SITE NAME: COCKABUTTA CREEK 44

Site Name:	Cockabutta Creek 44	Recorder:	Birgitta Stephenson
Site Type:	Isolated Find	MGA Grid Reference:	752605:6432954
Date Recorded:	27/5/2014	Topographic Map:	Narragamba 8833-4S
Landform Element: Slope: Distance to Water:	Drainage depression Gentle <50	Vegetation: Ground Disturbance:	Forest/bush/regrowth Low

Visible Extent of Surface Exposures: Length (m)	Visible Extent of Surface Exposures: Width (m)	Visible Extent of Evidence: Length (m)	Visible Extent of Evidence: Width (m)	Visible Locus Area (m ²)	Mean Surface Visibility of Locus (%)	Mean Arch. Visibility of Locus (%)	Effective Locus Area (m ²)	# of Artefacts	# of Artefacts per m ² of Effective Locus Area	Sub- Surface Deposit
5	1	1	1	1	5	5	0.05	1	20.000	unlikely

Lithic Items:

А	rtefact #	MGA Easting	MGA Northing	Colour	Stone Material	Lithic Item Type	Dimensions (mm)	Cortex Type	Cortex Amount (%)	Comments
	1	752605	6432954	grey	quartzite	lithic fragment	50x40x2	60	peb	broken river pebble; foreign to immediate locality

Additional Comments:

- □ Located during survey for Ulan West Modification;
- □ Edge of small eroded drainage channel;
- □ Small acacia and eucalypt regrowth;
- □ Minor pebbles of quartz available.

Site Location: Cockabutta Creek 44 (100 metre MGA grid; one metre contours).



Photograph: Cockabutta Creek 44



SITE NAME: COCKABUTTA CREEK 45

Site Name: Site Type: Date Recorded:		utta Creek 45 elter with PAD 14	Recorder: MGA Grid Reference: Topographic Map:	Peter Kuskie 752782:6432453 Narragamba 8833-4S
Landform Element: Slope: Distance to Water:	Spur cre Gentle >50	est	Vegetation: Ground Disturbance:	Forest/bush/regrowth Low
Rock Outcrop Materia Outcrop Type: Outcrop Form: Aspect: Erosion: Surface Condition: Soil: Disturbance to Deposi Causes of Disturbance	t:	Sandstone Rock shelter Boulder North Cavernous Exposed/weathered Rocky, silt Moderate Erosion		
Possible Extent of Pote Possible Depth of Pote # of Artefacts: Archaeological Visibil Shelter Floor Area: Habitable Shelter Area	ential Arcl ity:	naeological Deposit:	4 x 1 metres Uncertain Nil 80 % 3.8 x 1.3 and 3.8 x 1. 3.8 x 1.3 metres	6 metres

Additional Comments:

- □ Recorded during survey for Ulan West Modification;
- □ Dimensions 1.3 metres deep and 3.8 metres wide where roof 2.5 metres high and habitable floor area is present;
- □ Adjoining area of 1.6 metres deep and 3.8 metres wide under low roof, between large boulder and rear wall (tunnel);
- □ Extensive views to north;
- \Box Small pad 4 x 1 metres;
- Deposit highly compacted and possible erosion impacts;
- Different/less common context, low to possibly moderate potential.

Site Plan: Cockabutta Creek 45





Site Location: Cockabutta Creek 45 (100 metre MGA grid; one metre contours).



Photograph: Cockabutta Creek 45



SITE NAME: COCKABUTTA CREEK 46

Site Name: Site Type: Date Recorded:	Cockabutta Cr Rock shelter w 28/5/2014	th PAD	Recorder: MGA Grid Reference: Topographic Map:	Peter Kuskie 752804:6432382 Narragamba 8833-4S
Landform Element: Slope: Distance to Water:	Spur crest Gentle >50		Vegetation: Ground Disturbance:	Forest/bush/regrowth Low
Rock Outcrop Materia	1: Sand	tone		
Outcrop Type:		shelter		
Outcrop Form:	Bould	er		
Aspect:	South			
Erosion:	Cave	nous, honeycon	nb	
Surface Condition:	Exfol	ating		
Soil:	Rock	, sand		
Disturbance to Deposit	t: Low	moderate		
Causes of Disturbance	: Erosi	on, animal burr	OWS	
Possible Extent of Pote	ential Archaeolo	gical Deposit:	1.5 x 1 metres	
	*		Uncertain	
# of Artefacts:			Nil	

Possible Extent of Potential Archaeological Deposit.	1.5 x 1 metres
Possible Depth of Potential Archaeological Deposit:	Uncertain
# of Artefacts:	Nil
Archaeological Visibility:	80 %
Shelter Floor Area:	c.8 x 5 metres
Habitable Shelter Area (roof 1+ metres above floor):	c.8 x 1.5 metres

Additional Comments:

- □ Recorded during survey for Ulan West Modification;
- Dimensions 5 metres deep to back wall but rear 3.5 metres less than 1 metre high, by 8 metres wide;
- □ Roof 2.1 metres high at dripline but mostly lower;
- □ Small pad 1.5 x 1 metres, mostly rocky floor;
- Low research potential.

Site Plan: Cockabutta Creek 46



Site Location: Cockabutta Creek 46 (100 metre MGA grid; one metre contours).



Photograph: Cockabutta Creek 46



Photograph: Cockabutta Creek 46



SITE NAME: COCKABUTTA CREEK 47

Site Name: Site Type: Date Recorded:	Cockabutta Creek 4 Rock shelter with P. 28/5/2014		Peter Kuskie 752883:6432326 Narragamba 8833-4S
Landform Element: Slope: Distance to Water:	Simple slope Moderate >50	Vegetation: Ground Disturbance:	Forest/bush/regrowth Low
Rock Outcrop Materia Outcrop Type: Outcrop Form: Aspect: Erosion: Surface Condition: Soil: Disturbance to Deposi Causes of Disturbance	Rock shelt Boulder North Cavernous Exfoliating Rocky, san t: Moderate	exposed/weathered	
Possible Extent of Pote Possible Depth of Pote # of Artefacts: Archaeological Visibil Shelter Floor Area:	ential Archaeological	•	

Additional Comments:

□ Recorded during survey for Ulan West Modification;

Habitable Shelter Area (roof 1+ metres above floor):

Dimensions 5 metres deep to back wall and 7 metres wide but mostly higher ledge and sloping bedrock floor and low roof;

7 x 2 metres

- \Box Pad only 2 x 0.5 metres;
- □ 2.7 metres high at dripline;
- Pad affected by erosion;
- □ Low research potential.

Site Plan: Cockabutta Creek 47





Site Location: Cockabutta Creek 47 (100 metre MGA grid; one metre contours).

Photograph: Cockabutta Creek 47



SITE NAME: COCKABUTTA CREEK 48

Site Name:	Cockabutta Creek 48	Recorder:	Peter Kuskie
Site Type:	Isolated Find	MGA Grid Reference:	752669:6432370
Date Recorded:	27/5/2014	Topographic Map:	Narragamba 8833-4S
Landform Element: Slope: Distance to Water:	Simple slope Moderate >50	Vegetation: Ground Disturbance:	Forest/bush/regrowth Low

Exte Sur Expo	sible ent of rface osures: gth (m)	Visible Extent of Surface Exposures: Width (m)	Visible Extent of Evidence: Length (m)	Visible Extent of Evidence: Width (m)	Visible Locus Area (m ²)	Mean Surface Visibility of Locus (%)	Mean Arch. Visibility of Locus (%)	Effective Locus Area (m ²)	# of Artefacts	# of Artefacts per m ² of Effective Locus Area	Sub- Surface Deposit
va	aries	varies	1	1	1	10	10	0.1	1	10.000	unlikely

Lithic Items:

Artefact #	MGA Easting	MGA Northing	Colour	Stone Material	Lithic Item Type	Dimensions (mm)	Cortex Type	Cortex Amount (%)	Comments
1	752669	6432370	white	quartz	flake	30x30x20			chunky

Additional Comments:

- □ Located during survey for Ulan West Modification;
- □ Extensive views to north;
- □ Marginally outside investigation area;
- □ Ironbark.

Site Location: Cockabutta Creek 48 (100 metre MGA grid; one metre contours).



Photograph: Cockabutta Creek 48



SITE NAME: COCKABUTTA CREEK 49

Site Name:	Cockabutta Creek 49	Recorder:	Peter Kuskie
Site Type:	Isolated Find	MGA Grid Reference:	752282:6432506
Date Recorded:	29/5/2014	Topographic Map:	Narragamba 8833-4S
Landform Element: Slope: Distance to Water:	Ridge crest Level - very gentle >50	Vegetation: Ground Disturbance:	Forest/bush/regrowth Low

Visible Extent of Surface Exposures: Length (m)	Visible Extent of Surface Exposures: Width (m)	Visible Extent of Evidence: Length (m)	Visible Extent of Evidence: Width (m)	Visible Locus Area (m ²)	Mean Surface Visibility of Locus (%)	Mean Arch. Visibility of Locus (%)	Effective Locus Area (m ²)	# of Artefacts	# of Artefacts per m ² of Effective Locus Area	Sub- Surface Deposit
varies	varies	1	1	1	5	5	0.05	1	20.000	unlikely

Lithic Items:

Artefact #	MGA Easting	MGA Northing	Colour	Stone Material	Lithic Item Type	Dimensions (mm)	Cortex Type	Cortex Amount (%)	Comments
1	752282	6432506	white	quartz	flake	25x20x13			

Additional Comments:

- □ Located during survey for Ulan West Modification;
- □ Sandstone cobbles, outcrops around;
- □ Ironbark, geebung, acacia;
- □ Site on saddle on ridge;
- □ Low research potential.

Site Location: Cockabutta Creek 49 (100 metre MGA grid; one metre contours).



Photograph: Cockabutta Creek 49



SITE NAME: ULAN DROSD TRACK 3 (ULAN ID# 1572)

Site Name:	Ulan Drosd Track 3	Recorder:	Peter Kuskie
Site Type:	Artefact Scatter	MGA Grid Reference:	752099:6433179
Date Recorded:	21/5/13	Topographic Map:	Narragamba 8833-4-S
Landform Element: Slope: Distance to Water:	Simple slope Gentle >50	Vegetation: Ground Disturbance:	Forest Low

Visible Extent of Surface Exposures: Length (m)	Visible Extent of Surface Exposures: Width (m)	Visible Extent of Evidence: Length (m)	Visible Extent of Evidence: Width (m)	Visible Locus Area (m ²)	Mean Surface Visibility of Locus (%)	Mean Arch. Visibility of Locus (%)	Effective Locus Area (m ²)	# of Artefacts	# of Artefacts per m ² of Effective Locus Area	Sub- Surface Deposit
varies	varies	120	20	2400	5	5	120	5	0.042	possible

Lithic Items:

Artefact #	MGA Easting	MGA Northing	Colour	Stone Material	Lithic Item Type	Dimensions (mm)	Cortex Type	Cortex Amount (%)	Comments
1	752099	6433179	white/orange	chert	flake - proximal	18x10x2			recorded during drill track survey 21/5/2013;
2	752098	6433181	black/cream/ orange	chert	core	40x20x5			recorded during drill track survey 21/5/2013; 3 metres west of artefact #1; 2 platforms, 5 scars; banded material
3	752092	6433153	white/pink	quartz	lithic fragment	10x5x2			recorded during drill track survey 21/5/2013; south of #2
4	752054	6433131	grey	chert	lithic fragment	19x17x6			recorded during Modification survey
5	752036	6433082	white	quartz	core	26x25x20			recorded during Modification survey

Additional Comments:

- Originally recorded 21 May 2013 during drilling due diligence survey;
- □ Re-recorded and site extended during Modification survey;
- □ On proposed vehicle access track for drilling;
- □ Sandy soil;
- □ Low potential for sub-surface deposit of high research value but probably more artefacts.

Site Location: Ulan Drosd Track 3 (100 metre MGA grid; one metre contours).



Photograph: Ulan Drosd Track 3



APPENDIX 4. PLATES⁴

⁴ Refer also to photographs associated with site recordings in Appendix 3.

Ulan Coal Mines Limited, Central Tablelands of New South Wales: Ulan West Modification -Aboriginal Cultural Heritage Assessment. South East Archaeology Pty Ltd 2015



Plate 1: View south-west from pagodas in survey area Mod 8 across south-western portion of previously unsurveyed investigation area outside of the existing approved UCCO Project Area.



Plate 2: View north-west from survey area Mod 15 in south-eastern corner of previously unsurveyed investigation area outside of the existing approved UCCO Project Area.



Plate 3: Typical moderately inclined simple slope (survey area Mod 12) within previously unsurveyed investigation area outside of the existing approved UCCO Project Area.



Plate 4: Typical straight-walled rock formations within previously unsurveyed investigation area outside of the existing approved UCCO Project Area (survey area Mod 12).



Plate 5: Rock formations in survey area Mod 2 (gentle hillock) in the previously unsurveyed investigation area outside of the existing approved UCCO Project Area.



Plate 6: Rock formations in survey area Mod 18 (scarp) on the southern boundary of the previously unsurveyed investigation area outside of the existing approved UCCO Project Area.



Plate 7: Rock formations in survey area Mod 18 (scarp) on the southern boundary of the previously unsurveyed investigation area outside of the existing approved UCCO Project Area.



Plate 8: Survey area Mod 1 (gentle ridge crest) within the previously unsurveyed investigation area outside of the existing approved UCCO Project Area.



Plate 9: Survey area Mod 6 (gentle drainage depression) within the previously unsurveyed investigation area outside of the existing approved UCCO Project Area.



Plate 10: Survey area Mod 10 (gentle drainage depression) within the previously unsurveyed investigation area outside of the existing approved UCCO Project Area.



Plate 11: Mature trees within survey area Mod 26 (gentle simple slope) within the previously unsurveyed investigation area outside of the existing approved UCCO Project Area.



Plate 12: Pagoda formations within the valley (survey area Mod 8) within the previously unsurveyed investigation area outside of the existing approved UCCO Project Area.



Plate 13: Pagoda formations within the valley (survey area Mod 8) within the previously unsurveyed investigation area outside of the existing approved UCCO Project Area.



Plate 14: Pagoda formations within the valley (survey area Mod 8) within the previously unsurveyed investigation area outside of the existing approved UCCO Project Area.



Plate 15: Pagoda formations within the valley (survey area Mod 8) within the previously unsurveyed investigation area outside of the existing approved UCCO Project Area.



Plate 16: Pagoda formations within the valley (survey area Mod 8) within the previously unsurveyed investigation area outside of the existing approved UCCO Project Area.

APPENDIX 5.

ABORIGINAL COMMUNITY CONSULTATION

Consultation Database⁵:

Date	Person Contacted	Organisation	How Contacted	Contacted By	Organisation	Description
2/5/14	Board of Directors	Warrabinga NTCAC	Letter	Robyn Stoney	UCML	Letter advising stakeholders of proposed modification and inviting attendance on field survey and input into Project.
2/5/14	Aleshia and Tony Lonsdale	Mudgee LALC	Letter	Robyn Stoney	UCML	Letter advising stakeholders of proposed modification and inviting attendance on field survey and input into Project.
2/5/14	Larry and Debbie Foley	MGATSIC	Letter	Robyn Stoney	UCML	Letter advising stakeholders of proposed modification and inviting attendance on field survey and input into Project.
2/5/14	Lyn Syme	North-east Wiradjuri	Letter	Robyn Stoney	UCML	Letter advising stakeholders of proposed modification and inviting attendance on field survey and input into Project.
2/5/14	Warranha Ngumbaay	-	Letter	Robyn Stoney	UCML	Letter advising stakeholders of proposed modification and inviting attendance on field survey and input into Project.
2/5/14	Brad Bliss	WVWAC	Letter	Robyn Stoney	UCML	Letter advising stakeholders of proposed modification and inviting attendance on field survey and input into Project.
16/5/14	Brad Bliss Brendon Doherty	WVWAC	Meeting	P. Kuskie Robyn Stoney, Ben Anderson, Ian Flood	SEA, UCML	Meeting to discuss UCML projects, proposed modification and inspection of Ulan Grinding Groove conservation areas and Brokenback Conservation Area.
26/5/14	Shaen Morgan, Coral Williams, Tammy Peterson, Shannon Foley, Brendon Doherty	North-east Wiradjuri, Warrabinga NTCAC, Mudgee LALC, MGATSIC, WVWAC	Fieldwork	P. Kuskie	SEA	Survey of proposed modification area.
27/5/14	Shaen Morgan, Coral Williams, Gemma Williams, Steven Flick, Brendon Doherty	North-east Wiradjuri, Warrabinga NTCAC, Mudgee LALC, MGATSIC, WVWAC	Fieldwork	P. Kuskie, B. Stephenson	SEA	Survey of proposed modification area.
28/5/14	Shaen Morgan, Kelsey Williams, James Williams, Steven Flick, Brendon Doherty	North-east Wiradjuri, Warrabinga NTCAC, Mudgee LALC, MGATSIC, WVWAC	Fieldwork	P. Kuskie, B. Stephenson	SEA	Survey of proposed modification area.
29/5/14	Shaen Morgan, Coral Williams, Larry Foley, Steven Flick, Brendon Doherty	North-east Wiradjuri, Warrabinga NTCAC, Mudgee LALC, MGATSIC, WVWAC	Fieldwork	P. Kuskie, B. Stephenson	SEA	Survey of proposed modification area.
30/5/14	Chaos DeLauney Coral Williams, Debbie Foley, Larry Foley, Brendon Doherty	North-east Wiradjuri, Warrabinga NTCAC, Mudgee LALC, MGATSIC, WVWAC	Fieldwork	P. Kuskie, B. Stephenson	SEA	Survey of proposed modification area.

⁵ Only specific consultation of relevance to proposed modification.

Ulan Coal Mines Limited, Central Tablelands of New South Wales: Ulan West Modification -Aboriginal Cultural Heritage Assessment. South East Archaeology Pty Ltd 2015

Date	Person Contacted	Organisation	How Contacted	Contacted By	Organisation	Description
12/6/14	Robyn Williams, Debbie Foley, Larry Foley, Brendon Doherty, Robert Stewart	Warrabinga NTCAC, Mudgee LALC, MGATSIC, WVWAC	Meeting	Ian Flood, Leigh Hodge, Damien Ryba	UCML	Heritage Review Meeting - discussed proposed modification and proposed changes to mine plan.
24/6/14	Board of Directors	Warrabinga NTCAC	Email	Ian Flood	UCML	Provision of draft minutes of June Heritage Review Meeting.
24/6/14	Aleshia and Tony Lonsdale	Mudgee LALC	Email	Ian Flood	UCML	Provision of draft minutes of June Heritage Review Meeting.
24/6/14	Larry and Debbie Foley	MGATSIC	Email	Ian Flood	UCML	Provision of draft minutes of June Heritage Review Meeting.
24/6/14	Lyn Syme	North-east Wiradjuri	Email	Ian Flood	UCML	Provision of draft minutes of June Heritage Review Meeting.
24/6/14	Warranha Ngumbaay	-	Email	Ian Flood	UCML	Provision of draft minutes of June Heritage Review Meeting.
24/6/14	Brad Bliss	WVWAC	Email	Ian Flood	UCML	Provision of draft minutes of June Heritage Review Meeting.
25/11/14	Lyn Syme, Coral Williams, Christine Maynard, Larry Foley, Brad Bliss, Brendon Doherty, Joyce Williams, Violet Carr, Ursula Semmler, Nelson Smith	North-east Wiradjuri Warrabinga NTCAC Mudgee LALC, MGATSIC, WVWAC	Meeting	P. Kuskie Robyn Stoney, Ian Flood, Bret Jenkins	SEA, UCML Glencore	Meeting to discuss Modification project and draft heritage report, including inspection of Cockabutta Creek sites and discussion of potential management strategies.
2/12/14	Directors	Warrabinga NTCAC	Email	Ben Anderson	UCML	Provide stakeholders means of downloading electronic copy of draft Aboriginal heritage assessment report for proposed modification with request for comments by 18 December 2014.
2/12/14	Aleshia and Tony Lonsdale	Mudgee LALC	Email	Ben Anderson	UCML	Provide stakeholders means of downloading electronic copy of draft Aboriginal heritage assessment report for proposed modification with request for comments by 18 December 2014.
2/12/14	Larry and Debbie Foley	MGATSIC	Email	Ben Anderson	UCML	Provide stakeholders means of downloading electronic copy of draft Aboriginal heritage assessment report for proposed modification with request for comments by 18 December 2014.
2/12/14	Lyn Syme	North-east Wiradjuri	Email	Ben Anderson	UCML	Provide stakeholders means of downloading electronic copy of draft Aboriginal heritage assessment report for proposed modification with request for comments by 18 December 2014.
2/12/14	Warranha Ngumbaay	-	Email	Ben Anderson	UCML	Provide stakeholders means of downloading electronic copy of draft Aboriginal heritage assessment report for proposed modification with request for comments by 18 December 2014.
2/12/14	Brad Bliss	WVWAC	Email	Ben Anderson	UCML	Provide stakeholders means of downloading electronic copy of draft Aboriginal heritage assessment report for proposed modification with request for comments by 18 December 2014.

Date	Person Contacted	Organisation	How Contacted	Contacted By	Organisation	Description
8/12/14	Directors	Warrabinga NTCAC	Email	Ben Anderson	UCML	Provided stakeholders revised means of downloading electronic copy of draft Aboriginal heritage assessment report for proposed modification and advised that hard copy would be provided at forthcoming meeting.
8/12/14	Aleshia and Tony Lonsdale	Mudgee LALC	Email	Ben Anderson	UCML	Provided stakeholders revised means of downloading electronic copy of draft Aboriginal heritage assessment report for proposed modification and advised that hard copy would be provided at forthcoming meeting.
8/12/14	Larry and Debbie Foley	MGATSIC	Email	Ben Anderson	UCML	Provided stakeholders revised means of downloading electronic copy of draft Aboriginal heritage assessment report for proposed modification and advised that hard copy would be provided at forthcoming meeting.
8/12/14	Lyn Syme	North-east Wiradjuri	Email	Ben Anderson	UCML	Provided stakeholders revised means of downloading electronic copy of draft Aboriginal heritage assessment report for proposed modification and advised that hard copy would be provided at forthcoming meeting.
8/12/14	Warranha Ngumbaay	-	Email	Ben Anderson	UCML	Provided stakeholders revised means of downloading electronic copy of draft Aboriginal heritage assessment report for proposed modification and advised that hard copy would be provided at forthcoming meeting.
8/12/14	Brad Bliss	WVWAC	Email	Ben Anderson	UCML	Provided stakeholders revised means of downloading electronic copy of draft Aboriginal heritage assessment report for proposed modification and advised that hard copy would be provided at forthcoming meeting.
11/12/14	Lyn Syme, Kevin Williams, Robyn Williams, Lance Syme, Debbie Foley, Warranha Ngumbaay, Larry Foley, Brad Bliss, Brendon Doherty	North-east Wiradjuri Warrabinga NTCAC Mudgee LALC, MGATSIC, WVWAC	Meeting	Robyn Stoney, Ian Flood, Leigh Hodge, Stephen Shoesmith	UCML	Heritage Review Meeting - discussed proposed modification and proposed changes to mine plan. Copy of draft heritage assessment report provided as hard copy and electronic version.
4/1/15	Ben Anderson	UCML	Email	Debbie Foley	MGATSIC	Agreed with draft heritage assessment report.

Date	Person Contacted	Organisation	How Contacted	Contacted By	Organisation	Description
5/1/15	Ben Anderson	UCML	Email	Brad Bliss	WVWAC	Responded to draft heritage report, agreeing with mitigation and management strategies and recommendations. Added support for option of trial mitigation of trenching around shelter of low significance to evaluate potential. Wants investigation of offsetting measures such as cultural heritage centres or education projects. Acknowledged that impacts are regrettable but unavoidable and wants where possible new technology and salvage methods to be used to protect significant sites such as ochre quarries, rock art and rock shelters.
8/1/15	Directors	Warrabinga NTCAC	Email	Ben Anderson, Ian Flood	UCML	Requested stakeholders who had not responded to provide comments on the draft Aboriginal heritage assessment report by the close of the week. Provided draft Heritage Review meeting minutes for review.
8/1/15	Aleshia and Tony Lonsdale	Mudgee LALC	Email	Ben Anderson, Ian Flood	UCML	Requested stakeholders who had not responded to provide comments on the draft Aboriginal heritage assessment report by the close of the week. Provided draft Heritage Review meeting minutes for review.
8/1/15	Larry and Debbie Foley	MGATSIC	Email	Ben Anderson, Ian Flood	UCML	Requested stakeholders who had not responded to provide comments on the draft Aboriginal heritage assessment report by the close of the week. Provided draft Heritage Review meeting minutes for review.
8/1/15	Lyn Syme	North-east Wiradjuri	Email	Ben Anderson, Ian Flood	UCML	Requested stakeholders who had not responded to provide comments on the draft Aboriginal heritage assessment report by the close of the week. Provided draft Heritage Review meeting minutes for review.
8/1/15	Warranha Ngumbaay	-	Email	Ben Anderson, Ian Flood	UCML	Requested stakeholders who had not responded to provide comments on the draft Aboriginal heritage assessment report by the close of the week. Provided draft Heritage Review meeting minutes for review.
8/1/15	Brad Bliss	WVWAC	Email	Ben Anderson, Ian Flood	UCML	Requested stakeholders who had not responded to provide comments on the draft Aboriginal heritage assessment report by the close of the week. Provided draft Heritage Review meeting minutes for review.
28/1/15	Ian Flood	UCML	Email	Tony Lonsdale	Mudgee LALC	Provided support for draft heritage assessment report (after closing date for receipt of comments).
28/1/15	Ian Flood	UCML	Email	Aleshia Lonsdale	(Warranha Ngumbaay)	Provided support for draft heritage assessment report on behalf of Aleshia and Warranha (after closing date for receipt of comments).

Relevant Correspondence⁶:

Example of correspondence sent to Aboriginal stakeholders advising of proposed modification and requesting input:

GLENCORE

2 May 2014

Our Ref: 69/14

Warrabinga Native Title Claimants Aboriginal Corporation Board of Directors Warrabinga PO Box 282 Mudgee NSW 2850

To Sir/Madam,

Re: Heritage Survey, Mining Lease Applications and Project Approval 08_0184 Modification 3

Mining Lease Applications 469 and 470

Ulan Coal Mines (UCML) has recently submitted mining lease applications MLA 469 and MLA 470. The purpose and objective of these lease applications is to provide continuous title from the surface in the Opencut Pit at Ulan surface operations to enable recovery of the open cut coal resource. The proposed mining lease areas are contained within land owned by either UCML or the Crown. UCML currently holds Crown Lands licence number LI 204946 which is partially within the application area. Existing title is held from 20 metres below the surface by virtue of Consolidated Coal Lease 741 (Act 1973).

The heritage surveys for MLA 469 are already complete and development consent for mining in this area has been issued previously. The area pertaining to MLA 470 has not yet been surveyed and development consent has not yet been approved. Figures indicating the two areas are attached.

Project Modification

As a separate project, the Ulan West Underground Mine Plan is to altered by the submission of a modification to the current Project Approval (PA) 08_0184 under Section 75W of the Environmental Planning and Assessment Act 1979. Please find attached a copy of a Briefing Note outlining the proposed contents of the modification is attached.

Mining Lease Applications 475

Mining Lease Application MLA475 was submitted to the Division of Resources and Energy on 1 May 2014 for the southern portion of Exploration Lease 7542. A notice of Mining Lease application will be published within 45 days from the date of the application acknowledgement letter. UCML proposes to publish these notices in the following publications:

- Mudgee Guardian
- The Land
- Sydney Morning Herald

Planned Heritage Survey

UCML would like to invite you as a registered Aboriginal Stakeholder to participate in the heritage survey of the southern portion of EL7542. The investigations will be undertaken in accordance with the UCML Heritage Management Plan and in particular Section 3.7: Additional Aboriginal Heritage Investigations and Section 3.5: Management of Identified Aboriginal Heritage Evidence.

• The heritage survey will commence on Monday 26 May 2014 & conclude on Friday 30 May 2014.

• Commencement time: 7:00am

Private Mail Bag 3006, Mudgee, NSW 2850

4505 Ulan Road, Ulan, NSW 2850 T + 61 2 6372 5367 F + 61 2 6372 5208 www.glencore.com

Glencore Coal Assets Australia Pty Limited ACN 163 821 298

⁶ Only specific correspondence of relevance to proposed modification.

GLENCORE

• Location: Ulan Surface Operations Offices

It is requested that one representative from each of the registered Aboriginal Stakeholder groups attends the investigation. To allow for the timely commencement of the investigation can your representative arrive at UCML's Ulan Surface Operations office's at 7:00am. This will allow for sufficient time for site requirements to be finalised prior to the commencement of the field work.

Can you please RSVP as to the availability of a representative from your group for the survey as soon as possible to Ian Flood on 0417 049 493 or <u>ian.flood@glencore.com.au</u>

Yours sincerely,

Ms Robyn Stoney Environment & Community Manager robyn.stoney@glencore.com.au

GLENCORE

29 April 2014

Ulan West Modification Briefing Note

Ulan Coal Mines Limited (UCML) currently employees 931 people, and has approval for continued mining operations of up to 20 Mtpa of product coal until 2031, including open cut mining and underground mining (Ulan West and Ulan No. 3). An updated Project Approval (PA) 08_0184 was granted for Ulan Mine in 2010.

Development works have commenced at Ulan West with the first coal anticipated to be extracted in May 2014, while mining at Ulan No.3 and the Open Cut operation continues. Ongoing exploration and refinements to mine planning has identified additional coal resources within the existing UCML Project area and the exploration license area EL7542.

Approval is being sought for a change to the Ulan West mine plan that includes extending 7 underground mining panels between 900 and 1300 metres within existing mining and exploration leases (as per figure 1). This would result in extraction of an additional 13 million tonnes of coal and would extend the Ulan West mine life for 2 years.

This mine plan change will require an application for a mining lease over the southern portion of the exploration lease EL7542 (currently held by UCML).

Based on current planning, there will be no significant change to the currently approved location of surface infrastructure, including the coal handling and preparation area. Relocation of some ventilation infrastructure may be required and the new location of this infrastructure will be determined during the assessment process. There will be no change to the annual rate of coal extraction, processing or transportation. There will be no change to workforce numbers for currently approved operations.

It is proposed that a modification to the current Project Approval under Section 75W of the *Environmental Planning and Assessment Act 1979* be sought. The NSW Minister for Planning is the consent authority. Specialist environmental consultants have been engaged to complete the environmental assessment for the project. Based on the nature of the proposed extension it is anticipated that the majority of community and environmental impacts will be consistent with current approved operations. The Environmental Assessment (EA) will include detailed technical studies in relation to the key issues including subsidence, water resources (groundwater and surface water), cultural heritage, biodiversity and socio-economic impacts. In addition UCML are consulting with a

Ulan Coal Mines Limited, Central Tablelands of New South Wales: Ulan West Modification - Aboriginal Cultural Heritage Assessment. South East Archaeology Pty Ltd 2015

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range of stakeholders, including the local community, to gain their input on the project and to identify any key issues to be addressed as part of the EA process.

UCML are seeking to lodge the application and environmental assessment with the Department of Planning and Infrastructure by late 2014.



Figure 1: Proposed Ulan West Mine Plan Changes




Heritage Review Meeting 12 June 2014 Minutes:

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Ulan Coal Mines Limited (UCML) Heritage Meeting - Operational Meeting Minutes

Location	Ulan Underground #3 Boardroom
Meeting Open	2:26pm
Date	12 June 2014

Aboriginal Representatives		
Larry Foley	(LF) – Murong Gialinga	
Debbie Foley	(DF) – Mudgee Local Aboriginal Land Council	
Robyn Williams	(RW) – Warrabinga	
Brendon Doherty	(BD) – Wellington Valley Wiradjuri Aboriginal Corporation	
Robert Stewart	(RS) – Wellington Valley Wiradjuri Aboriginal Corporation	

UCML Representatives		
Ian Flood	(IF)	
Leigh Hodge	(LH)	
Damien Ryba	(DR)	

Item	Topic	Action / Response	Date
1	Introduction		
1.1	Apologies		
	Charlie Allan		
	Robyn Stoney		
	Lyne Syme (North East Wiradjuri) (note reports provided at meeting were collected by Robyn Williams on behalf of Lyn)		
	Warranha Ngumbaay (note reports provided at meeting were collected by Debbie Foley on behalf of Warranha)		
	Aleshia Lonsdale		
	Tony Lonsdale		
_	Bradley Bliss		
2	Previous Minutes		
2.1	Confirmation of previous minutes		
1	December 2013 Heritage Meeting minutes confirmed by DF and LF.	Action: send a copy of the Goulburn River Diversion Plan CD to DF.	
2.2	Business arising from previous minutes		
1	Nil.		
3	UCML reports & overview of activities		
3.1	Approvals		
	 IF - Discussion of the Current Ulan West Mine Plan including: Proposed modification to change the Ulan West panels by extending 7 underground mining panels. This will result in an additional 13 million tonnes of coal and increase the mine life by two years. IF discusses the Brokenback Conservation Area in relation to the proposed modification. The point will come where we will propose the changes to amend the Brokenback Conservation Area, and we will provide adequate notice for this. 		
3.2	Goulburn River Diversion Remediation Plan Update		
	IF presented an update on the plan, and a short discussion regarding the Pilot trial to test the plan is upcoming.	Action: IF to provide an update on progress of the Pilot Study with meeting minutes.	
3.3	Operational Update		
	IF presented water monitoring data as graphs.		

	IF provided update on YTD environmental incidents		
3.4	LW27 End of Panel		
	IF presented information on the report. IF discussed the exceedence of horizontal movement prediction in further detail.		
3.5	Monitoring & Environmental Performance		
	IF discussed water results including volumes of discharge and EC levels in the Goulburn River and Ulan Creeks. IF presented the Environmental Incidents data for the year to date.		
3.6	Community Complaints		
	IF presented the Community Complaints data for the year to date, explaining that complaints typically increase coming into the winter period due to climatic conditions.		
4	General Business		
4.1	2013 Annual Environment Review		
	IF discusses the update of the Heritage Management Plan, noting that the vibration criteria for sandstone rock shelters was previously the same as that for houses; The Department have updated the criteria which to 'No perceptible impact' which means that UCML wear the risk from blasting. The blast criterion is now set to <100mm/second and we will continue to refine the criteria as we move through the open cut. There is an update on this in the Heritage Management Plan. IF presented the Heritage Management Plan and described further changes made during the recent update. IF would like to emphasise that we have not changed any of our commitments in the Heritage Management Plan. IF presented the results of the 2013 Annual Environment Review.	Note: The Heritage Groups have 15 days to reply to any changes in the updated Heritage Management Plan.	(Friday 4 July)
4.2	Induction Requirements		
	IF explained the changes to site induction requirements including the requirement for each site representative to be inducted, and will likely include a medical assessment. Also explained that all previous approvals to drive on site are now invalid. UCML will notify all groups when details are confirmed.		
4.3	Staff Movements		
	 New UCML General Manager Charlie Allan New UCML Graduate Damien Ryba Environment, Land & Property Coordinator - Tara 		

	Stokes	
4.4	Work Schedule	
	 Rockshelter Sampling Strategy – first rockshelter located above Ulan West longwall panel 2; the salvage is planned for Q3 (approximately); Open Cut survey area extension; Return to the AHIP 1116123 sites; and Ongoing infrastructure and drilling, survey and salvage. 	
5	Next Meeting	
	IF proposed meeting dates for next meeting: • Thursday 11 December 2014	
Meeti	ing Closed 16:03 pm	
Recor	rded LH	
Confi	irmed Minutes distributed to Aboriginal Stakeholders for comment following thi	s

meeting, and then to be confirmed at the next meeting.

Information provided

- Draft Heritage Management Plan (includes updates as track changes)
- Blasting Criteria for Archaeological sites 74, 445, 1395 (SCT)
- Ulan Aboriginal Sites ID526 Report on Post-Subsidence Monitoring (SEA)

Meeting 25 November 2014 to Discuss Heritage Assessment - Attendance Record and Notes:

Ulan Project Specific Heritage Stakeholder Meeting - Attendance Sheet

Nov 25 2014 – Ulan West Modification, Cockabutta Creek discussion

Name	Date	Organisation	Signature
CORAL WILLIAMS	25-11-14	WARRABINGA	Cloulle
CHRISTINIE MAYNARD		MLALC	C Mayrey.
LURRY FORT	25-11-14	MURONG GIALINGA	h Fod
PETER KUSICIE	25 /ulit	SOUTH EAST ARCH.	alle
BRET LEWKINS	25/11/14	GLENCOFE	Blel
In Good	25/11/14	UCML	Tor. hood.
Lyssyme	1	NELOCO	Syme.
Brad Bliss	25-11-2014	WWWAC	ARK
Masula Semme	25-11-2014	11	Alemander.
Breder Westy	25-11-2014	11	Balinda
NelsonSwott	25.11.12	12	Start .
Violet barr	25-11-14	7.	
Jeyce Williamos	231114		Addelanco
		1	
		1	



MEETING NOTES RE: Ulan West Modification

Date: 25/11/2014 Time: 8.30am

Attendees:

- UCML: Robyn Stoney, Bret Jenkins, Ian Flood
- South East Archeology: Peter Kuskie
- Warrabinga: Coral Wiillians
- MLALC: Christine Maynard
- NewCo: Lyn Syme
- Murong Gialinga: Larry Foley
- WVWAC: Brad Bliss, Ursula, Brenton Dohenty, Nelson Smith, Violet Carr, Joyce Williams

Apologies:

Introduction:

Welcome and Introduction- provided by Robyn Stoney and Peter Kuskie.

Robyn provided update of mine operations.

Peter provided detailed update of draft heritage assessment report, results of survey, preliminary significance assessment and preliminary options for management.

Site Inspection/Discussion:

All parties travelled to Cockabutta Creek rock shelter sites and inspected ID# 161, 162 and 284 and CC28. Considerable discussion took place between all parties about the nature of the sites, their significance and the potential management options.

Christine Maynard: Noted that in general some sites are Women's places , some Men's places.

- Bret Jenkins : Offered to facilitate recording of such values, would be kept confidential.
- Robyn Stoney : Discussed possible timing of mining operations.
- Peter Kuskie: Discussed possible creation of models of the sites for use as educational aids.Brad Bliss: Requested copies of previous Haglund photos of sites and art, and copies of several other
Ulan photos/reports. Peter undertook to provide.Robyn Stoney: Option of longwall step around shelter sites being reviewed.Bret Jenkins: Discussed option of laser-scanning sites.Larry Foley: Acknowledged that laser-scanning could be good, but art deteriorating. Wanted to also see
earlier photos. Peter undertook to provide.

Christine Maynard: Further dating studies on art. Liked idea of model/scale recreation of shelter.

All: Some suggested ideas and management options (discussed only and not committed to);

- MGATSIC land near the Drip good sites with potential to protect and put funds towards better presevation.
- Hands on Rock potential to laser scan and assist with management.
- Cultural trail along Goulburn River and cultural tourism options.
- Collect and investigate bush food plants.
- Cultural values record stories, research, map stories in area.
- Improving access to Brokenback Conservation Area in a culturally appropriate manner, so it can be used for excursions, education and cultural tourism.
- Wiradjuri language program.
- Rehabilitation, revegetation, seed collecting.
- Status of Conservation Areas should be formally gazetted through OEH.

Meet again early next year, report review 15 days.

Christine Mayn	ard : Wants residue analysis of Laila Haglund's SG5 artefacts - not yet undertaken.		
Ian Flood	: Advised of next Heritage Review Meeting 11 December.		
Joyce Williams	: Would love school kids to see area we saw today. Brokenback a perfect area, needs a trail		
	established.		
Nelson Smith	: Keen for no significant impacts from here on and a photographic record.		
Violet Carr	: Recognised that earthquakes and natural impacts occur to sites. The groups are keen to		
	work through issues with the mine.		

Example of correspondence sent to Aboriginal stakeholders advising of availability of draft Aboriginal heritage assessment report and requesting input:

From:	Ben.Anderson@glencore.com.au
Sent:	Tuesday, 2 December 2014 4:40 PM
То:	lynsyme@bigpond.com; info@warrabinga.com.au; muronggialinga@hotmail.com; mudgeelalc@bigpond.com; warranha@gmail.com; WVWAC@hotmail.com
Subject:	Ulan West Modification-Draft Aboriginal Cultural Heritage Assessment

All,

Following a consultation meeting held at the Ulan mine site on Tuesday 25 November, Ulan Coal Mines Limited (UCML) is providing the following report for review and comment by Aboriginal Stakeholders: *Draft Ulan West Modification- Aboriginal Cultural Heritage Assessment*

This report was prepared by Peter Kuskie of South East Archaeology Pty Ltd for UCML to assess the potential impacts of the proposed modification on Aboriginal Cultural Heritage.

Aboriginal Heritage within UCML's approved Project Area is managed in accordance with the site's *Heritage Management Plan* (HMP) (ULN SD PLN 0013). The HMP contains specific provisions relating to the assessment of modifications such as that proposed. As such, this report has been prepared in accordance with the HMP, particularly Sections 3.7.4, 3.7.5 and 3.7.7.

Please review and provide any comments on the report to myself or Robyn Stoney (0418 969 182 or robyn.stoney@glencore.com.au) by **18 December 2014**.

<u>Note</u>: Due to the size of the report, it will be sent using the "*Glencore Coal File Transfer Utility*" program. Instructions on how to access this file will be sent to you in a separate email. Please contact me if you have any problems accessing this file.

Regards, Ben

Ben Anderson Senior Environment & Approvals Coordinator **Ulan Coal Mines Limited – A Glencore managed company**

Mobile: +61 437287461 Landline: +61 2 63725131 Fax: +61 2 6372 5333 Email: <u>Ben.Anderson@glencore.com.au</u> From: Ben.Anderson@glencore.com.au To: lynsyme@bigpond.com; info@warrabinga.com.au; muronggialinga@hotmail.com; mudgeelalc@bigpond.com; warranha@gmail.com; WVWAC@hotmail.com Date: Mon, 8 Dec 2014 15:50:52 +1100 Subject: FWD: Ulan West Modification-Draft Aboriginal Cultural Heritage Assessment

All,

My apologies if anyone is having trouble downloading the report. The login details for the file share site are provided below, these are the same details as was sent out on Tuesday last week:

- Website: <u>https://nsw.xstratacoal.com.au/filexfer</u>
- File Area : 40153562
- Password: b&c@3b2!_3CNvuWLvB7_41Lh#BY08h!S

In addition, hardcopies of the report will be provided at the meeting this Thursday.

Cheers, Ben

Ben Anderson Senior Environment & Approvals Coordinator Ulan Coal Mines Limited – A Glencore managed company

Mobile: +61 437287461 Landline: +61 2 63725131 Fax: +61 2 6372 5333 Email: Ben.Anderson@glencore.com.au

From:	Ian.Flood@glencore.com.au
Sent:	Thursday, 8 January 2015 7:54 AM
To:	muronggialinga@hotmail.com; mudgeelalc@bigpond.com;
	info@warrabinga.com.au; lynsyme@bigpond.com; warranha@gmail.com; WVWAC@hotmail.com
Cc:	Robyn.Stoney@glencore.com.au; Ben.Anderson@glencore.com.au; peter@southeastarchaeology.com.au
Subject:	[Spam?]2014 December Heritage Meeting Minutes.docx
Attachments:	2014 December Heritage Meeting Minutes.docx

All,

Please find attached a copy of the meeting minutes for the Dec 2014 meeting. If any changes are requested please reply with changes by Friday 16 Jan.

As discussed during the meeting, a report has been prepared by Peter Kuskie of South East Archaeology Pty Ltd for UCML to assess the potential impacts of the proposed Ulan West modification on Aboriginal Cultural Heritage. Copies of the report were originally provided via email with hard copies and CDs provided at the meeting. If you have any comments on the report can you please provide them to Ben Anderson or myself by the end of the week?

Ben Anderson Senior Environment & Approvals Coordinator Ulan Coal Mines Limited – A Glencore managed company

Mobile: +61 437287461 Landline: +61 2 63725131 Fax: +61 2 6372 5333 Email: <u>Ben:Anderson@glencore.com.au</u>

Regards

Ian Flood Environment & Community Coordinator Ulan Coal Mines – A Glencore managed company T: +61 2 6372 5308 M: +61 417 049 493 F: +61 2 6372 5333 E: Ian.flood@glencore.com.au www.glencore.com

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Heritage Review Meeting 11 December 2014 - Key Presentation Slides:



Agenda

1. Introduction 1.1 Apologies	4:00 – 4:10pm	lan Flood
 Previous Minutes 2.1 Confirmation of previous minutes 2.2 Business arising from previous minutes 	4:10 – 4:20pm	lan Flood
 UCML reports & overview of activities 1 Goulburn River Rehabilitation 2 Approvals 3 Operational Update 4 Conservation Agreements Update 5 Safe Keeping Place 	4:20 – 5:10pm	lan Flood / Robyn Stoney
4. Community Investment Update	5:10 – 5:20pm	Robyn Stoney
5. General business 5.1 Upcoming site Heritage Work	5:20 – 5.30pm	lan Flood
7. Next Meeting	5:30 – 5.35pm	lan Flood

Background: Proposed Modification

- The proposed modification to Ulan West includes extending 7 underground mining panels between 900 and 1300 metres.
- The proposed modification will result in extraction of an additional 13 million tonnes of coal and increase mine life by 2 years.
- In order to achieve the proposed mine plan, the main headings need to be turned after LW5 (nominally September 2015).



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Aspect	Currently Approved	Proposed Modification
Mine Life	21 year life until 30 August 2031	Additional 2 years until 30 August 2033
Limits on Extraction	20 million tonnes of coal per annum (including maximum of 4.1 Mtpa ROM from Open Cut)	No change
Operating Hours	24 hours per day, 7 days per week	No change
Workforce Numbers	Approximately 931 people (Complex)	No change
Mining Method	Ulan West – retreat longwall method	No change
Surface Infrastructure	As per Continued Operations Project EA	Changes to ventilation infrastructure including realignment of approved shafts and additional shafts
Ulan Complex CHPP	As per Continued Operations Project EA	No change
Coal Transportation	No more than 10 laden trains leave the site each day.	No change
Brokenback Conservation Area	As per Continued Operations Project EA	No Change

Background: Proposed Modification (continued)

Assessment: Aboriginal Archaeology

- Additional surveys were carried out in areas of proposed surface infrastructure and modified Ulan West underground mining area, that had not been previously subject to detailed investigation.
- The survey for the proposed modification has resulted in the recording of an additional 22 Aboriginal sites, comprising of:
 - 13 artefact scatters,
 - 7isolated finds and two rock shelters with artefacts,
 - 5 rock shelter with PADs.
- The primary potential impacts of the proposed modification on Aboriginal heritage relate to subsidence.
- The proposed modification will result in a decrease in potential subsidence impacts for eight sites and an increase in potential subsidence impacts for 18 sites.
- There is no change to the Brokenback Conservation Area as a result of the proposed modification.

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Consultation: Aboriginal Archaeology

- A report has been prepared by Peter Kuskie of South East Archaeology Pty Ltd for UCML to assess the potential impacts of the proposed modification on Aboriginal Cultural Heritage.
- An initial meeting to discuss the findings of this report was held on 25 November at the UCML No. 3 Offices.
- Following the consultation meeting, UCML provided the Draft *Ulan West Modification-Aboriginal Cultural Heritage Assessment Report* for review via email on 2 December.

Under the UCML HMP, stakeholders have 15 days to provide feedback on this report:

- UCML will provide the registered Aboriginal stakeholders with details of the proposed methodology of any forthcoming archaeological survey, salvage collection or excavation (where that methodology is different from that already approved by the stakeholders for the Continued Operations Project or in this Plan) and allow a minimum of 15 working days to provide comment, including identification of issues or areas of cultural significance that might affect, inform or allow refinement of the methodology.
- Due to the size of the report and the difficulties some groups have had downloading the report, UCML now asked that any comments on the report are provided by 6 January 2015.

General Business – Draft Report

- Printed Copy and CD of 'SEA Draft Ulan West Modification Aboriginal Cultural Heritage Assessment' provided
- Any comments to be provided to Ben Anderson
- Comments by Tuesday 6 January 2015

Ulan Coal Mines Limited (UCML) Heritage Meeting - Operational Meeting Minutes

Location	Parklands Resort, Ulan Road, Mudgee
Meeting Open	16:05 pm
Date	11 December 2014

Aboriginal Representatives		
Larry Foley	(LF) – Murong Gialinga Aboriginal & Torres Strait Islander Corporation	
Debbie Foley	(DF) – Mudgee Local Aboriginal Land Council	
Warranha Ngumbaay	(WN) – Mudgee Local Aboriginal Land Council	
Robyn Williams	(RW) – Warrabinga	
Lance Syme	(LS) – Warrabinga	
Kevin Williams	(KW) North East Wiradjuri	
Lynn Syme	(LS) - North East Wiradjuri	
Brendon Doherty	(BD) – Wellington Valley Wiradjuri Aboriginal Corporation	
Brad Bliss	(BB) - Wellington Valley Wiradjuri Aboriginal Corporation	

UCML Representatives		
(IF)		
(LH)		
(RS)		
(SS)		
2	(IF) (LH) (RS)	