BENGALLA Mining Company



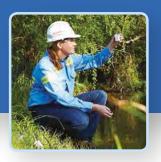
Bengalla Mine

August 2017

Aboriginal Cultural Heritage Management Plan













Bengalla Mining Company Pty Limited

Aboriginal Cultural Heritage Management Plan

Revision	Date Submitted	Date Approved	Description	Author	Reviewer	Approved
1	12 March 2015	-	Draft for Consultation	Geordie Oakes (AECOM)	Jason Martin (Hansen Bailey)	Craig White (BMC)
2	24 April 2015	-	Update for submission to OEH	Geordie Oakes (AECOM)	Jason Martin (Hansen Bailey)	Craig White (BMC)
3	13 May 2015	-	Update for submission to DP&E	Geordie Oakes (AECOM)	Jason Martin (Hansen Bailey)	Craig White (BMC)
4	25 May 2015	-	Update following DP&E review	Geordie Oakes (AECOM)	Jason Martin (Hansen Bailey)	Craig White (BMC)
5	24 May 2016	-	Update for SSD- 5170 (Mod 1)	Jason Martin (Hansen Bailey)	Dianne Munro (Hansen Bailey)	Craig White (BMC)
6	19 July 2016	-	Update for SSD- 5170 (Mod 2)	N Dobbins (Hansen Bailey)	D Munro (Hansen Bailey)	C White (BMC)
7	9 May 2017	18 August 2017	Update for SSD- 5170 (as modified) MOD 3	N Dobbins Hansen Bailey	D Munro Hansen Bailey	C White BMC



TABLE OF CONTENTS

1	INTR	ODUCTION	1
	1.1	Background	1
	1.2	History of Operations	1
	1.3	Objectives	6
	1.4	Environmental Management	7
	1.5	Document Structure	7
2	EXIS	TING ENVIRONMENT	8
	2.1	Bengalla Mine Aboriginal Heritage Values	8
3	LEGI	SLATIVE AND PLANNING CONTEXT	10
	3.1	Environmental Planning & Assessment Act 1979	10
	3.2	National Parks & Wildlife Act 1974	10
4	STAK	EHOLDER CONSULTATION	11
	4.1	2015 ACHMP	11
	4.1.1	Regulatory Consultation	11
	4.1.2	Registered Aboriginal Party Consultation	12
	4.2	ACHMP 2016	16
	4.3	ACHMP 2017	16
5	MAN	IAGEMENT OF NON-IMPACTED ABORIGINAL SITES	17
	5.1	BMC Aboriginal Sites Database	17
	5.2	Protective Fencing and Signage	17
	5.3	Environmental Management	18
	5.3.1	Ground Disturbance Permit	18
	5.3.2	Bushfire Hazard Reduction	19
	5.3.3	Weed Control	19
	5.4	Aboriginal Community Access	19
6	ARCI	HAEOLOGICAL SALVAGE PROGRAM	20
	6.1	Surface Collection of Known Aboriginal Sites	20
	6.2	Salvage Prior to Mining of the B10 Northern Exclusion Zone	20
	6.2.1	Salvage Objectives	20



	6.2.2	Salvage Methodology	21			
	6.3	Potential Scarred Tree Assessment & Removal				
	6.4	RAP Participation in Fieldwork2				
	6.5	ASIR Cards	22			
	6.6	Care and Control of Salvaged Objects	22			
7	PRO	CEDURE FOR PREVIOUSLY UNRECORDED ABORIGINAL OBJECTS	23			
	7.1	Open Artefact Sites	23			
	7.2	Scarred Trees	23			
	7.3	Human Skeletal Remains	24			
8	NON	I-COMPLIANCE & COMPLAINTS MANAGEMENT	25			
	8.1	Non Compliance	25			
	8.2	Complaints	25			
9	REP	ORTING & AUDITING	26			
	9.1	Annual Review	26			
	9.2	Auditing	26			
	9.3	ACHMP Review	26			
	9.4	Aboriginal Heritage Awareness Training	26			
	9.5	Public Access to Information	26			
1(O R	OLES AND RESPONSIBILITIES	27			
1	1 A	BBREVIATIONS	28			
1	2 R	EFERENCES	29			
		LIST OF TABLES				
Ta	able 1	ACHMP Requirements and Where Addressed6				
Ta	able 2	Registered Aboriginal Parties				
Ta	able 3	Registered Aboriginal Parties Correspondence				
Ta	able 4	able 4 Extant Sites to be Fenced				
Ta	able 5	ple 5 Roles and Responsibilities27				



LIST OF FIGURES

Figure 1	Regional Locality	4
Ü	5	
Figure 2	Development Layout	5
Figure 3	Extant Aboriginal Archaeological Sites	9

LIST OF APPENDICES

Appendix A Surface Collected Sites

Appendix B Regulatory Correspondence

Appendix C RAP Correspondence



1 INTRODUCTION

This section provides a background and history of operations at Bengalla Mine, objectives of this plan, regulatory requirements and document structure.

1.1 Background

Bengalla Mining Company Pty Limited (BMC) operates the Bengalla Mine (Bengalla) which is located approximately 4 km west of Muswellbrook in the Upper Hunter Valley, New South Wales (NSW). Bengalla is generally bound by Wybong Road to the north, Overton Road to the east, the Muswellbrook-Ulan Rail Line to the south and Roxburgh Ridge to the west (see **Figure 1**).

BMC was granted Development Consent for State Significant Development (SSD) 5170 on 3 March 2015 by the Secretary of Department of Planning and Environment (DP&E) for the Continuation of Bengalla. SSD-5170 enables BMC to continue open cut coal mining of up to 15 Million tonnes per annum (Mtpa) of run of mine (ROM) coal until 2039.

This Aboriginal Cultural Heritage Management Plan (ACHMP) has been developed in accordance with the requirements of SSD-5170 (as modified) Schedule 3, Condition 31 to provide a framework for the management of Aboriginal heritage objects and values across BMC owned land within the Project Boundary.

1.2 History of Operations

1.2.1 Introduction

BMC was originally granted Development Application (DA) 211/93 in 1996, to construct and operate an open cut coal mine and associated activities in accordance with the supporting document 'Bengalla Mine Environmental Impact Statement' (Bengalla EIS). Mining operations at Bengalla commenced in 1998.

1.2.2 SSD-5170

In September 2013, BMC sought a new development consent under Division 4.1 of Part 4 of the *Environmental Planning and Assessment Act 1979* (EP&A Act) to enable continued mining operations at Bengalla.

The application for development consent was supported by the 'Continuation of Bengalla Mine Environmental Impact Statement' (Bengalla EIS) (Hansen Bailey, 2013) and as modified by the 'Continuation of Bengalla Mine Response to Submissions' (Bengalla RTS) (Hansen Bailey, 2014).



On 3 March 2015, the Secretary of DP&E (as delegate) for the Minister for Planning granted development consent SSD-5170 which permits the following activities at Bengalla:

- Open cut mining towards the west at a rate of up to 15 Mtpa ROM coal until 2039;
- Continued use of the existing dragline, truck fleet and excavators;
- An out of pit Overburden Emplacement Area (OEA) to the west of Dry Creek which may be utilised for excess spoil material until it is intercepted by mining;
- Various upgrades, relocations or additional new infrastructure to support the Project;
- Processing, handling and transportation of coal via the (upgraded) Coal Handling and Preparation
 Plant (CHPP) and rail loop for export and domestic sale;
- Continued rejects and tailings co-disposal in the Main OEA and temporary in pit reject emplacement;
- Relocation of a 6 km section of Bengalla Link Road at approximately Year 15 near the existing mine access road to facilitate coal extraction;
- The diversion of Dry Creek via dams and pipe work with a later permanent alignment of Dry Creek through rehabilitation areas when emplacement areas are suitably advanced;
- Relocation of water storage infrastructure as mining progresses through existing dams (including the Staged Discharge Dam and raw water dam); and
- A workforce of approximately 900 full time equivalent personnel (plus contractors) at peak production.

1.2.3 SSD-5170 Modification 1

SSD-5170 was modified on 16 December 2015 (MOD1) by the Executive Director – Resource Assessments and Compliance for the DP&E as delegate of the Minister for Planning for the activities described in the 'Bengalla Mine Development Consent Modification Statement of Environmental Effects' (Hansen Bailey, 2015a) (MOD1 SEE) including the 'Bengalla Mine Development Consent Modification Response to Submissions' (Hansen Bailey, 2015b).

MOD1 provides approval for the following:

- Alterations to various water management infrastructure components:
- Additional locations for the siting of the Explosives Storage Facility; and
- The placement of fill from the excavation of CW1 adjacent to it.



1.2.4 SSD-5170 Modification 2

SSD-5170 was modified on 1 July 2016 by the Director – Resource Assessments for the DP&E (as delegate of the Minister for Planning) for the activities largely described in the 'Bengalla Mine Development Consent Modification 2 Statement of Environmental Effects' (Hansen Bailey, 2016) (MOD 2 SEE). The MOD 2 SEE provides approval for the following:

- Alterations to the approved height of the Main OEA to improve visual amenity from primary viewing locations in and surrounding the township of Muswellbrook and Denman Road, in two selected locations (Visual Relief Areas):
 - o The Northern Relief Area constructed to a maximum height of Reduced Level (RL) 300; and
 - o The Southern Relief Area constructed to a maximum height of RL 290.
- Establishment of a new gravel access road from Wybong Road to the Dry Creek Diversion Project Construction Site Office being a former homestead (Homestead Access).

No additional conditions pertaining to aboriginal cultural heritage were included in SSD-5170 as a result of the MOD 2 SEE.

1.2.5 SSD-5170 - Modification 3

SSD-5170 was modified on 23 December 2016 (MOD 3) by the Director – Resource Assessments for the DP&E as delegate of the Minister for Planning for the activities largely described in the 'Bengalla Mine Development Consent Modification 3 Statement of Environmental Effects' (Hansen Bailey, 2016) (MOD 3 SEE).

The MOD 3 SEE provides approval for the repositioning of the following approved activities:

- The construction and operation of an explosives facility and reload facility, which may be relocated to another location(s) within the Approved Disturbance Boundary at a later time;
- The alignment of the Hunter River pipeline; and
- The emplacement and use of temporary topsoil stockpiles during the mining process.

No additional mitigation and management measures to that within SSD-5170 (as modified) are required to manage any potential impacts to Aboriginal cultural heritage resulting from MOD 3. As such, no additional conditions pertaining to Aboriginal heritage were included in SSD-5170 (as modified) as a result of the MOD 3 SEE.

This revision to the ACHMP has largely been undertaken to update the document for extant sites following the completion of salvage works completed as described in **Section 6**.

The development layout is presented in Figure 2.

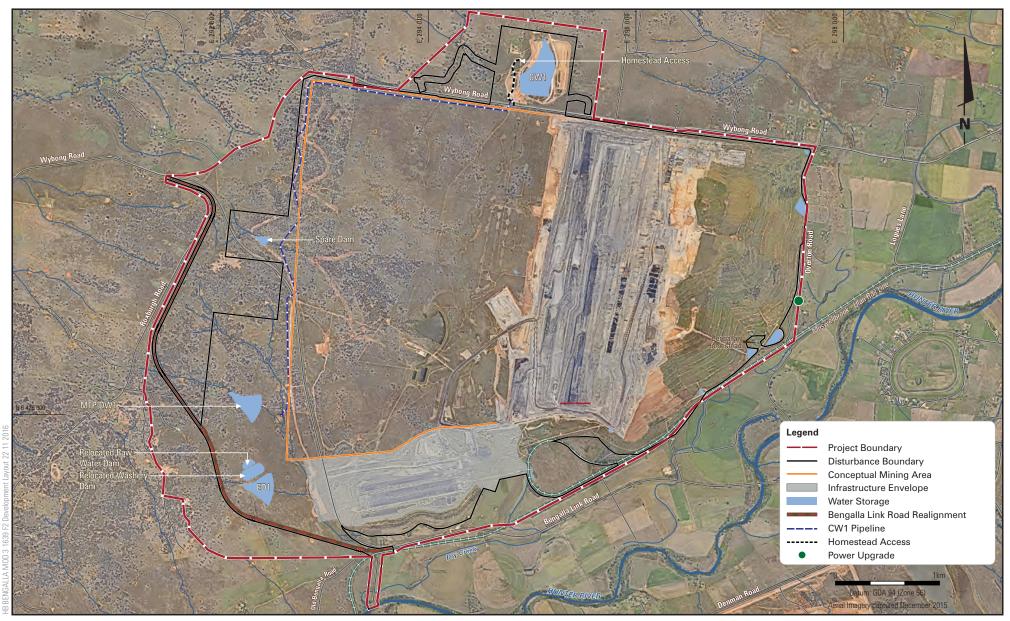






BENGALLA MINE

Regional Locality







BENGALLA MINE

Conceptual Development Layout



1.3 Objectives

This ACHMP sets out the procedures for the care and salvage of Aboriginal objects within the Project Boundary. This ACHMP and has been developed in accordance with the requirements of SSD-5170 (as modified) Schedule 3, Condition 31 and the commitments in relation to Aboriginal heritage in its supporting document including the 'Aboriginal Archaeological and Cultural Heritage Impact Assessment' (AACHIA) (AECOM Australia Pty Ltd, 2013).

The AACHIA management recommendations, EIS Statement of Commitments and SSD-5170 (as modified) Schedule 3, Condition 31 are provided in **Table 1** and addressed within this ACHMP. This ACHMP has been updated to incorporate changes arising from the Bengalla Modification 1 SEE.

Table 1
ACHMP Requirements and Where Addressed

Ref	Recommendation/Commitment/Condition	Section
Develo	pment Consent Conditions	
31	The Applicant must prepare and implement an Aboriginal Heritage Management Plan for the development to the satisfaction of the Secretary. This plan must:	This ACHMP
	a) be prepared in consultation with OEH and the relevant Aboriginal stakeholders, and submitted to the Secretary for approval within 6 months of the date of this consent;	Section 4, Appendix B and Appendix C
	 b) include a program/procedures for: salvage, excavation and/or management of Aboriginal sites and potential archaeological deposits within the project disturbance area 	Section 6
	assessment and removal of scarred trees	Section 6.3
	protection and monitoring of Aboriginal sites outside the project disturbance area	Section 5
	managing the discovery of any new Aboriginal objects or skeletal remains during the development	Section 7
	maintaining and managing access to archaeological sites by the relevant Aboriginal stakeholders	Section 5.4
	ongoing consultation and involvement of the relevant Aboriginal stakeholders in the conservation and management of Aboriginal cultural heritage on the site	Section 4.1.2
	The Applicant shall implement the approved management plan as approved from time to time by the Secretary.	This ACHMP
AACHI	A Management Recommendations	
14.2	Ensure the protection of non-impacted Aboriginal sites	Section 5
14.2	Maintain an Aboriginal sites database for all extant sites	Section 5.1
14.2	Conduct the surface collection of all 260 open artefact sites with the Project Disturbance Boundary	Section 6



Ref	Recommendation/Commitment/Condition	Section
14.2	Archaeological test excavation and salvage	Section 6.2
14.2	Scarred tree assessment and removal	Section 6.3
14.2	Management of previously unrecorded Aboriginal objects Section 7	
14.2	Aboriginal heritage awareness training	Section 9

1.4 Environmental Management

Operations at Bengalla are conducted in accordance with Bengalla SSD-5170 (as modified), Environment Protection Licence (EPL) 6538 and environmental management plans to ensure BMC manages its environmental issues, ensure compliance with regulatory requirements and satisfy the expectations of stakeholders.

This ACHMP (and subsequent revisions) will form part of this management regime. BMC will continue to operate during and following mine closure to ensure all environmental (including monitoring and management) and social responsibilities are met.

1.5 Document Structure

This document is structured as follows:

- Section 2 outlines the existing environment relevant to Aboriginal cultural heritage at Bengalla;
- Section 3 provides the legislative framework for the management of Aboriginal heritage items;
- Section 4 provides a summary of the stakeholder engagement undertaken in the development of this ACHMP;
- **Section 5** details the management of Aboriginal objects not predicted to be impacted by construction or operational activities at Bengalla;
- Section 6 details the archaeological salvage program for Bengalla;
- **Section 7** outlines the procedures which are to be implemented in the event of the discovery of an unrecorded Aboriginal object;
- Section 8 outlines the processes which are to be implemented in the event of a non-compliance or complaint;
- Section 9 provides a summary of the reporting, review and training requirements;
- Section 10 confirms the responsibilities of personnel for all actions as identified in this ACHMP; and
- **Section 11** and **12** provide a list of abbreviations and references, respectively.



2 EXISTING ENVIRONMENT

This section describes the existing environment relevant to this ACHMP and describes Aboriginal archaeology and cultural heritage sites relevant to Bengalla.

2.1 Bengalla Mine Aboriginal Heritage Values

2.1.1 Aboriginal Archaeological Sites

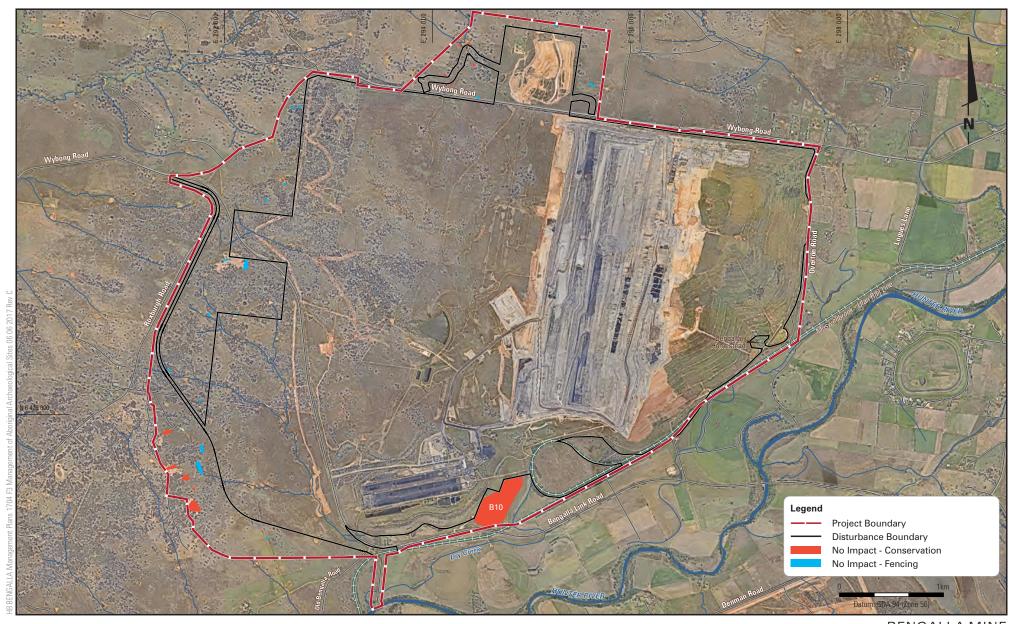
As part of the EIS, a total of 289 registered Aboriginal archaeological sites comprising 285 open artefact sites (artefact scatters and isolated artefacts), three potential scarred trees and one stone quarry (fragmented into two sites) were identified within the Project Boundary. A total of 263 open artefact sites were located within the Disturbance Boundary.

Salvage of the registered Aboriginal archaeological sites within the Disturbance Boundary was undertaken in 2015 and 2016 as outlined in **Section 6.1**. Following completion of the salvage works, AECOM Australia Pty Ltd prepared a Report titled 'Bengalla Continuation of Mining Project: Aboriginal Archaeological Salvage Program' (AECOM Salvage Report). A copy of the AECOM Salvage Report has been provided to interested parties (refer to **Section 4.3**). Registered Aboriginal archaeological sites, outside of the Project Disturbance Boundary are shown on **Figure 3**.

2.1.2 Aboriginal Cultural Heritage Values

The archaeological survey undertaken for the AACHIA (AECOM Australia Pty Ltd, 2013) identified a landscape of past Aboriginal activity evidenced from the number of stone artefacts recorded within the Project Boundary. Surface artefacts, which form Aboriginal archaeological and cultural sites, were recorded over the landscape but mostly associated with creeklines and drainage lines, including Dry Creek. While having varying degrees of scientific significance, these stone artefacts are of cultural importance to Aboriginal people as they attest to the past occupation and use of land within the Project Boundary by Aboriginal people and provide an important link to their heritage.

During the archaeological survey, Registered Aboriginal Party (RAP) representatives noted the importance of B10 quarry site for its rarity in the Hunter Region, being one of only a handful of these site types found locally. In addition, RAPs highlighted several landscape features as important on the basis of their associated archaeological record. Dry Creek was highlighted by RAP representatives as a focal point for past Aboriginal activity due to higher artefact numbers identified. RAPs expressed interest at finding an artefact scatter on the crest of a hill on the western extent of the Project Boundary. This highlighted the importance of vantage points in Aboriginal site selection. RAPs stated that land within the Project Boundary was important to Aboriginal people due to its proximity to an Aboriginal song line, of which Mt Arthur was one of the guiding landmarks. In addition, it was noted that land within the Project Boundary is important as it is within walking distance to a number of known ceremonial areas (which were not identified).







BENGALLA MINE

Extant Aboriginal Archaeological Sites



3 LEGISLATIVE AND PLANNING CONTEXT

This section provides a summary of the legislative framework relevant to this ACHMP.

3.1 Environmental Planning & Assessment Act 1979

Section 89J of the *Environmental Planning and Assessment Act 1979* (EP&A Act) lists the approvals that are not required for approved developments under Division 4.1 of Part 4. In this regard section 89J provides that an Aboriginal Heritage Impact Permit (AHIP) under section 90 of the *National Parks and Wildlife Act 1974* (NPW Act) is not required for any SSD that has been granted Development Consent.

Aboriginal heritage values within the Project Boundary are to be managed in accordance with the Conditions stipulated as part of SSD-5170 (as modified). SSD-5170 (as modified) Schedule 3, Condition 31 requires the preparation and implementation of an ACHMP to manage all Aboriginal Heritage items within the Project Boundary. Aboriginal cultural heritage impacts assessments and management plans must be consistent with OEH guidelines.

3.2 National Parks & Wildlife Act 1974

The NPW Act, administered by OEH, is the primary legislation for the protection of Aboriginal cultural heritage in NSW. The NPW Act gives the Director General of OEH responsibility for the proper care, preservation and protection of "Aboriginal objects" and "Aboriginal places", defined under the NPW Act as follows:

- An "Aboriginal object" is any deposit, object or material evidence (that is not a handicraft made for sale) relating to Aboriginal habitation of NSW, before or during the occupation of that area by persons of non-Aboriginal extraction. The definition of "Aboriginal object" includes Aboriginal remains.
- An "Aboriginal place" is a place declared so by the Minister administering the NPW Act because
 the place is or was of special significance to Aboriginal culture. It may or may not contain Aboriginal
 objects.

Part 6 of the NPW Act provides specific protection for Aboriginal objects and places by making it an offence to harm them. All identified Aboriginal objects required to be conserved within the Project Boundary (outside the Disturbance Boundary) will be managed in accordance with this ACHMP.



4 STAKEHOLDER CONSULTATION

This section summaries the consultation undertaken with regulators and RAPs as part of the development of this ACHMP. This section also provides a list of RAPs and consultation protocols for engagement with the Aboriginal community.

4.1 2015 ACHMP

4.1.1 Regulatory Consultation

Department of Planning and Environment

Schedule 3, Condition 31 of SSD-5170 (as modified) states that the ACHMP must be submitted to the Secretary for approval by 3 September 2015.

The final ACHMP was submitted to DP&E for approval on 13 May 2015. DP&E approved this management plan on 27 May 2015. The ACHMP also included all other regulatory and RAP correspondence and consultation as described below.

A copy of the regulatory correspondence is provided in **Appendix B**.

Office of Environment and Heritage

During the preparation of the Bengalla EIS and Bengalla RTS, consultation with OEH was conducted to develop a draft methodology for the salvage and excavation of Aboriginal quarry site B10 (AHIMS# 37-2-0579). On 8 May 2014 OEH provided correspondence to DP&E indicating that a draft excavation methodology for site B10 had been agreed upon (see **Appendix B**).

In this correspondence OEH noted that additional minor components should be included in the draft methodology including:

- Reference to spits/units being excavated in uniform 10 cm depths should be revised to note that all spits will be excavated in uniform 10 cm depths; and
- Based on the identified trigger conditions within this methodology, if open area excavations extend to a total area of 100 m² the qualified archaeologist will assess the need for further archaeological salvage based on the results of excavation completed.

Several other minor amendments to the draft salvage excavation methodology were also required (see **Appendix B**). All recommended amendments made by OEH to the draft methodology have been adopted in this ACHMP and are discussed in **Section 6.2.2**.

The draft ACHMP was provided to OEH on 24 April 2015 for further consultation and comment. In its response dated 12 May 2015, OEH noted they are satisfied with the management measures proposed (see **Appendix B**). In addition, OEH noted that an appropriate level of stakeholder consultation had been conducted.



OEH requested that a copy of the archaeological salvage report be provided to OEH upon completion (see **Section 4.3**.

4.1.2 Registered Aboriginal Party Consultation

Principles of RAP Engagement

BMC recognises the importance of cultural protocols in the engagement of RAPs and the Aboriginal community more broadly. As such, BMC has adopted the principals outlined in the Australian Heritage Commission's guidelines *Ask First: A guide to respecting Indigenous heritage places and values* (Australian Heritage Commission, 2002). These principals require that all parties concerned with identifying, conserving, and managing Aboriginal heritage should acknowledge, accept and act on the principles that Aboriginal people:

- Are the primary source of information on the value of their heritage and how this is best conserved;
- Must have an active role in any Aboriginal heritage planning process;
- Must have input into primary decision-making in relation to Aboriginal heritage so they can continue to fulfil their obligations towards this heritage; and
- Have a right to retain control of their cultural knowledge, including intellectual property and other information relating specifically to their heritage.

Welcome to Country & Acknowledging Traditional Owners

A Welcome to Country is a formal welcome to Aboriginal land given by an Elder or person from the Country that the meeting/event is taking place on. It is commonly in the form of a short speech, but also may include a performance. An Acknowledgement of Country can be given by an Indigenous or non-Indigenous person and is a way of paying respect to the Traditional Owners of the Country that the meeting/event is taking place on. An example of an Acknowledgement of Country may include:

"Before we begin proceedings, I would like to acknowledge the Traditional Owners of the land on which we meet today the Wonnarua people. I would like to pay my respects to the Elders past, present and future and pay my respects to all Aboriginal People here today, wherever you may come from."

Welcome to Country and Acknowledgement of Country are important practices because they continue the longstanding tradition of formally recognising Aboriginal (and Torres Strait Islander) Traditional Ownership and Connection to Country (NTSCORP Limited, 2013). BMC proposes that any meetings and events associated with the preparation of this ACHMP and with the ongoing management of Aboriginal Heritage associated with this ACHMP within the Project Boundary begin with the opportunity for an Elder or Traditional Owner to undertake a Welcome to Country and/or Acknowledgement of Country.



AACHIA Consultation

Consultation with RAPs during the preparation of the AACHIA was undertaken by Hansen Bailey in accordance with the *Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010* (Consultation Requirements) (NSW Department of Environment Climate Change & Water, 2010a). A total of 30 Aboriginal parties registered their interest. These 30 RAPs are listed in **Table 2** and will continue to be consulted with regards to Aboriginal archaeology and cultural heritage relevant to Bengalla.

Table 2
Registered Aboriginal Parties

Ref	Group Name	Primary Contact
1	Aliera French Trading	Aliera French
2	Aboriginal T/O Surveys	Greg Griffiths
3	Bawurra Consultants	Kevin Sampson
4	Breeza Plains Culture and Heritage Consultants	Terry Matthews
5	Bunda Consultants	Tammy Knox
6	Cacatua Cultural Consultants	Donna Sampson
7	D F T V Enterprises	Derrick Vale Snr
8	Deslee Talbott Consultants	Deslee Matthews
9	Gidawaa Walang Cultural Heritage Consultancy	Annie Hickey
10	Hunter Valley Aboriginal Corporation	Rhonda Griffiths
11	Hunter Valley Cultural Surveying	Luke Hickey
12	Indigenous Outcomes	Robert Smith
13	Kauwul (trading as Wonn1 Contracting)	Arthur Fletcher
14	Kawul Cultural Services	Vicky Slater
15	Myland Cultural & Heritage Group	Warren Schillings
16	Ngarramang-Kuri Aboriginal Culture & Heritage Group	Abie Wright
17	Roger Noel Matthews Consultancy Roger Matthews	
18	T & G Culture Consultants Tony Griffiths	
19	Ungooroo Aboriginal Corporation	Annette Dunstan
20	Upper Hunter Heritage Consultants	Melissa Matthews
21	Upper Hunter Wonnarua Council	Rhoda Perry
22	Waabi Gabinya Cultural Consultancy Elizabeth Howard	
23	Wallangan Cultural Services	Maree Waugh
24	Wanaruah Local Aboriginal Land Council Noel Downs	
25	Warragil Cultural Services Aaron Slater	
26	Warul Consultants	Scott Smith
27	Wattaka Wonnarua Culture Consultants Des Hickey	
28	Widescope Indigenous Group Pty Ltd Steven Hickey	



Ref	Group Name	Primary Contact	
29	Wonnarua Culture Heritage	Gordon Griffiths	
30	Yinarr Cultural Services	Kathleen Steward-Kinchela	

RAP ACHMP Consultation

The draft ACHMP was distributed to all RAPs listed in **Table 2** on 12 March 2015 in accordance with the Consultation Requirements. Three written responses to the draft ACHMP were provided with the following comments noted:

- Wanaruah Local Aboriginal Land Council:
 - Identified the need for further consultation to occur in relation to the final management option for salvaged artefacts; and
 - Noted that salvaged artefacts from Site B10 be relocated to Aboriginal land held in trust by the Wanaruah Local Aboriginal Land Council for use and access by the Aboriginal community in cultural activities.
- Kauwul (Wonn1 Contracting):
 - Noted general agreement of the draft ACHMP;
 - o Identified that the draft ACHMP did not clearly identify the long term arrangements for the care and protection of the salvaged artefacts; and
 - Noted the need to facilitate ongoing access to recovered artefacts for education and ceremonial reasons;
- Gidawaa Walang Cultural Heritage Consultancy:
 - Noted general agreement of the draft ACHMP.

Copies of the RAP correspondence including written responses are provided in Appendix C.

In addition to the written comments a number of RAPs provided a verbal comment. These RAPs and comments are listed in **Table 3**.

Following approval of the ACHMP further RAP participation will be sought to participate in the archaeological salvage of sites impacted by the Project (see **Section 6**). During the salvage process further consultation will occur in order to resolve the final keeping place for salvaged Aboriginal artefacts.



Table 3
Registered Aboriginal Parties Correspondence

Ref	Group Name	Comment
1	Cacatua Cultural Consultants	Supporting content of draft ACHMP
2	D F T V Enterprises	Noted generally satisfied with the content of the draft ACHMP. Agreed with the 1mx1m test pits and 15 artefacts as the nominated trigger point
3	Gidawaa Walang Cultural Heritage Consultancy	Written comment provided
4	Hunter Valley Aboriginal Corporation	Noted that views of the group were consistent with those of the Wanaruah Local Aboriginal Land Council
5	Kauwul (trading as Wonn1 Contracting)	Written comment provided
6	Roger Noel Matthews Consultancy	Noted no comment on the draft ACHMP
7	Upper Hunter Wonnarua Council	Noted generally satisfied with the content of the draft ACHMP however indicated that the number of groups involved should focus on local
8	Wanaruah Local Aboriginal Land Council	Written comment provided

Ongoing RAP Consultation

Newsletters

Any RAP may request to be included on the distribution list for BMC newsletters. Additionally, RAPs may access the online Annual Review which will provide an annual update to progress regarding items of Aboriginal archaeological and cultural heritage.

Notification Triggers

Notification will be provided to RAPs in the following instances:

- Significant changes to operations at Bengalla where there are potential implications for Aboriginal heritage management; or
- There is a discovery of a significant Aboriginal site (e.g. burial, grinding groove or scar trees).

Notification of the above will be provided in writing to all RAPs, as listed in **Table 2**, within 14 days.

Participation of RAPs in Aboriginal Heritage Works

As outlined in **Section 6**, all RAPs, as listed in **Table 2**, will be provided the opportunity to participate in the archaeological salvage works detailed within this ACHMP.



Information/Meeting Requests

BMC is committed to addressing the concerns of all RAPs, as listed in **Table 2**, throughout the construction and operational phases of Bengalla. Should RAPs wish to discuss any aspect of this ACHMP BMC will facilitate this upon a reasonable RAP request.

4.2 ACHMP 2016

Relevant to the 2016 ACHMP, SSD-5170 (as modified) Schedule 5, Condition 5 states:

"5. Within 3 months of submission of:

(d) Any modification to the conditions of this consent (unless conditions require otherwise), the applicant shall review, and if necessary revise, the strategies, plans, and programs required under this consent to the satisfaction of the Secretary.

Where this review leads to revisions of any such document, then within 4 weeks of the review, unless the Secretary agrees otherwise, the revised document must be submitted to the Secretary for approval."

As discussed in **Section 1.2.3**, MOD1 was granted on 16 December 2015. Consistent with DP&E's correspondence dated 24 May 2016, the ACHMP was required to be updated and submitted to the Secretary for approval "... prior to undertaking disturbance associated with the activities approved under *Modification 1.*". A revised version incorporating MOD 1 was provided to DP&E on 26 May 2016 and approved on 2 June 2016.

Following the approval of MOD 2 in July 2016 (see **Section 1.2.4**), the 2016 ACHMP was again revised and provided to DP&E for review on 27 July 2016. As of 3 April 2017, no correspondence has been received from DP&E with regards to the 2016 revised document.

4.3 ACHMP 2017

This review of the ACHMP was undertaken to address MOD 3 (as outlined in **Section 1.2.5**) and the salvage works completed within the Disturbance Boundary as described in **Section 6**. **Appendix A** includes DP&E correspondence including confirmation of a due date of 12 May 2017. A copy of the 2017 ACHMP was provided to DP&E for review on 11 May 2017.

A copy of all relevant regulatory correspondence associated with the preparation of this ACHMP is provided in **Appendix B**.

Office of Environment and Heritage

OEH confirmed via email on 30 March 2017 that all salvaged sites have been removed from the AHIMS Register. A copy of the salvage report was provided to OEH via email on 9 May 2017.



5 MANAGEMENT OF NON-IMPACTED ABORIGINAL SITES

This section outlines the processes for the management of non-impacted items of Aboriginal heritage within the Project Boundary.

5.1 BMC Aboriginal Sites Database

BMC will maintain a database of known Aboriginal sites within the Project Boundary The database will utilise an appropriate Geographical Information System (GIS) program and will provide details of the Aboriginal sites and areas of archaeological sensitivity. The database is to contain the location in MGA coordinates, name, type and status of known Aboriginal sites within the Project Boundary. Use of the database will include but not be limited to the following:

- BMC management is to update the database as soon as practicable following the identification of any previously unrecorded Aboriginal objects or sites within the Project Boundary that have not been salvaged;
- Relevant BMC staff and contractors working in proximity to identified Aboriginal sites will be made aware of the nature and location of the sites as well as BMC's obligations with respect to managing them (see further detail in Section 9.4);
- When developing construction plans, drilling programs or any mine related works causing surface disturbance undertaken outside the Disturbance Boundary; and
- BMC management will make the database information available to relevant personnel, contractors
 and Aboriginal representatives where necessary to ensure sites are managed and cared for
 appropriately.

5.2 Protective Fencing and Signage

Known Aboriginal archaeological sites that have not been salvaged and are located 200 m outside the Disturbance Boundary will not be impacted and will be protected (see **Figure 3** and **Table 4**). After a site inspection and consultation with a qualified archaeologist fencing will be erected.

Where the site inspection fails to identify Aboriginal objects at the mapped location of the site, fencing will not be undertaken. Where Aboriginal objects are identified, fencing will be erected. Staff and contractors, where appropriate, will be made aware of the nature and locations of the sites as well as BMC's obligations with respect to them.

Metal signs attached to fencing will state:

ENVIRONMENTALLY SENSITIVE AREA

NO UNAUTHORISED ENTRY

For Information Contact the BMC Environmental Specialist



Table 4
Extant Sites to be Fenced

Site ID	Site Name	Site Type	GDA_94_Easting (centroid)	GDA_94_Northing (centroid)	
	EIS				
37-2-2561	Mount Pleasant 703	Artefact Scatter	295206	6429753	
37-2-2916	MTP-113	Isolated Artefact	294457	6429049	
37-2-3285	MTP-706	Isolated Artefact	295572	6429156	
37-2-3286	MTP-707	Isolated Artefact	295549	6429172	
37-2-4440	BM-AS08-12	Artefact Scatter	292208	6427466	
37-2-4441	BM-AS09-12	Artefact Scatter	292022	6427494	
37-2-4442	BM-AS10-12	Artefact Scatter	291850	6426969	
37-2-4452	BM-AS20-12	Artefact Scatter	291779	6425680	
37-2-4453	BM-AS21-12	Artefact Scatter	291753	6425502	
37-2-4464	BM-IA06-12	Isolated Artefact	292414	6428066	
37-2-4468	BM-IA10-12	Isolated Artefact	292119	6426980	
37-2-4472	BM-IA14-12	Isolated Artefact	291467	6426433	
37-2-4473	BM-IA15-12	Isolated Artefact	291770	6426148	
37-2-4481	BM-IA23-12	Isolated Artefact	292406	6424802	
N/A	MTP-1401	Isolated Artefact	292739	6428967	
N/A	MTP-1402	Isolated Artefact	292677	6428953	
N/A	MTP-1410	Isolated Artefact	292577	6428219	
		SEE			
37-2-2896	MTP-92	Open artefact site	294373	6429566	
37-2-2897	MTP-93	Open artefact site	294290	6429546	
37-2-1469	A33-A34	Open artefact site	294040	6429070	
37-2-2891	MTP-87	Open artefact site	293983	6429150	
37-2-2892	MTP-88	Open artefact site	294420	6429359	
37-2-2889	MTP-85	Open artefact site	294214	6429182	

5.3 Environmental Management

5.3.1 Ground Disturbance Permit

Where works are proposed within the Project Boundary the works are to be managed in accordance with BMC's environmental management process (see **Section 1.4**). As part of that process the Environment and Approvals Specialist is to ensure that no unauthorised impacts are to occur to Aboriginal heritage.



This is achieved through the Ground Disturbance Permit (GDP) process which identifies and manages potential impacts to Aboriginal heritage through the following procedure:

- 1. Search the BMC GIS Database to identify whether Aboriginal sites/areas of archaeological sensitivity are located within the area of proposed disturbance;
- 2. Where Aboriginal sites/areas of archaeological sensitivity are identified within or adjacent to the area of proposed disturbance, the Environment and Approvals Specialist must:
 - a. Inform the Originator (i.e. the person responsible for implementing the disturbance);
 - b. Confirm that the proposed disturbance works are approved under relevant approvals and environmental management procedures;
 - Where the proposed disturbance works are approved and the management activities within this ACHMP have been implemented, then the activity may proceed;
 - ii. Where the proposed disturbance works are not approved, BMC is to consult an appropriately qualified archaeologist to provide relevant management options.

5.3.2 Bushfire Hazard Reduction

Where vegetation has built up within the boundary of a previously recorded Aboriginal site, clearing will be undertaken in a manner that does not cause ground disturbance to the site. Preferred methods of hazard reduction include cutting and slashing at a suitable height to avoid impacting surface stone artefacts.

5.3.3 Weed Control

Where BMC is required to undertake weed control within the boundary of a previously recorded Aboriginal site, weeds will be removed in a manner that does not cause ground disturbance to the site.

5.4 Aboriginal Community Access

Aboriginal community members may, throughout the operational life of Bengalla, wish to access in-situ sites and/or areas within Project Boundary for cultural purposes (e.g. education, ceremony). BMC will facilitate reasonable access upon request. Aboriginal community members wishing to access areas within the Project Boundary should contact BMC Management. Access, in all instances, will be subject to relevant operational and safety considerations and reasonable notice. Access to some sites and areas will be restricted during periods of construction and mining.

Requests for access to non-salvaged sites within the Project Boundary for archaeological research purposes will be assessed by BMC management, in consultation with RAPs and OEH, on the basis of merit. Where granted, access would be subject to relevant operational and safety considerations. Access to some areas would be restricted during periods of construction or mining.



6 ARCHAEOLOGICAL SALVAGE PROGRAM

This section discusses the processes and procedures for the salvage of items of Aboriginal heritage within the Disturbance Boundary.

6.1 Surface Collection of Known Aboriginal Sites

In order to mitigate the impact of BMC's continued operations on the known Aboriginal archaeological resource of land within the Disturbance Boundary, an archaeological salvage program was undertaken (see **Appendix A**) in June 2015 and June 2016. The salvage program within the Disturbance Boundary included:

- Surface collection of 263 previously recorded open artefact sites;
- Archaeological test excavation within the B10 Quarry Northern Exclusion Zone (NEZ);
- Geomorphological assessments of extant soil profiles and landforms within NEZ;
- Post excavation analyses of any recovered Aboriginal objects;
- Reassessment by RAPs and an arborist, and potential removal of three scarred trees; and
- Production of an archaeological salvage report.

Surface collection was undertaken by a combined field team of archaeologists and RAP representatives and involved:

- 1. Flagging of all visible artefacts at each site;
- Recording of individual artefact locations using a hand-held differential GPS. All artefacts were assigned a unique numerical identifier for data accessioning and analysis purposes (see **Appendix A**); and
- 3. Individual bagging of artefacts with appropriate labelling.

The AECOM Salvage Report advises no further surface collection is required within the Project Disturbance area at Bengalla.

6.2 Salvage Prior to Mining of the B10 Northern Exclusion Zone

6.2.1 Salvage Objectives

Salvaging of Aboriginal artefacts associated with Site B10 was undertaken in 2015. The overarching objectives of the program of archaeological test and salvage excavations within the B10 NEZ were as follows:

- To establish the nature and extent of subsurface archaeological materials located within the NEZ;
- To define the geology and geomorphology of the NEZ;
- To understand the nature and extent of past land disturbances within the NEZ;



- To undertake post-excavation analyses of any identified archaeological materials and assess their relationship to B10 quarry site;
- To determine whether the NEZ functioned as an Aboriginal quarry site;
- To confirm the presence/absence of naturally occurring gravel deposits within the NEZ and (if applicable) the contents of these deposits; and
- Utilise recovered archaeological material to address appropriate archaeological research questions.

6.2.2 Salvage Methodology

The program of archaeological investigation within the NEZ incorporated the following components:

- Test excavation;
- Geomorphological assessment;
- Post excavation analyses of any recovered Aboriginal objects; and
- Production of an excavation report for the NEZ.

Following test excavations, it was planned that an open area salvage excavation program would be undertaken where required. However, post excavation analyses of the recovered Aboriginal objects identified that the trigger for open area excavation was not met and as such no open area excavation was undertaken. All open area pits were backfilled once logged by the geomorphologist.

The AECOM Salvage Report advises no further surface collection is required within the Project Disturbance area at Bengalla.

6.3 Potential Scarred Tree Assessment & Removal

As outlined in the AECOM Salvage Report (Section 3.2.1), three trees previously identified as potential scarred trees, located within the Disturbance Boundary, were inspected by an arborist (Burns, 2015) prior to impact. In all three instances the trees were found to be of insufficient age to be the result of Aboriginal scarring with all three scars assessed as resulting of natural origins.

6.4 RAP Participation in Fieldwork

A fieldwork roster which ensured equanimity, was developed to complete the methodology described in **Section 6.2.2**. As outlined in the AECOM Salvage Report (Section 6.4), the program of archaeological test excavation within the B10 NEZ was undertaken over 12 days between 27 October and 10 November 2015 by a combined team AECOM archaeologists and representatives from 12 RAPs.



6.5 ASIR Cards

Aboriginal Site Impact Recording (ASIR) cards for previously registered and salvaged sites were submitted to OEH within 12 months of the completion of the salvage. This included sites previously approved for impacts as part of previous approvals but still listed on AHIMS as valid. OEH confirmed via email on 30 March 2017 that all sites had been removed from the AHIMS Register.

6.6 Care and Control of Salvaged Objects

Following completion of the salvage works in 2015 and 2016 (outlined in **Appendix A**), BMC has stored recovered artefacts in an appropriate secure and onsite location. Aboriginal community members may wish to access sites for appropriate cultural purposes (e.g. education and ceremony). BMC will facilitate reasonable access upon request and reasonable access will be subject to BMC operational requirements.



7 PROCEDURE FOR PREVIOUSLY UNRECORDED ABORIGINAL OBJECTS

This section outlines the procedure to be implemented in the event that a previously unrecorded site is discovered during construction or operational activities at Bengalla.

7.1 Open Artefact Sites

In the event that previously unidentified Aboriginal objects are identified through the construction and operational phases of Bengalla, the following procedure will apply:

- 1. Works will cease in the area to prevent further impact to the object(s);
- 2. BMC Management is to be notified;
- 3. BMC will notify DP&E and OEH as soon as possible;
- 4. A qualified archaeologist and RAP representative must be engaged to determine the nature, extent and scientific significance of the object(s);
- 5. If the site is within the Disturbance Boundary and it is determined that:
 - a. The nature and significance of the site is consistent with sites assessed as of low or moderate significance within the ACHMP and recommended for salvage by the appropriate archaeologist, it will be subject to surface collection (see **Section 6.1**). As soon as practicable, the site database will be updated.
 - b. The nature and significance of the site is consistent with sites assessed as of high significance, it will be subject to surface collection and potentially other mitigation measures such as excavation, as determined by discussions with BMC Management, DP&E, OEH, an archaeologist and RAPs. As soon as practicable, the site database will be updated.
- 6. If the site is outside the Disturbance Boundary but within the Project Boundary it is to be managed (where possible) in accordance with the procedures outlined in **Section 5**. In addition, the BMC Sites Database is to be updated and an AHIMS site card completed and submitted to DP&E and OEH.

7.2 Scarred Trees

In the event that a potential Aboriginal scarred tree is identified within the Disturbance Boundary, the following procedure will be implemented:

- 1. Works will cease in the area to prevent any further impacts to the object(s);
- 2. BMC Management is to be notified;
- 3. A qualified archaeologist, RAP representative and arborist must be engaged to determine validity of the scarred tree:
- 4. Should it be determined that the scarring is not Aboriginal in origin, works can recommence;



- 5. Should it be determined that the scarring is likely Aboriginal in origin and within the Disturbance Boundary, the tree will be removed according to the procedure outlined in **Section 6.3**; and
- 6. Should it be determined that the tree is outside the Disturbance Boundary but within the Project Boundary, it is to be conserved or managed in accordance with procedure outlined in **Section 5**. The BMC Sites Database will be updated and an AHIMS site card completed and submitted to OEH.

7.3 Human Skeletal Remains

In the event that human skeletal remains are identified, the following procedure will be adopted:

- 1. When suspected human remains are identified, all work in the near vicinity will cease;
- 2. BMC Management is to be notified;
- 3. BMC Management is to notify the Police;
- 4. BMC will notify DP&E and OEH as soon as possible;
- 5. BMC Management is to contact OEH's Environment line on 131 555 to notify that possible skeletal remains have been discovered and that the police have been notified. OEH will provide details on the current processes involved for managing archaeological skeletal remains (both Aboriginal & historic);
- 6. Under the instructions of the Police, an appropriate area is to be cordoned off using temporary fencing (or similar) around the exposed suspected human remains site. On agreement between the Police and BMC Management, work may continue outside of this area;
- 7. If the remains are determined to be Aboriginal remains, then under the advice of OEH, consult with the RAPs; and
- 8. Do not recommence work at the location until requirements of BMC, the Police, DP&E, OEH and the RAPs have been adequately addressed.



8 NON-COMPLIANCE & COMPLAINTS MANAGEMENT

This section outlines the non-compliance and complaints management procedures relevant to this ACHMP.

8.1 Non Compliance

Should there be a concern that conditions of this ACHMP are not being met and unauthorised impacts are occurring to Aboriginal objects, the following steps will be undertaken:

- a) BMC Management is to be notified;
- b) BMC will notify DP&E and OEH of the incident as soon as possible;
- c) Commission a suitably qualified and experienced person(s) to:
 - Investigate the complaints/claims; and
 - Review the environmental performance of BMC.
- d) Provide DP&E, OEH and RAPs with a written report as soon as practicable that describes:
 - The nature of the non-compliance concern;
 - The date and time of the incident;
 - The likely cause of the incident;
 - Actions that have been taken; and
 - Proposed measures to address the incident.

8.2 Complaints

BMC has an existing complaints management procedure which details how to receive, respond to, record and address community complaints including Aboriginal heritage issues. BMC Management will keep a record of community complaints and subsequent actions. The following details will be recorded:

- The nature of the complaint;
- How the complaint was made;
- Actions (if appropriate); and
- Consultation undertaken.

Complaints and enquiries regarding Aboriginal heritage issues and any other environmental matters should be directed to the 24 hour environmental hotline: 1800 178 984.



9 REPORTING & AUDITING

This section outlines the reporting, auditing and training requirements relevant to this ACHMP.

9.1 Annual Review

By the end of March each year, BMC will provide an Annual Review to the Secretary of DP&E, which will review the environmental performance of the Project for the previous year. The Annual Review will include the presentation of and analysis of the results of any impact monitoring, complaints and any management actions implemented at Bengalla over the reporting period.

The Annual Review will be made publicly available through placement on BMC's website, and will be provided to the Bengalla Community Consultative Committee (CCC).

9.2 Auditing

Within one year of the commencement of development under SSD-5170 (i.e. 1 October 2016) and every 3 years thereafter, unless the Secretary directs otherwise, BMC will commission and pay the full cost of an Independent Environmental Audit of Bengalla.

9.3 ACHMP Review

This ACHMP will be reviewed in accordance with Schedule 5, Condition 5 of SSD-5170 (as modified) and, if necessary, revised (in consultation with relevant government agencies and landholders) on at least a three yearly basis (or as otherwise directed by DP&E).

9.4 Aboriginal Heritage Awareness Training

Subsequent to the approval of this ACHMP, relevant BMC employees and contractors will undertake Aboriginal Heritage Awareness training. BMC will maintain a database of employees and contractors that have undertaken Aboriginal Heritage Awareness training.

The purpose of the training is to broaden general awareness and understanding of Aboriginal culture and heritage. It will explain why and how Aboriginal heritage and culture is protected in NSW and what their role is in protecting Aboriginal sites and objects at Bengalla.

9.5 Public Access to Information

In accordance with Schedule 5, Condition 11 of SSD-5170 (as modified), BMC will regularly (in the form of the Annual Review) prepare a summary of monitoring results required by SSD-5170 and make these publicly available on the Bengalla website. In addition, the ACHMP will be made publicly available on the BMC website.



10 ROLES AND RESPONSIBILITIES

Specific roles and responsibilities for the implementation of this ACHMP and associated actions are presented in **Table 5**.

Table 5
Roles and Responsibilities

Action	Timing	Position Responsibility	Section
Implementation of this ACHMP	Ongoing	Chief Executive Officer (CEO) and Environment and Approvals Specialist	This ACHMP
Aboriginal sites database	Prior to DP&E sign off on ACHMP	Environment and Approvals Specialist	5.1
Protective fencing and signage	Within 24 months of gaining Development Consent	Environment and Approvals Specialist	5.2
Salvage works	As required	Environment and Approvals Specialist, Cultural Heritage Advisor and RAPs.	6
Salvage reporting	Following salvage	Environment and Approvals Specialist and Cultural Heritage Advisor	6.1
Care and Control Agreement	During consultation for this ACHMP	Environment and Approvals Specialist, Cultural Heritage Advisor and RAPs.	6.6
Management of previously unrecorded Aboriginal objects	As required	Environment and Approvals Specialist, Cultural Heritage Advisor and RAPs.	7
Aboriginal heritage awareness training	As required	BMC CEO, Environment and Approvals Specialist and RAPs	9
ACHMP review	3 yearly or as required	Environment and Approvals Specialist	9.3



11 ABBREVIATIONS

Abbreviation	Meaning	
AACHIA	Aboriginal Archaeological and Cultural Heritage Impact Assessment	
АСНМР	Aboriginal Cultural Heritage Management Plan	
Bengalla	Bengalla Mine	
вмс	Bengalla Mining Company Pty Limited	
CEO	Chief Executive Officer	
DA	Development Approval	
DP&E	NSW Department of Planning and Environment	
EIS	Continuation of Bengalla Mine Environmental Impact Statement	
EMS	Environmental Management System	
EPL	Environmental Protection Licence	
Mtpa	Million tonnes per annum	
ML	Mining Licence	
NEZ	Northern Exclusion Zone (B10)	
OEA	Overburden Emplacement Area	
ОЕН	NSW Office of Environment and Heritage	
OSL	Optical Stimulated Luminescence	
RAP	Registered Aboriginal Party	
ROM	Run of Mine	
SEE	Statement of Environmental Effects for Modification 1 to SSD5170	
SEE 2	Statement of Environmental Effects for Modification 2 to SSD5170	
SEE 3	Statement of Environmental Effects for Modification 3 to SSD5170	
SSD	Development Consent State Significant Development 5170 for Bengalla Mine	



12 REFERENCES

- AECOM Australia Pty Ltd. (2013). Bengalla Continuation of Mining Project Aboriginal Archaeological and Cultural Heritage Impact Assessment.
- AECOM Australia Pty Ltd. (2015). Aboriginal Archaeology Due Diligence Assessment for the Bengalla Development Consent Modification. Prepared for Hansen Bailey in support for the Bengalla Development Consent Modification Statement of Environmental Effects (Hansen Bailey 2015).
- AECOM Australia Pty Ltd. (2016) Bengalla Continuation of Mining Project: Aboriginal Archaeological Salvage Program.
- Australian Heritage Commission. (2002). Ask First: a guide to respecting Indigenous heritage places and values. Retrieved from http://www.environment.gov.au/heritage/ahc/publications/ commission/books/pubs/ask-first.pdf
- Burke, H., & Smith, C. (2004). The Archaeologist's Field Handbook. Sydney: Allen & Unwin.
- Hansen Bailey (2013). Continuation of Bengalla Mine Environmental Impact Statement September
 2013. Prepared by Hansen Bailey, Singleton NSW, September 2013.
- Hansen Bailey (2015a). Bengalla Mine Development Consent Modification Statement of Environmental Effects (SSD-5170 Modification 1).
- Hansen Bailey. (2015b). Bengalla Mine Development Consent Modification Response to Submissions.
- Hansen Bailey. (2016). Bengalla Mine Development Consent Modification Statement of Environmental Effects (SSD-5170 Modification 2).
- Hansen Bailey. (2016). Bengalla Mine Development Consent Modification Statement of Environmental Effects (SSD-5170 Modification 3).
- Kuskie, P. J., & Clarke, E. (2004). Salvage of Aboriginal Heritage Sites in the Mount Arthur North Coal Mine Lease. Volume B Figure, Tables, Plates & Appendices. Report to BHP Billiton-Hunter Valley Energy Coal.
- NSW Department of Environment & Conservation. (2005). *Guidelines For Aboriginal Cultural Heritage Impact Assessment and Community Consultation*. NSW Department of Environment & Conservation.
- NSW Department of Environment Climate Change & Water. (2010a). Aboriginal Cultural Heritage
 Consultation Requirements for Proponents. Department of Environment, Climate Change and
 Water.
- NSW Department of Environment Climate Change & Water. (2010b). Code of Practice for Archaeological Investigation of Aboriginal Objects in New South Wales. Department of Environment, Climate Change and Water.
- NSW National Parks and Wildlife Service. (1997). *Aboriginal Cultural Heritage Standards and Guidelines Kit* (First.). Sydney: NSW National Parks and Wildlife Service.
- NSW Rural Fire Service. (2006). Conditions for Hazard Reduction and Aboriginal Heritage. NSW Rural Fire Service.
- NTSCORP Limited. (2013). Welcome to Country. Retrieved June 27, 2013, from http://www.ntscorp.com.au/our-services/welcome-to-country/
- White, E. (1998). Archaeological Salvage of Site B10 & B33 Bengalla Mine, Hunter Valley, NSW. Unpublished report for Bengalla Mining Company.

APPENDIX A SURFACE COLLECTED SITES



Surface Collected Sites*

AHIMS ID	Site Name	GDA E (56)	GDA N (56)	Туре	AHIMS ID	Site Name	GDA E (56)	GDA N (56)	Туре
37-2-0578	B9	294585	6426739	Artefact Scatter	37-2-3141	MTP-562	294449	6427668	Artefact Scatter
37-2-0583	B14	293225	6425819	Artefact Scatter	37-2-3142	MTP-563	294508	6427674	Artefact Scatter
37-2-0584	B15	294305	6426669	Artefact Scatter	37-2-3143	MTP-564	294555	6427624	Isolated Artefact
37-2-0585	B16	293805	6426789	Artefact Scatter	37-2-3144	MTP-565	294588	6427659	Artefact Scatter
37-2-0586	B17	293705	6426889	Artefact Scatter	37-2-3145	MTP-566	294641	6427663	Isolated Artefact
37-2-0587	B18	293805	6426989	Artefact Scatter	37-2-3146	MTP-567	294516	6427752	Artefact Scatter
37-2-0589	B20	294305	6426939	Artefact Scatter	37-2-3147	MTP-568	294514	6427796	Artefact Scatter
37-2-0590	B21	294355	6427039	Artefact Scatter	37-2-3148	MTP-569	294443	6427778	Artefact Scatter
37-2-0591	B22	293555	6428089	Artefact Scatter	37-2-3149	MTP-570	294417	6427728	Artefact Scatter
37-2-0592	B23	293605	6427989	Artefact Scatter	37-2-3150	MTP-571	294408	6427802	Artefact Scatter
37-2-0593	B24	293655	6427689	Artefact Scatter	37-2-3151	MTP-572	294352	6427795	Isolated Artefact
37-2-0594	B25	293805	6427889	Artefact Scatter	37-2-3152	MTP-573	294285	6427806	Artefact Scatter
37-2-0595	B26	293985	6427769	Artefact Scatter	37-2-3153	MTP-574	294178	6427789	Isolated Artefact
37-2-0596	B27	294055	6427739	Artefact Scatter	37-2-3154	MTP-575	294138	6427774	Artefact Scatter
37-2-0597	B28	294235	6427439	Artefact Scatter	37-2-3155	MTP-576	293914	6427817	Artefact Scatter
37-2-0598	B29	294355	6427839	Artefact Scatter	37-2-3157	MTP-578	293481	6427698	Isolated Artefact
37-2-0599	B30	294455	6427739	Artefact Scatter	37-2-3158	MTP-579	294240	6427508	Artefact Scatter
37-2-0600	B31	294715	6427689	Artefact Scatter	37-2-3159	MTP-580	294317	6427492	Artefact Scatter
37-2-0602	B33	294855	6428439	Artefact Scatter	37-2-3160	MTP-581	294323	6427527	Artefact Scatter
37-2-0603	B34	294955	6428739	Artefact Scatter	37-2-3161	MTP-582	294337	6427449	Isolated Artefact
37-2-0604	B35	294555	6428339	Artefact Scatter	37-2-3162	MTP-583	294659	6427540	Artefact Scatter
37-2-1463	B36	295065	6429569	Artefact Scatter	37-2-3163	MTP-584	294415	6427602	Isolated Artefact
37-2-1468	A7-A8	293955	6429159	Artefact Scatter	37-2-3164	MTP-585	294371	6427589	Artefact scatter



AHIMS ID	Site Name	GDA E	GDA N	Туре	AHIMS ID	Site	GDA E	GDA N	Туре
ATTINISTID	Site Name	(56)	(56)	Туре	Allinoid	Name	(56)	(56)	Туре
37-2-2097	B6	293896	6425955	Isolated Artefact	37-2-3281	MTP-702	295150	6429421	Artefact Scatter
37-2-2098	B7	293818	6425952	Artefact scatter	37-2-3282	MTP-703	295102	6429565	Isolated Artefact
37-2-2099	B8	293764	6426008	Isolated Artefact	37-2-3283	MTP-704	295157	6429564	Isolated Artefact
37-2-2100	В9	294024	6426045	Isolated Artefact	37-2-3287	MTP-708	295126	6429265	Isolated Artefact
37-2-2101	B10	293739	6426106	Isolated Artefact	37-2-3288	MTP-709	295032	6429145	Isolated Artefact
37-2-2102	B11	293804	6426163	Isolated Artefact	37-2-3289	MTP-710	294908	6429017	Artefact scatter
37-2-2103	B12	293863	6426228	Isolated Artefact	37-2-3534	MTP-956	293655	6427070	Isolated Artefact
37-2-2560	MTP 702	295255	6429609	Artefact Scatter	37-2-3535	MTP-957	293606	6427166	Isolated Artefact
37-2-2843	MTP-39	293935	6428611	Isolated Artefact	37-2-3536	MTP-958	293616	6426854	Artefact Scatter
37-2-2844	MTP-40	293712	6428744	Isolated Artefact	37-2-3537	MTP-959	293641	6426641	Artefact Scatter
37-2-2845	MTP-41	293956	6428616	Isolated Artefact	37-2-3538	MTP-960	293707	6426546	Isolated Artefact
37-2-2846	MTP-42	293755	6427988	Isolated Artefact	37-2-3539	MTP-961	293663	6426676	Isolated Artefact
37-2-3041	MTP-461	294096	6429036	Artefact Scatter	37-2-3540	MTP-962	293657	6426687	Isolated Artefact
37-2-3042	MTP-462	294062	6428996	Artefact Scatter	37-2-3541	MTP-963	293696	6426754	Isolated Artefact
37-2-3043	MTP-463	293969	6429005	Artefact Scatter	37-2-3542	MTP-964	293653	6426850	Isolated Artefact
37-2-3044	MTP-464	293949	6429016	Isolated Artefact	37-2-3543	MTP-965	293674	6426885	Artefact Scatter
37-2-3045	MTP-465	293726	6429086	Artefact Scatter	37-2-3544	MTP-966	293650	6426907	Artefact scatter
37-2-3046	MTP-466	293646	6429056	Isolated Artefact	37-2-3545	MTP-967	293574	6426250	Isolated Artefact
37-2-3047	MTP-467	293659	6428976	Isolated Artefact	37-2-3546	MTP-968	293355	6426073	Isolated Artefact
37-2-3048	MTP-468	293911	6428929	Isolated Artefact	37-2-3547	MTP-969	293221	6425907	Isolated Artefact
37-2-3049	MTP-469	294073	6428936	Artefact Scatter	37-2-3548	MTP-970	293182	6425886	Artefact Scatter
37-2-3050	MTP-470	294110	6428934	Isolated Artefact	37-2-3549	MTP-971	293105	6425932	Isolated Artefact
37-2-3051	MTP-471	294131	6428967	Artefact Scatter	37-2-3550	MTP-972	293183	6425961	Isolated Artefact
37-2-3052	MTP-472	294200	6428956	Artefact Scatter	37-2-3551	MTP-973	293334	6426058	Isolated Artefact



AHIMS ID	Site Name	GDA E	GDA N	Туре	AHIMS ID	Site	GDA E	GDA N	Туре
		(56)	(56)			Name	(56)	(56)	
37-2-3053	MTP-473	294247	6428918	Artefact Scatter	37-2-3552	MTP-974	293349	6426079	Isolated Artefact
37-2-3054	MTP-474	294274	6428935	Artefact Scatter	37-2-3840	MTP-1262	294875	6429001	Isolated Artefact
37-2-3055	MTP-475	294324	6428880	Isolated Artefact	37-2-4060	MTP-1400	292930	6429241	Isolated Artefact
37-2-3056	MTP-476	294221	6429003	Artefact Scatter	37-2-4061	MTP-1413	293422	6427540	Artefact Scatter
37-2-3057	MTP-477	293670	6428840	Isolated Artefact	37-2-4062	MTP-1460	293513	6426231	Artefact Scatter
37-2-3058	MTP-478	293581	6428851	Artefact Scatter	37-2-4063	MTP-1462	293615	6426715	Artefact Scatter
0. 2 000		200001	0.2000.	Isolated	0. 2 .000	BM-AS01-	2000.0	0.20.10	Artefact
37-2-3059	MTP-479	293519	6428942	Artefact	37-2-4433	12	294901	6428871	Scatter
				Isolated		BM-AS02-			Artefact
37-2-3060	MTP-480	293635	6428804	Artefact	37-2-4434	12	294815	6428544	Scatter
37-2-3061	MTP-481	293684	6428790	Artefact Scatter	37-2-4435	BM-AS03- 12	294202	6427023	Artefact Scatter
37-2-3062	MTP-482	293805	6428767	Isolated Artefact	37-2-4436	BM-AS04- 12	294450	6426865	Artefact Scatter
37-2-3063	MTP-483	294121	6428737	Isolated Artefact	37-2-4437	BM-AS05- 12	292029	6426475	Artefact Scatter
37-2-3065	MTP-485	294270	6428697	Artefact Scatter	37-2-4438	BM-AS06-	292394	6425477	Artefact Scatter
37-2-3066	MTP-486	294452	6428649	Artefact Scatter	37-2-4439	BM-AS07-	292197	6427848	Artefact Scatter
				Artefact		BM-AS11-			Artefact
37-2-3067	MTP-487	294407	6428759	Scatter	37-2-4443	12	292276	6426741	Scatter
				Isolated		BM-AS12-			Artefact
37-2-3068	MTP-488	294364	6428777	Artefact	37-2-4444	12	292510	6426541	Scatter
37-2-3069	MTP-489	294286	6428782	Artefact Scatter	37-2-4445	BM-AS13- 12	292471	6426325	Artefact Scatter
0. 2000		20.200	0.20.02	Isolated	0. 2	BM-AS14-		0.20020	Artefact
37-2-3070	MTP-490	294253	6428819	Artefact	37-2-4446	12	291888	6426064	Scatter
37-2-3071	MTP-491	294226	6428783	Artefact Scatter	37-2-4448	BM-AS16- 12	292579	6425918	Artefact Scatter
37-2-3072	MTP-492	294174	6428777	Artefact Scatter	37-2-4449	BM-AS17- 12	292833	6425701	Artefact Scatter
37-2-3073	MTP-493	294124	6428834	Artefact Scatter	37-2-4450	BM-AS18- 12	292839	6425432	Artefact Scatter
37-2-3074	MTP-494	293893	6428644	Isolated Artefact	37-2-4451	BM-AS19- 12	292930	6425073	Artefact Scatter
37-2-3075	MTP-495	293783	6428689	Isolated Artefact	37-2-4456	BM-AS24-	292165	6425346	Artefact Scatter
37-2-3076	MTP-496	293640	6428644	Isolated Artefact	37-2-4457	BM-AS25-	292349	6425330	Artefact Scatter
J. 2 3370	10117 400	2000-10	J 1200-14	Artefact	J. 2 7701	BM-IA01-	2020-0	0.20000	Isolated
37-2-3077	MTP-497	293554	6428680	Scatter	37-2-4459	12	293979	6427459	Artefact



AHIMS ID	Site Name	GDA E	GDA N	Туре	AHIMS ID	Site	GDA E	GDA N	Туре
		(56)	(56)			Name	(56)	(56)	
37-2-3078	MTP-498	293754	6428539	Isolated Artefact	37-2-4460	BM-IA02- 12	293105	6427486	Isolated Artefact
37-2-3079	MTP-499	293983	6428531	Isolated Artefact	37-2-4461	BM-IA03- 12	292741	6427051	Isolated Artefact
37-2-3080	MTP-500	294040	6428511	Isolated Artefact	37-2-4462	BM-IA04- 12	293086	6426348	Isolated Artefact
37-2-3081	MTP-501	294236	6428505	Artefact Scatter	37-2-4463	BM-IA05-	292830	6427900	Isolated Artefact
37-2-3082	MTP-502	294282	6428493	Artefact Scatter	37-2-4465	BM-IA07-	292449	6427622	Isolated Artefact
37-2-3083	MTP-503	294323	6428471	Artefact Scatter	37-2-4466	BM-IA08-	292235	6427681	Isolated Artefact
31-2-3003	WITT 500	204020	0420471	Isolated	31-2-4400	BM-IA09-	202200	0427001	Isolated
37-2-3084	MTP-504	294404	6428430	Artefact	37-2-4467	12	292874	6429137	Artefact
				Artefact		BM-IA11-			Isolated
37-2-3085	MTP-505	294469	6428471	Scatter	37-2-4469	12	291959	6426694	Artefact
37-2-3086	MTP-506	294524	6428441	Artefact Scatter	37-2-4470	BM-IA12- 12	292340	6426455	Isolated Artefact
37-2-3087	MTP-507	294553	6428432	Artefact Scatter	37-2-4471	BM-IA13- 12	292140	6426567	Isolated Artefact
37-2-3088	MTP-508	294582	6428389	Artefact Scatter	37-2-4474	BM-IA16- 12	291840	6425815	Isolated Artefact
37-2-3089	MTP-509	294715	6428402	Artefact Scatter	37-2-4475	BM-IA17-	292380	6425752	Isolated Artefact
37-2-3090	MTP-510	294512	6428568	Artefact Scatter	37-2-4476	BM-IA18-	291954	6425628	Isolated Artefact
				Artefact		BM-IA20-			Isolated
37-2-3091	MTP-511	294464	6428556	Scatter	37-2-4478	12	292306	6425197	Artefact
27 2 2002	MTD 540	204225	6420500	Artefact	27 2 4470	BM-IA21-	2024.85	6405400	Isolated
37-2-3092	MTP-512	294235	6428580	Scatter	37-2-4479	12 BM-IA22-	292185	6425108	Artefact Isolated
37-2-3093	MTP-513	293908	6428467	Artefact	37-2-4480	12	292347	6424992	Artefact
37-2-3094	MTP-514	293794	6428411	Artefact Scatter	37-2-4482	MTP- AS01-12	293414	6427885	Artefact Scatter
37-2-3096	MTP-516	293351	6428427	Isolated Artefact	37-2-4483	MTP-AS2- 12	294513	6427391	Artefact Scatter
37-2-3097	MTP-518	293970	6428344	Artefact Scatter	37-2-4484	MTP- AS03-12	294152	6427949	Artefact Scatter
				Artefact		MTP-IA2-			Isolated
37-2-3098	MTP-519	294501	6428281	Scatter Artefact	37-2-4486	MTP-IA1-	293974	6428112	Artefact Isolated
37-2-3099	MTP-520	294538	6428266	Scatter	37-2-4485	12	294099	6427451	Artefact
37-2-3100	MTP-521	294598	6428225	Artefact Scatter	MTP-1403	MTP-1403	293358	6426904	Artefact Scatter
37-2-3101	MTP-522	294659	6428206	Artefact Scatter	MTP-1404	MTP-1404	293018	6428655	Isolated Artefact
37-2-3102	MTP-523	294722	6428346	Artefact Scatter	MTP-1405	MTP-1405	292918	6428717	Isolated Artefact



AHIMS ID	Site Name	GDA E	GDA N	Туре	AHIMS ID	Site	GDA E	GDA N	Туре
		(56)	(56)	Artofoot		Name	(56)	(56)	looloted
37-2-3103	MTP-524	294554	6428374	Artefact Scatter	MTP-1406	MTP-1406	293018	6428726	Isolated Artefact
37-2-3104	MTP-525	294497	6428362	Artefact Scatter	MTP-1407	MTP-1407	293174	6428475	Isolated Artefact
37-2-3105	MTP-526	294211	6428446	Artefact Scatter	MTP-1408	MTP-1408	293004	6428470	Isolated Artefact
37-2-3106	MTP-527	294056	6428431	Isolated Artefact	MTP-1409	MTP-1409	293063	6428072	Isolated Artefact
37-2-3108	MTP-529	293637	6428257	Isolated Artefact	MTP-1411	MTP-1411	292899	6427827	Isolated Artefact
37-2-3109	MTP-530	293519	6428316	Isolated Artefact	MTP-1412	MTP-1412	292593	6427618	Artefact Scatter
37-2-3110	MTP-531	293446	6428179	Artefact Scatter	MTP-1415	MTP-1415	293453	6427387	Isolated Artefact
37-2-3111	MTP-532	293520	6428181	Isolated Artefact	MTP-1416	MTP-1416	293231	6427188	Isolated Artefact
37-2-3112	MTP-533	294095	6428149	Artefact Scatter	MTP-1417	MTP-1417	292847	6427065	Isolated Artefact
37-2-3113	MTP-534	294211	6428071	Isolated Artefact	MTP-1418	MTP-1418	292838	6427103	Isolated Artefact
37-2-3114	MTP-535	294328	6428075	Artefact Scatter	MTP-1420	MTP-1420	293292	6427089	Isolated Artefact
37-2-3115	MTP-536	294601	6428002	Artefact Scatter	MTP-1428	MTP-1428	293155	6426942	Isolated Artefact
37-2-3116	MTP-537	294696	6428080	Artefact Scatter	MTP-1429	MTP-1429	293075	6426985	Isolated Artefact
37-2-3117	MTP-538	294717	6428038	Artefact scatter	MTP-1432	MTP-1432	293344	6426942	Isolated Artefact
37-2-3118	MTP-539	294743	6428087	Artefact Scatter	MTP-1433	MTP-1433	293358	6426904	Isolated Artefact
37-2-3119	MTP-540	294620	6428148	Artefact Scatter	MTP-1437	MTP-1437	293231	6426772	Isolated Artefact
37-2-3120	MTP-541	294578	6428144	Artefact Scatter	MTP-1438	MTP-1438	293041	6426620	Isolated Artefact
37-2-3121	MTP-542	293939	6428243	Isolated Artefact	MTP-1439	MTP-1439	293127	6426710	Isolated Artefact
37-2-3122	MTP-543	293513	6428113	Artefact Scatter	MTP-1440	MTP-1440	293125	6426706	Isolated Artefact
37-2-3123	MTP-544	293163	6428082	Isolated Artefact	MTP-1442	MTP-1442	292899	6426521	Isolated Artefact
37-2-3124	MTP-545	293650	6427997	Artefact Scatter	MTP-1443	MTP-1443	292985	6428840	Isolated Artefact
37-2-3125	MTP-546	293717	6427946	Artefact Scatter	MTP-1444	MTP-1444	293248	6426542	Isolated Artefact
37-2-3126	MTP-547	293760	6427968	Artefact Scatter	MTP-1445	MTP-1445	293046	6426422	Isolated Artefact
37-2-3127	MTP-548	294332	6427890	Artefact Scatter	MTP-1447	MTP-1447	293013	6426322	Isolated Artefact



AHIMS ID	Site Name	GDA E (56)	GDA N (56)	Туре	AHIMS ID	Site Name	GDA E (56)	GDA N (56)	Туре
37-2-3128	MTP-549	294404	6427892	Artefact Scatter	MTP-1448	MTP-1448	293046	6426332	Isolated Artefact
37-2-3129	MTP-550	294520	6427830	Artefact Scatter	MTP-1449	MTP-1449	293089	6426209	Isolated Artefact
37-2-3130	MTP-551	294494	6427885	Artefact Scatter	MTP-1450	MTP-1450	293198	6426360	Isolated Artefact
37-2-3131	MTP-552	294564	6427988	Artefact Scatter	MTP-1451	MTP-1451	293205	6426145	Isolated Artefact
37-2-3132	MTP-553	294524	6427937	Isolated Artefact	MTP-1452	MTP-1452	293070	6425972	Isolated Artefact
37-2-3133	MTP-554	294422	6427982	Artefact Scatter	MTP-1455	MTP-1455	293046	6426422	Artefact Scatter
37-2-3134	MTP-555	294235	6428009	Artefact Scatter	MTP-1456	MTP-1456	293143	6426073	Artefact Scatter
37-2-3135	MTP-556	293841	6427847	Artefact Scatter	MTP-1458	MTP-1458	293344	6426201	Isolated Artefact
37-2-3136	MTP-557	293999	6427733	Artefact Scatter	MTP-1459	MTP-1459	293384	6426187	Isolated Artefact
37-2-3137	MTP-558	294128	6427725	Artefact Scatter	37-2-5072	BMAS27- 15	293943	6429212	Artefact scatter
37-2-3138	MTP-559	294222	6427733	Isolated Artefact	37-2-5073	BM-IA24- 15	294235	6429321	Isolated Artefact
37-2-3139	MTP-560	294320	6427714	Artefact Scatter	37-2-5426	BM-IA24- 14	292408	6425121	Isolated Artefact
37-2-3140	MTP-561	294376	6427643	Artefact Scatter					

*Aboriginal Archaeological Salvage Program (AECOM, October 2016)

Surface Lithic Data

ID	GDA E (56)	GDA N (56)	Туре	ID	GDA E (56)	GDA N (56)	Туре	ID	GDA E (56)	GDA N (56)	Туре
							Round-				
			Multidirecti				edged				Complete
1	294880	6429003	onal core	630	292564	6425853	scraper	1259	294743	6428086	flake
			Complete				Flake				Proximal
2	295124	6429262	flake	631	292564	6425851	shatter	1260	294749	6428088	flake
							Misc.				
			Proximal				retouched				Flake
3	295158	6429273	flake	632	292561	6425851	flake	1261	294743	6428086	shatter
			Complete				Complete				Flake
4	295168	6429284	flake	633	292563	6425875	flake	1262	294743	6428086	shatter
			Complete				Complete				Complete
5	295195	6429311	flake	634	292564	6425875	flake	1263	294743	6428086	flake
			Complete				Proximal				Proximal
6	295138	6429467	flake	635	292617	6425887	flake	1264	294743	6428086	flake
			Flaked				Flaked				Multidirecti
7	295135	6429467	piece	636	292630	6425901	piece	1265	294743	6428086	onal core
			Flake				Complete				Complete
8	295134	6429468	shatter	637	292627	6426006	flake	1266	294743	6428086	flake
			Proximal				Flaked				Complete
9	295134	6429468	flake	638	292626	6426005	piece	1267	294743	6428086	flake
			Flaked				Complete				Proximal
10	295133	6429467	piece	639	292634	6426041	flake	1268	294743	6428086	flake
			Flaked				Proximal				Complete
11	295133	6429468	piece	640	293733	6426708	flake	1269	294743	6428086	flake



ID	GDA E (56)	GDA N (56)	Туре	ID	GDA E (56)	GDA N (56)	Туре	ID	GDA E (56)	GDA N (56)	Туре
12	295133	6429469	Flaked piece	641	293665	6426612	Proximal flake	1270	294743	6428085	Complete flake
13	295133	6429470	Complete flake	642	293643	6426642	Flaked piece	1271	294743	6428085	Complete flake
14	295132	6429471	Proximal flake	643	293643	6426641	Proximal flake	1272	294743	6428085	Flake shatter
15	295133	6429472	Flaked piece	644	293643	6426641	Non- diagnostic	1273	294743	6428086	Flake shatter
16	295132	6429472	Heat shatter	645	293643	6426641	Complete flake	1274	294742	6428086	Misc. retouched flake
17	295132	6429472	Heat shatter	646	293642	6426641	Complete flake	1275	294743	6428086	Complete flake
18	295133	6429473	Flake shatter	647	293659	6426689	Multidirectio nal core	1276	294742	6428085	Complete flake
19	295133	6429473	Flake shatter	648	293613	6426720	Heat shatter	1277	294743	6428086	Flake shatter
20	295134	6429473	Flaked piece	649	293700	6426755	Complete flake	1278	294742	6428086	Flaked piece
21	295134	6429474	Flaked piece	650	293714	6426744	Proximal flake	1279	294745	6428085	Flaked piece
22	295134	6429474	Flake shatter	651	293744	6426774	Non- diagnostic	1280	294745	6428085	Proximal flake
23	295133	6429474	Complete flake	652	293745	6426773	Non- diagnostic	1281	294745	6428085	Flake shatter
24	295133	6429474	Proximal flake	653	293790	6426767	Non- diagnostic	1282	294743	6428085	Proximal flake
25	295133	6429474	Flaked piece	654	293799	6426765	Unidirection al core	1283	294742	6428086	Flake shatter
26	295133	6429474	Heat shatter	655	293834	6426788	Flaked piece	1284	294742	6428086	Complete flake
27	295133	6429474	Heat shatter	656	293836	6426790	Flake shatter	1285	294742	6428086	Flake shatter
28	295133	6429473	Complete flake	657	293836	6426793	Proximal flake	1286	294742	6428086	Complete flake
29	295133	6429473	Proximal flake	658	293839	6426792	Flaked piece	1287	294742	6428086	Flake shatter
30	295133	6429473	Heat shatter	659	293842	6426787	Complete flake	1288	294742	6428086	Flaked piece
31	295133	6429473	Heat shatter	660	293844	6426786	Heat shatter	1289	294742	6428086	Flake shatter
32	295133	6429473	Flake shatter	661	293834	6426792	Non- diagnostic	1290	294742	6428085	Proximal flake
33	295133	6429473	Non- diagnostic	662	293831	6426788	Non- diagnostic	1291	294742	6428085	Complete flake
34	295133	6429473	Proximal flake	663	293831	6426787	Non- diagnostic	1292	294742	6428086	Split flake
35	295133	6429473	Flaked piece	664	293832	6426787	Multidirectio nal core	1293	294742	6428086	Flake shatter
36	295133	6429472	Core fragment	665	293835	6426788	Flake shatter	1294	294742	6428085	Flake shatter
37	295133	6429472	Proximal flake	666	293832	6426787	Complete flake	1295	294743	6428085	Flake shatter
38	295185	6429434	Flaked piece	667	293824	6426792	Split flake	1296	294743	6428086	Complete flake
39	295187	6429439	Flake shatter	668	293823	6426794	Bifacial core	1297	294742	6428086	Flake shatter
40	295187	6429441	Flake shatter	669	293822	6426793	Flaked piece	1298	294742	6428086	Backed artefact
41	295187	6429441	Complete flake	670	293820	6426792	Unidirection al core	1299	294742	6428086	Flake shatter
42	295187	6429441	Complete flake	671	293488	6426765	Heat shatter	1300	294742	6428086	Flake shatter
43	295185	6429445	Natural	672	293520	6426811	Flaked piece	1301	294743	6428086	Flake shatter
44	295191	6429458	Split flake	673	293534	6426836	Complete flake	1302	294743	6428086	Heat shatter



ID	GDA E (56)	GDA N (56)	Туре	ID	GDA E (56)	GDA N (56)	Туре	ID	GDA E (56)	GDA N (56)	Туре
45	295190	6429459	Flaked piece	674	293535	6426843	Complete flake	1303	294743	6428086	Flake shatter
46	295167	6429563	Unidirectio nal core	675	293536	6426847	Proximal flake	1304	294742	6428086	Redirectin g flake
47	295162	6429564	Heat shatter	676	293538	6426851	Proximal flake	1305	294743	6428086	Complete flake
48	295158	6429564	Complete flake	677	293540	6426851	Proximal flake	1306	294742	6428086	Flake shatter
49	295157	6429566	Complete flake Complete	678	293541	6426854	Complete flake Proximal	1307	294742	6428086	Flake shatter Flake
50	295157	6429566	flake Proximal	679	293542	6426857	flake Proximal	1308	294742	6428086	shatter Flake
51	295107	6429575	flake Complete	680	293541	6426856	flake Complete	1309	294743	6428086	shatter Flaked
52	295105	6429572	flake Proximal	681	293541	6426856	flake Flake	1310	294743	6428086	piece Flake
53	295101	6429572	flake Complete	682	293542	6426855	shatter Unidirection	1311	294743	6428086	shatter
54	295100	6429572	flake	683	293543	6426853	al core	1312	294743	6428086	Complete flake
55	295100	6429573	Complete flake Proximal	684	293545	6426857	Non- diagnostic Complete	1313	294743	6428086	Flake shatter Flake
56	295100	6429575	flake	685	293546	6426857	flake Flake	1314	294743	6428085	shatter Flaked
57	295102	6429576	piece Proximal	686	293550	6426862	shatter	1315	294742	6428086	piece Flake
58	295104	6429577	flake	687	293557	6426865	Split flake	1316	294742	6428086	shatter Flake
59	295107	6429578	shatter Heat	688	293562	6426864	diagnostic Proximal	1317	294743	6428086	shatter Flake
60	293968	6429084	shatter	689	293564	6426865	flake Flaked	1318	294742	6428085	shatter Complete
61	294892	6428913	Natural Non-	690	293617	6426860	piece Multidirectio	1319	294743	6428085	flake Flaked
62	294891	6428913	diagnostic Non-	691	293631	6426871	nal core Non-	1320	294743	6428085	piece Proximal
63	294900	6428885	diagnostic Proximal	692	293638	6426902	diagnostic Complete	1321	294743	6428086	flake Flaked
64	294899	6428883	flake Proximal	693	293679	6426882	flake Complete	1322	294742	6428086	piece Flake
65	294900	6428882	flake Proximal	694	293685	6426881	flake Complete	1323	294742	6428086	shatter Flake
66	294900	6428883	flake Flaked	695	293691	6426879	flake Proximal	1324	294743	6428086	shatter Flake
67	294900	6428882	piece Flake	696	293693	6426880	flake Complete	1325	294743	6428085	shatter Flake
68	294901	6428881	shatter Flake	697	293699	6426880	flake Multidirectio	1326	294742	6428085	shatter Flake
69	294901	6428881	shatter Complete	698	293698	6426878	nal core Proximal	1327	294742	6428086	shatter Flake
70	294901	6428881	flake Flake	699	293699	6426883	flake	1328	294742	6428086	shatter Flaked
71	294900	6428881	shatter Proximal	700	293715	6426874	Natural Complete	1329	294742	6428086	piece Complete
72	294901	6428881	flake Flaked	701	293465	6427045	flake Complete	1330	294742	6428086	flake Flake
73	294901	6428881	piece Flaked	702	293440	6427046	flake Bidirectional	1331	294743	6428086	shatter Complete
74	294901	6428881	piece Proximal	703	293443	6427047	core Flaked	1332	294742	6428086	flake Complete
75	294901	6428881	flake Flake	704	293296	6427102	piece Proximal	1333	294743	6428086	flake Complete
76	294901	6428881	shatter Proximal	705	293285	6427142	flake Complete	1334	294742	6428086	flake Flake
77	294901	6428881	flake Complete	706	293244	6427209	flake Flake	1335	294742	6428086	shatter Flake
78	294899	6428881	flake	707	293247	6427205	shatter	1336	294742	6428086	shatter



ID	GDA E (56)	GDA N (56)	Туре	ID	GDA E (56)	GDA N (56)	Туре	ID	GDA E (56)	GDA N (56)	Туре
79	294898	6428881	Flake shatter	708	293246	6427206	Proximal flake	1337	294743	6428086	Proximal flake
			Flake				Flake				Proximal
80	294898	6428881	shatter Complete	709	293246	6427206	shatter Complete	1338	294743	6428086	flake Flaked
81	294898	6428880	flake	710	293245	6427205	flake	1339	294743	6428086	piece
00	204000	0400070	Complete	744	000044	0407005	Complete	4240	004740	C40000C	Flaked
82	294899	6428879	flake Complete	711	293244	6427205	flake Flaked	1340	294743	6428086	piece Proximal
83	294898	6428874	flake	712	293546	6426893	piece	1341	294743	6428085	flake
84	294899	6428873	Flake shatter	713	293546	6426892	Proximal flake	1342	294743	6428086	Flaked piece
			Flaked				Complete				Flake
85	294898	6428872	piece Non-	714	293545	6426890	flake	1343	294743	6428085	shatter Proximal
86	294912	6428786	diagnostic	715	293543	6426891	Heat shatter	1344	294743	6428085	flake
0.7	204024	0400777	Proximal	740	000544	0.400007	Flaked	4245	004740	C40000F	Complete
87	294934	6428777	flake Proximal	716	293544	6426897	piece Proximal	1345	294743	6428085	flake Backed
88	294891	6428925	flake	717	293544	6426900	flake	1346	294742	6428086	artefact
89	294217	6429002	Complete flake	718	293542	6426900	Flake shatter	1347	294742	6428086	Flaked piece
			Proximal				Non-				Flake
90	294214	6429001	flake Complete	719	293542	6426902	diagnostic Complete	1348	294743	6428085	shatter Flake
91	294216	6428988	flake	720	293540	6426903	flake	1349	294743	6428086	shatter
00	004004	0400000	Complete	704	000540	0.400000	Proximal	4250	004740	0400000	Flake
92	294221	6428993	flake Proximal	721	293540	6426900	flake Flake	1350	294743	6428086	shatter Flake
93	294222	6428990	flake	722	293540	6426898	shatter	1351	294743	6428086	shatter
94	294245	6428919	Flake shatter	723	293540	6426895	Flaked piece	1352	294742	6428086	Proximal flake
			Flake				Proximal				Flaked
95	294245	6428919	shatter Non-	724	293541	6426895	flake Flake	1353	294742	6428086	piece Flake
96	294269	6428942	diagnostic	725	293541	6426896	shatter	1354	294743	6428086	shatter
07	202042	6420224	Flaked	706	202542	6406006	Flake	1255	204742	6400006	Complete
97	292912	6429231	piece Non-	726	293542	6426896	shatter Flaked	1355	294743	6428086	flake Flake
98	292888	6429190	diagnostic	727	293542	6426897	piece	1356	294743	6428086	shatter
99	292871	6429159	Flaked piece	728	293542	6426898	Complete flake	1357	294746	6428085	Complete flake
			Complete				Complete				Complete
100	293014	6428837	flake Complete	729	293542	6426898	flake Flake	1358	294708	6428036	flake Complete
101	293010	6428828	flake	730	293541	6426899	shatter	1359	294740	6427989	flake
400			Complete	724	202544	6426900	Flake	1260	204770		Non-
102	293010	6428828	flake	731	293541	6426899	shatter Proximal	1360	294770	6427982	diagnostic Complete
103	292951	6428720	Split flake	732	293540	6426898	flake	1361	294770	6427982	flake
104	292951	6428719	Complete flake	733	293542	6426898	Heat shatter	1362	294770	6427983	Proximal flake
			Proximal				Flake				Complete
105	292947	6428714	flake Complete	734	293542	6426899	shatter Flake	1363	294716	6427853	flake Proximal
106	292947	6428714	flake	735	293543	6426900	shatter	1364	294690	6427634	flake
107	202046	6428714	Proximal	736	293543	6426000	Proximal	1365	204507	6/29044	Complete flake
107	292946	0420/14	flake Complete	730	293343	6426900	flake Complete	1303	294597	6428011	Proximal
108	292955	6428716	flake	737	293543	6426900	flake	1366	294595	6428006	flake
109	292943	6428715	Flaked piece	738	293542	6426900	Non- diagnostic	1367	294597	6428004	Backed artefact
			Flaked				Proximal				Proximal
110	293049	6428661	piece Proximal	739	293542	6426900	flake Flake	1368	294598	6428002	flake Complete
111	293049	6428659	flake	740	293541	6426901	shatter	1369	294598	6428002	flake
112	293049	6428658	Proximal flake	741	293540	6426901	Complete flake	1370	294598	6428002	Tranchet flake core
114	233043	0420000	iiane	/41	233340	0420301	Hane	13/0	234030	0420002	Hane Cole



ID	GDA E (56)	GDA N (56)	Туре	ID	GDA E (56)	GDA N (56)	Туре	ID	GDA E (56)	GDA N (56)	Туре
113	293050	6428658	Complete flake	742	293540	6426898	Flaked piece	1371	294598	6428002	Complete flake
114	293014	6428457	Flake shatter	743	293540	6426897	Flake shatter	1372	294599	6428002	Flake shatter
115	293037	6428471	Non- diagnostic	744	293539	6426898	Flake shatter	1373	294599	6428002	Flake shatter
116	293040	6428476	Proximal flake Unidirectio	745	293540	6426896	Complete flake	1374	294600	6428003	Complete flake Multidirecti
117	293213	6428478	nal core Proximal	746	293541	6426896	Flake shatter Flake	1375	294586	6427997	onal core Proximal
118	293084	6428080	flake Redirectin	747	293541	6426896	shatter Complete	1376	294535	6427998	flake Multidirecti
119	293064	6428036	g flake Complete	748	293541	6426896	flake Flake	1377	294528	6427990	onal core Flake
120	292834	6427899	flake Non-	749	293541	6426896	shatter Proximal	1378	294527	6427990	shatter Flaked
121	292830	6427903	diagnostic Complete	750	293541	6426896	flake Flake	1379	294526	6427993	piece Multidirecti
122	292826	6427905	flake Misc.	751	293542	6426896	shatter	1380	294328	6428074	onal core
123	292611	6427623	retouched flake	752	293542	6426896	Complete flake	1381	294235	6428011	Flaked piece
124	292619	6427622	Proximal flake Complete	753	293542	6426896	Flake shatter Flake	1382	294235	6428011	Complete flake Proximal
125	292623	6427625	flake Complete	754	293542	6426893	shatter Flaked	1383	294234	6428011	flake Complete
126	292449	6427616	flake Non-	755	293542	6426892	piece Flaked	1384	294234	6428011	flake Complete
127	292453	6427608	diagnostic Flake	756	293541	6426891	piece Complete	1385	294234	6428011	flake Flake
128	292457	6427612	shatter Complete	757	293538	6426896	flake Complete	1386	294235	6428008	shatter Complete
129	292233	6427685	flake Non-	758	293538	6426897	flake Flake	1387	294335	6427875	flake Flaked
130	292175	6427763	diagnostic Backed	759	293535	6426896	shatter Proximal	1388	294332	6427874	Piece Complete
131	292176 292154	6427764	Artefact Non- diagnostic	760 761	293534 293534	6426895 6426893	flake Complete flake	1389	294332 294332	6427874 6427874	flake Proximal flake
133	292155	6427779	Flaked piece	762	293534	6426893	Flake shatter	1391	294327	6427868	Complete flake
134	292155	6427781	Non- diagnostic	763	293533	6426892	Flake shatter	1392	294323	6427867	Proximal flake
135	292146	6427787	Proximal flake	764	293532	6426891	Flake shatter	1393	294322	6427869	Complete flake
136	292194	6427848	Flake shatter	765	293540	6426898	Backed artefact	1394	294332	6427889	Unidirectio nal core
137	292195	6427847	Flaked piece Heat	766	293541	6426902	Proximal flake	1395	294332	6427889	Multidirecti onal core Unidirectio
138	292196	6427850	shatter Complete	767	293540	6426902	Natural Proximal	1396	294371	6427908	nal core Complete
139	292196	6427850	flake Complete	768	293541	6426908	flake Flaked	1397	294373	6427905	flake Complete
140	292195	6427850	flake Flaked	769	293543	6426911	piece Complete	1398	294412	6427932	flake Backed
141	292196	6427849	piece Complete	770	293535	6426910	flake Complete	1399	294414	6427932	artefact Complete
142	292197	6427850	flake Flake	771	293535	6426909	flake Complete	1400	294416	6427935	flake Flaked
143	292197	6427850	shatter Complete	772	293536	6426904	flake Proximal	1401	294418	6427935	piece Non-
144	292197	6427851	flake Flaked	773	293535	6426902	flake Flake	1402	294417	6427935	diagnostic Proximal
145	292195	6427851	piece	774	293534	6426900	shatter	1403	294419	6427936	flake



ID	GDA E (56)	GDA N (56)	Туре	ID	GDA E (56)	GDA N (56)	Туре	ID	GDA E (56)	GDA N (56)	Туре
146	292195	6427851	Flake shatter	775	293531	6426901	Split flake	1404	294412	6427930	Complete flake
147	202405	6407054	Complete	776	202524	6406000	Proximal	1405	204440	6407000	Complete
147	292195	6427851	flake	776	293531	6426902	flake	1405	294410	6427929	flake Misc.
			Proximal				Proximal				retouched
148	292195	6427851	flake Flake	777	293532	6426904	flake Flaked	1406	294410	6427929	flake Flake
149	292196	6427852	shatter	778	293532	6426905	piece	1407	294410	6427926	shatter
			Flake				Proximal				Complete
150	292196	6427852	shatter Flake	779	293531	6426905	flake	1408	294404	6427920	flake Flake
151	292195	6427851	shatter	780	293531	6426906	Heat shatter	1409	294403	6427920	shatter
450	000405	0.407054	Complete	704	000500	0.400000	Flake	4440	004400	0.40704.4	Proximal
152	292195	6427851	flake Flake	781	293528	6426900	shatter Complete	1410	294400	6427914	flake
153	292195	6427851	shatter	782	293526	6426905	flake	1411	294401	6427912	Split flake
154	292195	6427852	Flake shatter	783	293518	6426902	Complete flake	1412	294402	6427912	Complete flake
134	292193	0427032	Proximal	703	293310	0420902	Complete	1412	294402	042/312	Proximal
155	292872	6425328	flake	784	293485	6426881	flake	1413	294400	6427902	flake
			Misc. retouched								Complete
156	292862	6425365	flake	785	293485	6426880	Natural	1414	294401	6427902	flake
457	000000	0.405000	Flake	700	000400	0.400070	Flake	4445	004404	0.407000	Flaked
157	292862	6425368	shatter Proximal	786	293482	6426876	shatter Non-	1415	294401	6427902	piece Flake
158	292867	6425375	flake	787	293483	6426875	diagnostic	1416	294401	6427902	shatter
159	292865	6425376	Complete flake	788	293492	6426875	Complete flake	1417	294403	6427900	Multidirecti onal core
139	292000	0423370	Flake	700	293492	0420073	Complete	1417	294403	0427900	Proximal
160	292865	6425388	shatter	789	293538	6426947	flake	1418	294403	6427896	flake
161	292860	6425402	Complete flake	790	293531	6426960	Unidirection al core	1419	294403	6427896	Flaked piece
101	232000	0420402	Proximal	730	233331	0420300	Core	1413	234403	0427030	Multidirecti
162	292854	6425403	flake	791	293529	6426962	fragment	1420	294405	6427894	onal core
163	292832	6425440	Proximal flake	792	293503	6427033	Complete flake	1421	294406	6427894	Flake shatter
			Bidirection				Complete				Multidirecti
164	292829	6425454	al core Flaked	793	293503	6427046	flake Non-	1422	294407	6427892	onal core Non-
165	292829	6425455	piece	794	293522	6427034	diagnostic	1423	294403	6427893	diagnostic
400	000000	0.405.450	Flaked	705	000440	0.400000	Complete	4404	004400	0.407000	Proximal
166	292830	6425456	piece Complete	795	293443	6426698	flake Flaked	1424	294403	6427893	flake Heat
167	292831	6425455	flake	796	294325	6427016	piece	1425	294403	6427892	shatter
168	292831	6425456	Flake shatter	797	294324	6427014	Split flake	1426	294403	6427892	Flaked piece
100	292031	6425456	Non-	191	234324	042/014	Multidirectio	1420	234403	0421032	Proximal
169	292831	6425455	diagnostic	798	294331	6427026	nal core	1427	294404	6427891	flake
170	292831	6425455	Non- diagnostic	799	294339	6427002	Non- diagnostic	1428	294404	6427892	Complete flake
			Flaked				Proximal				Tranchet
171	292830	6425455	piece	800	294338	6427001	flake	1429	294403	6427876	flake core
172	292830	6425455	Heat shatter	801	294347	6426989	Flaked piece	1430	294404	6427876	Complete flake
			Flaked				Backed				Complete
173	292830	6425455	piece Non-	802	294348	6426988	artefact Proximal	1431	294403	6427891	flake Bidirection
174	292830	6425455	diagnostic	803	294348	6426987	flake	1432	294403	6427891	al core
475	202022	6405455	Flaked	004	204240	6400000	Flake	4400	204400	6407004	Flake
175	292830	6425455	piece Flaked	804	294349	6426982	shatter Complete	1433	294403	6427891	shatter Flake
176	292830	6425455	piece	805	294350	6426970	flake	1434	294403	6427891	shatter
177	202920	6425455	Flaked	906	294350	6426966	Proximal flake	1435	294403	6427891	Flaked
1//	292830	6425455	piece Flake	806	∠943 <u>3</u> U	0420900	Flake	1433	∠ 344 03	0427091	piece Flake
178	292830	6425455	shatter	807	294334	6426958	shatter	1436	294403	6427891	shatter



ID	GDA E (56)	GDA N (56)	Туре	ID	GDA E (56)	GDA N (56)	Туре	ID	GDA E (56)	GDA N (56)	Туре
179	292830	6425456	Heat shatter	808	294336	6426957	Complete flake	1437	294403	6427891	Proximal flake
180	292831	6425456	Flaked piece	809	294336	6426957	Flake shatter	1438	294403	6427891	Proximal flake
181	292831	6425456	Flaked piece	810	294336	6426957	Backed artefact	1439	294403	6427891	Core fragment
182	292831	6425456	Heat shatter	811	294336	6426958	Flake shatter	1440	294403	6427891	Flake shatter
183	292830	6425456	Flaked piece Complete	812	294337	6426958	Proximal flake Flaked	1441	294403	6427891	Flaked piece Flaked
184	292830	6425456	flake Non-	813	294337	6426958	piece Flake	1442	294403	6427891	piece Flaked
185	292830	6425456	diagnostic Flaked	814	294328	6426958	shatter Complete	1443	294403	6427891	piece Tranchet
186	292830	6425456	piece Flaked	815	294328	6426957	flake	1444	294403	6427891	flake core Proximal
187	292830	6425456	piece Flaked	816	294337	6426946	Heat shatter Proximal	1445	294403	6427891	flake Complete
188	292830	6425457	piece Flaked	817	294338	6426946	flake Flake	1446	294403	6427891	flake Non-
189	292829	6425456	piece Flaked	818	294345	6426944	shatter Complete	1447	294403	6427891	diagnostic Flaked
190	292829	6425456	piece Proximal	819	294346	6426944	flake Flake	1448	294403	6427891	piece Flake
191	292828	6425456	flake Flake	820	294346	6426945	shatter	1449	294403	6427891	shatter Flake
192	292805	6425503	shatter Proximal	821	294346	6426945	Heat shatter Non-	1450	294403	6427891	shatter Heat
193	292795	6425512	flake Multidirecti	822	294346	6426945	diagnostic Complete	1451	294403	6427891	shatter Flake
194	292793	6425513	onal core Complete	823	294346	6426946	flake Complete	1452	294402	6427891	shatter Heat
195 196	292793 292792	6425515 6425516	flake Complete flake	824 825	294347 294335	6426946 6426932	flake Non- diagnostic	1453 1454	294402 294403	6427891 6427891	shatter Heat shatter
197	292792	6425514	Complete flake	826	294353	6426946	Proximal flake	1455	294403	6427891	Proximal flake
198	292703	6425619	Flake shatter	827	294353	6426946	Heat shatter	1456	294403	6427891	Proximal flake
199	292703	6425619	Complete flake	828	294387	6427063	Proximal flake	1457	294403	6427891	Non- diagnostic
			Misc. retouched				Unidirection				Flake
200	292705	6425622	flake Complete	829	294390	6427066	al core Flaked	1458	294402	6427891	shatter Flaked
201	292709	6425623	flake Flake	830	294391	6427066	piece Non-	1459	294403	6427891	piece Complete
202	292710	6425621	shatter Flake	831	294390	6427066	diagnostic Proximal	1460	294403	6427891	flake Complete
203	292713	6425626	shatter	832	294390	6427068	flake	1461	294403	6427891	flake Steep-
204	292713	6425627	Non- diagnostic	833	294391	6427069	Flake shatter	1462	294402	6427891	edged scraper
205	202747	6425622	Misc. retouched	834	294393	6427070	Flaked	1463	294402	6427891	Split flake
205	292717 292716	6425632 6425635	flake Flake shatter	834	294393	6427070	piece Complete flake	1464	294402	6427891	Proximal flake
207	292716	6425654	Complete	836	294393	6427070	Natural	1465	294402	6427891	Proximal flake
208	292712	6425660	Complete flake	837	294394	6427071	Proximal flake	1466	294402	6427891	Flake shatter
209	292712	6425660	Flaked piece	838	294394	6427069	Non- diagnostic	1467	294403	6427891	Heat shatter
210	292712	6425660	Flaked piece	839	294399	6427077	Flaked piece	1468	294403	6427891	Flaked piece



GDAE GDA N **GDAE GDA N GDAE GDA N** ID ID Type ID Type Type (56)(56)(56)(56)(56)(56)Flaked Flaked Proximal 211 292713 6425661 840 294399 6427077 1469 294403 6427891 flake piece piece Flake Non-Non-212 6425663 294399 6427077 diagnostic 1470 292713 shatter 841 294403 6427891 diagnostic Redirectin Flaked 213 292699 6425711 842 294398 6427079 Heat shatter 1471 294402 6427891 a flake piece Non-Flake Flake 214 292698 6425710 diagnostic 843 294398 6427079 1472 294402 6427891 shatter shatter Flaked Flaked Flake <u>21</u>5 292696 6425713 844 294397 6427080 1473 294402 6427891 piece shatter piece Complete Flaked Flake 292705 6425787 294397 6427081 6427891 216 845 1474 294402 shatter flake piece Complete Flaked 6425787 217 292705 flake 846 294406 6427084 Split flake 1475 294402 6427891 piece Proximal Flake Flaked 218 292711 6425790 shatter 847 294408 6427083 flake 1476 294402 6427891 piece Proximal Proximal Flaked 219 292711 6425790 flake 848 294409 6427083 flake 1477 294402 6427891 piece Proximal Complete Flaked 6425797 294403 220 292714 849 294411 6427083 1478 6427891 flake flake piece Heat Proximal Heat 221 292715 6425800 shatter 850 294413 6427083 flake 1479 294403 6427891 shatter Proximal Flake Flaked 222 292712 6425809 piece 851 294412 6427084 flake 1480 294402 6427891 shatter Multidirecti Flaked Core 292711 6425808 <u>29</u>4402 223 852 294412 6427084 1481 6427891 onal core fragment piece Complete Flake Heat 224 292708 6425806 853 294413 6427084 1482 294404 6427887 flake shatter shatter Complete Flake Non-225 292706 6425807 854 294413 6427084 1483 294404 6427880 flake shatter diagnostic Complete Flake Complete 6425809 226 292686 flake 855 294413 6427084 shatter 1484 294404 6427880 flake Complete Multidirectio Flake 292680 6425800 6427086 1485 227 856 294411 294404 6427882 flake shatter nal core Flake Flake 228 292664 6425810 shatter 857 294410 6427086 shatter 1486 294405 6427883 Natural Complete Proximal Complete 229 292662 6425811 858 294409 6427087 1487 294405 6427879 flake flake flake Complete Complete 230 292665 6425804 flake 859 294412 6427089 Heat shatter 1488 294404 6427879 flake Flaked Flake Flaked 231 292668 6425798 860 6427090 1489 294404 6427894 294415 shatter piece piece Complete Complete Flaked 232 292670 6425763 861 294414 6427086 flake 1490 294404 6427894 piece flake Complete Flaked 233 292677 6425757 flake 862 294414 6427086 Heat shatter 1491 294404 6427894 piece Multidirecti Flaked Tranchet 292658 6425676 863 6427086 1492 294399 6427908 234 294414 onal core piece flake core Flaked Flaked 235 292661 6425648 294399 6427075 294399 6427908 864 Natural 1493 piece piece Complete Flake Flake 6427071 292724 6425519 865 294393 294403 6427912 236 flake shatter 1494 shatter Multidirecti Flake Non-237 292741 6427053 onal core 866 294392 6427065 diagnostic 1495 294400 6427913 shatter Bifacial Proximal Proximal 238 6427064 294387 1496 6427931 flak<u>e</u> 292871 core 867 6427064 flake 294412 Unidirectio Complete Proximal 239 292866 6427069 nal core 868 294340 6427034 flake 1497 294413 6427935 flake Heat Flake Flaked 240 292866 6427068 869 294316 6427039 1498 294413 6427936 shatter shatter piece Complete Complete 241 292850 6427106 flake 870 294315 6427040 flake 1499 294412 6427936 Natural Steep-Flake edaed Complete 242 293091 6426968 scraper 871 294315 6427040 flake 1500 294412 6427936 shatter Heat Non-Flaked 293091 243 6426968 294315 6427040 1501 294412 6427937 shatter 872 diagnostic piece



ID	GDA E (56)	GDA N (56)	Туре	ID	GDA E (56)	GDA N (56)	Туре	ID	GDA E (56)	GDA N (56)	Туре
044	` '	` ,	Complete	070	, ,	,	Complete	4500			Flake
244	293089	6426964	flake Complete	873	294315	6427040	flake Complete	1502	294412	6427938	shatter Proximal
245	293089	6426963	flake	874	294314	6427040	flake	1503	294515	6427926	flake
246	293367	6426928	Non- diagnostic	875	294314	6427040	Complete flake	1504	294514	6427926	Complete flake
	200001		Unidirectio		201011		Proximal		201011	0127020	Proximal
247	293361	6426921	nal core Complete	876	294315	6427040	flake Flake	1505	294514	6427926	flake Flaked
248	293239	6426772	flake	877	294314	6427041	shatter	1506	294515	6427926	piece
249	293148	6426701	Non- diagnostic	878	294315	6427041	Flake shatter	1507	294516	6427923	Multidirecti onal core
249	293146	0420701	Proximal	010	294313		Flake	1307	294516	0427923	Complete
250	293164	6426569	flake Flake	879	294315	6427041	shatter Flake	1508	294516	6427922	flake Flake
251	293162	6426570	shatter	880	294315	6427041	shatter	1509	294511	6427919	shatter
250	000404	0.400570	Complete	004	004045	0.4070.40	Complete	4540	004500	0.4070.40	Complete
252	293164	6426570	flake Flaked	881	294315	6427042	flake Complete	1510	294506	6427912	flake Complete
253	293168	6426568	piece	882	294315	6427043	flake	1511	294507	6427908	flake
254	293216	6426555	Unidirectio nal core	883	294316	6427043	Flake shatter	1512	294507	6427908	Complete flake
			Proximal				Flake				Flake
255	293217	6426555	flake Non-	884	294317	6427042	shatter Flaked	1513	294506	6427908	shatter Complete
256	293217	6426554	diagnostic	885	294317	6427042	piece	1514	294504	6427908	flake
257	293216	6426555	Flake shatter	886	294317	6427040	Heat shatter	1515	294498	6427905	Heat shatter
	200210	0420000	Complete		204017	0427040	Complete		204400	0427000	Flaked
258	293253	6426546	flake	887	294252	6427034	flake Flaked	1516	294495	6427897	piece Complete
259	293104	6426345	Split flake	888	294237	6427022	piece	1517	294494	6427897	flake
260	293151	6426130	Flake shatter	889	294374	6426662	Non- diagnostic	1518	294495	6427897	Non- diagnostic
200	293131	0420130	Proximal	603	294374	0420002	ulagriostic	1310	234433	0427097	Complete
261	293151	6426130	flake	890	294376	6426662	Natural	1519	294495	6427895	flake
262	293154	6426126	Complete flake	891	294549	6426718	Heat shatter	1520	294500	6427895	Complete flake
262	202406	6406405	Multidirecti	902	204552	6406740	Hammersto	4504	204405	6407000	Proximal flake
263	293196	6426135	onal core Complete	892	294552	6426718	ne Complete	1521	294495	6427892	Multidirecti
264	293209	6426136	flake	893	294457	6426862	flake	1522	294495	6427886	onal core
265	293205	6426141	Complete flake	894	294456	6426862	Heat shatter	1523	294495	6427886	Flaked piece
			Heat				Complete				Flaked
266	293205	6426139	shatter Non-	895	294349	6427226	flake	1524	294488	6427890	piece Complete
267	293193	6426146	diagnostic	896	294349	6427226	Heat shatter	1525	294489	6427888	flake
268	293223	6426156	Complete flake	897	294422	6427171	Complete flake	1526	294520	6427826	Complete flake
							Complete				Non-
269	293510	6426230	Split flake Non-	898	294421	6427171	flake Flake	1527	294524	6427813	diagnostic Complete
270	293840	6426202	diagnostic	899	294422	6427170	shatter	1528	294527	6427798	flake
271	293760	6425973	Complete flake	900	294425	6427170	Proximal flake	1529	294513	6427801	Complete flake
			Heat				Complete				Complete
272	293761	6425974	shatter Multidirecti	901	294425	6427170	flake Complete	1530	294514	6427800	flake Complete
273	293660	6426017	onal core	902	292515	6426575	flake	1531	294514	6427798	flake
274	293355	6426076	Multidirecti onal core	903	292516	6426575	Complete flake	1532	294517	6427799	Complete flake
			Multidirecti				Proximal				Complete
275	293333	6426061	onal core Proximal	904	292515	6426574	flake Proximal	1533	294514	6427800	flake Proximal
276	293221	6425909	flake	905	292516	6426573	flake	1534	294513	6427801	flake
277	202220	6425902	Bifacial	006	202546	6426572	Complete	1525	204520	6427700	Complete
277	293229	6425893	core	906	292516	6426572	flake	1535	294520	6427799	flake



ID	GDA E (56)	GDA N (56)	Туре	ID	GDA E (56)	GDA N (56)	Туре	ID	GDA E (56)	GDA N (56)	Туре
	(30)	(30)	Complete		(30)	(30)	Non-		(30)	(30)	Flaked
278	293186	6425887	flake	907	292517	6426574	diagnostic	1536	294513	6427800	piece
279	293183	6425889	Heat shatter	908	292517	6426575	Complete flake	1537	294515	6427799	Flake shatter
	200100	0 120000	Complete		202011	0 12007 0	Flaked		201010	0.27700	Complete
280	293183	6425889	flake	909	292518	6426575	piece	1538	294515	6427799	flake
281	293181	6425890	Complete flake	910	292518	6426575	Complete flake	1539	294516	6427799	Flaked piece
	200101	0 120000	Complete	0.10	202010		Complete		201010	0.27700	Proximal
282	293217	6425846	flake	911	292517	6426574	flake	1540	294512	6427800	flake
283	293118	6426016	Proximal flake	912	292517	6426574	Flake shatter	1541	294512	6427802	Redirectin g flake
		0.200.0	Flaked				Flake				Complete
284	293119	6426016	piece	913	292516	6426574	shatter	1542	294518	6427800	flake
285	293119	6426016	Complete flake	914	292516	6426573	Complete flake	1543	294518	6427797	Flake shatter
			Flake				Flake				Heat
286	293120	6426016	shatter	915	292516	6426573	shatter	1544	294515	6427801	shatter
287	293119	6426016	Complete flake	916	292514	6426573	Flake shatter	1545	294517	6427801	Flaked piece
			Heat				Flake				Heat
288	293118	6426015	shatter	917	292514	6426571	shatter	1546	294512	6427803	shatter
289	293118	6426015	Complete flake	918	292514	6426571	Flake shatter	1547	294520	6427797	Complete flake
			Proximal				Complete				Flaked
290	293131	6426027	flake	919	292514	6426572	flake	1548	294515	6427800	piece
291	293133	6426028	Flaked piece	920	292514	6426573	Heat shatter	1549	294514	6427802	Natural
			Complete				Complete				Unidirectio
292	293133	6426028	flake	921	292515	6426574	flake	1550	294517	6427797	nal core
293	293133	6426026	Non- diagnostic	922	292515	6426574	Flaked piece	1551	294524	6427799	Heat shatter
			Flaked				Proximal				Complete
294	293135	6426021	piece Non-	923	292514	6426575	flake Proximal	1552	294511	6427802	flake Complete
295	293136	6426031	diagnostic	924	292514	6426575	flake	1553	294517	6427799	flake
		-	Misc.						*		
296	293137	6426032	retouched flake	925	292515	6426575	Flake shatter	1554	294517	6427797	Complete flake
	200107	5-2002	Proximal		202010	0-120010	Complete	.007	20-1017		Heat
297	293137	6426033	flake	926	292517	6426574	flake	1555	294516	6427798	shatter
298	293137	6426035	Heat shatter	927	292517	6426574	Proximal flake	1556	294519	6427798	Flaked piece
			Complete			0 12001 4	Backed				Flaked
299	293112	6426000	flake	928	292517	6426574	artefact	1557	294515	6427799	piece
300	293131	6426025	Complete flake	929	292517	6426574	Complete flake	1558	294520	6427798	Flake shatter
			Complete				Flaked				Non-
301	293132	6426026	flake	930	292517	6426574	piece	1559	294519	6427798	diagnostic
302	293115	6426036	Heat shatter	931	292518	6426574	Flaked piece	1560	294518	6427797	Bifacial core
			Complete				Complete				Proximal
303	293116	6426037	flake	932	292502	6426597	flake	1561	294518	6427800	flake
304	293118	6426042	Complete flake	933	292499	6426599	Non- diagnostic	1562	294518	6427799	Complete flake
			Non-				Complete				Flaked
305	293128	6426053	diagnostic Proximal	934	292498	6426612	flake Non-	1563	294518	6427798	piece Flaked
306	293134	6426050	flake	935	292514	6426572	diagnostic	1564	294516	6427801	piece
							Proximal				Heat
307	293136	6426064	Split flake Complete	936	292485	6426491	flake Complete	1565	294518	6427800	shatter Flaked
308	293139	6426070	flake	937	292534	6426439	flake	1566	294516	6427801	piece
			Complete								Complete
309	293140	6426069	flake Proximal	938	292532	6426443	Bifacial core Unidirection	1567	294516	6427801	flake Flaked
310	293141	6426070	flake	939	292539	6426440	al core	1568	294516	6427800	piece



GDAE GDA N **GDAE GDA N GDAE GDA N** Type ID ID Type ID Type (56)(56)(56)(56)(56)Complete 311 293141 6426071 Split flake 940 292538 6426440 flake 1569 294517 6427799 Split flake Complete Heat 293141 312 6426073 Split flake 292492 6426317 1570 6427797 shatter 941 294518 flake Flaked Proximal Flaked 313 293141 6426073 942 292492 6426317 1571 294518 6427796 flake piece piece Non-Flake Heat 314 293139 6426078 diagnostic 943 292492 6426317 1572 294515 6427800 shatter shatter Complete Flake Heat <u>31</u>5 293130 6426075 flake 944 292492 6426318 shatter 1573 294517 6427798 shatter Misc. Proximal retouched Complete 293130 6426074 945 316 292340 6426459 1574 294520 6427798 flake flake flake Bidirectional Proximal Complete 317 292539 6425913 1575 294520 946 292490 6426510 6427798 flake flake core Complete Flake Complete 292538 6425926 292382 6426776 294520 318 flake 947 shatter 1576 6427798 flake Multidirectio Proximal 319 292541 6425924 Natural 948 292117 6426711 1577 294519 6427799 flake nal core Steep-Unidirectio Bifacial edged 320 292545 6425926 nal core 949 291962 6426699 scraper 1578 294518 6427799 core Unidirectio Complete 6426486 321 292564 6425984 flake 950 292072 Split flake 1579 294518 6427799 nal core Flake Flaked Multidirecti 6426476 322 292563 6425984 951 292056 1580 294518 6427797 shatter piece onal core Complete Proximal 323 292566 6425986 flake 952 292057 6426477 Split flake 1581 294519 6427799 flake Complete Heat 324 292567 6425982 flake 953 292058 6426477 Heat shatter 1582 294519 6427799 shatter Complete Complete Proximal 325 292569 6425982 flake 954 292052 6426472 flake 1583 294514 6427801 flake Multidirecti Complete Proximal 326 292570 6425984 955 292050 6426471 flake 1584 294514 6427801 flake onal core Complete Proximal Flaked 327 292572 6425984 956 291895 6426054 1585 294519 6427798 flake flake piece Complete Flaked Complete 328 6425985 292573 flake 957 292138 6425383 piece 1586 294519 6427798 flake Flake Unidirection Complete 6425985 329 292573 958 292142 6425373 1587 294519 6427798 flake shatter al core Flake Flaked 330 292576 6425982 shatter 959 292143 6425373 Heat shatter 1588 294512 6427801 piece Flaked Non-Flaked 331 292576 6425980 960 292179 6425370 diagnostic 1589 294516 6427800 piece piece Proximal Complete Proximal 332 292576 6425980 6425316 294517 flake 961 292188 flake 1590 6427798 flake Flake Flaked Flaked 333 292574 6425979 962 292347 6425320 294517 6427798 1591 shatter piece piece Misc. Flake retouched Proximal 6425328 6425977 294514 6427801 334 292575 shatter 963 292344 flake 1592 flake Complete Complete 292575 6425977 294514 335 flake 964 292343 6425330 Heat shatter 1593 6427801 flake Heat Flake Flaked 336 292576 6425976 965 292347 6425327 1594 294514 6427801 shatter shatter piece Proximal Flaked Flake 337 292576 6425975 966 292351 6425329 1595 294513 6427801 flake piece shatter Complete Flaked 338 292573 6425976 967 292352 6425329 1596 294512 6427801 flake Natural piece Complete Flake Flake 339 292572 6425976 flake 968 292354 6425329 shatter 1597 294512 6427801 shatter Multidirecti Flaked Flake 340 292573 6425975 onal core 969 292357 6425331 1598 294513 6427802 shatter piece Tranchet Proximal flake 341 292573 6425975 970 292358 Split flake 1599 294514 flake core 6425331 6427801 Complete Proximal Flaked 342 292574 6425975 flake 971 292361 6425334 flake 1600 294515 6427799 piece



ID	GDA E (56)	GDA N (56)	Туре	ID	GDA E (56)	GDA N (56)	Туре	ID	GDA E (56)	GDA N (56)	Туре
	(30)	(30)	Flake		(30)	(30)	Flake		(30)	(30)	Flake
343	292574	6425975	shatter	972	292362	6425334	shatter	1601	294512	6427801	shatter
344	292574	6425975	Flaked piece	973	292362	6425335	Split flake	1602	294513	6427801	Flaked piece
344	202014	0420070	Complete	3/3	232302	042000	Unidirection	1002	204010	0427001	Heat
345	292585	6425967	flake	974	292362	6425336	al core	1603	294518	6427799	shatter
346	292589	6425970	Flake shatter	975	292365	6425335	Shell	1604	294521	6427799	Proximal flake
			Proximal				<u> </u>				Heat
347	292589	6425970	flake Flake	976	292367	6425338	Heat shatter	1605	294519	6427799	shatter
348	292594	6425969	shatter	977	292368	6425340	Heat shatter	1606	294514	6427803	Split flake
242	000504	0.405000	Heat	070	000074	0.4050.40	Non-	400=	004500	0.407700	Flaked
349	292594	6425968	shatter Multidirecti	978	292371	6425343	diagnostic Non-	1607	294522	6427798	piece Heat
350	292586	6425963	onal core	979	292377	6425348	diagnostic	1608	294514	6427802	shatter
351	202500	6405064	Complete	980	202200	6405000	Proximal flake	4600	204545	6407000	Proximal
331	292590	6425961	flake Flake	960	292399	6425328	Flaked	1609	294515	6427803	flake Proximal
352	292591	6425960	shatter	981	292405	6425327	piece	1610	294516	6427800	flake
353	292593	6425960	Flake shatter	982	292418	6425331	Proximal flake	1611	294512	6427802	Flake shatter
	202000	0420000	Complete		202+10	0420001	Complete		204012	0427002	Complete
354	292593	6425960	flake	983	292406	6425337	flake	1612	294510	6427805	flake
355	292595	6425960	Flake shatter	984	292411	6425284	Complete flake	1613	294515	6427801	Flaked piece
			Proximal				Non-				Flaked
356	292597	6425959	flake	985	292415	6425279	diagnostic Flake	1614	294513	6427802	piece Flake
357	292596	6425948	Split flake	986	292415	6425278	shatter	1615	294513	6427802	shatter
250	202500	0405040	Complete	007	000440	0.405070	Complete	4646	004544	0407000	Complete
358	292596	6425948	flake Redirectin	987	292410	6425279	flake Flake	1616	294511	6427802	flake Complete
359	292596	6425948	g flake	988	292356	6425321	shatter	1617	294512	6427799	flake
360	292596	6425946	Flake shatter	989	292358	6425334	Flaked piece	1618	294519	6427797	Flake shatter
300	202000	0420040	Core	303	232330	042004	Complete	1010	204010	0421131	Flaked
361	292594	6425944	fragment Proximal	990	292358	6425334	flake	1619	294514	6427799	piece
362	292590	6425940	flake	991	292337	6425328	Complete flake	1620	294515	6427798	Complete flake
			Heat								Complete
363	292594	6425944	shatter Flake	992	292392	6425471	Heat shatter Flaked	1621	294514	6427799	flake Flaked
364	292593	6425951	shatter	993	293806	6428793	piece	1622	294514	6427799	piece
365	292590	6425933	Notched flake	994	293554	6428681	Rifacial care	1623	294515	6427799	Complete flake
303	232330	0423333	Flaked	334	25004	U420001	Bifacial core Unidirection	1023	254010	0421199	Flaked
366	292597	6425977	piece	995	293955	6428616	al core	1624	294513	6427800	piece
367	292594	6425980	Natural	996	293994	6428522	Unidirection al core	1625	294515	6427799	Complete flake
			Bidirection				Flake				Flaked
368	292594	6425981	al core Proximal	997	293994	6428525	shatter Complete	1626	294514	6427800	piece Complete
369	292583	6426003	flake	998	294007	6428572	flake	1627	294514	6427799	flake
	000500		Flake			0.4005.11	Complete				
370	292582	6426004	shatter Flake	999	294007	6428541	flake Complete	1628	294516	6427798	Natural Heat
371	292581	6426004	shatter	1000	294038	6428511	flake	1629	294512	6427796	shatter
372	292581	6426005	Proximal flake	1001	294057	6428430	Complete flake	1630	294515	6427798	Proximal flake
312	202001	0720003	Complete	1001	204001	0720430	Complete	1000	204010		Backed
373	292581	6426005	flake	1002	294057	6428431	flake	1631	294513	6427800	artefact
374	292583	6426005	Flake shatter	1003	294063	6428434	Complete flake	1632	294515	6427797	Complete flake
			Proximal				Unidirection				Flaked
375	292583	6426007	flake Complete	1004	294057	6428430	al core Proximal	1633	294515	6427796	piece Flaked
376	292583	6426007	flake	1005	293958	6428233	flake	1634	294515	6427799	piece



ID	GDA E (56)	GDA N (56)	Туре	ID	GDA E (56)	GDA N (56)	Туре	ID	GDA E (56)	GDA N (56)	Туре
377	292583	6426007	Flake shatter	1006	293957	6428233	Proximal flake	1635	294516	6427798	Flake shatter
270	000500	0400007	Proximal	4007	000040	0.400050	Flake	4000	004545	0407700	Heat
378	292583	6426007	flake Bidirection	1007	293649	6428252	shatter Complete	1636	294515	6427798	shatter Complete
379	292584	6426007	al core	1008	293340	6428474	flake	1637	294516	6427797	flake
380	292579	6426009	Flaked piece	1009	293445	6428171	Flake shatter	1638	294513	6427798	Complete flake
381	292577	6426011	Edge- ground axe	1010	293463	6428159	Flake shatter	1639	294514	6427799	Complete flake
202	202500	6406006	Heat	1011	202464	6400460	Complete	1640	204546	6427798	Flaked
382	292580	6426026	shatter Complete	1011	293464	6428160	flake Proximal	1640	294516	0427790	piece Heat
383	292574	6426039	flake	1012	293471	6428162	flake	1641	294514	6427799	shatter
384	292623	6426033	Complete flake	1013	293470	6428162	Non- diagnostic	1642	294513	6427801	Flaked piece
304	292023	0420033	Complete	1013	293470	0420102	Flaked	1042	294313	0427001	Flaked
385	292626	6426035	flake	1014	293470	6428163	piece	1643	294518	6427798	piece
386	292627	6426035	Flake shatter	1015	293671	6427985	Complete flake	1644	294503	6427780	Complete flake
300	292021	0420033	Complete	1013	293071	0427903	Flaked	1044	294303	0427700	Complete
387	292627	6426035	flake	1016	293645	6428007	piece	1645	294502	6427777	flake
388	292635	6426034	Complete flake	1017	293718	6427954	Unidirection al core	1646	294505	6427771	Complete flake
300	292033	0420034	Complete	1017	2937 10	0427934	Flaked	1040	294303	0427771	Heat
389	292637	6426033	flake	1018	293720	6427949	piece	1647	294505	6427770	shatter
390	292645	6426033	Natural Complete	1019	293720	6427951	Flake shatter Flaked	1648	294505	6427771	Non- diagnostic Non-
391	292645	6426029	flake	1020	293758	6427967	piece	1649	294504	6427751	diagnostic
			Flake				Complete				Complete
392	292623	6426028	shatter Complete	1021	293762	6427968	flake Complete	1650	294520	6427758	flake Flake
393	292624	6426023	flake	1022	293761	6427968	flake	1651	294520	6427758	shatter
			Complete				Complete				Complete
394	292626	6426023	flake Multidirecti	1023	293761	6427968	flake Complete	1652	294520	6427758	flake Proximal
395	292629	6426023	onal core	1024	293760	6427967	flake	1653	294520	6427758	flake
	000005	0.400047	Complete	4005	000700	0.407000	Flake	4054	004500	0.407750	Complete
396	292625	6426017	flake Flaked	1025	293760	6427968	shatter Complete	1654	294520	6427758	flake Complete
397	292626	6426011	piece	1026	293760	6427968	flake	1655	294520	6427758	flake
	000007	0.400000	Complete	400=	000700	0.407000	Complete	4050	004500	0.407750	Non-
398	292627	6426006	flake Flaked	1027	293760	6427969	flake Complete	1656	294520	6427758	diagnostic Flake
399	292632	6425991	piece	1028	293760	6427969	flake	1657	294520	6427758	shatter
400	202626	6425070	Complete	1029	202760	6427060	Flaked	1650	204520	6427750	Complete
400	292636	6425979	flake Flake	1029	293760	6427969	piece Flake	1658	294520	6427758	flake Flaked
401	292632	6425976	shatter	1030	293760	6427969	shatter	1659	294520	6427758	piece
402	292630	6425971	Multidirecti onal core	1031	293760	6427969	Non- diagnostic	1660	294520	6427758	Complete flake
			Core				Flake				Complete
403	292636	6425972	fragment Backed	1032	293760	6427969	shatter	1661	294520	6427758	flake Heat
404	292636	6425966	artefact	1033	293760	6427969	Split flake	1662	294515	6427738	shatter
405	292635	6425965	Proximal flake	1034	293761	6427969	Non- diagnostic	1663	294515	6427737	Multidirecti onal core
406	292636	6425965	Flake shatter	1035	293761	6427969	Flaked piece	1664	294515	6427734	Complete flake
			Flaked				Complete				Complete
407	292636	6425966	piece Flaked	1036	293761	6427969	flake Proximal	1665	294511	6427731	flake Proximal
408	292636	6425966	piece	1037	293760	6427968	flake	1666	294509	6427731	flake
	'		0				Misc.				
409	292637	6425966	Complete flake	1038	293760	6427968	retouched flake	1667	294509	6427731	Split flake
		•				•				•	



GDAE GDA N **GDAE GDA N GDAE GDA N** ID **Type** ID Type ID Type (56)(56)(56)(56)(56)(56)Round-Complete edged Complete 410 292638 6425966 flake 1039 293759 6427968 scraper 1668 294509 6427731 flake Complete Flake Complete 411 292638 6425965 shatter 1040 293759 6427969 flake 1669 294509 6427731 flake Flaked Flake Complete 412 292638 6425966 1041 293759 6427970 1670 294509 6427731 shatter flake piece Flaked Complete Complete 413 292637 6425966 1042 293759 6427970 flake 1671 294509 6427731 flake piece Complete Flaked Flake 414 292636 6425967 1043 293759 6427968 1672 294509 6427731 flake piece shatter Flake Complete Heat 415 6425967 292636 1044 293758 6427965 1673 294509 6427731 shatter flake shatter Flaked Hammersto Complete 6425968 1674 294509 416 292636 1045 293756 6427963 6427731 flake piece ne Flake Unidirection Complete 417 292635 6425968 293763 6427965 294507 shatter 1046 1675 6427730 flake al core Flaked Complete Complete 418 292635 6425968 1047 293894 6427813 1676 294507 6427730 piece flake flake Backed Complete Non-292635 6425969 294000 1677 294507 6427730 419 artefact 1048 6427739 diagnostic flake Flake Complete 420 292635 6425969 1049 294061 6427740 Heat shatter 1678 294507 6427730 flake shatter Flake Flake Proximal 421 292633 6425962 shatter 1050 294097 6427736 shatter 1679 294507 6427730 flake Core Non-Proximal 422 292632 6425959 fragment 1051 294126 6427723 diagnostic 1680 294507 6427730 flake Complete Complete 423 292633 6425958 Split flake 1052 1681 294507 294125 6427731 6427730 flake flake Complete Redirectin Complete 424 292633 6425958 1053 294128 6427765 flake 1682 294507 6427730 g flake flake Misc. retouched Complete Heat 425 292633 6425958 1054 294129 flake 1683 294507 6427730 shatter flake 6427764 Complete Unidirection Complete 426 292633 6425956 1055 294178 6427790 1684 294507 6427730 flake flake al core Flaked Complete Non-427 292630 6425955 piece 1056 294158 6427734 flake 1685 294507 6427730 diagnostic Proximal Complete Flaked 6427730 428 292628 6425953 flake 1057 294224 6427735 1686 294507 flake piece Complete Flaked 429 292629 6425951 flake 1058 294222 6427740 1687 294507 6427730 Natural piece Flake Non-Complete 430 292629 6425952 1059 294124 6427438 diagnostic 1688 294507 6427730 flake shatter Flaked Complete Flake 292629 6425952 293889 6427479 1689 294507 431 piece 1060 flake 6427730 shatter Flake Non-Backed 6425952 432 292629 1061 293487 6427534 1690 294507 6427730 shatter diagnostic artefact Complete Proximal Complete 292631 6425952 293534 433 flake 1062 6427712 flake 1691 294507 6427730 flake Complete Flake Complete 434 292632 6425951 1063 293510 6427711 1692 294507 6427730 shatter flake flake Flake Complete 1693 6427730 435 292632 6425951 1064 293480 6427719 Heat shatter 294507 shatter flake Complete Flake Complete 292634 6425951 436 1065 293479 6427720 1694 294507 6427730 flake shatter flake Complete Flaked Complete 6425949 437 292630 flake 1066 293479 6427720 piece 1695 294507 6427730 flake Flake Complete Complete 438 6425949 294507 292629 shatter 1067 293479 6427720 flake 1696 6427730 flake Complete Complete Flake 6425948 439 292630 flake 1068 293479 6427720 flake 1697 294507 6427730 shatter Complete Proximal Complete 440 292632 6425946 flake 1069 293478 6427719 1698 294507 6427730 flake flake Flaked Complete 6425949 441 292628 Split flake 1070 293479 1699 294507 6427730 6427718 piece flake Multidirectio Flake 292628 6425949 6427883 1700 294507 442 shatter 1071 293419 nal core 6427730 Natural



ID	GDA E (56)	GDA N (56)	Туре	ID	GDA E (56)	GDA N (56)	Туре	ID	GDA E (56)	GDA N (56)	Туре
443	292628	6425948	Complete flake	1072	293406	6427882	Flaked piece	1701	294507	6427730	Complete flake
444	292630	6425946	Unidirectio nal core	1073	292938	6425048	Complete flake	1702	294507	6427730	Non- diagnostic
445	292630	6425946	Flaked piece	1074	292938	6425049	Complete flake	1703	294507	6427730	Heat shatter
446	292630	6425946	Proximal flake	1075	292938	6425049	Proximal flake	1704	294507	6427730	Flaked piece
447	292631	6425947	Multidirecti onal core Complete	1076	292939	6425049	Flaked piece Flaked	1705	294507	6427730	Proximal flake Flaked
448	292629	6425945	flake Multidirecti	1077	292939	6425048	piece Flaked	1706	294507	6427730	piece Flake
449	292626	6425946	onal core Core	1078	292939	6425048	piece Flaked	1707	294507	6427730	shatter Proximal
450	292626	6425945	fragment Bidirection	1079	292936	6425049	piece Complete	1708	294507	6427730	flake Flaked
451	292628	6425941	al core Flaked	1080	292933	6425049	flake Complete	1709	294507	6427730	piece Flaked
452	292628	6425941	piece Proximal	1081	292933	6425049	flake Proximal	1710	294507	6427730	piece Non-
453	292628	6425941	flake Complete	1082	292931	6425052	flake Complete	1711	294507	6427730	diagnostic Non-
454 455	292630 292630	6425942 6425942	flake Proximal flake	1083	292932 292931	6425053 6425054	flake Proximal flake	1712 1713	294507 294507	6427730 6427730	diagnostic Natural
456	292632	6425942	Flaked piece	1084	292931	6425054	Proximal flake	1713	294507	6427730	Heat shatter
457	292632	6425940	Flake shatter	1086	292931	6425055	Proximal flake	1715	294497	6427723	Complete flake
458	292633	6425940	Flaked piece	1087	292931	6425055	Complete flake	1716	294497	6427723	Flaked piece
459	292633	6425940	Complete flake	1088	292930	6425058	Flaked piece	1717	294497	6427723	Heat shatter
460	292633	6425940	Complete flake	1089	292930	6425057	Heat shatter	1718	294497	6427723	Complete flake
461	292633	6425940	Complete flake	1090	292922	6425059	Unidirection al core Misc.	1719	294497	6427723	Complete flake
462	292633	6425939	Heat shatter	1091	292926	6425063	retouched flake	1720	294497	6427723	Proximal flake
463	292633	6425939	Proximal flake	1092	292924	6425066	Flaked piece	1721	294497	6427723	Flaked piece
464	292634	6425937	Flake shatter	1093	292923	6425067	Proximal flake	1722	294497	6427723	Flaked piece
465	292634	6425936	Complete flake	1094	292928	6425067	Complete flake	1723	294497	6427723	Flaked piece
466	292633	6425935	Flake shatter	1095	292928	6425069	Complete flake	1724	294497	6427723	Unidirectio nal core
467	292634	6425936	Flake shatter Flaked	1096	292930	6425074	Complete flake Complete	1725	294486	6427717	Complete flake Flaked
468	292634	6425935	piece Flake	1097	292932	6425082	flake Non-	1726	294486	6427717	piece Complete
469	292635	6425934	shatter Proximal	1098	292932	6425082	diagnostic Flaked	1727	294486	6427717	flake Complete
470	292631	6425933	flake Complete	1099	292933	6425084	piece Complete	1728	294486	6427717	flake Complete
471	292632	6425932	flake Flaked	1100	292933	6425090	flake	1729	294486	6427717	flake Flake
472	292632	6425932	Piece Complete	1101	292933	6425090	Split flake Flaked	1730	294486	6427717	Shatter Complete
473 474	292632 292632	6425932 6425932	flake Split flake	1102	292932 292932	6425090 6425093	piece Flake shatter	1731 1732	294486 294486	6427717 6427717	flake Complete flake
474	292633	6425931	Heat shatter	1103	292932	6425094	Complete flake	1732	294486	6427717	Complete flake



ID	GDA E (56)	GDA N (56)	Туре	ID	GDA E (56)	GDA N (56)	Туре	ID	GDA E (56)	GDA N (56)	Туре
476	292635	6425929	Complete flake	1105	292931	6425094	Split flake	1734	294486	6427717	Flake shatter
477	000005	0.405000	Complete	1100	000004	0.405000	Flake	4705	004400	0.407747	Flake
477	292635	6425929	flake Flake	1106	292931	6425096	shatter Flaked	1735	294486	6427717	shatter Complete
478	292636	6425929	shatter	1107	292932	6425096	piece	1736	294486	6427717	flake
479	292636	6425929	Flaked piece	1108	292933	6425097	Proximal flake	1737	294486	6427717	Backed artefact
480	292636	6425926	Flake shatter	1109	292932	6425099	Complete flake	1738	294486	6427717	Flake shatter
481	292636	6425925	Multidirecti onal core	1110	292345	6425009	Non- diagnostic	1739	294486	6427717	Flaked piece
482	292636	6425924	Split flake	1111	292189	6425105	Complete flake	1740	294486	6427717	Complete flake
			Flake				Complete	11.10	201.00		Flake
483	292636	6425924	shatter	1112	292399	6425121	flake	1741	294486	6427717	shatter
484	292634	6425919	Complete flake	1113	294134	6428832	Complete flake	1742	294486	6427717	Flake shatter
485	292635	6425919	Flaked piece	1114	294405	6428759	Flake shatter	1743	294486	6427717	Backed artefact
			Flake				Steep- edged				Non-
486	292637	6425919	shatter	1115	294394	6428757	scraper	1744	294486	6427717	diagnostic
487	292638	6425918	Flake shatter	1116	294394	6428757	Complete flake	1745	294486	6427717	Non- diagnostic
488	292638	6425917	Complete flake	1117	294452	6428653	Flake shatter	1746	294471	6427712	Complete flake
489	292636	6425917	Flake shatter	1118	294453	6428653	Complete flake	1747	294471	6427712	Complete flake
490	292636	6425917	Flaked piece	1119	294455	6428645	Flaked piece	1748	294471	6427712	Complete flake
491	292635	6425917	Proximal flake	1120	294454	6428650	Flaked piece	1749	294471	6427712	Complete flake
492	292635	6425916	Natural	1121	294454	6428647	Complete flake	1750	294471	6427712	Flake shatter
493	292635	6425916	Flake shatter	1122	294460	6428645	Flaked piece	1751	294471	6427712	Complete flake
494	292636	6425916	Complete flake	1123	294461	6428646	Tranchet flake core	1752	294471	6427712	Flaked piece
495	292637	6425915	Flaked piece	1124	294461	6428640	Proximal flake	1753	294471	6427712	Complete flake
			Flake				Tranchet				Complete
496	292638	6425915	shatter Proximal	1125	294462	6428641	flake core Complete	1754	294471	6427712	flake Flaked
497	292638	6425913	flake	1126	294456	6428643	flake	1755	294471	6427712	piece
498	292637	6425914	Multidirecti onal core	1127	294457	6428644	Complete flake	1756	294471	6427712	Backed artefact
499	292639	6425914	Flaked piece	1128	294463	6428552	Flake shatter	1757	294471	6427712	Complete flake
500	292637	6425914	Flake shatter	1129	294466	6428555	Proximal flake	1758	294471	6427712	Complete flake
501	292636	6425915	Complete flake	1130	294467	6428554	Proximal flake	1759	294471	6427712	Complete flake
			Proximal				Core				Complete
502	292636	6425915	flake Multidirecti	1131	294490	6428578	fragment Complete	1760	294471	6427712	flake Flake
503	292636	6425914	onal core Complete	1132	294519	6428547	flake Flake	1761	294471	6427712	shatter Flake
504	292637	6425916	flake	1133	294516	6428550	shatter	1762	294471	6427712	shatter
505	292634	6425911	Natural	1134	294516	6428552	Proximal flake	1763	294471	6427712	Flake shatter
506	292639	6425910	Backed artefact	1135	294513	6428489	Proximal flake	1764	294471	6427712	Complete flake
507	292638	6425908	Heat shatter	1136	294468	6428474	Bifacial core	1765	294471	6427712	Flake shatter
508		6425908	Proximal	1137	294471	6428468	Complete	1766			Flake
508	292635	0420908	flake	1137	294471	0428468	flake	1700	294471	6427712	shatter



ID	GDA E (56)	GDA N (56)	Туре	ID	GDA E (56)	GDA N (56)	Туре	ID	GDA E (56)	GDA N (56)	Туре
			Flate		, ,		Misc.		, ,		Descriptor
509	292635	6425907	Flake shatter	1138	294471	6428468	retouched flake	1767	294471	6427712	Proximal flake
510	292634	6425904	Flake shatter	1139	294471	6428468	Complete flake	1768	294471	6427712	Complete flake
511	292634	6425904	Flaked piece	1140	294525	6428439	Flaked piece	1769	294471	6427712	Non- diagnostic
311	292034	0423904	Complete	1140	294323	0420439	Proximal	1709	294471	0427712	Proximal
512	292634	6425904	flake	1141	294526	6428440	flake	1770	294471	6427712	flake
513	292633	6425904	Proximal flake	1142	294525	6428436	Complete flake	1771	294471	6427712	Split flake
514	292632	6425904	Flake shatter	1143	294582	6428437	Flake shatter	1772	294471	6427712	Complete flake
			Complete				Complete				Flaked
515	292629	6425901	flake Complete	1144	294582	6428391	flake Complete	1773	294471	6427712	piece Complete
516	292629	6425901	flake	1145	294556	6428375	flake	1774	294471	6427712	flake
517	292628	6425004	Complete flake	1146	294552	6420270	Complete flake	1775	204474	6407740	Flaked piece
317	292020	6425901	Proximal	1140	294002	6428378	Complete	1775	294471	6427712	Non-
518	292628	6425901	flake	1147	294553	6428375	flake	1776	294471	6427712	diagnostic
519	292630	6425900	Flake shatter	1148	294553	6428376	Complete flake	1777	294471	6427712	Natural
			Non-				Complete				Flake
520	292630	6425899	diagnostic Flaked	1149	294555	6428377	flake Flaked	1778	294471	6427712	shatter Flake
521	292630	6425898	piece	1150	294555	6428377	piece	1779	294471	6427712	shatter
500	000007	0405007	Flaked	4454	004045	0400440	Proximal	4700	004474	0407740	Flaked
522	292627	6425897	piece Heat	1151	294215	6428446	flake Flaked	1780	294471	6427712	piece Flaked
523	292626	6425897	shatter	1152	294215	6428446	piece	1781	294471	6427712	piece
524	292626	6425898	Flaked piece	1153	294215	6428446	Complete flake	1782	294471	6427712	Complete flake
			Flaked				Proximal				Proximal
525	292626	6425898	piece Proximal	1154	294215	6428446	flake Flake	1783	294471	6427712	flake Flaked
526	292625	6425897	flake	1155	294215	6428446	shatter	1784	294471	6427712	piece
507	202025	0405000	Flake	4450	004000	0400477	Flaked	4705	004474	0407740	Flaked
527	292625	6425896	shatter Complete	1156	294222	6428477	piece Proximal	1785	294471	6427712	piece Non-
528	292625	6425896	flake	1157	294231	6428501	flake	1786	294471	6427712	diagnostic
529	292625	6425896	Flake shatter	1158	294233	6428502	Non- diagnostic	1787	294471	6427712	Heat shatter
			Flaked				Proximal				Flaked
530	292623	6425896	piece Flake	1159	294236	6428503	flake Complete	1788	294471	6427712	piece Complete
531	292623	6425896	shatter	1160	294236	6428502	flake	1789	294471	6427712	flake
532	292622	6425896	Flaked piece	1161	294236	6428503	Flaked piece	1790	294471	6427712	Flake shatter
							Complete				Flaked
533	292617	6425895	Natural Proximal	1162	294236	6428503	flake Proximal	1791	294471	6427712	piece Flaked
534	292617	6425896	flake	1163	294235	6428503	flake	1792	294471	6427712	piece
535	292616	6425897	Complete flake	1164	294237	6428502	Complete flake	1793	294450	6427697	Flake shatter
536	292616	6425897	Heat shatter	1165	294237	6428503	Proximal flake	1794	294451	6427698	Complete flake
			Complete				Flaked				Complete
537	292615	6425898	flake Heat	1166	294239	6428503	piece Complete	1795	294457	6427694	flake
538	292613	6425899	shatter	1167	294239	6428502	flake	1796	294466	6427696	Natural
539	292613	6425898	Flake shatter	1168	294239	6428502	Flaked piece	1797	294467	6427697	Redirectin g flake
			Proximal				Flaked				Flake
540	292611	6425898	flake	1169	294240	6428502	piece Flake	1798	294470	6427700	shatter Redirectin
541	292611	6425897	Complete flake	1170	294236	6428501	shatter	1799	294464	6427690	g flake



ID	GDA E (56)	GDA N (56)	Туре	ID	GDA E (56)	GDA N (56)	Туре	ID	GDA E (56)	GDA N (56)	Туре
542	292611	6425896	Flake shatter	1171	294235	6428500	Complete flake	1800	294457	6427690	Heat shatter
543	292612	6425896	Flake shatter	1172	294235	6428499	Complete flake	1801	294452	6427690	Complete flake
544	292613	6425896	Complete flake	1173	294235	6428498	Flaked piece	1802	294454	6427687	Complete flake
545	292615	6425895	Flaked piece	1174	294245	6428495	Non- diagnostic	1803	294449	6427686	Flake shatter
546	292615	6425895	Complete flake	1175	294248	6428502	Core fragment	1804	294451	6427671	Complete flake
547	292615	6425895	Proximal flake	1176	294276	6428495	Complete flake	1805	294451	6427671	Complete flake
548	292617	6425896	Natural	1177	294310	6428479	Multidirectio nal core	1806	294451	6427671	Complete flake
549	292618	6425895	Complete flake	1178	294310	6428473	Complete flake	1807	294451	6427671	Complete flake
550	292616	6425894	Complete flake	1179	294330	6428472	Complete flake	1808	294451	6427671	Flake shatter
551	292616	6425894	Split flake Flaked	1180	294232	6428502	Flaked piece Multidirectio	1809	294451	6427671	Core fragment Core
552	292616	6425893	piece Proximal	1181	294230	6428506	nal core Flake	1810	294451	6427671	fragment Flaked
553	292615	6425893	flake Complete	1182	294229	6428506	shatter Multidirectio	1811	294451	6427671	piece Flake
554	292615	6425893	flake Multidirecti	1183	294236	6428500	nal core Complete	1812	294451	6427671	shatter Complete
555	292613	6425894	onal core Complete	1184	294233	6428492	flake Flake	1813	294451	6427671	flake Flaked
556	292612	6425895	flake Misc.	1185	294237	6428567	shatter	1814	294451	6427671	piece
557	292612	6425893	retouched flake	1186	294243	6428542	Proximal flake	1815	294451	6427671	Flaked piece
558	292613	6425893	Complete flake	1187	294244	6428542	Complete flake	1816	294451	6427671	Proximal flake
559	292613	6425893	Flake shatter	1188	294545	6428283	Complete flake	1817	294451	6427671	Flake shatter
560	292614	6425893	Core fragment	1189	294545	6428283	Non- diagnostic	1818	294452	6427666	Complete flake
561	292614	6425893	Flake shatter	1190	294545	6428278	Flake shatter	1819	294446	6427670	Complete flake
562	292614	6425892	Proximal flake	1191	294546	6428278	Non- diagnostic	1820	294446	6427669	Proximal flake
563	292614	6425892	Flake shatter	1192	294547	6428277	Complete flake	1821	294446	6427668	Flake shatter
564	292615	6425891	Backed artefact	1193	294546	6428277	Complete flake	1822	294445	6427667	Non- diagnostic
565	292615	6425890	Flake shatter Complete	1194	294546	6428277	Flake shatter Proximal	1823	294443	6427667	Complete flake
566	292615	6425890	flake Flake	1195	294546	6428277	flake Complete	1824	294444	6427671	Natural
567	292615	6425890	shatter Complete	1196	294546	6428277	flake Non-	1825	294445	6427673	Natural Heat
568	292615	6425889	flake Unidirectio	1197	294547	6428277	diagnostic Non-	1826	294445	6427673	shatter Complete
569	292615	6425890	nal core Flake	1198	294547	6428277	diagnostic Flake	1827	294445	6427673	flake Complete
570	292616	6425891	shatter Flake	1199	294548	6428277	shatter Flaked	1828	294441	6427670	flake Flaked
571	292617	6425890	shatter Flaked	1200	294549	6428277	piece Complete	1829	294438	6427670	piece Complete
572	292617	6425891	piece Complete	1201	294548	6428277	flake Complete	1830	294407	6427653	flake Flaked
573	292617	6425889	flake Complete	1202	294548	6428278	flake Flaked	1831	294407	6427653	piece Flaked
574	292616	6425889	flake	1203	294548	6428281	piece	1832	294407	6427652	piece



GDAE GDA N **GDAE GDA N GDAE GDA N** ID **Type** ID Type ID Type (56)(56)(56)(56)(56)(56)Complete Flaked Heat 575 292616 6425889 flake 1204 294548 6428267 1833 294401 6427649 shatter piece Proximal Non-Complete 576 292616 6425889 1205 294547 6428276 diagnostic 1834 294396 6427649 flake flake Complete Complete Flake 577 292616 6425889 1206 294547 6428275 1835 294389 6427644 flake flake shatter Complete Proximal Redirectin 578 292616 6425889 1207 294555 6428275 flake 1836 294389 6427643 flake g flake Complete Multidirectio Complete 579 292616 6425889 flake 1208 294511 6428271 1837 294388 6427643 nal core flake Bidirection Non-Complete 580 292615 6425889 1209 294801 6428429 294388 6427643 diagnostic 1838 flake al core Complete Complete 292615 6425889 294800 294374 Split flake 581 flake 1210 6428431 flake 1839 6427648 Proximal Flaked Backed 6425889 582 292614 flake 1211 294802 6428437 piece 1840 294372 6427647 artefact Misc. Redirectin retouched Core 583 292614 6425889 1212 294874 6428451 1841 294324 6427703 g flake flake fragment Complete Flake Complete 6425889 584 292614 294876 6428450 294410 6427725 flake 1213 shatter 1842 flake Complete Proximal Complete 585 6425889 292614 flake 1214 294878 6428451 flake 1843 294409 6427725 flake Flake Complete Flaked 586 292614 6425889 shatter 1215 294919 6428492 flake 1844 294409 6427722 piece Flake Flaked Complete <u>shat</u>ter 587 292614 6425889 1216 294920 6428552 1845 294409 6427722 flake piece Proximal Flaked Non-6425891 588 292614 1217 294920 6428555 1846 294409 6427721 flake piece diagnostic Multidirectio Complete 589 292615 6425889 Modern 1218 294920 6428555 1847 294413 6427720 flake nal core Complete Complete Complete 6425888 590 292615 flake 1219 294920 6428555 flake 1848 294413 6427722 flake Complete Complete Complete 6425888 294920 591 292615 6428556 1849 294413 6427722 flake 1220 flake flake Flake Flaked Complete 592 292615 6425888 1221 294920 6428556 1850 294445 6427772 shatter piece flake Heat Complete Complete 593 292615 6425888 shatter 1222 294921 6428556 flake 1851 294429 6427804 flake Proximal Flake Proximal 594 292616 6425887 flake 1223 294922 6428556 shatter 1852 294424 6427804 flake Flake Complete Heat 595 292617 6425887 shatter 1224 294923 6428555 shatter 1853 294424 6427805 flake Multidirectio Heat 596 6425887 294923 6428555 1854 294423 292616 Modern 1225 6427805 shatter nal core Proximal Tranchet Complete 597 292616 6425886 flake 1226 294923 6428555 flake core 1855 294425 6427807 flake Flaked Multidirectio Flake 598 292615 6425886 1227 294923 6428555 1856 294424 6427807 piece nal core shatter Complete Complete Heat 599 292615 6425887 1228 294923 6428555 1857 294292 6427807 flake flake shatter Complete Complete Complete 600 292614 6425884 flake 1229 294923 6428550 1858 294296 6427806 flake flake Multidirectio Heat 601 292612 6425883 Split flake 1230 294925 6428549 1859 294296 6427806 nal core shatter Flaked Flake Flake 602 292612 6425884 294919 6428555 294294 piece 1231 shatter 1860 6427806 shatter Complete Flake 603 292612 6425885 294917 6428556 1861 294323 1232 Heat shatter 6427555 flake shatter Complete Bipolar 604 292612 6425886 flake 1233 294917 6428555 Bifacial core 1862 294362 6427567 core Complete Complete Proximal 605 292612 6425886 1234 294916 6428573 1863 294364 6427575 flake flake flake Complete Flake Proximal 606 292619 6425875 flake 1235 294916 6428574 shatter 1864 294367 6427588 flake Proximal Complete Complete 607 292620 6425875 1865 294367 1236 294914 6428578 6427590 flake flake flake



ID	GDA E (56)	GDA N (56)	Туре	ID	GDA E (56)	GDA N (56)	Туре	ID	GDA E (56)	GDA N (56)	Туре
			Complete				Flaked				Proximal
608	292636	6425760	flake	1237	294817	6428543	piece	1866	294369	6427595	flake
609	292625	6425770	Complete flake	1238	294614	6428221	Core fragment	1867	294370	6427599	Complete flake
			Complete				Complete				Complete
610	292556	6425850	flake	1239	294622	6428159	flake	1868	294425	6427169	flake
611	292556	6425850	Tranchet flake core	1240	294619	6428159	Complete flake	1869	294425	6427170	Multidirecti onal core
612	292555	6425849	Heat shatter	1241	294621	6428157	Flake shatter	1870	294432	6427162	Flake shatter
							Proximal				Flake
613	292555	6425849	Natural	1242	294620	6428157	flake	1871	294433	6427161	shatter
614	292555	6425849	Heat shatter	1243	294579	6428147	Complete flake	1872	294429	6427158	Proximal flake
							Misc.				
			Heat				retouched				Heat
615	292552	6425851	shatter	1244	294701	6428080	flake	1873	294427	6427152	shatter
616	292549	6425859	Unidirectio nal core	1245	294708	6428081	Flake shatter	1874	294429	6427150	Complete flake
			Complete				Proximal				Flake
617	292548	6425861	flake	1246	294712	6428080	flake	1875	294430	6427151	shatter
			Complete				Backed				Proximal
618	292548	6425861	flake	1247	294723	6428083	artefact	1876	294430	6427151	flake
619	292548	6425861	Proximal flake	1248	294733	6428076	Flaked piece	1877	294430	6427151	Flake shatter
019	292546	0423001	Flake	1240	294733	0420070	Proximal	10//	294430	0427131	Complete
620	292549	6425861	shatter	1249	294730	6428078	flake	1878	294431	6427152	flake
020	202040	0420001	Proximal	12-10	254700	0420070	nako	1070	204401	0427102	Complete
621	292549	6425861	flake	1250	294732	6428076	Split flake	1879	294433	6427154	flake
			Flaked								Flake
622	292550	6425861	piece	1251	294731	6428077	Heat shatter	1880	294433	6427154	shatter
			Complete				Proximal				Complete
623	292551	6425861	flake	1252	294732	6428077	flake	1881	294432	6427153	flake
	000555	0405004	Multidirecti	4050	00.17.16	0.40000=	Proximal	4000	004400	0407456	Heat
624	292552	6425861	onal core	1253	294742	6428087	flake	1882	294432	6427153	shatter
625	292552	6425861	Complete flake	1254	294744	6428087	Complete flake	1883	294432	6427153	Proximal flake
			Flaked				Proximal				Heat
626	292558	6425862	piece	1255	294744	6428085	flake	1884	294432	6427153	shatter
	000550	0.405000	Flake	4050	00.47.40	0.400005	Flake	4005	000044	0.40004.0	Complete
627	292559	6425863	shatter	1256	294742	6428085	shatter	1885	293944	6429212	flake
628	202565	6405056	Complete	1257	20.47.42	6420005	Split flaka	1006	202042	6420242	Complete
028	292565	6425856	flake Complete	123/	294743	6428085	Split flake Complete	1886	293943	6429213	flake Flake
629	292564	6425855	flake	1258	294743	6428085	flake	1887	294237	6429320	shatter
020	_3200 !	3 120000	aito		2011 70	3 120000			20 1201	3 120020	J. Iditol

*Source - Aboriginal Archaeological Salvage Program (AECOM, October 2016)

APPENDIX B
REGULATORY
CORRESPONDENCE



Planning Services Resource Assessments

Contact: Phone: Jessie Evans 9274 6419

Email:

jessie.evans@planning.nsw.gov.au

Craig White Environment and Approval Specialist Bengalla Mining Company Locked Bag 5 Muswellbrook NSW 2333

Dear Mr White

Bengalla Coal Mine (SSD 5170) Management Plans

I refer to Dianne Munro's correspondence from late April and early May 2017 submitting various revised management plans for Bengalla Coal Mine (SSD 5170). I note that the Department recently approved these plans on 3 March 2016. However, Bengalla Mining Company has since revised the plans to address the new activities and requirements approved under modifications 2 and 3, the recommendations from the 2016 Independent Environmental Audit and further adjustments to account for its interactions with Mount Pleasant Coal Mine. Bengalla Mining Company is now seeking the Secretary's approval of the revised plans.

The Department has reviewed the following plans and is satisfied that they meet the relevant requirements under SSD 5170:

- Noise Management Plan version 4 (condition 7 of Schedule 3);
- Blast Management Plan version 5 (condition 15 of Schedule 3);
- Air Quality Management Plan version 4 (condition 20 of Schedule 3);
- Water Management Plan version 6 (condition 25 of Schedule 3);
- Biodiversity Management Plan version 3 and Biodiversity Offset Management Plan version 6 (condition 29 of Schedule 3);
- Aboriginal Cultural Heritage Management Plan version 7 (condition 31 of Schedule 3);
- Historic Heritage Management Plan version 7 (condition 32 of Schedule 3); and
- Rehabilitation Management Plan version 4 (condition 46 of Schedule 3).

Consequently, I wish to advise that the Secretary approves the above plans. Please provide final (untracked) versions of these plans to the Department at your earliest convenience and place a copy of them on your website.

Should you have any questions in relation to this matter, please contact Jessie Evans on the above details.

Yours sincerely

Matthew Sprott

A/Director Resource Assessments

as nominee of the Secretary



Planning Services Resource Assessments

Contact: Megan Dawson

Phone: 9274 6391

Email: megan.dawson@planning.nsw.gov.au

Craig White **Environment and Approval Specialist** Bengalla Mining Company Locked Bag 5 Muswellbrook NSW 2333

Dear Mr White

Bengalla Coal Mine - Management Plans

I refer to your correspondence of 21 March 2017 seeking an extension of time to submit revised management plans for Bengalla Coal Mine (SSD-5170). Following the determination of Modification 3 on 23 December 2016, revised management plans were to be submitted to the Department by 23 March 2017, in accordance with condition 5 of Schedule 5 of SSD-5170.

The Department understands that additional time is required to enable Bengalla Mining Company to also address any recommendations flowing from the completion of the Independent Environmental Audit (IEA) and to consider if further adjustments are required in light of MACH Energy's proposed rail construction.

The Department considers that a single update to address the Modification, IEA and potential interactions with Mt Pleasant is appropriate. Therefore, the Secretary approves the requested extension. Please submit the plans by 12 May 2017.

Should you have any questions in relation to this matter, please contact Megan Dawson on the above details.

Yours sincerely

Howard Reed

Director Resource Assessments

as the Secretary's nominee



Mr Craig White Environmental and Approvals Specialist Bengalla Mining Company Locked Bag 5 MUSWELLBROOK NSW 2333

Dear Mr White,

Bengalla Coal Mine - Management Plan Reviews

I refer to your correspondence of 23 May 2016, seeking a further extension to the period within which the Bengalla Mining Company Pty Ltd (BMC) is required to submit revised management plans that reflect Modification 1 to the Bengalla Continuation Project (SSD 5170).

The Department understands that BMC is now seeking to submit its revised management plans no later than one month after the determination of the proposed Modification 2 to SSD 5170. Should Modification 2 be approved, BMC would submit a consolidated set of management plans that reflect the changes to the mine associated with both modifications.

The Department's assessment of Modification 1 identified changes to the mine plans associated with amendments to BMC's approved surface water infrastructure. Overall, this assessment identified the modification as being generally consistent with the approved operations, with some minor impacts to water management, biodiversity and Aboriginal cultural heritage matters.

Consequently, to reflect the approved amendments to the existing water management system and additional impacts on Aboriginal cultural heritage, the Department requires BMC to submit a revised Water Management Plan and Aboriginal Cultural Heritage Management Plan, prior to undertaking disturbance associated with the activities approved under Modification 1.

With the exception of these two plans, the Department is satisfied that the biodiversity impacts and infrastructure changes approved under Modification 1 can be managed in accordance with the measures outlined in the current versions of the other seven approved management plans for the Bengalla Continuation Project, until such time as revised versions of these plans are approved by the Secretary.

In light of the above, I wish to advise that the Secretary has granted BMC an extension to the timeframes established under condition 5 of Schedule 5 for the submission of revisions to the other seven management plans for the Bengalla Continuation Project. BMC must now submit revised versions of the management plans listed under conditions 7, 15, 20, 29, 32, 37 and 46 of Schedule 4 and the Environmental Management Strategy listed under condition 1 of Schedule 5 to SSD 5170, to the Department within one month of the determination of the current Modification 2 application.

Should you have enquiries about the above, please contact Matthew Sprott, Team Leader Resource Assessments, on 9228 2054.

Yours sincerely

Howard Reed

Director, Resource Assessments

as the Secretary's nominee



Contact: Scott Brooks Phone: 6575 3401 Fax: 6575 3415

Email: scott.brooks@planning.nsw.gov.au

Our ref: SSD 5170

Craig White Environmental and Approvals Specialist Bengalla Mining Company Locked Bag 5 MUSWELLBROOK NSW 2333

Dear Craig

Bengalla Mining Company – Approval of Aboriginal Cultural Heritage Management Plan

Thank you for forwarding the new Aboriginal Cultural Heritage Management Plan to the Department of Planning & Environment (the Department or DP&E), as required by Condition 31, Schedule 3 of SSD 5170.

The Department has conducted a review and wishes to advise that the Secretary has approved the ACHMP (Revision 4, dated 25-5-2015).

This Management Plan comes into force on the 1ST June 2015 and remains in force until replaced by any future updated approved Plan. Concurrent with this Plan coming into force, any part of the plan implemented outside the former Consent DA 211/93 consent boundary will require the new consent (SSD 5170) to come into force and become the primary regulatory instrument satisfying the requirements of the EP&A Act.

The Department requests that you place the approved plan, along with a copy of this letter, on your website in accordance with Condition 11, Schedule 5 of SSD 5170, and a copy provided to this office for our records by the 12th June 2015.

If you require further information please do not hesitate to contact Scott Brooks 6575 3401

Yours sincerely

Scott Brooks

Investigations (Lead), Compliance

As Nominee for the Secretary



Your reference: SSD 5170 Our reference: DOC14/40666-02; EF14/1125 Contact: Robert Gibson, 4908 6851

Mr Matthew Sprott Planning Officer Department of Planning and Environment GPO Box 39 SYDNEY NSW 2001

Dear Mr Sprott

RE: BENGALLA MINE CONTINUATION PROJECT (SSD 5170) - REVIEW OF THE 'RESPONSE TO SUBMISSIONS REPORT' AND RECOMMENDED CONDITIONS OF APPROVAL

I refer to your email dated 26 March 2014 seeking comment and recommended conditions for approval for the Response to Submissions Report for the proposed Bengalla Mine Continuation Project (SSD 5170).

The Office of Environment and Heritage (OEH) has reviewed this report for Aboriginal cultural heritage and threatened biodiversity matters. Most of the Aboriginal cultural heritage issues identified in the exhibited Environmental Impact Statement (EIS) are addressed in the Response to Submissions Report. OEH's previous concerns on the test and salvage methodology for site AHIMS #37-2-0579 (B10) have been addressed by the provision of additional information.

The majority of OEH's previous comments on the threatened biodiversity assessment no longer apply as the proponent has opted to use OEH's '13 biodiversity offsets principles' to develop a land-based offset rather than a previously considered cash payment into the Upper Hunter Offsets Fund under the Upper Hunter Strategic Assessment. The offset package is provides large areas of White Box – Yellow Box – Blakely's Red Gum Woodland endangered ecological community, as well as known habitat for most of the threatened species in the development footprint. The offset package also includes other threatened biodiversity values and overall meets OEH's offsetting principles. The Response to Submissions Report included most, but not all, of the additional biodiversity information OEH requested. However, this is no longer an issue due to the offset pathway chosen. Further comments and recommended conditions for approval for this project are provided in **Attachment 1**.

If you require any further information regarding this matter, please contact Robert Gibson, Regional Biodiversity Conservation Officer, on 4908 6851.

Yours sincerely

RICHARD BATH

Senior Team Leader Planning, Hunter Central Coast Region

Regional Operations

Enclosure: Attachment 1



Your reference: Bengalla AHMP 2015.
Our reference: DOC15/146546-01.

Contact:

Nicole Davis, 0409 394 343

Mr Jason Martin Senior Environmental Scientist Hanson Bailey PO Box 473 SINGLETON NSW 2330

Dear Mr Martin

REVIEW OF BENGALLA MINE (SSD 5170) - ABORIGINAL CULTURAL HERITAGE MANAGEMENT PLAN

Thank you for your correspondence to the Office of Environment and Heritage (OEH) on the 24 April 2015 regarding the preparation of the Aboriginal Cultural Heritage Management Plan for Bengalla Mine (SSD 5170).

Aboriginal Cultural Heritage Management Plans provide a useful tool for companies such as Coal & Allied to use to help ensure that they meet the statutory requirements and that the management strategies for the protection of Aboriginal cultural heritage are clearly identified. OEH has reviewed the Aboriginal Cultural Heritage Management Plan for Bengalla Mine and supports the following archaeological salvage program and associated mitigation measures:

- surface collection of 260 AHIMS registered Aboriginal sites;
- archaeological test and open area excavation within the B10 Quarry Northern Exclusion Zone;
- geomorphological assessments of extant soil profiles and landforms within Northern Exclusion Zone;
- post excavation analyses of any recovered Aboriginal objects:
- reassessment by Registered Aboriginal Parties (RAPs) and an arborist, and potential removal of three scarred trees; and
- production of an archaeological salvage report.

OEH is satisfied that the management measures proposed are adequate and appropriate given the nature of the archaeological record and the range of activities to be undertaken within operational footprint the Bengalla Mine. OEH is also satisfied that adequate consultation with the local Aboriginal community and the RAPs has also been undertaken.

It should be noted however, that OEH requires a copy of the archaeological salvage report for all completed mitigation works as outlined within the ACHMP.

OEH has no additional concerns with respect to Aboriginal cultural heritage management.

If you require any further information regarding this matter please contact Nicole Davis, Archaeologist, Hunter Central Coast Region on 0409 394 343.

Yours sincerely

RICHARD BATH

Senior Team Leader Planning, Hunter Central Coast Region

Regional Operations



13 May 2015

Team Leader Compliance Department of Planning and Environment Singleton Office - Compliance Suite 14, Level 1, 1 Civic Ave SINGLETON NSW 2330

Attention: Scott Brooks

Dear Mr Brooks

BENGALLA MINE – ABORIGINAL CULTURAL HERITAGE MANAGEMENT PLAN

Bengalla Mining Company (BMC) was granted Development Consent for State Significant Development (SSD) 5170 on 3 March 2015 by the Secretary of Department of Planning and Environment (DP&E) for the Continuation of Bengalla Mine. SSD-5170 enables BMC to continue open cut coal mining up to 15 Million tonnes per annum (Mtpa) of run of mine (ROM) coal until 2039.

SSD-5170 Schedule 3, Condition 31 requires BMC to prepare an Aboriginal Cultural Heritage Management Plan (ACHMP) in accordance with its requirements, which states:

Aboriginal Heritage Management Plan

"The Applicant shall prepare and implement an Aboriginal Heritage Management Plan for the development to the satisfaction of the Secretary. This plan must:

- be prepared in consultation with OEH and the relevant Aboriginal stakeholders and be submitted to the secretary for approval within 6 months of the date of this consent;
- include a program/procedures for: (b)
 - salvage, excavation and/or management of Aboriginal sites and potential archaeological deposits within the project disturbance area;
 - assessment and removal of scarred trees;
 - protection and monitoring of Aboriginal sites outside the project disturbance area;

- managing the discovery of any new Aboriginal objects or skeletal remains identified during the development;
- maintaining and managing access to archaeological sites by the relevant Aboriginal stakeholders; and
- ongoing consultation and involvement of the relevant Aboriginal stakeholders in the conservation and management of Aboriginal cultural heritage on the site."

The ACHMP is required to be prepared in consultation with the relevant Registered Aboriginal Parties (RAPs) and regulatory bodies to the satisfaction of the Secretary.

On 12 March 2015, the draft ACHMP was provided to the RAPs previously identified through the development of the Continuation of Bengalla Mine Environmental Impact Statement (Bengalla EIS). Comments received are discussed in Section 4.2.4 of the ACHMP.

Following consultation with RAPs, a copy of the ACHMP was provided to OEH on 24 April 2015 seeking comments. On 12 May 2015 OEH provided a written response indicating that they were satisfied with the content of the ACHMP (see Section 4.1.2 of the ACHMP and Appendix B).

We look forward to receiving your approval to enable the salvage excavation program as described within the ACHMP to commence.

Should you have any queries in relation to this letter, please contact myself on 02 6575 2010.

Yours faithfully

HANSEN BAILEY

Jason Martin

Senior Environmental Scientist

cc Craig White, BMC

APPENDIX C RAP CORRESPONDENCE

Aliera French Trading
12 Haydon Street
MUSWELLBROOK NSW 2333

Attention: Aliera French

Dear Aliera

Bengalla Mine Draft Aboriginal Cultural Heritage Management Plan for Comment

Bengalla Mining Company (BMC) operates the Bengalla Mine (Bengalla) which is located approximately 4 km west of Muswellbrook in the Upper Hunter Valley, NSW. BMC was granted Development Consent for State Significant Development (SSD) 5170 on 3 March 2015 by the Secretary of Department of Planning and Environment (DP&E) for the Continuation of Bengalla Mine to enable ongoing mining operations.

SSD-5170 requires that an Aboriginal Cultural Heritage Management Plan (ACHMP) be completed in consultation with the Aboriginal community and relevant regulatory bodies. Schedule 3, Condition 31 of SSD-5170 states:

Aboriginal Heritage Management Plan

- 31. "The Applicant shall prepare and implement an Aboriginal Heritage Management Plan for the project to the satisfaction of the Secretary. This plan must:
- (c) be prepared in consultation with OEH and the relevant Aboriginal stakeholders, and submitted to the Secretary for approval within 6 months of the date of this consent;
- (d) include a program/procedures for:
 - salvage, excavation and/or management of Aboriginal sites and potential archaeological deposits within the project disturbance area;
 - assessment and removal of scarred trees;
 - protection and monitoring of Aboriginal sites outside the project disturbance area;

- managing the discovery of any new Aboriginal objects or skeletal remains during the development;
- maintaining and managing access to archaeological sites by the relevant Aboriginal stakeholders; and
- ongoing consultation and involvement of the relevant Aboriginal stakeholders in the conservation and management of Aboriginal cultural heritage on the site.

We have enclosed a return fax/email pro forma to assist should you wish to use it, however, please provide a letter should you prefer. All responses received by this date will be considered and where appropriate, recommendations from the Aboriginal community will be incorporated into the final ACHMP for submission to the DP&E for approval.

Following approval of the ACHMP, I will provide further correspondence requesting your company's assistance and outlining details associated with the proposed Aboriginal archaeological salvage as described within the draft ACHMP.

Thank you again for your support and assistance with this work and we look forward to your ongoing involvement with Bengalla. Should you have any queries in relation to this letter, please contact myself on (02) 6575 2000.

Yours faithfully

HANSEN BAILEY

Jason Martin

Senior Environmental Scientist

Att: Draft Aboriginal Cultural Heritage Management Plan

Bawurra Consultants 1 Martin Street BREEZA NSW 2381

Attention: Kevin Sampson

Dear Kevin

Bengalla Mine Draft Aboriginal Cultural Heritage Management Plan for Comment

Bengalla Mining Company (BMC) operates the Bengalla Mine (Bengalla) which is located approximately 4 km west of Muswellbrook in the Upper Hunter Valley, NSW. BMC was granted Development Consent for State Significant Development (SSD) 5170 on 3 March 2015 by the Secretary of Department of Planning and Environment (DP&E) for the Continuation of Bengalla Mine to enable ongoing mining operations.

SSD-5170 requires that an Aboriginal Cultural Heritage Management Plan (ACHMP) be completed in consultation with the Aboriginal community and relevant regulatory bodies. Schedule 3, Condition 31 of SSD-5170 states:

- 31. "The Applicant shall prepare and implement an Aboriginal Heritage Management Plan for the project to the satisfaction of the Secretary. This plan must:
- (e) be prepared in consultation with OEH and the relevant Aboriginal stakeholders, and submitted to the Secretary for approval within 6 months of the date of this consent;
- (f) include a program/procedures for:
 - salvage, excavation and/or management of Aboriginal sites and potential archaeological deposits within the project disturbance area;
 - assessment and removal of scarred trees;
 - protection and monitoring of Aboriginal sites outside the project disturbance area;

- managing the discovery of any new Aboriginal objects or skeletal remains during the development;
- maintaining and managing access to archaeological sites by the relevant Aboriginal stakeholders; and
- ongoing consultation and involvement of the relevant Aboriginal stakeholders in the conservation and management of Aboriginal cultural heritage on the site.

We have enclosed a return fax/email pro forma to assist should you wish to use it, however, please provide a letter should you prefer. All responses received by this date will be considered and where appropriate, recommendations from the Aboriginal community will be incorporated into the final ACHMP for submission to the DP&E for approval.

Following approval of the ACHMP, I will provide further correspondence requesting your company's assistance and outlining details associated with the proposed Aboriginal archaeological salvage as described within the draft ACHMP.

Thank you again for your support and assistance with this work and we look forward to your ongoing involvement with Bengalla. Should you have any queries in relation to this letter, please contact myself on (02) 6575 2000.

Yours faithfully

HANSEN BAILEY

Jason Martin

Senior Environmental Scientist

Att: Draft Aboriginal Cultural Heritage Management Plan

Breeza Plains Culture and Heritage Consultants 396 Armidale Road TAMWORTH NSW 2340

Attention: Terry Matthews

Dear Terry

Bengalla Mine Draft Aboriginal Cultural Heritage Management Plan for Comment

Bengalla Mining Company (BMC) operates the Bengalla Mine (Bengalla) which is located approximately 4 km west of Muswellbrook in the Upper Hunter Valley, NSW. BMC was granted Development Consent for State Significant Development (SSD) 5170 on 3 March 2015 by the Secretary of Department of Planning and Environment (DP&E) for the Continuation of Bengalla Mine to enable ongoing mining operations.

SSD-5170 requires that an Aboriginal Cultural Heritage Management Plan (ACHMP) be completed in consultation with the Aboriginal community and relevant regulatory bodies. Schedule 3, Condition 31 of SSD-5170 states:

- 31. "The Applicant shall prepare and implement an Aboriginal Heritage Management Plan for the project to the satisfaction of the Secretary. This plan must:
- (g) be prepared in consultation with OEH and the relevant Aboriginal stakeholders, and submitted to the Secretary for approval within 6 months of the date of this consent;
- (h) include a program/procedures for:
 - salvage, excavation and/or management of Aboriginal sites and potential archaeological deposits within the project disturbance area;
 - assessment and removal of scarred trees;
 - protection and monitoring of Aboriginal sites outside the project disturbance area;

- managing the discovery of any new Aboriginal objects or skeletal remains during the development;
- maintaining and managing access to archaeological sites by the relevant Aboriginal stakeholders; and
- ongoing consultation and involvement of the relevant Aboriginal stakeholders in the conservation and management of Aboriginal cultural heritage on the site.

We have enclosed a return fax/email pro forma to assist should you wish to use it, however, please provide a letter should you prefer. All responses received by this date will be considered and where appropriate, recommendations from the Aboriginal community will be incorporated into the final ACHMP for submission to the DP&E for approval.

Following approval of the ACHMP, I will provide further correspondence requesting your company's assistance and outlining details associated with the proposed Aboriginal archaeological salvage as described within the draft ACHMP.

Thank you again for your support and assistance with this work and we look forward to your ongoing involvement with Bengalla. Should you have any queries in relation to this letter, please contact myself on (02) 6575 2000.

Yours faithfully

HANSEN BAILEY

Jason Martin

Senior Environmental Scientist

Att: Draft Aboriginal Cultural Heritage Management Plan Return fax/email Response Pro Forma Bunda Consultants 23 Cunningham Street TAMWORTH NSW 2340

Attention: Tammy Knox

Dear Tammy

Bengalla Mine Draft Aboriginal Cultural Heritage Management Plan for Comment

Bengalla Mining Company (BMC) operates the Bengalla Mine (Bengalla) which is located approximately 4 km west of Muswellbrook in the Upper Hunter Valley, NSW. BMC was granted Development Consent for State Significant Development (SSD) 5170 on 3 March 2015 by the Secretary of Department of Planning and Environment (DP&E) for the Continuation of Bengalla Mine to enable ongoing mining operations.

SSD-5170 requires that an Aboriginal Cultural Heritage Management Plan (ACHMP) be completed in consultation with the Aboriginal community and relevant regulatory bodies. Schedule 3, Condition 31 of SSD-5170 states:

- 31. "The Applicant shall prepare and implement an Aboriginal Heritage Management Plan for the project to the satisfaction of the Secretary. This plan must:
- (i) be prepared in consultation with OEH and the relevant Aboriginal stakeholders, and submitted to the Secretary for approval within 6 months of the date of this consent;
- *(j) include a program/procedures for:*
 - salvage, excavation and/or management of Aboriginal sites and potential archaeological deposits within the project disturbance area;
 - assessment and removal of scarred trees;
 - protection and monitoring of Aboriginal sites outside the project disturbance area;

- managing the discovery of any new Aboriginal objects or skeletal remains during the development;
- maintaining and managing access to archaeological sites by the relevant Aboriginal stakeholders; and
- ongoing consultation and involvement of the relevant Aboriginal stakeholders in the conservation and management of Aboriginal cultural heritage on the site.

We have enclosed a return fax/email pro forma to assist should you wish to use it, however, please provide a letter should you prefer. All responses received by this date will be considered and where appropriate, recommendations from the Aboriginal community will be incorporated into the final ACHMP for submission to the DP&E for approval.

Following approval of the ACHMP, I will provide further correspondence requesting your company's assistance and outlining details associated with the proposed Aboriginal archaeological salvage as described within the draft ACHMP.

Thank you again for your support and assistance with this work and we look forward to your ongoing involvement with Bengalla. Should you have any queries in relation to this letter, please contact myself on (02) 6575 2000.

Yours faithfully

HANSEN BAILEY

Jason Martin

Senior Environmental Scientist

Att: Draft Aboriginal Cultural Heritage Management Plan

Cacatua Cultural Consultants Unit 1B, 11 Glenwood Drive THORNTON NSW 2322

Attention: Donna Sampson

Dear Donna

Bengalla Mine Draft Aboriginal Cultural Heritage Management Plan for Comment

Bengalla Mining Company (BMC) operates the Bengalla Mine (Bengalla) which is located approximately 4 km west of Muswellbrook in the Upper Hunter Valley, NSW. BMC was granted Development Consent for State Significant Development (SSD) 5170 on 3 March 2015 by the Secretary of Department of Planning and Environment (DP&E) for the Continuation of Bengalla Mine to enable ongoing mining operations.

SSD-5170 requires that an Aboriginal Cultural Heritage Management Plan (ACHMP) be completed in consultation with the Aboriginal community and relevant regulatory bodies. Schedule 3, Condition 31 of SSD-5170 states:

- 31. "The Applicant shall prepare and implement an Aboriginal Heritage Management Plan for the project to the satisfaction of the Secretary. This plan must:
- (k) be prepared in consultation with OEH and the relevant Aboriginal stakeholders, and submitted to the Secretary for approval within 6 months of the date of this consent;
- (I) include a program/procedures for:
 - salvage, excavation and/or management of Aboriginal sites and potential archaeological deposits within the project disturbance area;
 - assessment and removal of scarred trees;
 - protection and monitoring of Aboriginal sites outside the project disturbance area;

- managing the discovery of any new Aboriginal objects or skeletal remains during the development;
- maintaining and managing access to archaeological sites by the relevant Aboriginal stakeholders; and
- ongoing consultation and involvement of the relevant Aboriginal stakeholders in the conservation and management of Aboriginal cultural heritage on the site.

We have enclosed a return fax/email pro forma to assist should you wish to use it, however, please provide a letter should you prefer. All responses received by this date will be considered and where appropriate, recommendations from the Aboriginal community will be incorporated into the final ACHMP for submission to the DP&E for approval.

Following approval of the ACHMP, I will provide further correspondence requesting your company's assistance and outlining details associated with the proposed Aboriginal archaeological salvage as described within the draft ACHMP.

Thank you again for your support and assistance with this work and we look forward to your ongoing involvement with Bengalla. Should you have any queries in relation to this letter, please contact myself on (02) 6575 2000.

Yours faithfully

HANSEN BAILEY

Jason Martin

Senior Environmental Scientist

Att: Draft Aboriginal Cultural Heritage Management Plan

D F T V Enterprises 5 Mountbatten Close RUTHERFORD NSW 2320

Attention: Derrick Vale Sr

Dear Derrick

Bengalla Mine Draft Aboriginal Cultural Heritage Management Plan for Comment

Bengalla Mining Company (BMC) operates the Bengalla Mine (Bengalla) which is located approximately 4 km west of Muswellbrook in the Upper Hunter Valley, NSW. BMC was granted Development Consent for State Significant Development (SSD) 5170 on 3 March 2015 by the Secretary of Department of Planning and Environment (DP&E) for the Continuation of Bengalla Mine to enable ongoing mining operations.

SSD-5170 requires that an Aboriginal Cultural Heritage Management Plan (ACHMP) be completed in consultation with the Aboriginal community and relevant regulatory bodies. Schedule 3, Condition 31 of SSD-5170 states:

- 31. "The Applicant shall prepare and implement an Aboriginal Heritage Management Plan for the project to the satisfaction of the Secretary. This plan must:
- (m) be prepared in consultation with OEH and the relevant Aboriginal stakeholders, and submitted to the Secretary for approval within 6 months of the date of this consent;
- (n) include a program/procedures for:
 - salvage, excavation and/or management of Aboriginal sites and potential archaeological deposits within the project disturbance area;
 - assessment and removal of scarred trees;
 - protection and monitoring of Aboriginal sites outside the project disturbance area;

- managing the discovery of any new Aboriginal objects or skeletal remains during the development;
- maintaining and managing access to archaeological sites by the relevant Aboriginal stakeholders; and
- ongoing consultation and involvement of the relevant Aboriginal stakeholders in the conservation and management of Aboriginal cultural heritage on the site.

We have enclosed a return fax/email pro forma to assist should you wish to use it, however, please provide a letter should you prefer. All responses received by this date will be considered and where appropriate, recommendations from the Aboriginal community will be incorporated into the final ACHMP for submission to the DP&E for approval.

Following approval of the ACHMP, I will provide further correspondence requesting your company's assistance and outlining details associated with the proposed Aboriginal archaeological salvage as described within the draft ACHMP.

Thank you again for your support and assistance with this work and we look forward to your ongoing involvement with Bengalla. Should you have any queries in relation to this letter, please contact myself on (02) 6575 2000.

Yours faithfully

HANSEN BAILEY

Jason Martin

Senior Environmental Scientist

Att: Draft Aboriginal Cultural Heritage Management Plan Return fax/email Response Pro Forma Deslee Talbott Consultants
PO Box 808
MUSWELLBROOK NSW 2333

Attention: Deslee Matthews

Dear Deslee

Bengalla Mine Draft Aboriginal Cultural Heritage Management Plan for Comment

Bengalla Mining Company (BMC) operates the Bengalla Mine (Bengalla) which is located approximately 4 km west of Muswellbrook in the Upper Hunter Valley, NSW. BMC was granted Development Consent for State Significant Development (SSD) 5170 on 3 March 2015 by the Secretary of Department of Planning and Environment (DP&E) for the Continuation of Bengalla Mine to enable ongoing mining operations.

SSD-5170 requires that an Aboriginal Cultural Heritage Management Plan (ACHMP) be completed in consultation with the Aboriginal community and relevant regulatory bodies. Schedule 3, Condition 31 of SSD-5170 states:

- 31. "The Applicant shall prepare and implement an Aboriginal Heritage Management Plan for the project to the satisfaction of the Secretary. This plan must:
- (o) be prepared in consultation with OEH and the relevant Aboriginal stakeholders, and submitted to the Secretary for approval within 6 months of the date of this consent;
- (p) include a program/procedures for:
 - salvage, excavation and/or management of Aboriginal sites and potential archaeological deposits within the project disturbance area;
 - assessment and removal of scarred trees;
 - protection and monitoring of Aboriginal sites outside the project disturbance area;

- managing the discovery of any new Aboriginal objects or skeletal remains during the development;
- maintaining and managing access to archaeological sites by the relevant Aboriginal stakeholders; and
- ongoing consultation and involvement of the relevant Aboriginal stakeholders in the conservation and management of Aboriginal cultural heritage on the site.

We have enclosed a return fax/email pro forma to assist should you wish to use it, however, please provide a letter should you prefer. All responses received by this date will be considered and where appropriate, recommendations from the Aboriginal community will be incorporated into the final ACHMP for submission to the DP&E for approval.

Following approval of the ACHMP, I will provide further correspondence requesting your company's assistance and outlining details associated with the proposed Aboriginal archaeological salvage as described within the draft ACHMP.

Thank you again for your support and assistance with this work and we look forward to your ongoing involvement with Bengalla. Should you have any queries in relation to this letter, please contact myself on (02) 6575 2000.

Yours faithfully

HANSEN BAILEY

Jason Martin

Senior Environmental Scientist

Att: Draft Aboriginal Cultural Heritage Management Plan Return fax/email Response Pro Forma

Ref: 150312 Cover Ltr to RAPs re Draft ACHMP

Gidawaa Walang Cultural Heritage Consultancy 76 Lang Street KURRI KURRI NSW 2327

Attention: Annie Hickey

Dear Annie

Bengalla Mine Draft Aboriginal Cultural Heritage Management Plan for Comment

Bengalla Mining Company (BMC) operates the Bengalla Mine (Bengalla) which is located approximately 4 km west of Muswellbrook in the Upper Hunter Valley, NSW. BMC was granted Development Consent for State Significant Development (SSD) 5170 on 3 March 2015 by the Secretary of Department of Planning and Environment (DP&E) for the Continuation of Bengalla Mine to enable ongoing mining operations.

SSD-5170 requires that an Aboriginal Cultural Heritage Management Plan (ACHMP) be completed in consultation with the Aboriginal community and relevant regulatory bodies. Schedule 3, Condition 31 of SSD-5170 states:

- 31. "The Applicant shall prepare and implement an Aboriginal Heritage Management Plan for the project to the satisfaction of the Secretary. This plan must:
- (q) be prepared in consultation with OEH and the relevant Aboriginal stakeholders, and submitted to the Secretary for approval within 6 months of the date of this consent;
- (r) include a program/procedures for:
 - salvage, excavation and/or management of Aboriginal sites and potential archaeological deposits within the project disturbance area;
 - assessment and removal of scarred trees;
 - protection and monitoring of Aboriginal sites outside the project disturbance area;

- managing the discovery of any new Aboriginal objects or skeletal remains during the development;
- maintaining and managing access to archaeological sites by the relevant Aboriginal stakeholders; and
- ongoing consultation and involvement of the relevant Aboriginal stakeholders in the conservation and management of Aboriginal cultural heritage on the site.

We have enclosed a return fax/email pro forma to assist should you wish to use it, however, please provide a letter should you prefer. All responses received by this date will be considered and where appropriate, recommendations from the Aboriginal community will be incorporated into the final ACHMP for submission to the DP&E for approval.

Following approval of the ACHMP, I will provide further correspondence requesting your company's assistance and outlining details associated with the proposed Aboriginal archaeological salvage as described within the draft ACHMP.

Thank you again for your support and assistance with this work and we look forward to your ongoing involvement with Bengalla. Should you have any queries in relation to this letter, please contact myself on (02) 6575 2000.

Yours faithfully

HANSEN BAILEY

Jason Martin

Senior Environmental Scientist

Att: Draft Aboriginal Cultural Heritage Management Plan

Hunter Valley Aboriginal Corporation PO Box 579 MUSWELLBROOK NSW 2333

Attention: Rhonda Griffiths

Dear Rhonda

Bengalla Mine Draft Aboriginal Cultural Heritage Management Plan for Comment

Bengalla Mining Company (BMC) operates the Bengalla Mine (Bengalla) which is located approximately 4 km west of Muswellbrook in the Upper Hunter Valley, NSW. BMC was granted Development Consent for State Significant Development (SSD) 5170 on 3 March 2015 by the Secretary of Department of Planning and Environment (DP&E) for the Continuation of Bengalla Mine to enable ongoing mining operations.

SSD-5170 requires that an Aboriginal Cultural Heritage Management Plan (ACHMP) be completed in consultation with the Aboriginal community and relevant regulatory bodies. Schedule 3, Condition 31 of SSD-5170 states:

- 31. "The Applicant shall prepare and implement an Aboriginal Heritage Management Plan for the project to the satisfaction of the Secretary. This plan must:
- (s) be prepared in consultation with OEH and the relevant Aboriginal stakeholders, and submitted to the Secretary for approval within 6 months of the date of this consent;
- (t) include a program/procedures for:
 - salvage, excavation and/or management of Aboriginal sites and potential archaeological deposits within the project disturbance area;
 - assessment and removal of scarred trees;
 - protection and monitoring of Aboriginal sites outside the project disturbance area;

- managing the discovery of any new Aboriginal objects or skeletal remains during the development;
- maintaining and managing access to archaeological sites by the relevant Aboriginal stakeholders; and
- ongoing consultation and involvement of the relevant Aboriginal stakeholders in the conservation and management of Aboriginal cultural heritage on the site.

We have enclosed a return fax/email pro forma to assist should you wish to use it, however, please provide a letter should you prefer. All responses received by this date will be considered and where appropriate, recommendations from the Aboriginal community will be incorporated into the final ACHMP for submission to the DP&E for approval.

Following approval of the ACHMP, I will provide further correspondence requesting your company's assistance and outlining details associated with the proposed Aboriginal archaeological salvage as described within the draft ACHMP.

Thank you again for your support and assistance with this work and we look forward to your ongoing involvement with Bengalla. Should you have any queries in relation to this letter, please contact myself on (02) 6575 2000.

Yours faithfully

HANSEN BAILEY

Jason Martin

Senior Environmental Scientist

Att: Draft Aboriginal Cultural Heritage Management Plan

Hunter Valley Cultural Surveying 165 Susan Street SCONE NSW 2337

Attention: Luke Hickey

Dear Luke

Bengalla Mine Draft Aboriginal Cultural Heritage Management Plan for Comment

Bengalla Mining Company (BMC) operates the Bengalla Mine (Bengalla) which is located approximately 4 km west of Muswellbrook in the Upper Hunter Valley, NSW. BMC was granted Development Consent for State Significant Development (SSD) 5170 on 3 March 2015 by the Secretary of Department of Planning and Environment (DP&E) for the Continuation of Bengalla Mine to enable ongoing mining operations.

SSD-5170 requires that an Aboriginal Cultural Heritage Management Plan (ACHMP) be completed in consultation with the Aboriginal community and relevant regulatory bodies. Schedule 3, Condition 31 of SSD-5170 states:

- 31. "The Applicant shall prepare and implement an Aboriginal Heritage Management Plan for the project to the satisfaction of the Secretary. This plan must:
- (u) be prepared in consultation with OEH and the relevant Aboriginal stakeholders, and submitted to the Secretary for approval within 6 months of the date of this consent;
- (v) include a program/procedures for:
 - salvage, excavation and/or management of Aboriginal sites and potential archaeological deposits within the project disturbance area;
 - assessment and removal of scarred trees;
 - protection and monitoring of Aboriginal sites outside the project disturbance area;

- managing the discovery of any new Aboriginal objects or skeletal remains during the development;
- maintaining and managing access to archaeological sites by the relevant Aboriginal stakeholders; and
- ongoing consultation and involvement of the relevant Aboriginal stakeholders in the conservation and management of Aboriginal cultural heritage on the site.

We have enclosed a return fax/email pro forma to assist should you wish to use it, however, please provide a letter should you prefer. All responses received by this date will be considered and where appropriate, recommendations from the Aboriginal community will be incorporated into the final ACHMP for submission to the DP&E for approval.

Following approval of the ACHMP, I will provide further correspondence requesting your company's assistance and outlining details associated with the proposed Aboriginal archaeological salvage as described within the draft ACHMP.

Thank you again for your support and assistance with this work and we look forward to your ongoing involvement with Bengalla. Should you have any queries in relation to this letter, please contact myself on (02) 6575 2000.

Yours faithfully

HANSEN BAILEY

Jason Martin

Senior Environmental Scientist

Att: Draft Aboriginal Cultural Heritage Management Plan Return fax/email Response Pro Forma

Ref: 150312 Cover Ltr to RAPs re Draft ACHMP

Indigenous Outcomes 33 Clift Street HEDDON GRETA NSW 2321

Attention: Robert Smith

Dear Robert

Bengalla Mine Draft Aboriginal Cultural Heritage Management Plan for Comment

Bengalla Mining Company (BMC) operates the Bengalla Mine (Bengalla) which is located approximately 4 km west of Muswellbrook in the Upper Hunter Valley, NSW. BMC was granted Development Consent for State Significant Development (SSD) 5170 on 3 March 2015 by the Secretary of Department of Planning and Environment (DP&E) for the Continuation of Bengalla Mine to enable ongoing mining operations.

SSD-5170 requires that an Aboriginal Cultural Heritage Management Plan (ACHMP) be completed in consultation with the Aboriginal community and relevant regulatory bodies. Schedule 3, Condition 31 of SSD-5170 states:

- 31. "The Applicant shall prepare and implement an Aboriginal Heritage Management Plan for the project to the satisfaction of the Secretary. This plan must:
- (w) be prepared in consultation with OEH and the relevant Aboriginal stakeholders, and submitted to the Secretary for approval within 6 months of the date of this consent;
- (x) include a program/procedures for:
 - salvage, excavation and/or management of Aboriginal sites and potential archaeological deposits within the project disturbance area;
 - assessment and removal of scarred trees;
 - protection and monitoring of Aboriginal sites outside the project disturbance area;

- managing the discovery of any new Aboriginal objects or skeletal remains during the development;
- maintaining and managing access to archaeological sites by the relevant Aboriginal stakeholders; and
- ongoing consultation and involvement of the relevant Aboriginal stakeholders in the conservation and management of Aboriginal cultural heritage on the site.

We have enclosed a return fax/email pro forma to assist should you wish to use it, however, please provide a letter should you prefer. All responses received by this date will be considered and where appropriate, recommendations from the Aboriginal community will be incorporated into the final ACHMP for submission to the DP&E for approval.

Following approval of the ACHMP, I will provide further correspondence requesting your company's assistance and outlining details associated with the proposed Aboriginal archaeological salvage as described within the draft ACHMP.

Thank you again for your support and assistance with this work and we look forward to your ongoing involvement with Bengalla. Should you have any queries in relation to this letter, please contact myself on (02) 6575 2000.

Yours faithfully

HANSEN BAILEY

Jason Martin

Senior Environmental Scientist

Att: Draft Aboriginal Cultural Heritage Management Plan Return fax/email Response Pro Forma

Ref: 150312 Cover Ltr to RAPs re Draft ACHMP

Kauwul (trading as Wonn1 Contracting) 619 Main Road GLENDALE NSW 2285

Attention: Arthur Fletcher

Dear Arthur

Bengalla Mine Draft Aboriginal Cultural Heritage Management Plan for Comment

Bengalla Mining Company (BMC) operates the Bengalla Mine (Bengalla) which is located approximately 4 km west of Muswellbrook in the Upper Hunter Valley, NSW. BMC was granted Development Consent for State Significant Development (SSD) 5170 on 3 March 2015 by the Secretary of Department of Planning and Environment (DP&E) for the Continuation of Bengalla Mine to enable ongoing mining operations.

SSD-5170 requires that an Aboriginal Cultural Heritage Management Plan (ACHMP) be completed in consultation with the Aboriginal community and relevant regulatory bodies. Schedule 3, Condition 31 of SSD-5170 states:

- 31. "The Applicant shall prepare and implement an Aboriginal Heritage Management Plan for the project to the satisfaction of the Secretary. This plan must:
- (y) be prepared in consultation with OEH and the relevant Aboriginal stakeholders, and submitted to the Secretary for approval within 6 months of the date of this consent;
- (z) include a program/procedures for:
 - salvage, excavation and/or management of Aboriginal sites and potential archaeological deposits within the project disturbance area;
 - assessment and removal of scarred trees;
 - protection and monitoring of Aboriginal sites outside the project disturbance area;

- managing the discovery of any new Aboriginal objects or skeletal remains during the development;
- maintaining and managing access to archaeological sites by the relevant Aboriginal stakeholders; and
- ongoing consultation and involvement of the relevant Aboriginal stakeholders in the conservation and management of Aboriginal cultural heritage on the site.

We have enclosed a return fax/email pro forma to assist should you wish to use it, however, please provide a letter should you prefer. All responses received by this date will be considered and where appropriate, recommendations from the Aboriginal community will be incorporated into the final ACHMP for submission to the DP&E for approval.

Following approval of the ACHMP, I will provide further correspondence requesting your company's assistance and outlining details associated with the proposed Aboriginal archaeological salvage as described within the draft ACHMP.

Thank you again for your support and assistance with this work and we look forward to your ongoing involvement with Bengalla. Should you have any queries in relation to this letter, please contact myself on (02) 6575 2000.

Yours faithfully

HANSEN BAILEY

Jason Martin

Senior Environmental Scientist

Att: Draft Aboriginal Cultural Heritage Management Plan

Kawul Cultural Services PO Box 817 SINGLETON NSW 2330

Attention: Vicky Slater

Dear Vicky

Bengalla Mine Draft Aboriginal Cultural Heritage Management Plan for Comment

Bengalla Mining Company (BMC) operates the Bengalla Mine (Bengalla) which is located approximately 4 km west of Muswellbrook in the Upper Hunter Valley, NSW. BMC was granted Development Consent for State Significant Development (SSD) 5170 on 3 March 2015 by the Secretary of Department of Planning and Environment (DP&E) for the Continuation of Bengalla Mine to enable ongoing mining operations.

SSD-5170 requires that an Aboriginal Cultural Heritage Management Plan (ACHMP) be completed in consultation with the Aboriginal community and relevant regulatory bodies. Schedule 3, Condition 31 of SSD-5170 states:

- 31. "The Applicant shall prepare and implement an Aboriginal Heritage Management Plan for the project to the satisfaction of the Secretary. This plan must:
- (aa) be prepared in consultation with OEH and the relevant Aboriginal stakeholders, and submitted to the Secretary for approval within 6 months of the date of this consent;
- (bb) include a program/procedures for:
 - salvage, excavation and/or management of Aboriginal sites and potential archaeological deposits within the project disturbance area;
 - assessment and removal of scarred trees;
 - protection and monitoring of Aboriginal sites outside the project disturbance area;

- managing the discovery of any new Aboriginal objects or skeletal remains during the development;
- maintaining and managing access to archaeological sites by the relevant Aboriginal stakeholders; and
- ongoing consultation and involvement of the relevant Aboriginal stakeholders in the conservation and management of Aboriginal cultural heritage on the site.

We have enclosed a return fax/email pro forma to assist should you wish to use it, however, please provide a letter should you prefer. All responses received by this date will be considered and where appropriate, recommendations from the Aboriginal community will be incorporated into the final ACHMP for submission to the DP&E for approval.

Following approval of the ACHMP, I will provide further correspondence requesting your company's assistance and outlining details associated with the proposed Aboriginal archaeological salvage as described within the draft ACHMP.

Thank you again for your support and assistance with this work and we look forward to your ongoing involvement with Bengalla. Should you have any queries in relation to this letter, please contact myself on (02) 6575 2000.

Yours faithfully

HANSEN BAILEY

Jason Martin

Senior Environmental Scientist

Att: Draft Aboriginal Cultural Heritage Management Plan

Myland Cultural & Heritage Group 30 Taurus Street ELERMORE VALE NSW 2287

Attention: Warren Schillings

Dear Warren

Bengalla Mine Draft Aboriginal Cultural Heritage Management Plan for Comment

Bengalla Mining Company (BMC) operates the Bengalla Mine (Bengalla) which is located approximately 4 km west of Muswellbrook in the Upper Hunter Valley, NSW. BMC was granted Development Consent for State Significant Development (SSD) 5170 on 3 March 2015 by the Secretary of Department of Planning and Environment (DP&E) for the Continuation of Bengalla Mine to enable ongoing mining operations.

SSD-5170 requires that an Aboriginal Cultural Heritage Management Plan (ACHMP) be completed in consultation with the Aboriginal community and relevant regulatory bodies. Schedule 3, Condition 31 of SSD-5170 states:

- 31. "The Applicant shall prepare and implement an Aboriginal Heritage Management Plan for the project to the satisfaction of the Secretary. This plan must:
- (cc) be prepared in consultation with OEH and the relevant Aboriginal stakeholders, and submitted to the Secretary for approval within 6 months of the date of this consent;
- (dd) include a program/procedures for:
 - salvage, excavation and/or management of Aboriginal sites and potential archaeological deposits within the project disturbance area;
 - assessment and removal of scarred trees;
 - protection and monitoring of Aboriginal sites outside the project disturbance area;

- managing the discovery of any new Aboriginal objects or skeletal remains during the development;
- maintaining and managing access to archaeological sites by the relevant Aboriginal stakeholders; and
- ongoing consultation and involvement of the relevant Aboriginal stakeholders in the conservation and management of Aboriginal cultural heritage on the site.

We have enclosed a return fax/email pro forma to assist should you wish to use it, however, please provide a letter should you prefer. All responses received by this date will be considered and where appropriate, recommendations from the Aboriginal community will be incorporated into the final ACHMP for submission to the DP&E for approval.

Following approval of the ACHMP, I will provide further correspondence requesting your company's assistance and outlining details associated with the proposed Aboriginal archaeological salvage as described within the draft ACHMP.

Thank you again for your support and assistance with this work and we look forward to your ongoing involvement with Bengalla. Should you have any queries in relation to this letter, please contact myself on (02) 6575 2000.

Yours faithfully

HANSEN BAILEY

Jason Martin

Senior Environmental Scientist

Att: Draft Aboriginal Cultural Heritage Management Plan

Ngarramang-Kuri Aboriginal Culture & Heritage Group 21 Bancroft Street GLENDALE NSW 2285

Attention: Abie Wright

Dear Abie

Bengalla Mine Draft Aboriginal Cultural Heritage Management Plan for Comment

Bengalla Mining Company (BMC) operates the Bengalla Mine (Bengalla) which is located approximately 4 km west of Muswellbrook in the Upper Hunter Valley, NSW. BMC was granted Development Consent for State Significant Development (SSD) 5170 on 3 March 2015 by the Secretary of Department of Planning and Environment (DP&E) for the Continuation of Bengalla Mine to enable ongoing mining operations.

SSD-5170 requires that an Aboriginal Cultural Heritage Management Plan (ACHMP) be completed in consultation with the Aboriginal community and relevant regulatory bodies. Schedule 3, Condition 31 of SSD-5170 states:

- 31. "The Applicant shall prepare and implement an Aboriginal Heritage Management Plan for the project to the satisfaction of the Secretary. This plan must:
- (ee) be prepared in consultation with OEH and the relevant Aboriginal stakeholders, and submitted to the Secretary for approval within 6 months of the date of this consent;
- (ff) include a program/procedures for:
 - salvage, excavation and/or management of Aboriginal sites and potential archaeological deposits within the project disturbance area;
 - assessment and removal of scarred trees;
 - protection and monitoring of Aboriginal sites outside the project disturbance area;

- managing the discovery of any new Aboriginal objects or skeletal remains during the development;
- maintaining and managing access to archaeological sites by the relevant Aboriginal stakeholders; and
- ongoing consultation and involvement of the relevant Aboriginal stakeholders in the conservation and management of Aboriginal cultural heritage on the site.

We have enclosed a return fax/email pro forma to assist should you wish to use it, however, please provide a letter should you prefer. All responses received by this date will be considered and where appropriate, recommendations from the Aboriginal community will be incorporated into the final ACHMP for submission to the DP&E for approval.

Following approval of the ACHMP, I will provide further correspondence requesting your company's assistance and outlining details associated with the proposed Aboriginal archaeological salvage as described within the draft ACHMP.

Thank you again for your support and assistance with this work and we look forward to your ongoing involvement with Bengalla. Should you have any queries in relation to this letter, please contact myself on (02) 6575 2000.

Yours faithfully

HANSEN BAILEY

Jason Martin

Senior Environmental Scientist

Att: Draft Aboriginal Cultural Heritage Management Plan

Roger Noel Matthews Consultancy 15 Parkinson Avenue MUSWELLBROOK NSW 2333

Attention: Roger Matthews

Dear Roger

Bengalla Mine Draft Aboriginal Cultural Heritage Management Plan for Comment

Bengalla Mining Company (BMC) operates the Bengalla Mine (Bengalla) which is located approximately 4 km west of Muswellbrook in the Upper Hunter Valley, NSW. BMC was granted Development Consent for State Significant Development (SSD) 5170 on 3 March 2015 by the Secretary of Department of Planning and Environment (DP&E) for the Continuation of Bengalla Mine to enable ongoing mining operations.

SSD-5170 requires that an Aboriginal Cultural Heritage Management Plan (ACHMP) be completed in consultation with the Aboriginal community and relevant regulatory bodies. Schedule 3, Condition 31 of SSD-5170 states:

- 31. "The Applicant shall prepare and implement an Aboriginal Heritage Management Plan for the project to the satisfaction of the Secretary. This plan must:
- (gg) be prepared in consultation with OEH and the relevant Aboriginal stakeholders, and submitted to the Secretary for approval within 6 months of the date of this consent;
- (hh) include a program/procedures for:
 - salvage, excavation and/or management of Aboriginal sites and potential archaeological deposits within the project disturbance area;
 - assessment and removal of scarred trees;
 - protection and monitoring of Aboriginal sites outside the project disturbance area;

- managing the discovery of any new Aboriginal objects or skeletal remains during the development;
- maintaining and managing access to archaeological sites by the relevant Aboriginal stakeholders; and
- ongoing consultation and involvement of the relevant Aboriginal stakeholders in the conservation and management of Aboriginal cultural heritage on the site.

We have enclosed a return fax/email pro forma to assist should you wish to use it, however, please provide a letter should you prefer. All responses received by this date will be considered and where appropriate, recommendations from the Aboriginal community will be incorporated into the final ACHMP for submission to the DP&E for approval.

Following approval of the ACHMP, I will provide further correspondence requesting your company's assistance and outlining details associated with the proposed Aboriginal archaeological salvage as described within the draft ACHMP.

Thank you again for your support and assistance with this work and we look forward to your ongoing involvement with Bengalla. Should you have any queries in relation to this letter, please contact myself on (02) 6575 2000.

Yours faithfully

HANSEN BAILEY

Jason Martin

Senior Environmental Scientist

Att: Draft Aboriginal Cultural Heritage Management Plan

Ungooroo Aboriginal Corporation PO Box 3095 SINGLETON NSW 2330

Attention: Annette Dunstan

Dear Annette

Bengalla Mine Draft Aboriginal Cultural Heritage Management Plan for Comment

Bengalla Mining Company (BMC) operates the Bengalla Mine (Bengalla) which is located approximately 4 km west of Muswellbrook in the Upper Hunter Valley, NSW. BMC was granted Development Consent for State Significant Development (SSD) 5170 on 3 March 2015 by the Secretary of Department of Planning and Environment (DP&E) for the Continuation of Bengalla Mine to enable ongoing mining operations.

SSD-5170 requires that an Aboriginal Cultural Heritage Management Plan (ACHMP) be completed in consultation with the Aboriginal community and relevant regulatory bodies. Schedule 3, Condition 31 of SSD-5170 states:

- 31. "The Applicant shall prepare and implement an Aboriginal Heritage Management Plan for the project to the satisfaction of the Secretary. This plan must:
- (ii) be prepared in consultation with OEH and the relevant Aboriginal stakeholders, and submitted to the Secretary for approval within 6 months of the date of this consent;
- (jj) include a program/procedures for:
 - salvage, excavation and/or management of Aboriginal sites and potential archaeological deposits within the project disturbance area;
 - assessment and removal of scarred trees;
 - protection and monitoring of Aboriginal sites outside the project disturbance area;

- managing the discovery of any new Aboriginal objects or skeletal remains during the development;
- maintaining and managing access to archaeological sites by the relevant Aboriginal stakeholders; and
- ongoing consultation and involvement of the relevant Aboriginal stakeholders in the conservation and management of Aboriginal cultural heritage on the site.

We have enclosed a return fax/email pro forma to assist should you wish to use it, however, please provide a letter should you prefer. All responses received by this date will be considered and where appropriate, recommendations from the Aboriginal community will be incorporated into the final ACHMP for submission to the DP&E for approval.

Following approval of the ACHMP, I will provide further correspondence requesting your company's assistance and outlining details associated with the proposed Aboriginal archaeological salvage as described within the draft ACHMP.

Thank you again for your support and assistance with this work and we look forward to your ongoing involvement with Bengalla. Should you have any queries in relation to this letter, please contact myself on (02) 6575 2000.

Yours faithfully

HANSEN BAILEY

Jason Martin

Senior Environmental Scientist

Att: Draft Aboriginal Cultural Heritage Management Plan Return fax/email Response Pro Forma

Ref: 150312 Cover Ltr to RAPs re Draft ACHMP

Upper Hunter Heritage Consultants 14 Edinglassie Drive MUSWELLBROOK NSW 2333

Attention: Melissa Matthews

Dear Melissa

Bengalla Mine Draft Aboriginal Cultural Heritage Management Plan for Comment

Bengalla Mining Company (BMC) operates the Bengalla Mine (Bengalla) which is located approximately 4 km west of Muswellbrook in the Upper Hunter Valley, NSW. BMC was granted Development Consent for State Significant Development (SSD) 5170 on 3 March 2015 by the Secretary of Department of Planning and Environment (DP&E) for the Continuation of Bengalla Mine to enable ongoing mining operations.

SSD-5170 requires that an Aboriginal Cultural Heritage Management Plan (ACHMP) be completed in consultation with the Aboriginal community and relevant regulatory bodies. Schedule 3, Condition 31 of SSD-5170 states:

- 31. "The Applicant shall prepare and implement an Aboriginal Heritage Management Plan for the project to the satisfaction of the Secretary. This plan must:
- (kk) be prepared in consultation with OEH and the relevant Aboriginal stakeholders, and submitted to the Secretary for approval within 6 months of the date of this consent;
- (II) include a program/procedures for:
 - salvage, excavation and/or management of Aboriginal sites and potential archaeological deposits within the project disturbance area;
 - assessment and removal of scarred trees;
 - protection and monitoring of Aboriginal sites outside the project disturbance area;

- managing the discovery of any new Aboriginal objects or skeletal remains during the development;
- maintaining and managing access to archaeological sites by the relevant Aboriginal stakeholders; and
- ongoing consultation and involvement of the relevant Aboriginal stakeholders in the conservation and management of Aboriginal cultural heritage on the site.

We have enclosed a return fax/email pro forma to assist should you wish to use it, however, please provide a letter should you prefer. All responses received by this date will be considered and where appropriate, recommendations from the Aboriginal community will be incorporated into the final ACHMP for submission to the DP&E for approval.

Following approval of the ACHMP, I will provide further correspondence requesting your company's assistance and outlining details associated with the proposed Aboriginal archaeological salvage as described within the draft ACHMP.

Thank you again for your support and assistance with this work and we look forward to your ongoing involvement with Bengalla. Should you have any queries in relation to this letter, please contact myself on (02) 6575 2000.

Yours faithfully

HANSEN BAILEY

Jason Martin

Senior Environmental Scientist

Att: Draft Aboriginal Cultural Heritage Management Plan Return fax/email Response Pro Forma

Ref: 150312 Cover Ltr to RAPs re Draft ACHMP

Upper Hunter Wonnarua Council PO Box 184 SINGLETON NSW 2330

Attention: Rhoda Perry

Dear Rhoda

Bengalla Mine Draft Aboriginal Cultural Heritage Management Plan for Comment

Bengalla Mining Company (BMC) operates the Bengalla Mine (Bengalla) which is located approximately 4 km west of Muswellbrook in the Upper Hunter Valley, NSW. BMC was granted Development Consent for State Significant Development (SSD) 5170 on 3 March 2015 by the Secretary of Department of Planning and Environment (DP&E) for the Continuation of Bengalla Mine to enable ongoing mining operations.

SSD-5170 requires that an Aboriginal Cultural Heritage Management Plan (ACHMP) be completed in consultation with the Aboriginal community and relevant regulatory bodies. Schedule 3, Condition 31 of SSD-5170 states:

- 31. "The Applicant shall prepare and implement an Aboriginal Heritage Management Plan for the project to the satisfaction of the Secretary. This plan must:
- (mm) be prepared in consultation with OEH and the relevant Aboriginal stakeholders, and submitted to the Secretary for approval within 6 months of the date of this consent;
- (nn) include a program/procedures for:
 - salvage, excavation and/or management of Aboriginal sites and potential archaeological deposits within the project disturbance area;
 - assessment and removal of scarred trees;
 - protection and monitoring of Aboriginal sites outside the project disturbance area;

- managing the discovery of any new Aboriginal objects or skeletal remains during the development;
- maintaining and managing access to archaeological sites by the relevant Aboriginal stakeholders; and
- ongoing consultation and involvement of the relevant Aboriginal stakeholders in the conservation and management of Aboriginal cultural heritage on the site.

We have enclosed a return fax/email pro forma to assist should you wish to use it, however, please provide a letter should you prefer. All responses received by this date will be considered and where appropriate, recommendations from the Aboriginal community will be incorporated into the final ACHMP for submission to the DP&E for approval.

Following approval of the ACHMP, I will provide further correspondence requesting your company's assistance and outlining details associated with the proposed Aboriginal archaeological salvage as described within the draft ACHMP.

Thank you again for your support and assistance with this work and we look forward to your ongoing involvement with Bengalla. Should you have any queries in relation to this letter, please contact myself on (02) 6575 2000.

Yours faithfully

HANSEN BAILEY

Jason Martin

Senior Environmental Scientist

Att: Draft Aboriginal Cultural Heritage Management Plan

Return fax/email Response Pro Forma

Waabi Gabinya Cultural Consultancy 19 Foley Street MUSWELLBROOK NSW 2333

Attention: Elizabeth Howard

Dear Elizabeth

Bengalla Mine Draft Aboriginal Cultural Heritage Management Plan for Comment

Bengalla Mining Company (BMC) operates the Bengalla Mine (Bengalla) which is located approximately 4 km west of Muswellbrook in the Upper Hunter Valley, NSW. BMC was granted Development Consent for State Significant Development (SSD) 5170 on 3 March 2015 by the Secretary of Department of Planning and Environment (DP&E) for the Continuation of Bengalla Mine to enable ongoing mining operations.

SSD-5170 requires that an Aboriginal Cultural Heritage Management Plan (ACHMP) be completed in consultation with the Aboriginal community and relevant regulatory bodies. Schedule 3, Condition 31 of SSD-5170 states:

- 31. "The Applicant shall prepare and implement an Aboriginal Heritage Management Plan for the project to the satisfaction of the Secretary. This plan must:
- (oo) be prepared in consultation with OEH and the relevant Aboriginal stakeholders, and submitted to the Secretary for approval within 6 months of the date of this consent;
- (pp) include a program/procedures for:
 - salvage, excavation and/or management of Aboriginal sites and potential archaeological deposits within the project disturbance area;
 - assessment and removal of scarred trees;
 - protection and monitoring of Aboriginal sites outside the project disturbance area;

- managing the discovery of any new Aboriginal objects or skeletal remains during the development;
- maintaining and managing access to archaeological sites by the relevant Aboriginal stakeholders; and
- ongoing consultation and involvement of the relevant Aboriginal stakeholders in the conservation and management of Aboriginal cultural heritage on the site.

We have enclosed a return fax/email pro forma to assist should you wish to use it, however, please provide a letter should you prefer. All responses received by this date will be considered and where appropriate, recommendations from the Aboriginal community will be incorporated into the final ACHMP for submission to the DP&E for approval.

Following approval of the ACHMP, I will provide further correspondence requesting your company's assistance and outlining details associated with the proposed Aboriginal archaeological salvage as described within the draft ACHMP.

Thank you again for your support and assistance with this work and we look forward to your ongoing involvement with Bengalla. Should you have any queries in relation to this letter, please contact myself on (02) 6575 2000.

Yours faithfully

HANSEN BAILEY

Jason Martin

Senior Environmental Scientist

Att: Draft Aboriginal Cultural Heritage Management Plan

Return fax/email Response Pro Forma

Wallangan Cultural Services 29 Anzac Avenue CESSNOCK NSW 2325

Attention: Maree Waugh

Dear Maree Waugh

Bengalla Mine Draft Aboriginal Cultural Heritage Management Plan for Comment

Bengalla Mining Company (BMC) operates the Bengalla Mine (Bengalla) which is located approximately 4 km west of Muswellbrook in the Upper Hunter Valley, NSW. BMC was granted Development Consent for State Significant Development (SSD) 5170 on 3 March 2015 by the Secretary of Department of Planning and Environment (DP&E) for the Continuation of Bengalla Mine to enable ongoing mining operations.

SSD-5170 requires that an Aboriginal Cultural Heritage Management Plan (ACHMP) be completed in consultation with the Aboriginal community and relevant regulatory bodies. Schedule 3, Condition 31 of SSD-5170 states:

- 31. "The Applicant shall prepare and implement an Aboriginal Heritage Management Plan for the project to the satisfaction of the Secretary. This plan must:
- (qq) be prepared in consultation with OEH and the relevant Aboriginal stakeholders, and submitted to the Secretary for approval within 6 months of the date of this consent;
- (rr) include a program/procedures for:
 - salvage, excavation and/or management of Aboriginal sites and potential archaeological deposits within the project disturbance area;
 - assessment and removal of scarred trees;
 - protection and monitoring of Aboriginal sites outside the project disturbance area;

- managing the discovery of any new Aboriginal objects or skeletal remains during the development;
- maintaining and managing access to archaeological sites by the relevant Aboriginal stakeholders; and
- ongoing consultation and involvement of the relevant Aboriginal stakeholders in the conservation and management of Aboriginal cultural heritage on the site.

We have enclosed a return fax/email pro forma to assist should you wish to use it, however, please provide a letter should you prefer. All responses received by this date will be considered and where appropriate, recommendations from the Aboriginal community will be incorporated into the final ACHMP for submission to the DP&E for approval.

Following approval of the ACHMP, I will provide further correspondence requesting your company's assistance and outlining details associated with the proposed Aboriginal archaeological salvage as described within the draft ACHMP.

Thank you again for your support and assistance with this work and we look forward to your ongoing involvement with Bengalla. Should you have any queries in relation to this letter, please contact myself on (02) 6575 2000.

Yours faithfully

HANSEN BAILEY

Jason Martin

Senior Environmental Scientist

Att: Draft Aboriginal Cultural Heritage Management Plan Return fax/email Response Pro Forma

Wanaruah Local Aboriginal Land Council PO Box 127 MUSWELLBROOK NSW 2333

Attention: Noel Downs

Dear Noel

Bengalla Mine Draft Aboriginal Cultural Heritage Management Plan for Comment

Bengalla Mining Company (BMC) operates the Bengalla Mine (Bengalla) which is located approximately 4 km west of Muswellbrook in the Upper Hunter Valley, NSW. BMC was granted Development Consent for State Significant Development (SSD) 5170 on 3 March 2015 by the Secretary of Department of Planning and Environment (DP&E) for the Continuation of Bengalla Mine to enable ongoing mining operations.

SSD-5170 requires that an Aboriginal Cultural Heritage Management Plan (ACHMP) be completed in consultation with the Aboriginal community and relevant regulatory bodies. Schedule 3, Condition 31 of SSD-5170 states:

- 31. "The Applicant shall prepare and implement an Aboriginal Heritage Management Plan for the project to the satisfaction of the Secretary. This plan must:
- (ss) be prepared in consultation with OEH and the relevant Aboriginal stakeholders, and submitted to the Secretary for approval within 6 months of the date of this consent;
- (tt) include a program/procedures for:
 - salvage, excavation and/or management of Aboriginal sites and potential archaeological deposits within the project disturbance area;
 - assessment and removal of scarred trees;
 - protection and monitoring of Aboriginal sites outside the project disturbance area;

- managing the discovery of any new Aboriginal objects or skeletal remains during the development;
- maintaining and managing access to archaeological sites by the relevant Aboriginal stakeholders; and
- ongoing consultation and involvement of the relevant Aboriginal stakeholders in the conservation and management of Aboriginal cultural heritage on the site.

We have enclosed a return fax/email pro forma to assist should you wish to use it, however, please provide a letter should you prefer. All responses received by this date will be considered and where appropriate, recommendations from the Aboriginal community will be incorporated into the final ACHMP for submission to the DP&E for approval.

Following approval of the ACHMP, I will provide further correspondence requesting your company's assistance and outlining details associated with the proposed Aboriginal archaeological salvage as described within the draft ACHMP.

Thank you again for your support and assistance with this work and we look forward to your ongoing involvement with Bengalla. Should you have any queries in relation to this letter, please contact myself on (02) 6575 2000.

Yours faithfully

HANSEN BAILEY

Jason Martin

Senior Environmental Scientist

Att: Draft Aboriginal Cultural Heritage Management Plan Return fax/email Response Pro Forma

Warragil Cultural Services PO Box 817 SINGLETON NSW 2330

Attention: Aaron Slater

Dear Aaron

Bengalla Mine Draft Aboriginal Cultural Heritage Management Plan for Comment

Bengalla Mining Company (BMC) operates the Bengalla Mine (Bengalla) which is located approximately 4 km west of Muswellbrook in the Upper Hunter Valley, NSW. BMC was granted Development Consent for State Significant Development (SSD) 5170 on 3 March 2015 by the Secretary of Department of Planning and Environment (DP&E) for the Continuation of Bengalla Mine to enable ongoing mining operations.

SSD-5170 requires that an Aboriginal Cultural Heritage Management Plan (ACHMP) be completed in consultation with the Aboriginal community and relevant regulatory bodies. Schedule 3, Condition 31 of SSD-5170 states:

- 31. "The Applicant shall prepare and implement an Aboriginal Heritage Management Plan for the project to the satisfaction of the Secretary. This plan must:
- (uu) be prepared in consultation with OEH and the relevant Aboriginal stakeholders, and submitted to the Secretary for approval within 6 months of the date of this consent;
- (vv) include a program/procedures for:
 - salvage, excavation and/or management of Aboriginal sites and potential archaeological deposits within the project disturbance area;
 - assessment and removal of scarred trees;
 - protection and monitoring of Aboriginal sites outside the project disturbance area;

- managing the discovery of any new Aboriginal objects or skeletal remains during the development;
- maintaining and managing access to archaeological sites by the relevant Aboriginal stakeholders; and
- ongoing consultation and involvement of the relevant Aboriginal stakeholders in the conservation and management of Aboriginal cultural heritage on the site.

We have enclosed a return fax/email pro forma to assist should you wish to use it, however, please provide a letter should you prefer. All responses received by this date will be considered and where appropriate, recommendations from the Aboriginal community will be incorporated into the final ACHMP for submission to the DP&E for approval.

Following approval of the ACHMP, I will provide further correspondence requesting your company's assistance and outlining details associated with the proposed Aboriginal archaeological salvage as described within the draft ACHMP.

Thank you again for your support and assistance with this work and we look forward to your ongoing involvement with Bengalla. Should you have any queries in relation to this letter, please contact myself on (02) 6575 2000.

Yours faithfully

HANSEN BAILEY

Jason Martin

Senior Environmental Scientist

Att: Draft Aboriginal Cultural Heritage Management Plan Return fax/email Response Pro Forma

Warul Consultants
Unit 4/122 Upper Street
TAMWORTH NSW 2340

Attention: Scott Smith

Dear Scott

Bengalla Mine Draft Aboriginal Cultural Heritage Management Plan for Comment

Bengalla Mining Company (BMC) operates the Bengalla Mine (Bengalla) which is located approximately 4 km west of Muswellbrook in the Upper Hunter Valley, NSW. BMC was granted Development Consent for State Significant Development (SSD) 5170 on 3 March 2015 by the Secretary of Department of Planning and Environment (DP&E) for the Continuation of Bengalla Mine to enable ongoing mining operations.

SSD-5170 requires that an Aboriginal Cultural Heritage Management Plan (ACHMP) be completed in consultation with the Aboriginal community and relevant regulatory bodies. Schedule 3, Condition 31 of SSD-5170 states:

- 31. "The Applicant shall prepare and implement an Aboriginal Heritage Management Plan for the project to the satisfaction of the Secretary. This plan must:
- (ww) be prepared in consultation with OEH and the relevant Aboriginal stakeholders, and submitted to the Secretary for approval within 6 months of the date of this consent;
- (xx) include a program/procedures for:
 - salvage, excavation and/or management of Aboriginal sites and potential archaeological deposits within the project disturbance area;
 - assessment and removal of scarred trees;
 - protection and monitoring of Aboriginal sites outside the project disturbance area;

- managing the discovery of any new Aboriginal objects or skeletal remains during the development;
- maintaining and managing access to archaeological sites by the relevant Aboriginal stakeholders; and
- ongoing consultation and involvement of the relevant Aboriginal stakeholders in the conservation and management of Aboriginal cultural heritage on the site.

We have enclosed a return fax/email pro forma to assist should you wish to use it, however, please provide a letter should you prefer. All responses received by this date will be considered and where appropriate, recommendations from the Aboriginal community will be incorporated into the final ACHMP for submission to the DP&E for approval.

Following approval of the ACHMP, I will provide further correspondence requesting your company's assistance and outlining details associated with the proposed Aboriginal archaeological salvage as described within the draft ACHMP.

Thank you again for your support and assistance with this work and we look forward to your ongoing involvement with Bengalla. Should you have any queries in relation to this letter, please contact myself on (02) 6575 2000.

Yours faithfully

HANSEN BAILEY

Jason Martin

Senior Environmental Scientist

Att: Draft Aboriginal Cultural Heritage Management Plan Return fax/email Response Pro Forma

Wattaka Wonnarua Culture Consultants 4 Kennedy Street SINGLETON NSW 2330

Attention: Des Hickey

Dear Des

Bengalla Mine Draft Aboriginal Cultural Heritage Management Plan for Comment

Bengalla Mining Company (BMC) operates the Bengalla Mine (Bengalla) which is located approximately 4 km west of Muswellbrook in the Upper Hunter Valley, NSW. BMC was granted Development Consent for State Significant Development (SSD) 5170 on 3 March 2015 by the Secretary of Department of Planning and Environment (DP&E) for the Continuation of Bengalla Mine to enable ongoing mining operations.

SSD-5170 requires that an Aboriginal Cultural Heritage Management Plan (ACHMP) be completed in consultation with the Aboriginal community and relevant regulatory bodies. Schedule 3, Condition 31 of SSD-5170 states:

- 31. "The Applicant shall prepare and implement an Aboriginal Heritage Management Plan for the project to the satisfaction of the Secretary. This plan must:
- (yy) be prepared in consultation with OEH and the relevant Aboriginal stakeholders, and submitted to the Secretary for approval within 6 months of the date of this consent;
- (zz) include a program/procedures for:
 - salvage, excavation and/or management of Aboriginal sites and potential archaeological deposits within the project disturbance area;
 - assessment and removal of scarred trees;
 - protection and monitoring of Aboriginal sites outside the project disturbance area;

- managing the discovery of any new Aboriginal objects or skeletal remains during the development;
- maintaining and managing access to archaeological sites by the relevant Aboriginal stakeholders; and
- ongoing consultation and involvement of the relevant Aboriginal stakeholders in the conservation and management of Aboriginal cultural heritage on the site.

We have enclosed a return fax/email pro forma to assist should you wish to use it, however, please provide a letter should you prefer. All responses received by this date will be considered and where appropriate, recommendations from the Aboriginal community will be incorporated into the final ACHMP for submission to the DP&E for approval.

Following approval of the ACHMP, I will provide further correspondence requesting your company's assistance and outlining details associated with the proposed Aboriginal archaeological salvage as described within the draft ACHMP.

Thank you again for your support and assistance with this work and we look forward to your ongoing involvement with Bengalla. Should you have any queries in relation to this letter, please contact myself on (02) 6575 2000.

Yours faithfully

HANSEN BAILEY

Jason Martin

Senior Environmental Scientist

Att: Draft Aboriginal Cultural Heritage Management Plan

Return fax/email Response Pro Forma

Widescope Indigenous Group Pty Ltd 73 Russell Street EMU PLAINS NSW 2750

Attention: Steven Hickey

Dear Steven

Bengalla Mine Draft Aboriginal Cultural Heritage Management Plan for Comment

Bengalla Mining Company (BMC) operates the Bengalla Mine (Bengalla) which is located approximately 4 km west of Muswellbrook in the Upper Hunter Valley, NSW. BMC was granted Development Consent for State Significant Development (SSD) 5170 on 3 March 2015 by the Secretary of Department of Planning and Environment (DP&E) for the Continuation of Bengalla Mine to enable ongoing mining operations.

SSD-5170 requires that an Aboriginal Cultural Heritage Management Plan (ACHMP) be completed in consultation with the Aboriginal community and relevant regulatory bodies. Schedule 3, Condition 31 of SSD-5170 states:

Aboriginal Heritage Management Plan

- 31. "The Applicant shall prepare and implement an Aboriginal Heritage Management Plan for the project to the satisfaction of the Secretary. This plan must:
- (aaa) be prepared in consultation with OEH and the relevant Aboriginal stakeholders, and submitted to the Secretary for approval within 6 months of the date of this consent;

(bbb) include a program/procedures for:

- salvage, excavation and/or management of Aboriginal sites and potential archaeological deposits within the project disturbance area;
- assessment and removal of scarred trees;
- protection and monitoring of Aboriginal sites outside the project disturbance area;

- managing the discovery of any new Aboriginal objects or skeletal remains during the development;
- maintaining and managing access to archaeological sites by the relevant Aboriginal stakeholders; and
- ongoing consultation and involvement of the relevant Aboriginal stakeholders in the conservation and management of Aboriginal cultural heritage on the site.

We have enclosed a return fax/email pro forma to assist should you wish to use it, however, please provide a letter should you prefer. All responses received by this date will be considered and where appropriate, recommendations from the Aboriginal community will be incorporated into the final ACHMP for submission to the DP&E for approval.

Following approval of the ACHMP, I will provide further correspondence requesting your company's assistance and outlining details associated with the proposed Aboriginal archaeological salvage as described within the draft ACHMP.

Thank you again for your support and assistance with this work and we look forward to your ongoing involvement with Bengalla. Should you have any queries in relation to this letter, please contact myself on (02) 6575 2000.

Yours faithfully

HANSEN BAILEY

Jason Martin

Senior Environmental Scientist

Att: Draft Aboriginal Cultural Heritage Management Plan Return fax/email Response Pro Forma

Wonnarua Culture Heritage 19 O'Donnell Crescent METFORD NSW 2323

Attention: Gordon Griffiths

Dear Gordon

Bengalla Mine Draft Aboriginal Cultural Heritage Management Plan for Comment

Bengalla Mining Company (BMC) operates the Bengalla Mine (Bengalla) which is located approximately 4 km west of Muswellbrook in the Upper Hunter Valley, NSW. BMC was granted Development Consent for State Significant Development (SSD) 5170 on 3 March 2015 by the Secretary of Department of Planning and Environment (DP&E) for the Continuation of Bengalla Mine to enable ongoing mining operations.

SSD-5170 requires that an Aboriginal Cultural Heritage Management Plan (ACHMP) be completed in consultation with the Aboriginal community and relevant regulatory bodies. Schedule 3, Condition 31 of SSD-5170 states:

Aboriginal Heritage Management Plan

- 31. "The Applicant shall prepare and implement an Aboriginal Heritage Management Plan for the project to the satisfaction of the Secretary. This plan must:
- (ccc) be prepared in consultation with OEH and the relevant Aboriginal stakeholders, and submitted to the Secretary for approval within 6 months of the date of this consent;

(ddd) include a program/procedures for:

- salvage, excavation and/or management of Aboriginal sites and potential archaeological deposits within the project disturbance area;
- assessment and removal of scarred trees;
- protection and monitoring of Aboriginal sites outside the project disturbance area;

- managing the discovery of any new Aboriginal objects or skeletal remains during the development;
- maintaining and managing access to archaeological sites by the relevant Aboriginal stakeholders; and
- ongoing consultation and involvement of the relevant Aboriginal stakeholders in the conservation and management of Aboriginal cultural heritage on the site.

We have enclosed a return fax/email pro forma to assist should you wish to use it, however, please provide a letter should you prefer. All responses received by this date will be considered and where appropriate, recommendations from the Aboriginal community will be incorporated into the final ACHMP for submission to the DP&E for approval.

Following approval of the ACHMP, I will provide further correspondence requesting your company's assistance and outlining details associated with the proposed Aboriginal archaeological salvage as described within the draft ACHMP.

Thank you again for your support and assistance with this work and we look forward to your ongoing involvement with Bengalla. Should you have any queries in relation to this letter, please contact myself on (02) 6575 2000.

Yours faithfully

HANSEN BAILEY

Jason Martin

Senior Environmental Scientist

Att: Draft Aboriginal Cultural Heritage Management Plan Return fax/email Response Pro Forma

Yinarr Cultural Services 111 Westwood Road GUNGAL NSW 2333

Attention: Kathleen Steward-Kinchela

Dear Kathleen

Bengalla Mine Draft Aboriginal Cultural Heritage Management Plan for Comment

Bengalla Mining Company (BMC) operates the Bengalla Mine (Bengalla) which is located approximately 4 km west of Muswellbrook in the Upper Hunter Valley, NSW. BMC was granted Development Consent for State Significant Development (SSD) 5170 on 3 March 2015 by the Secretary of Department of Planning and Environment (DP&E) for the Continuation of Bengalla Mine to enable ongoing mining operations.

SSD-5170 requires that an Aboriginal Cultural Heritage Management Plan (ACHMP) be completed in consultation with the Aboriginal community and relevant regulatory bodies. Schedule 3, Condition 31 of SSD-5170 states:

- 31. "The Applicant shall prepare and implement an Aboriginal Heritage Management Plan for the project to the satisfaction of the Secretary. This plan must:
- (eee) be prepared in consultation with OEH and the relevant Aboriginal stakeholders, and submitted to the Secretary for approval within 6 months of the date of this consent;
- (fff) include a program/procedures for:
 - salvage, excavation and/or management of Aboriginal sites and potential archaeological deposits within the project disturbance area;
 - assessment and removal of scarred trees;
 - protection and monitoring of Aboriginal sites outside the project disturbance area;

- managing the discovery of any new Aboriginal objects or skeletal remains during the development;
- maintaining and managing access to archaeological sites by the relevant Aboriginal stakeholders; and
- ongoing consultation and involvement of the relevant Aboriginal stakeholders in the conservation and management of Aboriginal cultural heritage on the site.

We have enclosed a return fax/email pro forma to assist should you wish to use it, however, please provide a letter should you prefer. All responses received by this date will be considered and where appropriate, recommendations from the Aboriginal community will be incorporated into the final ACHMP for submission to the DP&E for approval.

Following approval of the ACHMP, I will provide further correspondence requesting your company's assistance and outlining details associated with the proposed Aboriginal archaeological salvage as described within the draft ACHMP.

Thank you again for your support and assistance with this work and we look forward to your ongoing involvement with Bengalla. Should you have any queries in relation to this letter, please contact myself on (02) 6575 2000.

Yours faithfully

HANSEN BAILEY

Jason Martin

Senior Environmental Scientist

Att: Draft Aboriginal Cultural Heritage Management Plan Return fax/email Response Pro Forma

T & G Culture Consultants 19 O'Donnell Crescent METFORD NSW 2323

Attention: Tony Griffiths

Dear Tony

Bengalla Mine Draft Aboriginal Cultural Heritage Management Plan for Comment

Bengalla Mining Company (BMC) operates the Bengalla Mine (Bengalla) which is located approximately 4 km west of Muswellbrook in the Upper Hunter Valley, NSW. BMC was granted Development Consent for State Significant Development (SSD) 5170 on 3 March 2015 by the Secretary of Department of Planning and Environment (DP&E) for the Continuation of Bengalla Mine to enable ongoing mining operations.

SSD-5170 requires that an Aboriginal Cultural Heritage Management Plan (ACHMP) be completed in consultation with the Aboriginal community and relevant regulatory bodies. Schedule 3, Condition 31 of SSD-5170 states:

Aboriginal Heritage Management Plan

- 31. "The Applicant shall prepare and implement an Aboriginal Heritage Management Plan for the project to the satisfaction of the Secretary. This plan must:
- (ggg) be prepared in consultation with OEH and the relevant Aboriginal stakeholders, and submitted to the Secretary for approval within 6 months of the date of this consent;

(hhh) include a program/procedures for:

- salvage, excavation and/or management of Aboriginal sites and potential archaeological deposits within the project disturbance area;
- assessment and removal of scarred trees;
- protection and monitoring of Aboriginal sites outside the project disturbance area;

- managing the discovery of any new Aboriginal objects or skeletal remains during the development;
- maintaining and managing access to archaeological sites by the relevant Aboriginal stakeholders; and
- ongoing consultation and involvement of the relevant Aboriginal stakeholders in the conservation and management of Aboriginal cultural heritage on the site.

We have enclosed a return fax/email pro forma to assist should you wish to use it, however, please provide a letter should you prefer. All responses received by this date will be considered and where appropriate, recommendations from the Aboriginal community will be incorporated into the final ACHMP for submission to the DP&E for approval.

Following approval of the ACHMP, I will provide further correspondence requesting your company's assistance and outlining details associated with the proposed Aboriginal archaeological salvage as described within the draft ACHMP.

Thank you again for your support and assistance with this work and we look forward to your ongoing involvement with Bengalla. Should you have any queries in relation to this letter, please contact myself on (02) 6575 2000.

Yours faithfully

HANSEN BAILEY

Jason Martin

Senior Environmental Scientist

Att: Draft Aboriginal Cultural Heritage Management Plan

Return fax/email Response Pro Forma

Aboriginal T/O Surveys 4 Waddal Street GUNNEDAH NSW 2380

Attention: Greg Griffiths

Dear Greg

Bengalla Mine Draft Aboriginal Cultural Heritage Management Plan for Comment

Bengalla Mining Company (BMC) operates the Bengalla Mine (Bengalla) which is located approximately 4 km west of Muswellbrook in the Upper Hunter Valley, NSW. BMC was granted Development Consent for State Significant Development (SSD) 5170 on 3 March 2015 by the Secretary of Department of Planning and Environment (DP&E) for the Continuation of Bengalla Mine to enable ongoing mining operations.

SSD-5170 requires that an Aboriginal Cultural Heritage Management Plan (ACHMP) be completed in consultation with the Aboriginal community and relevant regulatory bodies. Schedule 3, Condition 31 of SSD-5170 states:

- 31. "The Applicant shall prepare and implement an Aboriginal Heritage Management Plan for the project to the satisfaction of the Secretary. This plan must:
- (iii) be prepared in consultation with OEH and the relevant Aboriginal stakeholders, and submitted to the Secretary for approval within 6 months of the date of this consent;
- (jjj) include a program/procedures for:
 - salvage, excavation and/or management of Aboriginal sites and potential archaeological deposits within the project disturbance area;
 - assessment and removal of scarred trees;
 - protection and monitoring of Aboriginal sites outside the project disturbance area;

- managing the discovery of any new Aboriginal objects or skeletal remains during the development;
- maintaining and managing access to archaeological sites by the relevant Aboriginal stakeholders; and
- ongoing consultation and involvement of the relevant Aboriginal stakeholders in the conservation and management of Aboriginal cultural heritage on the site.

We have enclosed a return fax/email pro forma to assist should you wish to use it, however, please provide a letter should you prefer. All responses received by this date will be considered and where appropriate, recommendations from the Aboriginal community will be incorporated into the final ACHMP for submission to the DP&E for approval.

Following approval of the ACHMP, I will provide further correspondence requesting your company's assistance and outlining details associated with the proposed Aboriginal archaeological salvage as described within the draft ACHMP.

Thank you again for your support and assistance with this work and we look forward to your ongoing involvement with Bengalla. Should you have any queries in relation to this letter, please contact myself on (02) 6575 2000.

Yours faithfully

HANSEN BAILEY

Jason Martin

Senior Environmental Scientist

Att: Draft Aboriginal Cultural Heritage Management Plan

Return fax/email Response Pro Forma

Return Fax: (02) 6575 2001; or Email: jmartin@hansenbailey.com.au Attention: Jason Martin BENGALLA MINE - DRAFT ABORIGINAL CULTURAL HERITAGE RE: MANAGEMENT PLAN Aboriginal Stakeholder Group: TADAWAA MACALL I have read and have understood the Draft Aboriginal Cultural Heritage Management Plan. I would like to make the following comments regarding the Draft Aboriginal Cultural Heritage Management Plan: CIDAWAA WALANG CULTURAL HERITAGE ONSULTANCY SUPPORT THE

Signed in support: A.M.

On behalf of (Group): GLDAWAR WALANG CULTURAL HERITAGE CONSULTANCY

Date: 13 · 4 · 2015



Wonn1 Entity of Kauwul Pty Ltd

619 Main Road Glendale, 2285

PHONE: 0249547751 Mobile: 0402146193

ABN: 27 153 953 363

14 April 2015

Mr J Martin Senior Environmental Scientist Hansen Bailey Po Box 473 SINGLETON NSW 2330 Email: jmartin@hansenbailey.com.au

Dear Jason

RE: BENGALLA MINE – DRAFT ABORIGINAL CULTURAL HERITAGE MANAGEMENT PLAN

In response to your letter dated 12 March 2015 and enclosed draft management plan, we wish to advise that we are in general agreement with the contents of the management plan. However, the management plan does not appear to explain clearly, what are the long term arrangements for the care and protection of the artefacts recovered during salvage and excavation projects within the Bengalla Mine site. This should be addressed in an additional section, probably Section 6.8 or a paragraph added to Section 6.7 following consultation with the other Aboriginal stakeholders.

We appreciate the opportunity to access the recorded sites and the salvaged artefacts and objects for educational and potential ceremonial reasons.

Thank you once again for this opportunity to review the draft Aboriginal Cultural Heritage Management Plan and look forward to being consulted further during the annual review process.

Kind regards

Arthur C Fletcher

Wonn1 (Kauwul Pty Ltd)



Jason Martin

Environmental Scientist

HANSEN BAILEY

Email: jmartin@hansenbailey.com.au

Re: Bengalla Draft ACHMP dated 12th March 2015

Dear Jason,

Wanaruah Local Aboriginal Land Council does not support the destruction of any Aboriginal cultural sites, although we do recognise that sometimes this cannot be avoided. We would like to make it clear that our comments here are not to be taken or read as in any way supportive of any destruction of any cultural sites or cultural landscapes within this project.

With reference to the Bengalla Draft ACHMP dated 12th March 2015 we have a concern relating to the ongoing (post study) management of Aboriginal objects and resource materials salvaged under this and previous management plans within the Bengalla Mining Company's project area. If no consideration or consultation has been done in regard to the ongoing (post study) management of Aboriginal objects and resource materials salvaged under this and previous management plans within the Bengalla Mining Company's project area, Wanaruah LALC will only support the management option of them being retained in the Upper Hunter Valley within the Muswellbrook Shire. We believe the provision of resources for the ongoing care, maintenance and management of these Aboriginal objects and resource materials need to be identified as well as the identification of the care and control organisation prior to any salvage, excavation or removal from their existing locations.

Wanaruah LALC would also like to request that should the destruction of the quarry site (B10) in part or in full be unavoidable that the resource materials within that quarry site be relocated to Aboriginal land held in trust by Wanaruah Local Aboriginal Land Council for use and access by the Aboriginal community in cultural activities.

20-4-2015

Yours Truly

Noel Downs

