



**WERRIS CREEK COAL
ENVIRONMENTAL
MANAGEMENT SYSTEM**

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WHC_PLN_WC_HERITAGE MANAGEMENT PLAN

APPENDIX I – John Carr Hill Lockart Architects, Werris Creek Coal Mine – Narrawolga Homestead Record of Material Elements and Demolition Elements, 2005

**WERRIS CREEK COAL MINE -
NARRAWOLGA HOMESTEAD**

**RECORD OF MATERIAL ELEMENTS
AND DEMOLITION ELEMENTS**

for

WERRIS CREEK COAL PTY LIMITED

November 2005

Prepared by:

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--- **PLAN OF RESIDENCE**

15 November 2005

REPORT

PROJECT: Werris Creek Coal Mine - Narrawolga Homestead
Record of Material Elements and Demolition Elements

PROPRIETOR: Werris Creek Coal Pty Limited, Lot 6 Enterprise Crescent,
Maison Dieu Industrial Estate, SINGLETON NSW 2330

ADDRESS: Werris Creek Road, WERRIS CREEK NSW 2341

1.00 GENERALLY

This report has been prepared to address Condition No. 46 of the Development Consent for the mine. Development consent for the mine was issued on 18 February 2005.

The wording of Consent Condition No. 46 is as follows:-

“The Applicant shall, within 12 months of the date of this consent, ensure that a qualified heritage architect fully and appropriately records the “Narrawolga” homestead building in a report that:

- records the material elements of the building; and
- Identifies materials to be recovered during the demolition of the building for reuse.

The Applicant shall implement the recommendations of the report and provide a copy of the report to Council.

2.00 The material elements of the building have been recorded in two (2) ways.

2.01 **PHOTOGRAPHIC RECORD OF ALL AREAS**

Preliminary photographic records were collected during a visit and inspection of the residence carried out by John Carr in June 2004.

Supplementary photos were taken internally and externally of most areas of the building during the site visit on 16 October 2005.

The photos were taken with the idea of recording the setting; the external elements including some details of items and materials; and internally to record the finishes and fittings and fixtures in most areas.

The photos have been captioned and grouped together as a section titled "Section 5.00 - Photographic Record" at the rear of the report.

2.02 **PHYSICAL DESCRIPTION SCHEDULE**

The other way in which the building has been recorded is in a Physical Description Schedule that itemises each area, the material and condition of the item.

2.02 PHYSICAL DESCRIPTION SCHEDULE

Single Storey Residence - Exterior

Item	Material	Condition/Repairs
Roof covering	Terra cotta tile	Deformed and subsided
	Marseille pattern (replaced slate tiles)	in some areas - failure of structural framing
Gutters	Metal quad	Painted, fixed to end of exposed rafters
Chimney	Rough cast painted render shafts with exposed brick capping with terra cotta flue pots	4No. in good condition
Fascias, Barges and Trims	Painted timber	Good original condition
External Walls	Face brick, white lime mortar	Possibly "Prices Bricks" from Quirindi or from Maitland
	Painted battened flat AC sheeting	Located above verandah recesses and front gables
	Rough cast rendered panels	Between verandah columns under sill level
Openings	Windows	Painted timber
	Doors	Painted timber with glazed panels - clear and arctic pattern glass
	Flyscreening	Painted timber to verandah and window openings
Window Sills	Clinker bullnose bricks	Good condition
Verandah Framing	Brick columns with timber stub columns supporting beam and panels	Good condition
Verandah Floors	Cypress T&G boarding and concrete	Good to average condition
External Stairs	Rendered and clinker face bricks	Grano topping to treads and risers
		New mosaic tiles to rear porch

2.02 PHYSICAL DESCRIPTION SCHEDULE (cont)

Single Storey Residence - Interior

Item	Material	Condition/Repairs
Floors	Timber boarding	Some areas sanded and sealed Others carpet and vinyl coverings
	Concrete	Ceramic tiles in wet areas
Wall Linings	Double and single brick walls	Dado in living area of face bricks with coloured tuck pointing All other walls plastered
	Face Brick	Coloured tuck pointing to joints
Fireplaces	Face Brick	Coloured tuck pointing to joints
	Flat AC with Timber Battens	In service areas
Ceilings	Plaster	Moulded patterns in main bed, and living room areas
	Timber	Good condition in service areas
Cornices	Plaster	Moulded in formal rooms
	Bathroom	Mosaic tile floor; tiled walls and plaster above Moulded plaster ceiling
Wet Areas	Bathroom	Mosaic tile floor; tiled walls and plaster above Moulded plaster ceiling
Doors	Painted timber glazed or ply panelled	Internal glazing bars removed; full sheet glass in some doors
Trims	Painted timber	Splay architraves and skirtings

Condition Comments:

The residence has been constructed around 1925 or after in one complete stage. There have been no extensions and minimal internal changes since construction. The plan appears to be arranged for live-in help with the ability to separate the kitchen, laundry, external store and office (bedroom). The building is well constructed out of first quality materials. The external style and internal planning borrows from the Californian bungalow which was popular during this era and has been used in many regional towns and capital cities.

The schedule has been amended using the physical description from the original report and each item was checked during the second site visit.

3.00 MATERIALS TO BE RECOVERED

The house is to be demolished in a systematic way in order to recover as many of the materials as possible for reuse. A high percentage of the materials will be damaged and therefore unable to be reused. However, some mine employees and local residents who know the residence have made formal requests to the Mine Owners to purchase/obtain some of the demolished materials.

3.01 MATERIALS RECOVERY SCHEDULE

The materials and fittings to be recovered for reuse by others are listed below.


Material or Fitting		Prospective Owner
➤ Face Bricks	-	Liverpool Plains Shire Council
➤ Doors and Windows (All Areas)	-	Local Rate Payee of Liverpool Plains Shire Council
➤ Roof Tiles	-	Local Rate Payee of Liverpool Plains Shire Council
➤ Canberra Metters Combustion Stove (Kitchen)	-	Mine Owner Representative
➤ Various Fittings and Hardware (All Areas)	-	Local Secondhand Dealer

4.00 Summary and Conclusions

We believe the contents of this report fulfills the objectives of Condition 46 of the Development Consent. Werris Creek Coal Pty Ltd have fulfilled the requirement of the condition by distributing as many of the reusable demolished materials as possible in the local market.

The building does not have any highly significant materials or items that are to be specially treated or retained.

This report has been completed with the full knowledge and co-operation of the Mine Management.



John R Carr - Architect

jrc.ger

SECTION 5.00
PHOTOGRAPHIC
RECORD

5.01 - EXTERNAL PHOTOGRAPHS



View from North East



North Eastern Corner



South Western Corner



Southern Elevation

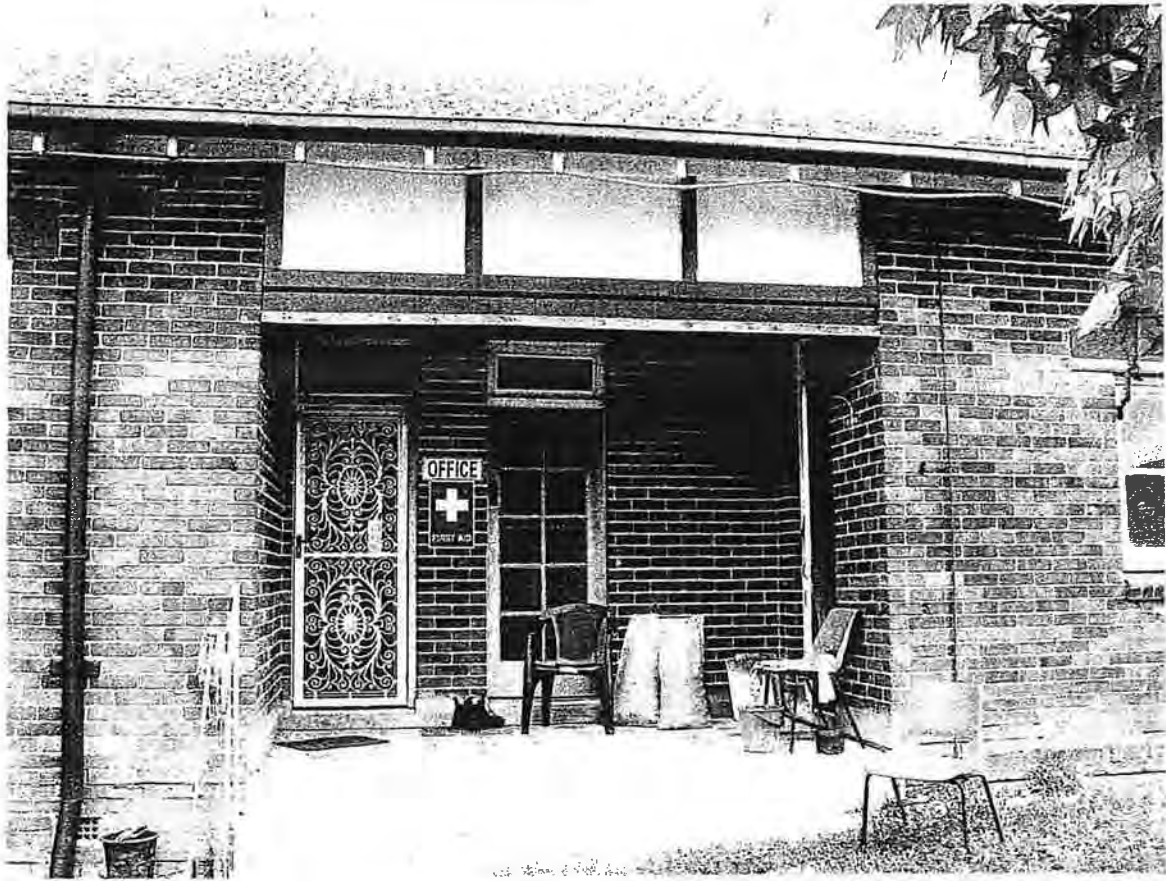
CORKERY RESIDENCE 2005 - EXTERNAL PHOTOGRAPHS



Northern Elevation



Northern Elevation



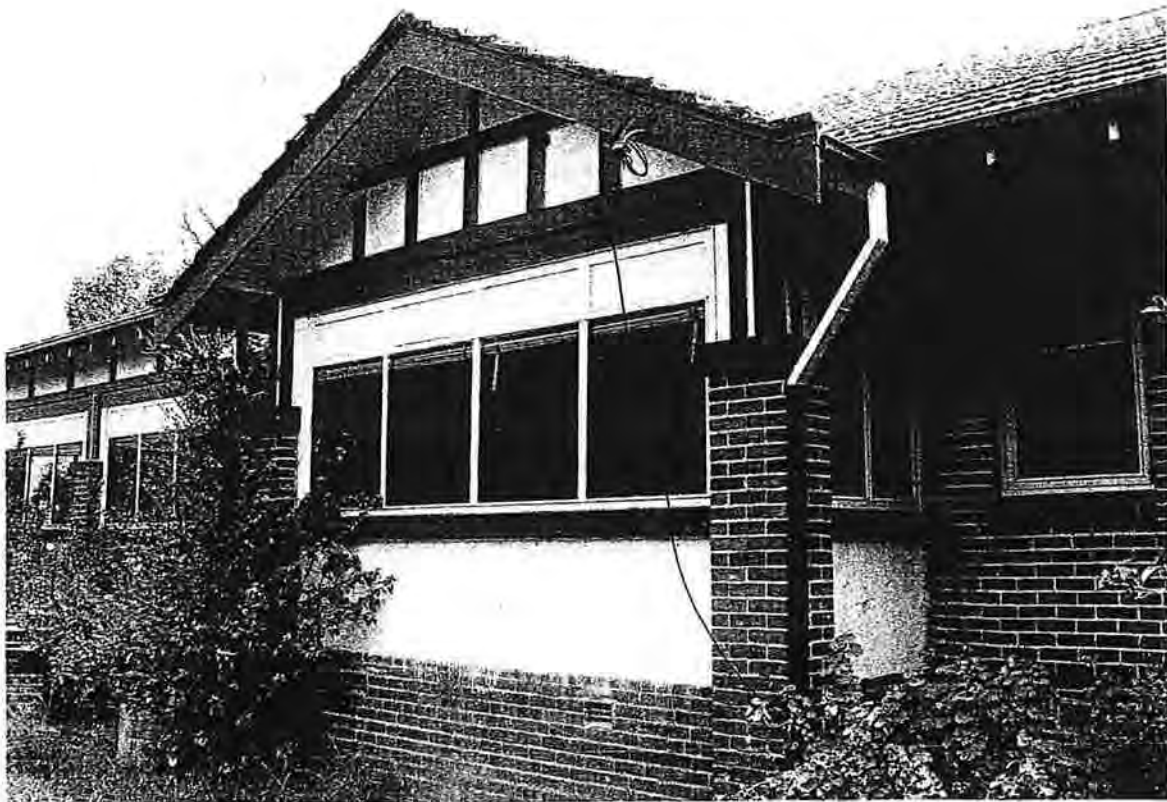
Rear Entrance Porch



Part of Eastern Elevation



Northern Elevation (front)



Gable to Front Verandah Alcove



External Window Detail - Rear Bedroom (awning removed)



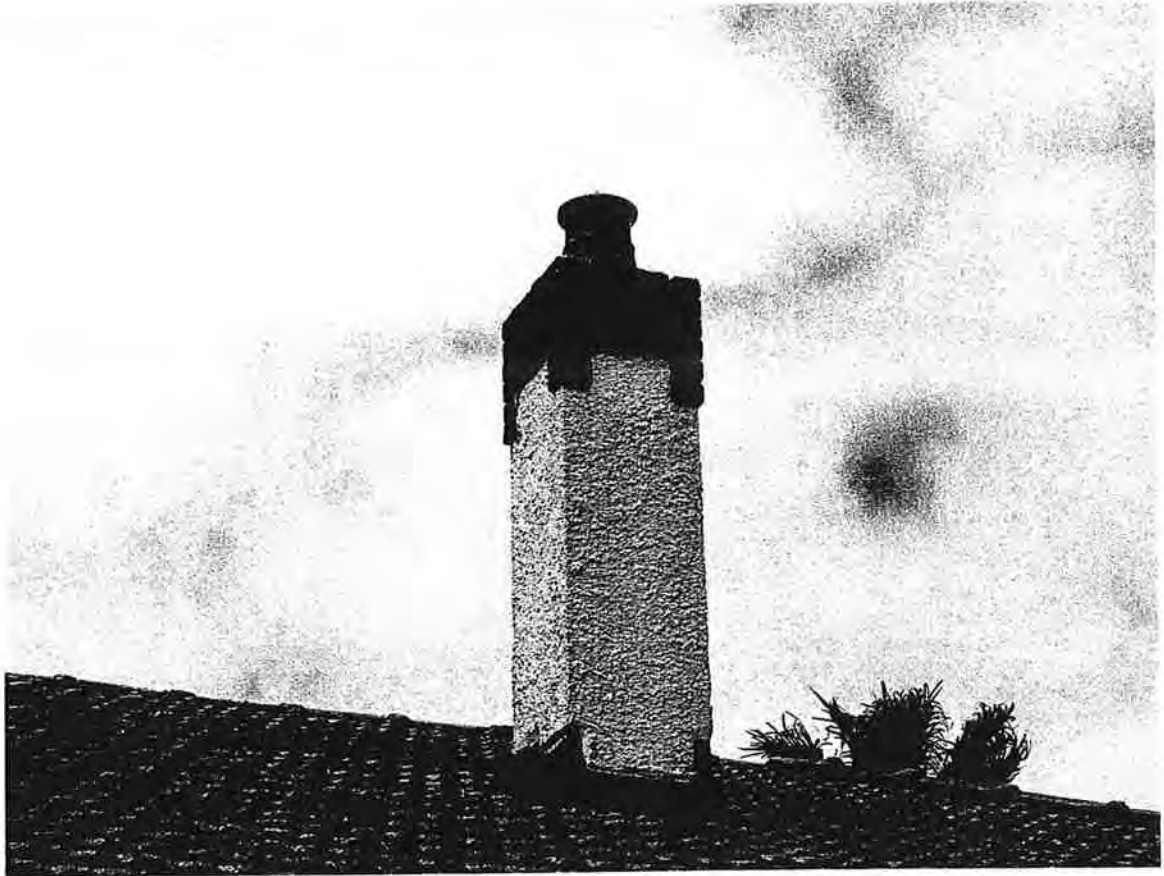
External Window & Canopy Detail - Rear Bedroom



Verandah Entrance to Dining Room



Rear Entrance to Kitchen - Coloured Rendered Steps



Chimney Detail - Painted Rough Cast Render Shaft, Face Brick Capping and Terra Cotta Chimney Pot

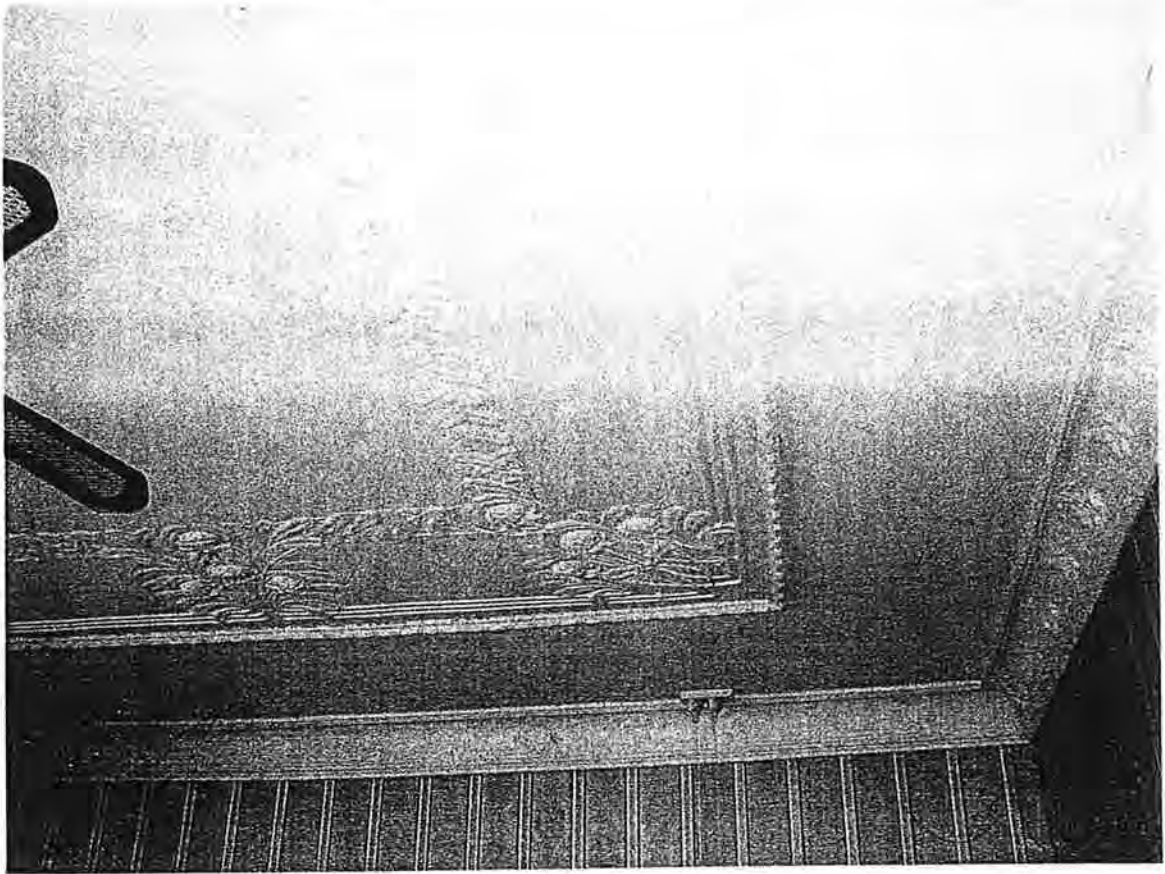


Chimney Detail & Vent Pipe (with cast cap)

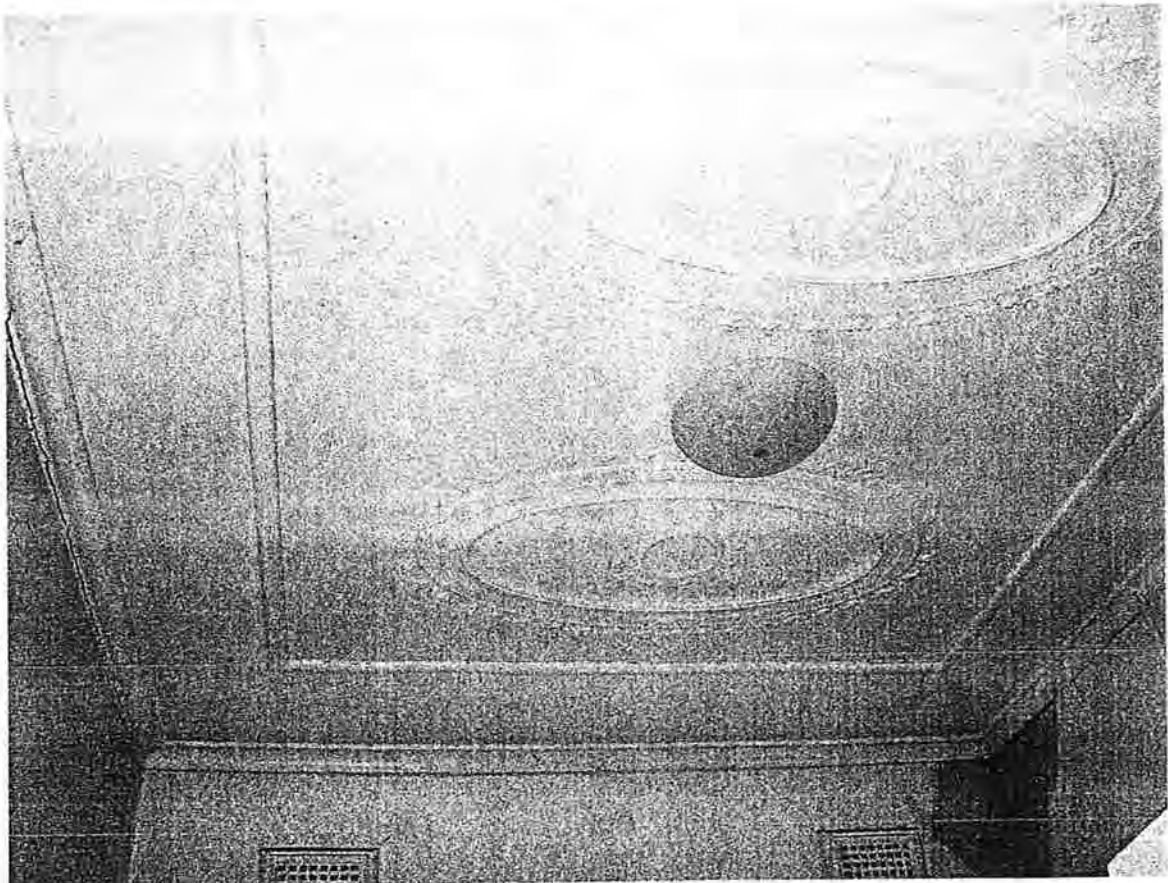


Terra Cotta Chimney Pot (out of place)

5.02 - INTERNAL PHOTOGRAPHS



Main Bedroom Ceiling



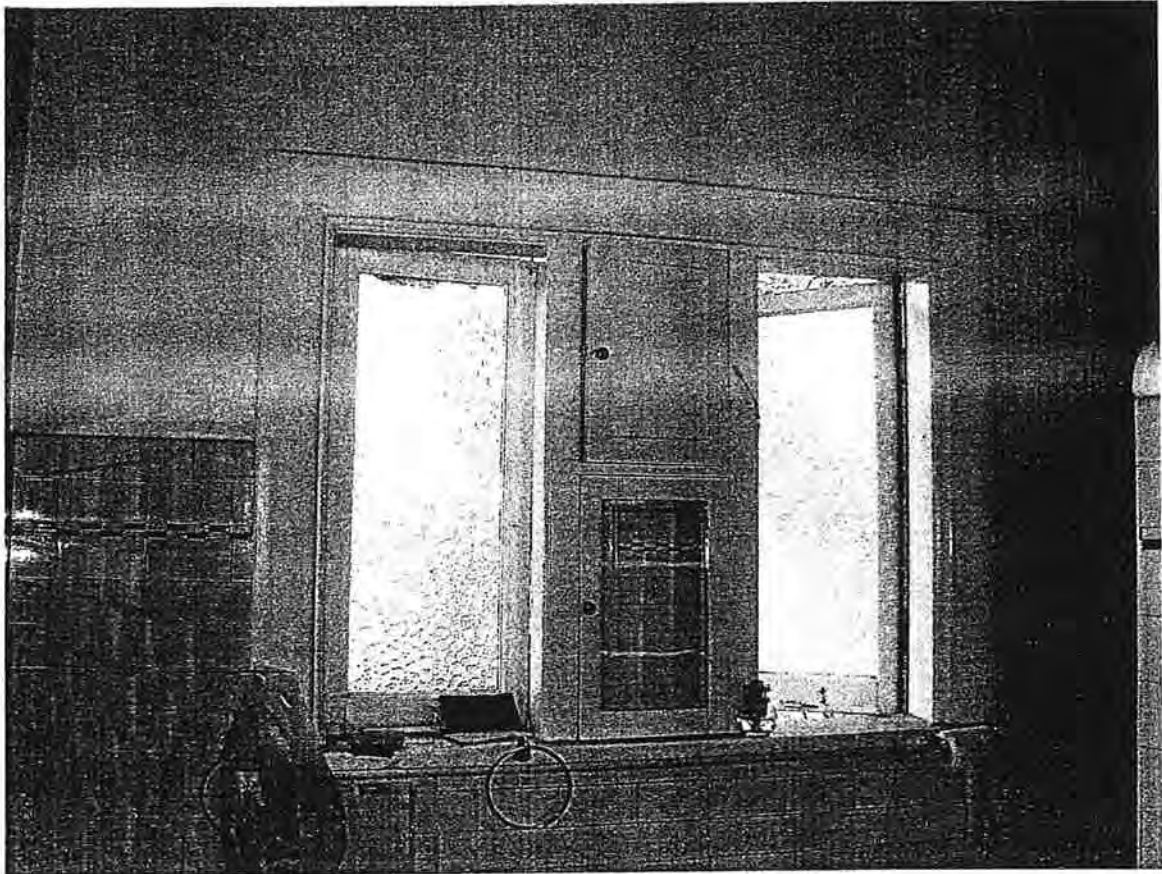
Bathroom Ceiling



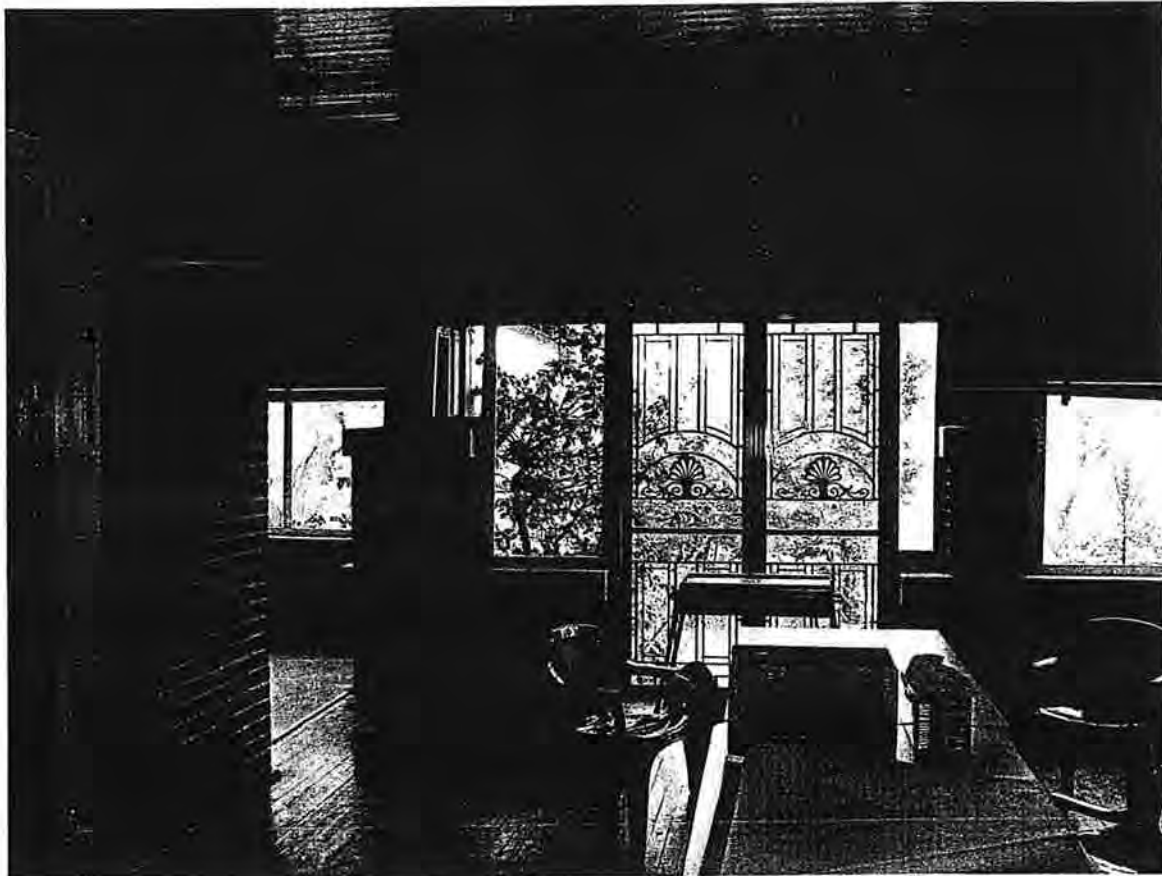
Central Bathroom - Floor Tiles



Central Bathroom - Floor & Wall Tiles & Sanitary Fittings



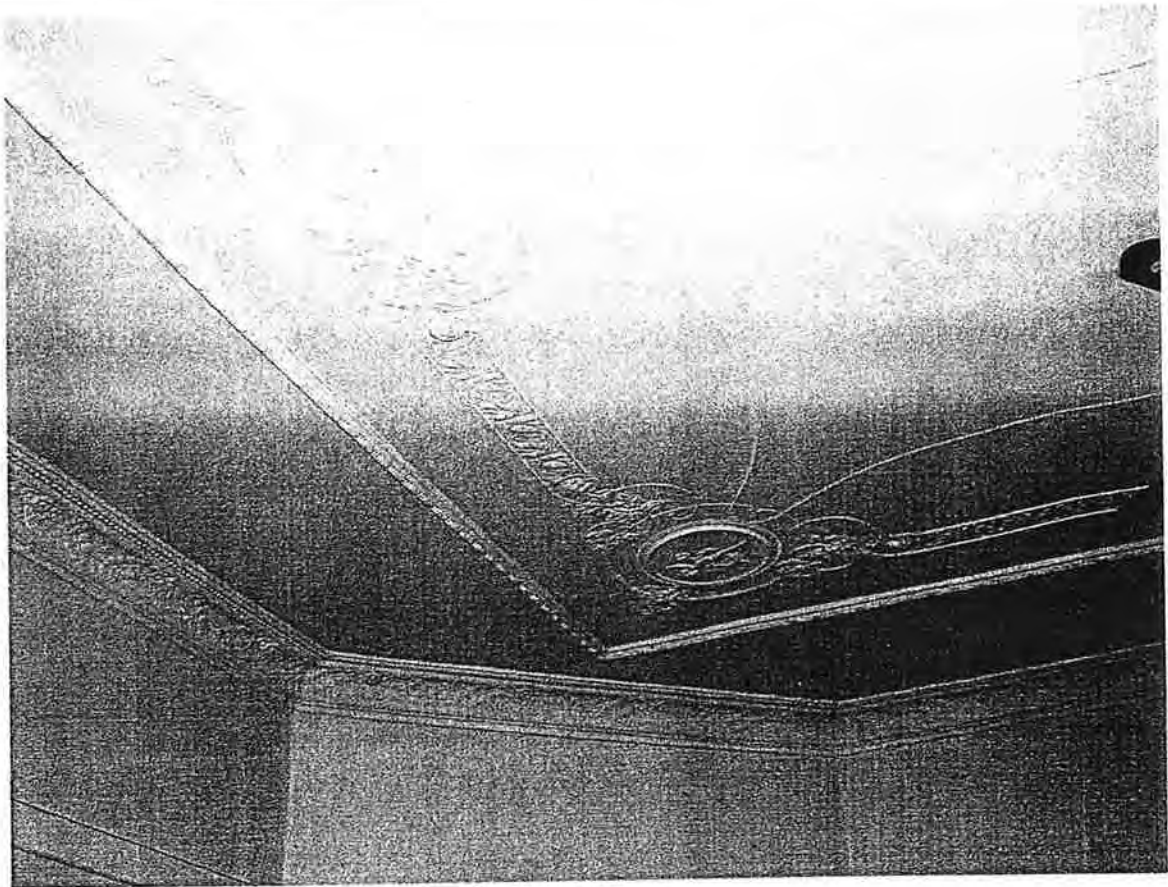
Central Bathroom - Windows & Shaving Cabinet



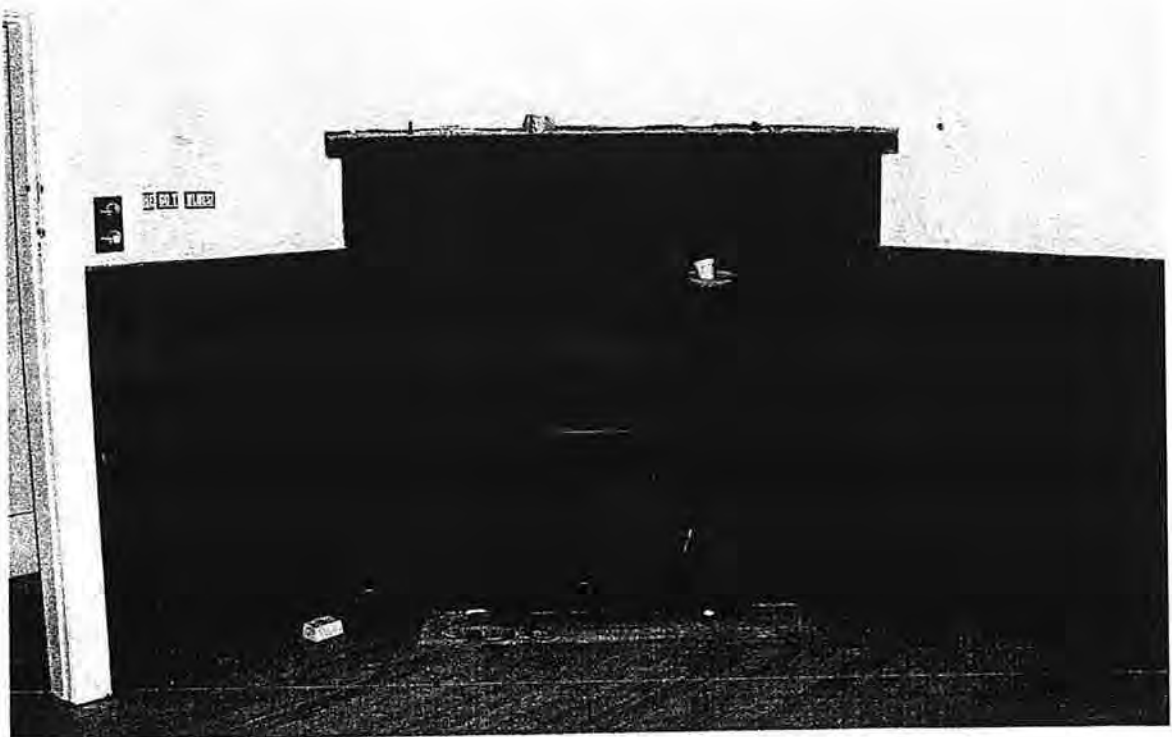
Front Verandah, Entrance & Breezeway Area



Central Hall - Facing Rear Entrance



Lounge Room - Ceiling & Cornice



Lounge Room Fireplace & Dado Wall with Tuck Pointed Face Brick



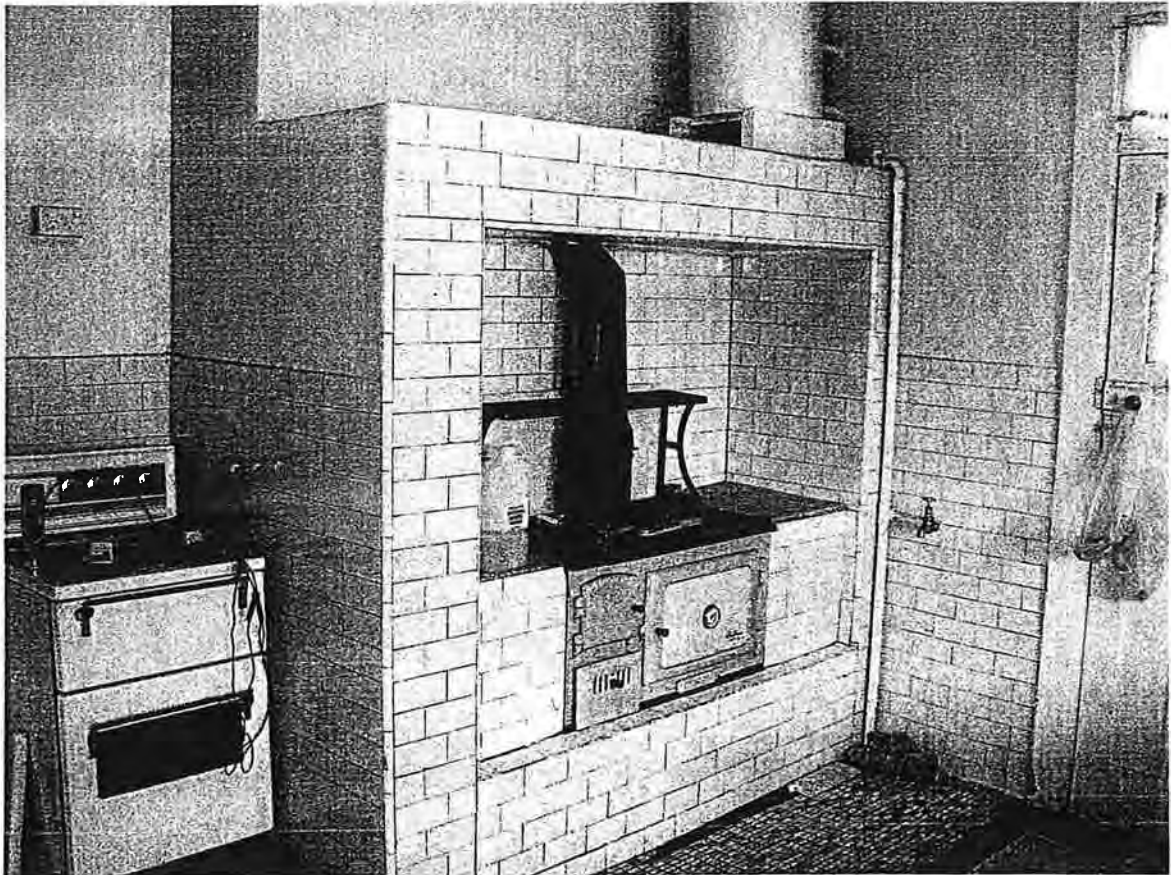
Front Verandah - Doors to Lounge Room



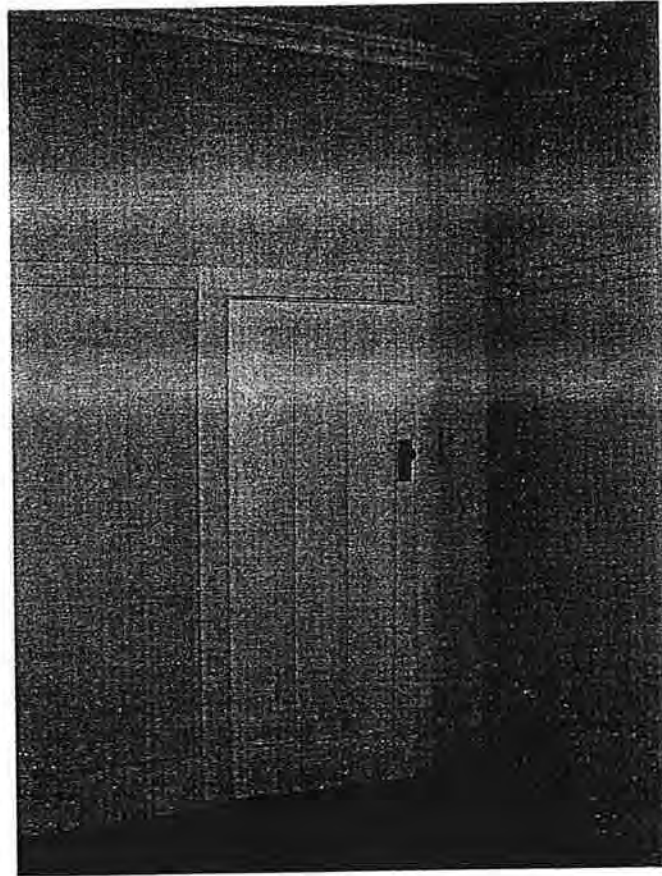
Front Verandah - Doors to Main Bedroom



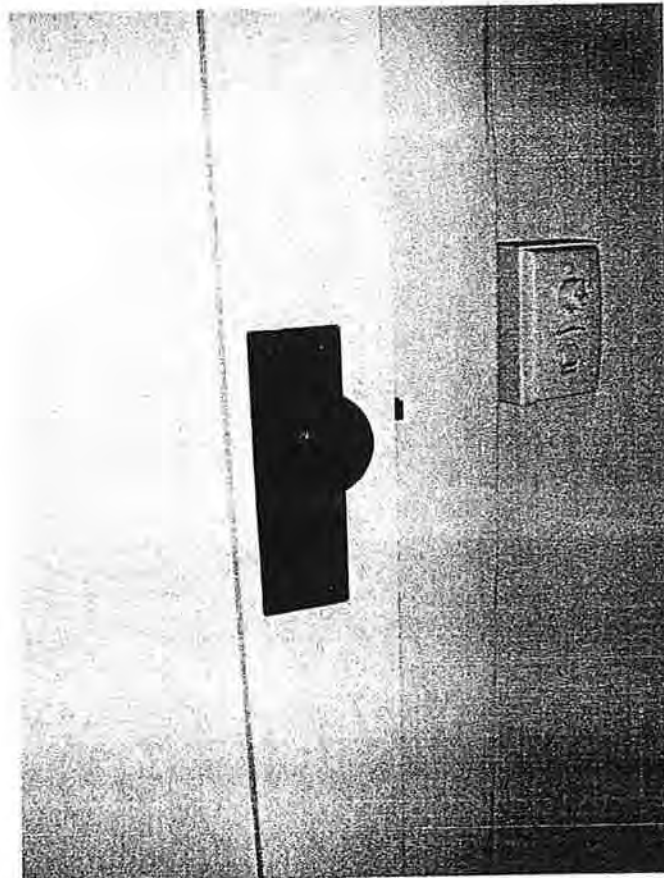
Front Verandah - Main Entrance



Kitchen - Combustion Stove in Tiled Recess with Hobbs



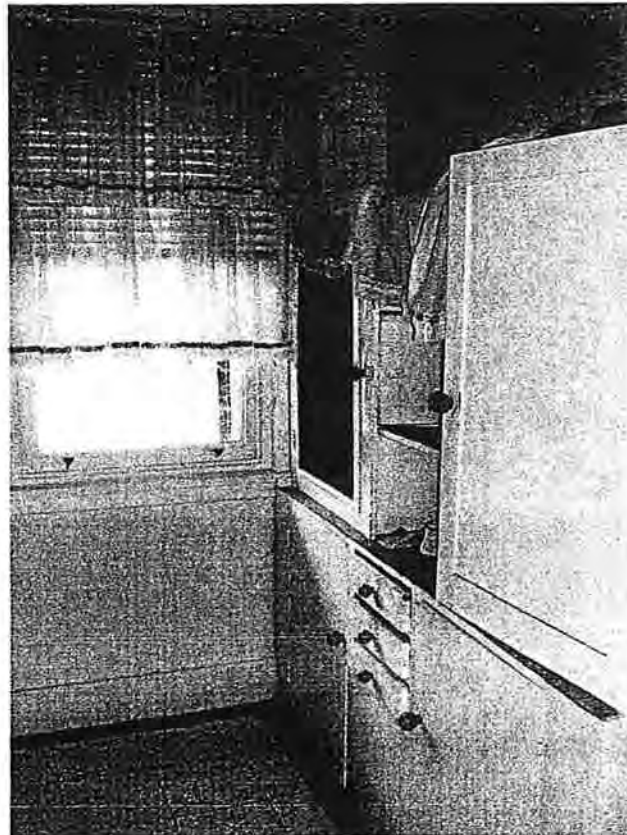
Typical Internal Door - Rear Bedroom



Typical Door Hardware



**Dining Room Fireplace & Hearth
Copper Sheathed (over timber) Fireplace Fender**

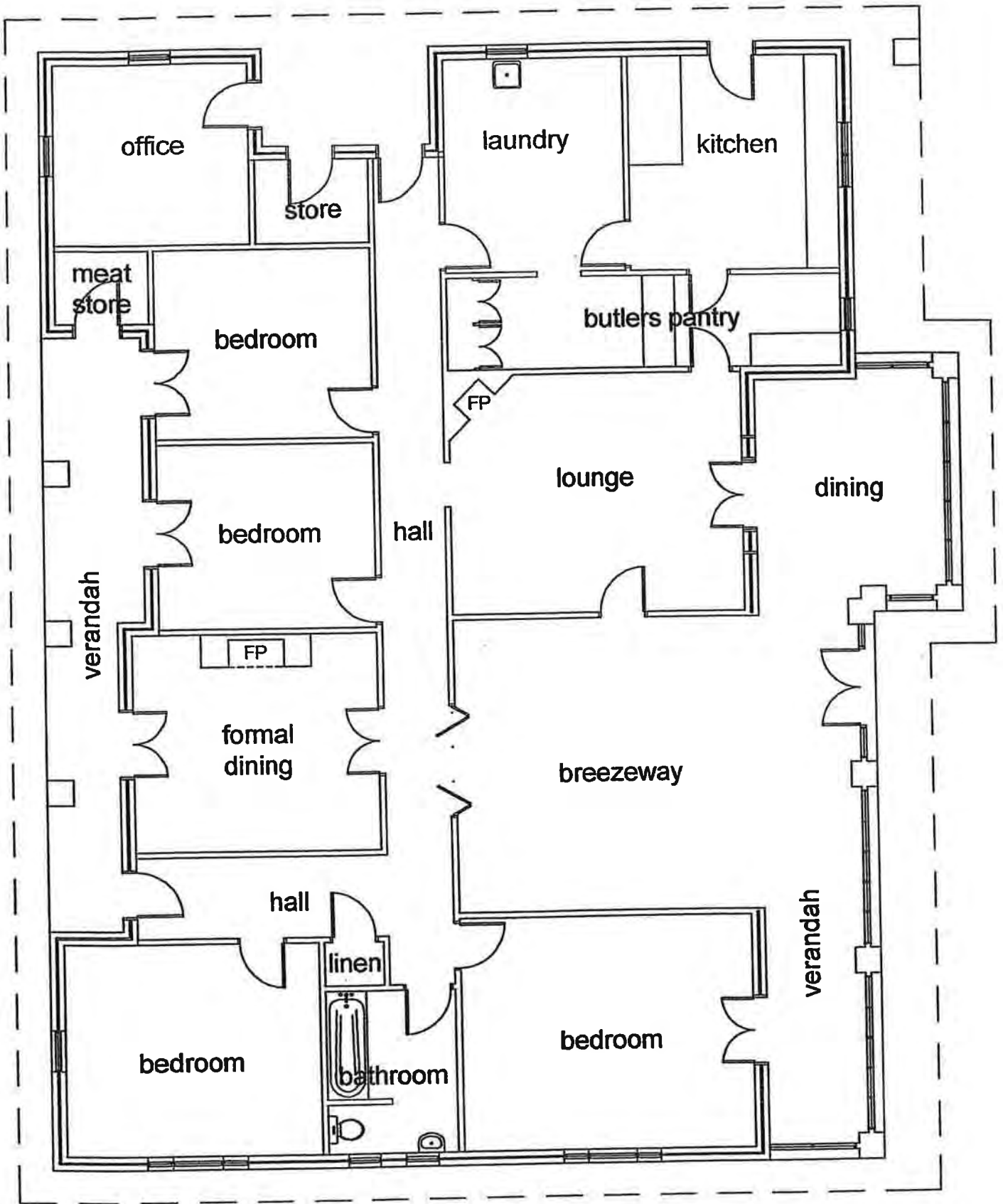


Butlers Pantry Cupboards



Dining Room

PLAN OF RESIDENCE



Hill Lockart Architects

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SCALE 1 : 100		LIND 10 R7703 WD01	



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WHC_PLN_WC_HERITAGE MANAGEMENT PLAN

APPENDIX J – Heritage Management Plans 2004 and 2007



WERRIS CREEK COAL PTY LIMITED

ABN: 69 107 169 103

**Archaeology and Cultural
Heritage Management Plan**

for the

Werris Creek Coal Mine

JULY 2007
Revised version 5/7/07

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1 Scope and Objectives

1.1 Definitions

A&CMP	Archaeology and Cultural Management Plan
Company	Werris Creek Coal Pty Limited
DECC	Department of Environment and Climate Change
DoP	Department of Planning
DIPNR	former Department of Infrastructure, Planning and Natural Resources
LALC	Local Aboriginal Land Council
Site Monitor	The person authorised by Nungaroo Local Aboriginal Land Council to liaise with the Company and monitor the performance of the mining operations
WCC	Werris Creek Coal Pty Limited
WCC Manager	Mine Manager, Manager or person nominated by WCC with responsibility for site environmental compliance.

1.2 Introduction

1.2.1 Documentation

This Archaeology and Cultural Management Plan (“A&CMP”) updates the previous plan dated May 2005.

This A&CMP has been prepared by Werris Creek Coal Pty Limited (“WCC”) in satisfaction of *Conditions 45 and 45A* of Development Consent, DA-172-7-2004. The A&CMP deals in particular with the ongoing protection of the axe grinding grooves site known as the “Narrawolga Site” following removal and re-location of this Site between December 2006 and March 2007.

The original DA-172-7-2004 was signed by the Minister for the former Department of Infrastructure, Planning and Natural Resources (“DIPNR”) on 18 February 2005 and subsequently modified by DA 172-7-2004-MOD 2, dated 6 March 2007.

This Notice of Modification was issued in response to an application to modify Condition 44 of DA 172-7-2004 to enable WCC to manage the removal, re-location and protection of the Narrawolga Site. Following the successful completion of this project the A&CMP dated May 2005 has been revised in accordance with new Condition 45A.

This revised A&CMP references two documents;

- “Management Plan for the removal, storage and replacement of the Narrawolga” axe-grinding groove site, WCC by Archaeological Surveys & Reports Pty Ltd, September 2006, and
- “The Salvage and Removal of the Narrawolga axe-grinding groove site, WCC by Archaeological Surveys & Reports Pty Ltd, March 2007.

1.2.2 Setting

The Werris Creek Open Cut Coal Mine is located approximately 4 km south of Werris Creek and 11 km north northwest of Quirindi in central northern New South Wales. **(Figure 1)**.

The mine development lies within a 679 ha area covered by Mining Lease No. 1563 that incorporates the "Narrawolga" property and parts of the "Eurunderee" and "Cintra" properties.

The mine currently has an expected life of about 7 years with an approved production rate up to 2 Mtpa.

Mine related disturbance include:

1. A new access road from the Werris Creek – Quirindi road,
2. Surface and workshop facilities with parking hardstands,
3. Coal processing pad incorporating ROM and product stockpiles,
4. A coal haulage road from the coal processing area to the rail loading facility,
5. A rail loading bin with a stockpile area for product coal,
6. Water management structures, and
7. The open cut mining area and associated out of pit dumps,

The total disturbed area will approximate 250 ha of land within the 679 ha of ML 1563

1.3 Plan Objectives

The A&CMP objectives are:

1. To protect the "Narrawolga" site axe grinding grooves,
2. To provide a precise set of procedures to enable the identification and conservation of physical and cultural heritage sites and artefacts within the consent area,
3. To make all personnel aware of their obligations and responsibilities under the National Parks and Wildlife Act 1974 and NSW Heritage Act 1977 and related procedures.

The contents of this Plan have been supplemented by a report by archaeologist, John Appleton, included in the EIS Consultant Specialist Studies Compendium, Part 6 Aboriginal Heritage Assessment Report 623/02 and subsequent discussions with Mr Peter Allan of the Nungaroo LALC and the following reports as stated in **Section 1.2.1**.

- "Management Plan for the removal, storage and replacement of the Narrawolga" axe-grinding groove site, WCC by Archaeological Surveys & Reports Pty Ltd, September 2006, and
- "The Salvage and Removal of the Narrawolga axe-grinding groove site, WCC by Archaeological Surveys & Reports Pty Ltd, March 2007.

1.4 Consultation Process

This Plan was initially based on the “Aboriginal Site Management and Agreement” included in the August 2004 Environmental Impact Statement for the mine. During the Plan’s preparation discussions were held with Mr Peter Allan representing the Nungaroo LALC regarding the Plans content. Assistance was also sought from consultants R W Corkery & Co Pty Limited.

Mr Peter Allan has been delegated to be the Werris Creek Coal Mine Site Monitor on behalf of the Nungaroo LALC.

Copies of the Plan were then submitted to the Nungaroo Local Aboriginal Land Council (“LALC”) and the former NSW Department of Environment & Conservation (“DEC”). The Plan is subject to the satisfaction of the Director General, of the former DIPNR now Department of Planning.

In accordance with the “Interim Community Requirements for Applicants” (Consultation Requirements) for engaging with the Aboriginal Community as part of the preparation of an application for a consent or permit under Part 6 of the National Parks and Wildlife Act 1974 an advertisement was placed in the local press inviting interested Aboriginal stakeholders to register their interest in regard the process to manage removal, relocation and protection of the “Narrawolga Site”. As a consequence the Porter and Taylor families registered an interest in the project. The proposal was presented to the Nungaroo LALC and to the registered stakeholders, all of whom, after lengthy consultation agreed to the proposal.

The Management Plan agreed to by all parties is detailed in Archaeological Surveys & Reports Pty Ltd, September 2006.

1.5 Applicable Area

This A&CMP applies to all land within the limits of ML 1563 at Werris Creek, the area referred to in the Development Consent as incorporating all works approved by the Development Consent and approved modifications. See **Figure 1**.

1.6 Plan Format

This A&CMP has been prepared in sections as follows:

- Section 1 -** discusses the scope and objectives of the A&CMP, the format and the consultation undertaken.
- Section 2 -** describes the results of the archaeological and cultural assessment undertaken over the area during the preparation of the EIS.
- Section 3 -** describes the management strategies for sites previously identified, procedures for identification and conservation of future sites, and areas not affected by mining activities
- Section 4 -** discusses ongoing consultation, monitoring and reporting.

2 Archaeology and Cultural Heritage of ML 1563

2.1 Introduction

An archaeological survey and investigation was performed by John Appleton of Archaeological Surveys and Reports Pty Ltd ("ASR") during the compilation of the EIS by R.W. Corkery & Co. Pty. Limited ("RWC") on behalf of Werris Creek Coal Pty Limited ("WCC"). Surveys were conducted in October 2003 and March 2004 within an area defined by Mining Lease Application 249 now Mining Lease No. 1563 incorporating the "Narrawolga" property in its entirety and incorporating parts of the "Eurunderee" and "Cintra" properties.

2.2 Survey Strategy

Prior to the investigation it was decided that as the survey area was not large it would be possible to undertake a comprehensive survey of the entire survey area. In effect, the grass ground cover was so dense in most of the cleared areas that it was only possible to perform a sample survey. As a consequence the survey strategy entailed walking tracks, and targeting rock and soil exposures, erosion features, drainage lines, and any tree that appeared to be old growth.

The survey was undertaken by ASR, assisted by Peter Allan and Shane Allan representing the Nungaroo LALC. The survey was made on foot, in dry conditions under a partly cloudy sky, but in light ideal for observing any artefactual material present and observable.

2.3 Survey Results, Interpretation and Site Conservation

A site, shown on **Figure 1**, comprising of 25 or more axe-grinding grooves, was recorded on the southern end of the western rim of the ridge. (Previously recorded as site # 29-2-0005 at 274800 6523300 - probably on 1: 250 000 scale map)

Site name: "Narrawolga"
Site type: Axe-grinding grooves
Location: A linear area approximately 90m long by 35m wide, between AMG. 0275094 6523542 ± 4 m, and 275134 6523452 ± 4 m Quipolly 9035-III-S, 1: 25,000 Topographic Map

In order to protect and conserve the Narrawolga Site in situ, WCC in consultation with the Nungaroo LALC agreed to undertake the following;

1. Construct a fenced buffer around the "Narrawolga Site" of at least 30 metres;
2. install and maintain a protective barrier or mat over the "Narrawolga Site";
3. engage a suitably qualified, experienced and independent blasting expert, whose appointment has been approved by the Director-General, to assess and report on the likely impacts of blasting on the "Narrawolga Site" and recommend measures to protect the site from any potential blasting impacts;
4. Provide a copy of the report to the Nungaroo LALC; and
5. following validation by the Nungaroo LALC, implement the recommendations of the report

2.4 Geotechnical Assessment of Potential Impact of Blasting

In accordance with protection control, Item 3 in **Section 2.3** a Geotechnical Assessment of Potential Impact of Blasting on the "Narrawolga Site" was undertaken in February 2006 by GE Holt & Associates Pty Ltd.

Geological aspects rather than blasting impacts were identified as the most likely impact on the axe grinding grooves and in fact by re-aligning the pit outline to avoid the site, "there is every chance that if the pit is oriented around the grinding grooves, as currently proposed, the face will fail, taking the sandstone containing the grinding grooves into the pit".

2.5 Removal, Re-location and Protection of the "Narrawolga Site"

In association with the A&CMP's primary objective to protect and conserve the "Narrawolga Site" an option to manage removal, relocation and protection of the axe grinding grooves was prepared in accordance with the "Interim Community Requirements for Applicants" (Consultation Requirements) for engaging with the Aboriginal Community as part of the preparation of an application for a consent or permit under Part 6 of the National Parks and Wildlife Act 1974.

As detailed in **Section 1.4** – Consultation, an advertisement was placed in the local press inviting interested Aboriginal stakeholders to register their interest in regard the process to manage removal, relocation and protection of the "Narrawolga Site". As a consequence the Porter and Taylor families registered an interest in the project. The proposal was presented to the Nungaroo LALC and to the registered stakeholders, all of whom, after lengthy consultation agreed to the proposal.

The Management Plan agreed to by all parties is detailed in;

- "Management Plan for the removal, storage and replacement of the Narrawolga" axe-grinding groove site, WCC by Archaeological Surveys & Reports Pty Ltd, September 2006.

and includes the following requirements;

1. A qualified surveyor, assisted by a qualified archaeologist (to identify the relevant blocks) would accurately provenance each of the sandstone blocks on which the grinding-grooves occur, and draw up a scaled plan of the site showing both the surface topography of the ridge on which the site occurs (to include the site and the surrounding area for a distance of 30 m from the outer limits of the site) and the alignment of each block.
2. Each block would be numbered, photographed, and archaeologically recorded in detail by the archaeologist and a representative of Nungaroo LALC.
3. Each block would be carefully removed by the appropriate machinery, numbered by the archaeologist with marking-paint on a surface other than the upper surface), and conveyed by truck to an enclosed (fenced) storage area: the procedure being monitored by the archaeologist and a representative of Nungaroo LALC. Representatives of the Taylor family wish to observe the removal of the blocks.
4. Once placed in the storage area each block would be examined for its condition, damage, etc. details of which should be recorded by the archaeologist on prepared Condition Reports, one for each block. The Taylor family expressed their wish to view the storage area.

5. Upon completion of the transfer of all of the blocks to the storage compound the archaeologist should prepare a report of the procedure, including details of the site, a copy of the surveyor's plan of the site, copies of the Condition Reports, and a photographic record of the events.

Access to the storage compound by suitably qualified people would only be permitted with the authority of the Mine Manager (Nungaroo LALC would be given periodic access to the storage area to check on the condition of the blocks and grinding grooves – Nungaroo LALC to give the Mine Manager 48 hours notice of its intended visit).

6. At such time as mining in the locality of the axe grinding-groove site has been completed, and the ridge on which the axe-grinding groove site occurred has been restored and rehabilitated and there is no further possibility that mining operations will impact upon the site, the blocks on which the axe grinding-grooves occur shall be mechanically replaced in accordance with the surveyor's site plan. The operation shall be monitored by the archaeologist and a representative of Nungaroo LALC.
7. A sign is to be erected at the roadside to the entrance to the mine to inform the public of the controlled removal and subsequent replacement of the grinding groove blocks with Aboriginal agreement.
8. Upon completion of restoration of the site the archaeologist shall prepare an amended Site Recording Form detailing what has taken place – attached to which shall be a brief photographic and descriptive report of the replacement procedure, and the condition of the restored grinding groove site – and lodge the completed form and attachments with DEC (copies also to the Mine Manager, Nungaroo LALC, and to each of the three Aboriginal groups involved in the community consultation process).
9. The Taylor family also recommended that several Wollemi Pines be planted within close proximity of the grinding groove site. The Mine Manager was awaiting an expert's report on the suitability of the plant to the particular environment. If the expert recommended that the species would not thrive in the environment the Mine Manager would consult further with the Taylor Family to select a more suitable species.

Salvage and Removal of the "Narrawolga Site"

A record of the salvage and removal of the cluster of axe grinding grooves known as the "Narrawolga Site" in accordance with the agreed Management Plan is contained in

- "The Salvage and Removal of the Narrawolga axe-grinding groove site, WCC by Archaeological Surveys & Reports Pty Ltd, March 2007.

In accordance with the management Plan Items numbered 1 to 5 were completed. The remaining Items numbered 6 to 9 have been included in this revised A&CMP.

3 Site Identification and Conservation Procedures

3.1 Introduction

WCC recognises the importance of Aboriginal relics and sites to the Nungaroo community and its obligations under the National Parks and Wildlife Act 1974 (as amended), and will undertake all activities in a manner which conserves the cultural heritage values of the area. Central to the satisfaction of this commitment will be the continuation of the existing open and honest relationship between WCC management and the Nungaroo LALC, regular consultation with the LALC and an involvement with community members.

3.2 Consultation Protocol

Subject to any modifications initiated by the Nungaroo LALC, the following protocol will be followed with respect to consultation.

Note Items 1 and 2 have now been completed following completion of mine development and commencement of coal mining in August 2005.

1. The Mine Manager will advise the chairperson of the LALC of the date of planned commencement of activities at the Werris Creek Coal Mine.
2. The Mine Manager will contact the LALC chairperson monthly to advise of the mine's progress and programme for the ensuing period. All consultation will be diarized.
3. Prior to any topsoil stripping campaign, WCC Manager will notify the Chairperson of the LALC or, if so directed by the Chairperson, the nominated Sites Officer advising of the extent, location, timing and expected duration of the planned campaign and inviting a representative to monitor the topsoil stripping activities.
4. At the request of the Chairperson or Site Monitor, the WCC Manager will avail themself to attend Community meetings at the LALC office or to arrange site visits for interested LALC personnel or members.
5. In the event that any possible archaeological sites are identified in the absence of the Site Monitor, the WCC Manager will notify the Chairperson and/or Site Monitor following the initiation of the procedures identified in **Section 3.5**.

3.3 Narrawolga Site Protection

Following the successful removal and relocation of the "Narrawolga Site" it has been agreed that:

- access to the storage compound by suitably qualified people would only be permitted with the authority of the WCC Manager. (Nungaroo LALC would be given periodic access to the storage area to check on the condition of the blocks and grinding grooves. Nungaroo LALC to give the WCC Manager 48 hours notice of its intended visit).

In addition and in accordance with the Management Plan described in Section 2.5 it has also been agreed that;

6. At such time as mining in the locality of the axe grinding-groove site has been completed, and the ridge on which the axe-grinding groove site occurred has been restored and rehabilitated and there is no further possibility that mining operations will impact upon the site, the blocks on which the axe grinding-grooves occur shall be mechanically replaced in accordance with the surveyor's site plan. The operation shall be monitored by the archaeologist and a representative of Nungaroo LALC.
7. A sign is to be erected at the roadside to the entrance to the mine to inform the public of the controlled removal and subsequent replacement of the grinding groove blocks with Aboriginal agreement.
8. Upon completion of restoration of the site the archaeologist shall prepare an amended Site Recording Form detailing what has taken place – attached to which shall be a brief photographic and descriptive report of the replacement procedure, and the condition of the restored grinding groove site – and lodge the completed form and attachments with DECC (copies also to the WCC Manager, Nungaroo LALC, and to each of the three Aboriginal groups involved in the community consultation process).

The Taylor family also recommended that several Wollemi Pines be planted within close proximity of the grinding groove site. The WCC Manager was awaiting an expert's report on the suitability of the plant to the particular environment. If the expert recommended that the species would not thrive in the environment the WCC Manager would consult further with the Taylor Family to select a more suitable species.

3.4 Workforce Induction - Environmental

Prior to any person undertaking work on the Werris Creek Coal Mine site, that person will undergo a general induction programme which will incorporate environmental aspects including archaeological and cultural heritage management, procedures and obligations. The form and detail of the induction will be determined by the nature of the work to be undertaken.

A copy of the proposed general induction documentation with respect to Aboriginal heritage is attached in **Appendix 1** and includes the procedures to be adopted in the event of the discovery of a potential site or artefact.

These procedures are incorporated into both WCC and the principal mining contractor's induction documentation. Copies of these documents are available at the respective site offices for inspection.

Notwithstanding the presence of Aboriginal monitors during soil disturbing activities, all operators engaged in soil disturbing / soil stripping activities will be given additional training in the recognition of Aboriginal sites by experienced personnel in this field.

In addition to the induction and task specific training, a poster identifying the types of cultural heritage material that may be located on the site during mining operations as well as basic actions / responses has been prepared by WCC's consultant archaeologist. Copies are exhibited within employee lunch rooms.

3.5 Management of Other Aboriginal Sites

The surface area within ML 1563, which has been significantly altered by clearing and agricultural activity over the last 100 years, was examined by representatives of the Nungaroo LALC during the EIS process, with the "Narrawolga Site", the only site identified. It was also considered that there was only a very low potential for the area to contain any other archaeological material and, even if present, would likely only constitute very small isolated artefacts.

Notwithstanding, in the event of the discovery of a potential site or artefact, the following procedure will be followed.

1. Work will cease in the area of the discovery.
2. If the area of discovery is in deposited material then work will also cease in the area where the material has come from.
3. The person discovering the artefact will notify their supervisor who will ensure that work has ceased and the area(s) is / are cordoned off with tape.
4. The supervisor (contractor or WCC) will notify their senior Manager who will in turn inform the WCC Manager or senior WCC person on site.
5. The WCC Manager will:
 - a. request a qualified archaeologist to attend the site and advise on its archaeological significance;
 - b. request the Site Monitor for Nungaroo LALC, if not already present, to attend and advise on its cultural significance in consultation with the qualified archaeologist; and
 - c. if the find is determined to be a site, notify DECC with the advice from the archaeologist and Nungaroo LALC for determination of further procedures.
6. The WCC Manager will implement the procedures issued by DECC.

3.1 European Heritage

3.1.1 Narrawolga Homestead

In accordance with Condition 46 of DA-172-7-2004, WCC will within 12 months of the date of this consent, ensure that a qualified heritage architect will fully and appropriately record the "Narrawolga" homestead building in a report that:

- records the material elements of the building; and
- identifies materials to be recovered during the demolition of the building for reuse.

This recording and subsequent report was completed by John Carr of Hill Lockart Architects in November 2005.

3.1.2 Other European Sites

There is no potential for other European heritage sites to be impacted within the area of consent.

The Werris Creek underground mine was worked from 1925 until 1966 and could contain implements of interest to the coal mining community. The current mine plan does not include intersection with any of these workings and negates any significant discoveries.

Survey work will be undertaken to define the limits of underground workings in accordance with safe work procedures.

4 Ongoing Consultation, Monitoring and Reporting

4.1 Consultation

Ongoing consultation will continue as outlined in **Section 3.2**.

4.2 Monitoring and Reporting

The Company will report annually in the AEMR on the measures implemented to preserve and protect Aboriginal and European cultural heritage

5 Figures

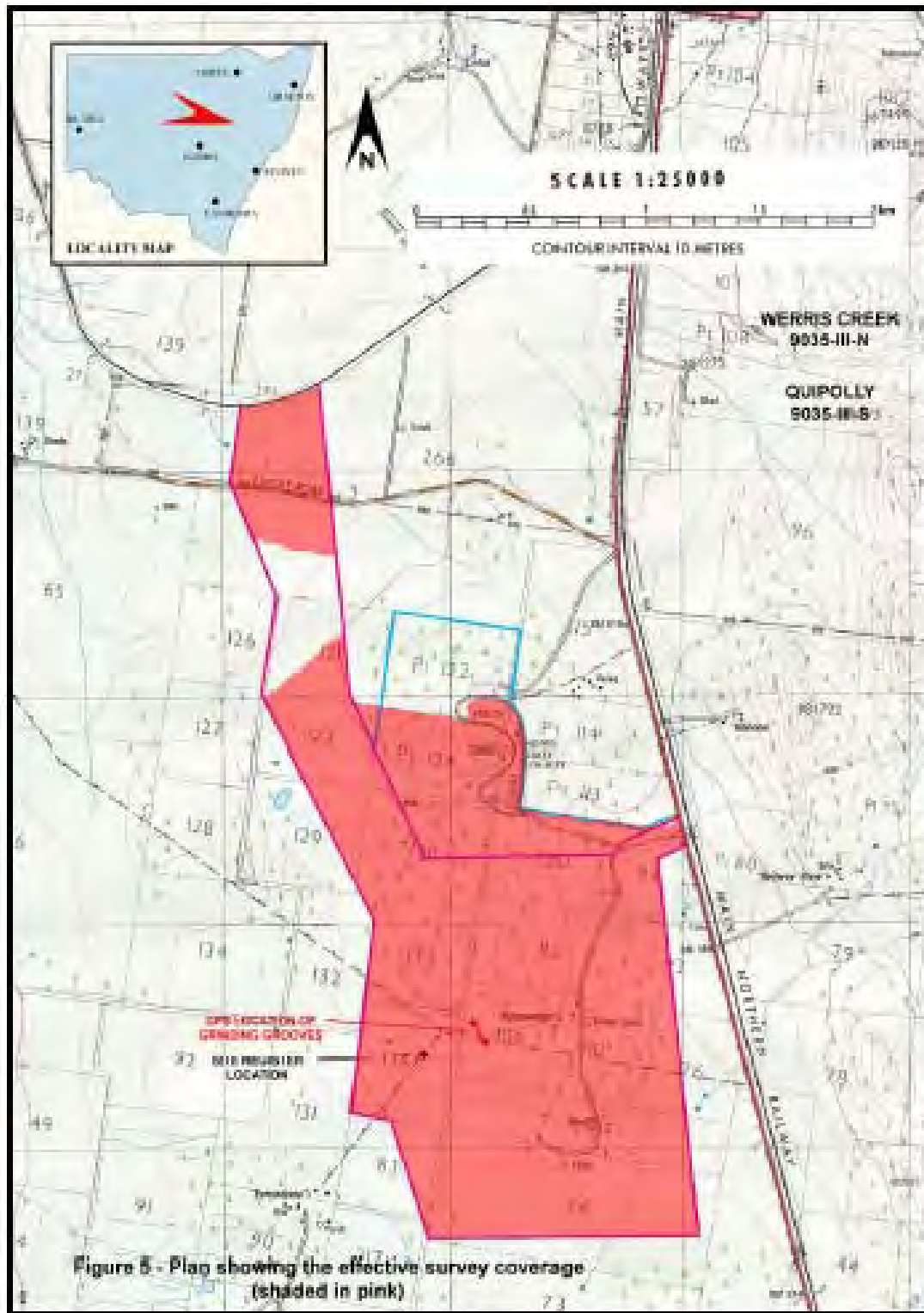


Figure 1 Archaeological Survey Coverage & Location of Site

6 Appendix 1

The following information is extracted from the Werris Creek coal mine site induction for all personnel:



Aboriginal Heritage

- *National Parks and Wildlife Act 1974 (NPW Act)*
- *Environmental Planning and Assessment Act 1979(EP&A)*
- *Heritage Act 1977*

The NSW Legislation protects:

- Any place of importance or significance connected with traditional cultural life.
- Any sacred, ritual or ceremonial site.
- Any place associated with Aboriginal people which is of interest.
- Any place where objects are traditionally stored, or have been taken or removed.

Aboriginal Heritage

These may include:

- Burial grounds
- Stone structures
- Symbols
- Arranged stones
- Objects
- Carved or scarred trees
- Paintings / Engravings



If you discover what appears to be something out of context that may be an Aboriginal artefact or site, you must stop work, cordon off the area and report it to your supervisor.

Aboriginal Heritage Werris Creek Coal Mine

Typical rock outcrop occurring on the eastern and western sides of the coal reserves



A culturally significant site containing axe grinding grooves is located on these rocks which have been relocated for preservation.

Aboriginal Heritage Werris Creek Coal Mine



**Axe Grinding Grooves removed from the mining
area to protect them.**

Aboriginal Heritage Werris Creek Coal Mine



Axe Grinding Grooves

Aboriginal Heritage Werris Creek Coal Mine

Procedure for discovering a possible artefact or site:

1. Work will cease in the area of the discovery,
2. If the area of discovery is in deposited material then work will also cease in the area where the material has come from,
3. The person discovering the artefact or site will notify their supervisor who will ensure that work has ceased and the area is cordoned off.
4. The supervisor will notify the Senior Mining Official on site who will notify the Mine Manager
5. The Mine Manager will notify WCC management who will ;
 - a) Request a qualified archaeologist to attend the site and advise on its archaeological significance,
 - b) Request the Site Monitor for Nungaroo LALC, if not already present, to attend and advise on its cultural significance in consultation with the qualified archaeologist,
 - c) If (a) & (b) determine that the find is an artefact or site notify DEC with the information for advice on further actions.

The Mine Manager will implement the action plan provided by DEC.



**WERRIS CREEK COAL
ENVIRONMENTAL
MANAGEMENT SYSTEM**

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WHC_PLN_WC_HERITAGE MANAGEMENT PLAN

APPENDIX K – Advitech Pty Ltd, Archaeological Investigation and Heritage Record:
Former Werris Creek Colliery, 2012



**Archaeological
Investigation and
Heritage Record**
Former Werris Creek
Colliery

Werris Creek Coal Pty Ltd





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**Archaeological
Investigation and
Heritage Record
Former Werris Creek
Colliery**

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Checked By		Balazs Hansel Senior Archaeologist	16 April 2012
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APPENDIX I

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NSW Heritage Criteria (2001)

1. INTRODUCTION

Advitech Pty Limited was engaged by Werris Creek Coal Pty Ltd (WCC) to undertake historical investigations for the approved Life of Mine Project for Werris Creek Coal Mine (WCCM).

It should be noted that this report was prepared by Advitech Pty Limited for Werris Creek Coal Pty Ltd (“the customer”) in accordance with the scope of work and specific requirements agreed between Advitech and the customer. This report was prepared with background information, terms of reference and assumptions agreed with the customer. The report is not intended for use by any other individual or organisation and as such, Advitech will not accept liability for use of the information contained in this report, other than that which was intended at the time of writing.

2. BACKGROUND AND OBJECTIVES

Werris Creek Coal Pty Limited (“the Proponent”) was granted Project Approval (PA) on 25 October 2011 for the Life of Mine (LOM) project. The project involves a northerly extension of the current mine footprint, increasing the projected mine life by approximately 15 to 20 years. The proposed mine expansion will require direct impact to the area north of the existing mine, including an area known as ‘Old Colliery Hill’. The proposed mine expansion will therefore have a direct impact on remains of the former Werris Creek Colliery (formerly known as Preston Colliery), including the former mine managers residence.

This assessment has been prepared in response to Condition 30 of PA 10_0059 which required the following works to be undertaken:

By the end of April 2012, the Proponent shall:

- (a) undertake primary historical investigations and provide a report prepared by an experienced heritage consultant approved by the Director-General on the archaeological potential of the former Werris Creek Colliery site, remaining buildings and surrounds;*
- (b) provide recommendations for the management, salvage or recording of any archaeological features on the site and a timetable for the implementation of these recommendations;*
- (c) include in this report detailed archival recording, including photographic recording and location plans of any structures relating to the former Werris Creek Colliery; and*
- (d) provide a copy of this report to the Department, Heritage Council of NSW and Council,*

to the satisfaction of the Director-General.

A map depicting the former Werris Creek Colliery in relation to the proposed mine expansion has been provided in **Figure 1** on the following page.

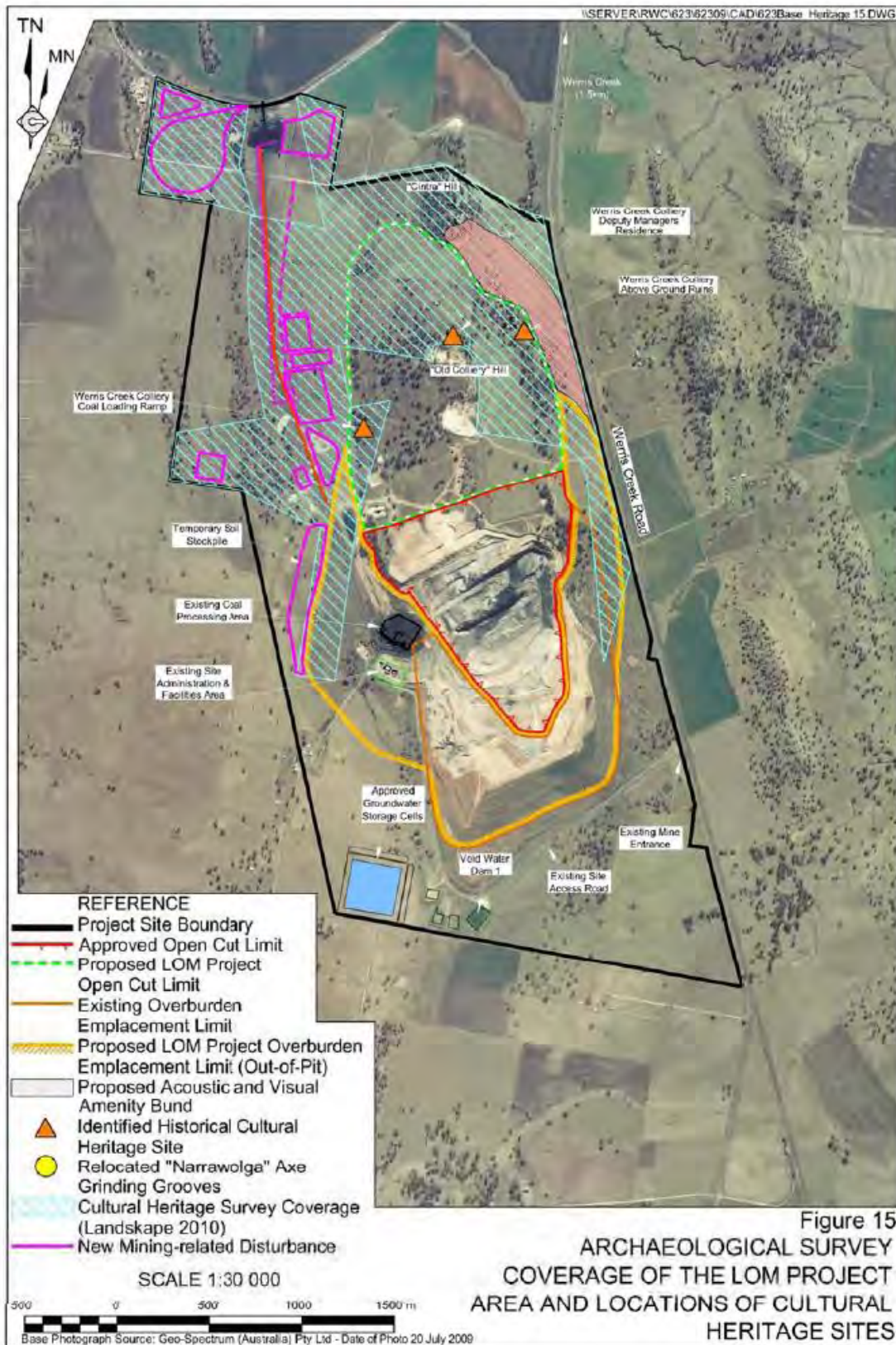


Figure 1: Archaeological survey coverage of the LOM project area and locations of cultural heritage sites (Landskape, 2010)

2.1 Previous Heritage Investigations

Previous archaeological and heritage assessment has been undertaken in application for, and following approval of the first stage of the WCCM. Additional historic and archaeological assessment was also undertaken to accompany the Project Approval application for the LOM Project approved under PA 10_0059. These historical works included:

- *Non-Indigenous Heritage Assessment for Proposed Modification to the Werris Creek Coal Mine, March 2009*, prepared by Archaeological Surveys and Reports Pty Ltd; and
- *Cultural Heritage Assessment for Werris Creek Coal Mine Life of Mine Project December, 2010*, prepared by Landskape Pty Ltd.

Shire wide heritage assessments have been undertaken by Liverpool Plains Shire Council, including *Liverpool Plains Shire Heritage Study 2004* (Liverpool Plains Shire Heritage Community Advisory Committee, 2005).

The Werris Creek Colliery, and associated works, are not listed as items of Environmental Heritage under the *Liverpool Plains Local Environmental Plan 2011*. However, the *Liverpool Plains Shire Heritage Study 2004* (LPSHS) identifies the 'Werris Creek Colliery south of Werris Creek' as being of high local significance and recommends inclusion of this item in the local heritage inventory. Furthermore, the LPSHS identifies the 'brick chimney stack from original coal mine Werris Creek-Quirindi Road' as being of local heritage significance with recommendation to include this item in the local heritage inventory.

The Landskape report (2010) relates specifically to the area of impact associated with the now approved mine expansion. This assessment includes primary historical and archaeological investigations, assessment of heritage significance and recommendations for management of impacts to any items that were identified. The Landskape report will be referred to within this heritage assessment and, where appropriate, built upon (rather than replicating existing information).

The Landskape report (2010) provides an inventory of remaining features associated with the former Werris Creek Colliery. These features include:

- Former Mine Deputy's Residence located on Old Colliery Hill;
- Coal loading chute and associated objects;
- Rubble (remains) of the boiler chimney; and
- Underground mine workings.

Detailed Aboriginal archaeological surveys have been undertaken for the proposed mine expansion footprint. No additional Aboriginal archaeological sites were identified within the project site (Landskape, 2010). The scope of this assessment is limited to the former Werris Creek Colliery and surrounds, and does not include assessment or recording of Aboriginal cultural heritage.

At the time of preparing this report, the Werris Creek Coal Community Consultative Committee (funded by Whitehaven Coal) had prepared a draft document entitled *A History of Coal Mining at Werris Creek*. This document provides an extensive account of the history of the Werris Creek Colliery and provides a very useful historical reference to the archaeological potential of the former Werris Creek Colliery and surrounds.

3. METHODOLOGY

The archaeological and heritage potential of the site had already been assessed by Landscape (2010). As such, it was not necessary or appropriate to duplicate the historical research or assessment of heritage significance. The methodology for this assessment consisted of the following main components:

1. Background heritage investigations;
2. Inspection of all known structures, objects and/or buildings and survey of the surrounds of these sites for previously undiscovered items;
3. Location of all structures, objects and/or buildings by survey;
4. Archival recording (plans) of all structures or buildings; and
5. Archival photographic record of all structures, objects and/or buildings.

Inspection of the site was undertaken on 7 February 2012 by Advitech employees Sam Wood (Archaeologist), Matthew Clancy (Environmental Planner) and Neil Tschirpig (Draftsman). Werris Creek Coal Environmental Manager, Andrew Wright, accompanied the inspection of the deputy mine manager's residence and also provided information in relation to any other potential historical sites and objects.

Inspection of the coal loading chute and boiler chimney was undertaken by Sam Wood, Matthew, Clancy and Nic Gardener (Registered Surveyor).

3.1 Heritage research

Background heritage investigations were undertaken prior to and during the site visit on 7 February 2012. This included review of previous written documents, internet research, as well as consultation with the Quirindi Historical Society, Werris Creek Railway Museum and the Werris Creek Anglican Church. Liverpool Plains Shire Council was also consulted to obtain copies of the development consent for demolition of the above ground works (chimney).

3.2 Location of all relevant structures, objects and/or buildings by survey

Horizon Surveying Pty Ltd (Nic Gardener) was engaged to locate all relevant structures, objects and/or buildings by survey. Any structures or objects were identified by survey, for later incorporation into an overall site plan.

All surveying was linked to Australian Height Datum (AHD). Existing topographical information was also obtained to provide topographical context to the setting of the relevant structures, objects and/or buildings.

Existing survey information was also obtained from Horizon Surveying and Werris Creek Coal in relation to the location of any known or predicted underground mine workings.

3.3 Archival plans of all structures or buildings

Plans of all structures and buildings were prepared by Advitech draftsman, Neil Tschirpig. In regard to the deputy mine managers residence; detailed floor, elevation and site plans were prepared for the main dwelling and any out buildings (**Appendix I**).

The plans aimed to record any features of significance including window detail, external detail (such as gables, awnings etc) and typical construction detail (where possible). The dwelling and outbuildings were measured using a tape measure and laser, generally with an accuracy of +/- 20mm. Foundation detail was noted where possible.

The coal loading chute was measured with a tape measure, generally with an accuracy of +/- 20mm.

3.4 Archival photographic record of all relevant structures, objects and/or buildings

Archival photographic records were obtained for all relevant structures, objects and/or buildings previously identified by Landskape and any additional items identified during inspection of the site. Photography was undertaken in accordance with the NSW Heritage Office guideline *Photographic Recording of Heritage Items Using Film or Digital Capture (2006)*.

Photographic recording was completed with a Canon 60D digital SLR camera with a resolution of 18 megapixels. All photographs were recorded in both JPEG and RAW image formats and stored on archival quality DVD disks.

4. RESULTS

4.1 The Former Werris Creek Colliery

The history of the former Werris Creek Colliery has been described, in detail, by the Werris Creek Coal Community Consultative Committee (funded by Whitehaven Coal) within the draft document entitled *A History of Coal Mining at Werris Creek*. In addition, the Landskape report (2010) details primary historical investigations relating to the archaeological potential of the former Werris Creek Colliery.

The above mentioned documents provide a detailed and reliable description of the former Werris Creek Colliery. Of particular note are the former mine deputy's residence, coal loading chute and associated objects, rubble from demolition of the boiler chimney, and underground mine workings.

The Landskape report (2010) assessed the heritage significance of these remaining structures, objects and/or buildings in accordance with the NSW Heritage Office guideline *Assessing Heritage Significance 2001*. There is an updated version of this guideline, *NSW Heritage Office Assessing Significance for Sites and 'Relics' 2009*, but the criteria for assessment remain consistent so there is no need for re-evaluation. The results of that assessment are provided in **Figure 2** below.

Site Name	Significance						
	Criterion (a)	Criterion (b)	Criterion (c)	Criterion (d)	Criterion (e)	Criterion (f)	Criterion (g)
Former Werris Creek Colliery Underground Workings	Local (Moderate)	Local (Moderate)	na	Local (Moderate)	Local (Low)	Local (Moderate)	Local (Moderate)
Former Werris Creek Colliery Above-ground Ruins	Local (Moderate)	Local (Moderate)	na	Local (Moderate)	Local (Low)	Local (Moderate)	Local (Moderate)
Former Werris Creek Colliery Deputy Mine Manager's Residence	Local (Moderate)	Local (Moderate)	Local (Moderate)	Local (Moderate)	Local (Moderate)	Local (Low)	Local (Low)
Former Werris Creek Colliery Coal Loading Ramp	Local (Low)	Local (Low)	Local (Low)	Local (Low)	Local (Low)	Local (Moderate)	Local (Moderate)

Figure 2: Assessment of Significance for the former Werris Creek Colliery (Landskape, 2010)

As detailed in **Figure 2** above, the remaining aspects of the former Werris Creek Colliery have been assessed as being low or moderate significance at a local level in all criteria. For an explanation of the criteria please see **Appendix III** (NSW Heritage, 2001).

Other historical investigations have been undertaken by Appleton (ASR, 2004) and Halliday (2005). Appleton surveyed the layout for the existing Werris Creek mine and concluded that the only item of possible historical interest was the steel coal loading chute and ramp.

Halliday (2005) identified the boiler chimney stack (now demolished) as being of high local significance.

4.1.1 Associations with Werris Creek

The Werris Creek Colliery is located on the outskirts of the Werris Creek Village. While the growth and development of Werris Creek was primarily a result of the rail development, the colliery provided an additional source of employment during the mines operating period.

Under the authority of Henry Thomas Jenkins the Preston Iron Coal company began tunnelling and coal prospecting in 1924. According to the Werris Creek Coal Community Consultative Committee (2010), two coal seams were discovered on the eastern slopes of Old Colliery Hill in 1925 and soon after the Preston Colliery built an additional four sink shafts on various sections of the property.

The mine was also conveniently located adjacent to the railway, which facilitated the transportation of the extracted coal. The viability of the mine was partly dependant on the importance of the railway. Coal from the colliery provided a source of fuel to power the steam locomotives, with demand increasing during World War II and following the establishment of the wheat storage terminal at Werris Creek (WCCCCC, 2010).

Physical links to the former colliery can be found within the Werris Creek Township. These links include an old coal cart, which was reportedly used in the colliery, as well as the large stained glass window in the Werris Creek Anglican Church.

The coal cart is located in a shed adjacent to the rail line on the Werris Creek Road, approximately 60 metres south of Poole Street.



Photo 1: Coal cart that may have been used in the Werris Creek (Preston) Colliery

The large stained glass window in the Werris Creek Anglican Church was installed in the 1960's by voluntary labour and the steel framework was designed by Mr. I.H. Thomas and the Vicar and fabricated at the local Preston Colliery (later named Werris Creek Colliery). The colliery workshop also directed the installation of the window which is the largest stain glass window in the north-west region.

The window itself was a gift from the Parishioners of Gravesend, Kent, to the Parishioners of Werris Creek. All expenses incurred in the shipment, insurance, necessary custom's duty and installations were paid by monies raised through the work of the Women's Guild, 1961 to 1963.

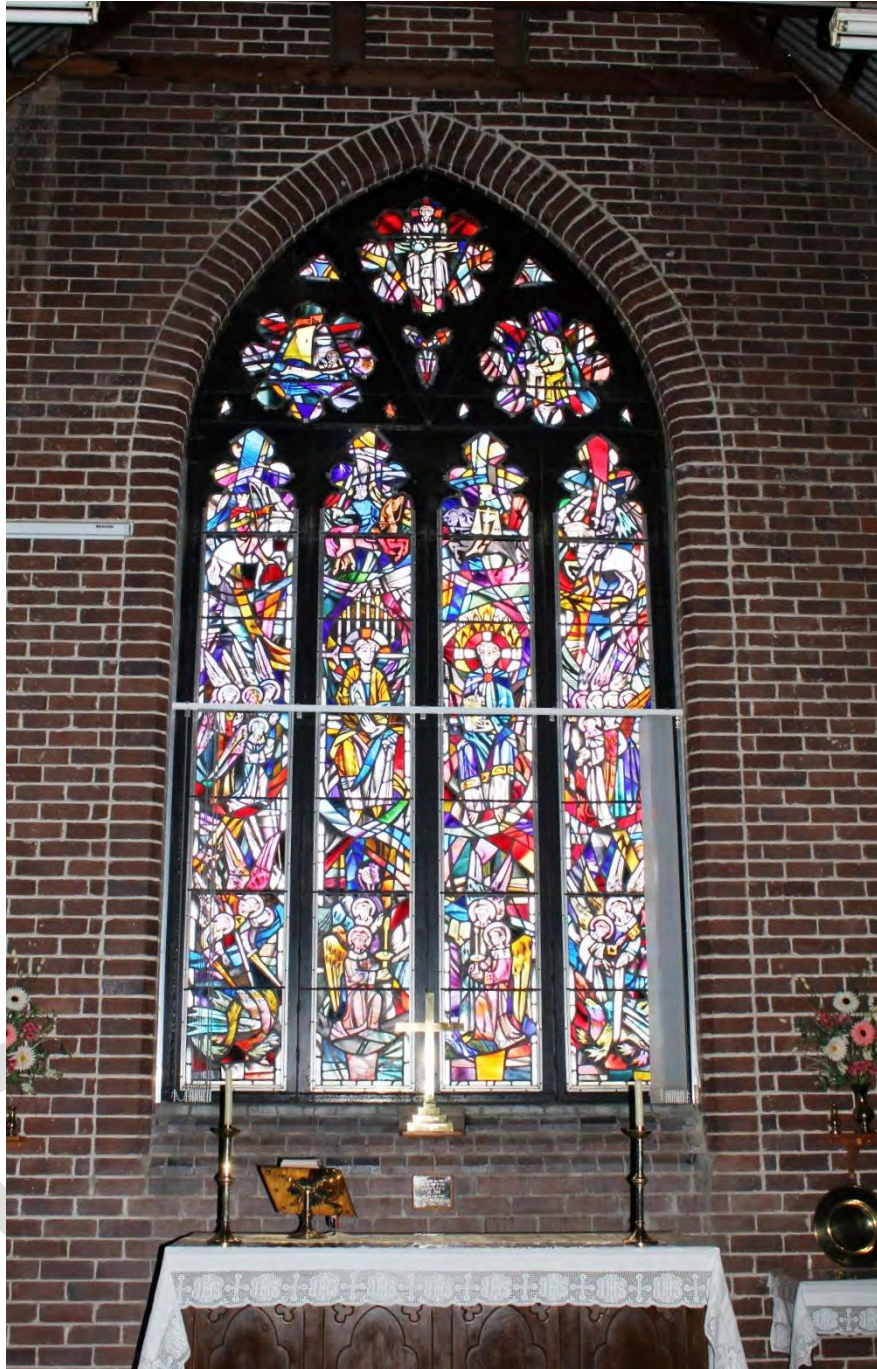


Photo 2: Stained glass window and frame fabricated by Preston colliery

4.2 Deputy Mine Managers Residence

The Deputy Mine Manager's Residence is located toward the summit of 'Old Colliery Hill'. The location of the dwelling takes advantage of expansive views toward Quipolly and back toward Werris Creek Village. An unsealed driveway currently extends from the southern slopes of Old Colliery Hill, around the southern side of the dwelling then up the northern yard boundary to the sheds (Photo 1).

According to the CHA, the deputy mine managers residence was originally constructed on the eastern mid-slopes of Old Colliery Hill circa 1925. The dwelling was later moved to the current location by Ivor Haig ('Doc') Thomas (the Deputy Mine Manager at that time) in 1940 to avoid dust from the colliery.



Photo 3: Former Deputy Mine Manager's residence facing south west from eastern slopes of Old Colliery hill. Note the driveway adjacent to the northern boundary fence and gate/cattle grid in bottom (north eastern) corner.

At the time of inspection (7 February 2012), the Deputy Mine Manager's Residence had been abandoned for at least 6 months. While the building was relatively intact, the building surrounds and ancillary outbuildings were noted to be in a poor state of repair. Gardens were overgrown and regenerating with native grasses and weeds. Nonetheless, the layout and original context of the dwelling could still be interpreted.

The surviving structures included the main dwelling, an 'out-house', concrete paths and tank stands, sheds and an above ground swimming pool. The dwelling and yards were enclosed with a post and wire fence, with a cattle grid located in the south-east corner of the yard (**Photo 1** and **Photo 3**).

Of particular interest, the cattle grid was constructed of old railway lines. The use of old railway materials, such as timber sleepers and railway lines, was a common theme throughout the dwelling surrounds. This reuse of railway materials reflects the availability of railway resources throughout the Werris Creek area generally, and provides some insight into the significance of the railway on the development of the Werris Creek Township.



Photo 4: Deputy Mine Managers Residence facing North West.



Photo 5: Cattle grid constructed of old railway line located in south western corner.

As detailed in **Photo 2**, the structure of the former gardens was still visible as a series of three terraces constructed of rock retaining walls and timber railway sleepers. Other surviving aspects of the garden included a number of stone-fruit trees located around the western side of the dwelling, as well as a very large stand of cactus plants at the base of a eucalypt tree. A number of eucalypt trees appear to have been planted either side of the driveway. A concrete mileage marker was also noted within the garden (**Photo 4**).

The former condition of the dwelling is shown in a photograph of Dora and Elizabeth Thomas that appears to have been taken in the early 1950's (**Photo 3**). The photograph shows the southern elevation of the building with original awning and timber framed window. This window has since been replaced with a larger aluminium framed window (**Photo 1**) and the awning removed. While the conifer tree no longer exists, a stump of what appears to be a conifer tree remains in that location (see **Photo 3**).



Photo 6: Dora and Elizabeth Thomas at the former Deputy Mine Managers residence in the early 1950's (photo courtesy of Elizabeth Thomas, reproduced from *Landscape*, 2010)

The overall dwelling layout has been modified substantially since the dwelling was originally constructed. The CHA describes the originally dwelling (circa 1925) as comprising four rooms; two either side of a central passage. Verandas were added when the structure was moved to its current location circa 1940. The wide timber verandas have since been enclosed with timber framing and flyscreen on the north and eastern elevation, while the veranda on the west has been enclosed with solid walls with both timber and aluminium windows.

An internal toilet had been installed on the western elevation (**Photo 5**), presumably constructed as an alternative to the original outdoor toilet (see **Appendix I**, site plan).



Photo 7: Toilet constructed on western wall of the dwelling.



Photo 8: Outside toilet

The interior of the dwelling presents a variety of building materials and finishes, reflective of the extensive modifications that have occurred to the building fabric. Typically, the internal walls were lined with fibro and covered with wall paper, imitation timber cladding or paint (**Photo 9**). Some internal walls retain a timber 'weatherboard' finish and appear to represent the original building exterior (prior to enclosure of verandas). Other original building elements can be seen within the hall way and door surrounds, where simple timber decorative features were utilised above doorways. The most elaborate example being the decorative hall way feature located toward the eastern hall way entrance, which was originally utilised as the front door (**Photo 10**).



Photo 9: Internal original wall (bedroom 2) showing wallpaper and weatherboard construction



Photo 10: Decorative detail within the hall way. Looking west from the dwelling entrance.

The kitchen of the dwelling contains a variety of modern and original features, such as the surrounds of a former combustion fire place (now containing a more modern, albeit dated electric stove) (**Photo 11**). The existing benches and cupboards have been replaced by laminated fibreboard units, which would not have been available at the time of the former mines operation.



Photo 11: Kitchen facing west toward former fire place/combustion stove.

A timber framed shed and associated skillion structures were located approximately 15 metres north west of the dwelling (**Photo 12**). The shed contains a concrete floor which once contained the footprints of Dora at age 6 (born 1941) and Elizabeth Thomas at age 4 (born 1943). This section of the concrete was previously removed by Werris Creek Coal and returned to the Thomas family in accordance with the Archaeology and Cultural Heritage Management Plan (July, 2007).

The history of shed is not well documented; however, personal communication with Werris Creek Coal indicates that the shed may have been constructed by the brother of I.H Thomas, while awaiting deployment for World War II. The shed would, therefore, appear to have been constructed in the 1940's, shortly after the dwelling was placed in its current location. The age of the footprints indicates that the concrete floor was poured around 1947.

The sheds are hardwood construction with corrugated iron roofing over hardwood timber trusses. The southern elevation contains a timber-clad gable which appears to match the gables existing on the southern façade of the dwelling. Wall cladding comprises of corrugated iron and simple skillion roof structures are located on the north, east and west sides of the shed.

The sheds contain various tools, household and rural items, car parts and other various objects left from previous occupants, including recent residents. None of the items appeared to relate to the

former Werris Creek Colliery, other than a pile of coal located on the outside of the shed (**Photos 12 and 13**). It is highly probable that the coal was left over from the former mining operations at the Werris Creek Colliery and may have been used as a fuel source by previous occupants of the dwelling.



Photo 12: Shed facing west. Note coal stockpile in right of photo.



Photo 13: Inside the shed facing west. Note various remaining items.

A detailed photographic record of the dwelling and surviving structures is contained within **Appendix II**. The photographic record shows construction detail, and, **Table 1** below is a summary of construction elements for the dwelling and outbuildings.

Table 1: Summary of construction elements

Feature	Material	Comment
Dwelling Cladding	Painted timber weather board Fibro	Fibro only utilised on gable ends.
Roofing	Corrugated iron	
Internal walls	Fibro Weatherboard	Predominantly fibro.
Floor	Timber floor boards over bearer and joist	Lino and carpet floor coverings.
Windows	Timber and aluminium	Timber windows appear original, aluminium windows appear to have been installed more recently.
Roof and wall frame	Timber hardwood	Truss roof.
Shed frame	Timber hardwood	Truss roof, hardwood skillions.
Shed walls	Corrugated iron	Gable ends.
Shed roof	Corrugated iron	
Shed floor	Concrete	

4.2.1 Archaeological Potential

The dwelling, sheds and surrounds were assessed by as having moderate research potential (criteria (e)) due to the possibility of preserved remains of domestic activities from the middle of the 20th century (Landskape, 2010). After inspection of the building and surrounds, and considering the modified and general condition of the site this assessment is considered optimistic. However, some objects may exist beneath the dwelling and within immediate surrounds. These objects would most likely be limited to lost or discarded domestic items and would be unlikely to have notable heritage value. The concrete mileage marker has some historic interest values and would be worthy of salvage.

The former dwelling location, on the eastern mid-slopes of Old Colliery Hill, has the potential to contain stumps/foundations of the former dwelling location (prior to being relocated in 1940) as well as domestic items. If existing, these remnants are likely to be highly degraded due to white ants, decomposition, fire or other agricultural or mining related disturbance and would be unlikely to have notable heritage value.

4.3 Coal Loading Ramp and Chute

The Cultural Heritage Assessment (CHA) (Landskape, 2010), prepared for the LOM project, identified the existence of a coal loading ramp and steel chute that was formerly used within the Werris Creek Colliery. The coal loading ramp is located on the south western slopes of Old Colliery Hill.

According to the CHA, the ramp was associated with an exploratory shaft that was sunk in the 1950's. Although the shaft was only in operation for a short period of time (Landskape, 2010), this location contains some of the only surviving objects relating to the former mining operations.

At the time of inspection, the site contained a steel coal loading chute positioned on an earth mound. A number of steel cables were strung from adjacent eucalypt trees. Other surviving items included a steel roller, located approximately 10 metres north of the coal loading chute, and a timber post located north east of the coal loading chute.

The items existing on site are consistent with the description of the site provided in *A History of Werris Creek Coal* (WCCCC, 2010). That document describes the coal loading ramp as being 'constructed from the natural slope using stone rubble and a steel chute suspended by steel cables from the branches of nearby eucalyptus trees. The ramp and chute were used to load coal onto trucks'.

The surrounds of the coal loading ramp were searched in an attempt to identify the location of the tunnel entrance or any other remaining feature. No other features could be identified, with the exception of residue coal located within and around the chute.



Photo 14: Coal loading ramp and steel chute looking north.



Photo 15: Steel roller located near coal loading chute.

4.3.1 Archaeological Potential

The location of the coal loading chute and surrounds is considered to have low research potential (criteria (e)) due to the generally poor state of preservation (Landskape 2010). However there is potential for;

- Steel and/or abandoned machinery existing on or just below the ground surface;
- The exploratory mine shaft existed immediately east of the chute. This shaft is likely to be extensively collapsed, however, abandoned mining equipment or supporting structures may exist within the former shaft; and
- The location of the ventilation shaft is unknown, however, historical accounts suggest that the location of the ventilation shaft once contained barrels (and presumably supporting structures) (WCCCC, 2010). These may remain if they were left in-situ following abandonment of the colliery.

4.4 Above Ground Works

The ruins of the above ground works of the colliery are located on the eastern slopes of Old Colliery Hill, approximately 150 metres from Werris Creek-Quirindi Road (refer to **Figure 1** and **Appendix I**). According to the CHA, this area originally contained the cable winch, two boiler houses, skip rail tracks, skip tumbler, coal screen, coal box, coal chute and railway branch line. The historical mine workings map (**Figure 3**) also shows the location of the rail branch line in this area, extending west toward the western exploratory shaft and coal ramp. Some of the above ground structures can be seen in **Photos 16** and **17** below.



Photo 16: Concrete chimney and former above ground structures circa 1970 (Source: McEvelly *et al*, 2004 in Landscape, 2005)



Photo 17: Chimney locations and condition in 2010 (Photos courtesy of Horizon Surveying Pty Ltd)

At the time of inspection, the only remaining features comprised a pile of concrete and steel rubble (**Photo 18**). The rubble represents the remains of the boiler chimney that was demolished with the consent of Council in March 2010 under DA 29/2010. The boiler chimney stack is identified in the *Community Based Shire Wide Heritage Study* (Halliday, 2005) as a site that has local heritage significance and should be included on the heritage inventory.



Photo 18: Boiler chimney rubble located at the site of the former above ground workings, looking south.

Following closure of the colliery in the late 1960's, the underground mine infrastructure was reported to have been dismantled for scrap. A fire in the late 1970's destroyed most of the remaining structures (WCCCC, 2010). The surrounding area was searched in an attempt to identify any other objects relating to the former above ground workings. The search did not identify any further objects or structures, however, the presence of thick grass limited survey visibility to less than 5%

4.4.1 Archaeological Potential

Although in all other criteria the above-ground workings were assessed as having moderate significance, for research potential (criteria (e)) the assessment was low due to the generally poor state of preservation (Landskape 2010). However, given the extent of works that once existed at this location, it is possible that sub surface objects may exist in the proximity of this location, particularly remaining sections of the rail branch line. Other objects may also exist within the former underground workings. However, these objects would be limited to supporting structures, waste or items and structures that had no value as scrap following closure of the colliery. Archaeological potential includes:

- Concrete foundations of colliery buildings (reported to have been lost in a fire);
- Underground mine workings and associated structures, particularly the mine entrance located in the area below the adjacent sheds/stables;
- Some objects may exist at or below the surface anywhere within this area. However, these would be limited to waste or items and structures that had no value as scrap following closure of the colliery; and

- Rail tracks (in part) may exist at or below the surface near this location. The rail line, if remaining, would have comprised the connecting skip rail tracks between the colliery and the north-west railway. Surviving objects could comprise steel track, timber sleepers and steel pins.

4.5 Underground Workings

The underground workings are not identifiable from the surface and could not be inspected. However, previous investigations indicate that underground working exist north of the current mine area, extending up to the dwelling and sheds/stables that exist on the eastern slopes of Old Colliery Hill, directly north of the site of the former above ground works (**Figure 3**).

The entrance to the underground workings is thought to exist below the rural shed/stables (pers com, N. Gardiner), however, the tunnels and shafts associated with the underground workings are likely to be flooded and extensively collapsed (WCCCCC, 2010).

The entrance to the western exploratory shaft was not able to be located during inspection of the coal loading chute.

Figure 3 below contains a historic map of the underground mine workings and rail tracks.



Figure 3: Underground mine workings

4.5.1 Archaeological Potential

The research potential (criteria (e)) for the underground mine workings was assessed by Landskape as low due to the poor state of preservation. (Landskape, 2010). While the machinery and any structures are reported to have been dismantled and sold for scrap, it is possible that some sub surface objects may remain within the former underground workings. These items may include:

- Steel rail cart tracks, sleepers and associated works;
- Discarded machinery, tools and equipment that was not removed and/or sold for scrap;
- Domestic, rural or mining waste deposited during and following closure of the mine; and
- Supporting structures.

5. CONCLUSIONS AND RECOMMENDATIONS

Advitech Pty Limited was engaged by Werris Creek Coal Pty Ltd (WCC) to undertake historical investigations for the approved Life of Mine Project for Werris Creek Coal Mine (WCCM).

This assessment has been prepared in response to Condition 30 of PA 10_0059 which required primary historical investigations on the archaeological potential of the former Werris Creek Colliery site, remaining buildings and surrounds, as well as detailed archival recording, including photographic recording and location plans of any structures relating to the former Werris Creek Colliery.

Table 2: Summary of Archaeological potential and recommendations

Site	Archaeological Potential	Salvage Recommendations	Timing	Actions
Former Mine Deputy's Dwelling and shed	Existing buildings and structures. Possible historic domestic and rural objects. Mileage marker	Re-use and salvage of building materials and mileage marker. Monitor site and surrounds during demolition and excavation.**	Prior and during works	Consult heritage professional regarding significance of any previously unidentified items*. Photographic and archival recording prior to re-use or disposal in consultation with OEH*.
Coal Loading Chute	Above ground objects	Collect known items prior to excavation. Monitor site and surrounds during excavation.** If underground workings are encountered, proceed with caution to prevent avoidable damage. Cease excavation if potential historic items are encountered.	Prior and during works	Store all items outside of LOM footprint. Consult historical society and Council regarding possible re-use or display. Photographic and archival recording prior to re-use or disposal in consultation with OEH*.
	Sub-surface objects including mine shaft and ventilation shaft	Monitor site and surrounds during excavation.** If underground workings are encountered, proceed with caution to prevent avoidable damage. Temporarily cease excavation if potential historic items are encountered.	During works	Collect and/or document all historic items under instruction of a heritage professional. Photographic and archival recording prior to re-use or disposal in consultation with OEH*.
Above Ground Works	Above ground objects including foundations of former buildings	Monitor site and surrounds during demolition and excavation.** Cease work if suspected foundations are encountered. Temporarily cease excavation if mine shaft or potential historic objects are encountered.	During works	Document location of underground workings or building foundations by surveyor. Consult historical society and Council regarding possible re-use or display*. Photographic and archival recording prior to re-use, destruction or disposal in consultation with OEH*.

Site	Archaeological Potential	Salvage Recommendations	Timing	Actions
	Sub-surface objects or structures including those contained within underground mine workings.	Monitor site and surrounds during excavation.** If underground workings are encountered, proceed with caution to prevent avoidable damage. Temporarily cease excavation if potential historic objects are encountered.	During works	Collect and/or document all historic items under instruction of a heritage professional. Photographic and archival recording prior to re-use, destruction or disposal in consultation with OEH*. Document location of underground workings by surveyor.
Underground workings	Sub-surface objects or structures contained within underground mine workings.	Monitor site and surrounds during excavation.** If underground workings are encountered, proceed with caution to prevent avoidable damage. Temporarily cease excavation if potential historic items are encountered.	During works	Collect and/or document all historic items under instruction of a heritage professional. Photographic and archival recording prior to re-use, destruction or disposal in consultation with OEH*. Document location of underground workings by surveyor.

* Previously undocumented items only

** Monitoring means that WCC workers should be made aware of the archaeological potential of these areas as well as the recommended actions so that they conduct the necessary works monitoring for archaeological potential. This monitoring does not require a heritage specialist, however if potential historic items or structures are encountered then the recommended actions can potentially involve a heritage professional, OEH and/or a surveyor.

Table 3: Recommendations for salvage or disposal of recorded items

Site	Element	Disposal	Actions	Responsibility
Former Mine Deputy's Dwelling and shed	Hardwood timber	Disposal/recycling	Collection for re-use	Demolition contractor
	Wall cladding	Disposal/recycling	Disposal at waste management/recycling facility	Demolition contractor
	Roofing iron	Disposal/recycling	Disposal at waste management/recycling facility	Demolition contractor
	Window frames	Recycling	Collection for re-use or sale	WCC / Demolition contractor
	Fixtures	Recycling	Collection for re-use or sale	WCC / Demolition contractor
	Mileage marker	Salvage	Consult Council and Historical society regarding options for re-use, restoration or display	WCC / Demolition contractor
	Other	Disposal/recycling	Disposal at waste management/recycling facility	Demolition contractor
Coal Loading Chute	Steel chute and roller	Salvage	Consult Council and Historical society regarding options for re-use, restoration or display	WCC
	Steel cable	Disposal/recycling	Disposal at waste management/recycling facility	WCC / Demolition contractor
Above Ground Works	Chimney rubble	Disposal/recycling	Disposal at waste management/recycling facility or re-use on site	WCC / Demolition contractor
Underground workings	Underground structures or historic items		Seek advice from heritage professional and OEH if potential historic items are encountered*	WCC

6. REFERENCES

Archaeological Surveys and Reports Pty Ltd (2009), *Non-Indigenous Heritage Assessment for Proposed Modification to the Werris Creek Coal Mine, March 2009.*

Archaeological Surveys and Reports Pty Ltd (2004) *Aboriginal Heritage Assessment, Proposed Werris Creek Coal Mine.*

Landskape Pty Ltd (2010), *Cultural Heritage Assessment for Werris Creek Coal Mine Life of Mine Project December 2010.*

Liverpool Plains Shire Heritage Community Advisory Committee (2005), *Liverpool Plains Shire Heritage Study 2004.*

NSW Heritage Office guideline (2001), *Assessing Heritage Significance.*

NSW Heritage Office guideline (2009), *Assessing Significance for Historical Archaeological Sites and 'Relics'.*

NSW Heritage Office guideline (2006), *Photographic Recording of Heritage Items Using Film or Digital Capture.*

Werris Creek Mine (2007), *Archaeology and Cultural Heritage Management Plan for Werris Creek Coal Mine.*

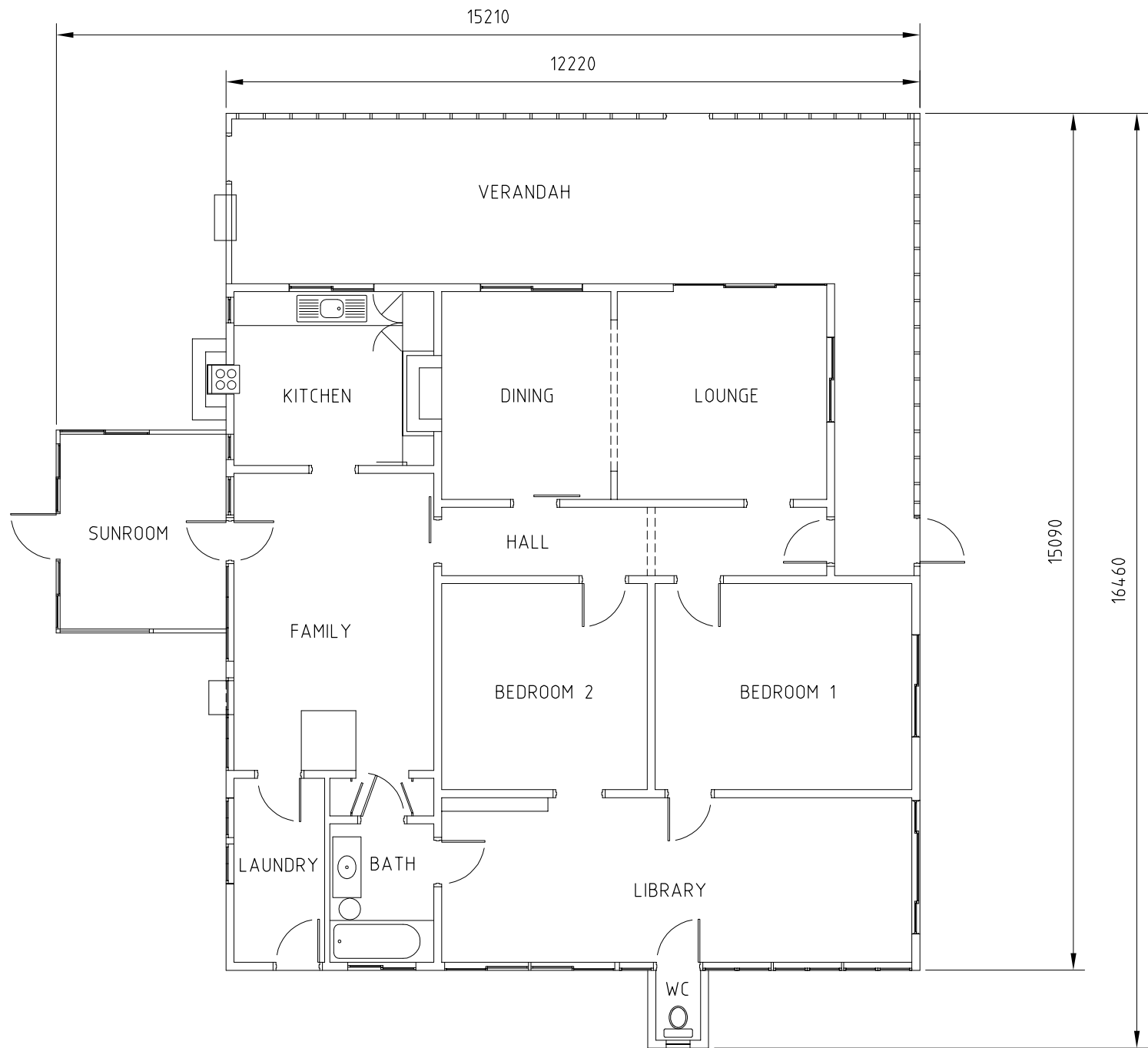
Liverpool Plains Shire Heritage Community Advisory Committee (2005), *Community Based Shire Wide Heritage Study.*

Werris Creek Coal Community Consultative Committee (2010), *A History of Coal Mining at Werris Creek.*



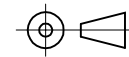
Appendix I

Location and Architectural Plans



FLOOR PLAN

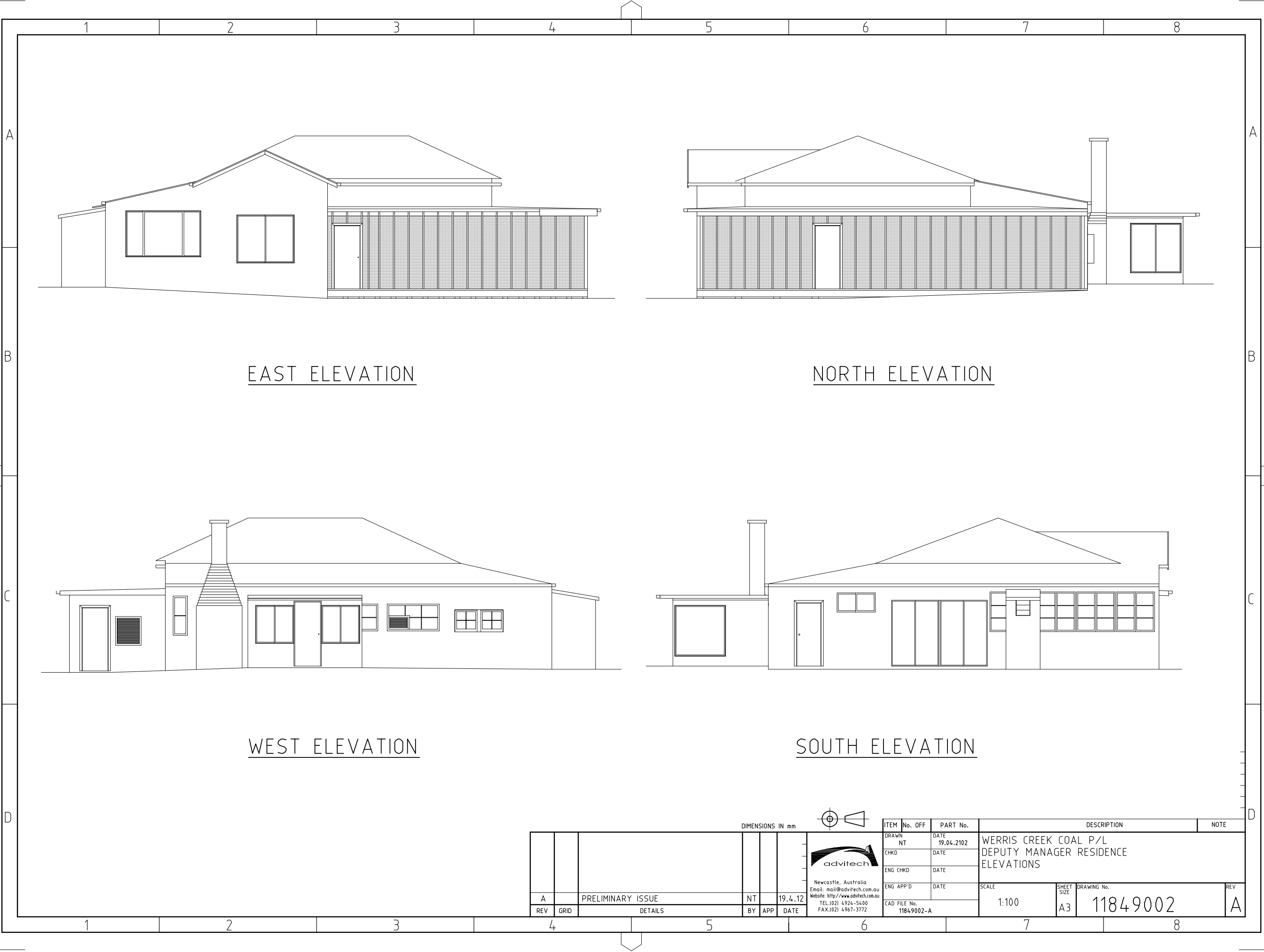
DIMENSIONS IN mm



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ITEM	No.	OFF	PART No.	DESCRIPTION	NOTE
DRAWN	NT		DATE	20.04.2012	WERRIS CREEK COAL P/L DEPUTY MANAGER RESIDENCE PLAN
CHKD			DATE		
ENG CHKD			DATE		
ENG APP'D			DATE		
CAD FILE No.				SCALE	REV
11849001-A				1:100	A
				SHEET SIZE	DRAWING No.
				A3	11849001

REV	GRID	DETAILS	BY	APP	DATE
A		PRELIMINARY ISSUE	NT		19.4.12



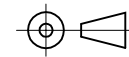
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NORTH ELEVATION

WEST ELEVATION

SOUTH ELEVATION

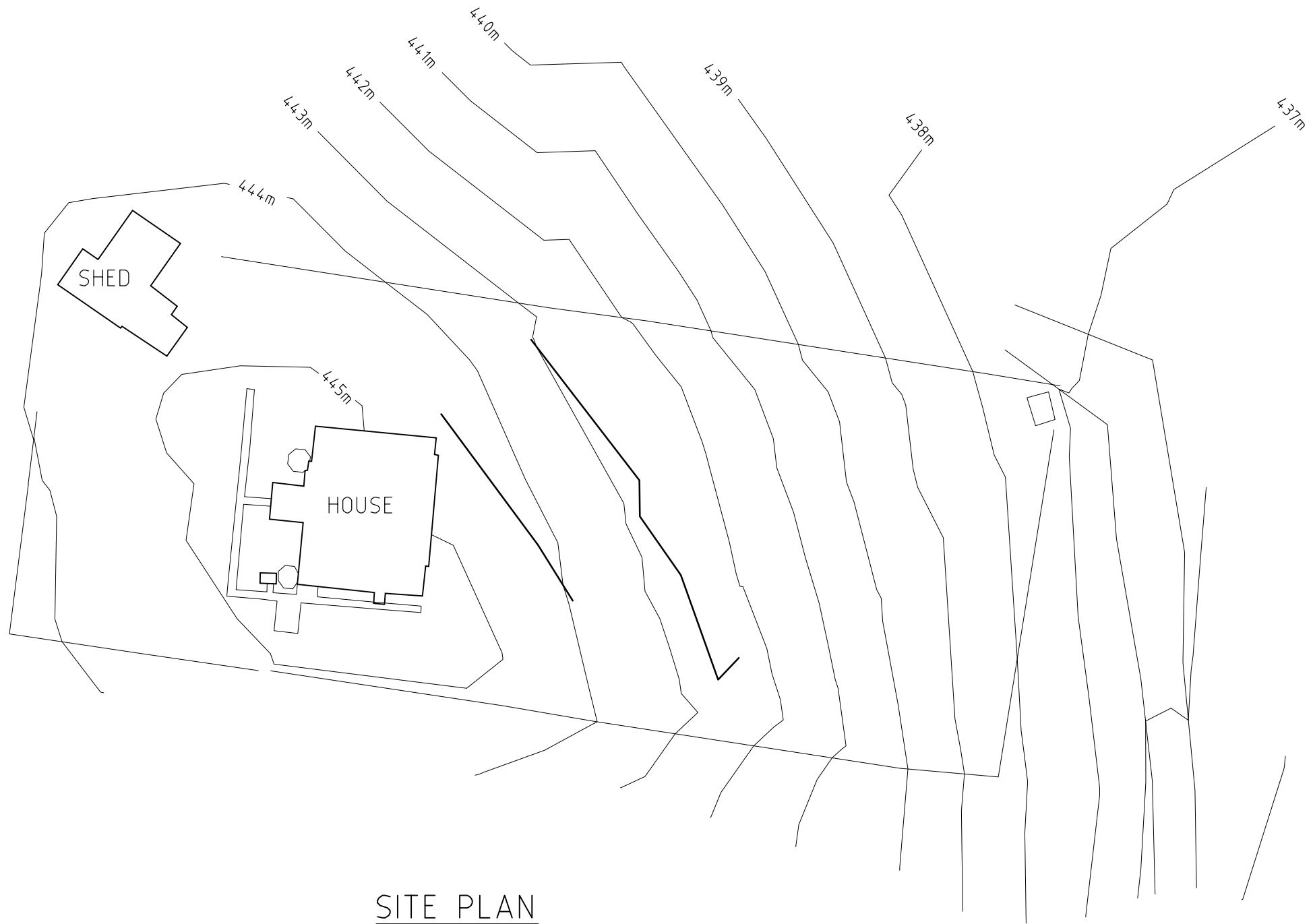
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 TEL.(02) 4924-5600
 FAX.(02) 4967-3772

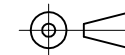
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ENG CHKD			DATE		
ENG APP'D			DATE		
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REV	GRID	DETAILS	BY	APP	DATE
A		PRELIMINARY ISSUE	NT		19.4.12



SITE PLAN

DIMENSIONS IN mm



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REV	GRID	DETAILS	BY	APP	DATE
A		PRELIMINARY ISSUE	NT		19.4.12

ITEM	No.	OFF	PART No.	DESCRIPTION	NOTE
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ENG CHKD			DATE		
ENG APP'D			DATE		
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Appendix II

Archival Photographic Record

PHOTOGRAPHIC RECORD

The following photographic record has been prepared for the purpose of recording the surviving features of the Werris Creek Colliery, located south of Werris Creek. Photography was undertaken in accordance with the NSW Heritage Office guideline *Photographic Recording of Heritage Items Using Film or Digital Capture (2006)*.

Photographic recording was completed with a Canon 60D digital SLR camera with a resolution of 18 megapixels. All photographs were recorded in both JPEG and RAW image formats and stored on archival quality DVD disks which are attached to this document.



The DVD disks contain digital photographs in both JPEG and RAW image formats. While the following photographic prints provide a useful reference, the digital RAW format image files represent an unmodified image quality and should be referred to for any archival purposes or for later reproduction.

Reference plans, labelled with photograph locations, have been provided on the following pages for interpretation of the dwelling photographs.

PHOTOGRAPHIC RECORDS

Deputy Mine Manager's Property and Residence



Photographic Plan: Deputy Mine Manager's Property	Camera: Canon EOS 60D	 
Project: Werris Creek Archaeological Investigation and Heritage Record	Lens: EFS 18-55mm	
Date: 19 April 2012	Film Type: Digital	
Drawn by: Neil Tschirpig		
Photographer: Sam Wood		

Digital Image Catalogue Sheet: Deputy Mine Manager's Property

Project: Werris Creek Archaeological Investigation and Heritage Record	
Camera: Canon EOS 60D	35mm lens equivalent: 29-88mm
Lens: EFS 18-55mm	Photographer: Sam Wood
Sensor Size: 18 megapixels	Folder: Deputy's residence 7 Feb 2012

Plan Reference	Image #	Date	Theme/Details	Bearing/Facing
A1	52	7/02/2012	NW corner of Old Colliery Hill	NW
A2	53	7/02/2012	Shed structure on Old Colliery Hill	SE
A3	210	7/02/2012	Shed skillion, north west of Deputy's Residence	S
B1	96	7/02/2012	Northern side of shed	S
B2	97	7/02/2012	Landscape photo, north of the shed	SW
B3	98	7/02/2012	Landscape photo, north of the shed	W
C1	56	7/02/2012	Road clearing entering driveway	SE
C2	57	7/02/2012	Fencing and gate entrance	E
C3	58	7/02/2012	Northern view of Old Colliery Hill	NW
C4	59	7/02/2012	Fencing and gate entrance	W
D1	61	7/02/2012	Cattle grid, east of Deputy's Residence	NW
E1	62	7/02/2012	Shrubs south of Deputy's Residence	S
E2	63	7/02/2012	Partially cleared bushland south of Deputy's Residence	S
F1	64	7/02/2012	House (Deputy's Residence)	NW
F2	65	7/02/2012	House (Deputy's Residence)	NW
F3	67	7/02/2012	Shrubs/yard south of house	S
F4	68	7/02/2012	Shrubs/yard east of house	E
F5	69	7/02/2012	Shrubs/yard north of house	N
G1	70	7/02/2012	House (Deputy's Residence) facing west	W
G2	71	7/02/2012	Shrubs/yard east of house	E
G3	72	7/02/2012	Feature photo: NESW Marker	W
G4	73	7/02/2012	Marker context photo, west of House (Deputy's Residence)	W
G5	74	7/02/2012	House (Deputy's Residence) facing veranda.	W
H1	75	7/02/2012	House (Deputy's Residence) facing south east	SE
H2	136	7/02/2012	House stump on western side	W
H3	138	7/02/2012	House stump on western side	W
H4	76	7/02/2012	House (Deputy's Residence) facing south west	SW
H5	77	7/02/2012	Fence on northern boundary of house	N
H6	78	7/02/2012	Bridge on north eastern boundary of house	W
H7	133	7/02/2012	Brick chimney	W
H8	248	7/02/2012	House (Deputy's Residence) facing eastern side of veranda	W
H9	247	7/02/2012	House (Deputy's Residence) facing eastern	S

			side of veranda	
H10	134	7/02/2012	House (Deputy's Residence) facing eastern side of veranda	SW
I1	79	7/02/2012	House(Deputy's Residence) facing northern side of veranda	
I2	80	7/02/2012	House (Deputy's Residence) facing shed	W
I3	254	7/02/2012	Veranda entrance on the northern side	S
I4	246	7/02/2012	Veranda	S
J1	81	7/02/2012	Shed/car garage	W
J2	82	7/02/2012	Shrubs/yard facing above ground pool	S
J3	245	7/02/2012	South eastern side of shed	NW
K1	83	7/02/2012	Inside the shed structure.	NW
L1	87	7/02/2012	Shed ground	E
L2	88	7/02/2012	Shed ground	S
L3	93	7/02/2012	Slab cut in shed	S
L4	94	7/02/2012	Slab cut in shed	E
L5	215	7/02/2012	Shed tools	E
L6	214	7/02/2012	Shed tools	S
M1	54	7/02/2012	Dwelling and yard, Old Colliery Hill	E
M2	55	7/02/2012	Eastern corner of shed	W
M3	213	7/02/2012	Coal feature on northern side of shed	W
M4	211	7/02/2012	Feature photo: coal on northern side of shed	W
M5	212	7/02/2012	Coal feature on northern side of shed	NW
N1	99	7/02/2012	Southern end of shed	NW
N2	100	7/02/2012	Southern end of shed	NE
N3	216	7/02/2012	Swimming pool, eastern side of house	SE
O1	101	7/02/2012	Southern end of house (Deputy's Residence)	N
O2	102	7/02/2012	South western end of house (Deputy's Residence) facing laundry	NW
O3	103	7/02/2012	Southern slope of Old Colliery Hill, including dam	SE
O4	104	7/02/2012	Southern slope of Old Colliery Hill	S
P1	106	7/02/2012	Outhouse, eastern side of house	W
P2	130	7/02/2012	Tank pad, eastern side of house	N
P3	107	7/02/2012	Outside of house, facing the Library room	NE
P4	108	7/02/2012	Inside the outhouse	W
P5	113	7/02/2012	Outside of house, facing the sunroom	NE
R1	123	7/02/2012	Toilet elevation on southern end of house	N
R2	129	7/02/2012	House(Deputy's Residence) facing toilet	NE
R3	125	7/02/2012	Toilet window, facing the house	N
T1	131	7/02/2012	Tank pad north western end of house	SE
T2	132	7/02/2012	Chimney detail, eastern side of house	SE



A1 Facing NW



A2 Shed facing SE



A3 shed skillion looking S



B1 Shed Facing S



B2 Facing SW



B3 Facing W



C1 Road Facing SE



C2 Facing E



C3 Facing N



C4 Gate Facing W



D1 Grid Facing NW



E1 Facing NW



E2 facing S



F1 Hosue Facing NW 2



F2 Hosue Facing NW 3



F3 Facing S



F4 Facing E



F5 Facing N



G1 House Facing W



G2 Facing E



G3 NESW Marker



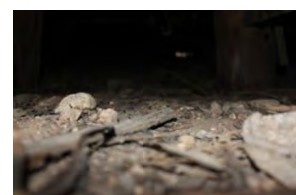
G4 Marker Context W



G5 Elevation W



H1 House Facing SE



H2 House stump (2)



H3 Stump Facing W



H4 House Facing SW



H5 Fence Facing N



H6 Bridge Facing W



H7 Chimney and Stump Facing



H8 facing W



H9 veranda facing S



H10 veranda facing SW



H11 House Facing S



H12 House Facing W



I3 veranda entrance facing S



I4 veranda facing S



J1 Shed Facing W



J2 Pool Facing S



J3 shed facing NW



K1 Shed Facing NW



L1 Shed Ground



L2 Shed ground



L3 Slab Cut



L4 Slab Cut



L5 Shed tools



L6 Shed tools



M1 Dwelling and Yard facing E



M2 Shed Facing W



M3 coal on N side of shed



M4 coal on N side of shed



M5 coal on N side of shed



N1 Shed facing NW



N2 Shed Facing NE



N3 swimming pool



O1 House Facing N



O2 House Facing NW



O3 Facing SE



O4 Facing S



P1 House Facing W



P2 Tank Pad Facing N



P3 House Facing NE



P4 Outhouse Inside Facing W



South Elevation Sunroom Facing N



Toilet South Elevation Facing N



R2 Window Facing NE 2



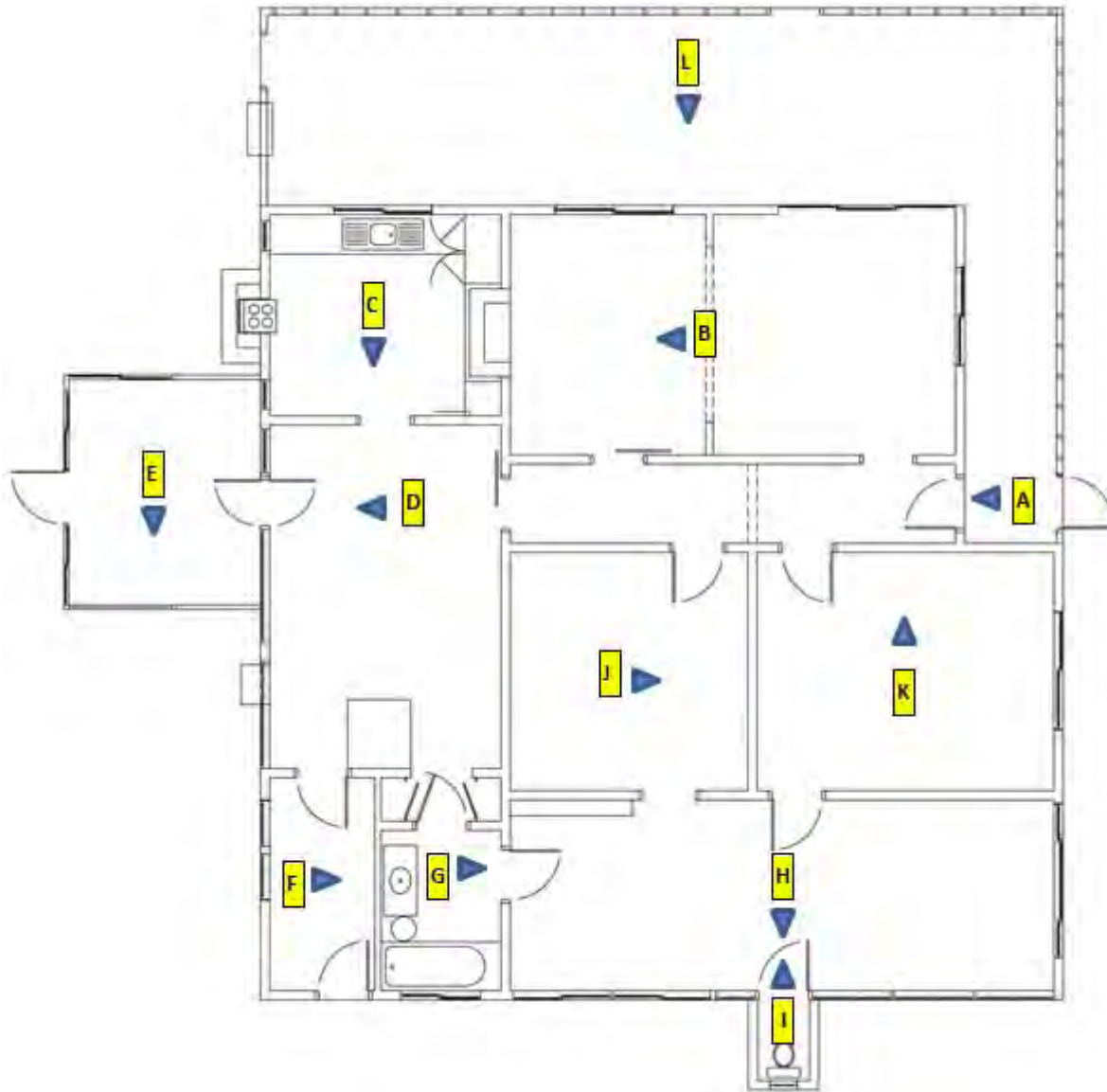
R3 Window Facing N



T1 Tank Pad Facing S



T2 Chimney Detail Facing SE



Legend

- A: Hall
- B: Dining room/ Lounge
- C: Kitchen
- D: Family room
- E: Sun room
- F: Laundry
- G: Bathroom
- H: Library
- I: Toilet
- J: Bedroom 2
- K: Bedroom 1
- L: Veranda

Photographic Plan: Deputy Mine Manager's Residence
Project: Werris Creek Archaeological Investigation and Heritage Record
Date: 19 April 2012
Drawn by: Neil Tschirpig
Photographer: Sam Wood
Camera: Canon EOS 60D
Lens: EFS 18-55mm
Film Type: Digital



Digital Image Catalogue Sheet: Deputy Mine Manager's Residence

Project: Werris Creek Archaeological Investigation and Heritage Record	
Camera: Canon EOS 60D	35mm lens equivalent: 29-88mm
Lens: EFS 18-55mm	Photographer: Sam Wood
Sensor Size: 18 megapixels	Folder: Deputys residence 7 Feb 2012

Plan Reference	Image #	Date	Theme/Details	Bearing/Facing
A1	139	7/02/2012	Hallway door detail	W
A2	140	7/02/2012	Hallway facing towards family room	W
A3	141	7/02/2012	Hallway inside door detail	W
A4	142	7/02/2012	Hallway inside door detail/ Hallway detail	W
A5	143	7/02/2012	Hallway to family room corridor	W
A6	144	7/02/2012	Hallway to family room corridor	W
A7	145	7/02/2012	Hallway detail facing East	E
A8	243	7/02/2012	Front door detail	E
A9	244	7/02/2012	Front door detail	E
B1	146	7/02/2012	Dining room and Lounge.(Including fireplace)	W
B2	147	7/02/2012	Light fitting Dining room/Lounge	W
B3	148	7/02/2012	Light fitting Dining room/Lounge	W
B4	149	7/02/2012	Lounge/Fireplace facing NW	NW
B5	150	7/02/2012	Dining room windows/light fitting.	E
B6	151	7/02/2012	Dining room windows/light fitting.	E
B7	152	7/02/2012	Dining room facing hallway entrance.	E
B8	153	7/02/2012	Dining room facing Veranda windows.	N
B9	154	7/02/2012	Dining room facing Veranda windows.	N
C1	155	7/02/2012	Kitchen window	W
C2	156	7/02/2012	Kitchen stove oven	S
C3	157	7/02/2012	Kitchen sink	E
C4	158	7/02/2012	Kitchen cupboard /view of family room	S
C5	159	7/02/2012	Kitchen cupboard /view of family room	S
D1	160	7/02/2012	Family room/ view of bathroom and laundry doors	S
D2	161	7/02/2012	Family room / view of sun room	NW
D3	162	7/02/2012	Family room / view of laundry door and AC unit	SW
D4	163	7/02/2012	Family room/ view of kitchen door	NE
D5	164	7/02/2012	Family room/ chair and light fitting	SE
D6	165	7/02/2012	Family room/ view of Hall	E
D7	166	7/02/2012	Family room / slab in between laundry and bathroom doors	S
D8	192	7/02/2012	Family Room showing fibro ceiling	S
E1	194	7/02/2012	Sun room view of hall entrance	E
E2	195	7/02/2012	Sun room window and hall door	E
E3	196	7/02/2012	Sun room window, view of gardens	N

E4	197	7/02/2012	Sun room window, view of tank fixture	S
E5	198	7/02/2012	Sun room door/windows	W
E6	196	7/02/2012	Sun room window	E
F1	167	7/02/2012	Laundry door	N
F2	168	7/02/2012	Laundry/ view of family room	N
F3	169	7/02/2012	Laundry room windows	W
F4	237	7/02/2012	Laundry room floor	N
G1	170	7/02/2012	Bathroom shower/bath	S
G2	171	7/02/2012	Bathroom basin/mirror	W
G3	241	7/02/2012	Bathroom basin/floor	W
H1	172	7/02/2012	Library view of Bedroom 1.	NE
H2	173	7/02/2012	Library view of Bedroom 2. / library shelving	N
H3	174	7/02/2012	Library windows	E
H4	175	7/02/2012	Library windows	S
H5	188	7/02/2012	Library room/ flooring, doors, windows panels	W
H6	176	7/02/2012	Library window locks	S
H7	177	7/02/2012	Library window panels	S
I1	178	7/02/2012	Toilet	S
I2	201	7/02/2012	Toilet	S
J1	179	7/02/2012	Bedroom 2. wallpaper	W
J2	180	7/02/2012	Bedroom 2. wallpaper	W
J3	181	7/02/2012	Bedroom 2./ view of the library	S
J4	182	7/02/2012	Bedroom 2. door	S
J5	189	7/02/2012	Bedroom 2. lighting fixture	S
K1	183	7/02/2012	Bedroom 1. eastern window	E
K2	184	7/02/2012	Bedroom 1. fan	N
K3	185	7/02/2012	Bedroom 1. western wall	W
K4	186	7/02/2012	Bedroom 1. southern wall	S
K5	187	7/02/2012	Bedroom 1. northern wall/ shelving	N
L1	118	7/02/2012	Veranda/ view of Dining room window panels	E



A1 Facing NW



A2 Shed facing SE



A3 shed skillion looking S



B1 Shed Facing S



B2 Facing SW



B3 Facing W



C1 Road Facing SE



C2 Facing E



C3 Facing N



C4 Gate Facing W



D1 Grid Facing NW



E1 Facing NW



E2 facing S



F1 Hosue Facing NW 2



F2 Hosue Facing NW 3



F3 Facing S



F4 Facing E



F5 Facing N



G1 House Facing W



G2 Facing E



G3 NESW Marker



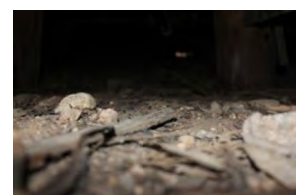
G4 Marker Context W



G5 Elevation W



H1 House Facing SE



H2 House stump (2)



H3 Stump Facing W



H4 House Facing SW



H5 Fence Facing N



H6 Bridge Facing W



H7 Chimney and Stump Facing



H8 facing W



H9 veranda facing S



H10 veranda facing SW



H11 House Facing S



H12 House Facing W



I3 veranda entrance facing S



I4 veranda facing S



J1 Shed Facing W



J2 Pool Facing S



J3 shed facing NW



K1 Shed Facing NW



L1 Shed Ground



L2 Shed ground



L3 Slab Cut



L4 Slab Cut



L5 Shed tools



L6 Shed tools



M1 Dwelling and Yard facing E



M2 Shed Facing W



M3 coal on N side of shed



M4 coal on N side of shed



M5 coal on N side of shed



N1 Shed facing NW



N2 Shed Facing NE



N3 swimming pool



O1 House Facing N



O2 House Facing NW



O3 Facing SE



O4 Facing S



P1 House Facing W



P2 Tank Pad Facing N



P3 House Facing NE



P4 Outhouse Inside Facing W



South Elevation Sunroom Facing N



Toilet South Elevation Facing N



R2 Window Facing NE 2



R3 Window Facing N



T1 Tank Pad Facing S



T2 Chimney Detail Facing SE

PHOTOGRAPHIC RECORDS

Coal Loading Ramp

Digital Image Catalogue Sheet: Coal Chute

Project: Werris Creek Archaeological Investigation and Heritage Record	
Camera: Canon EOS 60D	35mm lens equivalent: 29-88mm
Lens: EFS 18-55mm	Photographer: Sam Wood
Sensor Size: 18 megapixels	Folder: Coal Shute 7 Feb 2012

Image #	Date	Theme/Details	Bearing/Facing
39	07/02/12	A. Coal chute roller	S
40	07/02/12	B. Coal chute roller	S
36	07/02/12	C. Coal chute	SW
41	07/02/12	D. Coal chute, facing north	N
43	07/02/12	E. Coal chute/ landscape photo	N
46	07/02/12	F. Coal chute opening	NW
24	07/02/12	G. Coal chute, facing west	W
25	07/02/12	H. Coal chute, facing north east	NE
27	07/02/12	I. Coal chute, facing south	S
32	07/02/12	J. Coal chute, facing south west	SW
33	07/02/12	K. Coal chute, facing south east	SE



G.Coal chute



H.Coal chute



I.Coal chute



J.Coal chute



K.Coal chute



A.Coal chute - roller



B. Coal chute - roller



C.Coal chute



D.Coal chute



E.Coal chute



F.Coal chute

PHOTOGRAPHIC RECORDS

Above Ground Works

Digital Image Catalogue Sheet: Chimney Rubble

Project: Werris Creek Archaeological Investigation and Heritage Record	
Camera: Canon EOS 60D	35mm lens equivalent: 29-88mm
Lens: EFS 18-55mm	Photographer: Sam Wood
Sensor Size: 18 megapixels	Folder: Chimney rubble 7 Feb 2012

Image #	Date	Theme/Details	Bearing/Facing
49	07/02/12	A. Chimney rubble facing north west	NW
50	07/02/12	B. Chimney rubble facing south	S
51	07/02/12	C. Blackened rubble	SE



A.chimney rubble facing NW



B.Chimney Rubble facing south



C.chimney rubble showing blackening



Appendix III

NSW Heritage Criteria (2001)



4.

NSW heritage assessment criteria

An item will be considered to be of State (or local) heritage significance if, in the opinion of the Heritage Council of NSW, it meets one or more of the following criteria:

Criterion (a)

An item is important in the course, or pattern, of NSW's cultural or natural history (or the cultural or natural history of the local area);

Criterion (b)

An item has strong or special association with the life or works of a person, or group of persons, of importance in NSW's cultural or natural history (or the cultural or natural history of the local area);

Criterion (c)

An item is important in demonstrating aesthetic characteristics and/or a high degree of creative or technical achievement in NSW (or the local area);

Criterion (d)

An item has strong or special association with a particular community or cultural group in NSW (or the local area) for social, cultural or spiritual reasons;

Criterion (e)

An item has potential to yield information that will contribute to an understanding of NSW's cultural or natural history (or the cultural or natural history of the local area);

Criterion (f)

An item possesses uncommon, rare or endangered aspects of NSW's cultural or natural history (or the cultural or natural history of the local area);

Criterion (g)

An item is important in demonstrating the principal characteristics of a class of NSW's

- cultural or natural places; or
- cultural or natural environments.

(or a class of the local area's

- cultural or natural places; or
- cultural or natural environments.)

An item is not to be excluded from the Register on the ground that items with similar characteristics have already been listed on the Register.

While all criteria should be referred to during the assessment, only particularly complex items or places will be significant under all criteria. In many cases, items of environmental heritage will be significant under only one or two criteria.

In using these criteria it is important to assess the values first, then the context in which they are significant. Decide the appropriate context by considering similar items of local and State significance in each of these contexts.

These criteria were gazetted following amendments to the Heritage Act which came into force in April 1999. The Heritage Council determines the criteria for State significance and issues guidelines to assist in their application.