

12th November 2013

Ben de Somer
Environment & Community Superintendent
Liddell Coal Operations Pty Ltd
Glencore
Ben.Desomer@glencore.com.au

RE: Artefact Collection of LID 30 and LID 32, Liddell Coal Operations, Ravensworth

Introduction

Liddell Coal Operations (LCO) is an open-cut mining operation located at Ravensworth, in the Upper Hunter Valley of New South Wales (The Subject Area; **Figure 1**). LCO engaged OzArk Environmental & Heritage Management (OzArk) to enact surface collection over two sites, LID 30 (AHIMS #37-3-0426) and LID 32 (AHIMS #37-3-0464), that had been approved for salvage under an existing valid AHIP #2348 (**Appendix 2**). The surface artefacts within these sites were collected on 30 September 2013.

Project background

Extensive archaeological investigations have occurred within the Subject Area since mining was initiated, and these studies have identified a large number of archaeological sites. In 2011, OzArk was engaged to undertake Aboriginal and Historic Heritage Assessments towards the Environmental Assessment for the proposed modification # 5 to Development Consent DA 305-11-01.

The Aboriginal sites identified during this assessment were placed into management groups based on the proposed project impacts. Sites along Chain of Ponds Creek were included in these management groupings, despite the fact that they had already undergone previous salvage in 2006, under AHIP #2348 (issued Oct 2, 2006 and enacted 21-23 Nov 2006). This was specifically because two sites, LID 30 and LID 32, still exhibited surface artefacts during the 2011 survey, because the permitted project impacts to these sites had not yet occurred. As a result, these sites were placed into Management Group 2 (surface collection and/or relocation) in reference to the proposed development modification #5. This was management was agreed upon with the Registered Aboriginal Parties (RAPs) for the project, but it is noteworthy that LCO were not specifically required to undertake further salvage at these sites, due to the fact that the AHIP remained active. Nonetheless, in good faith, and because it had been agreed to in reference to the newly proposed modification, LCO supported the further surface salvage of these two sites, and as AHIP #2348 was still active a surface collection of remaining artefacts was recommended prior to Development Modification 5 being approved.

FIGURE 1: LOCATION OF LIDDELL COAL OPERATIONS. SOURCE: GOOGLE MAPS

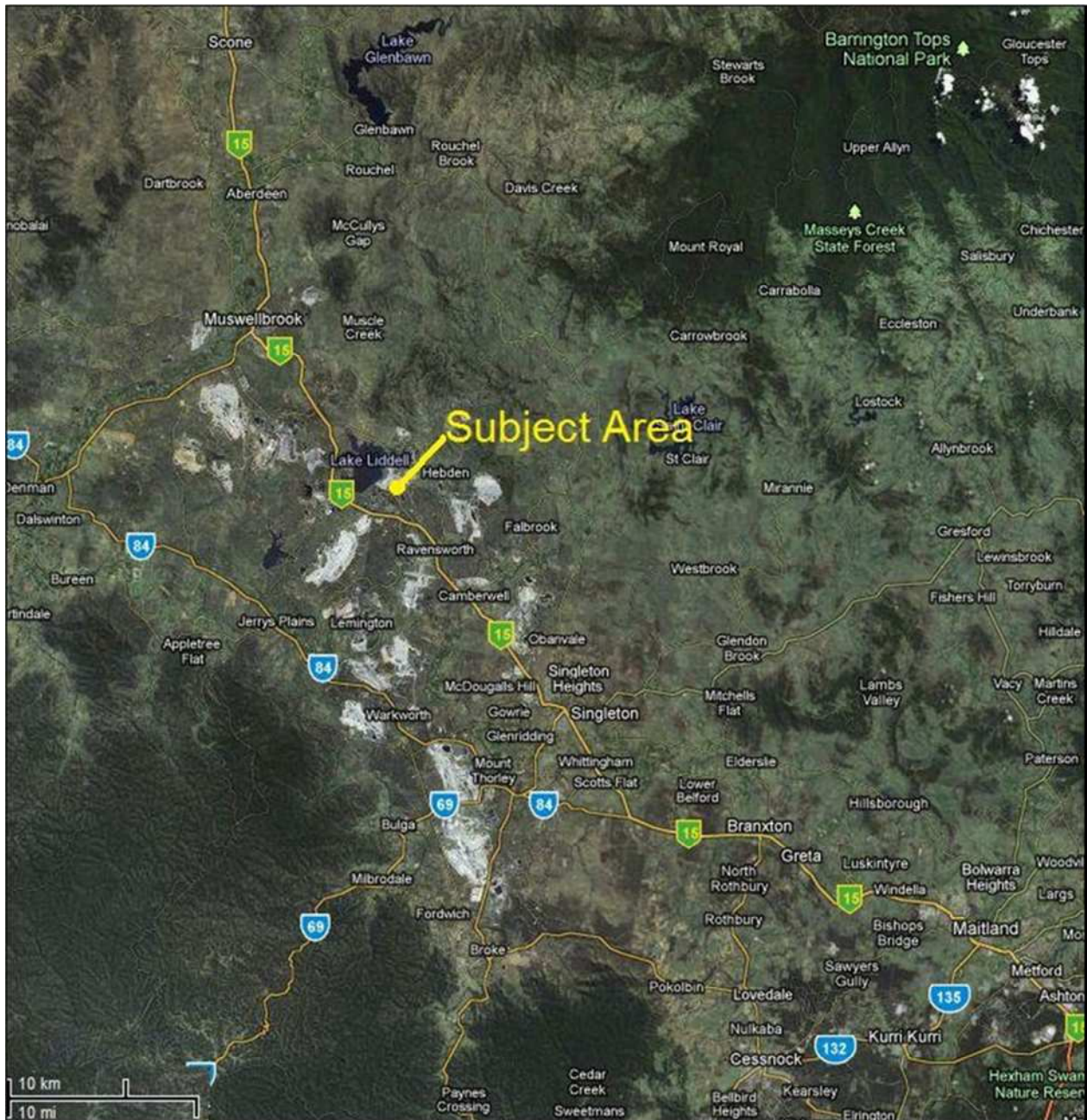


FIGURE 2: SITES WITHIN THE PROPOSED SOUTH PIT EXTENSION INCLUDING LID 30 AND LID32.

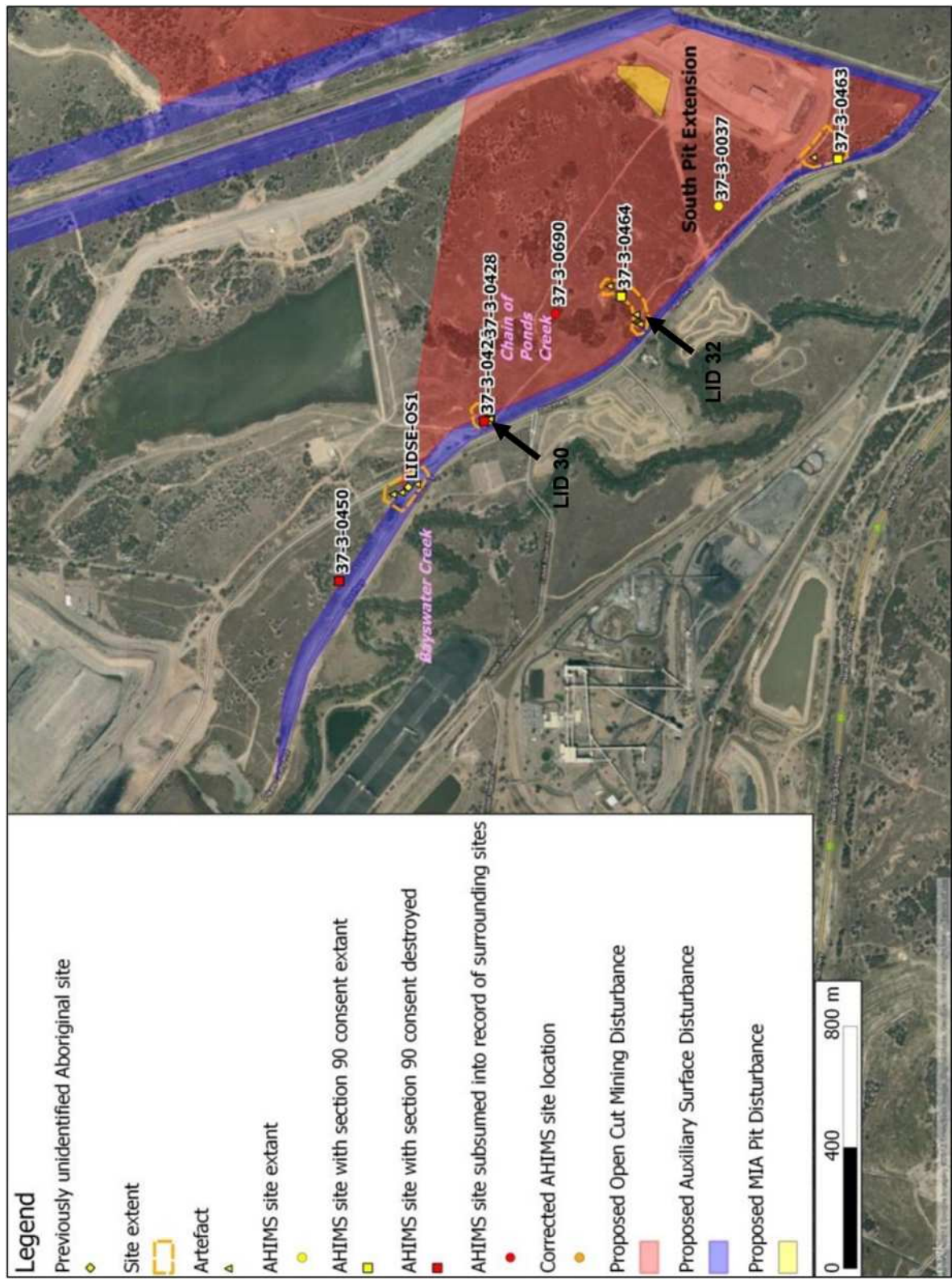


FIGURE 3: LID 30 SITE BOUNDARY.



FIGURE 4: LID 32 SITE BOUNDARY.



Results of collection

The surface collection took place on 30 September 2013 by the following people:

- Nick Harrop (OzArk)
- Wayne French (Ungooroo Aboriginal Corporation)
- Steve Verrey (Tocumwall)

Wonnarua Nation were also offered a position on the collection team but were unable to provide a representative on the day.

The sites were thoroughly investigated, with particular attention given to exposures and areas where artefacts had been previously located. The sites are briefly described below, but OzArk's assessment report (2013) should be referred to for more detail. All artefacts collected were photographed and recorded in the field, and were labelled and bagged prior to handing them over to Liddell Coal Operations for interim secure storage. Many of the broken artefacts at both sites were likely damaged by the salvage grader scrapes, and some of the smaller flakes and 'debitage' may have been created in this process.

LID 30 (PLATE 1)

This site is an artefact scatter located on a small ridge crest 180 m west above Chain of Ponds Creek. It was evident on a sheetwash erosion scar in a small stand of trees to the southeast of an access track that crosses Chain of Ponds Creek (**Plate 1**). Lithic materials recorded at the site included silcrete and indurated mudstone. The site has been impacted by a vehicle track and a surface pipeline that both run through the northern portion of the site. LID 30 is listed as destroyed according to a recent ASIRF for the site and on AHIMS.

Eight artefacts were collected from the remnants of LID 30 (Table 1; **Plate 2**). They were located in two main exposures, including a former grader scrape and an embankment also created by machinery.

LID 32 (PLATE 3)

This site consists of artefacts eroding out of a cut terrace bank to the east above Chain of Ponds Creek. The site has been impacted significantly by development works since initial salvage which is best illustrated by the presence of a partially buried pipeline that passes through the southern portion of the site. LID 32 is listed as destroyed according to a recent ASIRF for the site and on AHIMS.

Seven artefacts were retrieved from LID 32 (Table 2; **Plate 4**). All were protruding from the eroding bank of an ephemeral creek line.

TABLE 1: ARTEFACTS RETRIEVED FROM LID 30.

Artefact Number	Type	Material	Dimensions (mm)			Comments
			Length	Width	Thick-ness	
1	core / possible scraper	red mudstone	48	40	18	<ul style="list-style-type: none"> 9 negative scars tertiary reduction
2	broken flake	orange mudstone	23	19	6	<ul style="list-style-type: none"> 1 negative scar tertiary reduction
3	possible broken flake	orange mudstone	21	12	6	<ul style="list-style-type: none"> primary reduction
4	possible broken flake	red mudstone	25	13	3	<ul style="list-style-type: none"> tertiary reduction if artefact but no clear scars.
5	debitage	red mudstone	18	11	3	<ul style="list-style-type: none"> tertiary reduction
6	possible manuport	shell	N/A			<ul style="list-style-type: none"> likely to have been transported to this location by Aboriginal people no cultural markings
7	broken flake	orange mudstone	27	20	11	<ul style="list-style-type: none"> primary reduction
8	debitage	orange mudstone	16	16	3	<ul style="list-style-type: none"> 1 negative scar secondary reduction

TABLE 1: ARTEFACTS RETRIEVED FROM LID 30.

Artefact Number	Type	Material	Dimensions (mm)			Comments
			Length	Width	Thick-ness	
1	flake	tuff	32	35	19	<ul style="list-style-type: none"> at least 2 clear negative scars tertiary reduction
2	distal broken flake	chert	24	26	12	<ul style="list-style-type: none"> possible negative scar tertiary reduction
3	flaked piece	quartz	29	23	18	<ul style="list-style-type: none"> 3 negative scars secondary reduction
4	core fragment	quartzite	37	28	13	<ul style="list-style-type: none"> 2 negative scars tertiary reduction
5	broken flake	quartzite	27	13	6	<ul style="list-style-type: none"> tertiary reduction longitudinal break
6	broken flake	chert	30	30	5	<ul style="list-style-type: none"> 2 negative scars tertiary reduction
7	debitage	silcrete	13	8	2	<ul style="list-style-type: none"> tertiary reduction

Management recommendations

No further archaeological investigation or salvage is required at sites LID 30 (AHIMS #37-3-0426) and LID 32 (AHIMS #37-3-0464). The following recommendations are made:

1. The artefacts collected from the salvage should remain in the custody of Liddell Coal Operations until their long-term management is resolved through the development of an Aboriginal Cultural Heritage Management Plan (ACHMP) in consultation with Registered Aboriginal Parties (RAPs).

Should you have any questions please contact me on (02) 6882 0118 or at nick@ozarkehm.com.au.

Regards,



Nick Harrop
Senior Archaeologist
OzArk Environment and Heritage Management Pty Ltd

References

- | | |
|------------|--|
| OzArk 2013 | OzArk Environmental and Heritage Management 2013. Aboriginal and Historic Heritage Assessment, Liddell Coal Operations, Modification 5 to Development Consent DA 305-11-01. Report for GSS Environmental on behalf of Liddell Coal Operations Pty Limited. |
|------------|--|

Plates



PLATE 1: VIEW TO THE NORTH ACROSS LID 30.



PLATE 2: ARTEFACT 1, LID 30.



PLATE 3: VIEW TO THE EAST ACROSS LID 32.

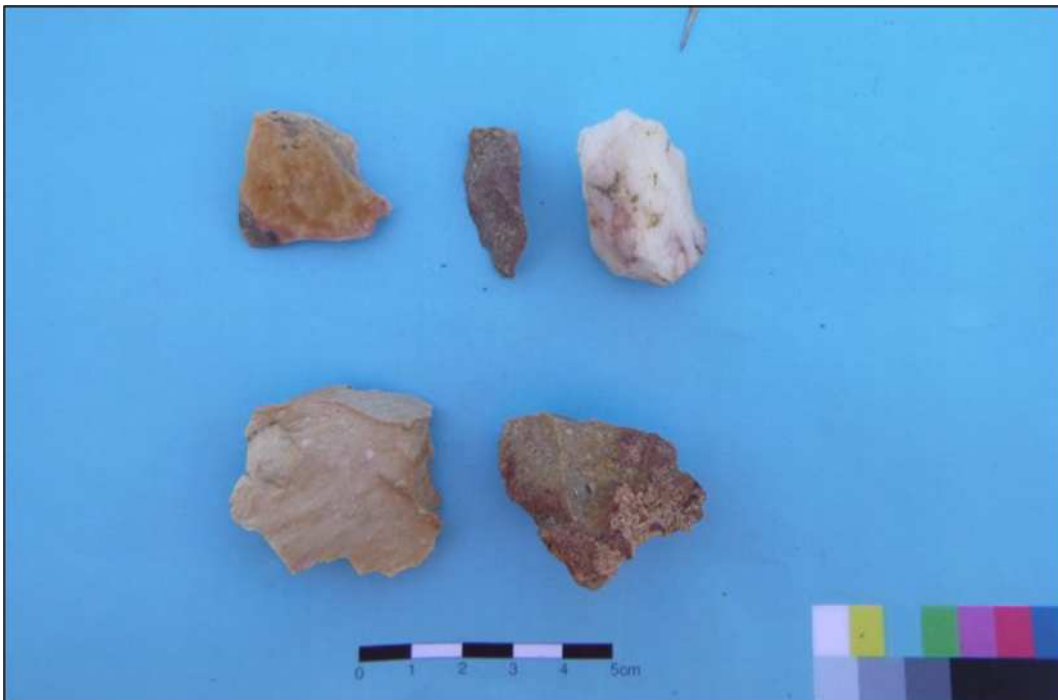


PLATE 4: ARTEFACTS 1 TO 5, LID 32.

Appendix 1: consent to destroy/AHIP #2348

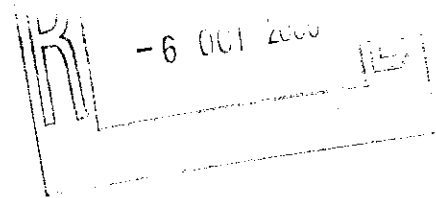


Department of
Environment and Conservation (NSW)

Your reference :
Our reference : DOC06/04876 Permit #2348
Contact : Maria Cotter, 02 6773 7018
Date : ~~29 September~~ 2006

3 October

Mr E. Wegner
Environmental Coordinator
Liddell Coal Operations Pty Ltd
PO Box 7
SINGLETON NSW 2304



Dear Mr Wegner,

Re: Section 90 consent application for the destruction of Aboriginal objects during dam infrastructure works in the Chain of Ponds Area, Liddell Singleton LGA [Permit #2348].

I refer to your application dated March 3 2006 seeking consent from the Department of Environment and Conservation (DEC) under section 90 of the *National Parks & Wildlife Act 1974* to destroy Aboriginal objects contained within the Liddell Coal Mine Lease area. I understand that the s90 consent is sought to enable the development of a dam to hold mine waste water.

Please find attached a copy of the duly approved permit (NPWS #2348). This Permit is issued to Liddell Coal Operations Pty Ltd for a period of ten (10) years. You are reminded that the permit covers only those areas described in the permit schedules. The Permit Holder retains the responsibility for ensuring that all relevant parties in any way associated with the activity are aware of the Special, Specific and General Conditions of the Permit.

If you wish to discuss any of the above matters further please contact Maria Cotter, Archaeologist, on (02) 6773 7018.

Yours sincerely

GARY DAVEY *Brendan Diakono*
Director North East Branch
Environment Protection and Regulation Division

ADJWS

DEC exercises regulatory activities on behalf of the EPA





Department of
Environment and Conservation (NSW)

CONSENT #2348

NATIONAL PARKS AND WILDLIFE ACT 1974

SECTION 90

CONSENT TO CARRY OUT THE PARTIAL DESTRUCTION OF AN
ABORIGINAL OBJECT/PLACE AND PERMIT TO COLLECT AND/OR
EXCAVATE FOR THE PURPOSE OF SALVAGE

WHEREAS the Aboriginal objects described in Schedule "A" are situated upon the land described in Schedule "B", and constitute Aboriginal objects within the meaning of Section 90 of the National Parks and Wildlife Act 1974, and WHEREAS application has been made by:

LIDDELL COAL OPERATIONS Pty Ltd
Pikes Gully Road
off New England Highway
via Ravensworth NSW 2330

FOR CONSENT to destroy those objects in the course of:

Dam infrastructure development works in the vicinity of the Chain of Ponds area, Liddell Colliery, Pikes Gully Road, Singleton Local Government Area.

NOW I, Lisa Corbyn, Director-General of Department of Environment and Conservation, in pursuance of Section 90 of the said Act, and subject to the conditions hereunder set out DO HEREBY CONSENT to the partial destruction of the said objects/place by the said applicant. AND FURTHER, in accordance with the said Conditions, and in pursuance of Section 90 of the said Act, I DO HEREBY PERMIT the salvage collection of the said objects from the aforesaid land, prior to destruction of the objects, by the nominated archaeologists (UMWELT (AUSTRALIA) Pty Limited) and representatives of the Aboriginal community.

TERMS AND CONDITIONS OF THIS CONSENT

This Consent is issued subject to General Terms and Conditions covering all Permits and Consents, as well as the Specific Terms and Conditions pertaining to Consents to destroy Aboriginal objects and any Special Conditions, all of which conditions are detailed in the attached pages.

DATED at COFFS HARBOUR this ~~THIRD~~ ^{OCTOBER} day of ~~September~~ 2006.

B. Di Lorenzo
B. Di Lorenzo ACTING
DNEB.

Issued for the Director-General of
Department of Environment and Conservation

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SCHEDULE A:

Generally, all Aboriginal objects, within the definition of the *National Parks and Wildlife Act 1974*, but excluding human skeletal remains.

SCHEDULE B:

The specific area delineated on **Attachment 1** entitled *Area covered by DEC s90 Consent # 2348 Chain of Ponds Area, Liddell Colliery, Singleton LGA* as identified in the consent application registered 3 March 2006 with the Department of Environment and Conservation as DOC 06/04876 (subject land), and including the following Aboriginal sites:

LID 29, AHIMS site #37-3-0427
(centrepnt AMGE 314310, AMGN 6413400)
Liddell Colliery Mine Lease
Parish: Liddell; County: Durham; Singleton Local Government Area.

LID 30, AHIMS site #37-3-0426
(centrepnt AMGE 314045, AMGN 6413173)
Liddell Colliery Mine Lease
Parish: Liddell; County: Durham; Singleton Local Government Area.

LID 31, AHIMS site #37-3-0428
(centrepnt AMGE 314256, AMGN 6413168)
Liddell Colliery Mine Lease
Parish: Liddell; County: Durham; Singleton Local Government Area.

LID 32, AHIMS site #37-3-0426
(centrepnt AMGE 314400, AMGN 6412800)
Liddell Colliery Mine Lease
Parish: Liddell; County: Durham; Singleton Local Government Area.

SPECIAL CONDITIONS APPLYING TO CONSENTS WITH SALVAGE

1. The Consent Holder will ensure that the archaeological and Aboriginal salvage program required for AHIMS Sites LID 29, #AHIMS 37-3-0427; LID30 AHIMS #37-3-0426; LID 31 AHIMS #37-3-0428; and LID 32, AHIMS #37-3-0464 is undertaken and completed prior to commencement of any substantial clearing and/or ground disturbing works on the land subject to the development application, in accord with s90, *National Parks and Wildlife Act 1974*.
2. The Consent Holder will ensure that the proposed archaeological and Aboriginal salvage program including the use of grader scrapes to monitor for sub-surface deposits, is conducted by a suitably qualified archaeologist, and in accordance with the methods described in the

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Consent Application registered with the Department of Environment and Conservation on the 3 March 2006 as DOC06/04876.

3. The Consent Holder will ensure that suitably experienced representatives of the local Aboriginal community are involved in the salvage of Aboriginal objects and in the monitoring of ground disturbance works associated with the grader scrapes, as described in the consent application registered with the Department of Environment and Conservation on the 3 March 2006 as DOC06/04876.
4. The Consent Holder will ensure that all Aboriginal objects salvaged under this Consent are given into the care and control of the Wonaruah Local Aboriginal Land Council for safe-keeping in a locked cabinet within the Land Council Offices, as outlined in the Care Agreement for Aboriginal Objects submitted with this s90 Application and dated the 28 February 2006.
5. The Consent Holder shall ensure that any proposals to modify the mitigation measures and/or salvage methodology outlined in the Consent application are firstly discussed with the identified Aboriginal stakeholders for the project, and have the endorsement of the Department of Environment and Conservation, prior to modifications being implemented.
6. The Consent Holder shall ensure that all contractor/s and/or maintenance personnel involved in the dam infrastructure development works on the subject lands described in Schedule 'B' undergo an induction to be informed of the National Parks and Wildlife Act (1974) legislative obligations in the management and/or protection of Aboriginal objects and/or Aboriginal places.
7. The Consent Holder shall ensure that during ground disturbing works should any skeletal material be uncovered which is thought to represent human remains, all work must cease in the immediate vicinity and the Consent Holder must contact the NSW Police and the Department of Environment and Conservation (Environment Line, phone 131555). Work must not recommence in the area where the skeletal material has been uncovered until such time as the NSW Police and the Department of Environment and Conservation have provided advice, following consultation with the relevant Aboriginal community groups, on whether there are any subsequent approval requirements.

SPECIFIC CONDITIONS APPLYING TO CONSENTS WITH SALVAGE

1. The Consent covers only those objects described in the instrument and in any Schedules thereto.
2. In the case of Consents granted to cover development activities, the Permit is granted to cover only those circumstances described in the Schedules, and subject to there not being discovered in the course of

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further operations, in the progress of that development requiring the Consent, any other objects which will be damaged or destroyed by the continuation of the operation. (Destruction of such objects would require the granting of a separate Consent).

3. The Consent is conditional upon all relevant development approvals having been obtained.
4. Should the objects listed in Schedule 'B' above remain in existence ten (10) years from the date of this document, the Consent shall be deemed to be void, and any further damage to the objects will require the preparation of a new Consent document.
5. Prior to the Consent becoming effective, the objects described in the Schedules must be salvaged, following the guidelines attached. The salvage work is to be carried out by UMWELT (AUSTRALIA) Pty Limited and representatives of the local Aboriginal community.
6. Should any 'relic', defined under the *Heritage Act* of NSW be uncovered, then excavation or disturbance of that area is to stop immediately and the Heritage Council of NSW is to be informed in accordance with S.146 of the Heritage Act, 1977 (as amended). Historical archaeologists at the Heritage Council can be contacted on (02) 8837 8500.

A 'relic' under the *Heritage Act* is defined as any deposit, object or material evidence-

- (a) which relates to the settlement of the area that comprises NSW, not being Aboriginal settlement; and
 - (b) which is 50 or more years old.
7. The holder of the Consent shall furnish the Department of Environment and Conservation with a report at the completion of the salvage work or expiry of the Consent or any renewal thereof, or as specified in the guidelines, whichever occurs first. Such report shall include:
 - a complete list of all material recovered;
 - a detailed description of the methods of excavation/collection and analysis used;
 - a detailed plan of the site, including the location of collection areas, all trenches, auger holes and spoil heaps;
 - summary of consultation undertaken with relevant Local Aboriginal Land Councils or relevant Aboriginal Community Groups.

General Terms and Conditions

1. Permits and Consents are not transferable.
2. A Permit covers only that area stated in the Permit
3. A Consent covers only that area stated in the instrument of Consent and in any Schedules thereto.

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4. Permits may be revoked at any time at the discretion of the Director-General.
5. Terms and conditions of Permits may be varied at any time at the discretion of the Director-General.
6. The Person to whom the Permit is issued or the Consent granted shall be responsible for the manner in which the work covered by the Permit or Consent is performed.
7. An officer of the Department of Environment and Conservation, acting on the authority of the Director-General, may at any time examine work done or any objects recovered under any Permit or Consent.
8. Permits and Consents are necessary for all activities for which they are issued or granted, but do not in themselves give authority to enter or work on freehold land or leased Crown Land. Permission must be sought from the owner or occupier and arrangements made with him/her.
9. The holder of the Permit or Consent shall furnish, when required to do so, an undertaking to indemnify the Department of Environment and Conservation against all actions, suits, claims and demands of whatsoever nature and all costs, charges and expenses in respect of any accident or injury to any person or property which may arise solely out of the existence of any works associated with the Permit or Consent.
10. The Department of Environment and Conservation shall have the right to copy all such reports prepared under DEC Permits or Consents, to allow consideration thereof by qualified referees.
11. For a period of five years from the date of issue of the Permit, the holder of the Permit or Consent may refuse to allow the Department of Environment and Conservation, if such information is held by those institutions, to make public any information contained in any report referred to in Condition 10 above, except where it is deemed necessary for management, protection or research reasons. After this period of five years from the date of issue of the Permit or Consent, the DEC shall have the right to use and authorise the use of information contained in all reports submitted under the Permit or Consent, except where specifically requested by the holder of the Permit or Consent.
12. Upon publication of any information relating to work done under a Permit or Consent, a copy of such publication(s) shall be forwarded to the Department of Environment and Conservation.
13. The holder of the Permit or Consent shall consult with the local Aboriginal community regarding the work covered by the Permit or Consent and shall respond to any reasonable request to involve the Aboriginal community in the work.
14. The Department of Environment and Conservation may supply copies of relevant reports as furnished by the holder of the Permit or Consent

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to local Aboriginal communities. Upon request by the Service, the holder of the Permit or Consent shall supply a summary of his/her findings with photographs, diagrams, etc., as required, to local Aboriginal communities or other interested local groups.

15. The holder of the Permit or Consent shall keep field records and a copy of all such records shall be lodged with the Department of Environment and Conservation at the termination of each field-work period if requested.
16. The holder of the Permit or Consent shall notify the local office of the Department of Environment and Conservation at the commencement and completion of fieldwork, and shall supply to District officers details of field work programs and results if requested.
17. In the event of a Permit being revoked -
 - a) The Person to whom that Permit was issued shall
 - (i) Furnish an undertaking to indemnify the Department of Environment and Conservation against all actions, suits, claims and demands of whatsoever nature, and all costs, charges and expenses in respect of any accident or injury to any person or property which may arise solely out of the existence of any works associated with the Permit;
 - (ii) leave the areas, the subject of that Permit, in a condition satisfactory to the Department of Environment and Conservation within two weeks from the date of revocation of that Permit;
 - (iii) furnish the Department of Environment and Conservation within six months from the date of revocation of the Permit, a full report on the work completed at the date of revocation. Such a report shall include a complete list of any material recovered.
 - (b) The Department of Environment and Conservation shall have the right to use and authorise the use of information collected under the Permit.

29 September 2006

End

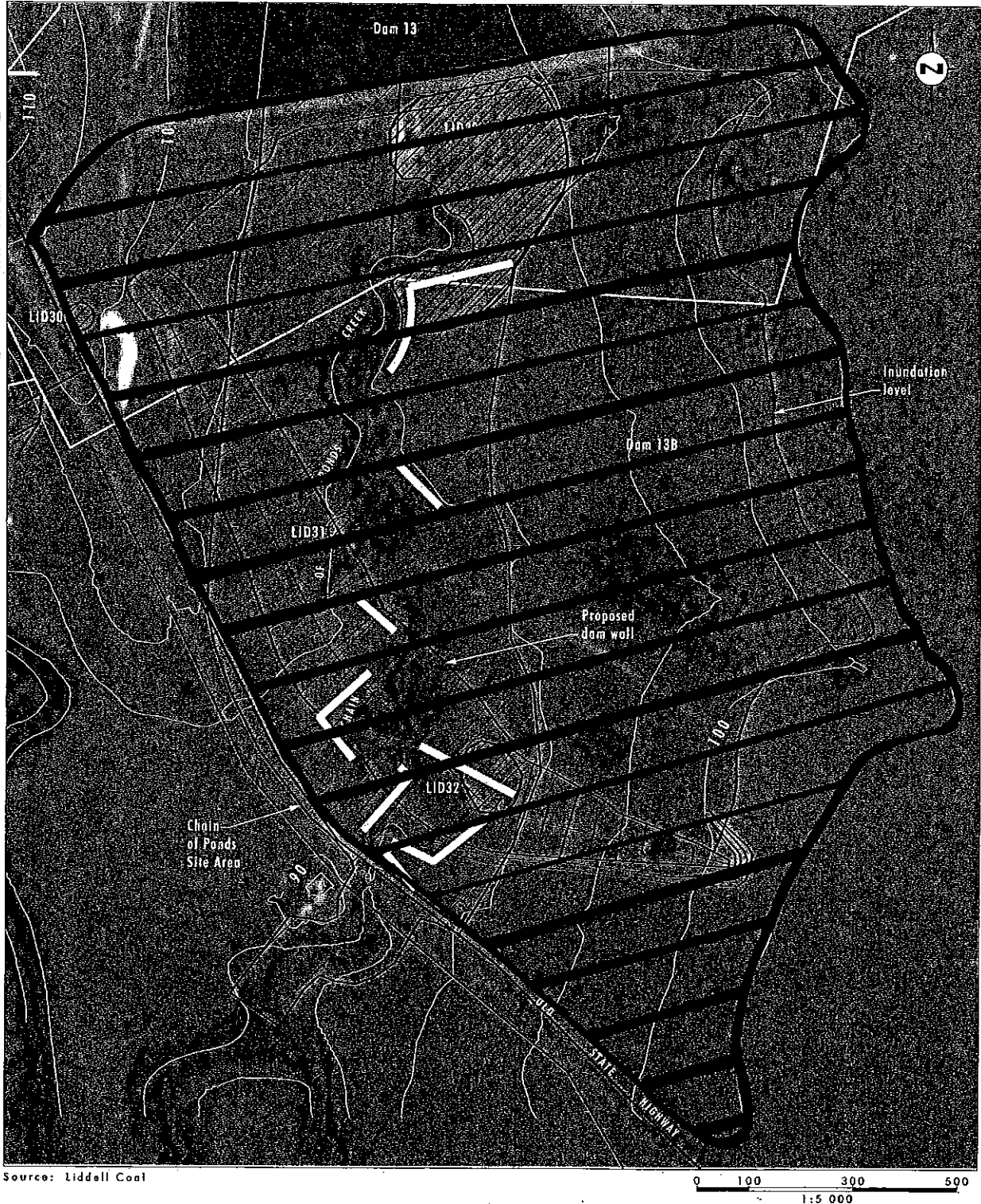
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Attachment 1

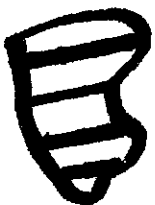
Area covered by DEC s90 Consent #2348 Chain of Ponds Area, Liddell Colliery Singleton LGA.

(Source: Umwelt (Australia) Pty Limited, 2006. *S90 Consent Application for LID 29, LID 30, Lid 31 and Lid 32 within the Chain of Ponds Area, Liddell Mine*, Figure 3: Location of Grader Scrapes. Registered with DEC as DOC06/04876 March 3 2006]).

Umwelt
Environmental Consultancy



LEGEND



Area covered by s90 Consent # 2348