID REFERENCE: Chewton 1:25,000 - 559.916

PARCEL NUMBER:

MUNICIPALITY Metcalfe

LAND STATUS:

EXISTING HERITAGE CLASSIFICATION: None

PRESENT MANAGEMENT/USE:

HISTORY:

22 Oct 1937: The Wattle Gully zone in which the Wattle Gully, Chewton Gold, South Wattle Gully, Wattle Gully Extended, North Wattle Gully and North Chewton mines are operating has had a great history and apparently history will repeat itself. In the early fifties the alluvial deposits were very rich even for those hectic days. While taking out the alluvial wash the miners opened up quartz, which was studded with gold. This was treated per hammer or dolly pots. Later on Chilian mills and square stampers were installed. Later still, mining companies were formed and worked with varying success down to 300 feet. The Forest Creek Wattle Gully worked very successfully for 20 years and sank their shaft to 840 feet. Unfortunately the shaft was sunk on the underlay for a good distance and this and the difficulty of dealing with the water eventually caused cessation of operations. The South Wattle Gully Co. in their Shanks shaft on the Chewton reef, on the eastern saddle formation of the Wattle Gully system, sank to 360 ft, and got a fair amount of gold. On this lease McDonald and party had a tribute on the "German" saddle which yielded £4800 in three months...

In 1931 McDonald and Hooper struck rich stone in the German tunnel. Their lease and Loder and Ottery's lease adjoining were bought by the Chewton Gold Mines N.L., which was formed for that purpose. This company was definitely the pioneer of the mining revival in the Wattle Gully district. The Wattle Gully did not peg out their lease until later on.

The Wattle Gully Gold Mining Co. - This company was formed with the intention of cleaning out and repairing the old Central shaft (which had been sunk to 200 feet in the early days), and then to sink a further 400 ft to test the deeper ground previously worked profitably by the Forest Creek Wattle Gully Co. to 840 ft.

If this programme had been adhered to, the Wattle Gully Co. would have cut the gold within a few months of starting sinking. Unfortunately they spent a lot of time and a lot of money working at the 200ft level. When things were looking desperate, the Government diamond drill was obtained and the last bore hole went through 11ft of stone assaying 5oz to the ton. On the strength of this the company started to sink and at 500ft from the surface cut into payable stone. All the material from the shaft was put through the State battery for an average of about 10 dwt. A 20-head battery with stone cracker and Wilfley tables was installed and 700 tons fortnightly have been crushed for an average of about 13 dwt of smelted gold, not including minerals, which are of good content. From January 1 to September, 1937, 8464 oz gold were obtained...

Chewton Gold Mines N.L. - This company which is the pioneer company of the mining revival, was formed in 1932. A main shaft was sunk on the Shank's section of the Chewton reef, but like the Wattle Gully they did not go deep enough and very little gold was obtained. When the Wattle Gully bore proved gold at a depth and machinery was shifted to a point 170ft south of the Wattle Gully boundary and a main shaft sunk. At 360ft stone was passed through carrying gold, and up to 510ft various makes of stone were passed through ... Up to June 30th the Chewton Gold Mines had spent £21,529/7/6, of which nearly £18,000 was paid in wages and working expenses of the mine. The company has 5450 shares earmarked for erecting battery and machinery and as soon as the State battery proves the values of the formation it is hoped that the erection of the new plant will be started. The manager of the mine is Mr J.S. Loder, who has been in charge since the inception of the company. ¹

28 Oct 1937: North Wattle Gully - This company's lease is north of and adjoining Wattle Gully lease, and extends north to the railway line. Operations were started in the Welcome shaft on the eastern portion of the lease. The Welcome shaft had been sunk to 280ft, and had worked a reef from the surface to the 280ft level. ²

DESCRIPTION

North Wattle Gully (operated late 1930s)

Mine site

Set of large concrete foundations and an open (fenced) shaft.

PHOTOS: To be taken
ARTEFACTS: None visible
INTEGRITY/CONDITION: Poor

THREATS:

CULTURAL SIGNIFICANCE:

The site has:

- Historical Significance - Associated with the 1930s Wattle Gully mining boom
- Cumulative Value - Part of a network of contemporary 1930s mining sites (Sites 78, 79, 81, 83, 84, 85 and 114). Wattle Gully was the mine that promoted the mining boom that lay behind the formation of the other mines making up the network.

Significance ranking: Regional

CONSERVATION POLICY:

The significance of the site mainly comes from its association with the 1930s Wattle Gully mining boom.

RECOMMENDATIONS FOR IMPLEMENTATION:

Site to be protected

Assessor: David Bannear Date: 1993

- 1 Mount Alexander Mail, as summarized in Clive Willman collection
- 2 Mount Alexander Mail, as summarized in Clive Willman collection

SITE NO. & NAME: 115 KANGAROO HILL CEMENT WORKINGS

LOCATION: Kangaroo Hill, Vaughan

DIRECTIONS: North side of Vaughan-Tarilta Road. 1km east of Tarilta

MAP/GRID REFERENCE: Guildford 1:25,000 - 514.830

PARCEL NUMBER: None

MUNICIPALITY: Newstead

LAND STATUS: Freehold

EXISTING HERITAGE CLASSIFICATION: None

PRESENT MANAGEMENT/USE: Pastoral

HISTORY:

c. 1853: [Kangaroo Gully rushed] ¹

6 July 1855: A new hill has been opened at Kangaroo Creek (Loddon), the produce from which is very good.²

13 July 1855: Fryer's Town - Our population has increased materially within the last ten days, in consequence of a great rush to the Kangaroo Hill, near the junction of the Fryer's Creek and the Loddon. The diggers are reported as doing very well... It is in the same direction as Stone's Gully, across the Loddon, proving that that part of the country is yet untried, and may be reckoned on as a rich and distinct gold field. ³

20 July 1855: Kangaroo Hill - ...Within the last day or two, a number of diggers have arrived, tents are pitched, and a few stores are in course of erection. The gully below the hill, called Kangaroo Gully, was rushed about two years since, and some gold taken therefrom, but...was very poorly tested and soon left. The hill is now likely to be worked in every direction... The sinking is very hard, as the diggers have to go through a complete mass of ironstone, and in most instances to a great depth...many of the holes will take from a month to six weeks in bottoming... The principal part of the workings is at present at the western extremity of the hills, where the sinking ranges in depth from twelve to thirty feet. The lead is supposed to run through the hill, as some parties at the eastern end have succeeded in striking it, and it is determined to sink along the hill, to a depth from the crest of nearly 130 feet. Claims are marked out nearly all along the ridge... The road to the diggings is at present very rough and bad,...and, as traffic increases, a bridge will have to be placed across the Loddon. ⁴

27 July 1855: Kangaroo Creek is still yielding largely, and it is anticipated that most of the hills in the vicinity will now be opened. ⁵

3 August 1855: The rush at Kangaroo hill continues unabated... Parties are arriving from all quarters, not only diggers, but their usual followers, the blacksmiths, the storekeepers, butchers, and last, though not least, the light-fingered gentry, who commit numerous depredations... The run of gold seems, so far as traced, not to run across the hill, but along the western side... A rush has set in across the crown of the hill, and in almost every hill there is blasting.⁶

10 Aug 1855: The rush at Kangaroo... The hole on the crown of the hill have been bottomed at a depth of 80 feet... Another hill is being opened at this spot, and promises well..⁷

17 Aug 1855: Kangaroo Hill - ...it is now almost certain that the locality will become a settled and permanent field. The miners are branching out on the Guildford road... Kangaroo Hill is a high ridge, washed at its northern edge by the Loddon at the junction of that river with Fryer's Creek, and subsiding at its southern extremity into a gully through which flows the Kangaroo Creek. For upwards of two years the auriferous character of the neighbourhood has been ascertained but not generally known. Along the crest from north to south runs a mass of iron stone, varying in depth from 15 to 40 feet. An enterprising party, believing that the lead of gold was to be found beneath this barrier, determined on penetrating it, and after immense labour succeeded in reaching the bottom, the first tub from which yielded 5 ozs; and their udgement was further confirmed by the subsequent extraction of nearly 7 lbs. weight in one load... at the present time the southern half of the hill is covered with a series of workings which have no parallel in the colony. Many of the holes are 100 feet deep, the iron stone presenting a formidable obstacle... In the northern side of the hill excavations have been made *under* the ironstone to a distance it is stated of 140 feet, by a party of Cornishmen... On the western side of the hill, a large number of holes have been sunk with the view of striking on branches of the main lead... Across the creek some surfacing ground has been opened, and promises well.

The population is estimated at 3000, and is daily increasing. Several stores are on the ground, four public houses are in course of erection, an energetic baker is putting up an oven, the butchers and blacksmiths do a roaring trade, and a bowling alley will shortly offer a source of amusement... The only drawback to business there are the villainous approaches across the Loddon. At the Junction a substantial bridge for foot passengers and equestrians has been erected by Messrs. Bond, Brothers, but all vehicles have to be driven through the current, which is here 30 feet wide... The road by Guildford presents similar difficulties..⁸

31 Aug 1855: The Union Hotel, "One and All." Kangaroo Flat, Loddon..⁹

31 Aug 1855: Kangaroo Hill continues to yield a considerable quantity of gold, and the hill opened out near the head of Butcher's Gully has turned out very largely. Another part of the hill opposite Scotch point has also been bottomed...but gold is patchy. ¹⁰

14 Sept 1855: A Ball will be held at the Derby Hotel, Kangaroo Flat, Loddon Diggings..¹¹

14 Sept 1855: Kangaroo Hill - ...the richest part of the diggings [is] that where the iron-stone was first penetrated at the southern extremity of the hill. From this point to Butcher's Gully, the hill has been extensively tried, but the gold lies so patchy that many of the holes have turned out 'shicers'... The gold is generally coarse, and several nuggets, varying from 10 to 15 ounces, have been lately taken out. It is believed that the Hill and its contiguous localities will at least maintain the population - between 300 and 4000 - now assembled there... The enterprising speculations in which the storekeepers have embarked here, show great confidence in the place, stores going up all over the flat, and many being constructed of weather boards and other materials more durable than would be employed if the diggings were regarded as merely a temporary rush... Bread is selling at 2s. the 4 lb. loaf - 6d. less than in Castlemaine. This perhaps, may be attributed to the fact that there are no less than seven ovens erected on the ground. There are four licensed public houses on the flat, namely, the Derby Hotel (by Mr Wheeler, of the Australian, Forest Creek); the Union Hotel (by Capt. Trewartha, of the Golden Hope, Forest Creek); the Welcome Inn (by Mr Sullivan, of Fryer's Creek); and another hostelry, by Mr Earles, formerly of the Junction. The proprietors have gone to a large expense in fitting up their houses comfortably and commodiously. To minister to their amusements, the people have Mr Jones's circus, to which is added the attraction of Mad. Dallecase, and her perilous ascents on a rope. A bowling alley is also in active operation. Medicaments for some of the 'thousand ills that flesh is heir to', are to be obtained at a dispensary. An auction room is already established. ¹²

21 Sept 1855: The Floods ... At Kangaroo two men are missing, and it is supposed they have met with their deaths in the Loddon. ¹³

28 Sept 1855: There appears to be what may be termed three new rushes from Kangaroo. One on the side of the hill opposite to it on the southern side, where a very hard conglomerate has to be gone through. All sorts of depths prevail here from mere surfacing to sixty feet... The washing stuff (pipe-clay and small quartz gravel intermingled) lies for the most part upon a bed of sandstone, which is nearly even with Kangaroo Hill. Scotch Point Gully, to the west of the hill, is much like Sailor's and Butcher's Gully. ¹⁴

5 Oct 1855: The entire population [of Fryer's Creek] is now estimated at 6,400 souls, of whom over 5000 are settled on the [Kangaroo] Hill and its neighbourhood... The workings recently opened on the southern side of the hill, promise to rival the richest of their predecessors... The most remarkable claim on Kangaroo Hill is that known as 'the Yankees Claim', from which we are gold a party of eight men have divided 40 lbs. weight of gold each...Enquiries have been made as to quartz leases, the attention of several parties in this district is now turning to this branch of mining industry..¹⁵

12 Oct 1855: Kangaroo ...It is stated that a township is about being laid out on the flat, and much speculation is already afloat as to the prospective comparative value of the sites occupied by the various business premises so thickly spread about. ¹⁶

19 Oct 1855: Kangaroo - The Hard Hill is still turning out as productive as ever, three large nuggets having been found bordering on the famous Yankee claim..¹⁷

19 Oct 1855: T.H. Brown...Butcher, Draper, Grocer and General Storekeeper, Kangaroo Hill East...is prepared to deliver any article, however simple, at the tent of the party ordering - from a Leg of Mutton to a pair of Blankets. Guaranteed the Best Sausages on the Diggings. ¹⁸

2 Nov 1855: As soon as the dry season has fully set in the large flat below Mr Sullivan's hotel will be opened, and it is expected to be very rich. That part of the diggings presents a very animated appearance, the stores are very creditable, many parties having gone to great expense in the erection of their buildings. Frontages are scarce, and should Kangaroo continue to go a-head, sites for business will be very valuable... Three or four months ago, it was a

quiet and retired gully rarely frequented, but it is now teeming with all the elements of a busy little English town - hotels, restaurants, conveyances, libraries, concerts, balls, quadrille parties, &c. ¹⁹

16 Nov 1855: Kangaroo seems to wear a very languid aspect to what it did; there is a great dullness at the present time. ²⁰

23 Nov 1855: The One-and-All Hotel, Kangaroo Hill, will, in a few days, be offered by Public Auction. The House, now doing a business equal to any in the district, consists of a superior Bar, well fitted, 30 x 18; Dining-Room, 30 x 18; Concern-Room, fitted in a superior style, 45 x 18; Bed-Room, No. 1, 14 x 14, No. 2, 14 x 13, No. 3, 15 x 12; Kitchen, 18 x 14; 6-stall Stable, and other convenient buildings.
For Sale. A Most Desirable Investment! The Kangaroo Hotel. Situate in the best position on the new and extensive diggings at Kangaroo... The proprietor being about to return home. ²¹

30 Nov 1855: Kangaroo - The diggings at this place are duller than they have been at any time since the great rush took place... The population of the place has fallen off a great deal during the last month. ²²

14 Dec 1855: Bull and Mouth Hotel, Kangaroo. The proprietor, J. Rogers, begs to inform his friends, and the public that the above first class, large, and extensive hotel is now opened. ²³

28 Dec 1855: The south-west corner of Kangaroo Hill, which, space for space, has proved as richly productive as any diggings in the colony, is now nearly worked out, after four or five months' remunerative occupation. The flat beyond Sullivan's hotel, of which such high expectations were formed, still remains a *terra incognita*. Although densely rushed a few weeks since, it was obliged, from the wet, to be suddenly abandoned, and continues untested. ²⁴

5 Feb 1856: Kangaroo is gradually losing the characteristics of a distinct gold field...it seems probably destined ere long, to become merely an appendage to the Fryer's Creek district. Most of the stores are removed or vacated. ²⁵

7 March 1856: Select Committee on Mining on Private Lands. - Mr John Phillips called in and examined... [Phillips was asked] You are the discoverer of the Kangaroo Diggings, are you not? - No. I was the first upon the Loddon, I think, four years ago. ²⁶

June 1859: 20 non-Chinese engaged in ordinary mining at Kangaroo & Bald Hills
36 non-Chinese engaged in tunnelling at Kangaroo & Bald Hills
26 non-Chinese engaged in deep hill sinking at Kangaroo & Bald Hills
8 non-Chinese quartz mining at Kangaroo & Bald Hills ²⁷

June 1859: 7 tunnels, 5 in work. ²⁸

July 1860: Tunnelling - The basaltic hills around the Loddon, near the hamlets of Vaughan, Kangaroo, and Pennyweight, are the favourite localities for tunnelling. ²⁹

Nov 1860: The Old Pennyweight Hill plant has been purchased by a party of miners who intend erecting it at Kangaroo, near the Table Hill, for cement crushing. ³⁰

Dec 1860: The Kangaroo Crushing Company (Private) consists of ten working shareholders. They are busily engaged erecting the engine purchased from the Old Pennyweight Hill Company. ³¹

Feb 1861: The Kangaroo Crushing Company has commenced work with 12 heads of stampers and is doing well. This company has reduced the price of crushing to 12s per ton, and make a profit on that price. ³²

April 1861: The Kangaroo Company are at work and making good dividends. They are crushing with 12 heads of stampers, and intend putting 4 more in position, to be worked by the same engine.

Another party have applied for a site for machinery at Kangaroo. ³³

May 1861: The Kangaroo Company are...making good returns. ³⁴

Oct 1861: Cement mining is a large interest in this division, especially around Kangaroo and Vaughan. No less than five steam engines, having an aggregate of 92 horse-power, are engaged in crushing cement in these localities. ³⁵

Oct 1861: Two machines are actually crushing the refuse from Kangaroo Creek and are making from £6 to £8 per week per man. ³⁶

Dec 1861: Jenkins and Company, of Kangaroo, are making splendid wages. ³⁷

1865: Parties reporting yields from crushing of quartz tailings and cement during 1865: Jenkin and Company ³⁸

June 1867: the returns for cement crushing will show a falling off in those localities which have ere now been famed for alluvial deposits. The localities referred to comprise Pennyweight, Kangaroo, Table, Butcher's, and Guildford Hills. That these hills are becoming exhausted, and the yields therefrom inadequate to pay the current rate of wages, is becoming painfully apparent. ³⁹

Sept 1874: Puddling and Sluicing... Some good ground has recently been discovered in the northern slope of Kangaroo Hill, fronting Vaughan; the sinking is comparatively shallow; some three or four claims are likely to do very well for some time to come. ⁴⁰

Dec 1874: Tarilta Gold Mining Company, Kangaroo Hill. - This company have recently taken up a block of ground intersected by an old abandoned quartz reef, with the additional advantage of a tunnel (400 feet long) already driven. Several years ago some very rich yields were obtained from this reef, and a vast extent of ground worked, but ultimately abandoned by the original holders. The present company, principally working men, conceived an idea that further rich deposits might be discovered by a more judicious system of management, and in this respect they have not been mistaken, for a trial crushing, 6 inches below of the level of the old workings, gave 20 ozs. 19 dwts. from 5 tons of quartz, two men only having been employed. ⁴¹

March 1875: The Tarilta Gold Mining Company, Kangaroo Hill... a £10 dividend having been paid during the past three months..⁴²

June 1881: Paull and Co., Kangaroo Hill, Vaughan. - The company are working in a tunnel underlying the basaltic formation, on an immense lode of quartz... The last crushing realized 6 dwts. 3.24 grs. to the ton, but it is not known whether the quartz was taken out promiscuously or picked. ⁴³

Dec 1881: Tarilta Gold Mining Company, Kangaroo Hill. - ...the company have had such favorable prospects that they are about erecting new machinery, plant, &c., having secured suitable sites for water storage. ⁴⁴

Sept 1883: Perseverance Company, Fryerstown. -...have recently purchased a valuable plant from the Tarilta Gold Mining Company, which is now being removed from Vaughan. ⁴⁵

March 1884: Kangaroo Hill. - It will be remembered, the Tarilta Gold Mining Company recently abandoned their lease, not being able to make the reef pay for working, although some fine crushings had been taken out. A considerable amount of prospecting was effected by the old company, and two mining managers reported that they could see no indications which would lead to the inference that a payable lode existed; the consequence was that a magnificent plant was removed from the ground in what might be considered a too hasty manner. The ground has been marked out afresh, and taken up under lease by Mr Paull, of Tarilta, who has always expressed great confidence in the auriferous character of the reef... The results of a recent trial crushing of 20 tons was 4dwt. to the ton; so the new company consider they have ample encouragement for re-introducing machinery on the ground, the cartage of the stone to Fryerstown being too serious an item. ⁴⁶

DESCRIPTION

Kangaroo Hill was first rushed in July 1855. For some three months the hill was the focus for gold mining in the Fryers Creek mining division.

Cement workings

Number of partly open adits running under a cement cap, south -east side of Kangaroo Hill.

PHOTOS: 1. Adits running under cement cap

ARTEFACTS: None visible

INTEGRITY/CONDITION: Poor

THREATS:

CULTURAL SIGNIFICANCE:

The site has:

- Historical Significance - Location of one of the Fryers Creek mining division's greatest gold rushes.
- Scientific Significance - Most of the workings have either been filled in or collapsed. The small patch of adits (running under the basalt cap) on the south-east side of the hill do provide some insight into the mining history of the place.

Significance ranking: Local

CONSERVATION POLICY:

None required

RECOMMENDATIONS FOR IMPLEMENTATION:

None

Assessor: David Bannear Date: 1993

- 1 Mount Alexander Mail, 20/7/1855, p2
- 2 Mount Alexander Mail, p.2
- 3 Mount Alexander Mail, p.2
- 4 Mount Alexander Mail, p.2
- 5 Mount Alexander Mail, p.2
- 6 Mount Alexander Mail, p.2
- 7 Mount Alexander Mail, p.2
- 8 Mount Alexander Mail, p.2
- 9 Mount Alexander Mail, p.1
- 10 Mount Alexander Mail, p.2
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- 12 Mount Alexander Mail, p.2
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- 15 Mount Alexander Mail, p.2
- 16 Mount Alexander Mail, p.2
- 17 Mount Alexander Mail, p.2
- 18 Mount Alexander Mail, p.4
- 19 Mount Alexander Mail, p.2
- 20 Mount Alexander Mail, p.2
- 21 Mount Alexander Mail, p.1
- 22 Mount Alexander Mail, p.2
- 23 Mount Alexander Mail, p.2
- 24 Mount Alexander Mail, p.2
- 25 Mount Alexander Mail, p.5
- 26 Mount Alexander Mail, p.3
- 27 Mining Surveyors' monthly reports, Castlemaine and Fryer's Creek Division
- 28 Mining Surveyors' monthly reports, Castlemaine and Fryer's Creek Division
- 29 Mining Surveyors' monthly reports, Castlemaine and Fryer's Creek Division
- 30 Mining Surveyors' monthly reports, Castlemaine and Fryer's Creek Division
- 31 Mining Surveyors' monthly reports, Castlemaine and Fryer's Creek Division
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- 36 Mining Surveyors' monthly reports, Castlemaine and Fryer's Creek Division
- 37 Mining Surveyors' monthly reports, Castlemaine and Fryer's Creek Division

38 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Division
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41 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Division
42 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Division
43 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Division
44 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Division
45 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Division
46 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Division

SITE NO. & NAME: 116: BALLARAT HILL CEMENT WORKINGS

LOCATION: Ballarat Hill, Tarilta

DIRECTIONS: South side of Tarilta-Vaughan Road, 1km east of Tarilta

MAP/GRID REFERENCE: Guildford 1:25,000 - 516.829

PARCEL NUMBER: Newstead

MUNICIPALITY: State Forest

LAND STATUS: None

EXISTING HERITAGE CLASSIFICATION:

PRESENT MANAGEMENT/USE:

HISTORY:

31 Aug 1855: the hill opened out near the head of Butcher's Gully has turned out very largely. ¹

28 Sept 1855: There appears to be what may be termed three new rushes from Kangaroo. One on the side of the hill opposite to it on the southern side, where a very hard conglomerate has to be gone through. All sorts of depths prevail here from mere surfacing to sixty feet... The washing stuff (pipe-clay and small quartz gravel intermingled) lies for the most part upon a bed of sandstone, which is nearly even with Kangaroo Hill. ²

18 Jan 1855: The late rush at Butcher's Hill, promises to result satisfactory... Several claims are bottomed, and nuggets, varying from half and ounce to thirteen ounces are not uncommon. The principal workings are over Jackson's Hill, towards Kangaroo. ³

DESCRIPTION

Hill first rushed in 1855.

Cement workings

A number of collapsed adits located at the base of Ballarat Hill, south-east side. One open adit was found. This adit is located on the eastern side of Vaughan-Tarilta Road, opposite the Kangaroo Hill workings.

PHOTOS: 1. Open adit under cement cap

ARTEFACTS: None visible

INTEGRITY/CONDITION: Poor

THREATS:

CULTURAL SIGNIFICANCE:

The site has:

Scientific Significance - Adits provide some insight into the mining history of the place

Significance ranking: Local

CONSERVATION POLICY:

None required

RECOMMENDATIONS FOR IMPLEMENTATION:

None

Assessor: David Bannear

Date: 1993

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- 1 Mount Alexander Mail, p.2
 - 2 Mount Alexander Mail, p.2
 - 3 Mount Alexander Mail, p.2

SITE NO. & NAME: 117 VAUGHAN GOLD MINING ASSOCIATION

LOCATION: Vaughan Reef, Kangaroo Creek

DIRECTIONS: Confluence of Kangaroo (Tarilta) Creek and River Loddon. 1km west of Vaughan

MAP/GRID REFERENCE: Guildford 1:25,000 - 514.836

PARCEL NUMBER: None

MUNICIPALITY: Newstead

LAND STATUS: Freehold

EXISTING HERITAGE CLASSIFICATION: None

PRESENT MANAGEMENT/USE: Pastoral

HISTORY:

c. 1853: [Kangaroo Gully rushed] ¹

6 July 1855: A new hill has been opened at Kangaroo Creek (Loddon), the produce from which is very good.²

17 Aug 1855: Kangaroo Hill - ...it is now almost certain that the locality will become a settled and permanent field. The miners are branching out on the Guildford road... Kangaroo Hill is a high ridge, washed at its northern edge by the Loddon at the junction of that river with Fryer's Creek, and subsiding at its southern extremity into a gully through which flows the Kangaroo Creek. For upwards of two years the auriferous character of the neighbourhood has been ascertained but not generally known. Along the crest from north to south runs a mass of iron stone, varying in depth from 15 to 40 feet. An enterprising party, believing that the lead of gold was to be found beneath this barrier, determined on penetrating it, and after immense labour succeeded in reaching the bottom, the first tub from which yielded 5 ozs; and their judgement was further confirmed by the subsequent extraction of nearly 7 lbs. weight in one load... at the present time the southern half of the hill is covered with a series of workings which have no parallel in the colony. Many of the holes are 100 feet deep, the iron stone presenting a formidable obstacle... In the northern side of the hill excavations have been made *under* the ironstone to a distance it is stated of 140 feet, by a party of Cornishmen... On the western side of the hill, a large number of holes have been sunk with the view of striking on branches of the main lead... Across the creek some surfacing ground has been opened, and promises well. The population is estimated at 3000, and is daily increasing. Several stores are on the ground, four public houses are in course of erection, an energetic baker is putting up an oven, the butchers and blacksmiths do a roaring trade, and a bowling alley will shortly offer a source of amusement... The only drawback to business there are the villainous approaches across the Loddon. At the Junction a substantial bridge for foot passengers and equestrians has been erected by Messrs. Bond, Brothers, but all vehicles have to be driven through the current, which is here 30 feet wide... The road by Guildford presents similar difficulties.³

12 Oct 1855: Kangaroo - ...It is stated that a township is about being laid out on the flat, and much speculation is already afloat as to the prospective comparative value of the sites occupied by the various business premises so thickly spread about. ⁴

5 Feb 1856: Kangaroo is gradually losing the characteristics of a distinct gold field...it seems probably destined ere long, to become merely an appendage to the Fryer's Creek district. Most of the stores are removed or vacated.⁵

June 1859: Kangaroo - Reef - Boddy & Co. (When first struck, the capping of this reef proved very rich. The main body of quartz, however, would not yield more than 2 or 3 dwt. per ton.) ⁶

June 1859: Kangaroo Creek - Boddy and Co. - one 10hp high-pressure engine, 8 stamps; crushes 16 tons in 24 hours.⁷

Sept 1860: Vaughan Company - I am happy to have at least one prosperous company to report on. This is the smallest company in the district, but promises to be one of the most prosperous. It is divided into forty shares of £100 each, which are at about £20 premium. Last month they declared a dividend of £5 10s per share, and the same amount is expected this month.

They occupy a lease of a portion of Kangaroo Hill near the Loddon, through which runs a promising quartz reef. ⁸

Oct 1860: Vaughan Mining Company - This little company is still going ahead. They have proved the stuff which will not possibly pay for toming or sluicing will yield a handsome profit by the more expensive process of crushing. It is found that the fine particles of gold washed away by the water in toming and sluicing, are retained by quicksilver in the process of crushing. ⁹

Nov 1860: The Vaughan Company is...the most successful one in the district: within the last three months, dividends to the amount of £22 on each of the £100 shares have been declared. This profit is derived from crushing auriferous drift that will not pay for sluicing. The company have many years working within their claim if the ground yields as well as it has done hitherto. ¹⁰

Feb 1861: The Vaughan Mining Company is still working successfully. ¹¹

April 1861: The Vaughan Gold Mining Company are still progressing satisfactorily... The leads are running into the ground lately applied for on lease by H.C. Thorburn. ¹²

May 1861: The Vaughan Company is still in a prosperous state, and declare regular dividends. ¹³

June 1861: The Vaughan Company have been making considerable alterations in their machinery during the past month, and have also erected a new stack (chimney) ¹⁴

Oct 1861: Cement mining is a large interest in this division, especially around Kangaroo and Vaughan. No less than five steam engines, having an aggregate of 92 horse-power, are engaged in crushing cement in these localities. ¹⁵

Oct 1861: Two machines are actually crushing the refuse from Kangaroo Creek and are making from £6 to £8 per week per man. ¹⁶

Dec 1861: The Vaughan Gold Mining Company are not making such profit as they have hitherto done, but are sanguine of success. ¹⁷

April 1862: Vaughan Gold Mining Association. At the confluence of Kangaroo Creek and the Loddon River, the former passes from between two of those high table hills that are by nature almost destitute of trees or shrubs, and that presenting a steep, and in some places almost perpendicular front to the Creek, are so thoroughly characteristic of the locality in question. The ground occupied by the above association is one of these steep hills, on the south-east side of Kangaroo Creek, a few hundred yards above the junction, and has been leased by the present company for the purposes of alluvial mining. A portion of this ground was formerly in possession of a party of Italians, who sunk a shaft on the top of the table land, for some distance having to pass through hard trap rock. The bottom was reached at a depth from 100 to 110 feet, but owing to the bedrock sloping or dipping into the hill, forming as it were a kind of basin for the retention of the water, the latter became so great an obstacle to the successful working of the claim as to induce the Italians to commence tunnelling into the hill below the level of the wash dirt, in order that the water might drain out by the natural laws of gravity, without any expenditure being incurred by pumping. The driving of the tunnel was at that time a very arduous task and was looked upon as a great undertaking for private individuals. The cost also was something considerable, the miners for the first four or five hundred feet having through elvans, or the hardest species of sandstone.

Workings - We passed into the ground by the tunnel dor a distance of some eleven or twelve hundred feet, to where the miners were driving through the wash dirt. The thickness of the latter has been, the lowest about 2-1/2 feet, and the highest about 8 feet. The wash dirt had been removed to some extent above the top of the tunnel, passes or shutes being fixed in different places where the stuff has been discharged into waggons, to be conveyed along the tunnel to the mill; all the stuff is passed beneath the stamps, whether cement or wash dirt. We afterwards went along a crosscut south, to a reef that had been wrought to a very slight extent, and where, so we were informed, the Italians obtained 11 oz. out of 13 tons of quartz ... It appeared as yet to be a jumbled up mass of quartz rather than a well defined reef; it is about 6 or 7 feet thick and underlies west.

Yields - Up to the period of the mine being let on tribute the income of the company had been £3,877 for gold and public crushing.

Machinery - The company have a small crushing plant. Engine cylinder, 10-1/2 ; stroke 2 feet; boiler 17 feet by 4 feet 6 inches; driving 8 heads of square stamps.

Amalgamation - Ripples and shaking tables.

Remarks - The tunnel is about 110 feet below the surface of the hill, and about 30 to 40 feet above the bed of the creek. ¹⁸

August 1862: Vaughan Gold Mining Association

Director - Hannibal Orchard Rowe

The affairs of this company have been gradually improving, although no great amount of spirit has been shown in conducting mining operations.... The mine is let on tribute ¹⁹

June 1865: H. Rowe and Co. (Vaughan Company), at Kangaroo Hill, after much unproductive labor, have struck cement which promises well, and in other claims there has been a decided improvement. ²⁰

1866: Parties reporting yields from crushings of quartz tailings/cement in 1866: H. Rowe and Company ²¹

March 1889: Boddy's Reef, Kangaroo Hill. - When first struck, the capping of this reef was very rich, the main body, however, would not yield more than from 2 to 3dwt. to the ton. Messrs. Laity, H.O. Rowe, and others occupied claims which paid well for working when first opened out in 1859, but no details of crushings can be furnished of a reliable nature by the present writer. The bearing or strike of the reef is N. 2° W., of great width, viz., 30 to 50 feet, and nearly vertical. A vast quantity of quartz has been excavated altogether, but, from 1874 to 1884, 6,577 tons have been crushed by different parties, the average being 41/2dwt. to the ton. The ground is still under lease, but no mining going on at the present time. ²²

DESCRIPTION

Vaughan Gold Mining Company (operated from 1860 to c.1862)

Mine site

Open adit obscured by blackberry bushes. A large mullock heap, made up of both surface and blue mullock, spills down the side of the hill. On the slope above the adit (to the east) is a filled shaft.

Battery

At the base of the mullock, slightly to the south, is a battery site. Surviving of the battery is a 18 ft long stone boiler setting which has 2-1/2ft thick walls. Running from the rear (eastern end) of the boiler setting is an intact 7ft long stone flue that terminates at the base of a small circular stone stack. On either side of the stack base, situated 20ft distance, and in a straight line, are two iron bolts and eyes. These may well have been used secure the stack. The bolts are set into natural rock with molten lead.

No remains were found of the engine bed or stamper stamps. A scatter of hand made bricks lie to the west of the boiler setting.

PHOTOS:

1.	Flue
2.	Stack base
3.	Boiler setting

ARTEFACTS: None visible

INTEGRITY/CONDITION: Good

THREATS:

CULTURAL SIGNIFICANCE:

The site has:

- | | |
|-------------------------|---|
| Scientific Significance | - Extremely rare and early site. Although cement mining was a dominant feature of the late 1850s/early 1860s this is the only site yet discovered in the North Central goldfields where remains of associated machinery have been found with contemporary workings. |
| | - Archaeological site, possibility of buried remains, including battery engine bed and stamper stumps |
| Cumulative Value | - The site also has some added value due to its setting in a rugged, mine ravaged, landscape. |

Significance ranking: National Estate

CONSERVATION POLICY:

The significance of the site comes from its age, intactness and rarity. The site has the earliest machinery footings yet found in the North Central goldfields which are associated with the mining and treatment of cement.

RECOMMENDATIONS FOR IMPLEMENTATION:

Site be protected.

Assessor: David Bannear

Date: 1993

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- 1 Mount Alexander Mail, 20/7/1855, p.2
 - 2 Mount Alexander Mail, p.2
 - 3 Mount Alexander Mail, p.2
 - 4 Mount Alexander Mail, p.2
 - 5 Mount Alexander Mail, p.5
 - 6 Mining Surveyors' monthly reports, Castlemaine and Fryer's Creek Division
 - 7 Mining Surveyors' monthly reports, Castlemaine and Fryer's Creek Division
 - 8 Mining Surveyors' monthly reports, Castlemaine and Fryer's Creek Division
 - 9 Mining Surveyors' monthly reports, Castlemaine and Fryer's Creek Division
 - 10 Mining Surveyors' monthly reports, Castlemaine and Fryer's Creek Division
 - 11 Mining Surveyors' monthly reports, Castlemaine and Fryer's Creek Division
 - 12 Mining Surveyors' monthly reports, Castlemaine and Fryer's Creek Division
 - 13 Mining Surveyors' monthly reports, Castlemaine and Fryer's Creek Division
 - 14 Mining Surveyors' monthly reports, Castlemaine and Fryer's Creek Division
 - 15 Mining Surveyors' monthly reports, Castlemaine and Fryer's Creek Division
 - 16 Mining Surveyors' monthly reports, Castlemaine and Fryer's Creek Division
 - 17 Mining Surveyors' monthly reports, Castlemaine and Fryer's Creek Division
 - 18 Dickers Mining Record, April 1862, pp7-8
 - 19 Dickers Mining Record, August 1862, p15
 - 20 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Division
 - 21 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Division
 - 22 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Division

SITE NO. & NAME: 118: ITALIAN HILL CEMENT WORKINGS

LOCATION: Vaughan

DIRECTIONS: West side of Loddon River, 1km south-east of Vaughan

MAP/GRID REFERENCE: Guildford 1:25,000 - 533.831

PARCEL NUMBER:

MUNICIPALITY: Newstead

LAND STATUS: Historic Reserve

EXISTING HERITAGE CLASSIFICATION: Castlemaine Historic Reserve

PRESENT MANAGEMENT/USE:

HISTORY:

11 March 1856: The rush on the hill near Kangaroo is daily increasing in importance and is likely to be a second Kangaroo Hill. ¹

28 March 1856: A newly-erected Store, situated on the Italian's Hill, Kangaroo, to be Sold, owing to the present proprietor having a reef to work. Price £60. ²

1 April 1856: The principal diggings are at New Kangaroo Hill near the old workings, and above the Italian tunnel. These are proving very rich, washing from half an ounce to 18 ounces to the tub... The diggings are spreading towards Butcher's Hill, following a lead which tends in that direction... A quartz reef is struck on the crown of this hill by Blackmore's company. ³

c. 1980s: Italian Hill was paddocked out, open cut style. Much of the alluvial gold from there was black coated. This is usually a thin film of manganese, and is the result of precipitation from the overlying gravel beds. It must have been pretty rich, as it was thoroughly worked over. ⁴

DESCRIPTION

Italian Hill (first rushed in 1856)

Relics surviving on the hill include:

Cement workings - Open adit and remnant of mullock heap.

Water races and adit - Running around the eastern side of Italian Hill are two water races. The lower race (Moyles) runs through a 150ft long tunnel, on the north side of the hill.

PHOTOS: None taken

ARTEFACTS: None visible

INTEGRITY/CONDITION: Good

THREATS:

CULTURAL SIGNIFICANCE:

The site has:

Scientific Significance - Survival of an open cement mining adit, below which is a water race and associated tunnel.

Significance ranking: Local

CONSERVATION POLICY:

None required

RECOMMENDATIONS FOR IMPLEMENTATION:

None

Assessor: David Bannear

Date: 1993

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- 1 Mount Alexander Mail, p.2
 - 2 Mount Alexander Mail, p.8
 - 3 Mount Alexander Mail, p.4
 - 4 Bradfield, R.A. n.d. (c. early 1980s) 'A Bush Walk from Vaughan Springs'

SITE NO. & NAME: 119: GROG SHOP GULLY ALLUVIAL WORKINGS

LOCATION: Bald Hill, Vaughan

DIRECTIONS: 500m east of Vaughan, east side of Bald Hill

MAP/GRID REFERENCE: Guildford 1:25,000 - 530.834

PARCEL NUMBER:

MUNICIPALITY Newstead

LAND STATUS:

EXISTING HERITAGE CLASSIFICATION: None

PRESENT MANAGEMENT/USE:

HISTORY:

13 May 1854: Bald Hill, Fryer's Creek - A rush has recently taken place in this locality, and the reports of success have been of an exceedingly favorable nature. The spot is situated at the junction of Fryer's Creek with the Loddon, and it is no doubt only one of the numerous auriferous tracts in this district. No instances of extraordinary success have as yet come to our knowledge, but the great numbers employed there seem to indicate that there is success of the most satisfactory kind, that is, the diffusion of average gains amongst the multitude.¹

27 May 1854: Fryer's Creek... Many of the people that were working on the Bald Hill have left in consequence of the great expense attending the sinking... If the Hill had not turned out pretty rich, a large number of people would have been entirely ruined, considering that they have from fifty to sixty feet of iron-stone, and from twenty to thirty feet of clay to go through.²

17 Nov 1854: The deep sinking on the Bald Hill is considered very remunerative to the parties who have possession of the ground, but will hardly pay a new chum.³

9 Feb 1855: The Bald Hills in the neighborhood of Fryer's Creek are turning out very well, and the district can be said to be decidedly looking up. The dry summer has enabled the diggers to work the low grounds with most satisfactory results, and several fresh pieces of ground have been opened up... 50 lbs weight of gold has been taken out of the Bald Hills by three men in three weeks.⁴

2 March 1855: The Bald Hills in the vicinity of the Loddon are being worked in many instances with great success.⁵

13 April 1855: The Bald Hill and the workings in the vicinity of the Loddon are yielding richly, and from the appearance of the habitations, a large and fixed population will remain there during the winter.⁶

18 May 1855: Head House, storekeeper, of the Bald Hill.⁷

2 Nov 1855: Leaving the Junction for Fryer's Creek, we cross and pass the Bald Hills; here, also, there are many diggers at work..⁸

28 Dec 1855: the neighbourhood of Fryer's Creek, especially towards the Bald Hill, is infested by a gang of desperadoes who have lately migrated from Melbourne... It is stated that they have already committed many robberies in this district..⁹

21 March 1856: The Bald Hill is being reworked.¹⁰

1 April 1856: On the Bald Hill, facing the Loddon, claims are being marked out for tunnelling..¹¹

June 1859: 20 non-Chinese engaged in ordinary mining at Kangaroo & Bald Hills

36 non-Chinese engaged in tunnelling at Kangaroo & Bald Hills

26 non-Chinese engaged in deep hill sinking at Kangaroo & Bald Hills

8 non-Chinese quartz mining at Kangaroo & Bald Hills¹²

June 1859: 15 tunnels are being worked, and 7 abandoned - 13 of the 15 are the property of Chinese. ¹³

July 1860: The other hills being tunnelled are Bald Hill, Sailor's Hill, and Kangaroo Hill. ¹⁴

March 1865: Mining population of New Year's Flat and Bald Hill: 218 ¹⁵

1868: Parties reporting yields from crushings of quartz tailings/cement in 1868: Thomas and Company ¹⁶

March 1871: The introduction of water to many of our old rich hills in the neighborhood of Nuggety Gully and Sullivan's Hill has led to sluicing being adopted generally, in lieu of puddling ordinarily... The company are now about cutting a branch race to the Bald Hill. ¹⁷

June 1871: Puddling. -...Very little is now being done in this branch of mining, many of our oldest puddlers have adopted sluicing, and others directed their attention and labors to quartz mining... ere long this system of mining will cease to exist.

Sluicing. - Sluicing operations...have been carried on to a considerable extent, but returns therefrom have not generally been considered sufficiently remunerative...

It must not, however, be inferred that our ground for sluicing purposes is of inferior quality, but that the price of water is too much to leave a fair rate of current wages for the miner...

Quartz Mining. - The returns from our quartz workings are far greater than hitherto...

The different rates charged for one sluice-head of water (20 square inches) per week are as follows:-

Heron's Hill, &c., near Glenluce	£4 10 0
Bald Hill, &c., near Vaughan	£ 6 0 0
Irishtown, Turk's Hill, Red Hill, &c., in the neighborhood of Nuggety Gully and the Welsh Mount	£ 5 0 0

Supplied by the River Loddon Water Supply Company . ¹⁸

Sept 1871: During the past quarter the [Loddon water] race has been extended to the Bald Hill, near Vaughan.. ¹⁹

Sept 1871: Of sluicing operations I am glad to say...the River Loddon and Tributaries Company have, at this time, a demand for more water or sluice-heads than they can supply; hence proving that water for sluicing-purposes is valuable. The company are now letting 14 heads of water, at prices ranging from £4 to £6 per week - in the aggregate returning £68 10s. Seventy men are employed. Seven more sluice-heads are applied for.

During the past quarter the race has been extended to the Bald Hill, near Vaughan, and as the majority of those employed seem satisfied with their returns, it is anticipated that an extension of the race would afford profitable employment to miners and an equal benefit to the company...

Charges for one sluice-head of water. - Loddon Company

Heron's Hill, and near Glenluce	£4 0 0
Bald Hill, near Vaughan	6 0 0
Belle Vue Hotel locality	5 0 0 ²⁰

Dec 1871: Alluvial mining has not advanced during the past three months - the puddling returns are evidently falling off; considerable activity has, however, been displayed in sluicing operations, owing to the very favourable season we have experienced in the shape of the water supply.

The Loddon Water Supply Company have been very fortunate in the number of sluice-heads they have been enabled to supply, and a great portion of the Bald Hill, Vaughan, and other hills in the vicinity, have been reduced under this system of mining. The returns are considered remunerative. ²¹

Dec 1871: The Loddon Water Supply Company have been very fortunate in the number of sluice-heads they have been enabled to supply, and a great portion of the Bald Hill, Vaughan, and other hills in the vicinity, have been reduced under this system of mining. The returns are considered remunerative.

This mining property will eventually prove highly valuable to the mining community, and equally satisfactory to the proprietary, when operations are still further extended...

Bald Hill. - Ten heads used, at £6 per head per 24 hours

Belle Vue and neighborhood of Welsh Mount. - Ten heads used, at £5 per head per 24 hours

There is a demand for more heads. ²²

March 1872: Loddon Sluicing and Water Supply Company charges for sluice-heads of water £1 and £5 per head. From three to five heads have been available since Christmas. ²³

June 1872: Sluice-heads

Loddon Company, Vaughan and Glenluce:-

1 Head, per week £3 10s

2 Heads, per week £6 10s
 3 Heads, per week £9. ²⁴

Sept 1872: Water Supply - Charges for sluice-heads:- 1. River Loddon Water Supply Company, 14 heads supplied, 24 hours per day; one head, £3 10s; two heads, £6 10s.; three heads, £9. ²⁵

Sept 1873: sluicing is carried on as vigorously as ever, especially among the Chinese on the Loddon... Some Chinese on the Bald Hill, near Vaughan, have been very successful of late. ²⁶

Sept 1875: The Loddon Water Supply Co. at the present time are supplying a good number of men engaged in sluicing, but their charges have always been considered exorbitant, and not regulated according to the quality of the ground or the means of the miners; a reduction in the charges would be instrumental in causing a larger area of ground being taken up, and worked to advantage, by a class of miners who would be satisfied with reasonable wages. ²⁷

Sept 1876: The Loddon Sluicing Company continue to supply a limited number of European miners, but the supply of water for sluicing purposes has not been sufficient to pay the company for some time past; it is considered that too high a price has been charged for sluice-heads, considering the comparative poverty of the soil operated on. ²⁸

Dec 1876: Parties puddling or sluicing: Thomas and Co., Bald Hill; Hines and Co., Bald Hill ²⁹

late 1870s: Unfortunately for the first Loddon River Co., the Coliban water came into the head of the Fryer's Creek at about the same time as their water reached here, thereby depriving them of many potential customers. ³⁰

Sept 1878: Sale and Cost of Water, &c. - The Loddon Sluicing and W.S. Company. - NOTE. - the Company have sublet the race and water rights to R.P. Addley at a rental of £100 per annum, the works to be kept in a reasonable state of repair...

Sale of water for the quarter ended 30th June, 1878:-

460 heads at 4s. 2d. per head	£95 16s.
Sundry odd heads, &c., say	£4 4s.
Expenses during quarter:-	
Rent	£25
Wages, including lessee	£78
Repairs	£6

The water is used day and night (24 hours) and a head is reckoned - 100,000 gallons. ³¹

Sept 1878: Sale and Cost of Water, &c. - The Loddon Sluicing and W.S. Company. - NOTE. - the Company have sublet the race and water rights to R.P. Addley at a rental of £100 per annum, the works to be kept in a reasonable state of repair. ³²

Sept 1878: Sale and Cost of Water, &c. - The Loddon Sluicing and W.S. Company. - NOTE. - the Company have sublet the race and water rights to R.P. Addley at a rental of £100 per annum, the works to be kept in a reasonable state of repair. ³³

March 1879: The Loddon Company's race has ceased running for some time, and the dry weather has seriously affected the fluming, which stands much in need of repair, but the company have no particular reason to incur extra expenses, as the dividends have been very small and far between... No water sold during the quarter. ³⁴

c. 1980s One can easily make out the ends of the fluming across Sailors Gully, for Peter Moyles race. What is not now apparent, is that at one time, a pipeline was swung across the river from the Bald Hill opposite, to this side, Water was then being delivered to the sluicers on Bald Hill from the Loddon-Fryers water race...³⁵

DESCRIPTION

Alluvial workings appear to belong to two separate periods of mining. The earliest involved tunnelling under the basalt cap (mid 1850s/1860s) ; and the latest hydraulic sluicing using water obtained from the Loddon Water Supply Company's water race in the 1870s.

Alluvial workings

Located on the west side of Grog Shop Gully (east side of Bald Hill), below the remains of the Loddon Water Supply Co.'s water race, is a large alluvial open cut with one open adit and traces of several collapsed adits. The base of the open cut is covered by mounds of sluiced pebbles. At least two narrow (relatively deep) open culverts run from the open cut, draining to a large sludge pond located in Grog Shop Gully. The bulk of the sludge pond has been washed

away. There is a smaller alluvial open cut on the east side of the gully., which also has a culvert running from it to the sludge pond. Several house sites are also found in the area.
 The barren landscape visible from the site (south, east and west) - including Butchers Hill and Gully, Sailors Hill and Gully and Italian Hill - also bears testimony to a long history of alluvial mining.

PHOTOS: None taken
ARTEFACTS: None visible
INTEGRITY/CONDITION: Good

THREATS:

CULTURAL SIGNIFICANCE:

The site has:

- Scientific Significance - Surviving relics have considerable interpretive value providing an insight into two different periods of alluvial mining
- Cumulative Value - The second period of mining (sluicing of cemented gravels) used water supplied by the River Loddon Water Supply Co. (Site 54).
 - The barren landscape visible surrounding the site to the(south, east and west) - including Butchers Hill and Gully, Sailors Hill and Gully and Italian Hill - bears testimony to a long history of alluvial mining.

Significance ranking: National Estate

CONSERVATION POLICY:

The significance of the site comes from its intactness, landscape setting and association with an early water supply company.

RECOMMENDATIONS FOR IMPLEMENTATION:

Site be protected.

Assessor: David Bannear Date: 1993

- 1 Mount Alexander Mail, p.3
- 2 Mount Alexander Mail, p.2
- 3 Mount Alexander Mail, p.2
- 4 Mount Alexander Mail, p.5
- 5 Mount Alexander Mail, p.2
- 6 Mount Alexander Mail, p.2
- 7 Mount Alexander Mail, p.1
- 8 Mount Alexander Mail, p.2
- 9 Mount Alexander Mail, p.2
- 10 Mount Alexander Mail, p.5
- 11 Mount Alexander Mail, p.4
- 12 Mining Surveyors' monthly reports, Castlemaine and Fryer's Creek Division
- 13 Mining Surveyors' monthly reports, Castlemaine and Fryer's Creek Division
- 14 Mining Surveyors' monthly reports, Castlemaine and Fryer's Creek Division
- 15 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Division
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- 22 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions

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- 23 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
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31 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Division
32 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
33 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Division
34 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Divisions
35 Bradfield, R.A. n.d. (c. early 1980s) 'A Bush Walk from Vaughan Springs'
(unpublished notes)

SITE NO. & NAME: 120 GOLDEN SUNRISE CO. MINE

LOCATION: HIT-OR-MISS REEF, VAUGHAN

DIRECTIONS: 0.5km north-west of Vaughan, 0.25km east of the Vaughan Springs Road

MAP/GRID REFERENCE: Guildford 1:25,000 - 521.845

PARCEL NUMBER: None

MUNICIPALITY: Newstead

LAND STATUS: Freehold

EXISTING HERITAGE CLASSIFICATION: None

PRESENT MANAGEMENT/USE: Pastoral

HISTORY:

June 1865: A very rich leader of quartz has been struck...at Hit-or-Miss Gully, near Vaughan, and some splendid specimens of gold, in lumps from 1 dwt. to several ounces, turned out. ¹

1866: Parties reporting yields from quartz crushings in 1866: Hender and Company ²

Sept 1868: This reef is taken up by prospectors, and as it had only been tested to a depth of some 10 or 12 feet, and the yield was extraordinarily good, it is very probable that a well-defined and payable reef exist at a greater depth. ³

June 1869: Hit-or-Miss Reef, Vaughan. - Scobell and Company (the working representatives of a company of twenty-four shareholders) have been for some time prospecting this reef (near Vaughan cemetery). They have had two crushings; the first of which was payable, the second not so. They are still prospecting. Nearly all the shareholders in this company are miners at Eldorado, near Beechworth. ⁴

Sept 1871: Garnet and Hender. - Upon the line of the Hit-or-Miss Reef, about 10 chains to the north of the old workings of Hender's Company, which yielded so well from surface leader a few years back, have obtained 1 oz. to the ton... This has led to the ground adjacent thereto being taken up under the Gold Mining Leases Regulations, and there is now every probability of this hitherto neglected line of reef being properly prospected and attention drawn to a locality which has already become noted for its rich alluvial deposits, and extending south for many miles. ⁵

Dec 1873: In ordinary alluvial mining two men at Hit-or-Miss Gully, near Vaughan, obtained 50 ozs. in three weeks, in 4 feet sinking. ⁶

March 1889: Hit or Miss Reef, Vaughan. - This reef has attracted little or no attention during the past twenty years; the ground, however, has been fairly prospected at different periods, and gold invariably found in the quartz leaders, but seldom of a payable character. The strike of the reef is N. 18°W... The reef has been worked in length about 800 feet, and depth 100 feet, in separate shoots ... The yields are recorded as follows:- Surface to 50 feet, 69oz.; to 100 feet, 236oz.; to 150 feet, 2oz.; 454 tons average 131/2dwt. to the ton. The reef is not abandoned. ⁷

30 June 1907: For the quarter ending 30th June, 1907, 5 tons for 2 oz. 8 dwt. are recorded. ⁸

9 Dec 1935: The Golden Sunrise mining company holds a lease on what was formerly known as the Hit or Miss line of reef, situated about 30 chains north from the Loddon River bridge at Vaughan. The workings consist of a main two-compartment shaft, sunk to 100 feet, from the bottom of which 500 feet, or more, or driving and crosscutting has been carried out. Connexion has also been effected with Everett's stopes ... The Golden Sunrise mining company has erected a fine milling and suitable haulage plant capable of economically handling and treating the ore... The successful future of the mine from a company's point is, in my opinion, somewhat doubtful. ⁹

DESCRIPTION

Golden Sunrise Co. (c.1935)

Mine site

Open (fenced) shaft obscured by black berries. Another shaft lies further to the east. 15m south-west of the shaft is a small, largely buried, concrete engine bed which has 1 inch mounting bolts. Immediately west of the engine bed is a

small section of stone wall, below which is a small concrete trough-like structure (perhaps part of a boiler setting). The mine's mullock heaps has almost totally been removed. In the gully below the mine are some bulldozed concrete poppet leg pads and a small dry dam.

PHOTOS: None taken

ARTEFACTS: None visible

INTEGRITY/CONDITION: Poor

THREATS:

CULTURAL SIGNIFICANCE:

The site has little historical importance or integrity.

Significance ranking: None

CONSERVATION POLICY:

None required

RECOMMENDATIONS FOR IMPLEMENTATION:

None

Assessor: David Bannear **Date: 1993**

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- 1 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Division
 - 2 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Division
 - 3 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Division
 - 4 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Division
 - 5 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Division
 - 6 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Division
 - 7 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Division
 - 8 Records of the Geological Survey of Victoria, Vol. V, Part 4, Department of Mines, Melbourne, 1937., p531
 - 9 Records of the Geological Survey of Victoria, Vol. V, Part 4, Department of Mines, Melbourne, 1937., pp.529-30

SITE NO. & NAME: 121: GERMAN GULLY GROUND SLUICE

LOCATION: German Gully, Campbells Creek

DIRECTIONS: West from the corner of Raabbages Road and Kemp's Bridge Road, east side of German Gully

MAP/GRID REFERENCE: Guildford 1:25,000 - 523.859

PARCEL NUMBER:

MUNICIPALITY: Newstead

LAND STATUS:

EXISTING HERITAGE CLASSIFICATION: None

PRESENT MANAGEMENT/USE:

HISTORY:

Both the Poverty Gully and Spring Gully water races were part of a scheme to supply water from the Coliban River at Malmsbury to Bendigo and district, and to Castlemaine, Maldon, Newstead and Guildford for both mining and domestic purposes. The scheme was investigated by Brady in 1862 and completed shortly after 1871 [BRADY(1864), CHRISTOPHERSON (1868), SANKEY (1871)]. In laying out the course of the Poverty Gully water race it had been initially suggested that a tunnel would have been cut from White Horse Gully into Long Gully so as to permit the water race to run around the southern and western slopes of Specimen Hill. At the south western end there was to have been a junction with branch races to Fryers Creek and to Spring Gully. ¹

Sept 1876: Some of the puddling machines have done very well of late; one in particular, situate in German Gully, Pennyweight, gives a return of 210 ozs. for the past three months, thus showing the old abandoned workings are still worthy of notice. ²

Dec 1876: Parties puddling or sluicing: Vosti and Co., German Gully ³

c 1879: A more extensive system of water supply for sluicing purposes might lead to important results. There is a site for a reservoir at Cobbler's Gully, near Eureka, well adapted for the storage of a large supply of water, which could be utilized to advantage in German and Spring Gullies and tributaries, and also extended to Old Pennyweight Hill, Strathloddon, and Mopoke, by contour races ⁴

March 1885: In ground sluicing operations at Forest and Barker's creeks much of the ground is becoming worked out and abandoned, but at Campbell's Creek there remains a large area of old alluvial workings waiting for a supply of water from the Coliban races. ⁵

June 1885: A party has recently found payable gold in a reef cropping from the surface, near the Old Eagle Company's claim, German Gully. ⁶

Sept 1885: More prosperous times are anxiously anticipated at Campbell's Creek from the speedy supply of Victorian Water Supply water for sluicing purposes. ⁷

June 1891: A party of miners from Broken Hill have taken up 30 acres of ground at German Gully, and they intend re-working the old Pennyweight Hill by sluicing. ⁸

Dec 1904: German Gully Hydraulic Sluicing Co.: [listed] ⁹

March 1908: McDonald and Co./ McDonald's Reef Co.: 42 ton crushed, 9oz gold - A.G. McDonald, Chewton, Legal Manager ¹⁰

Sept 1910: German Gully Hydraulic Sluicing Co.: [listed] ¹¹

June 1913: German Gully Hydraulic Sluicing Co.: 30oz gold ¹²

1913: McDonald and Co./ McDonald's Reef Co.: 4 head battery ¹³

1914: McDonald and Co./ McDonald's Reef Co.: Winding plant erected ¹⁴

Sept 1913: German Gully Hydraulic Sluicing Co.: 42oz gold ¹⁵

Dec 1913: German Gully Hydraulic Sluicing Co.: 10oz gold ¹⁶

DESCRIPTION

Campbell's Creek water race came through in the 1880s.

Alluvial workings

Patch of well preserved ground sluicing channels (at least 20) and associated paddocks. Some of the channels interlock. Extensive surfacing in the area.

PHOTOS: None taken

ARTEFACTS: None visible

INTEGRITY/CONDITION: Good

THREATS:

CULTURAL SIGNIFICANCE:

The site has:

- | | |
|-------------------------|---|
| Scientific Significance | - A large patch of well preserved ground sluices which helps provide an insight into the intensity and scale of this form of mining |
| Cumulative Value | - The surveyed patch of ground sluices is only a small part of a much larger alluvial landscape that runs along German Gully |

Significance ranking: Local

CONSERVATION POLICY:

None required

RECOMMENDATIONS FOR IMPLEMENTATION:

None

Assessor: David Bannear **Date: 1993**

1 Milner, P. 1989 Mining Sites in Specimen Hill Area, for Newmont
 2 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Division
 3 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Division
 4 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Division
 5 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Division
 6 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Division
 7 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Division
 8 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Division
 9 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Division
 10 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Division
 11 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Division
 12 Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Division
 13 Annual Report of the Secretary for Mines and Water Supply, Victoria (P. Milner, On Mining Machinery Sites in the Castlemaine and Fryers Creek Divisions, 1989), p.37

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- ¹⁴ Annual Report of the Secretary for Mines and Water Supply, Victoria (P. Milner, On Mining Machinery Sites in the Castlemaine and Fryers Creek Divisions, 1989), p.93
- ¹⁵ Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Division
- ¹⁶ Mining Surveyors' quarterly reports, Castlemaine and Fryer's Creek Division