

SUMMARY OF STATE HERITAGE PLACE

REGISTER ENTRY

**Entry in the South Australian Heritage Register in accordance with the
*Heritage Places Act 1993***

NAME: Prince Alfred Copper Mine Precinct **PLACE NO.** 26450

ADDRESS: Prince Alfred Road, via Cradock
[CR 5769/172, Section 1011, Out of Hundreds (Orroroo)]
[CL 1438/9, Block 310, Out of Hundreds (Orroroo)]

Designated as a Place of Archaeological Significance

STATEMENT OF HERITAGE SIGNIFICANCE

The Prince Alfred Copper Mine Precinct, including mine, smelter and township complex, is of State heritage significance because it demonstrates many aspects of 19th Century immigration, technology transfer and mining practice in South Australia, in particular mining practices imported from Cornwall, and the adaptation of a Cornish immigrant community to life in an isolated rural location.

The site is remarkable for its completeness, intactness and integrity and features a relatively rare engine and crusher house combination. The site has a high degree of archaeological potential that is likely to provide information on the demolished elements of industrial infrastructure and the miners' domestic material culture not available from other sources. The masonry engine and crusher houses demonstrate the century-long tradition of Cornish mining engineering and are built to a high standard with a pleasing aesthetic.

RELEVANT CRITERIA (under section 16 of the *Heritage Places Act 1993*)

(a) *it demonstrates important aspects of the evolution or pattern of the State's history.*

The Prince Alfred mine, smelter and township complex demonstrates many aspects of nineteenth century immigration, technology transfer and mining practice in South Australia, in particular mining practices imported from Cornwall, and the adaptation of a Cornish immigrant community to life in an

isolated rural location. Other places in the state (Burra and Moonta for example) demonstrate similar themes and events in South Australian history, but Prince Alfred is subtly different in being a smaller settlement occupied for a shorter time in an arid and difficult location. While there are other comparable small mine and settlement sites in South Australia, Prince Alfred has more monumental mining evidence and is better-preserved than most.

(b) *It has rare, uncommon or endangered qualities that are of cultural significance.*

There are very few sites that compare to the Prince Alfred mine as examples of Cornish mining technology. The masonry engine and crusher houses are of particular interest. Although eight Cornish pumphouses survive in South Australia (out of 33 built), very few crusher houses survive. Crusher houses were used for crushing ore to a fine particle size and separating copper from waste rock. While the Prince Alfred does not contain a pump house, it does contain a rare surviving example of a crusher house. Burra, Talisker, Balhannah and Nuccaleena mine sites have the remains of crusher houses, and those are probably the only other ones remaining in South Australia.

However as the Prince Alfred Copper Mine Precinct is one of only four surviving Cornish engine/crusher house combinations in Australia (the other such combinations are at Burra, Nuccaleena & Talisker), this precinct has rarity value.

(c) *it may yield information that will contribute to an understanding of the state's history, including its natural history.*

The Prince Alfred Copper Mine Precinct is an example of a self-contained 19th century copper mine complex with later 20th century phases of development apparent. It retains physical evidence of all phases of its history in terms of the physical fabric of the standing industrial buildings, and the low level structural and archaeological remains of mining infrastructure, domestic dwellings and public buildings. The site is remarkable for its completeness, intactness and integrity, and is likely to yield information that contributes to an understanding of the state's industrial and social history.

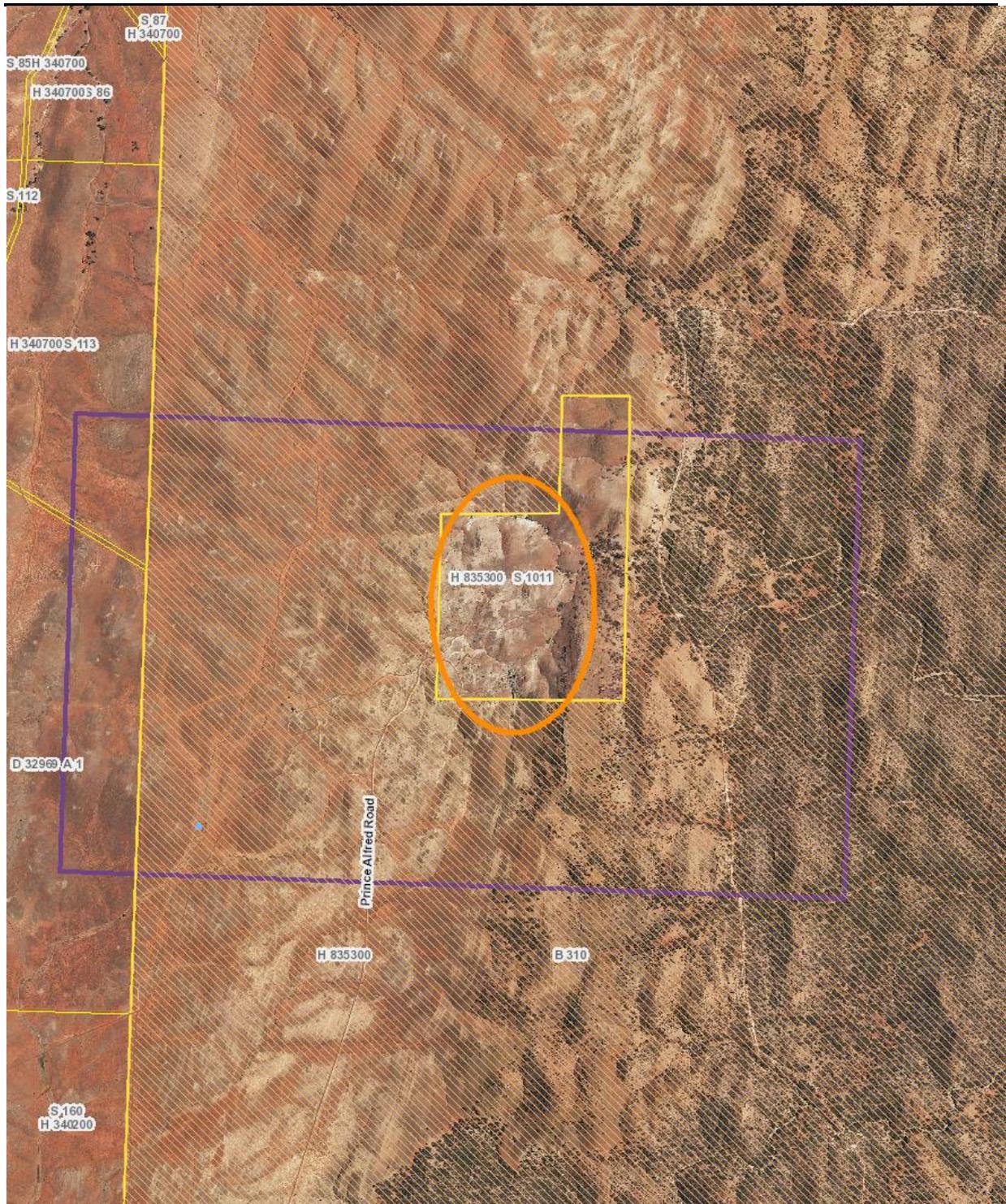
STATEMENT OF ARCHAEOLOGICAL DESIGNATION (section 14(7)(b) of the *Heritage Places Act 1993*)

The Prince Alfred Copper Mine Precinct has a high degree of archaeological potential which is likely to provide information not available from other sources. Such information may include the design and layout of features such as the Welsh reverbatory smelting furnaces, the assay house and furnace, intra-site roads and circulation patterns, ore haulage and transportation arrangements, and possibly pumping and water management arrangements. There may also be the remains of a brickworks near the site. The township was a small settlement occupied intensively for only a short period (1869-74) and then probably in later episodes up to 1907 by smaller numbers of people.

LOCATION PLAN

Prince Alfred Copper Mine Precinct
Prince Alfred Road, via Cradock

PLACE NO: 26450



Legend

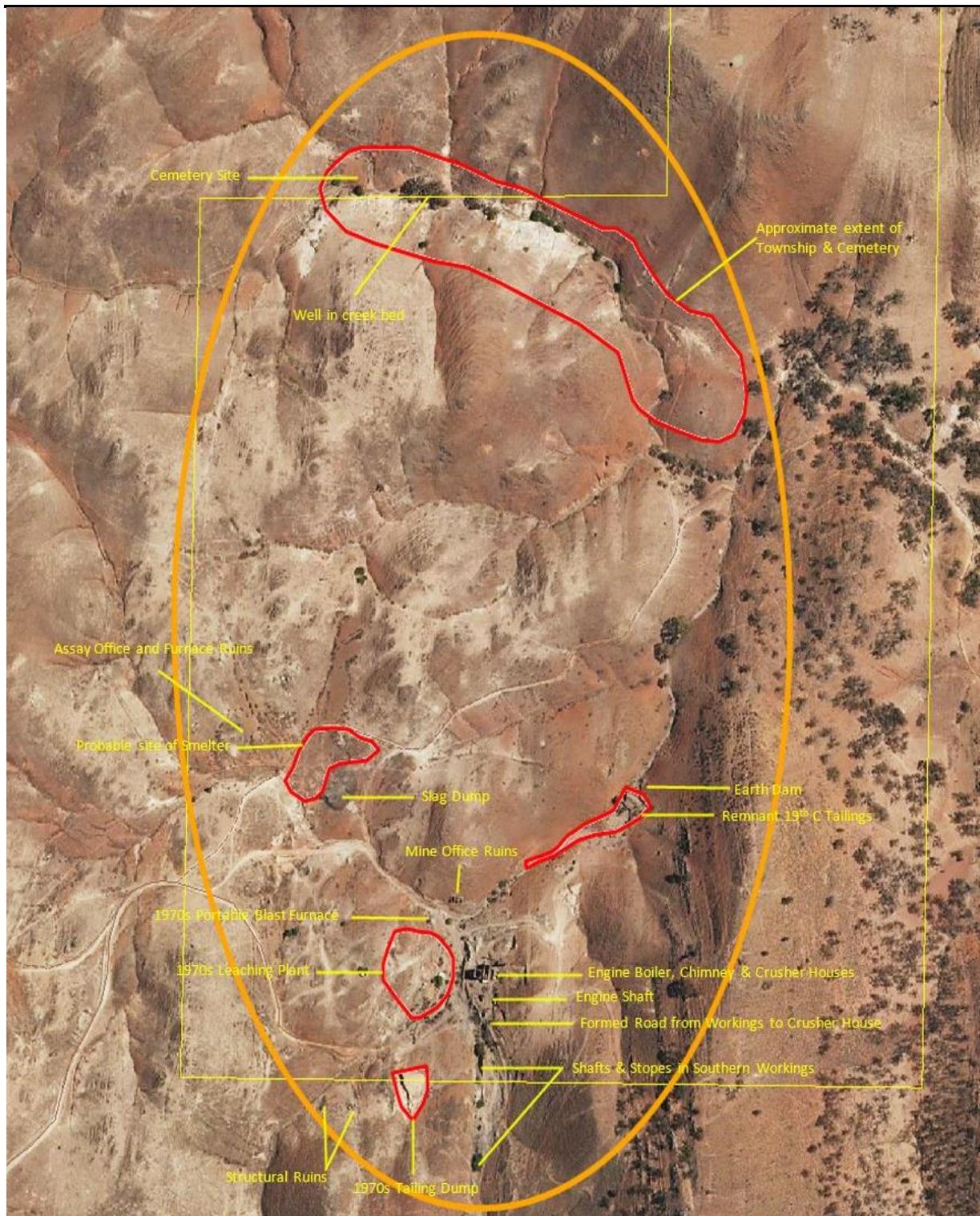
- Cadastral Boundary (diagonal hatch indicates area of pastoral lease)
- Mining Exploration License Boundary
- State Heritage Place Boundary

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SITE PLAN

Prince Alfred Copper Mine Precinct
Prince Alfred Road, via Cradock

PLACE NO: 26450



Legend

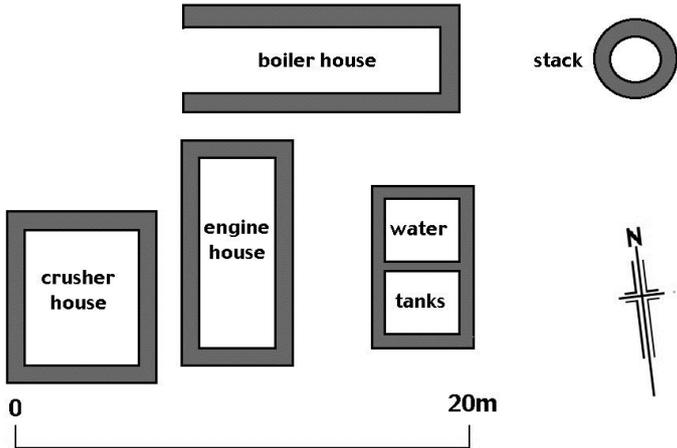
-  Crown Land Boundary
-  Components identified as being intrinsic to the heritage significance of the Place
-  State Heritage Place Boundary

Confirmed by South Australian Heritage Council on 16 March 2016

SCHEMATIC LAYOUT OF MINE BUILDINGS

Prince Alfred Copper Mine Precinct
Prince Alfred Road, via Cradock

PLACE NO: 26450



Prince Alfred Copper Mine Precinct Mine, via Cradock
[Schematic layout of crusher house, engine house, boiler house,
chimney and water tanks - Not to scale.]
(P. Bell)

COMMENTARY ON THE LISTING

Description and notes with respect to a place entered in the South Australian Heritage Register in accordance with the *Heritage Places Act 1993*

Physical Description

The Prince Alfred Copper Mining Precinct is a 19th Century mining complex, set in a hilly, remote and arid part of South Australia. It features impressive extant Cornish mine buildings and the remains of a full complement of mining infrastructure associated with such a place. An associated township that housed the miners straddles a seasonal creek and is sited down the valley about 500 metres to the north.

The components identified as being intrinsic to the heritage significance of the Prince Alfred Copper Mining Precinct include:

- ruins of the boiler, crusher and engine houses and associated chimney and water tanks;
- shafts, stopes and open cuts, where ore was mined;
- assay office ruins, smelter site and slag dump;
- ruins of the mine office and miners dwellings (around the main mine site);
- earth dam and various tailings deposits;
- cemetery and ruins of the houses, school, church and possibly pub in the township; and
- remains of the 1960s-70s leaching plant including structural foundations, the portable blast furnace and the tailings heap.

History of the Place

Mining seems to have occurred at the Prince Alfred Copper Mine in three separate episodes between 1869 and 1909, with a long gap from 1874 to 1889. Most of the production probably occurred in the 1870s, and the substantial masonry engine and crusher houses and the township were built during that first period of mining. It appears that three separate companies operated the mine in those episodes. Mining in remote areas involves high costs, and it is not unusual for such mines to have sporadic periods of production separated by long silences. The evidence at Prince Alfred Copper Mine Precinct reflects the way in which it was only viable at times of high copper prices.

There is very little information about the Prince Alfred community. The occasional newspaper story in 1873 mentions a New Year cricket match, a visit from James Lake MP, heavy rain flooding a few miners' dugouts, and the fact that there was a school and a primitive-looking chapel there. The same article noted that there was a

population of three or four hundred persons in the district and that Police Trooper Campbell based at Prince Alfred had been transferred away. The presence of a policeman in an outback town usually implied there was also a pub, and his removal may suggest the pub had closed.

In 1882, while the Prince Alfred mine was closed, a railway was built from Petersburg (now known as Peterborough) to Quorn, passing through Carrieton about 40km from the mine and significantly lowering transport costs. In 1889 a syndicate went to work and sent eighteen tons of ore off to Port Augusta.

In April 1890 the New Prince Alfred Copper Mining Company No Liability was formed to take over and work the mine. They pumped the water from the mine and worked it on a small scale, installing jigs to concentrate the ore. The concentrate was sent away to Wallaroo for smelting. Reports from the mine in this period were generally brief and incoherent, and the quantities of concentrate being sent away were very small, but the new company did install crushing rolls and a buddle, and apparently built new timber headframes over shafts. Numbers employed and copper production both remained small, and they apparently never smelted on site. That company wound up in 1897.

The following year another company called the Prince Alfred Copper Mining Company No Liability was formed in Melbourne, equipping the mine with its third lot of machinery and new or rebuilt smelters. In 1900 (a bad drought year) a dam was built to supply the mill with water. Previously the mill's water supply had come from the mine shafts. The mine worked on a small scale through the early years of the 20th Century, producing about 12,000 tonnes of ore. However another worldwide fall in the copper price closed the mine in 1907, and the company was wound up in 1909.

In the 1950s the South Australian Mines Department reviewed the state's copper resources. They investigated the Prince Alfred lode by diamond drilling, but no copper of commercial interest was found. In 1967 a group of former Broken Hill miners took over the Prince Alfred mine while the copper price was high, and set up a new plant. Their plan was not to re-open the mine, but to extract copper from old mine tailings by leaching. The Carrieton District Council rebuilt the road into the Prince Alfred mine in 1968. They are said to have formed a company called Minerals, Metals Reclamation and Mining Pty Ltd, but the Australian Securities and Investments Commission (ASIC) database has no record of a company of that name.

A journalist visited the site in 1971 and described a self-sufficient small community built out of recycled bits, with prefabricated former Housing Trust houses powered by a second-hand diesel generator. The plant apparently operated until some time in the 1970s, but it is not known when it closed or how much copper it produced. Mines

Department notes record about 600 tons of copper, which was worth \$1,600 per ton at the time.

References

This Summary of State Heritage Place was prepared by Justin McCarthy and Peter Bell in July 2015. The primary source for this Summary was:

- McCarthy, Justin & Dr Peter Bell, Heritage Assessment Report 'Prince Alfred Copper Mine Precinct' (2015), commissioned by DEWNR.

Refer to the Heritage Assessment Report for more detailed information about the history and references relating to the Prince Alfred Copper Mine Precinct, Cradock.

SITE DETAILS

Prince Alfred Copper Mine Precinct
Prince Alfred Road, via Cradock

PLACE NO: 26450

FORMER NAME:	Not Applicable
DESCRIPTION OF PLACE:	19 th -century copper mining site with extant industrial and domestic building ruins, archaeological remains and a cemetery.
DATE OF COMPLETION:	1869 (First mine episode)
SA HERITAGE REGISTER STATUS:	Description: Confirmed 16 March 2016
LOCAL HERITAGE STATUS	N/A
CURRENT USE:	Description: Crown Land Dates: c.1980-present
PREVIOUS USE(S):	Description: Mining and pastoral Dates: 1869-1980
ARCHITECT:	Name: Not Applicable Dates: Not Applicable
BUILDER:	Name: Not Applicable Dates: Not Applicable
LOCAL GOVERNMENT AREA:	Description: Out of Hundreds (Orroroo)

SITE DETAILS (Cont.)

Prince Alfred Copper Mine Precinct
Prince Alfred Road, via Cradock

PLACE NO: 26450

LOCATION:	Street Name:	Prince Alfred Mine Road
	Town/Suburb:	via Cradock
	Post Code:	Not Applicable
COORDINATES:	Determination:	Boundary oval determined by distance from centre-point in North and East axis (equidistant to South and West)
CENTRE-POINT OF BOUNDARY OVAL:	Easting:	1354900.7469 (Eastern extent@340m)
	Northing:	1982184.4691 (Northern extent@550m)
	Datum:	GDA 1994 South Australian Lambert

Coordinates are approximate, contact the Department of Environment, Water and Natural Resources (SA Government) for further information.

LAND DESCRIPTION:	Title Type:	CR
	Volume:	5769
	Folio:	172
	Lot No.:	N/A
	Plan No.:	N/A
	Section:	1011
	Hundred:	Out of Hundreds (Orroroo)
(Mining Exploration Licence EL4935)		

LAND DESCRIPTION (Pastoral Lease):	Title Type:	CL
	Volume:	1438
	Folio:	9
	Parcel No.:	Block 310
	Hundred:	Out Of Hundreds (Orroroo)

PHOTOS

Prince Alfred Copper Mine Precinct
Prince Alfred Road, via Cradock

PLACE NO: 26450



**Prince Alfred Copper Mine Precinct,
via Cradock - View to south east**
[Crusher house (right), engine house (centre), boiler
house (left) with chimney and flue at rear and
remnant drystone walling and tailings in foreground.]
(DSCN P42490059 J. McCarthy)



**Prince Alfred Copper Mine Precinct,
via Cradock - View to north west**
[Slag dump and smelter site with track from crusher
house in foreground.]
(DSCN P42490050 J. McCarthy)



**Prince Alfred Copper Mine Precinct,
via Cradock**
[Stone-lined earth dam showing breach at west end.
View is of downstream face looking south.]
(DSCN P42490115 J. McCarthy)



**Prince Alfred Copper Mine Precinct,
via Cradock – View to north east**
[House or pub ruin in township.]
(DSCN P42490111 J. McCarthy)



**Prince Alfred Copper Mine Precinct,
via Cradock – View to north east**
[Grave of George Whitlock in the fenced cemetery.]
(DSCN P42490090 J. McCarthy)



**Prince Alfred Copper Mine Precinct,
via Cradock – View to north west**
[1970s leaching plant, showing concrete
tri-level layout.]
(DSCN 1990 P. Bell)