BARNES HILL, BEACONSFIELD

Desktop Historic Heritage Assessment

DRAFT REPORT

Prepared by
Austral Archaeology Pty Ltd
Archaeological and Cultural Heritage Consultants

For

Pitt & Sherry

October 2008

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The results, assessments and judgements contained in this report are constrained by the limitations of desktop research. Whilst every effort has been made to gain insight to the historic heritage profile of the subject study area, Austral Archaeology Pty Ltd cannot be held accountable for errors or omissions arising from such constraining factors.

1.0 Introduction

1.1 Client and project details

Austral Archaeology Pty Ltd have been commissioned by Pitt & Sherry, on behalf of Proto Resources, to complete a desktop historic heritage assessment of Barnes Hill, south west of Beaconsfield in Tasmania. This is the first stage of what is envisaged as a two stage process aimed at identifying and managing historic heritage values in the study area. The scope of the two stages may be broadly defined as follows:

Stage 1: Desktop historical research and sensitivity zoning (this assessment).

Stage 2: Field inspection focussing on the identified zones of sensitivity.

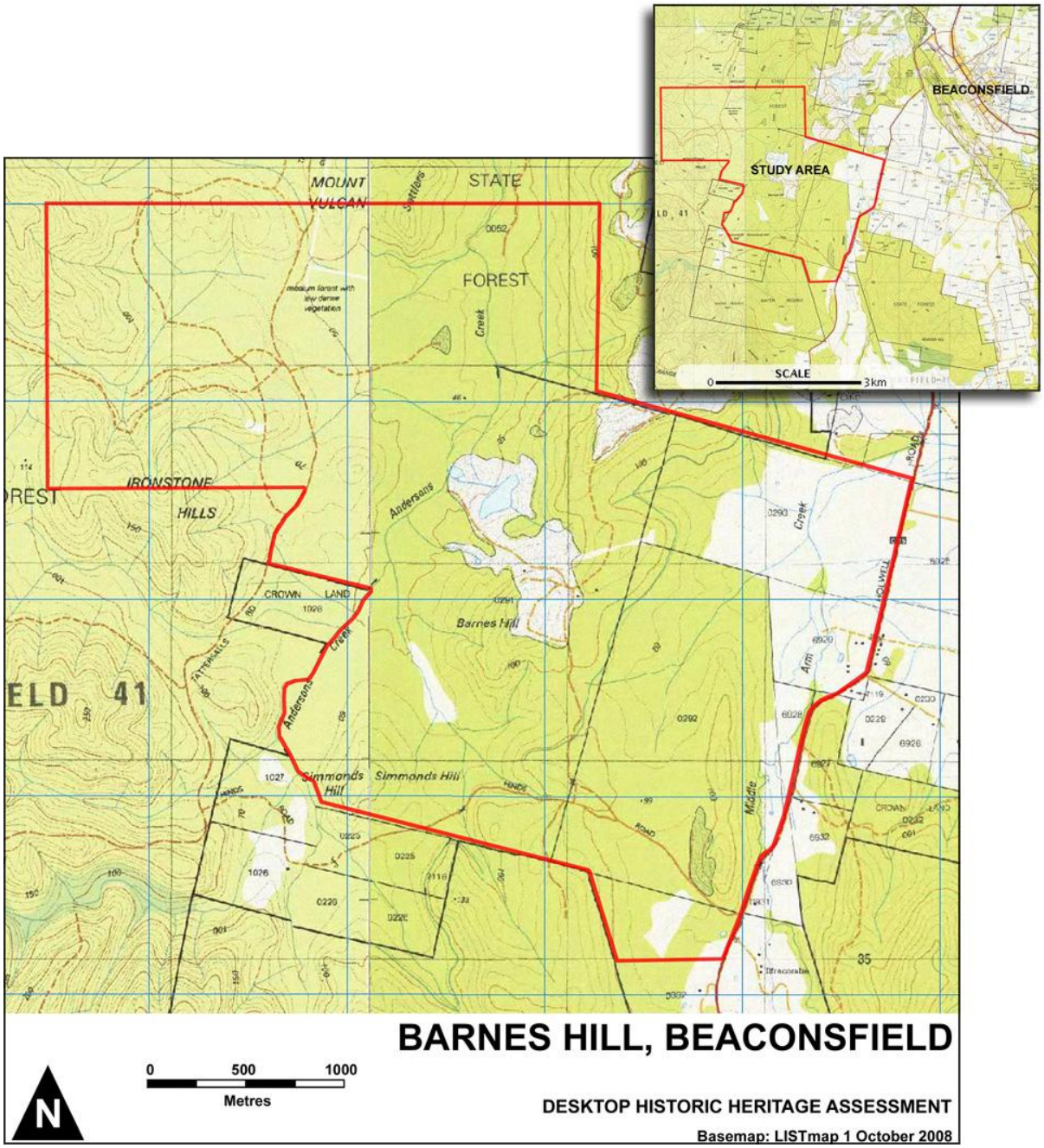

Figure 1: Extent of the study area (outlined in **red**).

1.2 Authorship

This report was prepared by Austral Archaeology Pty Ltd (David Parham and Richard Tuffin).

1.3 Limitations and constraints

This assessment is limited to desktop consideration of historic heritage values. The assessment of Aboriginal cultural values and social values is beyond the scope of this study.

Whilst every effort has been made to accurately map the predicted occurrences of historic heritage sites and features, allowances must be made for the scaling error inherent in rectifying historic maps with modern surveys. In this respect, the mapping should be considered indicative and subject to verification on the basis of field inspection and, where applicable, more accurate survey.

1.4 Acknowledgements

The assistance of the following people and organizations is gratefully acknowledged:

- Dion Lester, Pitt & Sherry
- Greg Dickens, Mineral Resources Tasmania
- Denise Gaughwin, Forest Practices Authority
- Bob Hamilton, Forestry Tasmania
- Elaine, Randall and Damien, Land Titles and Central Plan Office, Land Data Registration Branch
- Brent Wall, Heritage Tasmania
- Jody Steele, Parks and Wildlife Service, Tasmania

2.0 Historic Heritage Assessment

2.1 Desktop review of registered and listed heritage places

Both Federal and State Acts of Parliament may have a bearing on the management of cultural heritage within or adjacent to the subject study area. Key legislation is summarised below. The summary is intended as a guide only and should be confirmed with the administering agency and, where necessary, specialist legal opinion.

2.1.1 National and Commonwealth Heritage Lists

A new national heritage system commenced on 1st January 2004. This established a framework for the identification, protection and care of places of significance to the nation and/or Commonwealth. Entry in the National and/or Commonwealth Heritage Lists triggers statutory processes under the terms and provisions of the *Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act)*. Actions which will or may have a significant impact upon the recognised values of a listed place are required to be referred to the Australian Government Minister for the Environment and Water Resources, after which a judgement will be made as to whether the proposed action will require formal assessment and approval. The Act also provides for consideration of actions that may occur outside of a listed place that may have significant impact upon national heritage values, or actions taken on Commonwealth land or by Commonwealth agencies that are likely to have a significant impact on the environment (anywhere). Listing occurs by nomination which may be made by any one at any time. The Act also provides for emergency listing where National Heritage values are considered to be under threat.

There are no current entries on the National and Commonwealth Heritage Lists within study area.

2.1.2 Register of the National Estate

As of February 2007 the RNE ceased to be an active register, with places no longer able to be added or removed. Many places in the RNE are included in state and local government registers and therefore receive protection under those mechanisms, with others included in the National Heritage List or the Commonwealth Heritage List (where applicable). However, the RNE is still considered to be a statutory, albeit static, register until 2012, with the Minister for the Environment, Heritage and the Arts required to consider the register when making some decisions under the *EPBC Act*.

Three entries in the RNE were of relevance, two of these being located in the study area.

Name	Mount Vulcan – Simmonds Hill area, Beaconsfield, TAS, Australia
Class	Natural
Place ID	12518

Name	Dans Hill – Scotts Hill area, Tatersalls Rd, Beaconsfield, TAS, Australia
Class	Natural
Place ID	103181

Both these entries encompass a large swathe of land (see Figure 2, below). The former covers land mainly in the centre of the study area, whilst the latter encompasses parts of the centre and north. The boundaries of this entry in part corresponds with the Dans Hill Forest Reserve, shown in Figure 2. Both RNE entries are for natural values, although the statement of significance does cite the historic mining activity.

In addition, there is one site on the border of the study area. This corresponds with THPI #8215.011.

Name	Tasmanian Charcoal Iron Company Mine, Tattersalls Rd, Beaconsfield, TAS, Australia
Class	Historic
Place ID	103329

See Figure 2 for the location of this item.

2.1.3 Tasmanian Heritage Register

Entry in the Tasmanian Heritage Register triggers statutory processes under the terms and provisions of the *Historic Cultural Heritage Act 1995*. Places are eligible for entry to the Register provided they satisfy at least one of seven criteria. Any one (including the Tasmanian Heritage Council) may nominate a place for entry to the Register at any time. Under Section 32 (1) of the Act a person must not carry out any works in relation to a Registered place or a place within a Heritage Area which may affect the historical cultural significance of the place unless the works are approved by the Tasmanian Heritage Council. The Heritage Council may only approve works that are likely to destroy or reduce the significance of a Registered place if satisfied there is no prudent and feasible alternative to carrying out the works. The Act also provides the Heritage Council or Minister with scope to protect the heritage values of (both Registered and unregistered places) through issue of Stop Work Orders.

There are no sites entered in the Tasmanian Heritage Register within the study area.

2.1.4 Tasmanian Historic Places Inventory

The Tasmanian Historic Places Inventory is currently managed by the Historic Heritage Section of Parks and Wildlife Service, Tasmania. The Inventory does have some overlap with other databases, such as the non-active RNE and the THR. Where an activity will potentially impact upon identified cultural values, specialist advice must be sought to allow these impacts to be assessed as part of the planning process. Where sensitivities are identified, surveys will be completed (unless the survey itself will impact upon the values) and, if necessary, the activity proposal modified and reassessed.

A significant proportion of the study area is contained within the Dans Hill Conservation Area reserve. There are no THPI registrations within the study area, however one of the sites is known to traverse through the study area and therefore requires consideration. This is:

Place Code	8215.020
Location ID	1466
Name	Beaconsfield Reservoir Water Race
Easting (AGD)	480113
Northing (AGD)	5435184

There are a further five places registered in the THPI north and south of the study area:

Place Code	8215.007
Location ID	1454
Name	Ilfracombe Iron Co. Mine
Easting (AGD)	482713
Northing (AGD)	5434484

Place Code	8215.008
Location ID	1455
Name	Ilfracombe Iron Co. Furnace
Easting (AGD)	482313
Northing (AGD)	5434484

Place Code	8215.011
Location ID	1458

Name	Tasmanian Charcoal Iron Co. Mine
Easting (AGD)	480113
Northing (AGD)	5439384

Place Code	8215.014
Location ID	1461
Name	Asbestos Mine No. 1
Easting (AGD)	480713
Northing (AGD)	5439784

Place Code	8215.015
Location ID	1462
Name	Asbestos Mine No. 2
Easting (AGD)	480813
Northing (AGD)	5439884

See Figure 2 for the location of these features.

2.1.5 Beaconsfield Planning Scheme 1986

The *Municipality of Beaconsfield Planning Scheme 1986* contains Schedule 3, 'Building and Works of Historic Interest', as well as provisions pertaining to any development of land which may impact upon any such building or works (s7.3).[1] Under the terms of the Scheme, proponents must seek planning approval from the Council, which may grant approval (with or without conditions) or refuse the application at its discretion. Approval may only be granted if the development will preserve, reveal or enhance the character or qualities of the building or works of historic interest.

There are no sites in the study area listed in Schedule 3 of the Scheme.

2.1.5 Forest Practices database

A database maintained by Forestry Tasmania containing, among other datasets, historic heritage sites, was queried as part of this research. There is overlap with other registers.

No sites were identified within the study area.

Four sites were identified to the north and south of the study area. Three of these were sites registered in THPI:

Site ID	8215.011
Site name	Tasmanian Charcoal Iron Co. Mine
Site type	Primary Industry; mining
Easting	480112
Northing	5439383
Accuracy	Sketch mapping 6 (+/- 100m)

Site ID	8215.014
Site name	Asbestos Mine, No. 1
Site type	Primary Industry; mining
Easting	480712
Northing	5439783
Accuracy	Sketch mapping 6 (+/- 100m)

[1] *Municipality of Beaconsfield Planning Scheme 1986*, pp. 29, 53-54. Currency checked 15 October 2008.

Site ID	8215.020
Site name	Beaconsfield reservoir water race
Site type	Infrastructure; services; water supply/drainage
Easting	480112
Northing	5435183
Accuracy	Sketch mapping 6 (+/- 100m)

One further site on north west of the study area was unique to the Forestry database:

Site ID	9999.571
Site name	Tattersalls Road mine explorations
Site type	Primary Industry; mining
Easting	479221
Northing	5439543
Accuracy	GPS

See Figure 2 for the location of these items.

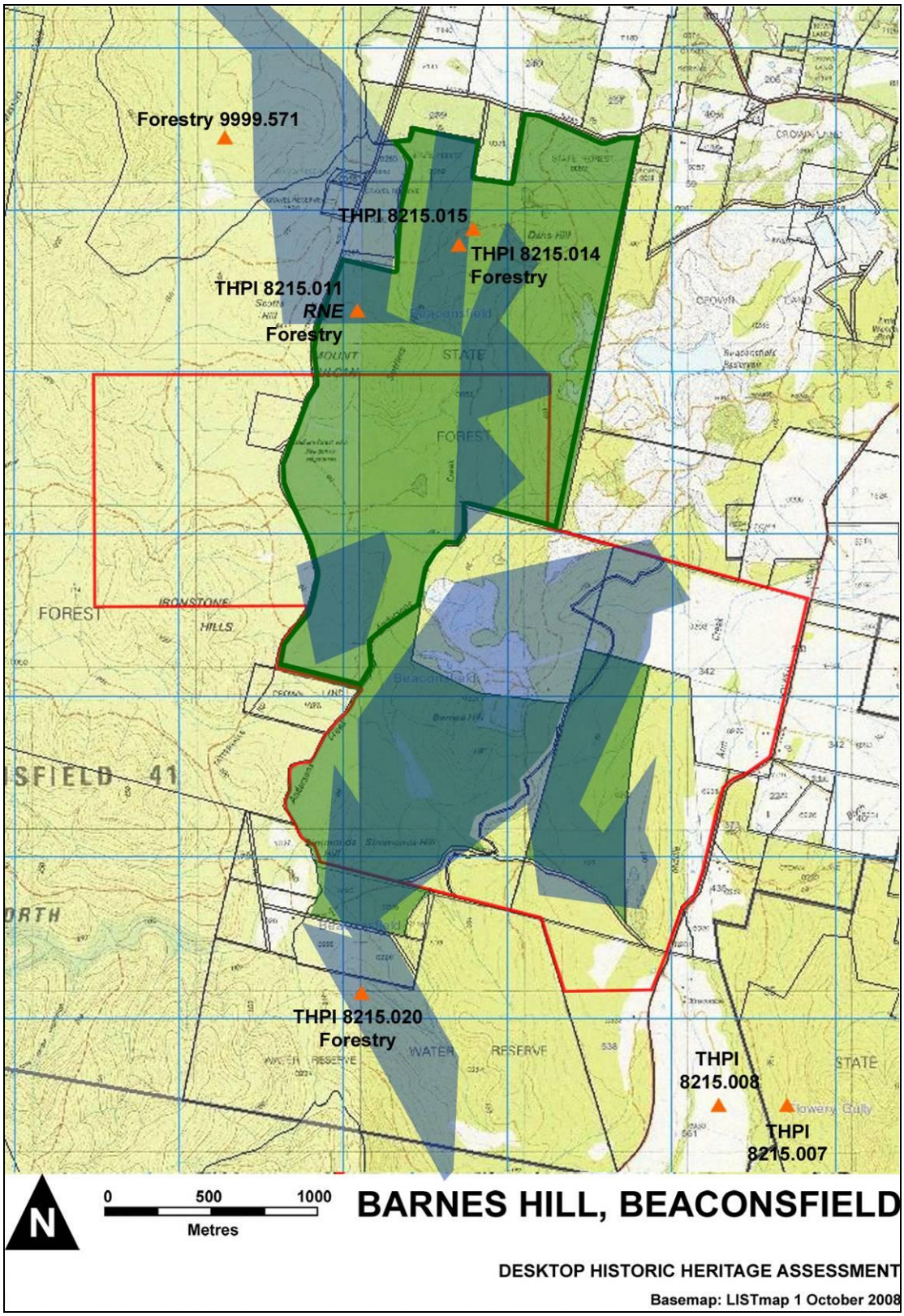

Figure 2: Map showing indicative locations of sites and areas discussed above. The **blue** shading denotes the RNE area 'Mount Vulcan – Simmonds Hill Area, Beaconsfield, TAS, Australia'. The **green** shading denotes the formal reserve 'Dans Hill Conservation Area'. The **green** outline denotes the extent of the Dans Hill Forest Reserve.

3.0 Historical Overview

Please refer to figures at the end of this section

Until the 1850s the region in which the study area is located was variously described as 'deserted' and 'uninhabited and almost unknown'. Indeed, it was not until the 1870s that settlement of the area really began in earnest, with the establishment of iron mines and, later, the advent of gold fever. Yet, from as early as 1804, limited activity was recorded in the area, some of it in relation to the short-lived settlement at Yorktown. By the 1840s portions of the study area were in private ownership, with the Ilfracombe sawmill and tramway commencing operation the following decade. From the 1870s iron extraction and refinement took place on the borders of the study area, giving way in the 1890s to the quarrying and milling of asbestos. During the 20th Century extensive programs of prospecting took place, testing for iron, nickel and, finally, chromite. The latter was successful and lead to the commencement of mining operations between 1977-1981.

3.1 Early European settlement

Although the first settlement of the area was not recorded until the 1840s, there is some evidence to suggest that European activity in the area may date to the very earliest days of settlement in Tasmania. York Town, six kilometres to the north of the study area, had been settled in December 1804 by a small party consisting of military and convicts under the charge of Lieutenant Governor William Paterson.[2] The site was, however, unsuitable for prolonged occupation and, by mid-1806 the majority of the settlement had been removed to the banks of the North Esk – present-day Launceston.[3]

Whilst York Town was still an active settlement Paterson, in addition to the usual tasks of survival and consolidation, had overseen the collection of a few ton of iron ore from the immediate district, which had been promptly shipped to England.[4] This find caused great excitement, leading some commentators to state that the colony was on the cusp of a great industrial enterprise.[5] In 1866, Government Geologist Charles Gould had surmised that the iron had been hand-picked from the surface of an area known as the Ironstone Hills, which today roughly corresponds with Mt Vulcan and Scotts Hill.[6] No other detail is available regarding this small operation, other than that the quality of the ore was thought to be exceedingly pure.[7]

Little further activity is recorded until 1841. During the 1830s James Fenton, an early settler at Forth, frequently traversed the area, describing it as '…uninhabited and almost unknown for many years…', although he did note the apparently abundant supplies of asbestos.[8] In November 1840 a survey was completed of a large grant to William Barnes, comprising two lots of 640 acres (see Figure 3).[9] This occupied the whole eastern half of the study area and was defined by Anderson's Creek to the west. Today its eastern boundary is formed by Holwell Road. The survey showed that no major development had taken place in the area, other than the establishment of a hut on the eastern slope of Simmonds Hill, south of Barnes Hill.

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[2] JB Walker, 'The Discovery of Port Dalrymple', JB Walker, 1914, *Early Tasmania: Papers Read before the Royal Society of Tasmania during the Years 1888 to 1899*, John Vail Government Printer, Hobart, pp. 114-16.
[3] Walker, 'The Discovery of Port Dalrymple', p. 118; L Robson, *A History of Tasmania*, Vol. 1, Oxford University Press, Melbourne, pp. 43-44, 52-53.
[4] Walker, 'The Discovery of Port Dalrymple', p. 116.
[5] For example see: WC Wentworth, 1819 [1978], *Statistical, historical and political description of the colony of New South Wales and its dependent Settlements in Van Diemen's Land*, G and WB Whittaker, London, pp. 128-29.
[6] Mineral Resources Tasmania [MRT], OS_016, C Gould to Colonial Secretary, 'Geological Surveyor's report of the country near Ilfracombe, in the West Tamar District', 1866, p. 16.
[7] Commissioner John Bigge, 1823 [1967], *Report of the Commissioner of Inquiry on the State of Agriculture and Trade in the Colony of New South Wales*, Libraries Board of South Australia, Adelaide, p. 93.
[8] J Fenton, 1891 [1964], *Bush Life in Tasmania*, CL Richmond & Sons, Devonport, pp. 40-41.
[9] The grant itself dates to 29 March 1841. Land Titles Office [LTO], Devon, 1/9, November 1840.

3.2 The Ilfracombe Sawmill

During the 1850s the exploitation of the region's timber resources, first noted by William Paterson, began in earnest. Edward Dally and a team of splitters and sawyers had based themselves at Middle Arm, working their way into the hinterland. Dally was responsible for a road which ran south from Middle Arm, past the eastern boundary of the study area and down toward Supply Flats.[10] By the early 1850s the Ilfracombe Saw Mills Company had set up in opposition to Dally. The Ilfracombe mill was sited on Barnes' original northern grant, which, by 1857 had been sold to John Munro, a major shareholder in the mill (see Figure 4).[11] As early as 1850 Munro and the other promoters had applied to the Tasmanian parliament to support their push for a tramway and jetty to connect the mill to Middle Arm.[12] By 1853 Munro had commenced work on the line, the easement being surveyed during 1856 and 1857, in part mirroring Dally's original road.[13]The mill complex comprised an engine house, timber sheds, workmen's huts and a weatherboard cottage; the mill itself equipped with both vertical and circular blades, driven by two engines.[14]

In 1860 the company defaulted on repayments. The mill was then offered for sale at auction and subsequently purchased by nearby landowner Francis Evans.[15] Evans kept the mill going until at least 1866, although by 1869 he had abandoned the enterprise. At this time the site was described as containing a two storey wooden building and six workmen's timber huts, all in poor condition.[16]

3.3 Iron mining in the 1870s

In 1866 Government Geologist Charles Gould traversed the area, reporting upon the geology of the West Tamar district. In addition to noting the abundant reserves of limestone, Gould also devoted much of his report to the occurrences of iron ores in the area (see Figure 5).[17] In particular he noted three large deposits: one to the east of Barnes Hill and two corresponding with the modern locations of Mt Vulcan and Scott's Hill. In 1872, largely as a result of this survey James Scott and TC Just took up 400 acres encompassing the two above named locations, the initial samples they had assayed returning extremely positive results.[18] Within months a jetty, tramway, township (Leondardsburgh) and site for a furnace had been laid out, the newly-formed company named the Tasmanian Charcoal Iron Company.[19] The initial furnace plant being unsuccessful, the company was refloated in 1874 as the British and Tasmanian Charcoal Iron Company.[20] A new blast furnace was erected near the site of the jetty (Redbill Point and connected to the workings at Mount Vulcan and Scotts Hill by an iron-railed railway (all located north of the study area, see Figure 6).[21] The enterprise was formally commissioned in June 1876. Despite the massive investment, production lasted only one year, yielding 6,000 tons of pig iron.[22] The lack of success largely due to the high chromite content in the ore which made the iron brittle and largely unworkable.

Two further companies were formed during this period, focussing on the iron deposits surveyed by Gould. The Ilfracombe Iron Company established a small complex to the south of the study area in early 1873, although this was shortlived with work suspended early the following year.[23] To the north of the study area, the Tamar Hematite Iron Company commenced operations west of Brandy Creek

[10] M Morris-Nunn, CB Tassell, 1984, *Tamar Valley Industrial Heritage: a survey*, Australian Heritage Commission, Queen Victoria Museum, pp. 10-11.
[11] LTO. Devon, plan 25, 'Plan of Railway from the Ilfracombe Sawmills to the River Tamar', 15 June 1857.
[12] Morris-Nunn, Tassell, *Tamar Valley Industrial Heritage*, p. 11.
[13] LTO. Devon, plan 25, 'Plan of Railway from the Ilfracombe Sawmills to the River Tamar', 15 June 1857.
[14] Morris-Nunn, Tassell, *Tamar Valley Industrial Heritage*, p. 11-12.
[15] Morris-Nunn, Tassell, *Tamar Valley Industrial Heritage*, p. 12.
[16] Morris-Nunn, Tassell, *Tamar Valley Industrial Heritage*, p. 12.
[17] C Gould, 'Geological Surveyor's report', p. 5.
[18] Morris-Nunn, Tassell, *Tamar Valley Industrial Heritage*, pp. 24-25.
[19] MRT. OS_204, WH Twelvetrees, 13 March 1903, 'Report on the mineral resources of the districts of Beaconsfield and Salisbury', p. 16; Morris-Nunn, Tassell, *Tamar Valley Industrial Heritage*, p. 25.
[20] Twelvetrees, 'Report on the mineral resources', p. 18.
[21] Twelvetrees, 'Report on the mineral resources', pp. 18, 20.
[22] Morris-Nunn, Tassell, *Tamar Valley Industrial Heritage*, p. 38.
[23] Morris-Nunn, Tassell, *Tamar Valley Industrial Heritage*, pp. 38-39.

(north of Beaconsfield) in early 1874. Though they successfully produced up to 500 ton of pig iron, this too was a short lived enterprise, with the company wound up in mid-1875.[24] The Barnes Hill deposit, albeit described as rich, was never exploited.

None of these operations were located within the area presently under investigation. The British and Tasmanian Charcoal Iron Company had a large quarry on the flanks of Mt Vulcan, forming the northern boundary of the study area, as well as at least two prospecting shafts.[25] The Ilfracombe Iron Company re-used the corridor formed by the Ilfracombe sawmill tramway, but does not appear to have used the tramway itself.[26] When reporting on the area in 1903, Government Geologist WH Twelvetrees commented on the Barnes Hill deposit, first noted by Gould, as being possibly more important that that on Mt Vulcan and stated that, should iron mining be resumed in the area 'this ore-body will form an essential part of any scheme'.[27] At this time operations limited to the collection of loose iron ore from the surface were being pursued. Despite some limited prospecting for iron in the 1920s, attention turned at the very end of the 19th Century to the exploitation of the asbestos resource.

3.4 Asbestos quarrying, 1890s-1910s

In 1899 the Australasian Asbestos Company took up the lease of five sections to the north of the study area.[28] They were predated by Charles Tindall and Francis Haslam, who took out an 80 acre lease in May 1897 to prospect for asbestos, but transferred their holdings to the Australasian Asbestos Company in 1900.[29] The company extracted 374 tons of raw material before ceasing operations in 1901.[30] In 1916 the Durasbestos Company began prospecting on the old leases, opening up a number of new quarries and a series of exploratory trenches (costeans) and shafts. A mill was erected just north of the Settlers Range, connected to the Leonardsburgh road by a tramway.[31] This mill was the first of its kind established in Australia.[32] In March 1919 the workings and mill were transferred to Wunderlich Ltd, who operated for only a few short months before abandoning the field and transferring their operations to New South Wales.[33] William Atwood Tregaskis Davies picked up the leases in 1923, but failed to continue the workings on any scale and had surrendered the majority of his holdings by 1926.[34]

This 22 year period of exploration and mining activity was largely concentrated to the north (and outside) of the study area and consisted of as least nine main quarries, as well as numerous exploratory workings – including at least seven large costeans (see Figure 7).[35] Later investigations confirmed that the study area, though having the right geology (serpentine) did not contain commercial quantities of fibre and so was not worked on any large scale.[36] In the northern sector of the study area the Tasmanian Greenstone Company had opened a small quarry in 1914.[37] The company spent two years quarrying serpentine for use as ornamental building stone, before the operation was wound up due to the poor quality of the stone for monumental use.[38]

[24] Twelvetrees, 'Report on the mineral resources', p. 37.
[25] Twelvetrees, 'Report on the mineral resources', pp. 20-21.
[26] Morris-Nunn, Tassell, *Tamar Valley Industrial Heritage*, p. 13.
[27] Twelvetrees, 'Report on the mineral resources', p. 30.
[28] MRT. GSREP8, AM Reid, 1919, 'Asbestos in the Beaconsfield District', Geological Survey Report No. 8, p. 14.
[29] MRT. 1772/93M, Charles Tindall and Francis Haslam, 5 May 1897.
[30] Reid, 'Asbestos in the Beaconsfield District', p. 14.
[31] Reid, 'Asbestos in the Beaconsfield District', pp. 20-22.
[32] MRT. *Report of the Secretary of Mines*, year ending Dec 31, 1917.
[33] Morris-Nunn, Tassell, *Tamar Valley Industrial Heritage*, p. 149.
[34] MRT. See: Mineral Leases 8964M, 8965M, 8966M, 8968M, 9078M.
[35] Reid, 'Asbestos in the Beaconsfield District', pp. 15-18..
[36] BL Taylor, 1955, *Asbestos in Tasmania*, Geological Survey Mineral Resources No.9, Tasmania Department of Mines, pp. 41-42.
[37] Archives Office of Tasmania [AOT]. MIN 661/1739, 'Tasmanian Greenstone Co.', 2 April 1914.
[38] MRT. GSMR4, WH Twelvetrees, 1917, 'Asbestos at Anderson's Creek', Geological Survey Mineral Resources No. 4, pp. 24-25.

At some point in the 1880s-1890s a water race was put through the area of Barnes' original grant. Commencing at a point south of the study area, the race carried water from Andersons Creek, through the eastern part of the study area, to the workings of the Tasmania Gold Mine (see Figure 8).[39] The race was subsequently used during the 20th Century for the Beaconsfield water supply.

3.5 Nickel exploration, Chromite exploration and mining, 1950s-1980s

In 1929 an exploratory program directed by Government Geologist PB Nye resulted in the drilling of six bores on Barnes Hill.[40] The report concluding that the ore did not have the nickel content necessary to give the chromiferous ore commercial value.[41] Activity on the field markedly decreased during the following two decades, picking up again in 1956 when the Ben Lomond Mining Company, followed by Consolidated Zinc Pty Ltd, began prospecting in the area for nickeliferous clay.[42] Over 100 bore holes were drilled and a large costean bulldozed through the area yielding disappointing results.[43]

In 1961 the Department of Mines began a concerted prospecting campaign, focussing on the chromite deposits which had so plagued those who had previously attempted to exploit the iron reserves. Deposits at Barnes Hill, Limestone Creek (Middle Arm Creek), Simmonds Hill and Leonardsburgh were sampled.[44] Fifty-five test holes and three costeans were excavated across Barnes Hill, the deposit described as the richest in the field.[45] As a result of this positive report, a syndicate took up a large lease covering the Barnes Hill chromite deposits in 1969.[46] By 1971 they had built a sluice to aid ore concentration, as well as put in further exploratory costeans on the slopes of Barnes Hill.[47] Unsuccessful in their attempt to concentrate the ore, the syndicate's lease was transferred to Northern Chromite Pty Ltd in 1970-71 (see Figure 8).[48] The company did not, however, begin mining and producing chromite until the last quarter of 1977 (see Figures 9,10).[49] Over the following years a treatment plant and series of tailings dams were constructed. However, having exploited the easily won deposits, the company ceased operating in 1981, the lease being surrendered in January of the following year.[50] During its four years of operation the company had produced 2,689 tons of chromite, for a total value of $259,083.[51] This is the only chromite produced in Tasmania to date.

Little further activity has been recorded in the study area from this date. Geological investigations were carried out in 1987 by Australian Consolidated Minerals Ltd, but these did not result in any further works.[52]

[39] MRT. Mineral Chart 108d, c.1894; Austral Archaeology, 1998, *Beaconsfield Mine Joint Venture: Heritage Assessment*, prepared for the Beaconsfield Mine Joint Venture, Beaconsfield, pp. 13, 20.
[40] MRT. UR1930/59-63, PB Nye, 8 September 1930, 'Report on the boring operations undertaken in connection with the Beaconsfield chromiferous iron ore deposits'.
[41] Nye, 'Report on the boring operations', p. 61.
[42] MRT. TD Hughes, 1958, 'Further samples from Beaconsfield nickeliferous clay', Technical Reports No. 3, Tasmania Department of Mines, p. 67.
[43] Hughes, 'Further samples from Beaconsfield', p. 67.
[44] MRT. AJ Noldart, 'Alluvial chromite deposits, Anderson Creek area, Beaconsfield', Technical Report No. 7, Tasmania Department of Mines, 1962, p. 71.
[45] Noldart, 'Alluvial chromite deposits', p. 74.
[46] MRT. 87/2650, JE Thompson, 'The Andersons Creek chromite project, near Beaconsfield, Tasmania, Exploration License No. 17/85', Australian Consolidated Minerals Ltd, 1987, p. 11.
[47] MRT. 71/728. RH Wilpolt, 'Barnes Hill chromite deposit, Beaconsfield mineral district Tasmania', February 1971, pp. 1-2.
[48] Wilpolt, 'Barnes Hill chromite deposit', p. 3; Thompson, 'The Anderson's Creek chromite project', p. 11.
[49] MRT. 'Report for the year ended 31 December 1978', p. 27.
[50] MRT. 67M/72, 'Northern Chromite Pty Ltd', 5 September 1972.
[51] MRT. 'Report for the year ended 30 June 1983', p. 25.
[52] Thompson, 'The Andersons Creek chromite project'.

3.5 Historical Overview - figures

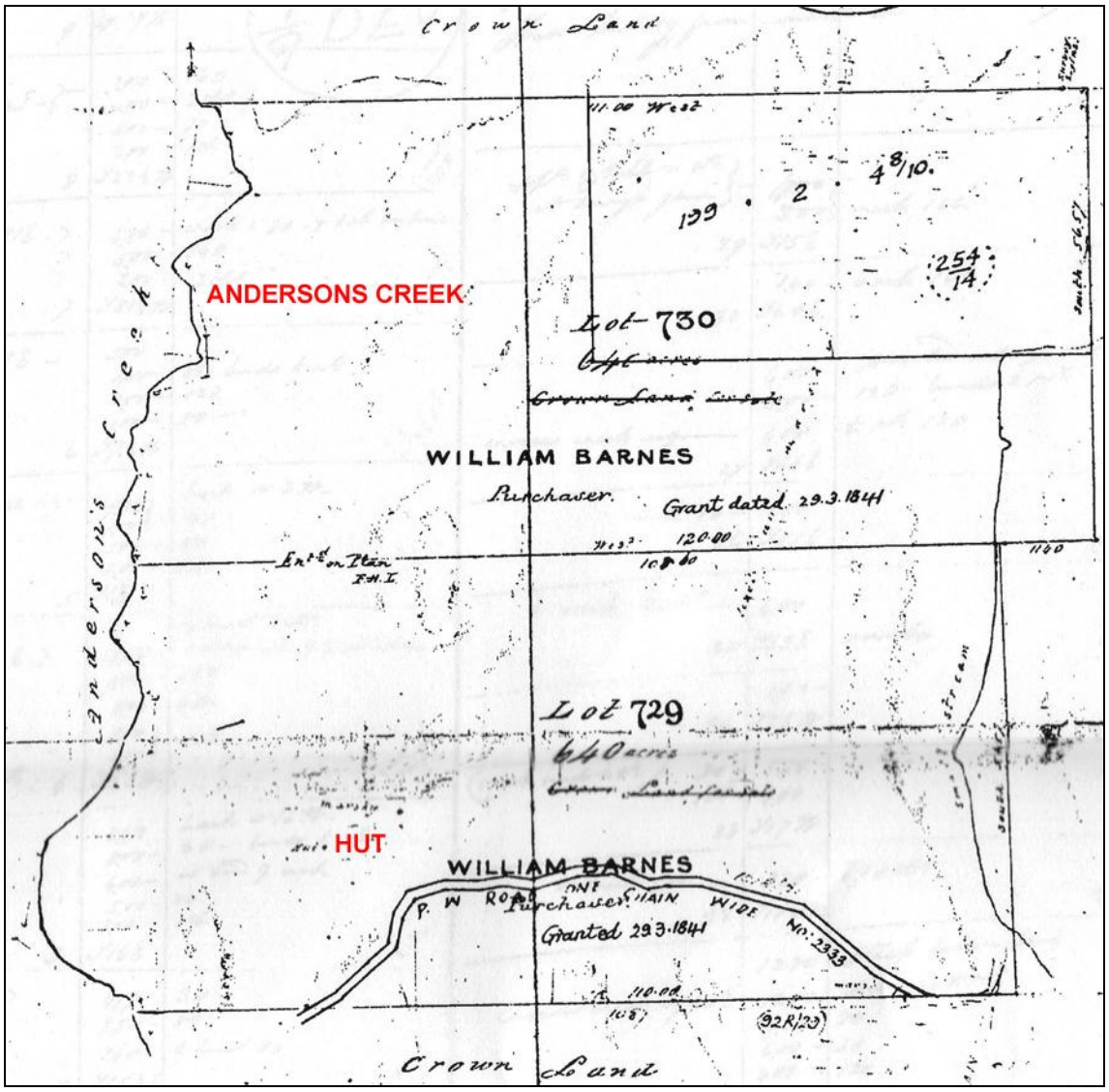

Figure 3: Land Titles Office face plan showing the extent of the two 1841 grants issued to William Barnes. Note the presence of the hut in the southern grant (Land Titles Office, Devon 1/9, November 1840, reproduced with the permission of the Department of Primary Industries and Water, © State of Tasmania)

Figure 4: 1857 plan of the West Tamar area. Note the presence of the saw mill and tramway within the area originally granted to Barnes (labelled here as belonging to John Munro and R.De Little) (Land Titles Office, Devon Plan 25, 1857, reproduced with the permission of the Department of Primary Industries and Water, © State of Tasmania)

Figure 5: Charles Gould's 1866 geological map of the West Tamar area. In particular, note the iron deposits located near the Ironstone Hills (Scotts Hill and Mt Vulcan) and Barnes Hill. (C Gould, 'Map of the Den Gold Fields and Ilfracombe Iron Deposits, Tasmania', c.1866, Tasmaniana Library, State Library of Tasmania, used with permission)

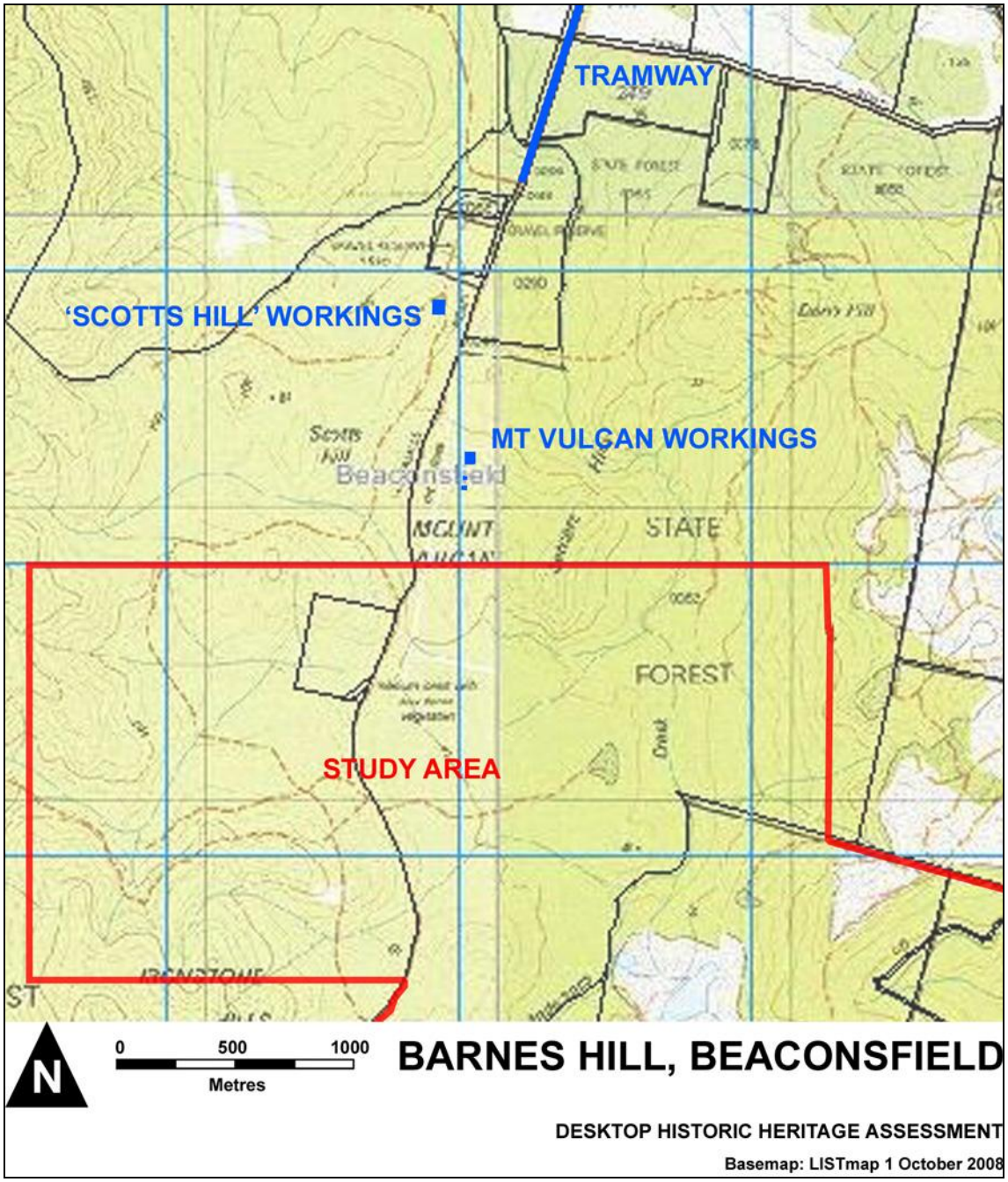

Figure 6: Map showing approximate location of the British and Tasmanian Charcoal Iron Company's quarry sites and tramway. Location derived from overlaying historic 1919 survey. (WH Twelvetrees, 'Geological sketch map of Andersons Creek mining area', in: MRT. GSREP8, WH Twelvetrees, 'Asbestos in the Beaconsfield District', Geological Survey Report No.8', Tasmania Department of Mines, 1919)

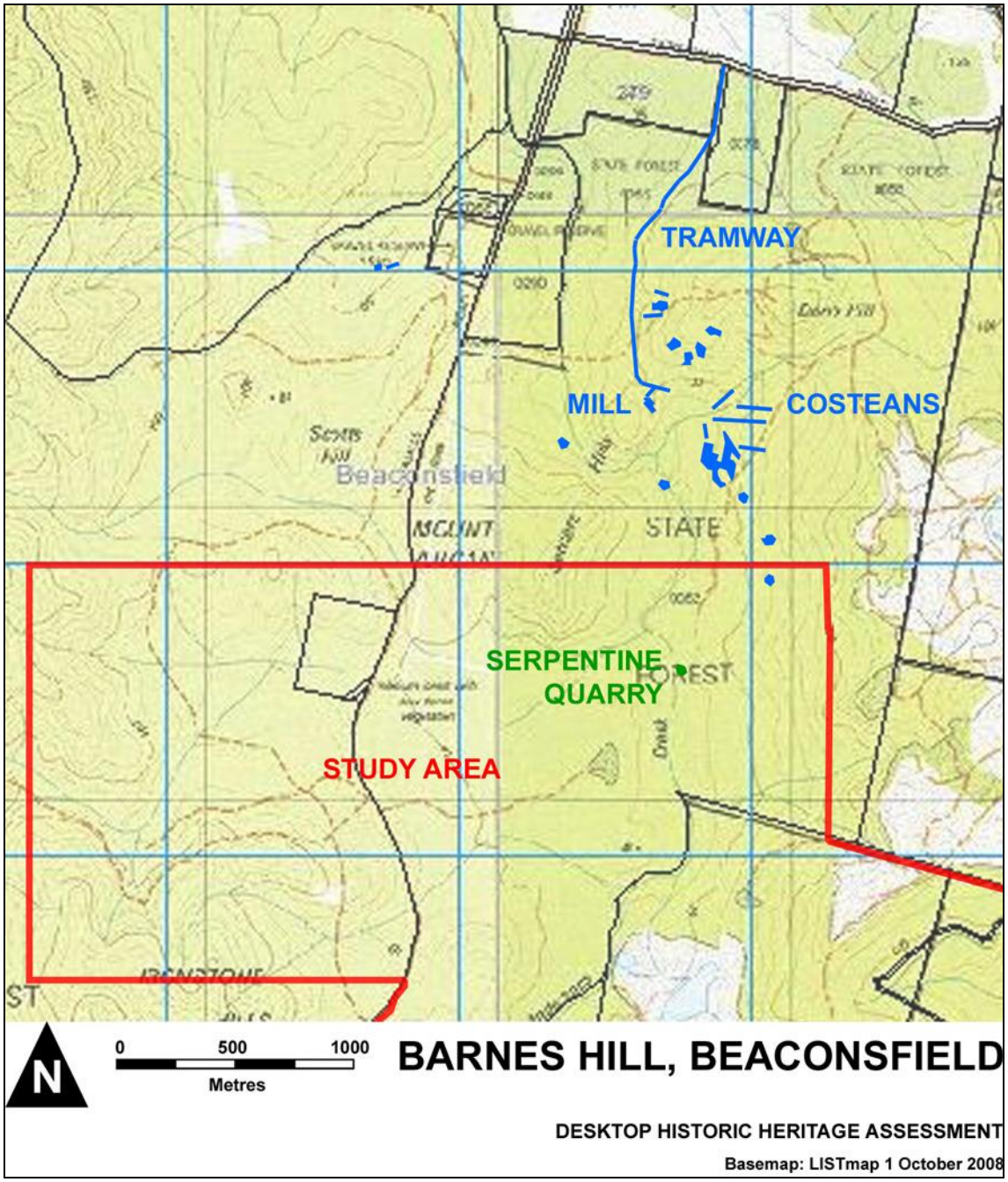

Figure 7: Map showing approximate location of the asbestos workings (**blue**) in the northern periphery and north of the study area. Note the serpentine quarry (**green**) in the study area's north. Location derived from overlaying historic 1919 survey. (WH Twelvetrees, 'Geological sketch map of Andersons Creek mining area', in: MRT. GSREP8, WH Twelvetrees, 'Asbestos in the Beaconsfield District', Geological Survey Report No.8', Tasmania Department of Mines, 1919)

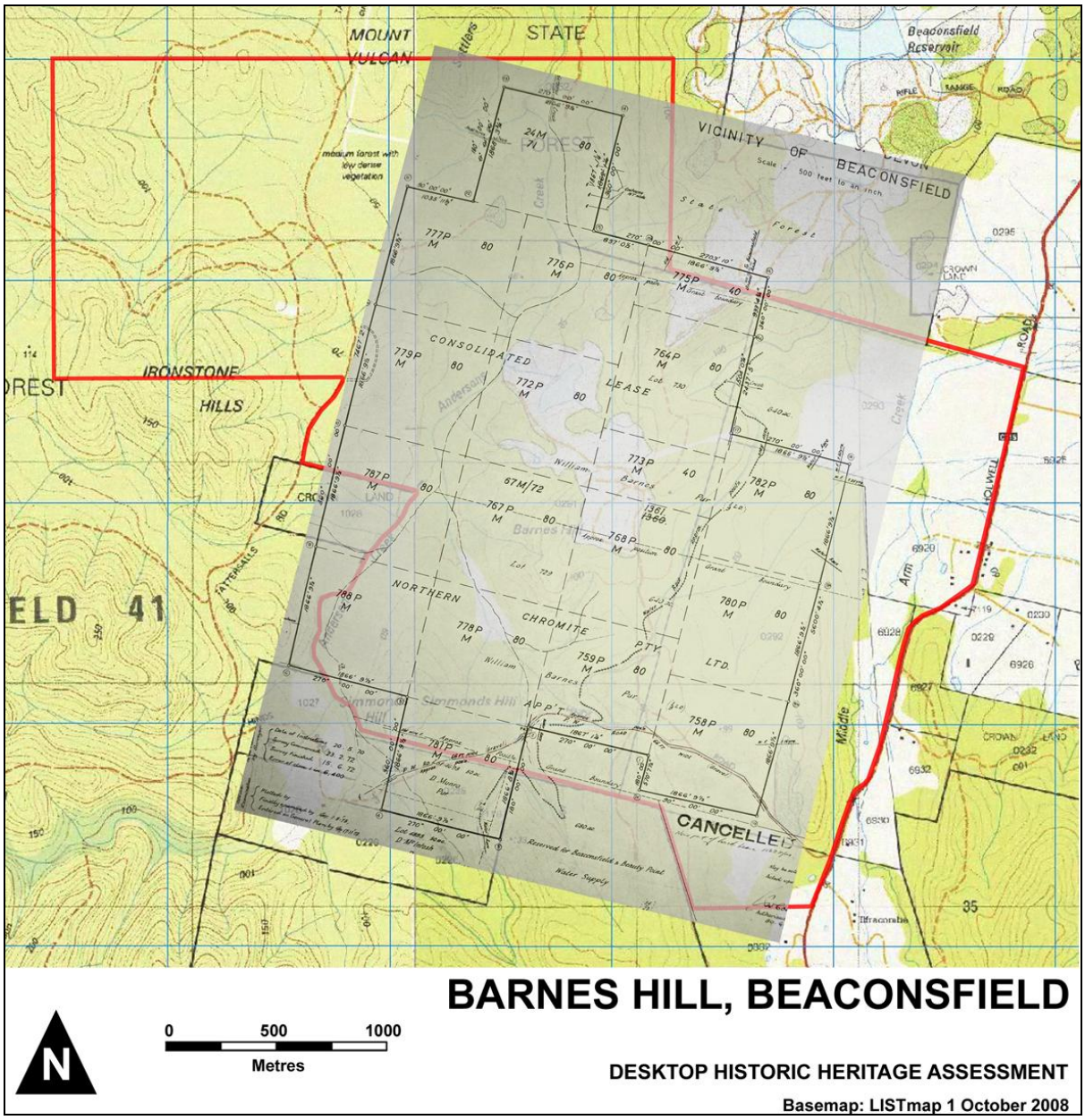

Figure 8: Extent of the lease held by Northern Chromite in 1973. Note the north - south trending feature representing the old water race for the Tasmania Gold Mine that passes through the eastern leases (MRT. Devon plan 242, 2 August 1973)

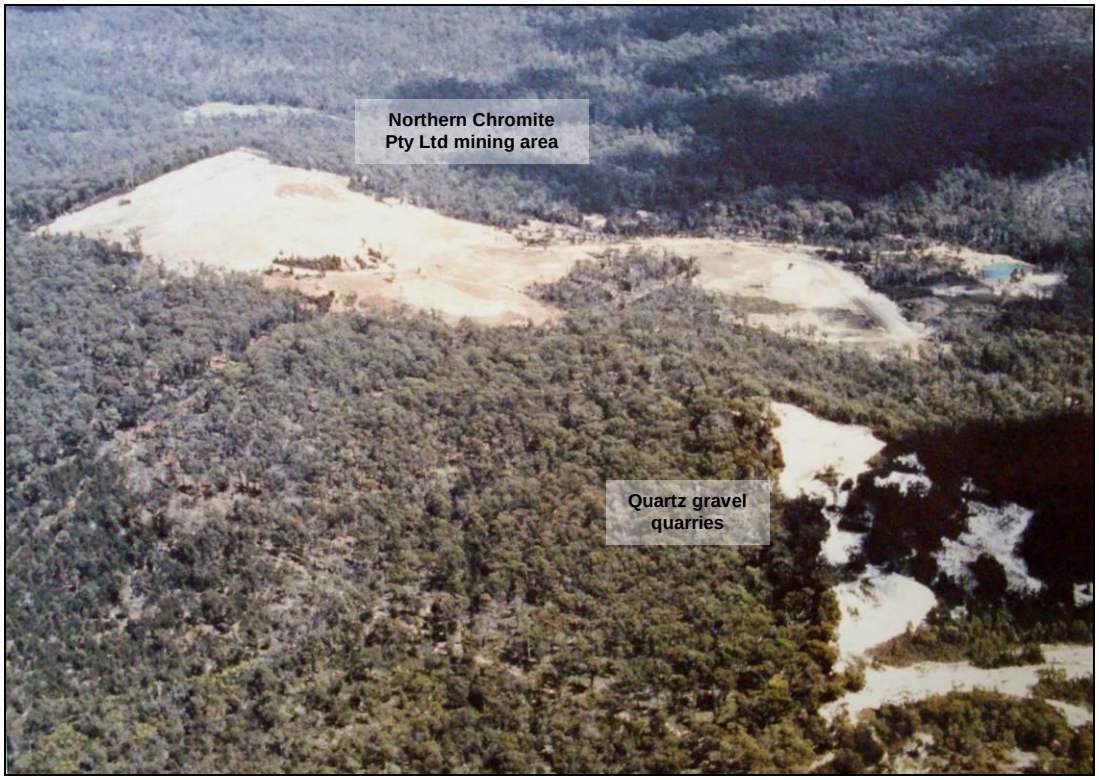

Figure 9: Aerial photograph of the eastern slopes of Barnes Hill, showing the area mined during 1977-81 (MRT. 87/2650, JE Thompson, 'The Andersons Creek chromite project, near Beaconsfield, Tasmania, Exploration License No. 17/85', Australian Consolidated Minerals Ltd, 1987)

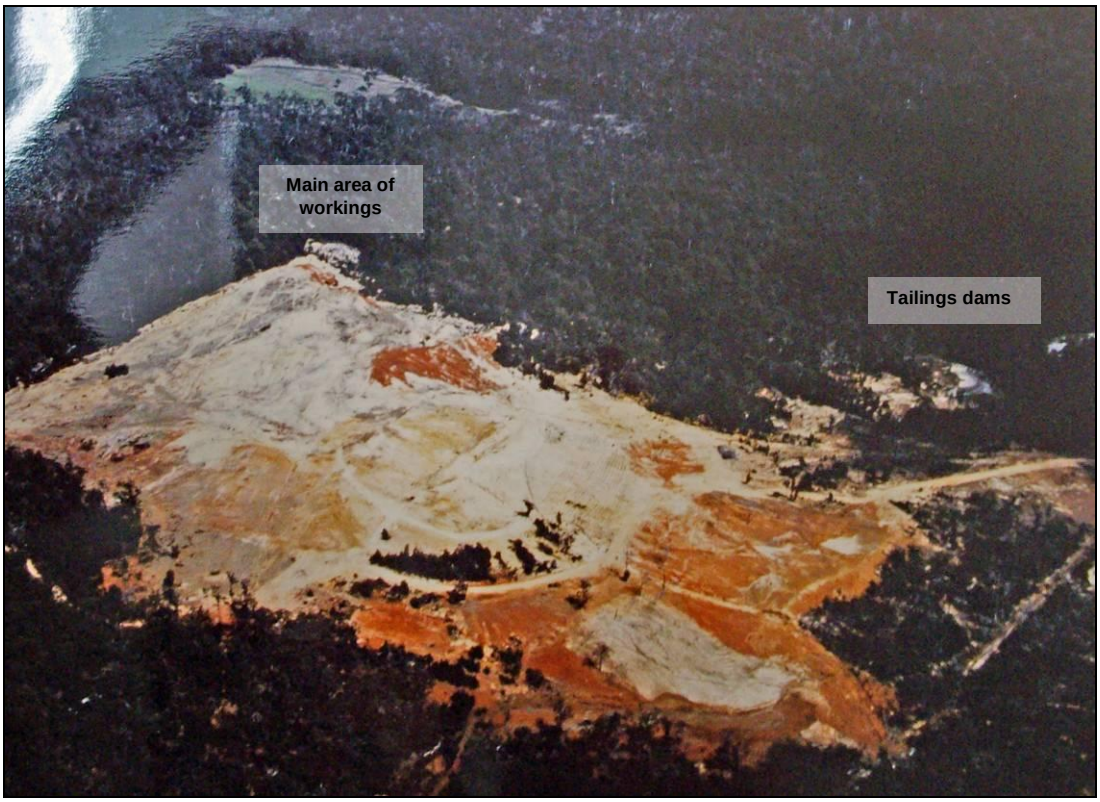

Figure 10: Photographic detail of the eastern slopes of Barnes Hill, showing the area mined during 1977-81 (MRT. 87/2650, JE Thompson, 'The Andersons Creek chromite project, near Beaconsfield, Tasmania, Exploration License No. 17/85', Australian Consolidated Minerals Ltd, 1987)

4.0 Site Inventory and Historic Heritage Assessment

4.1 Site Inventory

The following table comprises an inventory of the fourteen historic heritage places, sites, items and features identified on the basis of desktop research as being within the study area. These have been identified through heritage register checks (s2.0) and the historical research completed for this study (s3.0). The items in the inventory are differentiated by number and their mapped locations shown in Figure 11.

Each has been assigned to one of the six historic periods identified during historical research. The relevant section, where significance and potential integrity of these features is further discussed, is cited in the right-hand column of the table.

#	Site Name	Chronological Period	Section
1	Mt Vulcan iron workings (possible extent of)	1870s (iron, gold mining)	4.2.3
2	Asbestos quarry	1890s-1910s (asbestos, serpentine quarrying)	4.2.4
3	Asbestos costeans	1890s-1910s (asbestos, serpentine quarrying)	4.2.4
4	Serpentine quarry	1890s-1910s (asbestos, serpentine quarrying)	4.2.4
5	William Barnes original grant alignment	1804-1840s (early European settlement)	4.2.1
6	Quartz gravel workings	1977-1981 (chromite mining)	4.2.6
7	Northern Chromite Pty Ltd mining operations	1977-1981 (chromite mining)	4.2.6
8	Tasmania Gold Mine water race	1870s (iron, gold mining)	4.2.3
9	John Munro's land purchase alignment	1850s-1860s (Ilfracombe Sawmill)	4.2.2
10	Ilfracombe Sawmill complex	1850s-1860s (Ilfracombe Sawmill)	4.2.2
11	Ilfracombe Sawmill tramway	1850s-1860s (Ilfracombe Sawmill)	4.2.2
12	1804-1806 iron collection (possible area of)	1804-1840s (early European settlement)	4.2.1
13	Nickel testing costeans	1920s-1970s (iron, nickel and chromite exploration)	4.2.5
14	Hut, Barnes' grant	1804-1840s (early European settlement)	4.2.1

Table 1: List of places, sites, items and features identified on the basis of desktop research. Refer to Figure 11 for indicative mapped locations.

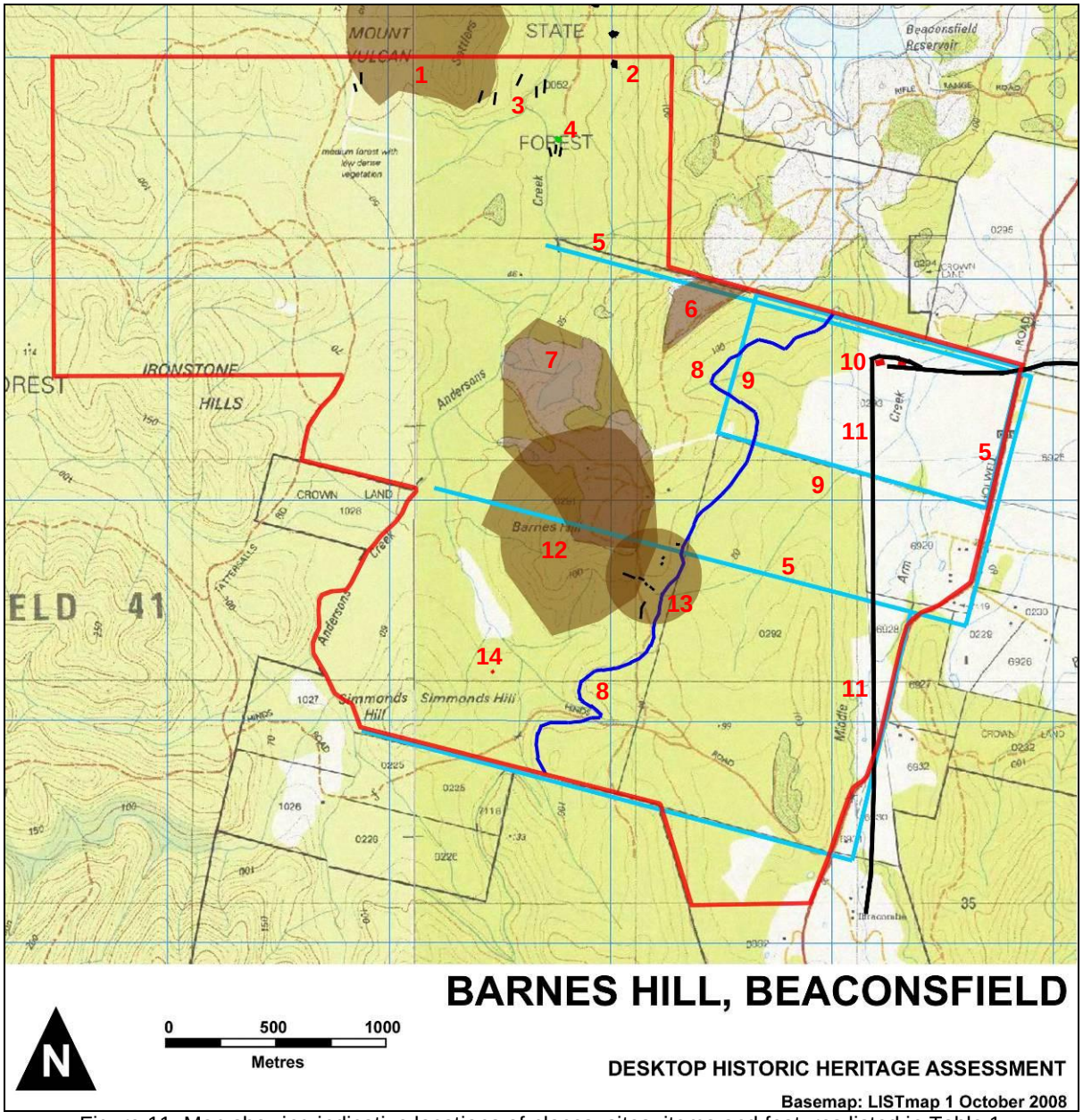

Figure 11: Map showing indicative locations of places, sites, items and features listed in Table 1

4.2 Historic Heritage Assessment

This section addresses the nature and importance of places, sites, items and features list in Table 1, depicted in Figure 11, and which represent historic period activities known to have occurred in the study area. This section also evaluates the potential for physical evidence of those activities to have survived the passage of time. The evaluation of disturbance is central to any determination of potential (that is, the likelihood of survival of features and deposits from the identified key significant periods). A detailed assessment of the potential of the study area, taking into account the known history of disturbance, follows. This has enabled the sites identified in Table 1 and Figure 11 to be reviewed and refined for management purposes (see Table 2 and Figure 20).

4.2.1 1804-1840s (early European settlement)

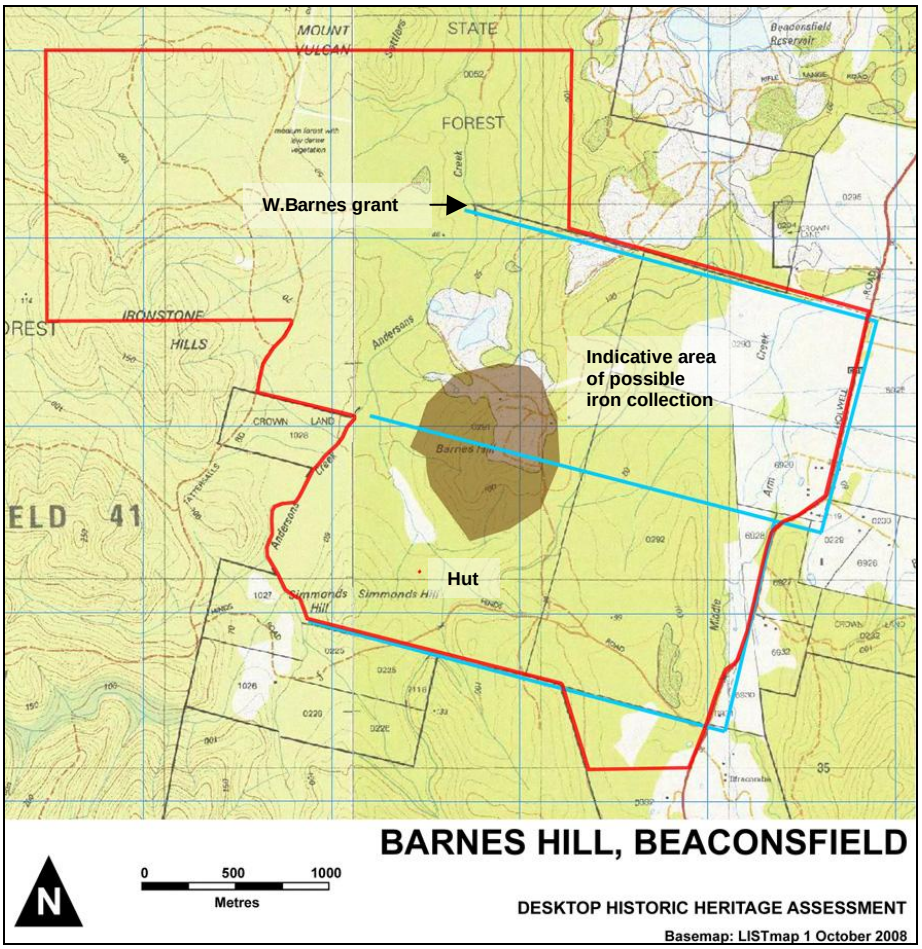

Figure 12: Map of study area showing known development between 1804-1840s, with the indicative location of features discussed in the text below

Evidence of European activity in the area from 1804 to the 1840s is limited, due largely to the fact that settlement in the West Tamar region did not occur on any large scale until the mid-19th Century. However, records do suggest that the study area may have been within reach of very early exploratory parties attached to the 1804-1806 York Town settlement, located six kilometres directly north. As discussed, historical records show that a few ton of iron ore was collected from the local area and shipped back to England for inspection. In 1866 Charles Gould, having minutely inspected the geology of the area, posited that the area from which they collected the ore would have been the

Ironstone Hills, stretching north and west of the study area.[53] Barnes Hill, which also had loose ore scattered across its surface, would also have offered comparatively easy pickings to these early explorers. As such, the possibility cannot be discounted that the study area may have witnessed one of the earliest attempts at metals exploitation by Europeans in Tasmania.

By 1840 the first land in the area was being parcelled up for sale to early settlers. The first recorded grant was to William Barnes in 1841, the survey of his combined 1280 acre grant being completed in late 1840. The survey, in addition to depicting the unimproved marshy terrain located between Andersons and Middle Arm Creeks, showed a single hut located on the eastern foothills of Simmonds Hill. No further information is available on the hut, which may in fact date to the 1830s or earlier. The structure is very early when compared to the settlement history of the local area which, after the initial attempts to establish York Town, was described as '…uninhabited and almost unknown…', with isolated pockets of settlement at York Town and along the shores of Middle Arm.[54]

Historic Heritage Potential (including archaeological potential)

The nature of features and deposits surviving following this phase of development potentially include:

- Possible area of 1804-06 iron collection: Evidence of this activity is highly unlikely to survive. Historical evidence suggests that activity was restricted to picking ore off the surface, rather than actual mining. The relatively small quantity recovered also suggests that the men did not carry out the activity for an extended period of time and therefore were unlikely to establish any detectable form of settlement. Any evidence that may have survived is also likely to have been overprinted by later 20th Century mining activity.
- William Barnes original grant alignment: Barnes' original grants are today delineated on the west side by Anderson Creek and on the east by Holwell Road. Aerial mapping indicates that traces of the northern and southern boundaries are also visible in the landscape, although there is little evidence of the line dividing the two. As well as macro landscape evidence, there is potential that mediums used to delineate the grants (such as fencing, stone alignments or blazed trees from surveys that have escaped the ravages of fire) may still survive *in situ*.
- Hut, Barnes' grant: It is unclear whether this hut was constructed from timber or stone. The superstructure was most likely the former, although the quantity of loose stone available in the area at the time suggests that the foundations and chimney may have been the latter. Use of such stone increases the possibility that evidence of the hut survives. Also increasing the possibility is the fact that little to no mining activity has been recorded in that area. Aerial mapping shows its indicative location as being in an area that has apparently suffered minimal disturbance.

Places, sites, items and features requiring further management

William Barnes original grant alignment
Hut, Barnes' grant

Refer to s5.0 for management recommendations.

[53] Gould, 'Geological Surveyor's report', p. 16.
[54] J Fenton, *Bush Life in Tasmania*, CL Richmond & Sons, Devonport, 1891 [1964], pp. 40-41.

4.2.2 1850s-1860s (Ilfracombe Sawmill)

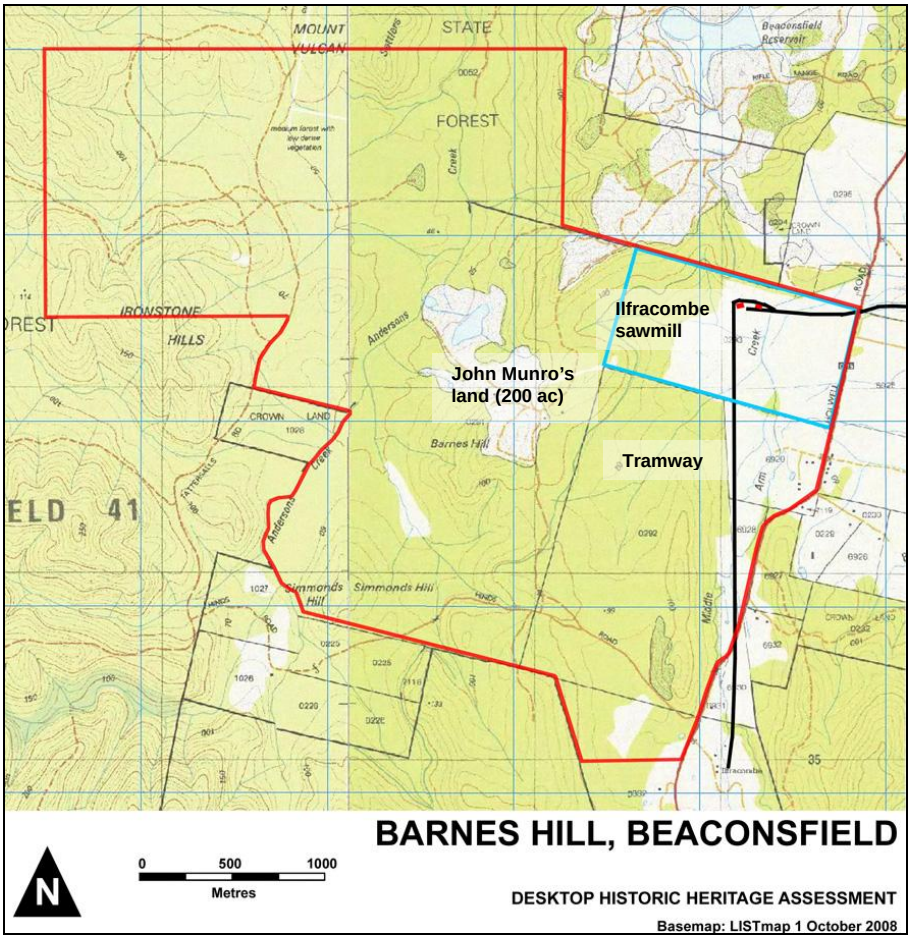

Figure 13: Map of study area showing known development between the 1850-1860s, with the indicative location of features discussed in the text below

The exploitation of timber resources began in earnest in the 1850s. As with many timber-getting areas in Tasmania, the areas closest to the water (and therefore easy transport routes) were harvested first, with the workings gradually moving inland as areas were worked out. By the early 1850s the Ilfracombe Sawmill was operating, significantly boosting the amount of timber harvested in the area. Initially timber was probably transported via roadways to the Middle Arm waterway, until, in the mid-late 1850s a tramway was completed. The sawmill operated until the late 1860s, at which time it was abandoned.

The sawmill is located in the north eastern sector of the study area, on the only significant portion of land that has been cleared and enclosed. It is likely that the ground was cleared as part of harvesting operations. It is located within a parcel of land originally granted to William Barnes, but later sold to John Munro, operator of the mill. The mill complex, historically thought to consist of mill building, sheds, cottage and workmen's huts, is located adjacent to Middle Arm Creek – probably a deliberate siting. The tramway alignment stretches to the south and to the north east, and appears to form, in part, the boundary between cleared and uncleared land.

Historic Heritage Potential (including archaeological potential)

The nature of features and deposits surviving following this phase of development potentially include:

- John Munro's land purchase alignment: The extent of Munro's land is clearly visible in aerial mapping and is delineated by both cleared sectors of ground, as well as visible traces in the uncleared sections. In addition to the macro landscape evidence, there is potential that mediums used to delineate the grants (such as fencing, stone alignments or blazed trees from surveys that have escaped the ravages of fire) may still survive *in situ*.
- Ilfracombe Sawmill complex: The sawmill was historically recorded as comprising an extended complex of structures – including two separate milling plants. Although the majority of buildings were recorded as being of timber, it is likely that elements like the boiler, engine and cutting bench/frame required more sturdy masonry foundations. Such features increase the chances of *in situ* survivability. Aerial mapping indicates that the complex may be located in an area of cleared land, although it is unclear if it is, or has been, cultivated.
- Ilfracombe Sawmill tramway: The suggested path of the tramway largely passes through cleared land in the eastern extent of the study area. Little evidence of it can be discerned on aerial maps. Currently no historical evidence has been found which indicates what the tramway was constructed of, although it is highly likely to have been timber. Evidence of topographic modification (cuttings, embankments etc), especially where the line crossed Middle Arm Creek near the sawmill are more likely to have survived than timber elements (the latter determined by site conditions and exposure to fires).
- Timber-getting landscape features: In addition to the mill and tramway, it is possible that the study area contains further evidence of mid-19th Century timber-getting. This may take the form of areas of harvested ground (such as the cleared area in the study area's eastern extent), shoed trees, snig tracks or saw pits. Working far from the sawmill, the timber-cutters probably favoured bush sawpits to reduce the timber, which was subsequently conveyed by working beasts back along formed tracks to the mill. Pits may even be located close to the mill site, so that timbers could be further reduced to a manageable size.

Places, sites, items and features requiring further management

John Munro's land purchase alignment
Ilfracombe Sawmill complex
Ilfracombe Sawmill tramway

Refer to s5.0 for management recommendations.

4.2.3 1870s (iron, gold mining)

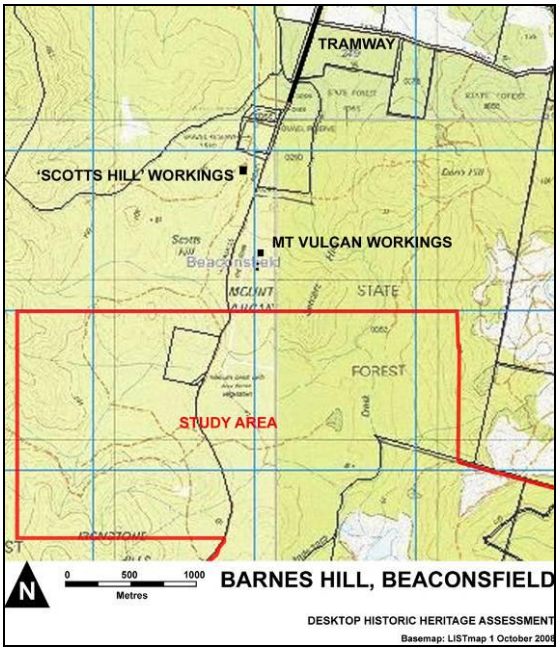

Figure 14: Indicative locations of 1870s iron mining features north of the study area

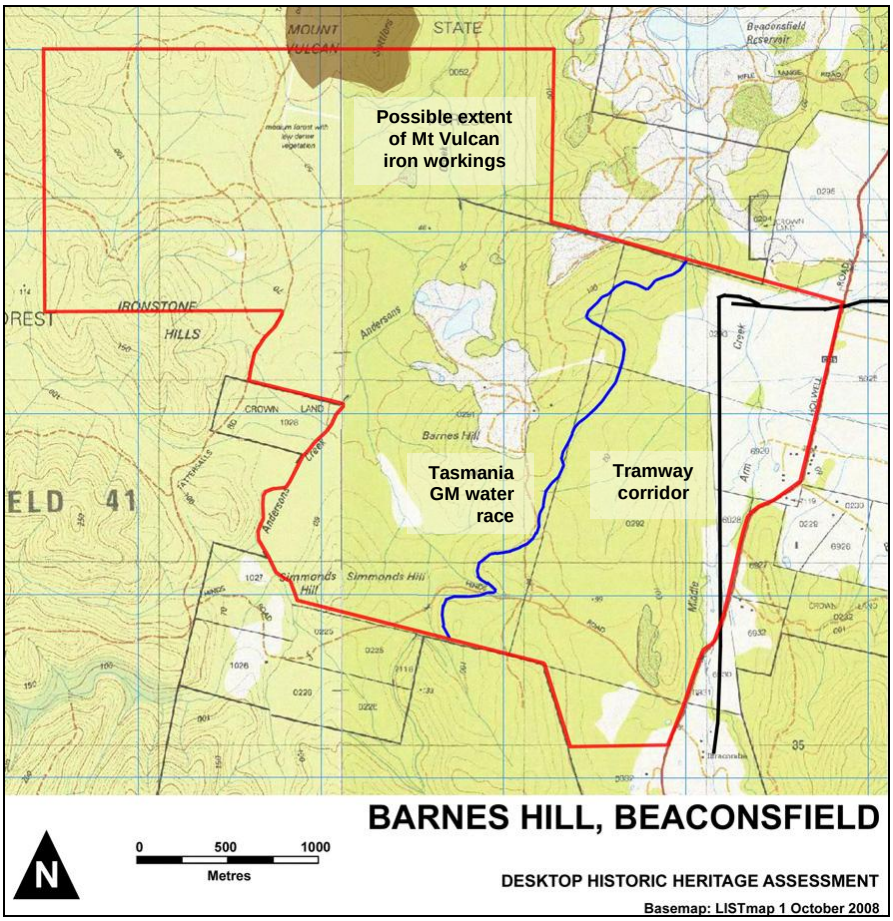

Figure 15: Map of study area showing known development in the 1870s, with the indicative location of features discussed in the text below

The study area is located both south and north of the main areas of iron mining and refinement in the West Tamar region. To the north were the workings, tramway and furnace of the British and Tasmanian Charcoal Iron Company (1872-1877). The Mt Vulcan workings were the biggest in the field. To the east of this were the workings of the Tamar Hematite Iron Company (1874-1875), located near Brandy Creek. South of the study area was the Ilfracombe Iron Company (1873-1874). A company was formed to work the Barnes Hill deposit, but this never progressed beyond drawing board stage.

None of these operations appear to have greatly impacted upon the study area. Unrecorded workings of the British and Tasmanian Charcoal Iron Company may be located on the southern side of Mt Vulcan, in the northern periphery of the study area. In addition, there is evidence that the Ilfracombe Iron Company reused the Ilfracombe sawmill's tramway corridor, although they do not appear to have used the tramway itself (which may have fallen into disrepair).

The study area also possibly contains evidence of features related to the commencement of large-scale gold mining on the slopes of Cabbage Tree Hill (Beaconsfield). In 1878 the Tasmania Gold Mine began operations, which lasted uninterrupted until 1914. As well as the mine workings itself, the mine (as well as other mines on the field) had an extensive network of tramways, water races and dams. By 1894 two extensive water races ran from Andersons Creek to the mines, owned by the Tasmania Gold Mine and Quartz Crushing Company. One of these races runs through the eastern extent of the study area. During the 20th Century it was reused as a municipal water supply. It is also recorded that the Andersons Creek area was extensively harvested for timber between the 1870s-1910s, the area being almost cleared of useable timber for the mine workings.[55]

Historic Heritage Potential (including archaeological potential)

The nature of features and deposits surviving following this phase of development potentially include:

- Mt Vulcan iron workings: Although the Mt Vulcan iron quarry and prospecting shafts are recorded further north of the study area, it is possible that unrecorded workings and evidence of exploratory works are located within the study area.
- Ilfracombe Sawmill tramway corridor: Evidence suggests that the tramway itself had gone out of use by the time the Ilfracombe Iron Company established its workings, although the corridor was used for the passage of men and material. It is possible that the formation was modified to create a serviceable roadway (possibly corded), evidence of which may survive today.
- Tasmania Gold Mine water race: The water race was still present in 1970s survey plans and is shown in modern topographic maps. Mapping indicates that it is located east of the 1970s chromite mining and is therefore likely to be largely extant.
- Associated gold mining impacts: It is recorded that the Andersons Creek area was extensively harvested for mine timber from the 1870s-1910s. Although no direct evidence has been found of such activity, it is possible that features associated with late-19th Century timber-getting to supplement mining operations may be located throughout the area, including: sawpits, snig tracks and tramways.

Places, sites, items and features requiring further management

Tasmania Gold Mine water race

Refer to s5.0 for management recommendations.

[55] Taylor, *Asbestos in Tasmania*, p. 20.

4.2.4 1890s-1910s (asbestos, serpentine quarrying)

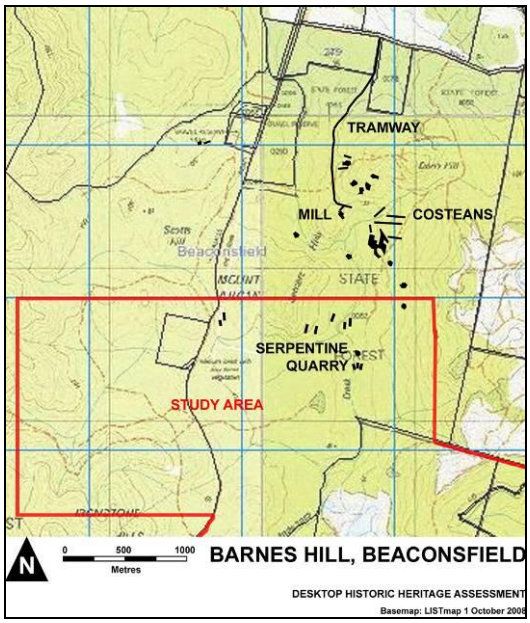

Figure 16: Indicative location of asbestos quarrying and milling features north of the study area

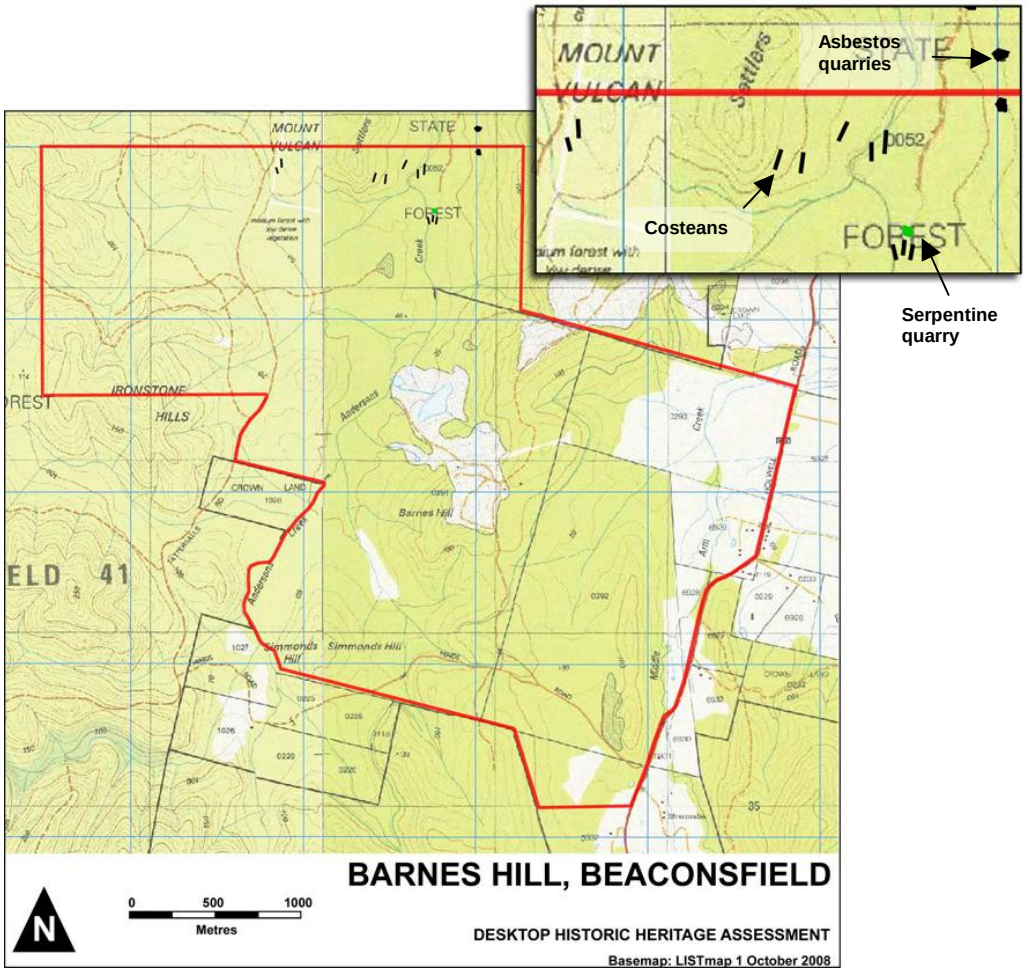

Figure 17: Map of study area showing known development between the 1890s-1910s, with the indicative location of features discussed in the text below

As with the principal iron mining activity, asbestos quarrying and refinement largely took place at and around the northern border of the study area. Commencing in 1897, extraction of the resource continued through until 1919. During these decades at least nine quarries were worked by the Australasian Asbestos Company (1899-1901), Durasbestos Company (1916-1919) and the Wunderlich Ltd (1919), as well as numerous smaller operators. A mill, built by the Durasbestos Company in 1917, is also located just north, and outside of the study area.

The only asbestos quarrying activity recorded in the area is related to a single quarry on land formerly belonging to Durasbestos/Wunderlich and probably worked during 1917-19. The workings were described in 1919 as being an open cut. Geologist AM Reid noted this quarry did not produce profitable results.[56] In addition, a series of costeans/prospecting trenches were recorded during a 1955 survey.[57]

As well as the asbestos workings, limited serpentine extraction also took place in the area between 1914-1916 by the Tasmanian Greenstone Company. The site of this is located within the northern extent of the study area, on the eastern bank of Andersons Creek. In 1917 the site was described by Geologist WH Twelvetrees:

> The quarry has been opened in serpentine rock for a depth of from 15 to 20 feet. The derrick for lifting the stone is still there, and some blocks of hewn and squared stone 3 or 4 feet by 1 ½ and 2 feet are lying about the quarry ready for shipment.[58]

Historic Heritage Potential (including archaeological potential)

The nature of features and deposits surviving following this phase of development potentially include:

- Asbestos quarries: The majority of asbestos-related activity occurred north of the study area, although at least one quarry is recorded within the area's bounds. However, this quarry was described as a minor working, in comparison to the larger ones to the north. In addition to this quarry it is possible that further unrecorded works may be located in the study area's northern extent, as well as associated exploratory works (costeans, shafts) and transport infrastructure (roads, tramways).
- Asbestos costeans: These features were recorded during a 1955 survey and were most likely excavated during the early 20th Century. Depending upon their original size and the nature of the geology, traces of these features may still remain in the study area landscape.
- Serpentine quarry: The quarry operated for two years (1914-1916) before closing. It is not recorded if the site was ever worked again.[59] It is likely that evidence of the quarry itself remains, as well as associated features (crane derrick base, roads).
- Associated gold mining impacts: It is recorded that the Andersons Creek area was extensively harvested for mine time from the 1870s-1910s. Although no direct evidence has been found of such activity, it is possible that features associated with late-19th Century timber-getting may be located throughout the area, including: sawpits, snig tracks and tramways.
- Associated track networks: Historical evidence indicates that the north western portion of the study area was crossed by a number of 'cart' tracks from at least the 1890s. Although of an insubstantial nature, it appears likely that these tracks are represented in today's landscape by the trackways visible on modern topographic maps.

Places, sites, items and features requiring further management

Serpentine quarry

Refer to s5.0 for management recommendations.

[56] Reid, 'Asbestos in the Beaconsfield District', p. 18.
[57] Taylor, *Asbestos in Tasmania*, map.
[58] Twelvetrees, 'Asbestos at Anderson's Creek', p. 24.
[59] During the 1960s serpentine was apparently extracted from the Andersons Creek area. It is possible that the earlier quarry was reopened at this time. In this event evidence of the earlier quarrying phase may have been impacted. Sharples, *The building and ornamental stone resources of Tasmania*, p. 233.

4.2.5 1920s-1970s (iron, nickel and chromite exploration)

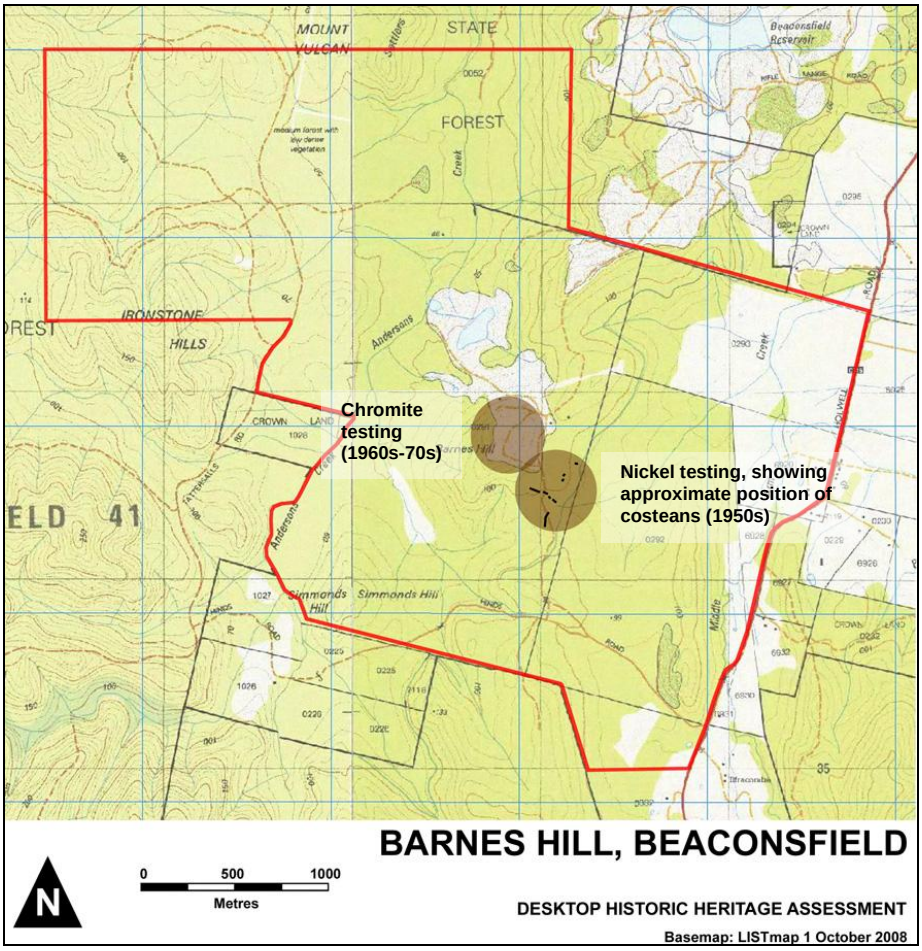

Figure 18: Map of study area showing known development between the 1920s-1970s, with the indicative location of features discussed in the text below

In 1929 Geologist PB Nye carried out a campaign of boring for iron on Barnes Hill. As part of this Nye put down six boreholes, the exact locations of which are not known. Following this, during the 1950s, the Ben Lomond Mining Company and then the Consolidated Zinc Pty Ltd prospected the area for nickeliferous clay, putting in a number of costeans and boreholes. The results of these explorations being disappointing, the next recorded activity was in 1961, when the Department of Mines began testing for chromite, the result of which was that a lease was taken out by a syndicate to mine the metal in 1969. During 1969-1971 the syndicate conducted further testing, but does not appear to have mined on any scale.

All this testing occurred within the study area. Both the iron and chromite prospecting occurred on the crest and slopes of Barnes Hill, whilst testing for nickel appears to have been restricted to an area immediately west of the Tasmania Gold Mine water race.

Historic Heritage Potential (including archaeological potential)

The nature of features and deposits surviving following this phase of development potentially include:

- 1920s boreholes: Evidence of this activity is most likely no longer extant. The discrete signature of boreholes, as well as later mining activity, has more than likely resulted in their overprinting.
- Nickel testing costeans: The costeans and trenches associated with this period of testing possibly remain in the area immediately west of the Tasmania Gold Mine water race. The chances of

survival are increased by the fact that later mining activity does not appear to have taken place in this area.

- Chromite testing: The boreholes and costeans put in during this period have most likely been overprinted by later mining activity in the area.

Places, sites, items and features requiring further management

No sites from this period have been identified as requiring further management beyond the scope of this report.

4.2.6 1977-1981 (chromite mining)

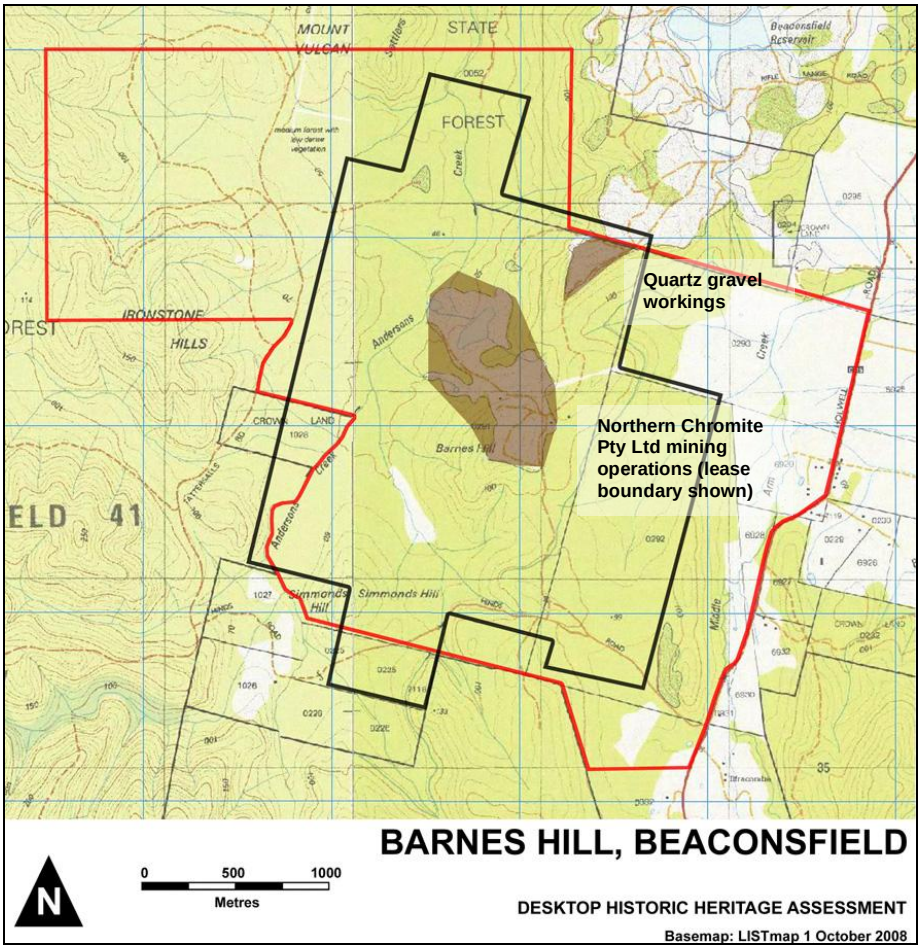

Figure 19: Map of study area showing known development between the 1977-1981, with the indicative location of features discussed in the text below

During 1977-1981 Northern Chromite Pty Ltd (successors to the syndicate) mined Barnes Hill for its chromite deposits. Over three years of operation the company established a treatment plant, as well as a series of tailings dams. 2,689 tons of chromite were produced by the company, the only chromite produced in Tasmania to date. The only other recorded activity was the working of a quartz gravel quarry to the north east of the mine. This was described in the late 1980s as being abandoned.

The workings of Northern Chromite Pty Ltd are located within the bounds of the study area. They extend from the crest of Barnes Hill down its northern and eastern slopes. The quartz gravel quarry is located in the north of the study area.

Historic Heritage Potential (including archaeological potential)

The nature of features and deposits surviving following this phase of development potentially include:

- Northern Chromite Pty Ltd mining operations: Evidence of this activity is clearly visible in recent aerial mapping and on topographic maps. The extraction zone appears to be located on the slopes of Barnes Hill, with the tailings dams located to the north. When the mine ceased operating, the area was rehabilitated (re-contouring and seeding) and the plant and equipment removed. The water supply dam and tailings dam were retained.[60]
- Quartz gravel workings: The section of quarry in the study area appears to be the southern extent of an extended area of quarrying in the Rifle Range Road area. The workings are still highly visible in aerial photographs.

Places, sites, items and features requiring further management

Northern Chromite Pty Ltd mining operations

Refer to s5.0 for management recommendations.

[60] MRT. 'Annual report for the year 1980-81', p. 26.

4.3 Places, sites, items and features requiring further management

1	Serpentine quarry	1890s-1910s (asbestos, serpentine quarrying)
2	William Barnes original grant alignment	1804-1840s (early European settlement)
3	Northern Chromite Pty Ltd mining operations	1977-1981 (chromite mining)
4	Tasmania Gold Mine water race	1870s (iron, gold mining)
5	John Munro's land purchase alignment	1850s-1860s (Ilfracombe Sawmill)
6	Ilfracombe Sawmill complex	1850s-1860s (Ilfracombe Sawmill)
7	Ilfracombe Sawmill tramway	1850s-1860s (Ilfracombe Sawmill)
8	Hut, Barnes' grant	1804-1840s (early European settlement)

Table 2: Places, sites, items and features requiring further management

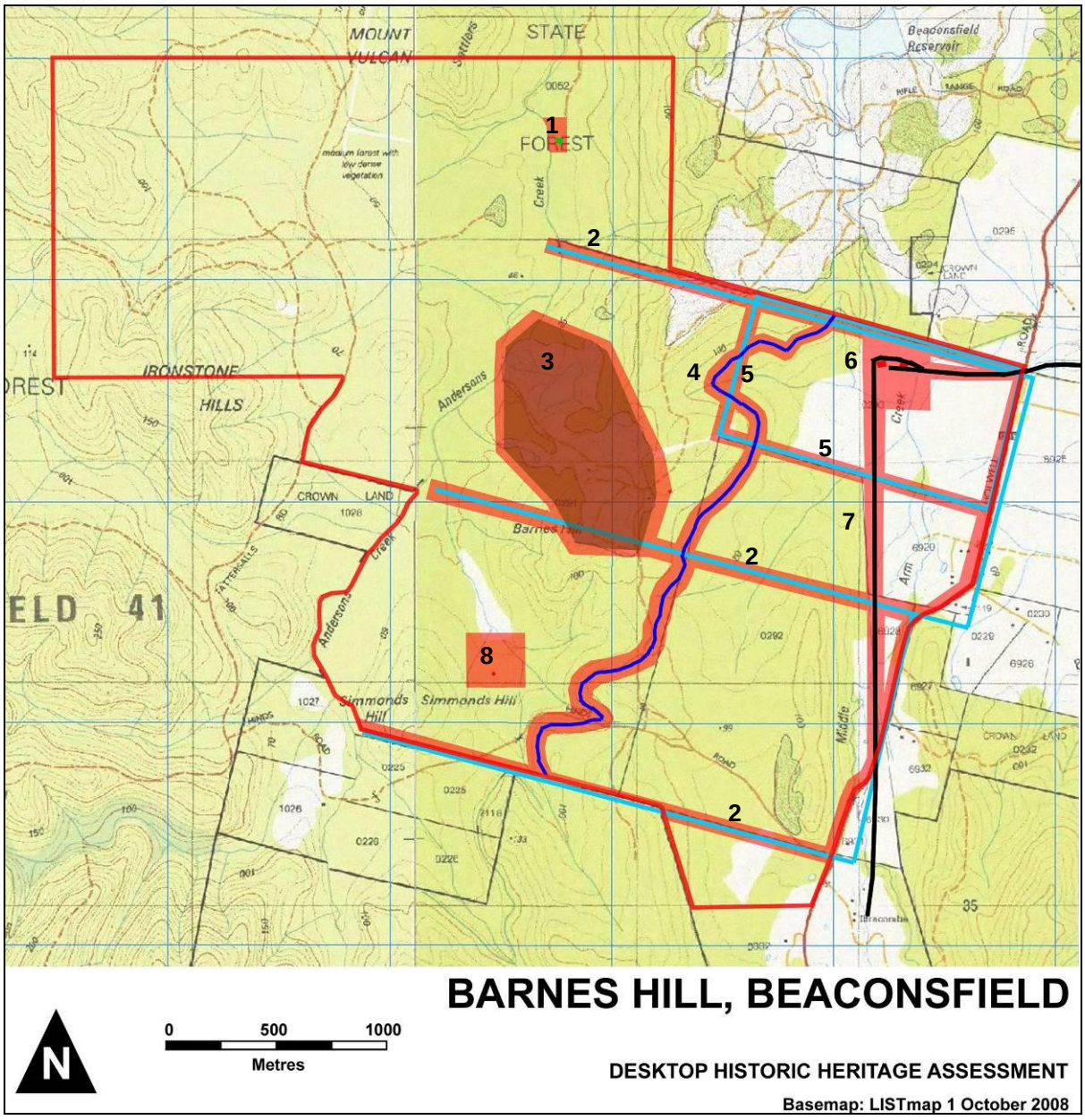

Figure 20: Sensitivity zoning map showing indicative locations of places, sites, items and features requiring further management

5.0 Recommendations

5.1 Heritage (including archaeological) significance

The study area has the potential to contain evidence of a variety of historic period activities spanning an extended period, potentially in excess of 180 years, representing aspects of early settlement, timber getting and mineral exploration and exploitation. Records indicate that the features are scattered across the landscape in clusters corresponding with the location of mining activity and therefore heavily determined by the presence, location and type of valuable geological resources: iron, gold, asbestos, serpentine, nickel and chromite. As discussed above, a number of these features are considered to warrant further management.

- Pre-1840 hut: Hut sites are frequently noted in historical research and are comparatively common in the Tasmanian landscape.[61] However, such huts are poorly represented in heritage registers, schedules and the like and therefore receive little or no protection. Hut sites that survive from the first half of the 19th Century are likely to be rarely encountered and should therefore be accorded a level of significance commensurate with this. In the context of the hut discussed in this report, its significance must be considered high due to the fact that, prior to the 1850s, the West Tamar area was described as almost uninhabited, with settlements sparsely scattered along the reaches of the Tamar River. The hut site therefore has the potential to yield rare, original information on some of the very earliest settlers in the region; evidence that is potentially illustrative of life on the Tasmanian frontier.
- William Barnes and John Munro's grant/land purchase alignments: From the commencement of European settlement, the Tasmanian landscape was gradually compartmentalised through the process of land grants and purchases. In the West Tamar region, this process began on a large scale during the early-mid 19th Century. Initially focussing on the Tamar, grants spread south and west into the hinterland. The twinned grants of William Barnes are a very early example of this settlement, as is the slightly later land purchase of John Munro. The latter lot is located within the bounds of Barnes' northern grant and encompasses the workings of the Ilfracombe Sawmill. Both Barnes' and Munro's lots are important in the context of the history of local settlement, being representative of some of the first formal land alienation attempts in the area.
- Ilfracombe Sawmill and tramway: Built during the early 1850s, the Ilfracombe Saw Mill Company's mill is an early example of steam-powered timber-milling. From as early as the late-1820s steam technology had been used for flour-milling in Hobart, but it was not until the 1850s that it was applied on any scale to timber mills, with its use being recorded at southern timber-getting sites.[62] In the context of the local area, the mill can be considered to be highly significant. James Fenton recorded the presence of only two steam-powered timber mills in the wider area during the 1850s: one each on the Don and Mersey rivers.[63] In tandem with the mill itself, are the workmen's huts associated with the complex, increasing the potential of

[61] Two c.1820s rural hut sites were encountered in a survey along the Lyell Highway. Similarly, historical research on a section of the Esk Main Road highlighted the presence of a mid-late 19th Century Shepherd's Hut. A number of shepherds huts were encountered in a survey near Lake Sorell. See: Austral Archaeology Pty Ltd, 2007, *Lyell Highway Granton to New Norfolk Sections 1-3*, report prepared for Pitt & Sherry, pp. 26-27; Austral Archaeology Pty Ltd, 2006, *Esk Main Road 1.4kms East of Joe Woods Creek*, report prepared for Pitt & Sherry, p. 4; D Parham, 1992, *Silver Plains Archaeological Survey (Lake Sorell)*, pp. 18-21.

[62] W Pearson, 1995, *Water Power in a Dry Continent: The Transfer of Watermill Technology from Britain to Australia in the 19th Century*, thesis submitted in fulfillment of the requirements for the degree of Doctor of Philosophy, Department of Archaeology and Palaeoanthropology, University of New England, Armidale, pp. 66,88-90; P Kostoglou, 1994, *Historic timber-getting between Hastings and Dover, Block 2*, Forestry Tasmania, Tasmanian Forest Research Council Inc., Tasmania, p. 13; P Kostoglou, 1994, *Historic timber-getting between Cockle Creek and Lune River, Block 1*, Forestry Tasmania, Tasmanian Forest Research Council Inc., Tasmania, p. 15.

[63] Fenton, *Bush Life in Tasmania*, pp. 85, 106-07.

the recovery of significant archaeological deposits.[64] The timber tramway is important because of the integral linkage role it played in the day-to-day operations of the mill.

- Tasmania Gold Mine and Quartz Crushing Company water race: Constructed during the 1880s or 1890s, this large water race was one of a number to supply water to the operations of the Tasmania Gold Mine. Records indicate that it was one of two to tap the Andersons Creek water supply, the second race located north of the study area. Indications are that this second race has been heavily impacted by the construction of the Beaconsfield reservoir, whilst that in the study area appears to have been little impacted and therefore has the potential to be an intact example of infrastructure associated with the Tasmania workings.[65] In previous studies of the Beaconsfield area such features as tramways and water races have been assigned a high level of significance due to their association with the operations of the Tasmania Gold Mine.[66]
- Serpentine quarrying 1914-1916: According to a recent survey of Tasmania's building and ornamental stone resources 'There is no record of serpentine having been quarried in Tasmania for the production of large blocks of polished slabs or building applications', although it does state that serpentine was quarried from Andersons Creek in the 1960s for terrazzo production.[67] A survey of documentation relating to Tasmania's serpentine resources supports this finding, showing that serpentine was only extracted as part of asbestos mining (Dundas) or in limited quantities for road metal (Forth).[68] The quarrying and on-site working of serpentine for the monumental trade recorded at Andersons Creek between 1914-1916 is therefore a significant aspect of not only localised resource extraction, but also represents the only known attempt in Tasmania to work the resource for the commercial market. This was perhaps recognised by Geologist WH Twelvetrees when he described the operation as a 'laudable' attempt to establish such an industry.[69]
- Chromite mining 1977-81: Although a very recent addition to the study area's landscape, the workings of Northern Chromite Pty Ltd must be accorded some level of historical significance, due largely to the fact that this is the only Tasmanian location to date from which chromite has been extracted. Records indicate that the evidence of workings is limited to a scarified landscape that probably includes the zones of extraction and refinement, as well as features related to water supply and treatment. The post-mining rehabilitation of the landscape and the removal of all plant and machinery has most likely negatively impacted upon the historic signature, nullifying any historical archaeological potential.

5.2 Management guidelines

This desktop study represents the first stage in the process of understanding and managing historic heritage values. The following recommendations are aimed at progressing this understanding through the accrual of more detailed information based on targeted site inspection/s.

[64] The research potential of such forest sawmills has been proven by recent investigations in Victoria. See: P Davies, ''A little world apart…': Domestic consumption at a Victorian forest sawmill', journal of the *Australasian Society for Historical Archaeology*, Vol. 20, 2002, pp. 58-66.
[65] MRT. Mineral Chart 108d, c.1894.
[66] Austral Archaeology, *Beaconsfield Mine Joint Venture,* pp. 13, 20.
[67] It is unclear where this activity occurred. MRT. UR 1990/31, CE Sharples, 1990, *The building and ornamental stone resources of Tasmania*, report prepared for the Tasmanian Development Authority and the Tasmania Department of Resources and Energy (Division of Mines and Mineral Resources), Tasmania, p. 233.
[68] MRT. GSB36, AM Reid, 1925, *The Dundas Mineral Field*, Geological Survey Bulletin No. 36, Tasmania Department of Mines; MRT. UR1939/17, F Blake, 1939, 'Notes on Asbestos Deposit at North Dundas', Memorandum, Acting Government Geologist, p. 1; Taylor, *Asbestos in Tasmania*, pp. 49-51.
[69] Twelvetrees, 'Asbestos at Anderson's Creek', p. 24.

5.2.1 Recommendations

1. Field Inspection & Reporting: Progress to targeted field assessment of the areas of potential historic heritage sensitivity (i.e., the area and localities of sites described in Table 2 and depicted in Figure 20) and undertake the following actions:

   - Record and report updated observations of the historic attributes of the study area in an illustrated format that builds on the inventory created here, including additional site specific historical research (where applicable), taking into account both site specific attributes and any relevant wider associations.
   - Assess the significance of recorded places, sites, items or features at both site specific or cultural landscape level (the latter where wider associations are identified).
   - Provide recommendations for management of the identified significant historic heritage places, sites, items or features. This may include recommendations for mitigation of heritage impacts in development-orientated contexts.

   Note: Prior to undertaking fieldwork, assess the risk and procedures for undertaking fieldwork in the area mined for asbestos (i.e. the Serpentine quarry – Inventory Feature 1 depicted in Figure 20).

2. Consultation & Compliance: It is recommended that the proponent consult with both the Parks & Wildlife Service and Forestry Tasmania to establish any requirements, in this case pertaining to the management of historic heritage values, required to be taken into account as part of any future, more detailed field assessment.

3. Further Work: It is recommended that a further assessment be undertaken if it becomes apparent that the proposal will extend beyond the nominated study area (as depicted in Figure 1) to ensure that known and/or potential historic heritage values in adjacent areas are fully articulated.

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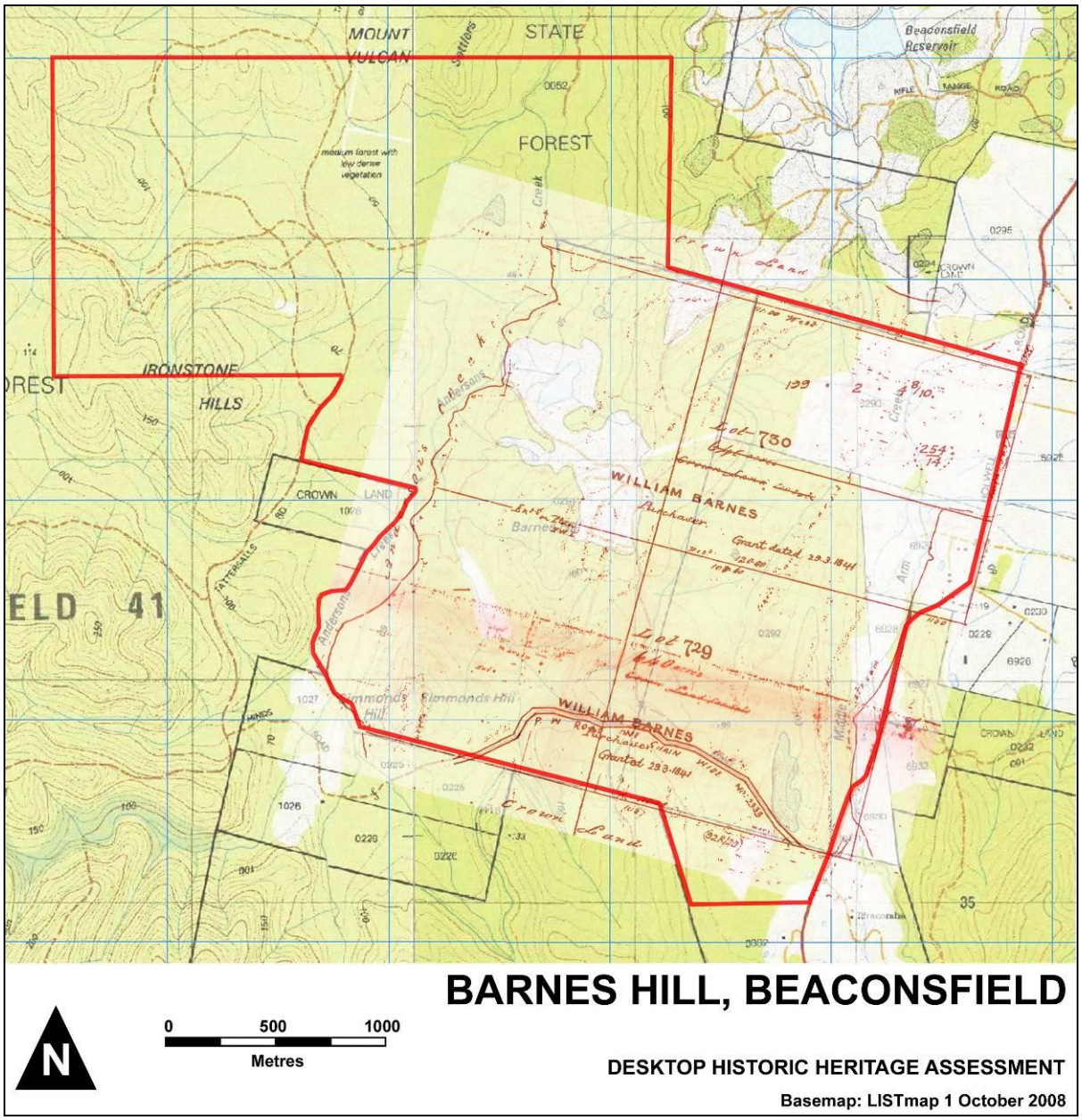
Appendix 1

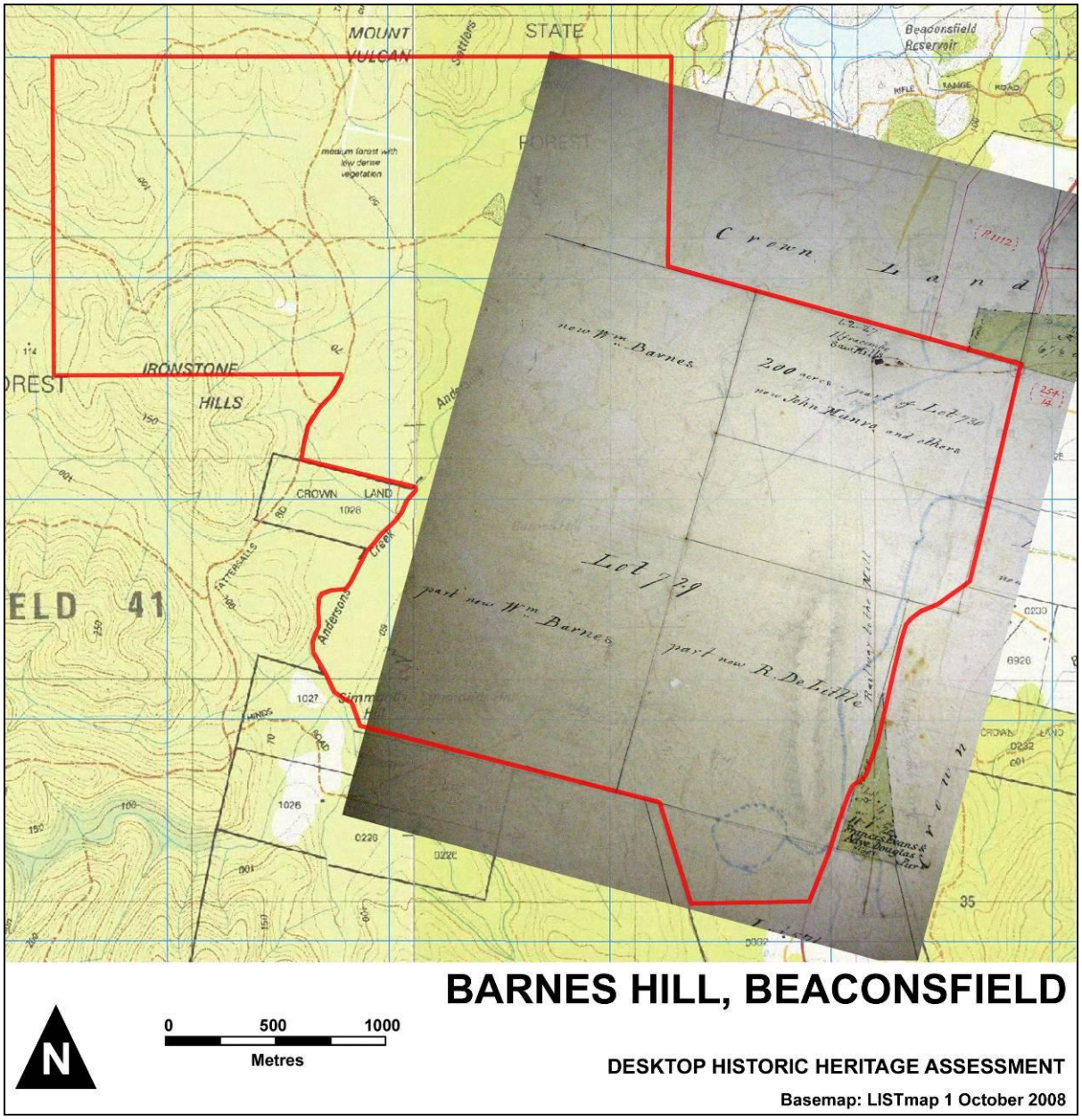
1840

Land Titles Office, Devon, 1/9, November 1840



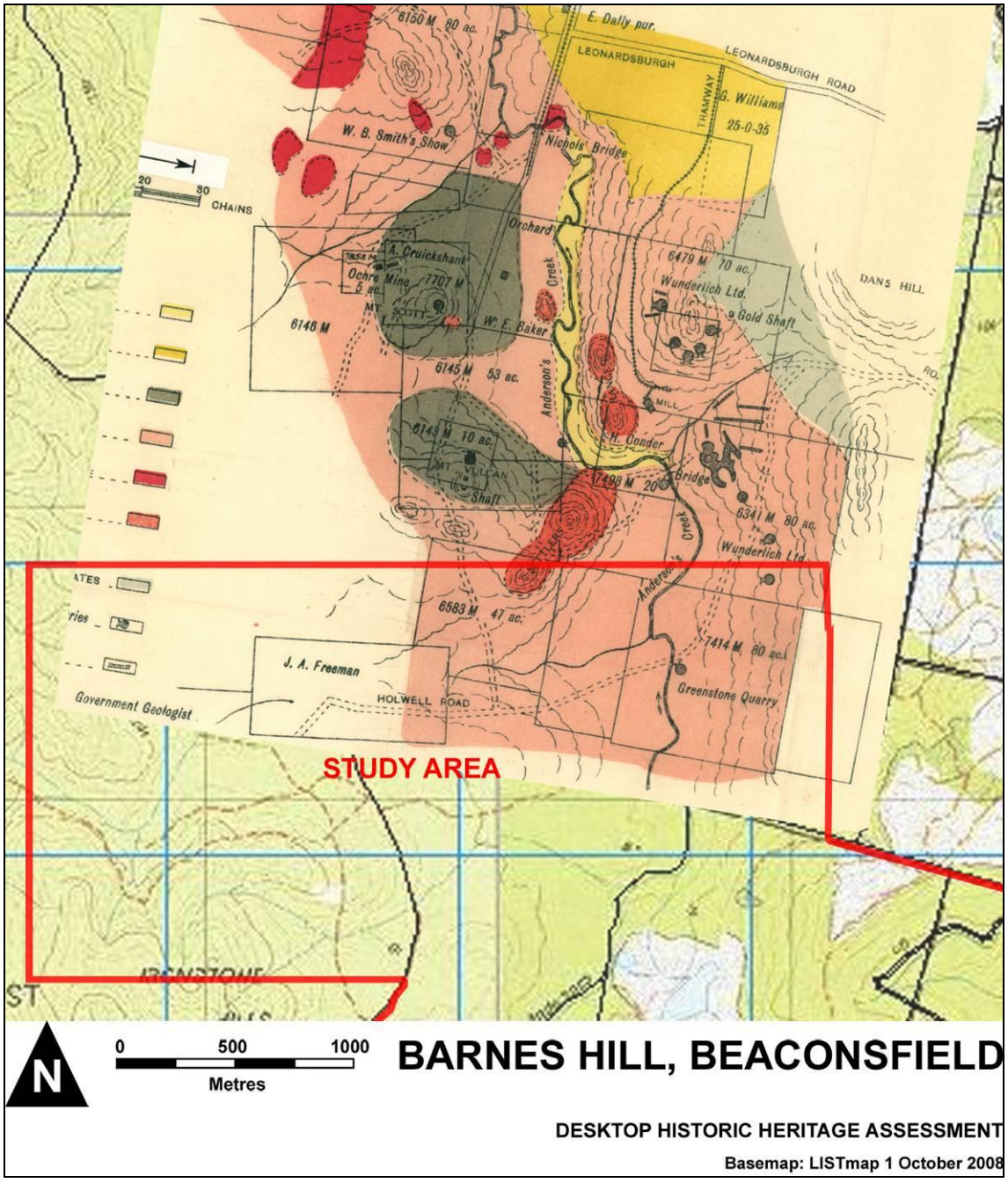
1857

Land Titles Office. Devon, plan 25, 'Plan of Railway from the Ilfracombe Sawmills to the River Tamar', 15 June 1857



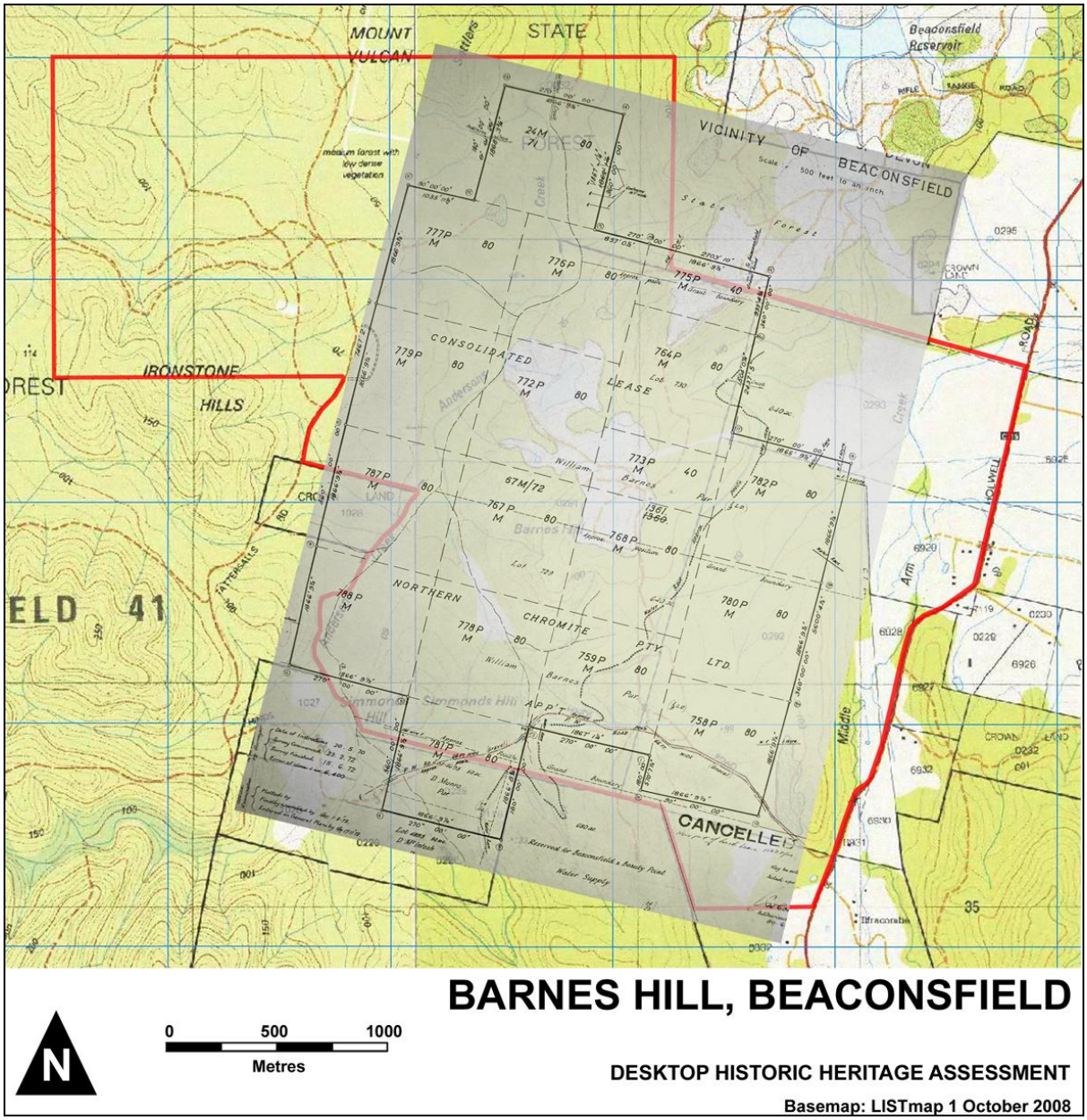
1919 – north

Mineral Resources Tasmania. GSREP8, AM Reid, 1919, 'Asbestos in the Beaconsfield District', Geological Survey Report No. 8



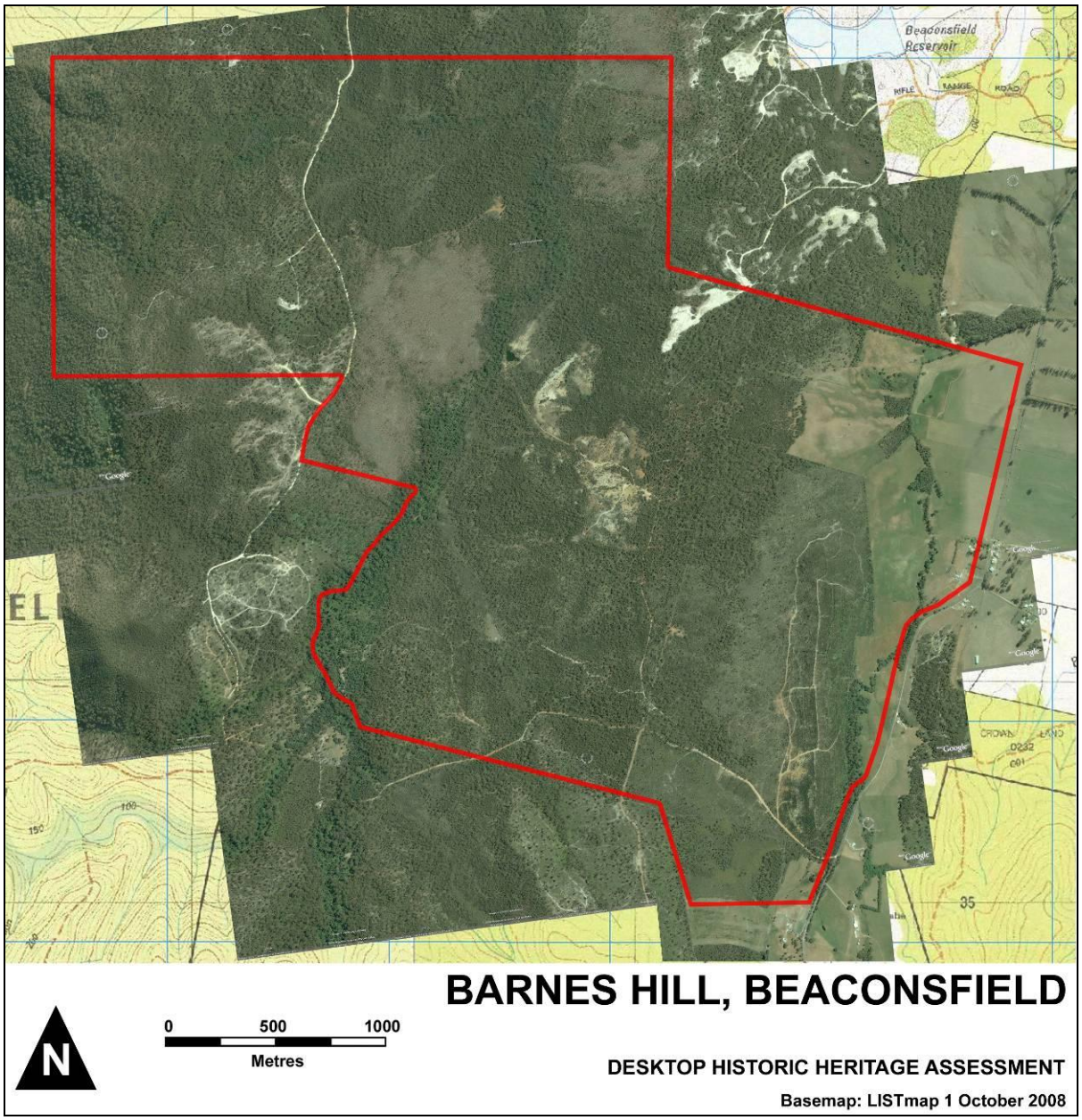
1973

Mineral Resources Tasmania. Devon plan 242, 2 August 1973



2007

Google Earth (composite map)



2007 - north

Google Earth (composite map)