



2017 INDEPENDENT ENVIRONMENTAL AUDIT

Bengalla Mine

ABSTRACT

Bengalla Mine are required to commission an Independent Environmental Audit 1 year from commencement under State Significant Development Approval SSD 5170. This report details the results of the 2017 audit.

Peter Horn

Environmental Lead Auditor

Date

5 August 2017



This report is provided solely for the purposes of reporting the results of the Bengalla Mine 2017 Independent Environmental Audit. This report is provided pursuant to an Agreement between Peter Horn and the Bengalla Mining Company Pty Limited (BMC) under which Peter Horn undertook to perform a specific and limited task for BMC. This report is strictly limited to the matters stated in it and subject to the various assumptions, qualifications and limitations in it and does not apply by implication to other matters. Peter Horn makes no representation that the scope, assumptions, qualifications and exclusions set out in this report will be suitable or sufficient for other purposes nor that the content of the report covers all matters which you may regard as material for your purposes.

This report must be read as a whole. The executive summary is not a substitute for this. Any subsequent report must be read in conjunction with this report.

The report supersedes all previous draft or interim reports, whether written or presented orally, before the date of this report. This report has not and will not be updated for events or transactions occurring after the date of the report or any other matters which might have a material effect on its contents or which come to light after the date of the report. Peter Horn is not obliged to inform you of any such event, transaction or matter nor to update the report for anything that occurs, or of which Peter Horn becomes aware, after the date of this report.

Unless expressly agreed otherwise in writing, Peter Horn does not accept a duty of care or any other legal responsibility whatsoever in relation to this report, or any related enquiries, advice or other work, nor does Peter Horn make any representation in connection with this report, to any person other than BMC. Any other person who receives a draft or a copy of this report (or any part of it) or discusses it (or any part of it) or any related matter with Peter Horn, does so on the basis that he or she acknowledges and accepts that he or she may not rely on this report nor on any related information or advice given by Peter Horn for any purpose whatsoever.



Project

Development Application Numbers	SSD 5170 (as modified)
Description of Project	Bengalla Continuation Project
Project Address	Muswellbrook, NSW
Proponent	Bengalla Mining Company Pty Limited
Proponent Address	Muswellbrook, NSW

Independent Environmental Audit

I certify that I have undertaken the independent audit and prepared the contents of the attached independent audit report and to the best of my knowledge:

- The audit has been undertaken in accordance with relevant approval condition(s) and in accordance with the auditing standard AS/NZS ISO 19011:2014 and Post Approval Guidelines – Independent Audits
- The findings of the audit are reported truthfully, accurately and completely;
- I have exercised due diligence and professional judgement in conducting the audit;
- I have acted professionally, in an unbiased manner and did not allow undue influence to limit or over-ride objectivity in conducting the audit;
- I am not related to any owner or operator of the development as an employer, business partner, employee, sharing a common employer, having a contractual arrangement outside the audit, spouse, partner, sibling, parent, or child;
- I do not have any pecuniary interest in the audited development, including where there is a reasonable likelihood or expectation of financial gain or loss to me or to a person to whom I am closely related (i.e. immediate family);
- Neither I nor my employer have provided consultancy services for the audited development that were subject to this audit except as otherwise declared to the lead regulator prior to the audit; and
- I have not accepted, nor intend to accept any inducement, commission, gift or any other benefit (apart from fair payment) from any owner or operator of the development, their employees or any interested party. I have not knowingly allowed, nor intend to allow my colleagues to do so.

Note.

a) The Independent Audit is an 'environmental audit' for the purposes of section 122B(2) of the Environmental Planning and Assessment Act 1979. Section 122E provides that a person must not include false or misleading information (or provide information for inclusion in) an audit report produced to the Minister in connection with an environmental audit if the person knows that the information is false or misleading in a material respect. The maximum penalty is, in the case of a corporation, \$1 million and for an individual, \$250,000.

b) The Crimes Act 1900 contains other offences relating to false and misleading information: section 192G (Intention to defraud by false or misleading statement—maximum penalty 5 years imprisonment); sections 307A, 307B and 307C (False or misleading applications/information/documents—maximum penalty 2 years imprisonment or \$22,000, or both).

Signature	
Name	Peter Horn
Address: PO Box 122, Clarence Town, NSW 2321	E-mail Address: Peter.horn62@gmail.com
Auditor Certification: Environmental Compliance & Environmental Management Systems Lead Auditor (ISO14001:2015) through Exemplar Global	Date: 5 th August 2017



This page left deliberately blank



Executive Summary

Bengalla Mining Company Pty Limited (BMC) required an Independent Environmental Audit of the Bengalla Mine (Bengalla) including the operation of the Open Cut and the Coal Handling and Preparation Plant. Bengalla is located approximately 4km south west of Muswellbrook in the Hunter Valley region of New South Wales. To fulfil the requirements of the Bengalla Continuation Development Consent (SSD-5170) Schedule 5 - Conditions 9 and 10 an independent Environmental Audit of compliance is to be commissioned one year from commencement under SSD 5170.

The audit was designed and conducted to satisfy the planning approval conditions for Bengalla and focused on the BMC's compliance with licences, approvals and supporting documents including management plans. This audit period is 1 October 2015 to 9 February 2017.

This Independent Environmental Audit was undertaken generally in accordance with *AS/NZS ISO 19011:2014 – Guidelines for quality and/or environmental management systems auditing* and the *Independent Audit Guideline* (DP&E, October 2016) and was conducted by the following personnel:

- Peter Horn (Environmental Principal) – Lead Auditor;
- David Rollings (Associate Director – Air Quality), from AECOM Australia;
- Gordon Patrick (Senior Ecologist – Botany), from Eco Logical Australia Pty Ltd; and
- Amanda Kerr (Associate Director – Environmental Engineer), from AECOM Australia.

The audit team were approved by the NSW Department of Planning and Environment (DP&E) (on 29 September 2016) prior to conducting the audit.

This Independent Environmental Audit consisted of a detailed desktop review of documents supporting compliance, interviews with BMC staff and a site inspection of Bengalla from 6 to 9 February 2017.

The audit team contacted the NSW Department of Planning and Environment (DP&E), NSW Environment Protection Authority (EPA), Muswellbrook Shire Council (MSC), Department of Trade and Industry – Division of Resources and Energy (DRE), NSW Department of Primary Industry - Water (DPI Water) and NSW Office of Environment and Heritage (OEH) requesting input into the audit scope and focus. Unfortunately, we were unable to get a timely response from the CCC due to the audit timing and Christmas Break.

A total of 980 conditions and commitments were assessed as part of this audit. 10 issues resulted in 19 non-compliances. 3 of the non-compliances were administrative. Some of the non-compliances noted in this audit relate to the same issue which, due to the duplication of commitments between consent documents and management plans, raise the same non-compliance several times.

A basic risk assessment was conducted for all non-compliances with Low/Medium/High risk levels as results. For the non-compliances that were not administrative (there were 3 administrative non-compliances), there were 16 Medium results. No High risks were identified in the audit.



All of the actions from the previous Independent Environmental Audit were closed out in the audit period.

There was a clear reduction in complaints over the audit period and a lower trend lower in reportable incidents. Air quality (dust) complaints dominated the complaints summary.

Three specialists were engaged to offer advice in these areas:

- Air quality – very few issues;
- Rehabilitation – minor areas for improvement and implementation of the newly approved emplacement program; and
- Surface Water –requires a little attention, construction has left some minor issues to resolve.

Environmental management of the Bengalla Coal Mine has been very good through the audit period with a reduction in complaints, excellent quality rehabilitation and a reduction in the number of non-compliances since the previous Independent Environmental Audit.

There is some room for improvement in some areas, though these are considered generally minor and readily addressed.



Glossary

Term	Meaning
ACHMP	Aboriginal Cultural Heritage Management Plan
AEMR	Annual Environmental Management Report
AQMP	Air Quality Management Plan
AR	Annual Review (was AEMR)
Archaeology	In this text refers to archaeological and culturally significant sites of the area and any history they may have on the development site
Bengalla	Bengalla Mine
BMC	Bengalla Mining Company Pty Limited
BOMP	Biodiversity Offset Management Plan
CCC	Community Consultative Committee
CCL	Consolidated Coal Lease
DA	Development Application
DP&E	NSW Department of Planning and Environment.
DPI Water	NSW Department of Primary Industries - Water
DRE	NSW Department of Industry, Division of Resources and Energy
EA	Environmental Assessment
EEC	Endangered Ecological Community, a community of native species that exist in the same geographical area that are listed as endangered as a community under either NSW or Commonwealth legislation.
EIS	Environmental Impact Statement – is a document describing the potential environmental impact of a proposed development and offering mitigation strategies to reduce or remove the impacts.
EL	Exploration Licence
EPA	Environment Protection Authority
EPL	Environment Protection Licence
GDE	Groundwater Dependent Ecosystem
ML	Mining Lease



Term	Meaning
MOP	Mining Operations Plan
MP	Management Plan
NMP	Noise Management Plan
NOW	NSW Office of Water
OEH	NSW Office of Environment and Heritage
PIRMP	Pollution Incident Response Management Plan
RFS	Rural Fire Service
SoEE	Statement of Environmental Effects
SSD	State Significant Development
TARP	Trigger Action Response Plan, managing environmental issues using trigger levels for assessment of environmental variables to develop actions to remedy impacts
WMP	Water Management Plan



CONTENTS

1	Introduction.....	14
1.1	Background.....	14
1.2	Site Description.....	14
1.3	Audit Requirement.....	14
1.4	Audit Approach.....	15
1.5	Report Structure.....	16
2	Consultation.....	18
3	Documents Audited.....	22
4	Environmental Compliance.....	24
4.1	Issues Resulting in Non-compliance.....	24
4.2	Compliance with SSD 5170 MOD 2 Bengalla Continuation Project.....	25
4.3	Compliance with Environment Protection License 6538.....	26
4.4	Compliance with Conditions in Mining Lease 1397.....	27
4.5	Compliance with Conditions in Mining Lease 1450.....	27
4.6	Compliance with Conditions in Mining Lease 1469.....	27
4.7	Compliance with Conditions in Mining Lease 1711.....	28
4.8	Compliance with Conditions in Mining Lease 1728.....	28
4.9	Compliance with Conditions in Mining Lease 1729.....	28
4.10	Compliance with Conditions in Water Supply Works approvals 20CA201647 & 20WA201006.....	28
4.11	Compliance with Conditions in Water Basic Rights 20WA207673.....	28
4.12	Compliance with Conditions in Water Basic Rights 20WA207597.....	28
4.13	Compliance with Conditions in Water Supply Works 20WA212269.....	28
4.14	Compliance with Conditions in Water Supply Works 20WA207674.....	29
4.15	Compliance with Conditions in Water Basic Rights 20WA207642.....	29
4.16	Compliance with Conditions in Water Supply Works 20WA210119.....	29
4.17	Compliance with Conditions in Water Supply Works 20WA201594.....	29
4.18	Compliance with Commitments in The Continuation of Bengalla Mine, EIS 2013.....	29
4.19	Compliance with Commitments in SSD 5170 Modification 1 SoEE.....	29
4.20	Compliance with Commitments in SSD 5170 Modification 2 SoEE.....	29
4.21	Compliance with Commitments in SSD 5170 Modification 3 SoEE.....	30



4.22	Compliance with Mining Operations Plan Amendment A	30
4.23	Compliance with Air Quality Management Plan	30
4.24	Compliance with Aboriginal Cultural Heritage Management Plan	30
4.25	Compliance with Commitments in the Biodiversity Management Plan	31
4.26	Compliance with Commitments in the Biodiversity Offset Management Plan	31
4.27	Compliance with Commitments in the Blast Management Plan	31
4.28	Compliance with Commitments in the Blast Fume Management Plan	31
4.29	Compliance with Commitments in the Environmental Management Strategy	31
4.30	Compliance with the Noise Management Plan	32
4.31	Compliance with the Pollution Incident Response Management Plan	32
4.32	Compliance with the Water Management Plan	33
4.33	Compliance with Commitments in the Visual Impact Management Plan	34
	Previous Audit Action Status	36
5	Complaints and Reportable Incidents	38
5.1	Complaints	38
5.2	Reportable Incidents	39
6	Environmental Management	40
6.1	Air Quality Management	40
6.1.1	Air Quality Management Plan	40
6.1.2	Lead Auditors Comments	41
6.2	Blasting Management	42
6.2.1	Blast Management Plan	42
6.2.2	Blast Fume Management Strategy	42
6.3	Biodiversity and Rehabilitation Management	42
6.3.1	Biodiversity Offset Areas	42
6.3.2	Rehabilitation Areas	43
6.3.3	Auditors Comments	43
6.4	Noise Management	44
6.5	Water Management	44
6.5.1	Surface Water Management	45
6.5.2	Ground Water Management	50
6.6	Visual Impact	51



6.7	Management of the Environment	52
6.7.1	Archaeology and Cultural Heritage and Heritage	52
6.7.2	General Environmental Management	52
7	Recommendations.....	54
8	Conclusion	56
	Appendix A – Audit Team Approval.....	58
	Appendix B – Consultation	60
	Appendix c – Risk Assessment Criteria and Audit Protocol	62
	Appendix D – Compliance with Recommendations from 2013 AECOM IEA	64



TABLES

Table 1 - Requirements for this IEA	14
Table 2 - Consultation Responses	18
Table 3 - Approval Documents Audited	22
Table 4 - Documents Audited	22
Table 5 – Issues Resulting in Non-Compliance	24
Table 6- Compliance with SSD 5170 (as modified)	25
Table 7- Compliance with Environment Protection License 6538	26
Table 8- Compliance with MOP	30
Table 9- Compliance with Air Quality Management Plan	30
Table 10 - Compliance with the Environmental Management Strategy	31
Table 11- Compliance with Noise Management Plan	32
Table 12- Compliance with Water Management Plan	33
Table 13- Biodiversity Offset Areas (BOMP 2015)	42



FIGURES

Figure 1- Total Complaints 2013 to 2016	38
Figure 2- Complaints by Issue	39
Figure 3 - Reportable Incidents in the Audit Period	39
Figure 4 - Coal Conveyor Drop Height	41
Figure 5 - Contour Banks - Rehabilitation Areas	46
Figure 6 - Steep Batter Drains - weathering of rock rip rap	47
Figure 7 - CW1 Pump Station - recent works yet to achieve stabilisation	48
Figure 8 - Rill erosion on CW1 upslope embankment batter	49
Figure 9 - Western Diversion	50



This page left deliberately blank



1 INTRODUCTION

1.1 BACKGROUND

Bengalla Mining Company Pty Limited (BMC) have requested Peter Horn to provide a proposal for an Independent Environmental Audit (IEA) of the Bengalla Mine (Bengalla). Bengalla Mine is located approximately 4km south west of Muswellbrook in the Hunter Valley region of New South Wales.

BMC was granted Development Consent for State Significant Development (SSD) 5170 on 3 March 2015 by the Secretary of Department of Planning and the Environment (DP&E) for the Continuation of Bengalla. To fulfil the requirements of the Bengalla Continuation Development Consent (SSD-5170) Schedule 5 - Conditions 9 and 10 an independent Environmental Audit of compliance was to be commissioned one year from the date of approval.

The audit was designed and conducted to satisfy the planning approval conditions for Bengalla Mine and focused on the site’s compliance with licences, approvals and supporting documents including management plans. This audit period is 1 October 2015 to 9 February 2017.

1.2 SITE DESCRIPTION

Bengalla Coal under Development Consent SSD 5170 can mine run of mine (ROM) coal extraction at a rate of 15 million tonnes per annum (mtpa). The commencement of the development under Development Consent SSD 5170 occurred on 1 October 2015 and the SSD approval expires in 2039.

1.3 AUDIT REQUIREMENT

The independent audit requirements of the Development Approval are detailed in Table 1.

Table 1 - Requirements for this IEA

Condition	Requirement	Location in Report
Bengalla Coal SSD 5170 Schedule 5		
9	Within 1 year of the commencement of development under this consent, and every 3 years thereafter, unless the Secretary directs otherwise, the Applicant must commission and pay the full cost of an Independent Environmental Audit of the development. This audit must:	This Audit
	(a) be conducted by a suitably qualified, experienced and independent team of experts whose appointment has been endorsed by the Secretary;	Appendix A
	(b) include consultation with the relevant agencies;	Section 2
	(c) assess the environmental performance of the development and assess whether it is complying with the requirements in this consent and any relevant EPL or Mining Lease (including any assessment, plan or program	Section 4



	required under these approvals);	
	(d) review the adequacy of strategies, plans or programs required under the abovementioned approvals; and	Section 5
	(e) recommend appropriate measures or actions to improve the environmental performance of the development, and/or any assessment, plan or program required under the abovementioned approvals.	Section 6
	<i>Note: This audit team should be led by a suitably qualified auditor, and include experts in any fields specified by the Secretary.</i>	Appendix A

1.4 AUDIT APPROACH

This IEA was undertaken generally in accordance with *AS/NZS ISO 19011:2014 – Guidelines for quality and/or environmental management systems auditing* and the *Independent Audit Guideline* (DP&E, October 2016) and was conducted by the following personnel:

- Peter Horn (Environmental Principal) – Lead Auditor;
- Amanda Kerr (Associate Director – Surface Water Specialist) – from AECOM;
- David Rollings (Associate Director – Air Quality Specialist) – from AECOM; and
- Gordon Patrick (Senior Ecologist) – Rehabilitation Specialist from Eco Logical Australia.

The audit team were approved by the DP&E (on 29 September 2016) prior to conducting the audit (appended as Appendix A).

This IEA consisted of a detailed desktop review of documents supporting compliance, interviews with Bengalla Coal staff and a site inspection of Bengalla Coal from 6 to the 9 February 2017. Interviewees included:

- Environment and Approvals Specialist;
- Environment Advisors;
- Mechanical Engineer – Maintenance Planner;
- Drill and Blast Engineer; and
- Training Coordinator.

An audit opening meeting was held with the site Environment Team and a closing meeting was held with the Environment Team and the Technical Services Manager. The opening meeting discussed the approach and process of the audit while the closing meeting covered the findings to that point and the audit team’s general impressions of the sites management.

The environmental conditions at the time of the audit were mild, with daytime maximum temperatures between 32.3°C and 36.3°C (degrees Celsius) and minimums between 17.7°C and 24.0°C (BOM weather station at Scone). There was no rain during the audit, winds were predominantly from the south and



south south east with a change to the north west on the 9th February. Wind strength was generally moderate with lower WNW winds on 9th February.

1.5 REPORT STRUCTURE

This report is structured as follows:

Executive Summary

Section 1.0 provides an introduction, background and description of Bengalla Coal, describes the requirements for the IEA and provides a guide to the structure of the report.

Section 2.0 discusses consultation with the relevant departments.

Section 3.0 lists the planning approvals in place at Bengalla Coal, provides a description of each and confirms those which have been the subject of this IEA.

Section 4.0 provides a discussion of non-compliances against the Development Consent, licences, permits and supporting documents.

Section 5.0 provides a review of the action status from the previous Independent Environmental Audit

Section 6.0 reviews Complaints and Reportable incidents for the audit period

Section 7.0 reviews the adequacy of environmental management at the site both documented and observed

Section 8.0 provides recommendations for measures or actions to improve the environmental performance of Bengalla Coal

Section 9.0 the conclusion



This page left deliberately blank



2 CONSULTATION

The audit team consulted the DP&E, NSW Environment Protection Authority (EPA), Muswellbrook Shire Council (MSC), Department of Trade and Industry – Division of Resources and Energy (DRE), NSW Department of Primary Industry - Water (DPI Water) and NSW Office of Environment and Heritage (OEH) requesting input into the audit scope and focus (responses are appended as Appendix B). The Bengalla Coal Community Consultation Committee (CCC) was not contacted as there were no CCC meetings in the short period leading up to the audit.

The feedback from the consultation conducted is addressed in Table 2 cross referencing locations in this report.

Table 2 - Consultation Responses

Feedback Item	Location in the Report
DP&E	
Water Management in terms of the separation of Raw water, clean water and coal contact water.	4.32 6.5
Recently constructed Dry Creek diversion and dam in terms of erosion and sediment control and traffic management controls where access to the dam site interacts with traffic on Wybong Road.	4.32 6.5
Rehabilitation status in accordance with the EA and current MOP.	4.18 4.19 4.20 4.22 6.3.2
Mining disturbance in accordance with both approved Project and Mining Lease boundaries.	4.2 4.22 6.3.2
MSC	
Modification 2 of the Bengalla consent allowed for the modification of the overburden emplacement to improve the final land shape. This is a part of the overall reform at Bengalla for improved rehabilitation outcomes. These changes occurred within the auditing period. Council ask that the Independent Environmental Audit cover the transition of the rehabilitation outcomes over this period. This should include evidence of changes in plans, working with other parties, universities, etc so the change in rehabilitation priorities can be demonstrated.	6.3 6.3.2
Dust generation can be a periodic concern at Bengalla. Overburden removal covering some coal seams generates more dust than others. Council ask if	4.2 4.3 4.22



Feedback Item	Location in the Report
the audit could investigate dust management and in particular determine if Bengalla take all reasonable and feasible measures to accommodate for the nature of the material being moved as well as accommodating for the prevailing weather conditions.	4.23 6.1 6.2
DRE	
Is there a current Mining Operations Plan (MOP) in place and has it been approved by DRE?	4.22
Has the MOP been prepared in consultation with the relevant agencies as outlined in the Development Consent?	4.22
Is the rehabilitation strategy as outlined in the MOP consistent with the Development Consent in terms of progressive rehabilitation schedule; and proposed final land use(s)?	4.2 4.22
Has the rehabilitation objectives and completion criteria as outlined in the MOP been developed in accordance with the proposed final land(s) as outlined in the Development Consent?	4.22
Has a rehabilitation monitoring program been developed and implemented to assess performance against the nominated objectives and completion criteria? – verified by reviewing monitoring reports and rehabilitation inspection records.	4.22 6.3.2
Has a rehabilitation care and maintenance program been developed and implemented based on the outcomes of monitoring program?	6.3.2
Are mining operations being conducted in accordance with the approved MOP (production, mining sequence etc.), including within the designated MOP approval boundary?	4.22
Is rehabilitation progress consistent with the approved MOP as verified by site plans and a site inspection? This should include an evaluation against rehabilitation targets and whether the final landform is being developed in accordance with conceptual final landform in Development Consent.	4.22
Based on a visual inspection, are there any rehabilitation areas that appear to have failed or that have incurred an issue that may result in a delay in achieving the successful rehabilitation?	4.22 6.3.2 6.5.1
DPI - Water	
Assessment as to whether the project holds the required water entitlements, approvals and licenses under the Water Management Act 2000 or Water Act 1912 (as applicable)	4.32
Compliance with the conditions of any water licenses/approvals held	4.10 4.12 4.13 4.14 4.15



Feedback Item	Location in the Report
	4.16 4.17
Identification of all water storages for the mine and identification of their licensing status being either exempt, subject to harvestable rights or regulated via a Water Access Licence.	6.5.1
Quantification of both active and passive take by the project from each relevant water source and a comparison against previous predictions.	4.32
Does the proponent have enough licensed water entitlement to cater for active and passive take of water?	4.32 6.5
Are adequate records kept to enable determination of the volume and source of surface and groundwater taken?	4.32 6.5
Do any exemptions under the Water Management (General) Regulation 2011 or Harvestable Rights Order (gazetted 31 March 2006) apply to the capture of water?	None Identified
OEH	
The impact of stock grazing in the offset land, and how stock is managed (e.g. how secure the fences are, the type of stock in place, their number, their impact on soil erosion, plant community composition – including exotic species)	4.26, 6.3.1 and 6.3.2
The extent and impact of African Olive in the offset lands – is this species increasing in any areas? How is it being managed?	6.3.1
The health, viability and location of <i>Cymbidium canaliculatum</i> plants on the mine land – both in-situ and translocated plants	6.3



This page left deliberately blank



3 DOCUMENTS AUDITED

The following tables list the documents reviewed for compliance in this IEA along with where each document is addressed in the report. There were other documents reviewed by the audit team as evidence or supporting information that are not listed here.

Table 3 lists the sites approval documents that were audited.

Table 3 - Approval Documents Audited

Approval Document	Section in Report
SSD5170 Bengalla Continuation Project 2015	4.2
Environment Protection Licence 6538	4.3
Mining Lease 1397	4.4
Mining Lease 1450	4.5
Mining Lease 1469	4.6
Mining Lease 1711	4.7
Mining Lease 1728	4.8
Mining Lease 1729	4.9
Water Supply Works 20CA201647 and 20WA201006	4.10
Water Access Licence 20WA207673	4.11
Water Access Licence 20WA207597	4.12
Water Access Licence 20WA212269	4.13
Water Access Licence 20WA207674	4.14
Water Access Licence 20WA207642	4.15
Water Access Licence 20WA210119	4.16
Water Access Licence 20WA201594	4.17

Table 4 lists documents other than the approvals and licences that were audited.

Table 4 - Documents Audited

Document	Section in Report
BMC Continuation EIS	4.18
SSD 5170 MOD 1 SoEE (August 2015)	4.19
SSD 5170 MOD 2 SoEE (April 2016)	4.20
SSD 5170 MOD 2 SoEE (December 2016)	4.21
Mining Operations Plan Amendment A 2015-2021 (January 2016)	4.22
Air Quality Management Plan (January 2016)	4.23
Aboriginal Cultural Heritage Management Plan (May 2015)	4.24
Biodiversity Management Plan (August 2015)	4.25
Draft Biodiversity Offset Management Plan (February 2016)	4.26
Blast Management Plan (February 2016)	4.27
Blast Fume Management Plan (January 2012)	4.28
Environmental Management Strategy (February 2016)	4.29



Noise Management Plan (February 2016)	4.30
Pollution Incident Response Management Plan (June 2012)	4.31
Water Management Plan (December 2016)	4.32
Visual Impact Mitigation Plan (March 2016)	4.33
2013 Independent Environmental Audit Recommendations	5



4 ENVIRONMENTAL COMPLIANCE

In the assessment of compliance, the status of each condition or commitment is described as:

- Compliant;
- Not Compliant;
- Not Compliant Administrative (the issue was caused by not submitting a document or keeping a document on file, not by the omission of an action or measurement, this non-compliance does not impact the sites environmental performance);
- Not able to be Verified (enough evidence to verify compliance was not found);
- Not Triggered (a timing trigger had not been reached);
- Observation; or
- Note (a fact or statement that does not require action for compliance)

A total of 980 conditions and commitments were assessed as part of this audit. 10 issues resulted in 19 non-compliances. 3 of the non-compliances were administrative. Some of the non-compliances noted in this audit relate to the same issue which, due to the duplication of commitments between consent documents and management plans, raise the same non-compliance several times.

A basic risk assessment was conducted for all non-compliances with Low/Medium/High risk levels as results. For the non-compliances that were not administrative (there were 3 administrative non-compliances), there were 16 Medium results. No High risks were identified in the audit.

4.1 ISSUES RESULTING IN NON-COMPLIANCE

Each non-compliance was caused by an action, omission or event. These constitute the issues that the site needs to address to achieve compliance. For this reason, the issues are extracted from the non-compliances so they will be more readily addressed by Bengalla.

The issues identified in this audit and the consequential non-compliances are presented in Table 5.

Table 5 – Issues Resulting in Non-Compliance

Issue	Conditions and Commitments Found Not Compliant
Air Quality data lost due to incorrect programming of HVAS air quality monitors.	SSD 5170 Sch. 2 C 14 (b) EPL O2.1 (b)
October 2016; Noise exceedance at AN04 which impacted private properties on Racecourse Rd, Muswellbrook.	SSD 5170 Sch. 3 C 4 EPL L 4.1 & L 4.2 Noise MP 4.1
The drop height of the coal conveyor at the coal stockpile was too great on the day it was inspected.	SSD 5170 Sch. 3 C 19 (a) AQMP 3.4.2
15-16 January 2016, the Windmill Dam and ROM North Dam over topped releasing sediment laden water.	SSD 5170 Sch. 3 C 23 SSD 5170 Sch. 3 C 24



Issue	Conditions and Commitments Found Not Compliant
	EPL L 1.1 Water MP Table 1
There were no measures in the Water Management Plan for the assessment of baseline channel stability.	SSD 5170 Sch. 3 C 24 Water MP Table 1
Some slopes around sediment dams at the base of the eastern face of the were greater than 18°.	MOP 7.2.3
Use of wheeled dozers instead of tracked dozers was not occurring.	Noise MP 4.3.2
No training aimed at managing road noise in travel to and from the site was conducted in the audit period.	Noise MP4.3.3
A stockpile or laydown area next to the western clean water diversion did not have sediment controls in place.	Water MP 3.9.4
The EMS as reviewed, referred extensively to Coal & Allied management documents and management regime which no longer apply to Bengalla Mine.	EMS S.1 and others.

4.2 COMPLIANCE WITH SSD 5170 MOD 2 BENGALLA CONTINUATION PROJECT

The conditions that were not compliant within SSD 5170 (as modified) are shown in Table 6. An assessment of compliance for each condition in SSD 5170 (as modified) is provided in the audit protocol in Appendix C.

Table 6- Compliance with SSD 5170 (as modified)

Condition	Requirement	Audit Finding
Sch 2 C.14 b)	The Applicant must ensure that all plant and equipment used on site, and any equipment used offsite to monitor the performance of the development, is: b) operated in a proper and efficient manner.	Air Quality data was lost through the audit period due to incorrect programming of HVAS air quality monitors. Not Compliant Medium Risk
Sch. 3 C. 4	Except for the noise-affected land in Tables 1 and 2, the Applicant must ensure that the noise generated by the development does not exceed the criteria in Table 4 at any residence on privately-owned land.	One sustained noise exceedance of greater than 2dBA _{LAeq(15min)} occurred in October 2016. Not Compliant Medium Risk
Sch. 3 C. 19 a)	The Applicant must: implement all reasonable and feasible measures to minimise the: - odour, fume and dust emissions of the development; and - release of greenhouse gas emissions from the site;	Drop height of coal conveyor greater than desirable on day of the audit. Not Compliant Medium Risk



Condition	Requirement	Audit Finding
Sch.3 C. 23	Unless an EPL or the EPA authorises otherwise, the Applicant must comply with section 120 of the POEO Act and the <i>Protection of the Environment Operations (Hunter River Salinity Trading Scheme) Regulation 2002</i> .	15-16 January 2016, an uncontrolled discharge from the West Windmill Dam and ROM north sediment dam occurred. Not Compliant Medium Risk
Sch.3 C. 24 Table 12	Mine Water Storage Design, install and maintain mine water storage infrastructure to ensure no unlicensed or uncontrolled discharge of mine water off-site On-site storages (including mine infrastructure dams and treatment dams) are suitably designed, installed and maintained to minimise permeability Adequate freeboard within the pit void at all times to minimise the risk of discharge to surface waters	In a storm event on 15-01-16, water spilled offsite from the West Windmill Dam and the North ROM Dam. The water was sediment laden but not saline or pH impacted. Not Compliant Medium Risk
Sch.3 C. 24 Table 12	Aquatic and riparian ecosystem "Maintain or improve baseline channel stability Develop site-specific instream water quality objectives in accordance with ANZECC 2000 and Using the ANZECC Guidelines and Water Quality Objectives in NSW procedures (DECC, 2006), or its latest version "	No measures were included in the WMP for monitoring baseline channel stability. Clarity on the applicability of this requirement (i.e. is intended for the reinstated Dry Creek) is needed in the WMP. Not Compliant Administrative

4.3 COMPLIANCE WITH ENVIRONMENT PROTECTION LICENSE 6538

The conditions that were not compliant within Environment Protection License 6538 are shown in Table 7. An assessment of compliance for each condition Environment Protection License 6538 is provided in the audit protocol in Appendix C.

Table 7- Compliance with Environment Protection License 6538

Condition	Requirement	Audit Finding
L 1.1	Except as may be expressly provided in any other condition of this licence, the licensee must comply with section 120 of the Protection of the Environment Operations Act 1997.	15-16 January 2016, an uncontrolled discharge from the West Windmill Dam and ROM north sediment dam occurred. Not Compliant Medium Risk
L 4.1	Noise generated at the premises that is	One sustained noise



Condition	Requirement	Audit Finding
	measured at each noise monitoring point established under this licence must not exceed the noise levels specified in Column 4 of the table below for that point during the corresponding time periods specified in Column 1 when measured using the corresponding measurement parameters listed in Column 2.	exceedance of greater than 2dBA _{LAeq(15min)} occurred in October 2016. Not Compliant Medium Risk
L 4.2	Noise generated at the premises that is measured at each noise monitoring point established under this licence must not exceed the noise levels specified in Column 4 of the table below for that point during the corresponding time periods specified in Column 1 when measured using the corresponding measurement parameters listed in Column 2.	One sustained noise exceedance of greater than 2dBA _{LAeq(15min)} occurred in October 2016. The exceedance was adjacent to some of the listed private residences. Not Compliant Medium Risk
O 2.1 b)	Licensed activities must be carried out in a competent manner. This Includes: b) must be operated in a proper and efficient manner.	Air Quality data was lost through the audit period due to incorrect programming of HVA's air quality monitors. Not Compliant Medium Risk

4.4 COMPLIANCE WITH CONDITIONS IN MINING LEASE 1397

The conditions of ML 1397 were assessed and all conditions were either “Compliant”, “Not Triggered”, “Noted” or “Not able to be verified”. No conditions were found to be “Not Compliant”. An assessment of compliance for all conditions in ML 1397 is provided in the audit protocol in Appendix C.

4.5 COMPLIANCE WITH CONDITIONS IN MINING LEASE 1450

The conditions of ML 1450 were assessed and all conditions were either “Compliant”, “Not Triggered”, “Noted” or “Not able to be verified”. No conditions were found to be “Not Compliant”. An assessment of compliance for all conditions in ML 1450 is provided in the audit protocol in Appendix C.

4.6 COMPLIANCE WITH CONDITIONS IN MINING LEASE 1469

The conditions of ML 1469 were assessed and all conditions were either “Compliant”, “Not Triggered”, “Noted” or “Not able to be verified”. No conditions were found to be “Not Compliant”. An assessment of compliance for all conditions in ML 1469 is provided in the audit protocol in Appendix C.



4.7 COMPLIANCE WITH CONDITIONS IN MINING LEASE 1711

The conditions of ML 1711 were assessed and all conditions were either “Compliant”, “Not Triggered”, “Noted” or “Not able to be verified”. No conditions were found to be “Not Compliant”. An assessment of compliance for all conditions in ML 1711 is provided in the audit protocol in Appendix C.

4.8 COMPLIANCE WITH CONDITIONS IN MINING LEASE 1728

The conditions of ML 1728 were assessed and all conditions were either “Compliant”, “Not Triggered”, “Noted” or “Not able to be verified”. No conditions were found to be “Not Compliant”. An assessment of compliance for all conditions in ML 1728 is provided in the audit protocol in Appendix C.

4.9 COMPLIANCE WITH CONDITIONS IN MINING LEASE 1729

The conditions of ML 1729 were assessed and all conditions were either “Compliant”, “Not Triggered”, “Noted” or “Not able to be verified”. No conditions were found to be “Not Compliant”. An assessment of compliance for all conditions in ML 1729 is provided in the audit protocol in Appendix C.

4.10 COMPLIANCE WITH CONDITIONS IN WATER SUPPLY WORKS APPROVALS 20CA201647 & 20WA201006

The conditions of 20CA201647 & 20WA201006 were assessed and all conditions were either “Compliant”, “Not Triggered”, “Noted” or “Not able to be verified”. No conditions were found to be “Not Compliant”. An assessment of compliance for all conditions in 20CA201647 & 20WA201006 is provided in the audit protocol in Appendix C.

4.11 COMPLIANCE WITH CONDITIONS IN WATER BASIC RIGHTS 20WA207673

The conditions of 20WA207673 were assessed and all conditions were either “Compliant”, “Not Triggered”, “Noted” or “Not able to be verified”. No conditions were found to be “Not Compliant”. An assessment of compliance for all conditions in 20WA207673 is provided in the audit protocol in Appendix C.

4.12 COMPLIANCE WITH CONDITIONS IN WATER BASIC RIGHTS 20WA207597

The conditions of 20WA207597 were assessed and all conditions were either “Compliant”, “Not Triggered”, “Noted” or “Not able to be verified”. No conditions were found to be “Not Compliant”. An assessment of compliance for all conditions in 20WA207597 is provided in the audit protocol in Appendix C.

4.13 COMPLIANCE WITH CONDITIONS IN WATER SUPPLY WORKS 20WA212269

The conditions of 20WA212269 were assessed and all conditions were either “Compliant”, “Not Triggered”, “Noted” or “Not able to be verified”. No conditions were found to be “Not Compliant”. An assessment of compliance for all conditions in 20WA212269 is provided in the audit protocol in Appendix C.



4.14 COMPLIANCE WITH CONDITIONS IN WATER SUPPLY WORKS 20WA207674

The conditions of 20WA207674 were assessed and all conditions were either “Compliant”, “Not Triggered”, “Noted” or “Not able to be verified”. No conditions were found to be “Not Compliant”. An assessment of compliance for all conditions in 20WA207674 is provided in the audit protocol in Appendix C.

4.15 COMPLIANCE WITH CONDITIONS IN WATER BASIC RIGHTS 20WA207642

The conditions of 20WA207642 were assessed and all conditions were either “Compliant”, “Not Triggered”, “Noted” or “Not able to be verified”. No conditions were found to be “Not Compliant”. An assessment of compliance for all conditions in 20WA207642 is provided in the audit protocol in Appendix C.

4.16 COMPLIANCE WITH CONDITIONS IN WATER SUPPLY WORKS 20WA210119

The conditions of 20WA210119 were assessed and all conditions were either “Compliant”, “Not Triggered”, “Noted” or “Not able to be verified”. No conditions were found to be “Not Compliant”. An assessment of compliance for all conditions in 20WA210119 is provided in the audit protocol in Appendix C.

4.17 COMPLIANCE WITH CONDITIONS IN WATER SUPPLY WORKS 20WA201594

The conditions of 20WA201594 were assessed and all conditions were either “Compliant”, “Not Triggered”, “Noted” or “Not able to be verified”. No conditions were found to be “Not Compliant”. An assessment of compliance for all conditions in 20WA201594 is provided in the audit protocol in Appendix C.

4.18 COMPLIANCE WITH COMMITMENTS IN THE CONTINUATION OF BENGALLA MINE, EIS 2013

The commitments of The Continuation Project EIS were assessed and all commitments were either “Compliant”, “Not Triggered”, “Noted” or “Not able to be verified”. No commitments were found to be “Not Compliant”. An assessment of compliance for all commitments in The Continuation Project EIS is provided in the audit protocol in Appendix C.

4.19 COMPLIANCE WITH COMMITMENTS IN SSD 5170 MODIFICATION 1 SoEE

The commitments of Mod 1 SoEE were assessed and all commitments were either “Compliant”, “Not Triggered”, “Noted” or “Not able to be verified”. No commitments were found to be “Not Compliant”. An assessment of compliance for all commitments in Mod 1 SoEE is provided in the audit protocol in Appendix C.

4.20 COMPLIANCE WITH COMMITMENTS IN SSD 5170 MODIFICATION 2 SoEE

The commitments of Mod 2 SoEE were assessed and all commitments were either “Compliant”, “Not Triggered”, “Noted” or “Not able to be verified”. No commitments were found to be “Not Compliant”.



An assessment of compliance for all commitments in Mod 2 SoEE is provided in the audit protocol in Appendix C.

4.21 COMPLIANCE WITH COMMITMENTS IN SSD 5170 MODIFICATION 3 SOEE

There were no commitments in the Mod 3 SoEE that required auditing.

4.22 COMPLIANCE WITH MINING OPERATIONS PLAN AMENDMENT A

The commitments that were not compliant within the MOP are shown in Table 8. An assessment of compliance for each commitment in the MOP is provided in the audit protocol in Appendix C.

Table 8- Compliance with MOP

Commitment	Requirement	Audit Finding
7.2.3	Localised slopes are designed up to 14-18 degrees around water management areas to allow for their inclusion to control erosion and sediment.	Noted, some areas around sediment dams at base of rehab slope exceed this slope. Not Compliant Medium Risk

4.23 COMPLIANCE WITH AIR QUALITY MANAGEMENT PLAN

The commitments that were not compliant within the Air Quality Management Plan are shown in Table 9. An assessment of compliance for each commitment in the Air Quality Management Plan is provided in the audit protocol in Appendix C.

Table 9- Compliance with Air Quality Management Plan

Commitment	Requirement	Audit Finding
3.4.2	Dust Control Stockpiles Monitoring of the stacking machine to ensure drop heights are minimised	The product drop height for the stacker was observed to be higher than is ideal. There was only a minor observable dust plume, but with stronger winds and dryer conditions there could be the generation of dust with higher drop heights. Not Compliant Medium

4.24 COMPLIANCE WITH ABORIGINAL CULTURAL HERITAGE MANAGEMENT PLAN

The commitments of the Aboriginal Cultural Heritage Management Plan were assessed and all conditions were either “Compliant”, “Not Triggered”, “Noted” or “Not able to be verified”. No



commitments were found to be “Not Compliant”. An assessment of compliance for all commitments in the Aboriginal Cultural Heritage Management Plan is provided in the audit protocol in Appendix C.

4.25 COMPLIANCE WITH COMMITMENTS IN THE BIODIVERSITY MANAGEMENT PLAN

The commitments of the Biodiversity Management Plan were assessed and all conditions were either “Compliant”, “Not Triggered”, “Noted” or “Not able to be verified”. No commitments were found to be “Not Compliant”. An assessment of compliance for all commitments in the Biodiversity Management Plan is provided in the audit protocol in Appendix C.

4.26 COMPLIANCE WITH COMMITMENTS IN THE BIODIVERSITY OFFSET MANAGEMENT PLAN

The commitments of the Biodiversity Offset Management Plan were assessed and all conditions were either “Compliant”, “Not Triggered”, “Noted” or “Not able to be verified”. No commitments were found to be “Not Compliant”. An assessment of compliance for all commitments in the Biodiversity Offset Management Plan is provided in the audit protocol in Appendix C.

4.27 COMPLIANCE WITH COMMITMENTS IN THE BLAST MANAGEMENT PLAN

The commitments of the Blast Management Plan were assessed and all conditions were either “Compliant”, “Not Triggered”, “Noted” or “Not able to be verified”. No commitments were found to be “Not Compliant”. An assessment of compliance for all commitments in the Blast Management Plan is provided in the audit protocol in Appendix C.

4.28 COMPLIANCE WITH COMMITMENTS IN THE BLAST FUME MANAGEMENT PLAN

The commitments of the Blast Fume Management Plan were assessed and all conditions were either “Compliant”, “Not Triggered”, “Noted” or “Not able to be verified”. No commitments were found to be “Not Compliant”. An assessment of compliance for all commitments in the Blast Fume Management Plan is provided in the audit protocol in Appendix C.

4.29 COMPLIANCE WITH COMMITMENTS IN THE ENVIRONMENTAL MANAGEMENT STRATEGY

The commitments that were not compliant within the Environmental Management Strategy are shown in Table 10. An assessment of compliance for each commitment in the Environmental Management Strategy is provided in the audit protocol in Appendix C.

Table 10 - Compliance with the Environmental Management Strategy

Commitment	Requirement	Audit Finding
1	Entire section 1 and 2	Document refers extensively to Coal & Allied management documents and management regime which no longer apply to the site. Not Compliant



Commitment	Requirement	Audit Finding
		Administrative

4.30 COMPLIANCE WITH THE NOISE MANAGEMENT PLAN

The commitments that were not compliant within the Noise Management Plan are shown in Table 11. An assessment of compliance for each commitment in the Noise Management Plan is provided in the audit protocol in Appendix C.

Table 11- Compliance with Noise Management Plan

Commitment	Requirement	Audit Finding
4.1	Noise criteria.	One sustained noise exceedance of greater than 2dBA _{L_{Aeq}(15min)} occurred in October 2016. Not Compliant Medium Risk
4.3.2	Operational Controls Use of wheeled dozers instead of tracked dozers on exposed areas	Wheeled dozers are not used, they cannot conduct the same work on overburden emplacements as tracked dozers. Not Compliant Administrative
4.3.3	Road Noise Specific, additional mitigation measures are not required for road noise however, BMC shall ensure that as part of training, personnel and contractors will be made aware of responsibilities in relation to traffic interactions as they travel to and from the site.	No such training occurred in the audit period. Not Compliant Medium

4.31 COMPLIANCE WITH THE POLLUTION INCIDENT RESPONSE MANAGEMENT PLAN

The commitments of the Pollution Incident Response Management Plan were assessed and all conditions were either “Compliant”, “Not Triggered”, “Noted” or “Not able to be verified”. No commitments were found to be “Not Compliant”. An assessment of compliance for all commitments in the Pollution Incident Response Management Plan is provided in the audit protocol in Appendix C.



4.32 COMPLIANCE WITH THE WATER MANAGEMENT PLAN

The commitments that were not compliant within the Water Management Plan are shown in Table 12. An assessment of compliance for each commitment in the Water Management Plan is provided in the audit protocol in Appendix C.

Table 12- Compliance with Water Management Plan

Commitment	Requirement	Audit Finding
Table 1	<p>Mine Water Storage</p> <p>Design, install and maintain mine water storage infrastructure to ensure no unlicensed or uncontrolled discharge of mine water off-site</p> <p>On-site storages (including mine infrastructure dams and treatment dams) are suitably designed, installed and maintained to minimise permeability</p> <p>Adequate freeboard within the pit void at all times to minimise the risk of discharge to surface waters</p>	<p>In a storm event on 15-01-16, water spilled offsite from the West Windmill Dam and the North ROM Dam. The water was sediment laden but not saline or pH impacted.</p> <p>Not Compliant Medium Risk</p>
Table 1	<p>Aquatic and riparian ecosystem</p> <p>"Maintain or improve baseline channel stability</p> <p>Develop site-specific instream water quality objectives in accordance with ANZECC 2000 and Using the ANZECC Guidelines and Water Quality Objectives in NSW procedures (DECC, 2006), or its latest version "</p>	<p>No measures were included in the WMP for monitoring baseline channel stability.</p> <p>Not Compliant Medium Risk</p>
3.9.4	<p>Construction</p> <p>Construction activities generally require the removal of vegetation and disturbance to the land surface. Prior to disturbance of land, appropriate erosion and sediment controls will be established. Erosion and sediment controls may include silt fences, hay bales and other measures consistent with current best practice standards.</p>	<p>At a location near the laydown/stockpile area (southern end of western diversion, clean water side to the west), the disturbed area and stockpiles were able to discharge directly into the clean water diversion drain with no erosion controls in place.</p> <p>Not Compliant Medium Risk</p>



4.33 COMPLIANCE WITH COMMITMENTS IN THE VISUAL IMPACT MANAGEMENT PLAN

The commitments of the Visual Impact Management Plan were assessed and all conditions were either “Compliant”, “Not Triggered”, “Noted” or “Not able to be verified”. No commitments were found to be “Not Compliant”. An assessment of compliance for all commitments in the Visual Impact Management Plan is provided in the audit protocol in Appendix C.



This page left deliberately blank



PREVIOUS AUDIT ACTION STATUS

The previous IEA was undertaken in July 2013. The IEA was conducted by AECOM Australia Pty Ltd.

The audit recommendations were managed by the Bengalla Environment Team. The status of these actions was reviewed and a copy of an internal review of the status of the actions was retained by the lead auditor. All actions had been completed.

An assessment of compliance for all recommendations in the 2013 IEA (AECOM) is provided in Appendix D.



This page left deliberately blank

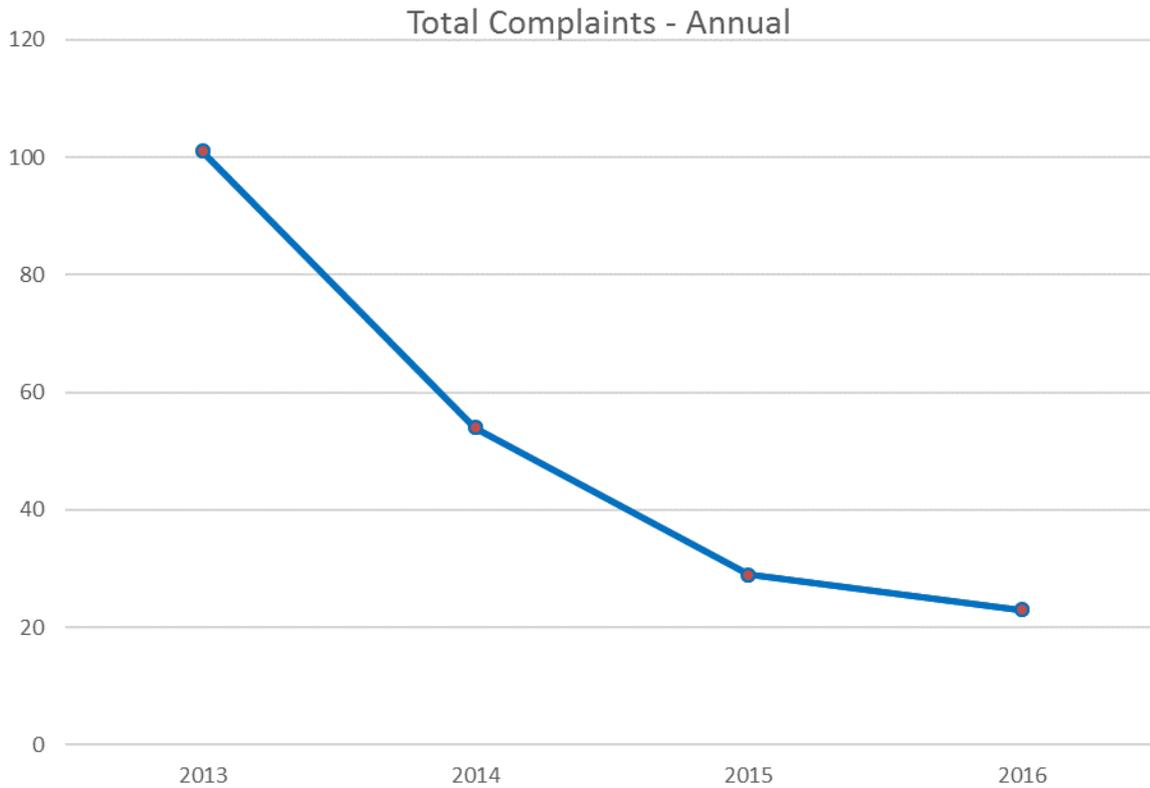


5 COMPLAINTS AND REPORTABLE INCIDENTS

5.1 COMPLAINTS

Over the last few years, the number of complaints has reduced as shown in Figure 1 below.

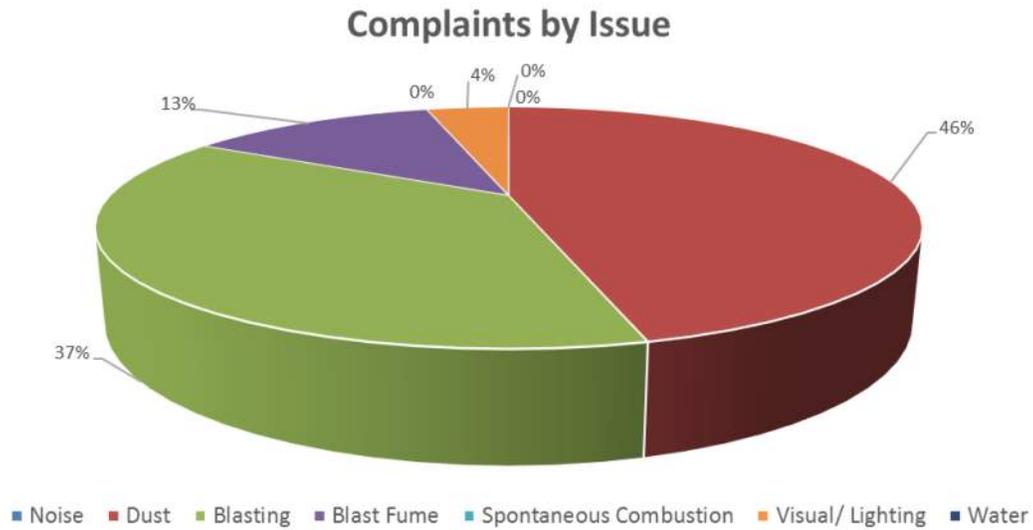
Figure 1- Total Complaints 2013 to 2016



The number of complaints was low across the audit period in most areas except air quality where dust complaints comprised over 50% of the total complaints received for the audit period as shown in Figure 2 below.



Figure 2- Complaints by Issue

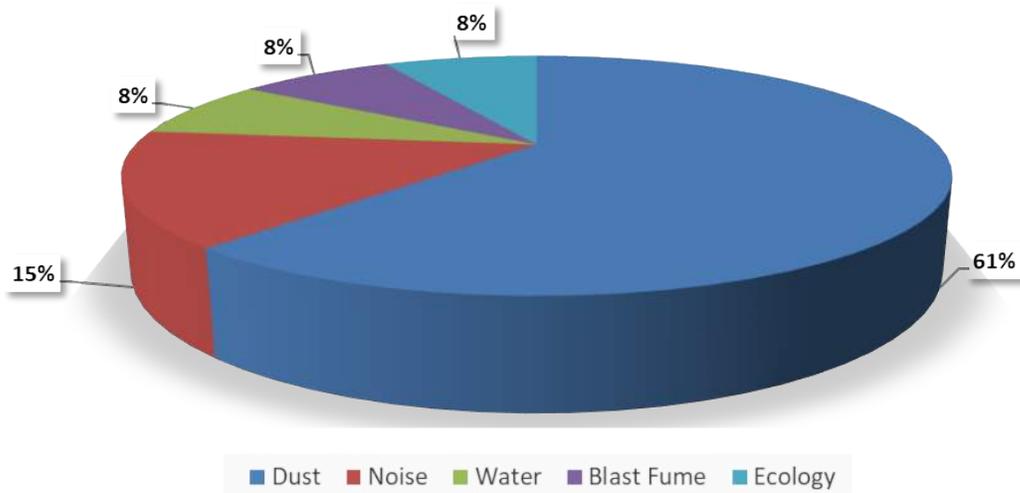


The reduction in the number of complaints is testament to the sites efforts to reduce impacts on the community.

5.2 REPORTABLE INCIDENTS

In summary, there were 8 incidents associated with air quality, 1 with blasting (fume incident), 2 with noise, 1 with surface water and 1 with ecology. The summary is presented graphically in Figure 3.

Figure 3 - Reportable Incidents in the Audit Period





6 ENVIRONMENTAL MANAGEMENT

From an environmental perspective, the key potential environmental impacts resulting from operations at Bengalla Coal are air quality, blasting, ecology and rehabilitation management, noise management, visual impact and the general effectiveness of the environmental management of the site activities. This section of the report reviews the adequacy of the mitigation measures and the on ground applicability of the management measures proposed in the site environmental management documentation.

6.1 AIR QUALITY MANAGEMENT

David Rollings from AECOM provided the following review of air quality management at Bengalla.

6.1.1 Air Quality Management Plan

The environmental audit undertaken on the 7 February 2017 examined a range of air quality policies and procedures in place to minimise or prevent the emission of air pollutants into the environment. Policies against which the audit was undertaken included the site Air Quality Management Plan (Dated Jan 2016), the site operational consent conditions (SSD-5170 MOD 3) and the site's environmental protection Licence (EPL6538).

On the day of the audit, an inspection was undertaken which examined the following:

- Main pit area including observation of the following:
 - Condition of the haul roads;
 - Excavation of overburden by diggers (dragline was not in operation during the inspection);
 - Bulldozer operations spreading overburden dumped by haul trucks;
 - Water cart operations;
 - Overburden dumping from haul trucks;
 - Overburden haulage on unsealed roads; and
 - Small vehicle road usage.
- Product coal stockpile loading;
- Environmental monitoring locations (both dust gauge, meteorology and HVAS units); and
- Progressive rehabilitation areas.

In addition to the observation of operation of the mine, the site environmental advisors were interviewed and a range of questions asked in relation to the environmental management of the site. Evidence was sited in relation to the good management of monitoring equipment and the integration of the air quality mitigation measures and management tools into the mine operation planning. In particular, the real-time ambient air quality measurement and forecast air quality management tools were observed.

The areas where non-compliances were observed related to the following:



- Drop height for the loaders in the product coal stockpile area was not adjusted for low (newly started) stockpiles of coal (as shown in Figure 4). The AQMP lists monitoring of stockpile drop height as a control measure for loading coal.
- On some of the haul road corners on the western side of the pit there was evidence of overburden spillage which could result in abrasion dust when haul trucks run over the spilled material.



Figure 4 - Coal Conveyor Drop Height

On the basis of the observations on the day of the audit and discussions held on the audit inspection and subsequent to that day, the air quality management on the BMC site is considered to be in compliance with their environmental obligations and the levels of air quality management and performance observed on the day of the inspection were considered to be good. The AQMP provides a good framework for the ongoing management of the air emissions from the site.

6.1.2 Lead Auditors Comments

I agree with the Air Quality Specialists findings though I would remove the non-compliance with the spilt overburden as it was a small amount and I think the large unrehabilitated area on top of the overburden emplacement is worthy of mention from an air quality perspective. Whilst this area did not look to be generating dust on the day of the site inspection, conditions were quite good for air quality. I think more could have been done to stabilise the top of the out of pit emplacement whilst MOD 2 was in the



approval process. Also, MOD 2 had been in place for 8 months or so and work had not commenced on the top of the emplacement at the time of the audit. I think there was justification for some more widespread temporary stabilisation in this area.

6.2 BLASTING MANAGEMENT

There were no blasting exceedances in the audit period. One fume incident is noted in this report, a fume rated 3B was generated on 20th September 2016. The fume was created by rainfall on the loaded shot. No fume left the site.

6.2.1 Blast Management Plan

In general, the Blast Management Plan and supporting documentation and procedures appears to be effective in managing the sites potential impacts from blasting. The lack of incidents and complaints over the audit period are testament to the BMPs effectiveness.

The audit has not identified any recommendations for change to the BMP.

6.2.2 Blast Fume Management Strategy

The audit has not identified any recommendations for change to the Blast Fume Management Strategy.

6.3 BIODIVERSITY AND REHABILITATION MANAGEMENT

Gordon Patrick from Eco Logical Australia provided the following review of ecology and rehabilitation management at Bengalla.



6.3.1 Biodiversity Offset Areas

Biodiversity Offsets management is guided by the Biodiversity Offset Management Plan (BOMP) across three areas Kenalea Properties, Black Mountain and Merriwa River as shown in Table 13.

Table 13- Biodiversity Offset Areas (BOMP 2015)

Sites	Area (ha)
Kenalea Properties	4,097
Black Mountain	1,222
Merriwa River	897
Total Offset Biodiversity Area	6,216

Management of these areas is focused on the management and enhancement of the existing environment, including weed and feral animal control. Feral animal (including pigs and foxes) and weed control was carried out across the offset areas during 2016. The first baseline monitoring of the offset areas in regard to both flora and fauna as well as weeds was also carried out in 2016 (*Annual Biodiversity Monitoring Report*, Cumberland Ecology, 2017).

6.3.2 Rehabilitation Areas

Bengalla rehabilitation is undertaken in accordance with the Rehabilitation Management Plan (RMP) and SSD-5170 MOP which was approved in May 2015. Rehabilitation objectives for Bengalla are activities carried out to reinstate disturbed areas to provide a final landform which is able to sustainably support pasture for grazing; and in the longer term, reinstatement of sections of native woodland communities comparable to a pre-European land use.

In regard to section 7.2.4 of the MOP (Growth Medium Development) areas have been dozed and with topsoil cover applied for rehabilitation. It has been noted in the Rehabilitation and Monitoring Report (2015) that topsoil cover in the newer rehabilitation areas is generally adequate, although areas of exposed soil had some degree of erosion (e.g. rills) and topsoil of varying depths (RHB NW7, THB NW8, THB NW9). Additionally, topsoil was considered as being inadequate at THB NW2 (50mm) and THB NW6 (70mm) as it did not meet MOP completion criteria of 100 mm (this note is not in the audit period). It was observed from the site visit that at RHB NW7, areas of low coverage of topsoil with exposed rock was evident.

RHB NW7 woodland rehabilitation area (Plate 1) was observed during the Bengalla site visit. The woodland seedlings and seed stock had for the most part not established in this area as yet, although it was indicated that two attempts had been undertaken. Factors such as a dense cover crop of exotic pasture grasses and limited amounts and quality of top soil were highlighted as the main issues.

Observations at woodland rehabilitation site, RHB NW9 (set up in 2015), during the site visit indicated that there were areas of substantial native tree and shrub growth within the rehabilitation area (Plate 3),



which is likely to satisfy the rehabilitation objectives in regard to the number of stems per hectare. The area also included fauna habitat features including logs and minor erosion issues. Weeds are present and require continued management despite a dense cover-crop of pasture species also present. *Galenia pubescens* was evident at RHB NW9 (Plate 2) and was also present at various other inspected rehabilitation sites. Additionally, the presence of rabbit droppings was noted at various locations across the inspected rehabilitation areas during the site visit.

Adequate baseline and ongoing data has been provided for vegetation monitoring, fauna monitoring and weed control in all rehabilitation and biodiversity offset areas. It is evident from these reports that further weed and pest species management is required as well as ongoing management and enhancement of the rehabilitation areas.

No additional rehabilitation works (outside of those already being conducted) is recommended, although consideration to improved rehabilitation establishment techniques, in addition to vertebrate pest control (rabbits) and weed infestations (e.g. *Galenia pubescens*) should be considered.

6.3.3 Auditors Comments

The SSD 5170 MOD 2 changes to rehabilitation had not commenced implementation at the time of the audit. The MOD 2 MOP had not been approved so no assessment of the description and implementation of the rehabilitation changes made in that modification were not able to be assessed. However, the auditor is aware that a landform specialist had been engaged at the time of the audit to develop landforms suitable to satisfy the changes in modification 2.

Works on the proposed 12ha (MOP and 2015 Annual Review) of 2016 rehabilitation commenced in 2016 however, no rehabilitation was completed in 2016. Contributing factors in the delay of the 2016 rehabilitation include:

- Commencement of dumping for rehabilitation areas was delayed until March due to the location of the dragline cable;
- Trucked overburden was below plan for the year, so the planned rehabilitation areas were not dumped until late 2016; and
- The lifts could not be shaped as they were dumped due to operational factors, which resulted in low dozer productivity when shaping and overall slower progress finalising the landform.

As a result, the 2016 rehabilitation works were unable to be completed during the reporting period. The 2016 rehabilitation will be finalised in early 2017. BMC should ensure the planned rehabilitation for 2017 occurs when planned to avoid falling out of step with MOP predictions.

6.4 NOISE MANAGEMENT

There were no noise complaints in the audit period and only two noise related incidents. The incident in December 2015 concluded that no exceedances at private residences occurred and the elevated measurements were likely due to a meteorological anomaly. The second incident in October 2016 occurred when a sustained exceedance of more than 2dB was measured at AN04 (Racecourse Road).



Given the proximity of the site to the Muswellbrook township, two noise incidents is considered a reasonable result.

The site has progressed to the point where the eastern emplacement has progressed enough to allow operational options with reduced noise outcomes to be utilised during the noise sensitive period. With SSD 5170 MOD 2 now approved, work will be required again at the top elevation of the eastern emplacement raising noise impact risks for the site. Management of the implementation of SSD 5170 MOD 2 to avoid noise sensitive periods will be crucial to avoiding an increase in noise complaints during the construction period.

The development of the Mount Pleasant mine site will raise the risk of cumulative impacts and Bengalla should review cumulative impact strategies to ensure they will be adequate.

There were two moderate (3 dB) exceedances of noise criteria recorded during compliance monitoring during the audit period which were addressed in accordance with proper procedure at the time. DPE and EPA did not require further action from these events.

6.5 WATER MANAGEMENT

Amanda Kerr from AECOM provided the following review of surface water management at Bengalla.

6.5.1 Surface Water Management

Site Inspection

A site inspection of the BMC operations was undertaken (by the surface water specialist) on Tuesday 7th February 2017 and included an observation of:

- operational mining activities;
- rehabilitation areas;
- sedimentation dams adjacent to the homestead;
- coal handling facilities;
- vehicle wash bay;
- infrastructure associated with the Clean Water Diversion project: including CW1 Dam, pipeline (part of), Western Diversion levee (part of);
- Staged Discharge Dam; and,
- Hunter River discharge location.

Review Findings

Water management principles and practices at Bengalla are documented in the Bengalla Water Management Plan (WMP) (December 2016). This document was the primary document referenced during this element of the audit. The WMP has been prepared in response to the requirements of the EPL 6538 and conditions of consent for the project (SSD – 5170 as modified).



The audit activities focussed on identifying whether the commitments made within the WMP have been implemented or complied with. Evidence noted during the audit and associated audit findings are documented in Section 4.32 and Appendix C.

Commentary

Description of the observed non-conformances identified in Section 4.32 is provided below.

Rehabilitation Areas

It was observed during the site inspection that the areas of existing rehabilitation were predominantly in a stable condition and appeared well maintained. Contour banks were well vegetated and steep batter drains provided with rock rip rap for scour protection (see Figure 5).

As discussed with the lead auditor (Peter Horn) and site personnel, the rock used on some of the batter drains is showing signs of weathering (see Figure 6). Over time this may cause stability issues within the batter drains as the rock breaks down in size and no longer has sufficient size or mass to prevent scouring of underlying material during runoff events. This is noted as an observation only, as the drains inspected were in a currently stable condition. Site personnel noted that this issue had been previously observed – and that BMC are planning a program of replacement with more suitable quarried rock.



Figure 5 - Contour Banks - Rehabilitation Areas



Figure 6 - Steep Batter Drains - weathering of rock rip rap

CW1 Dry Detention Dam

CW1 is a large dry detention basin which has been constructed for the purpose of diverting upstream catchment flows around the active mining areas as the mine progresses to the west through the natural alignment of Dry Creek. The construction of CW1 has been recently completed and it was observed that permanent soil stabilisation through establishment of grass cover was in early stages of establishment. Whilst evidence of ripping topsoil, and seeding etc. in accordance with the 'Blue Book' methodologies were noted, some areas are showing signs of rill erosion (refer to Figure 7).



Figure 7 - CW1 Pump Station - recent works yet to achieve stabilisation

An issue with the erosion and sediment control commitments under the WMP was observed relating to the configuration of the trafficable dam crest wall. As the dam crest is trafficable, with sufficient width for light vehicles, a small earth berm has been constructed on either side of the crest - presumably as a safety measure to prevent vehicles veering down the batter slopes of the dam wall. On the upstream batter, small break throughs have been provided in the berm to allow runoff to drain into the storage area of CW1. Downslope of these gaps in the berm, the batter slope of the dam wall is starting to show early signs of rill erosion (refer to Figure 8). A recommendation was made on this issue.



Figure 8 - Rill erosion on CW1 upslope embankment batter

Western Diversion Levee

The Western Diversion Levee has been recently constructed as part of the Dry Creek diversion system. Areas of temporary disturbance for the construction were noted as having been reinstated, with temporary sediment basins still in place. Overall, the levee bank and diversion drain system appeared to be still in the process of establishing effective vegetative cover. In some of the sections observed, batters were showing less growth / grass cover at this time and will require ongoing monitoring to ensure stabilisation is successful.



The Western Diversion Levee is a clean water diversion and one site of potentially sediment laden water was noted at the southern end of the new works. A laydown / stockpile area used for construction is yet to be reinstated and stabilised. This area was observed as having no erosion or sediment controls in place to prevent potentially sediment laden water draining into the western diversion and off site (Figure 9).

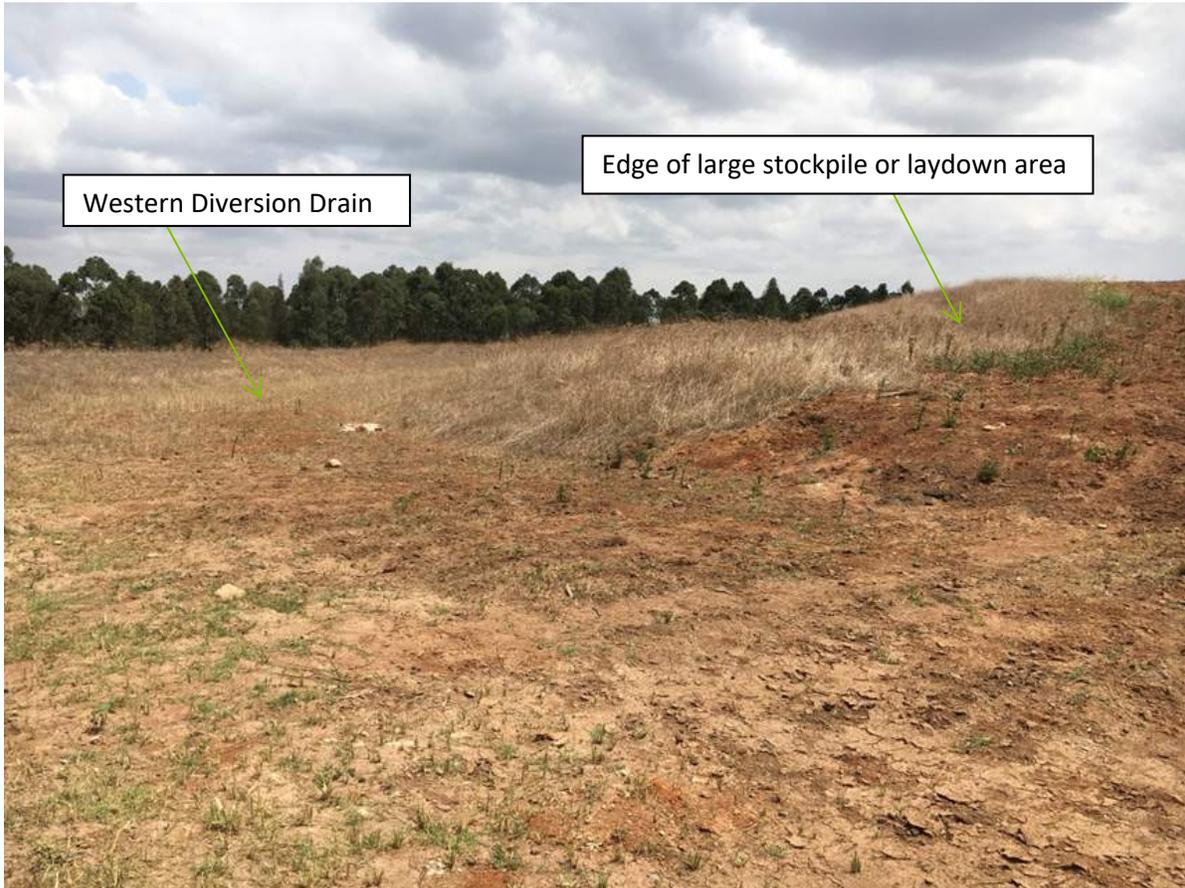


Figure 9 - Western Diversion

6.5.2 Ground Water Management

Dr Richard Cresswell from Eco Logical Australia conducted a review of the Bengalla Mine Groundwater model in accordance with the SSD 5170 approval, Schedule 5, Condition 5 that requires “an independent review of the [groundwater] model every 3 years, and comparison of monitoring results with modelled predictions”. Richard concluded:

“The numerical groundwater model developed by AGE (2013) to assess potential impacts to groundwater and related dependent users under the recent extension of operations at Bengalla Mine has been reviewed for its efficacy in predicting current groundwater levels, seepages rates into the open pit and impact on the Hunter River alluvium.

The automated approach to calibration is considered as best practice, and the wealth of local data and previous models for the area provide confidence in the final calibration values and subsequent



sensitivity analysis and hence predictive capability of the model. Nevertheless, calibration slightly under predicts shallow water levels and overpredicts Coal Measures depressurisation. Both these responses indicate a conservative predictive capability and maximum potential impact.

Observed water levels are comparable to predicted levels, hence drawdowns are also comparable and display relative changes that mimic model expectations. Shallow aquifer water levels appear to have reached maximum drawdown and are now rising. This trend should be monitored over the next few years to confirm the model trajectories.

Modelled seepage rates are directly comparable to observed volumes, with 2015 volumes exceeding current licence allocations for the Coal Measures aquifers. As these volumes are expected to significantly reduce over the coming years a 3-year average is appropriate to allow accounting of the seepage against current allocations (125 units). This should be assessed over the next two years to confirm the reduction in ingress.

[Auditor note – BMC confirmed that an application was lodged with NOW on 22-12-16 to increase the entitlement to 325ML.]

The monitoring network comprises 49 bores at 35 sites and monitors both the shallow, alluvium aquifer and the deeper Coal Measures. The network is adequate to assess impacts to the primary groundwater receptor (the Hunter Alluvium), though insufficient bores are positioned to the north of the project to assess future impacts from the development. Planned bore replacements (for those mined through or otherwise destroyed) and rehabilitation (for collapsed or compromised bores) should be undertaken as recommended in the *2016 Groundwater Impact Report* (AGE, 2017) to reduce the risk of not being able to monitor potential effects of mining to the north and west of the open pit.

This review concludes that the existing numerical groundwater model continues to provide appropriate predictions of water level change as a consequence of current and predicted future mining activities and monitoring results are directly comparable to predicted values. Based on the modelling predictions and recent trends in the observed data, BMC holds sufficient entitlement under each relevant water source to account for current and future operations.”

In summary and including points from the rest of Richards report:

- The groundwater model is effective in predicting groundwater impacts at the Bengalla Mine site;
- Only one bore has water levels at lower levels than the model predicts and that is purported to have been caused by an adjacent irrigation bore and not by mining draw down; and
- One bore (A10) has been mined through and a replacement is required to ensure the model can be adequately calibrated in the future.

6.6 VISUAL IMPACT

Bengalla Mine site is highly visible. The eastern emplacement has provided a good shield visually for the site from Muswellbrook township but there are view sheds to the north and south that still include mine



activities and impacts. The Visual Impact Management Plan in implementing the findings of the Continuation of Bengalla Mine EIS will further reduce visual impacts associated with the site.

The recommendations for larger treed areas and some changes in the landform shape mean that the front and top of the eastern emplacement will have some disturbance in the next few years as the SSD 5170 (as modified) changes take place.

There is also a risk of cumulative impact due to the start-up of the Mount Pleasant Project. This was not considered in the original (2013) EIS section 8.5.3 – Cumulative Visual Impacts and the photomontages and viewpoint analysis from the 2013 EIS don't make full account of the visual impact in combination with the Mount Pleasant Project.

6.7 MANAGEMENT OF THE ENVIRONMENT

Generally, the management of environmental issues at the site has been acceptable over the audit period. Following is some commentary on the issues not addressed above.

6.7.1 Archaeology and Cultural Heritage and Heritage

No issues were identified in the audit. All archaeological sites that are expected to be impacted have been salvaged including B10 – the “Quarry Site” and draft salvage report was available for review in the audit. There are a number of sites left surrounding the mine site and the preservation and actions to manage the remaining sites has been well managed in the audit period.

6.7.2 General Environmental Management

A few notes from the site inspection:

1. Housekeeping was very good, laydown areas tidy and controlled, waste management areas also tidy, no evidence of waste placed inappropriately.
2. Weeds require constant attention at the site and there was evidence of feral animals (rabbits) on the rehabilitated areas.
3. Air quality was generally good at the time of the audit though one dozer operating in the pit was observed to be emitting a substantial amount of dust (onsite only).
4. Rehabilitation was not keeping pace with mining even due to the changes required with the approval of SSD 5170 MOD 2. This has resulted in the stalling of rehabilitation on top of the eastern emplacement awaiting approval of the changes detailed in the MOD. Bengalla should review the planned rehabilitation to ensure the site catches up in 2017 and doesn't have a larger disturbed area into the future.
5. The close location of the Mount Pleasant mine site will create cumulative impact issues for Bengalla.



This page left deliberately blank



7 RECOMMENDATIONS

Following are recommendations from the audit, note that they do not all relate to non-compliance some are observations and that not all non-compliances have recommendations.

1. Revise the MOP to include the details of SSD 5170 MOD 2, specifically the change in landform.
2. Remove the nominated mitigating action "Use of wheeled dozers instead of tracked dozers from exposed areas" from Section 4 of the NMP.
3. Revise the PIRMP and review against the EPA Guideline – *Preparation of Pollution Incident Response Management Plans, 2012*.
4. MOP Plan 4 should show linkages to surrounding vegetation.
5. Attention needs to be paid to drop height maintenance when loading the coal stockpiles. It is noted that drop height minimisation is within the current procedures.
6. Update Blast Fume Generation Mitigation and Management Plan to include details on rating system used, recording requirements for fume event ratings and reporting requirements for regulatory purposes.
7. BMC should ensure the planned rehabilitation for 2017 occurs as planned to avoid falling out of step with MOP predictions.
8. The auditors observed early signs of scouring of steep batter gradients on upstream embankment face of CW1. The design of the dam crest with the vehicle windrows resulted in concentrated flows down batter with no erosion protection measures in place. Measures should be developed and implemented to remove the concentrated flows where possible. Where this is not possible, the concentrated flows should be managed to remove the potential for erosion.

Note also that BMC are required to respond to each of the non-compliances noted in Section 4 of this report in the Response to the Audit Findings that must be presented to DP&E along with this report.

There were two commitments where compliance or non-compliance was not able to be verified. These items should be reviewed to assess whether further site documentation would allow a full compliance assessment in future audits.



This page left deliberately blank



8 CONCLUSION

Environmental management of the Bengalla Mine has been very good through the audit period with a reduction in complaints and a reduction in the number of issues and non-compliances since the previous IEA.

There is room for improvement in some areas, though these are considered generally minor and readily addressed.

No non-compliances were assessed as High Risk in this audit.



This page left deliberately blank



APPENDIX A – AUDIT TEAM APPROVAL



Ms Dianne Munro
Principal
Hansen Bailey
6/127-129 John Street
SINGLETON NSW 2330

Dianne

Dear Ms Munro

**Bengalla Coal Mine (SSD-5170)
Independent Environmental Audit
Approval of Audit Team**

I refer to your email dated 23 September 2016, seeking the Secretary's endorsement of a suitably qualified, experienced and independent team of experts to undertake the 2016 Independent Environmental Audit (IEA) for the Bengalla Coal Mine, in accordance with condition 9(a) of Schedule 5 of SSD-5170.

I note the following team has been nominated:

- Lead Audit – Peter Horn;
- Air Quality – David Rollings (AECOM);
- Rehabilitation – Gordon Patrick (Eco Logical);
- Surface water – Amanda Kerr (AECOM); and
- Groundwater – Dr Richard Cresswell (Eco Logical).

The Department has reviewed the information supplied and is satisfied that the proposed audit team is suitably qualified and experienced to carry out the audit. Consequently, I wish to advise you that the Secretary has endorsed the appointment of the above audit team to conduct the IEA.

If you require any further information, please contact Megan Dawson at the details above.

Yours sincerely

Howard Reed

Howard Reed *29-9-16*
Director Resource Assessments
as the Secretary's nominee



This page left deliberately blank



APPENDIX B – CONSULTATION

Peter Horn

From: Christopher.Knight@planning.nsw.gov.au
Sent: Friday, 3 February 2017 2:40 PM
To: Peter Horn
Subject: RE: Bengalla Independent Environmental Audit

Hello Peter,

Thank you for your email in regard to the upcoming Independent Audit of Bengalla Mine.

As discussed, the Department provides the following comments for your consideration in the audit.

- Water Management in terms of the separation of Raw water, clean water and coal contact water.
- Recently constructed Dry Creek diversion and dam in terms of erosion and sediment control and traffic management controls where access to the dam site interacts with traffic on Wybong Road.
- Rehabilitation status in accordance with the EA and current MOP.
- Mining disturbance in accordance with both approved Project and Mining Lease boundaries.

The Department draws your attention to the Post-approval requirements for State significant developments, Independent Audit Guidelines, released in October 2015.

If you have any queries in relation to the above, please do not hesitate to contact this office.

Best Regards,

Chris Knight
Senior Compliance Officer
Northern Region
Mining & Industry Projects

Department of Planning & Environment
Level 1, Suite 14 | 1 Civic Avenue Singleton | PO Box 3145 SINGLETON NSW 2330
E: christopher.knight@planning.nsw.gov.au
P: 02 6575 3404 **M:**

<http://www.planning.nsw.gov.au>



From: Peter Horn [mailto:peter.horn62@gmail.com]
Sent: Friday, 3 February 2017 2:01 PM
To: Chris Knight <Christopher.Knight@planning.nsw.gov.au>
Subject: Bengalla Independent Environmental Audit

Good Afternoon Chris,

Bengalla Mine is required to undertake an Independent Environmental Audit (IEA) in 2017 and in accordance with Condition 9 and condition 25 from Development Consent SSD-5170 which are reproduced below:

"INDEPENDENT ENVIRONMENTAL AUDIT

9. Within 1 year of the commencement of development under this consent, and every 3 years thereafter, unless the Secretary directs otherwise, the Applicant must commission and pay the full cost of an Independent Environmental Audit of the development. This audit must:

(a) be conducted by a suitably qualified, experienced and independent team of experts whose appointment has been endorsed by the Secretary;

(b) include consultation with the relevant agencies;

(c) assess the environmental performance of the development and assess whether it is complying with the requirements in this consent and any relevant EPL or Mining Lease (including any assessment, plan or program required under these approvals);

(d) review the adequacy of strategies, plans or programs required under the abovementioned approvals; and

(e) recommend appropriate measures or actions to improve the environmental performance of the development, and/or any assessment, plan or program required under the abovementioned approvals.

Note: This audit team must be led by a suitably qualified auditor and include experts in any field specified by the Secretary.

I have been selected as the led auditor for this audit. The audit will be conducted next week from the 6th to the 9th February, my apologies for the short notice.

Under Condition 9 c) (reproduced above) we are seeking your agencies input into the audit.

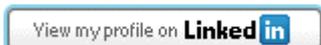
Could you please reply ASAP (the audit timeline has shrunk dramatically) with any concerns or comments about the management of environmental or social issues at the Bengalla Mine site.

Kind Regards

Peter

Peter Horn (BAppSci (Env), MAppSci (Mngt & Rest), MEIANZ, MCASANZ)
Environmental Principal

Certified Lead Environmental Auditor (EXEMPLAR)



E-mail | Peter.horn62@gmail.com

Mobile |

Address |

Peter Horn

From: Scott Brooks <Scott.Brooks@muswellbrook.nsw.gov.au>
Sent: Tuesday, 21 February 2017 10:02 AM
To: Peter Horn
Cc: White, Craig (BMC)
Subject: RE: Bengalla Independent Environmental Audit

Peter,
Big apologies for the delay on this response.

If possible could the following be considered in you Audit.

Modification 2 of the Bengalla consent allowed for the modification of the overburden emplacement to improve the final land shape. This is a part of the overall reform at Bengalla for improved rehabilitation outcomes. These changes occurred within the auditing period. Council ask that the Independent Environmental Audit cover the transition of the rehabilitation outcomes over this period. This should include evidence of changes in plans, working with other parties, universities, etc so the change in rehabilitation priorities can be demonstrated.

Dust generation can be a periodic concern at Bengalla. Overburden removal covering some coal seams generates more dust than others. Council ask if the audit could investigate dust management and in particular determine if Bengalla take all reasonable and feasible measures to accommodate for the nature of the material being moved as well as accommodating for the prevailing weather conditions.

Kind regards,

Scott Brooks
Contractor, Mining Liaison
02 6549 3862

scott.brooks@muswellbrook.nsw.gov.au



www.muswellbrook.nsw.gov.au

From: Peter Horn [mailto:peter.horn62@gmail.com]
Sent: Monday, 20 February 2017 9:25 AM
To: Scott Brooks
Subject: RE: Bengalla Independent Environmental Audit

Hi Scott,

Do you still want to formalise your response?

Cheers
Peter.

Peter Horn
Mobile |

From: Scott Brooks [mailto:Scott.Brooks@muswellbrook.nsw.gov.au]
Sent: Friday, 3 February 2017 4:10 PM
To: Peter Horn <peter.horn62@gmail.com>
Subject: RE: Bengalla Independent Environmental Audit

Peter,
I cannot think of anything special, but will reply more formally next week.

Scott

From: Peter Horn <peter.horn62@gmail.com>
Sent: Friday, 3 February 2017 2:03:36 PM
To: Scott Brooks
Subject: Bengalla Independent Environmental Audit

Good Afternoon Scott,
Bengalla Mine is required to undertake an Independent Environmental Audit (IEA) in 2017 and in accordance with Condition 9 and condition 25 from Development Consent SSD-5170 which are reproduced below:

“INDEPENDENT ENVIRONMENTAL AUDIT

9. Within 1 year of the commencement of development under this consent, and every 3 years thereafter, unless the Secretary directs otherwise, the Applicant must commission and pay the full cost of an Independent Environmental Audit of the development. This audit must:

(a) be conducted by a suitably qualified, experienced and independent team of experts whose appointment has been endorsed by the Secretary;

(b) include consultation with the relevant agencies;

(c) assess the environmental performance of the development and assess whether it is complying with the requirements in this consent and any relevant EPL or Mining Lease (including any assessment, plan or program required under these approvals);

(d) review the adequacy of strategies, plans or programs required under the abovementioned approvals; and

(e) recommend appropriate measures or actions to improve the environmental performance of the development, and/or any assessment, plan or program required under the abovementioned approvals.

Note: This audit team must be led by a suitably qualified auditor and include experts in any field specified by the Secretary.”

I have been selected as the led auditor for this audit. The audit will be conducted next week from the 6th to the 9th February, my apologies for the short notice.

Under Condition 9 c) (reproduced above) we are seeking your organisations input into the audit.

Could you please reply ASAP (the audit timeline has shrunk dramatically) with any concerns or comments about the management of environmental or social issues at the Bengalla Mine site.

Kind Regards

Peter

Peter Horn (BAppSci (Env), MAppSci (Mngt & Rest), MEIANZ, MCASANZ)
Environmental Principal

Certified Lead Environmental Auditor (EXEMPLAR)



E-mail | Peter.horn62@gmail.com

Mobile |

Address

This email has been scanned by the Symantec Email Security.cloud service.
For more information please visit <http://www.symanteccloud.com>

Peter Horn

From: Chris Cooper <chris.cooper@industry.nsw.gov.au>
Sent: Friday, 3 February 2017 2:14 PM
To: Peter Horn
Subject: RE: Bengalla Independent Environmental Audit

Hi Peter

Thanks for your email. DRE does not provide comment on titleholder's environmental performance, however we would like to provide comments on the scope of audits as per below:

Audit Component - Desktop

Is there a current Mining Operations Plan (MOP) in place and has it been approved by DRE?
Has the MOP been prepared in consultation with the relevant agencies as outlined in the Project Approval?
Is the rehabilitation strategy as outlined in the MOP consistent with the Project Approval in terms of progressive rehabilitation schedule; and proposed final land use(s)?
Has the rehabilitation objectives and completion criteria as outlined in the MOP been developed in accordance with the proposed final land(s) as outlined in the Project Approval?
Has a rehabilitation monitoring program been developed and implemented to assess performance against the nominated objectives and completion criteria? – verified by reviewing monitoring reports and rehabilitation inspection records.
Has a rehabilitation maintenance program been developed and implemented based on the outcomes of monitoring program? – verified by reviewing Annual Rehabilitation Programs or similar documentation.

Audit Component - Site Inspection

Are mining operations being conducted in accordance with the approved MOP (production, mining sequence etc.), including within the designated MOP approval boundary? – to be verified by site plans and site inspection.
Is rehabilitation progress consistent with the approved MOP as verified by site plans and a site inspection? This should include an evaluation against rehabilitation targets and whether the final landform is being developed in accordance with conceptual final landform in Project Approval.
Based on a visual inspection, are there any rehabilitation areas that appear to have failed or that have incurred an issue that may result in a delay in achieving the successful rehabilitation?

In addition to the above, the DRE recommends that the audit makes comment where observed rehabilitation procedures, practices and outcomes reflect best industry practice.

Thanks and regards,

**Chris Cooper | Inspector Environment
Environmental Sustainability Unit | Resources and Energy
NSW Department of Industry**

516 High Street | Maitland NSW 2310
PO Box 344 | Hunter Region Mail Centre NSW 2310
T: 02 4931 6752 | **M:** | **F:** 02 4931 6790

E: chris.cooper@industry.nsw.gov.au

W: www.industry.nsw.gov.au | www.resourcesandenergy.nsw.gov.au

From: Peter Horn [mailto:peter.horn62@gmail.com]
Sent: Friday, 3 February 2017 2:05 PM
To: chris.cooper@industry.nsw.gov.au
Subject: Bengalla Independent Environmental Audit

Good Afternoon Chris,

Bengalla Mine is required to undertake an Independent Environmental Audit (IEA) in 2017 and in accordance with Condition 9 from Development Consent SSD-5170 which is reproduced below:

“INDEPENDENT ENVIRONMENTAL AUDIT

9. Within 1 year of the commencement of development under this consent, and every 3 years thereafter, unless the Secretary directs otherwise, the Applicant must commission and pay the full cost of an Independent Environmental Audit of the development. This audit must:

(a) be conducted by a suitably qualified, experienced and independent team of experts whose appointment has been endorsed by the Secretary;

(b) include consultation with the relevant agencies;

(c) assess the environmental performance of the development and assess whether it is complying with the requirements in this consent and any relevant EPL or Mining Lease (including any assessment, plan or program required under these approvals);

(d) review the adequacy of strategies, plans or programs required under the abovementioned approvals; and

(e) recommend appropriate measures or actions to improve the environmental performance of the development, and/or any assessment, plan or program required under the abovementioned approvals.

Note: This audit team must be led by a suitably qualified auditor and include experts in any field specified by the Secretary.”

I have been selected as the led auditor for this audit. The audit will be conducted next week from the 6th to the 9th February, my apologies for the short notice.

Under Condition 9 c) (reproduced above) we are seeking your agencies input into the audit.

Could you please reply ASAP (the audit timeline has shrunk dramatically) with any concerns or comments about the management of environmental or social issues at the Bengalla Mine site.

Kind Regards

Peter

Peter Horn (*BAppSci (Env), MAppSci (Mngt & Rest), MEIANZ, MCASANZ*)

Environmental Principal

Certified Lead Environmental Auditor (EXEMPLAR)



E-mail | Peter.horn62@gmail.com

Mobile |

Address |

This message is intended for the addressee named and may contain confidential information. If you are not the intended recipient, please delete it and notify the sender. Views expressed in this message are those of the individual sender, and are not necessarily the views of their organisation.



Peter Horn
Environmental Consultant – Lead Auditor
PO Box 122
Clarence Town NSW 2321
By email: peter.horn62@gmail.com

Contact Hannah Grogan
Phone (02) 4904 2616
Email hannah.grogan@dpi.nsw.gov.au
Our ref V15/3875#99 & OUT17/8622
Your ref SSD 5170

Dear Mr Horn

Bengalla Coal Mine 2017 Independent Environmental Audit (SSD 5170)

Thank you for the opportunity to comment on the planned independent environmental audit of Bengalla Coal Mine.

DPI Water understands that the scope of the assessment as outlined under the development consent extends at least to compliance with:

- the conditions of consent;
- the statements of commitments as appended to the consent;
- any reporting or requirements within any relevant management plans prepared under the consent.
- all trigger action response plans for surface and groundwater impacts.

DPI Water requests that the audit considers compliance with the relevant water licensing requirements for the mining operation, specifically:

- Assessment as to whether the project holds the required water entitlements and licences under the *Water Management Act 2000* or *Water Act 1912* (as applicable);
- Compliance with the conditions of any water licences/approvals held.
- Identification of all water storages for the mine and identification of their licensing status being either exempt, subject to harvestable rights or regulated via a Water Access Licence.
- Quantification of both active and passive take by the project from each relevant water source and a comparison against previous predictions.

The following questions may aid in assessing the water licensing requirements of the mine operation:

- Does the proponent have enough licensed water entitlement to cater for active and passive take of water?
- Are adequate records kept to enable determination of the volume and source of surface and groundwater taken?
- Do any exemptions under the *Water Management (General) Regulation 2011* or Harvestable Rights Order (gazetted 31 March 2006) apply to the capture of water?

I trust this information is of assistance. Please contact Hannah Grogan, A/Senior Water Regulation Officer (Newcastle) on (02) 4904 2516 or Hannah.grogan@dpi.nsw.gov.au if you have further enquiries regarding this matter.

Yours sincerely

A handwritten signature in blue ink, appearing to read 'Irene Zinger', with a stylized flourish at the end.

Irene Zinger
A/Regional Manager - Metro
Water Regulation Operations
DPI Water

23/02/2017

Peter Horn

From: Robert Gibson <Robert.Gibson@environment.nsw.gov.au>
Sent: Friday, 3 February 2017 10:44 AM
To: Peter Horn
Cc: Richard Bath
Subject: RE: Bengalla Independent Environmental Audit

Dear Peter,

Thank you for your e-mail and request for comment on the forthcoming Independent Environmental Audit for the Bengalla Mine. Three matters of interest come to my mind in relation to threatened biodiversity:

1. The impact of stock grazing in the offset land, and how stock is managed (e.g. how secure the fences are, the type of stock in place, their number, their impact on soil erosion, plant community composition – including exotic species);
2. The extent and impact of African Olive in the offset lands – is this species increasing in any areas? How is it being managed?; and
3. The health, viability and location of *Cymbidium canaliculatum* plants on the mine land – both in-situ and translocated plants.

Thus I recommend that those matters are considered in the forthcoming audit.

Kind regards,

Robert

Robert Gibson
Regional Biodiversity Conservation Officer
Hunter Central Coast Branch
Regional Operations Division
Office of Environment and Heritage
Locked Bag 1002 Dangar NSW 2309
(Level 4/26 Honeysuckle Drive Newcastle)
T: 4927 3154
W: www.environment.nsw.gov.au

From: Peter Horn [mailto:peter.horn62@gmail.com]
Sent: Friday, 3 February 2017 10:09 AM
To: Richard Bath <Richard.Bath@environment.nsw.gov.au>
Subject: Bengalla Independent Environmental Audit

Good Morning Richard,

Bengalla Mine is required to undertake an Independent Environmental Audit (IEA) in 2017 and in accordance with Condition 9 and condition 25 from Development Consent SSD-5170 which are reproduced below:

“INDEPENDENT ENVIRONMENTAL AUDIT

9. Within 1 year of the commencement of development under this consent, and every 3 years thereafter, unless the Secretary directs otherwise, the Applicant must commission and pay the full cost of an Independent Environmental Audit of the development. This audit must:

(a) be conducted by a suitably qualified, experienced and independent team of experts whose appointment has been endorsed by the Secretary;

(b) include consultation with the relevant agencies;

(c) assess the environmental performance of the development and assess whether it is complying with the requirements in this consent and any relevant EPL or Mining Lease (including any assessment, plan or program required under these approvals);

(d) review the adequacy of strategies, plans or programs required under the abovementioned approvals; and

(e) recommend appropriate measures or actions to improve the environmental performance of the development, and/or any assessment, plan or program required under the abovementioned approvals.

Note: This audit team must be led by a suitably qualified auditor and include experts in any field specified by the Secretary."

I have been selected as the led auditor for this audit.

Under Condition 9 c) (reproduced above) we are seeking your agencies input into the audit.

Could you please reply ASAP (the audit timeline has shrunk dramatically) with any concerns or comments about the management environmental or social issues at the Bengalla Mine site.

Kind Regards

Peter

Peter Horn (*BAppSci (Env), MAppSci (Mngt & Rest), MEIANZ, MCASANZ*)
Environmental Principal

Certified Lead Environmental Auditor (EXEMPLAR)



E-mail | Peter.horn62@gmail.com

Mobile |

Address |

This email is intended for the addressee(s) named and may contain confidential and/or privileged information.

If you are not the intended recipient, please notify the sender and then delete it immediately.

Any views expressed in this email are those of the individual sender except where the sender expressly and with authority states them to be the views of the NSW Office of Environment and Heritage.

PLEASE CONSIDER THE ENVIRONMENT BEFORE PRINTING THIS EMAIL



DOC17/93091-01, EF13/2634

Mr Peter Horn
Environmental Principal
Certified Lead Environmental Auditor
peter.horn62@gmail.com

20 February 2017

Dear Mr Horn,

Request for input into Bengalla Coal Mine - Independent Environmental Audit - EPL 6538

Reference is made to your email to the NSW Environment Protection Authority (EPA) dated 3 February 2017, requesting input into the 2017 Independent Environmental Audit required in accordance with Project Approval SSD-5170 issued by the Department of Planning and Environment.

The EPA has issued Environment Protection Licence (EPL) 6538 to Bengalla Mining Company Pty Limited for the Bengalla Mine Operations under the *Protection of the Environment Operations Act (POEO) 1997*. The EPL contains limit, monitoring and reporting conditions for water, air and noise emissions from the premises.

Any specific information concerning compliance with the licence is available by searching for licence number 6538 on the EPA's Public register at <http://www.epa.nsw.gov.au/prpoeo/index.htm>

While the EPA encourages licensees to undertake independent environmental audits of their operations to assess compliance with statutory obligations and environmental objectives, the EPA does not review or provide input into such audits.

If you have any further questions please contact Alexander Beavis in our Newcastle office on (02) 4908 6804.

Yours sincerely,

A handwritten signature in blue ink, appearing to read 'Mark Hartwell', written over a faint blue oval background.

MARK HARTWELL
Head Regional Operations – Hunter
Environment Protection Authority

Contact officer: ALEXANDER BEAVIS
(02) 4908 6804



This page left deliberately blank



APPENDIX C – RISK ASSESSMENT CRITERIA AND AUDIT PROTOCOL

Consequences

Level Descriptor		Consequences
A	Catastrophic	Long term environmental damage (5 years or longer), requiring \$5million to correct or in penalties
B	Major	Medium-term (1-5 years) environmental damage, requiring \$1 to 5million to correct or in penalties
C	Moderate	Short-term (less than 1 year) environmental damage, requiring up to \$1million to correct or in penalties
D	Minor	Environmental damage, requiring up to \$200,000 to correct
E	Insignificant	Negligible environmental impact, managed within operating budgets

		Catastrophic	Major	Moderate	Minor	Insignificant
		A	B	C	D	E
Almost certain	1	High	High	High	Medium	Medium
Likely	2	High	High	High	Medium	Medium
Possible	3	High	High	Medium	Medium	Low
Unlikely	4	High	Medium	Medium	Low	Low
Rare	5	Medium	Medium	Low	Low	Low

Likelihood

Level Descriptor		Likelihood of the risk arising and leading to the assessed level of consequence	
1	Almost certain	Is expected to occur in most circumstances and has a history of occurrence	Once a year or more frequent
2	Likely	Will probably occur in most circumstances	Once in 1 to 3 years
3	Possible	Could occur at some time	Once in 3 to 10 years
4	Unlikely	Not likely to occur in normal circumstances	Once in 10 to 50 years
5	Rare	May occur only in exceptional circumstances	Once in 100 years or more

Reference	Condition	Requirement	Evidence	Audit Finding	Risk		
					Consequence	Likelihood	Risk
Development Consent SSD-5170							
Bengalla Continuation Project - MOD 3							
SCHEDULE 2 - ADMINISTRATIVE CONDITIONS							
OBLIGATION TO MINIMISE HARM TO THE ENVIRONMENT							
	1	In addition to meeting the specific performance criteria established under this consent, the Applicant must implement all reasonable and feasible measures to prevent and/or minimise any material harm to the environment that may result from the construction, operation, or rehabilitation of the development.	Noted	Noted			
TERMS OF CONSENT							
	2	The Applicant must:					
	(a)	(a) carry out the development generally in accordance with the EIS, SEE (Mod 1) and SEE (Mod 2); and	Assessed elsewhere in this audit	Compliant			
	(b)	(b) comply with the conditions of this consent and the Development Layout.	Generally Compliant, where not compliant it is noted and etailed below. No grossly deliberate non-compliance.	Compliant			
		<i>Note: The Development Layout is shown in Appendix 2.</i>	Noted	Noted			
	3	If there is any inconsistency between the documents in condition 2(a), the more recent document shall prevail to the extent of the inconsistency. The conditions of this consent shall prevail over documents in condition 2(a).	Noted	Noted			
	4	The Applicant must comply with any reasonable requirement/s of the Secretary arising from the Department's assessment of:					
	(a)	any strategies, plans, programs, reviews, audits, reports or correspondence that are submitted in accordance with this consent;	Assessed in the individual plans	Compliant			
	(b)	any reports, reviews or audits commissioned by the Department regarding compliance with this consent; or	No evidence of non-compliance identified.	Compliant			
	(c)	the implementation of any actions or measures contained in these documents.	Assessed throughout this audit.	Compliant			
LIMITS ON CONSENT							
Mining Operations							
	5	The Applicant may carry out mining operations on the site until 28 February 2039	Noted	Not Triggered			
		<i>Note: Under this consent, the Applicant is required to rehabilitate the site and perform additional undertakings to the satisfaction of either the Secretary or the DRE. Consequently this consent will continue to apply in all other respects other than the right to conduct mining operations until the rehabilitation of the site and these additional undertakings have been carried out satisfactorily.</i>	Noted, assessed in the MOP.	Noted			
Coal Extraction							
	6	The Applicant must not extract and/or process more than 15 million tonnes of ROM coal on site in any calendar year.	Coal production reported in the Annual Reviews (AEMRs), 15mtpa has not been exceeded.	Compliant			
Coal Transport							
	7	The Applicant must:					
	(a)	only transport coal from the site by rail; and	Reviewed on-site - no facilities to transport coal by any other means	Compliant			
	(b)	restrict train movements from the Bengalla load point to a maximum of 16 laden trains a day.	Reviewed train movement records.	Compliant			
Bengalla Link Road Construction Hours							
	8	The Applicant must only construct the Bengalla Link Road between the hours of 7 am to 6 pm, Monday to Friday and 8 am to 1 pm on Saturdays.	The link road realignment had not commenced	Not Triggered			
NOTICE OF COMMENCEMENT							
	9	Prior to carrying out any development under this consent, the Applicant must:					
	(a)	certify that it has obtained all the necessary approvals required to commence development; and	Sighted letters to DP&E and return correspondence.	Compliant			
	(b)	notify the Secretary in writing of the date of commencement of development under this consent					
SURRENDER OF EXISTING DEVELOPMENT CONSENT							
	10	By the end of June 2016, unless the Secretary agrees otherwise, the Applicant must surrender the existing development consent for mining operations on site in accordance with Section 104A of the EP&A Act. Prior to the surrender of this consent, the conditions of this consent (once operational) shall prevail to the extent of any inconsistency with the conditions of this consent.	Timing was extended with approval from DP&E (evidence provided). DP&E accepted surrender 22-12-16	Compliant			

Reference	Condition	Requirement	Evidence	Audit Finding	Risk		
					Consequence	Likelihood	Risk
Development Consent SSD-5170							
STRUCTURAL ADEQUACY							
	11	The Applicant must ensure that all new buildings and structures, and any alterations or additions to existing buildings and structure, are constructed in accordance with the relevant requirements of the BCA and MSB.	No relevant new constructions in the audit period	Not Triggered			
		Notes: - Under Part 4A of the EP&A Act, the Applicant is required to obtain construction and occupation certificates for the proposed building works. - Part 8 of the EP&A Regulation sets out the requirements for the certification of the development. - The development is located in the Muswellbrook Mine Subsidence District. Under Section 15 of the Mine Subsidence Compensation Act 1961, the Applicant is required to obtain the MSB's approval before conducting any improvements on site.	Noted	Noted			
DEMOLITION							
	12	The Applicant must ensure that all demolition work is carried out in accordance with Australian Standard AS 2601-2001: The Demolition of Structures, or its latest version.	No demolition in the audit period	Not Triggered			
PROTECTION OF PUBLIC INFRASTRUCTURE							
	13	Unless the Applicant and the applicable authority agree otherwise, the Applicant must:					
	(a)	repair, or pay the full costs associated with repairing, any public infrastructure that is damaged by the development; and	Some works on Wybong road were paid for by BMC in agreement with MSC.	Compliant			
	(b)	relocate, or pay the full costs associated with relocating, any public infrastructure that needs to be relocated as a result of the development.	This was not required in the audit period	Not Triggered			
		Note: This condition does not apply to any damage to roads caused as a result of general road usage	Noted	Noted			
OPERATION OF PLANT AND EQUIPMENT							
	14	The Applicant must ensure that all plant and equipment used on site, and any equipment used offsite to monitor the performance of the development, is:					
	(a)	maintained in a proper and efficient condition; and	Sighted maintenance system at Bengalla. Equipment is maintained in an orderly manner.	Compliant			
	(b)	operated in a proper and efficient manner.	Air Quality data lost due to incorrect programming of HVAS air quality monitors.	Not Compliant	E	1	Medium
UPDATING & STAGING SUBMISSION OF STRATEGIES, PLANS OR PROGRAMS							
	15	The Applicant must regularly review the strategies, plans and programs required under this consent and ensure that these documents are updated to incorporate measures to improve the environmental performance of the development and reflect current best practice in the mining industry. To facilitate these updates, the Applicant may at any time submit revised strategies, plans or programs for the approval of the Secretary. With the agreement of the Secretary, the Applicant may also submit any strategy, plan or program required by this consent on a staged basis. With the agreement of the Secretary, the Applicant may prepare a revision or stage of any strategy, plan or program required under this consent without undertaking consultation with all parties nominated under the applicable condition in this consent.	Noted	Noted			
		Notes: - While any strategy, plan or program may be submitted on a staged basis, the Applicant must ensure that the existing operations on site are covered by suitable strategies, plans or programs at all times. - If the submission of any strategy, plan or program is to be staged, then the relevant strategy, plan or program must clearly describe the specific stage to which the strategy, plan or program applies, the relationship of this stage to any future stages, and the trigger for updating the strategy, plan or program.	There was no evidence of areas not covered by suitable management documentation	Compliant			
VOLUNTARY PLANNING AGREEMENT							
	16	By the end of December 2015, or as otherwise agreed by the Secretary, the Applicant must enter into a VPA for the development with Council in accordance with:	Copy of VPA provided, dated 14 October 2015	Compliant			
	(a)	Division 6 of Part 4 of the EP&A Act; and	Quoted in VPA				
	(b)	the terms of the Applicant's offer in Appendix 3.	Council agreed to the VPA				

Reference	Condition	Requirement	Evidence	Audit Finding	Risk															
					Consequence	Likelihood	Risk													
Development Consent SSD-5170																				
SCHEDULE 3 - ENVIRONMENTAL PERFORMANCE CONDITIONS																				
ACQUISITION UPON REQUEST																				
	1	Upon receiving a written request for acquisition from the owner of the land listed in Table 1, the Applicant must acquire the land in accordance with the procedures in conditions 5 and 6 of schedule 4.	<table border="1"> <caption>Table 1: Land subject to acquisition upon request</caption> <thead> <tr> <th>Acquisition Basis</th> <th>Receiver No</th> </tr> </thead> <tbody> <tr> <td>Noise</td> <td>152, 153, 154, 156</td> </tr> </tbody> </table> <p>Note: To interpret the land referred to in Table 1, see the applicable figure in Appendix 4.</p>	Acquisition Basis	Receiver No	Noise	152, 153, 154, 156	One property owner requested requisition by letter 10 March 2015. An offer was provided by Bengalla Mining Company Pty Limited (BMC) on 10 June 2015. It has not yet been taken up.	Compliant											
Acquisition Basis	Receiver No																			
Noise	152, 153, 154, 156																			
	2	If the Applicant receives a written request for acquisition from the owner of the land listed in Table 2 and if that land is no longer subject to acquisition upon request under the relevant development consent or project approval shown in Table 2, then the Applicant must acquire the land in accordance with the procedures in conditions 5 and 6 of schedule 4.	<table border="1"> <caption>Table 2: Land subject to acquisition upon request</caption> <thead> <tr> <th>Acquisition Basis</th> <th>Receiver No</th> <th>Mine</th> </tr> </thead> <tbody> <tr> <td>Noise</td> <td>112, 113, 114, 120</td> <td rowspan="2">Mt Arthur</td> </tr> <tr> <td>Noise & Air</td> <td>117, 118, 119, 155</td> </tr> <tr> <td>Noise & Air</td> <td>166, 168, 171</td> <td rowspan="2">Mt Pleasant</td> </tr> <tr> <td>Air</td> <td>169</td> </tr> </tbody> </table> <p>Notes: To interpret the land referred to in Table 2, see the applicable figure in Appendix 4.</p>	Acquisition Basis	Receiver No	Mine	Noise	112, 113, 114, 120	Mt Arthur	Noise & Air	117, 118, 119, 155	Noise & Air	166, 168, 171	Mt Pleasant	Air	169	Both these consents were still valid at the time of the audit.	Not Triggered		
Acquisition Basis	Receiver No	Mine																		
Noise	112, 113, 114, 120	Mt Arthur																		
Noise & Air	117, 118, 119, 155																			
Noise & Air	166, 168, 171	Mt Pleasant																		
Air	169																			
ADDITIONAL MITIGATION UPON REQUEST																				
	3	<p>Upon receiving a written request from the owner of any residence on the land listed in Table 1 (unless the landowner of that land has requested acquisition), Table 2 (if acquisition or additional mitigation by the mine listed in Table 2 is no longer available for the landowner of that land) and on the land listed in Table 3, the Applicant must implement additional:</p> <p>(a) noise mitigation measures (such as double-glazing, insulation and/or air conditioning); and/or</p> <p>(b) air quality mitigation measures (such as air filters, a first flush roof water drainage system and/or air conditioning),</p> <p>at any residence in consultation with the owner.</p> <p>These measures must be reasonable and feasible, and directed towards reducing the noise and/or air quality impacts of the development on any residence. The Applicant must also be responsible for the reasonable costs of ongoing maintenance of these additional mitigation measures until the cessation of mining operations.</p> <p>If within 3 months of receiving this request from the owner, the Applicant and the owner cannot agree on the measures to be implemented, or there is a dispute about the implementation of these measures, then either party may refer the matter to the Secretary for resolution.</p>	<table border="1"> <caption>Table 3: Land subject to additional noise and/or air quality mitigation upon request</caption> <thead> <tr> <th>Mitigation Basis</th> <th>Receiver</th> </tr> </thead> <tbody> <tr> <td>Noise & Air Quality</td> <td>167</td> </tr> <tr> <td>Noise</td> <td>105, 106³, 108, 109³, 110³, 126, 146, 156, 161², 169², 184</td> </tr> <tr> <td>Air Quality</td> <td>114³</td> </tr> </tbody> </table> <p>Notes:</p> <ol style="list-style-type: none"> To interpret the land referred to in Table 3, see the applicable figure in Appendix 4. The Applicant is only required to provide additional mitigation for this property if these rights are no longer available under the development consent for the Mt Pleasant mine. The Applicant is only required to provide additional mitigation for this property if these rights are no longer available under the project approval for the Mt Arthur mine. 	Mitigation Basis	Receiver	Noise & Air Quality	167	Noise	105, 106 ³ , 108, 109 ³ , 110 ³ , 126, 146, 156, 161 ² , 169 ² , 184	Air Quality	114 ³	One residence had been treated (air conditioned) during the audit period.	Compliant							
Mitigation Basis	Receiver																			
Noise & Air Quality	167																			
Noise	105, 106 ³ , 108, 109 ³ , 110 ³ , 126, 146, 156, 161 ² , 169 ² , 184																			
Air Quality	114 ³																			

Reference	Condition	Requirement	Evidence	Audit Finding	Risk																																																																			
					Consequence	Likelihood	Risk																																																																	
Development Consent SSD-5170																																																																								
Noise																																																																								
Noise Criteria																																																																								
	4	Except for the noise-affected land in Tables 1 and 2, the Applicant must ensure that the noise generated by the development does not exceed the criteria in Table 4 at any residence on privately-owned land.	<p>Table 4: Noise Criteria dB(A)</p> <table border="1"> <thead> <tr> <th rowspan="2">Location</th> <th>Day</th> <th>Evening</th> <th colspan="2">Night</th> </tr> <tr> <th>L_{day} (10 min)</th> <th>L_{even} (10 min)</th> <th>L_{night} (10 min)</th> <th>L_{A1} (10 min)</th> </tr> </thead> <tbody> <tr> <td>109, 110, 156, 161</td> <td>40</td> <td>40</td> <td>40</td> <td>45</td> </tr> <tr> <td>106, 108</td> <td>39</td> <td>39</td> <td>39</td> <td>45</td> </tr> <tr> <td>27, 169</td> <td>39</td> <td>39</td> <td>36</td> <td>45</td> </tr> <tr> <td>105, 126</td> <td>38</td> <td>38</td> <td>38</td> <td>45</td> </tr> <tr> <td>22, 23, 24, 25, 29, 43, 44</td> <td>38</td> <td>38</td> <td>36</td> <td>45</td> </tr> <tr> <td>167</td> <td>38</td> <td>38</td> <td>35</td> <td>45</td> </tr> <tr> <td>19, 64, 66</td> <td>38</td> <td>37</td> <td>36</td> <td>45</td> </tr> <tr> <td>180, 184, 186</td> <td>37</td> <td>37</td> <td>35</td> <td>45</td> </tr> <tr> <td>146</td> <td>37</td> <td>37</td> <td>37</td> <td>45</td> </tr> <tr> <td>102, 130, 145, 189</td> <td>36</td> <td>36</td> <td>36</td> <td>45</td> </tr> <tr> <td>All other privately-owned residences</td> <td>35</td> <td>35</td> <td>35</td> <td>45</td> </tr> </tbody> </table> <p>Note: To interpret the land referred to in Table 4, see the applicable figure in Appendix 4.</p>	Location	Day	Evening	Night		L _{day} (10 min)	L _{even} (10 min)	L _{night} (10 min)	L _{A1} (10 min)	109, 110, 156, 161	40	40	40	45	106, 108	39	39	39	45	27, 169	39	39	36	45	105, 126	38	38	38	45	22, 23, 24, 25, 29, 43, 44	38	38	36	45	167	38	38	35	45	19, 64, 66	38	37	36	45	180, 184, 186	37	37	35	45	146	37	37	37	45	102, 130, 145, 189	36	36	36	45	All other privately-owned residences	35	35	35	45	One exceedance in October 2016 at AN04, which impacted privately owned properties on Racecourse Road.	Not Compliant	D	2	Medium
Location	Day	Evening			Night																																																																			
	L _{day} (10 min)	L _{even} (10 min)	L _{night} (10 min)	L _{A1} (10 min)																																																																				
109, 110, 156, 161	40	40	40	45																																																																				
106, 108	39	39	39	45																																																																				
27, 169	39	39	36	45																																																																				
105, 126	38	38	38	45																																																																				
22, 23, 24, 25, 29, 43, 44	38	38	36	45																																																																				
167	38	38	35	45																																																																				
19, 64, 66	38	37	36	45																																																																				
180, 184, 186	37	37	35	45																																																																				
146	37	37	37	45																																																																				
102, 130, 145, 189	36	36	36	45																																																																				
All other privately-owned residences	35	35	35	45																																																																				
		However, these criteria do not apply if the Applicant has a written agreement with the relevant landowner to exceed the noise criteria, and the Applicant has advised the Department in writing of the terms of this agreement.	Noted	Noted																																																																				
		Noise generated by the development is to be measured in accordance with the relevant requirements of the NSW Industrial Noise Policy. Appendix 5 sets out the meteorological conditions under which these criteria apply and the requirements for evaluating compliance with these criteria.	Noise monitoring reports suggest compliance with this requirement through the audit period.	Compliant																																																																				
Construction Noise																																																																								
	5	The Applicant must manage the noise associated with the construction of the Bengalla Road realignment and the Homestead Access Road in accordance with the noise management levels in Table 2 of the Interim Construction Noise Guideline.	The link road had not been constructed at the time of the audit. During the construction of the homestead road, no noise exceedances were attributed to it's construction.	Compliant																																																																				
Operating Conditions																																																																								
	6	The Applicant must	<p>The Bengalla Noise Management Plan outlined the noise mitigation measures implemented to minimise the construction, operational, road and rail noise of the Mine BMC used predictive meteorological forecasting and a real-time noise monitoring system to guide planning of mining operations.</p> <p>To ensure cumulative noise impacts from mining activities in the immediate Bengalla were below the relevant criteria, consultation and data sharing were undertaken with neighboring mines.</p> <p>Noise compliance attended and supplementary attended noise monitoring were conducted as required by the NMP.</p> <p>To assist in ensuring cumulative noise impacts from dump and haul, dragline, and blasting activities within the vicinity of Bengalla remain below the relevant criteria, consultation and data sharing are undertaken with neighboring mines.</p> <p>BMC undertakes compliance attended and supplementary attended noise monitoring as per the NMP.</p>	Compliant																																																																				
(a)	implement best noise management practice, which includes implementing all reasonable and feasible noise mitigation measures to minimise the construction, operational, road and rail noise of the development;																																																																							
(b)	operate a comprehensive noise management system on site that uses a combination of predictive meteorological forecasting and real-time noise monitoring data to guide the day-to-day planning of mining operations and the implementation of both proactive and reactive noise mitigation measures to ensure compliance with the relevant conditions of this consent;																																																																							
(c)	minimise the noise impacts of the development during meteorological conditions when the noise criteria in this consent do not apply (see Appendix 5);																																																																							
(d)	co-ordinate noise management at the Bengalla mine with the noise management at the Mt Arthur and Mount Pleasant mines to minimise cumulative noise impacts; and																																																																							
(e)	carry out regular attended monitoring in accordance with Appendix 5 (unless otherwise agreed with the Secretary), to determine whether the development is complying with the relevant conditions of this consent, to the satisfaction of the Secretary.																																																																							

Reference	Condition	Requirement	Evidence	Audit Finding	Risk														
					Consequence	Likelihood	Risk												
Development Consent SSD-5170																			
Noise Management Plan																			
	7	The Applicant must prepare a Noise Management Plan for the development to the satisfaction of the Secretary. This plan must:	NMP provided as evidence	Compliant															
	(a)	be prepared in consultation with the EPA, and submitted to the Secretary for approval within 6 months of the date of this consent;	Evidence provided in the NMP	Compliant															
	(b)	describe the measures that would be implemented to ensure compliance with the relevant conditions of this consent;	NMP S.4	Compliant															
	(c)	describe the proposed noise management system in detail; and	NMP S.s 4, 5, 6 and 7	Compliant															
	(d)	include a noise monitoring program that: - evaluates and reports on: - the effectiveness of the noise management system; - compliance against the noise criteria in this consent; and - compliance against the noise operating conditions; - includes a program to calibrate and validate the real-time noise monitoring results with the attended monitoring results over time (so the real-time noise monitoring program can be used as a trigger for further attended monitoring where there is a risk of non-compliance with the noise criteria in this consent); and - defines what constitutes a noise incident, and includes a protocol for identifying and notifying the Department and relevant stakeholders of any noise incidents	NMP S. 5 and 7	Compliant															
		The Applicant must implement the approved management plan as approved from time to time by the Secretary.	Reviewed onsite	Compliant															
BLASTING																			
Blasting Criteria																			
	8	The Applicant must ensure that blasting on the site does not cause exceedances of the criteria in Table 5.																	
		<table border="1"> <caption>Table 5: Blasting criteria</caption> <thead> <tr> <th>Location</th> <th>Airblast overpressure (dB(L_p Peak))</th> <th>Ground vibration (mm/s)</th> <th>Allowable exceedance</th> </tr> </thead> <tbody> <tr> <td></td> <td>120</td> <td>10</td> <td>0%</td> </tr> <tr> <td>Residence on privately owned land*</td> <td>115</td> <td>5</td> <td>5% of the total number of blasts over a period of 12 months</td> </tr> </tbody> </table>	Location	Airblast overpressure (dB(L _p Peak))	Ground vibration (mm/s)	Allowable exceedance		120	10	0%	Residence on privately owned land*	115	5	5% of the total number of blasts over a period of 12 months	Reviewed blast results for 2015, 2016 and the start of 2017 no exceedances.	Compliant			
Location	Airblast overpressure (dB(L _p Peak))	Ground vibration (mm/s)	Allowable exceedance																
	120	10	0%																
Residence on privately owned land*	115	5	5% of the total number of blasts over a period of 12 months																
		However, these criteria do not apply if the Applicant has a written agreement with the relevant owner for higher levels, and has advised the Department in writing of the terms of this agreement.																	
Blasting Hours																			
	9	The Applicant must only carry out blasting on site between 7 am and 5 pm Monday to Saturday inclusive. No blasting is allowed on Sundays, public holidays, or at any other time without the written approval of the Secretary.	Blast record shows no blasting outside hours in the audit period.	Compliant															
Blasting Frequency																			
	10	The Applicant must only carry out a maximum of:																	
	(a)	2 blasts a day; and	No evidence of more than 2 blasts per day in the audit period.	Compliant															
	(b)	6 blasts a week, averaged over a calendar year,	2015 171 blasts 2016 175 blasts, average of 3.36	Compliant															
		This condition does not apply to blasts that generate ground vibration of 0.5 mm/s or less at any residence on privately-owned land, blast misfires or blasts required to ensure the safety of the mine, its workers or the general public.	Noted	Noted															
		Notes: - For the purposes of this condition, a blast refers to a single blast event, which may involve a number of individual blasts fired in quick succession in a discrete area of the mine. - For the avoidance of doubt, should an additional blast be required after a blast misfire, this additional blast and the blast misfire are counted as a single blast. - In circumstances of recurring unfavourable weather conditions (following planned but not completed blast events), to avoid excess explosive sleep times and minimise any potential environmental impacts, the Applicant may seek agreement from the Secretary for additional blasts to be fired on a given day	Noted	Noted															

Reference	Condition	Requirement	Evidence	Audit Finding	Risk		
					Consequence	Likelihood	Risk
Development Consent SSD-5170							
Property Inspections							
	11	If the Applicant receives a written request from the owner of any privately-owned land within 3 kilometres of the approved open cut mining pit on site for a property inspection to establish the baseline condition of any buildings and/or structures on his/her land, or to have a previous property inspection updated, then within 2 months of receiving this request the Applicant must:	5 properties requested baseline studies in the audit period, studies provided as evidence.	Compliant			
	(a)	commission a suitably qualified, experienced and independent person, whose appointment is acceptable to both parties to: - establish the baseline condition of any buildings and other structures on the land, or update the previous property inspection report; and - identify measures that should be implemented to minimise the potential blasting impacts of the development on these buildings and/or structures; and					
	(b)	give the landowner a copy of the new or updated property inspection report.					
		If there is a dispute over the selection of the suitably qualified, experienced and independent person, or the Applicant or the landowner disagrees with the findings of the property inspection report, either party may refer the matter to the Secretary for resolution.					
Property Investigations							
	12	If the owner of any privately-owned land claims that buildings and/or structures on his/her land have been damaged as a result of blasting on the site, then within 2 months of receiving this claim the Applicant must:	No such claims in the audit period.	Not Triggered			
	(a)	commission a suitably qualified, experienced and independent person, whose appointment is acceptable to both parties to investigate the claim; and					
	(b)	give the landowner a copy of the property investigation report.					
		If this independent property investigation confirms the landowner's claim, and both parties agree with these findings, then the Applicant must repair the damage to the satisfaction of the Secretary. If there is a dispute over the selection of the suitably qualified, experienced and independent person, or the Applicant or the landowner disagrees with the findings of the independent property investigation, then either party may refer the matter to the Secretary for resolution.					
Operating Conditions							
	13	During mining operations on site, the Applicant must:	BMP details such measures.	Compliant			
	(a)	implement best management practice to: - protect the safety of people and livestock in the surrounding area; - protect public or private infrastructure/property in the surrounding area from any damage; and - minimise the dust and fume emissions of any blasting;					
	(b)	ensure that blasting on site does not damage historic heritage sites (see the figure in Appendix 6);					
	(c)	minimise the frequency and duration of any road closures, and avoid road closures for blasting during peak traffic periods;					
	(d)	operate a suitable system to enable the public and Council to get up-to-date information on the proposed blasting schedule on site and associated road closures;					
	(e)	co-ordinate the timing of blasting on site with the timing of blasting at the Mt Arthur and Mount Pleasant mines to minimise any cumulative blasting impacts; and					
	(f)	monitor and report on compliance with the relevant blasting conditions in this consent					
		to the satisfaction of the Secretary					
	14	The Applicant must not undertake blasting on site within 500 metres of:	ARTC deed presented as evidence	Compliant			
	(a)	any public road					
	(b)	the Ulan - Muswellbrook railway line; or					
	(c)	any land outside the site that is not owned by the applicant.	Agreements with MSC via review and consultation on the road closure plan. Mount Pleasant sold in January 2016, Master Cooperation Agreement (MCA) executed 5 May 2011 in place but over the audit period with aspects covering blasting. A Blasting Protocol was being developed the time of the audit.	Compliant			
		unless: - the Applicant has a written agreement with the applicable infrastructure authority or landowner to allow blasting to be carried out closer to the infrastructure or land, and the Applicant has advised the Department in writing of the terms of this agreement; or - the Applicant has: - demonstrated to the satisfaction of the Secretary that the blasting can be carried out closer to the infrastructure or land without compromising the safety of people or livestock, or damaging buildings and/or structures; and - updated the Blast Management Plan to include the specific measures that would be implemented while blasting is being carried out within 500 metres of the road or land.					

Reference	Condition	Requirement	Evidence	Audit Finding	Risk																								
					Consequence	Likelihood	Risk																						
Development Consent SSD-5170																													
Blast Management Plan																													
	15	The Applicant must prepare a Blast Management Plan for the development to the satisfaction of the Secretary. This plan must:	BMP provided as evidence	Compliant																									
	(a)	be prepared in consultation with the EPA and Council, and submitted to the Secretary for approval within 6 months of the date of this consent;	This consultation occurred, evidence included in BMP	Compliant																									
	(b)	describe the measures that would be implemented to ensure compliance with the blasting criteria and operating conditions of this consent;	S.4 BMP	Compliant																									
	(c)	propose and justify any alternative ground vibration limits for any public infrastructure in the vicinity of the site (if relevant); and	None proposed.	Compliant																									
	(d)	include a monitoring program for evaluating and reporting on compliance with the blasting criteria and operating conditions.	S.3 & 4 BMP	Compliant																									
		The Applicant must implement the approved management plan as approved from time to time by the Secretary.	Reviewed the implementation of the BMP onsite, found compliant	Compliant																									
AIR QUALITY																													
Air Quality Criteria																													
	16	Except for the air-affected land in Tables 1 and 2, the Applicant must ensure that all reasonable and feasible avoidance and mitigation measures are employed so that the particulate emissions generated by the development do not exceed the criteria listed in Tables 6, 7 and 8 at any residence on privately-owned land.	<p>Bengallas HVAS cover this requirement through the audit period.</p> <p>There were no exceedances in the 2015 and 2016 data, at the time of the audit the 2017 January results were not available.</p>	Compliant																									
		<p><i>Table 6: Long term criteria for particulate matter</i></p> <table border="1"> <thead> <tr> <th>Pollutant</th> <th>Averaging period</th> <th>^a Criterion</th> </tr> </thead> <tbody> <tr> <td>Total suspended particulate (TSP) matter</td> <td>Annual</td> <td>^a 90 µg/m³</td> </tr> <tr> <td>Particulate matter < 10 µm (PM₁₀)</td> <td>Annual</td> <td>^a 30 µg/m³</td> </tr> </tbody> </table> <p><i>Table 7: Short term criteria for particulate matter</i></p> <table border="1"> <thead> <tr> <th>Pollutant</th> <th>Averaging period</th> <th>^a Criterion</th> </tr> </thead> <tbody> <tr> <td>Particulate matter < 10 µm (PM₁₀)</td> <td>24 hour</td> <td>^a 50 µg/m³</td> </tr> </tbody> </table> <p><i>Table 8: Long term criteria for deposited dust</i></p> <table border="1"> <thead> <tr> <th>Pollutant</th> <th>Averaging period</th> <th>Maximum increase in deposited dust level</th> <th>Maximum total deposited dust level</th> </tr> </thead> <tbody> <tr> <td>^a Deposited dust</td> <td>Annual</td> <td>^a 2 g/m²/month</td> <td>^a 4 g/m²/month</td> </tr> </tbody> </table>	Pollutant	Averaging period	^a Criterion	Total suspended particulate (TSP) matter	Annual	^a 90 µg/m ³	Particulate matter < 10 µm (PM ₁₀)	Annual	^a 30 µg/m ³	Pollutant	Averaging period	^a Criterion	Particulate matter < 10 µm (PM ₁₀)	24 hour	^a 50 µg/m ³	Pollutant	Averaging period	Maximum increase in deposited dust level	Maximum total deposited dust level	^a Deposited dust	Annual	^a 2 g/m ² /month	^a 4 g/m ² /month				
Pollutant	Averaging period	^a Criterion																											
Total suspended particulate (TSP) matter	Annual	^a 90 µg/m ³																											
Particulate matter < 10 µm (PM ₁₀)	Annual	^a 30 µg/m ³																											
Pollutant	Averaging period	^a Criterion																											
Particulate matter < 10 µm (PM ₁₀)	24 hour	^a 50 µg/m ³																											
Pollutant	Averaging period	Maximum increase in deposited dust level	Maximum total deposited dust level																										
^a Deposited dust	Annual	^a 2 g/m ² /month	^a 4 g/m ² /month																										
		<p>Notes for Tables 6 to 8:</p> <p>^a Total impact (i.e. incremental increase in concentrations due to the development plus background concentrations due to other sources);</p> <p>^b Incremental impact (i.e. incremental increase in concentrations due to the development on its own);</p> <p>^c Deposited dust is to be assessed as insoluble solids as defined by Standards Australia, AS/NZS 3580.10.1:2003: Methods for Sampling and Analysis of Ambient Air - Determination of Particulate Matter - Deposited Matter - Gravimetric Method; and</p> <p>^d Excludes extraordinary events such as bushfires, prescribed burning, dust storms, sea fog, fire incidents, illegal activities or any other activity agreed to by the Secretary.</p>	Noted	Noted																									

Reference	Condition	Requirement	Evidence	Audit Finding	Risk																									
					Consequence	Likelihood	Risk																							
Development Consent SSD-5170																														
Air Quality Acquisition Criteria																														
	17	<p>If particulate matter emissions generated by the development exceed the criteria, or contribute to the exceedance of the relevant cumulative criteria, in Tables 9, 10 and 11 at any residence or workplace on privately-owned land then upon receiving a written request for acquisition from the landowner, the Applicant must acquire the land in accordance with the procedures in conditions 5 and 6 of schedule 4.</p> <table border="1"> <caption>Table 9: Long term land acquisition criteria for particulate matter</caption> <thead> <tr> <th>Pollutant</th> <th>Averaging period</th> <th>Criterion</th> </tr> </thead> <tbody> <tr> <td>Total suspended particulate (TSP) matter</td> <td>Annual</td> <td>* 90 µg/m³</td> </tr> <tr> <td>Particulate matter < 10 µm (PM₁₀)</td> <td>Annual</td> <td>* 30 µg/m³</td> </tr> </tbody> </table> <table border="1"> <caption>Table 10: Short term land acquisition criteria for particulate matter</caption> <thead> <tr> <th>Pollutant</th> <th>Averaging period</th> <th>Criterion</th> </tr> </thead> <tbody> <tr> <td>Particulate matter < 10 µm (PM₁₀)</td> <td>24 hour</td> <td>150 µg/m³</td> </tr> </tbody> </table> <table border="1"> <caption>Table 11: Long term land acquisition criteria for deposited dust</caption> <thead> <tr> <th>Pollutant</th> <th>Averaging period</th> <th>Maximum increase in deposited dust level</th> <th>Maximum total deposited dust level</th> </tr> </thead> <tbody> <tr> <td>* Deposited dust</td> <td>Annual</td> <td>1 2 g/m²/month</td> <td>* 4 g/m²/month</td> </tr> </tbody> </table>	Pollutant	Averaging period	Criterion	Total suspended particulate (TSP) matter	Annual	* 90 µg/m ³	Particulate matter < 10 µm (PM ₁₀)	Annual	* 30 µg/m ³	Pollutant	Averaging period	Criterion	Particulate matter < 10 µm (PM ₁₀)	24 hour	150 µg/m ³	Pollutant	Averaging period	Maximum increase in deposited dust level	Maximum total deposited dust level	* Deposited dust	Annual	1 2 g/m ² /month	* 4 g/m ² /month	Acquisition Criteria has not been triggered in the audit period	Not Triggered			
Pollutant	Averaging period	Criterion																												
Total suspended particulate (TSP) matter	Annual	* 90 µg/m ³																												
Particulate matter < 10 µm (PM ₁₀)	Annual	* 30 µg/m ³																												
Pollutant	Averaging period	Criterion																												
Particulate matter < 10 µm (PM ₁₀)	24 hour	150 µg/m ³																												
Pollutant	Averaging period	Maximum increase in deposited dust level	Maximum total deposited dust level																											
* Deposited dust	Annual	1 2 g/m ² /month	* 4 g/m ² /month																											
		<p>Notes to Tables 9-11:</p> <p>^a Total impact (i.e. incremental increase in concentrations due to the development plus background concentrations due to other sources);</p> <p>^b Incremental impact (i.e. incremental increase in concentrations due to the development on its own);</p> <p>^c Deposited dust is to be assessed as insoluble solids as defined by Standards Australia, AS/NZS 3580.1.0.1:2003: Methods for Sampling and Analysis of Ambient Air - Determination of Particulate Matter - Deposited Matter - Gravimetric Method; and</p> <p>^d Excludes extraordinary events such as bushfires, prescribed burning, dust storms, sea fog, fire incidents, illegal activities or any other activity agreed to by the Secretary.</p>	Noted	Noted																										
Mine-owned Land																														
	18	The Applicant must ensure that all reasonable and feasible avoidance and mitigation measures are employed so that particulate matter emissions generated by the development do not cause exceedances of the criteria in Tables 6, 7 and 8 at any occupied residence on mine-owned land (including land owned by another mining company) unless:	See AQMP and associated support mechanisms such as predictive weather system.	Compliant																										
	(a)	the tenant or landowner (if the residence is owned by another mining company) has been notified of any health risks associated with such exceedances in accordance with the notification requirements in schedule 4 of this consent;	Letters to other mine owned properties, private tenants/owners were provided as evidence along with the other required documents from Dept Health	Compliant																										
	(b)	the tenant of any land owned by the Applicant can terminate their tenancy agreement without penalty at any time, subject to giving reasonable notice;	Noted, this has not occurred in the audit period	Not Triggered																										
	(c)	air quality monitoring is regularly undertaken to inform the tenant or landowner (if the residence is owned by another mining company) of the actual particulate emissions at the residence; and	AQ monitoring is undertaken and the monitoring points were positioned so that impacts to non-Bengalla owned land could be assessed.	Compliant																										
	(d)	data from this monitoring is presented to the tenant or landowner (if the residence is owned by another mining company) in an appropriate format for a medical practitioner to assist the tenant or landowner in making informed decisions on the health risks associated with occupying the residence,	Presented in the Annual reviews and monthly results are posted on the Bengalla website.	Compliant																										
		to the satisfaction of the Secretary.	Annual Review provided to the departments.	Compliant																										
Operating Conditions																														
	19	The Applicant must:																												
	(a)	implement all reasonable and feasible measures to minimise the: - odour, fume and dust emissions of the development; and - release of greenhouse gas emissions from the site;	AQMP and BMP, Post Fume Management Plan. Drop height of coal conveyor greater than desirable on day of the audit	Not Compliant	E	2	Medium																							
	(b)	minimise any visible air pollution generated by the development;	There were no confirmed incidents of visible dust generated by Bengalla in the audit period																											
	(c)	minimise the surface disturbance of the site;	There had been a delay in the rehabilitation process on the top elevation of the dump as the site waited for approval of a change in dump design as requested by MSC. Thus the rehab did not keep up with disturbance rates in the audit period. The area concerned was not trafficked, crushed and in as good condition as possible regarding dust generation.	Compliant																										
	(d)	operate a comprehensive air quality management system that uses a combination of predictive meteorological forecasting, predictive air dispersion modelling and real-time air quality monitoring data to guide the day-to-day planning of mining operations and implementation of both proactive and reactive air quality mitigation measures to ensure compliance with the relevant conditions of this consent;	Sighted in site inspection, detailed in Ars, AQMP and Annual Returns	Compliant																										
	(e)	minimise the air quality impacts of the development during adverse meteorological conditions and extraordinary events (see note d to Tables 6-8 above);	The use of the predictive meteorological system has allowed the site to more efficiently move equipment around the site minimising downtime, there have been times however when equipment was shutdown due to adverse conditions for dust generation.	Compliant																										
	(f)	implement all reasonable and feasible measures to co-ordinate the air quality management at the Bengalla mine with the air quality management at the Mt Arthur and Mount Pleasant mines to minimise any cumulative air quality impacts; and	Sharing data is the only relevant measure that can be identified by the auditor to minimise cumulative impacts. Data sharing occurs with some monitoring results shared between sites.	Compliant																										

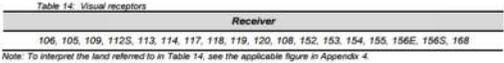
Reference	Condition	Requirement	Evidence	Audit Finding	Risk		
					Consequence	Likelihood	Risk
Development Consent SSD-5170							
	(g)	monitor and report on compliance with the relevant air quality conditions in this consent, to the satisfaction of the Secretary.	AR and Annual Return, and short term results on website.	Compliant			
Air Quality Management Plan							
	20	The Applicant must prepare a detailed Air Quality Management Plan for the development to the satisfaction of the Secretary. This plan must:					
	(a)	be prepared in consultation with the EPA and Council, and submitted to the Secretary for approval within 6 months of the date of this consent;	SSD 5107 issued March 2015, EMPs submitted July 2015	Compliant			
	(b)	describe the measures that would be implemented to ensure compliance with air quality criteria and operating conditions of this consent;	AQMP S. 3	Compliant			
	(c)	describe the proposed air quality management system; and	AQMP S. 4	Compliant			
	(d)	include an air quality monitoring program that: - uses a combination of real-time monitors and supplementary monitors to evaluate the performance of the development against the air quality criteria in this consent; - adequately supports the proactive and reactive air quality management system; - evaluates and reports on: - the effectiveness of the air quality management system; and - compliance with the air quality operating conditions; and - defines what constitutes an air quality incident, and includes a protocol for identifying and notifying the Department and relevant stakeholders of any air quality incidents.	AQMP S.4	Compliant			
		The Applicant must implement the approved management plan as approved from time to time by the Secretary.	Sighted in site inspection	Compliant			
METEOROLOGICAL MONITORING							
	21	During the life of the development, the Applicant must ensure that there is a suitable meteorological station operating in the vicinity of the site that:					
	(a)	complies with the requirements in the Approved Methods for Sampling of Air Pollutants in New South Wales guideline; and	The WS is compliant with AS3850 that was thought to supass the EPA Approved Methods.	Compliant			
	(b)	is capable of continuous real-time measurement of temperature lapse rate in accordance with the NSW Industrial Noise Policy, unless a suitable alternative is approved by the Secretary following consultation with the EPA.	Two weather stations at the time of the audit, one a standard one with 2 and 10 m temperature measurements the other tower has a 90m temperature measurement providing the vertical temperature gradient /lapse rate.	Compliant			
WATER							
Water Supply							
	22	The Applicant must ensure that it has sufficient water during each stage of the development, and if necessary, adjust the scale of mining operations to match its available water supply. <i>Note: Under the Water Act 1912 and/or the Water Management Act 2000, the Applicant is required to obtain necessary water licences for the development.</i>	During the audit period and into the future, the site water balance indicates compliance with this requirement. Note the water balance requires regular recalibration and adjustment. Noted	Compliant Noted			
Water Pollution							
	23	Unless an EPL or the EPA authorises otherwise, the Applicant must comply with section 120 of the POEO Act and the Protection of the Environment Operations (Hunter River Salinity Trading Scheme) Regulation 2002.	15-16 January 2016, an uncontrolled discharge from the West Windmill Dam and ROM north sediment dam occurred.	Not Compliant	D	1	Medium
Water Management Performance Measures							
	24	The Applicant must ensure mining operations comply with the performance measures in Table 12 to the satisfaction of the Secretary.	WMP approved by DP&E, sighted email evidence.	Compliant			
Table 12: Water management performance measures	Water management – General	Minimise the use of clean water on site Minimise the need for make-up water from external supplies Minimise cumulative water impacts with the other mines in the region	Noted evidence of pumping / piping infrastructure on site dams and sediment basin to capture and reuse in mine water system. Water management system configuration designed to maintain water on site for internal use. In pit windrows / drainage noted and drains to pit sumps for reuse onsite. Drainage from rehab areas collected in series of sediment basins - connected to mine water system via pump/pipe system for internal reuse.	Compliant			
	Construction and operation of infrastructure	Design, install and maintain erosion and sediment controls generally in accordance with the series Managing Urban Stormwater: Soils and Construction including Volume 1, Volume 2A – Installation of Services and Volume 2C – Unsealed Roads Design, install and maintain the infrastructure within 40 m of watercourses generally in accordance with the Guidelines for Controlled Activities on Waterfront Land (DPI 2007), or its latest version Design, install and maintain any creek crossings generally in accordance with the Policy and Guidelines for Fish Habitat Conservation and Management (DPI, 2013) and Why Do Fish Need To Cross The Road? Fish Passage Requirements for Waterway Crossings (NSW Fisheries 2003), or their latest versions	Evidence noted during site inspection that application of temporary erosion and sediment controls had been applied for construction of CW1 and diversion. Lay down and disturbed areas were in state of ongoing rehabilitation and were in good condition. Permanent scour protection (placed rock) was observed for diversion construction, with rehabilitation drainage also well stabilised with steep slope drains protected with large rock (noting that earlier rehabilitation areas rock was showing signs of weathering and this may cause an issue for longer term stability and requires monitoring.) No comment regarding fish creek crossing - not inspected.	Compliant			
	Clean water diversion & storage infrastructure	Design, install and maintain the clean water system to capture and convey the 100 year ARI flood Maximise as far as reasonable and feasible the diversion of clean water around disturbed areas on site Design, install and maintain any temporary clean water diversion infrastructure to minimise erosion potential at discharge locations	Clean water diversion has been constructed and is operational around CW1. Jacobs CW1 Dam Design Report (Parsons Brinckerhoff, 2014) Indirectly confirms capacity of CW1 diversion as being 1:100 year ARI. Diversion drain for creek diversion also completed. Scour protection at key locations and discharge points was observed.	Compliant			
	Sediment dams	Design, install and maintain the dams generally in accordance with the series Managing Urban Stormwater: Soils and Construction – Volume 1 and Volume 2E Mines and Quarries	Sediment dams on rehabilitation areas observed - in stable condition. Water levels in basins controlled by pump/pipe system with automatic/manual control capability and alarms to manage water levels. All sediment dams observed had low level of water (dry conditions) with no visible signs of recent overflow off site.	Compliant			

Reference	Condition	Requirement	Evidence	Audit Finding	Risk		
					Consequence	Likelihood	Risk
Development Consent SSD-5170							
	Mine water storages	Design, install and maintain mine water storage infrastructure to ensure no unlicensed or uncontrolled discharge of mine water off-site On-site storages (including mine infrastructure dams and treatment dams) are suitably designed, installed and maintained to minimise permeability Adequate freeboard within the pit void at all times to minimise the risk of discharge to surface waters	Breach 15-01-16 noted - "In a storm event, water spilled offsite from the West Windmill Dam and the North ROM Dam. The water was sediment laden but not saline or pH impacted. EPA investigated and issued a cleanup notice that Bengalla complied with. Bengalla entered an Enforceable Undertaking with the EPA to undertake measures to ensure there is no repetition of the event. The EU is due to be completed on 17-2-17."	Not Compliant	C	3	Medium
	Overburden emplacements	Design, install and maintain emplacements to encapsulate and prevent migration of tailings, acid forming and potentially acid forming materials, and saline and sodic material Design, install and maintain emplacements to prevent and/or manage long term saline groundwater seepage	Bengalla had a management plan for this material, there was no evidence of mismanagement of acid drainage or saline seeps at the site.	Compliant			
	Chemical and hydrocarbon storage	Chemical and hydrocarbon products to be stored in bunded areas in accordance with the relevant Australian Standards	Reviewed in site inspection, found compliant	Compliant			
	Aquatic and riparian ecosystem	Maintain or improve baseline channel stability Develop site-specific in-stream water quality objectives in accordance with ANZECC 2000 and Using the ANZECC Guidelines and Water Quality Objectives in NSW procedures (DECC 2006), or its latest version	No measures in WMP for monitoring baseline channel stability Hunter River Water Quality objectives presented in Appendix C - 'Preliminary Trigger Values for Hunter River Water Quality Assessment' The Site commented that the intent was for the baseline monitoring to apply to the reinstated Dry Creek, this was not clear in the EIS nor in the Approval. BMC should take to the opportunity to clarify the issue in the next revision of the WMP.	Not Compliant Administrative			
Water Management Plan							
	25	The Applicant must prepare a Water Management Plan for the development to the satisfaction of the Secretary. This plan must:	WMP approved by DP&E, sighted communications.	Compliant			
	(a)	be prepared in consultation with the EPA and DPI – Water, and submitted to the Secretary for approval within 6 months of the date of this consent; and	Consultation occurred, comments incorporated into final WMP, evidence in WMP.	Compliant			
	(b)	in addition to the standard requirements for management plans (see condition 3 of schedule 5), include a:					
	(i)	Site Water Balance that: - includes details of: - sources and security of water supply, including contingency planning for future reporting periods; - water use and management on site; or any off-site water transfers and discharges; - reporting procedures, including the preparation of a site water balance for each calendar year; and - investigates and implements all reasonable and feasible measures to minimise water use on site;	WMP S.5.3, found adequate by the surface water specialist	Compliant			
	(ii)	Surface Water Management Plan, that includes: - detailed baseline data on surface water flows and quality in the watercourses that could potentially be affected by the development; - a detailed description of the water management system on site, including the: - clean water diversion systems; - erosion and sediment controls (mine water system); and - mine water management systems; - detailed plans, including design objectives and performance criteria, for: - design and management of final voids; - design and management for the emplacement of coal reject materials; - design and management of the temporary Dry Creek diversion infrastructure and discharge points; - reinstatement of drainage lines on the rehabilitated areas of the site; and - control of any potential water pollution from the rehabilitated areas of the site; performance criteria for the following, including trigger levels for investigating any potentially adverse impacts associated with the development: - mine water management system; - surface water quality of the Hunter River; - a program to monitor and report on: - the effectiveness of the mine water management system; and - surface water flows and quality, stream and riparian vegetation health in the Hunter River potentially affected by the development; - a plan to respond to any exceedances of the performance criteria, and mitigate and/or offset any adverse surface water impacts of the development; and	WMP S.3, the WMP is compliant with these requirements	Compliant			

Reference	Condition	Requirement	Evidence	Audit Finding	Risk																	
					Consequence	Likelihood	Risk															
Development Consent SSD-5170																						
	(iii)	Groundwater Management Plan, which includes: <ul style="list-style-type: none"> - detailed baseline data on groundwater levels, yield and quality in the region, and privately owned groundwater bores, that could be affected by the development; - groundwater impact assessment criteria, including trigger levels for investigating any potentially adverse groundwater impacts; - a program to monitor and report on: <ul style="list-style-type: none"> - the seepage/leachate from water storages, emplacements, backfilled voids, and final voids; - the impacts of the development on: <ul style="list-style-type: none"> - groundwater inflows to the open cut pits; - regional aquifers; - groundwater supply of potentially affected landowners; - the Hunter River alluvial aquifer; and - any groundwater dependent ecosystems and riparian vegetation; and - base flows to the Hunter River; - a program to validate the groundwater model for the development, including an independent review of the model with every independent environmental audit, and compare the monitoring results with modelled predictions; and - a plan to respond to any exceedances of the groundwater assessment criteria. 	WMP S. 7, the Water Management Plan includes the requirements noted here	Compliant																		
		The Applicant must implement the approved management plan as approved from time to time by the Secretary.	Comments on the implementation of the WMP are in the detailed audit of that document	Noted																		
BIODIVERSITY																						
Biodiversity Offset Strategy																						
	26	The Applicant must implement the biodiversity offset strategy as outlined in Table 13 and as generally described in the EIS (and shown in Appendix 7), to the satisfaction of the Secretary.	Reference made to implementing establishment of biodiversity offset properties Map provided in figure 11 page 57 Bengalla Annual Review 2015 Part 1 Section 6.14.2 page 55	Compliant																		
		<table border="1"> <caption>Table 13 - Biodiversity Offset Strategy</caption> <thead> <tr> <th>Area</th> <th>Offset Type</th> <th>Minimum Size (hectares)</th> </tr> </thead> <tbody> <tr> <td>Kenalea Properties Offset Area</td> <td>Existing vegetation to be managed and enhanced</td> <td>4,096</td> </tr> <tr> <td>Black Mountain Offset Area</td> <td>Existing vegetation to be managed and enhanced</td> <td>1,222</td> </tr> <tr> <td>Merriva River Offset Area</td> <td>Existing vegetation to be managed and enhanced</td> <td>897</td> </tr> <tr> <td>Total</td> <td></td> <td>6,215</td> </tr> </tbody> </table> <p><i>Note: To identify the areas referred to in Table 13 refer to the applicable figures in Appendix 7.</i></p>	Area	Offset Type	Minimum Size (hectares)	Kenalea Properties Offset Area	Existing vegetation to be managed and enhanced	4,096	Black Mountain Offset Area	Existing vegetation to be managed and enhanced	1,222	Merriva River Offset Area	Existing vegetation to be managed and enhanced	897	Total		6,215	Reference made to implementing establishment of biodiversity offset properties Map provided in figure 11 page 57 Bengalla Annual Review 2015 Part 1 Section 6.14.2 page 56	Compliant			
Area	Offset Type	Minimum Size (hectares)																				
Kenalea Properties Offset Area	Existing vegetation to be managed and enhanced	4,096																				
Black Mountain Offset Area	Existing vegetation to be managed and enhanced	1,222																				
Merriva River Offset Area	Existing vegetation to be managed and enhanced	897																				
Total		6,215																				
	27	The Applicant must ensure that the offset strategy and/or rehabilitation strategy is focused on the establishment of:	Noted	Noted																		
	(a)	significant and/or threatened plant communities, including: <ul style="list-style-type: none"> - Box Gum Woodland; 	The BOMP details these species/EECs and there proposed management regimes.	Compliant																		
	(b)	significant and/or threatened plant species, including the: <ul style="list-style-type: none"> - Tiger Orchid (<i>Cymbidium canaliculatum</i>); - Pine Donkey Orchid (<i>Diuris tricolor</i>); - Weeping Myall (<i>Acacia pendula</i>); - River Red Gum (<i>Eucalyptus camaldulensis</i>); - Austral Toadflax (<i>Thesium australe</i>); and 	The BOMP details these species/EECs and there proposed management regimes.	Compliant																		
	(c)	habitat for significant and/or threatened fauna species, including the: <ul style="list-style-type: none"> - Brown Treecreeper; - Speckled Warbler; - Black-chinned Honeyeater; - Grey-crowned Babbler; - Squirrel Glider; and - Yellow-bellied Sheathtail-bat. 	The BOMP details these species/EECs and there proposed management regimes.	Compliant																		
Long Term Security of Offsets																						
	28	Within 2 years of the commencement of development under this consent, unless otherwise agreed with the Secretary, the Applicant must make suitable arrangements to provide appropriate long term security for the land within the Biodiversity Offset Strategy identified in Table 13 through a Biobanking Agreement under the Threatened Species Conservation Act 1995 (or an alternative mechanism agreed with OEH), to the satisfaction of the Secretary.	The BOMP was finalised following DoEE comments on 27th February (post audit), these comments followed approval by OEH and DP&E. The Conservation bond is due 6 months from approval of the BOMP in accordance with correspondence from DP&E dated 30-08-16.	Not Triggered																		
Biodiversity Management Plan																						
	29	The Applicant must prepare a Biodiversity Management Plan for the development to the satisfaction of the Secretary. This plan must:	Approval by DP&E appended to the BMP	Compliant																		
	(a)	be prepared in consultation with OEH, and submitted to the Secretary for approval within 6 months of the date of this consent;	Consultation record provided on BMP	Compliant																		
	(b)	describe how the implementation of the offset strategy would be integrated with the overall rehabilitation of the site;	S. 5.3 of BOMP	Compliant																		
	(c)	establish baseline data for the existing habitat in the biodiversity offset areas and on the site;	S. 4.0 of BOMP and S. 3.0 of BMP	Compliant																		
	(d)	include:																				
	(i)	a description of the short, medium, and long term measures that would be implemented to: <ul style="list-style-type: none"> - implement the biodiversity offset strategy; and - manage the remnant vegetation and habitat on the site; 	S. 4.0 of the BMP and S. 6.0 and 7.0 of the BOMP	Compliant																		

Reference	Condition	Requirement	Evidence	Audit Finding	Risk		
					Consequence	Likelihood	Risk
Development Consent SSD-5170							
	(ii)	include detailed performance and completion criteria for evaluating the performance of the biodiversity offset strategy and triggering remedial action (if necessary);	S. 9.3, 9.4 and 9.5 of the BOMP	Compliant			
	(iii)	a detailed description of the measures that would be implemented over the next 3 years, including the procedures to be implemented for: <ul style="list-style-type: none"> - enhancing the quality of existing vegetation and fauna habitat in the biodiversity offset areas; - restoring native vegetation and fauna habitat on the biodiversity offset areas and rehabilitation areas through focusing on assisted natural regeneration, targeted vegetation establishment and the introduction of naturally scarce fauna habitat features (where necessary); - collecting and propagating seed; - protecting vegetation outside the disturbance area; - managing salinity; - undertaking pre-clearance surveys; - managing impacts on fauna; - salvaging and reusing material from the site for habitat enhancement; - translocation of threatened flora from the site in accordance with the Guidelines for the Translocation of Threatened Plants in Australia (Vallee et al., 2004); - controlling weeds and feral pests; - managing grazing and agriculture; - controlling access; and - bushfire management; 	BMP S. 4.0, 4.2, 4.2.1, 4.2.4, 4.2.5, 4.3 and 4.4 BOMP S.6.0, 6.2, 7.0, 7.1, 8.3, 8.4, 8.5 and 8.6	Compliant			
	(iv)	include a seasonally-based program to monitor and report on the effectiveness of these measures, and progress against the detailed performance and completion criteria;	BMP S. 5.0 BOMP S. 9.0	Compliant			
	(v)	identify the potential risks to the successful implementation of the biodiversity offset strategy, and include a description of the contingency measures that would be implemented to mitigate these risks; and	BOMP App C	Compliant			
	(vi)	include details of who would be responsible for monitoring, reviewing, and implementing the plan.	BMP S. 7.0 BOMP S. 11.0	Compliant			
		The Applicant must implement the approved management plan as approved from time to time by the Secretary.	Noted, plan only approved by EPBC in January 2017	Noted			
	29A	During construction and maintenance of the Northern Diversion Levee, the Applicant must ensure that impacts to native vegetation (particularly EECs) are minimised as far as is reasonable and feasible, to the satisfaction of the Secretary.	Ground Disturbance Permit (GDP) 1534 for the Northern Diversion Levee, including pre-clearing and clearing surveys, was completed for the Northern Diversion Levees as per the Bengalla Mine (Bengalla) Biodiversity Management Plan.	Compliant			
Conservation Bond							
	30	Within 6 months of the approval of the Biodiversity Management Plan, the Applicant must lodge a conservation bond with the Department to ensure that the biodiversity offset strategy is implemented in accordance with the performance and completion criteria of the Biodiversity Management Plan. The sum of the bond shall be determined by: <ul style="list-style-type: none"> (a) calculating the full cost of implementing the biodiversity offset strategy (other than land acquisition costs); and (b) employing a suitably qualified quantity surveyor to verify the calculated costs, to the satisfaction of the Secretary. 	The BOMP was finalised following DoEE comments on 27th February (post audit), these comments followed approval by OEH and DP&E. The Conservation bond is due 6 months from approval of the BOMP in accordance with correspondence from DP&E dated 30-08-16.	Not Triggered			
		The calculation of the conservation bond must be submitted to the Department for approval at least 1 month prior to lodgement of the final bond.					
		If the offset strategy is completed generally in accordance with the completion criteria in the Biodiversity Management Plan to the satisfaction of the Secretary, the Secretary will release the bond.					
		If the offset strategy is not completed generally in accordance with the completion criteria in the Biodiversity Management Plan, the Secretary will call in all, or part of, the conservation bond, and arrange for the satisfactory completion of the relevant works.					
		Notes: <ul style="list-style-type: none"> - Alternative funding arrangements for long term management of the biodiversity offset strategy, such as provision of capital and management funding as agreed by OEH as part of a Biobanking Agreement or transfer to conservation reserve estate (or any other mechanism agreed with OEH) can be used to reduce the liability of the conservation bond. - The sum of the bond may be reviewed in conjunction with any revision to the biodiversity offset strategy or the completion of major milestones within the approved plan. 					

Reference	Condition	Requirement	Evidence	Audit Finding	Risk		
					Consequence	Likelihood	Risk
Development Consent SSD-5170							
HERITAGE							
Aboriginal Heritage Management Plan							
	31	The Applicant must prepare an Aboriginal Heritage Management Plan for the development to the satisfaction of the Secretary. This plan must:	Plan approved by DP&E, evidence included in the ACHMP.	Compliant			
	(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;	Plan developed in consultation with OEH, evidence provided in the ACHP	Compliant			
	(b)	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.	These requirements are included in the ACHMP.	Compliant			
		The Applicant must implement the approved management plan as approved from time to time by the Secretary.	During the site inspection and subsequent review of site documentation, no evidence of the ACHMP not being implemented was identified.	Compliant			
Historic Heritage Management Plan							
	32	The Applicant must prepare a Historic Heritage Management Plan for the development to the satisfaction of the Secretary. This plan must:	Approved by DP&E 23-03-16, evidence in HMP	Compliant			
	(a)	be prepared in consultation with the Heritage Branch and Council, and submitted to the Secretary for approval within 6 months of the date of this consent;	Evidence of consultation in HMP.	Compliant			
	(b)	include the following for the management of other historic heritage on site: ▯ conservation management plans for the Bengalla and Overdene homesteads; ▯ measures to minimise the visual impacts of the development on the Edinglassie and Rous Lench Homesteads; and ▯ a program/procedures for: o photographic and archival recording of potentially affected historic heritage items; o protection and monitoring of historic heritage items outside the project disturbance area; o monitoring, notifying and managing the effects of blasting on potentially affected historic heritage items; and o additional archival recording of any significant historic heritage items requiring demolition (including the Stockyard).	These requirements are included in the HMP.	Compliant			
		The Applicant must implement the approved management plan as approved from time to time by the Secretary.	During the site inspection and subsequent review of site documentation, no evidence of the HMP not being implemented was identified.	Compliant			
TRANSPORT							
Monitoring of Coal Transport							
	33	The Applicant must keep records of: (a) (b) and (c)	Sighted Coal Transport reports for 2015 and 2016, the reports detail train movements per day.	Compliant			
	(a)	amount of coal transported from the site in each calendar year;					
	(b)	number of coal haulage train movements generated by the development (on a daily basis);					
	(c)	make these records available on its website at the end of each calendar year.	Both reports were on the website as of 11-03-17.				
Road Works							
	34	Prior to mining within 200 metres of the Bengalla Link Road, the Applicant must design and construct the realigned road and associated intersections as shown conceptually in Appendix 8 (unless otherwise agreed by Council) to the satisfaction of Council.	The mine had yet reached this extent at the time of the audit.	Not Triggered			
Road Upgrades and Maintenance							
		The Applicant must contribute to the upgrade and maintenance of Thomas Mitchell Drive and its intersections with Denman Road and the New England Highway, proportionate to its impact (based on usage) on that infrastructure, in accordance with the Contributions Study prepared by GHD titled, "Thomas Mitchell Drive Contributions Study, December 2013" (or its latest version), unless otherwise agreed by the Secretary.	Bengalla contributed to the upgrade and maintenance of Thomas Mitchell Drive and its intersections with Denman Road and the New England Highway, first payment of \$1,183,406 made 29 September 2015.	Compliant			
		The road or intersection upgrades referred to in this condition may be satisfied through funding the required upgrades, subject to the agreement of the applicable roads authority, and subject to providing the funding such that the upgrades can be completed within the stated timeframe.	Noted	Noted			
		For Thomas Mitchell Drive, the contributions must be paid to Council in accordance with the upgrade and maintenance schedule established in accordance with the Contributions Study during the life of the development, unless otherwise agreed with Council.	Monies were paid to MSC	Compliant			
		If there is any dispute between the Applicant and Council or the RMS in relation to the funding or completion of the upgrades, then any of the parties may refer the matter to the Secretary for resolution.	There have been no disputes	Not Triggered			
		Note: In making a determination about the applicable maintenance contributions for Thomas Mitchell Drive, the Secretary shall take into account the contributions already paid and currently required to be paid towards the maintenance of the local road network surrounding Muswellbrook under this consent and the voluntary planning agreement summarised in Appendix 3.	Noted	Noted			

Reference	Condition	Requirement	Evidence	Audit Finding	Risk		
					Consequence	Likelihood	Risk
Development Consent SSD-5170							
VISUAL							
Visual Amenity and Lighting							
	36	The Applicant must:					
	(a)	implement all reasonable and feasible measures to mitigate the visual and off-site lighting impacts of the development;	At the time of the audit, the Procedure Pro-0365 Management of Lighting Impacts from Operations covers the requirements of AS4282 and is a solid document to manage lighting impacts by.	Compliant			
	(b)	ensure no outdoor lights shine above the horizontal; and	At the time of the audit, the Procedure Pro-0365 Management of Lighting Impacts from Operations covers the requirements of AS4282 and is a solid document to manage lighting impacts by.	Compliant			
	(c)	ensure that all external lighting associated with the development complies with relevant Australian Standards, including Australian Standard AS4282 (INT) 1997 – Control of Obtrusive Effects of Outdoor Lighting	At the time of the audit, the Procedure Pro-0365 Management of Lighting Impacts from Operations covers the requirements of AS4282 and is a solid document to manage lighting impacts by.	Compliant			
		to the satisfaction of the Secretary.	Visual and lighting impacts and complaints are reported in the Annual Review which is provided to the Secretaries Satisfaction.	Compliant			
Additional Visual Impact Mitigation							
	37	Within 6 months of the commencement of development under this consent, the Applicant must prepare a Visual Impact Mitigation Plan for the development to the satisfaction of the Secretary. This plan must:	Approval of the VIMP is included in the plan as Appendix A	Compliant			
	(a)	identify the visual receptors within the western and southern view sectors that are likely to have significant direct views of the development;	VIMP S.s 3.3.1 and 3.3.2	Compliant			
	(b)	include a site specific visual impact assessment of each of the visual receptors identified in Table 14, and any other receptors identified during the site verification process, to determine the severity of the visual impact;	This was included in the VIMP	Compliant			
	(c)	describe the additional mitigation measures that could be implemented to reduce the visual impacts of the development on these visual receptors.	This was included in the VIMP	Compliant			
			Noted	Noted			
	38	Within 1 month of the approval of the Visual Impact Mitigation Plan, the Applicant must advise the owners of the visual receptors identified in the plan that they are entitled to additional mitigation measures to reduce the visibility of the development from these visual receptors.	Letters sent 15-02-16, this is prior to the approval of the VIMP that was approved on 14-06-16.	Compliant			
	39	Upon receiving a written request from the owner of a visual receptor identified in this plan, the Applicant must implement additional visual impact mitigation measures (such as landscaping treatments or vegetation screens) at the visual receptor in consultation with the landowner, and to the satisfaction of the Secretary.	Letters received provided, some work had commenced at the time of the audit but not all works were progressed. There was no evidence indicating that Bengalla would not proceed with the rest of the works.	Compliant			
		These mitigation measures must be reasonable and feasible.	Noted.	Noted			
		If within 3 months of receiving this request from the owner, the Applicant and the owner cannot agree on the measures to be implemented, or there is a dispute about the implementation of these measures, then either party may refer the matter to the Secretary for resolution.	No evidence of disputes was identified in the audit period.	Not Triggered			
		<i>Note: The additional visual impact mitigation measures must be aimed at reducing the visibility of the development from the identified affected receptors and do not necessarily require measures to reduce visibility of the development from other locations on the affected properties. The additional visual impact mitigation measures do not necessarily have to include measures on the affected property itself (i.e. the additional measures may consist of measures outside the affected property boundary that provide an effective reduction in visual impacts).</i>	Noted	Noted			
Tree Plantings Along Public Roads							
	40	Within 2 years of the commencement of development under this consent, unless the Secretary agrees otherwise, the Applicant must plant tree screening along those sections of Denman Road, Roxburgh Road and Wybong Road that will have direct views of mining operations on site. This screening must be planted, in consultation with Council (and where relevant the RMS), and maintained to the satisfaction of the Secretary.	Commencement 1-10-15, planting is required before 1-10-17.	Not Triggered			
	41	At least five years prior to construction of the Bengalla Link Road realignment, or as otherwise agreed by the Secretary, the Applicant must plant tree screening along the proposed Bengalla Link Road realignment. This screening must be planted in consultation with Council and maintained to the satisfaction of the Secretary.	AECOM have been contracted to design the tree planting and the realigned Bengalla Link Road is in the contract.	Not Triggered			
		<i>Note: The planting of tree screening in areas of constructed fill embankments associated with the road realignment shall be undertaken as soon as practicable after completion of the constructed landform</i>	Noted	Noted			
BUSHFIRE MANAGEMENT							
	42	The Applicant must:					
		ensure that the development is suitably equipped to respond to any fires on site; and	Water carts, fire extinguishers evident in site inspection. Bushfire Management Plan provided as evidence of preparedness.	Compliant			
		assist the Rural Fire Service and emergency services as much as possible if there is a fire in the surrounding area.	This has not been required in the audit period	Not Triggered			

Reference	Condition	Requirement	Evidence	Audit Finding	Risk		
					Consequence	Likelihood	Risk
Development Consent SSD-5170							
WASTE							
	43	The Applicant must:					
	(a)	implement all reasonable and feasible measures to minimise the waste (including coal reject) generated by the development;	Coal reject is run through belt presses and codisposed Waste water is treated onsite and reused as process water Waste generated is documented and managed	Compliant			
	(b)	ensure that the waste generated by the development is appropriately stored, handled and disposed of;	Licensed water contractor removes waste and provides storage facilities for the site, Waste generated is monitored.	Compliant			
	(c)	manage on-site sewage treatment and disposal in accordance with the requirements of Council; and	All sewage waste is treated onsite in a serviced system that returns treated waste water to the process water system.	Compliant			
	(d)	monitor and report on effectiveness of the waste minimisation and management measures each calendar year,	All waste generated is monitored, several tracking mechanisms provided as evidence.	Compliant			
		to the satisfaction of the Secretary	Waste management is reported in the ARs.	Compliant			
REHABILITATION							
Rehabilitation Objectives							
	44	The Applicant must rehabilitate the site to the satisfaction of the DRE. The rehabilitation must comply with the objectives in Table 15 and be consistent with the conceptual final landform plan shown in Appendix 9.	ARs detail remediation progress and are reviewed by DRE	Compliant			
Table 15: Rehabilitation Objectives	Mine site (as a whole)	- Safe, stable and non-polluting - Final landforms designed to incorporate natural micro-relief and natural drainage lines, which, where	Not yet implemented by design is underway	Not Triggered			
	Overburden Emplacement Area – exposed to Muswellbrook and Denman	Rehabilitate the entire face with high density woody vegetation as soon as practicable following the completion of mining operations	Plans underway to establish the woody vegetation. Mining not completed.	Not Triggered			
	Final void	- Designed as a long term groundwater sink and to maximise groundwater flows across back-filled pits to the final void - Minimise to the greatest extent practicable: - the size and depth of the final void or the drainage catchment of the final void - any high wall instability risk - risk of flood interaction (flows in and out of the void) - Maximise to the greatest extent practicable the final void landform to be in keeping with the natural terrain features of the surrounding landscape	Final void not yet established.	Not Triggered			
	Agricultural land	Restore or maintain land capability generally as described in the EIS and shown conceptually in Appendix 9	Efforts to this end have been ongoing at the site since it commenced operation under the original consent.	Compliant			
	Revegetation areas	- Restore a minimum 10% treed coverage at the mine site - Higher density planting along the riparian zone of the Dry Creek reinstatement, and around the final void	Dry Creek reinstatement not yet commenced. The 10% cannot be measured until rehabilitation is complete but the site appears to be on track to achieve this amount or more.	Compliant			
	Dry Creek reinstatement	- No net loss of creek length - Restore, maintain and/or improve hydrological and ecological function, quality and geomorphic stability	Dry Creek reinstatement not yet commenced.	Not Triggered			
	Surface infrastructure	- To be decommissioned and removed, unless DRE agrees otherwise	Noted	Not Triggered			
	Community	- Ensure public safety - Minimise the adverse socio-economic effects associated with mine closure	Noted	Not Triggered			
Progressive Rehabilitation							
	45	The Applicant must carry out rehabilitation progressively, that is, as soon as reasonably practicable following disturbance (particularly on the face of emplacements that are visible off-site). Interim stabilisation measures must be implemented where reasonable and feasible to control dust emissions in disturbed areas that are not active and which are not ready for final rehabilitation.	Through observation in the site inspection this is generally compliant.	Compliant			
		<i>Note: It is accepted that parts of the site that are progressively rehabilitated may be subject to further disturbance in future.</i>	Noted	Noted			
Rehabilitation Management Plan							
	46	The Applicant must prepare a Rehabilitation Management Plan for the development to the satisfaction of the DRE. This plan must:	MOP and correspondence re refusal of Rehab Plan provided as evidence, the MOP included correspondence with DRE indicating approval.	Compliant			
	(a)	be submitted to the DRE for approval within 6 months of the date of this consent;	Extension of time sought and approved	Compliant			
	(b)	be prepared in consultation with the Department, DPI – Water, OEH, Council and the CCC;	Evidence of consultation with CCC, DPI Water and OEH in the preparation of the MOP, but this consultation was identified in the Feb 2016 version of the RMP.	Compliant			
	(c)	be prepared in accordance with relevant DRE guidelines;	Guidelines quoted, no direct evidence of non-compliance with guidelines were identified.	Compliant			
	(d)	describe how the rehabilitation of the site would be integrated with the implementation of the biodiversity offset strategy;	There was no description of the integration of rehabilitation and biodiversity offsets in the MOP, but it was described in the RMP, which was developed for the SSD approval.	Compliant			
	(e)	include detailed performance and completion criteria for evaluating the performance of the rehabilitation of the site, including over the long term following completion of mining operations, and triggering remedial action (if necessary);	These were included in the MOP	Compliant			
	(f)	describe the design specifications and measures that would be implemented to ensure compliance with the relevant conditions of this consent, and address all aspects of rehabilitation including mine closure, final landform including final voids, and final land use;	These were included in the MOP	Compliant			

Reference	Condition	Requirement	Evidence	Audit Finding	Risk		
					Consequence	Likelihood	Risk
Development Consent SSD-5170							
	(g)	include interim rehabilitation where necessary to minimise the area exposed for dust generation;	This was not described in the MOP but were described in the RMP that was developed for the SSD approval. Relevant to area at top RL that had been left without cover until a modification to the landform design was approved.	Compliant			
	(h)	include a research program that seeks to improve the understanding and application of rehabilitation techniques and methods in the Hunter Valley;	A reasearch program was included.	Compliant			
	(i)	include a schedule for establishment of native vegetation corridors and habitat linkages across the site;	This was detailed in the MOP plans and domain selection and description.	Compliant			
	(j)	include a landscape management plan for the proposed Bengalla Link Road realignment;	This is not included, however, the shifting of the Bengalla Link road is scheduled for @2030, the MOP as audited expires in 2021. This work was not anticipated within the life of the MOP.	Not Triggered			
	(k)	include a plan for the reinstatement of Dry Creek including: o detailed design specifications for the reinstatement of the creek; o a schedule of works describing how the reinstatement work would be staged and integrated with mining operations and the final landform; o a revegetation program; o hydrological, ecological and geomorphic performance and completion criteria for the reinstated creek based on the assessment of baseline conditions; and o a program to monitor, maintain and/or improve the hydrological and ecological function, quality and geomorphic stability of the reinstated creek;	The Dry Creek Reinstatement is anticipated to occur between project years 15 and 24 (2030 to 2039), the MOP expires in 2021. This work was not anticipated within the life of the MOP.	Not Triggered.			
	(l)	include a program to monitor, independently audit and report on the effectiveness of the measures, and progress against the detailed performance and completion criteria; and	Included, audits provided as evidence	Compliant			
	(m)	build to the maximum extent practicable on other management plans required under this consent.	Noted, the MOP tied together other documents and generally profromed this task, see non-compliance above re the BOMP.	Compliant			
		The Applicant must implement the approved management plan as approved from time to time by the Secretary.	ARs and Annual DRE inspections. There was no evidence at the time of the audit of transgession form the requirements of the MOP.	Compliant			
SCHEDULE 4 - ADDITIONAL PROCEDURES							
NOTIFICATION OF LANDOWNERS/TENANTS							
	1	Within 1 month of the date of this consent, the Applicant must:					
	(a)	notify in writing the owners of: - the land listed in Table 1 of schedule 3 that they have the right to require the Applicant to acquire their land at any stage during the development and/or request the Applicant to ask for additional noise and/or air quality mitigation measures (whichever is relevant) to be installed at their residence at any stage during the development (if they have not requested acquisition); - the land listed in Table 2 of schedule 3 that, if they no longer have an acquisition right for that land under the mining approval of the mine listed in Table 2, they have the right to require the Applicant to acquire their land at any stage during the development and/or request the Applicant to ask for additional noise and/or air quality mitigation measures (whichever is relevant) to be installed at their residence at any stage during the development (if they have not requested acquisition from any mine, or the installation of mitigation measures by another mine); - any residence on the land listed in Table 3 of schedule 3 that they have the right to request the Applicant to ask for additional noise and/or air quality mitigation measures (whichever is relevant) to be installed at their residence at any stage during the development (if they have not requested the installation of mitigation measures by another mine); and - any privately-owned land within 3 kilometres of the approved open cut mining pit/s that they are entitled to ask for an inspection to establish the baseline condition of any buildings or structures on their land, or to have a previous property inspection report updated;	Letters provided as evidence along with all other relevant correspondence.	Compliant			
	(b)	notify the tenants of any mine-owned land of their rights under this consent (see condition 18 of schedule 3); and	Letters provided as evidence along with all other relevant correspondence.	Compliant			
	(c)	send a copy of the NSW Health fact sheet entitled "Mine Dust and You" (as may be updated from time to time) to the owners and/or existing tenants of any land (including mine-owned land) where the predictions in the EIS identify that dust emissions generated by the development are likely to be greater than the relevant air quality criteria in schedule 3 at any time during the life of the development.	Letters provided as evidence along with all other relevant correspondence.	Compliant			
	2	Prior to entering into any tenancy agreement for any land owned by the Applicant that is predicted to experience exceedances of the recommended dust and/or noise criteria, or for any of the land listed in condition 1 that is subsequently purchased by the Applicant, the Applicant must:	Letters provided as evidence along with all other relevant correspondence.	Compliant			
	(a)	advise the prospective tenants of the potential health and amenity impacts associated with living on the land, and give them a copy of the NSW Health fact sheet entitled "Mine Dust and You" (as may be updated from time to time); and	Letters provided as evidence along with all other relevant correspondence.	Compliant			
	(b)	advise the prospective tenants of the rights they would have under this consent.	Letters provided as evidence along with all other relevant correspondence.	Compliant			

Reference	Condition	Requirement	Evidence	Audit Finding	Risk		
					Consequence	Likelihood	Risk
Development Consent SSD-5170							
	3	As soon as practicable after obtaining monitoring results showing:					
	(a)	an exceedance of any relevant criteria in schedule 3, the Applicant must notify the affected landowners in writing of the exceedance, and provide regular monitoring results to these landowners until the development is again complying with the relevant criteria; and	In a letter dated 17 October 2016, Bengalla notified the affected landowners of an exceedance of the relevant noise criteria that occurred on 17 and 18 October 2016. A follow-up noise measurement was carried out on 23 October 2016. Bengalla was inaudible during the follow-up measurement and as a result there was no requirement to provide further monitoring results to the landowners.	Compliant			
	(b)	an exceedance of any relevant air quality criteria in schedule 3, the Applicant must send a copy of the NSW Health fact sheet entitled "Mine Dust and You" (as may be updated from time to time) to the affected landowners and/or existing tenants of the land (including the tenants of any mine-owned land).	No exceedance of air quality criteria at private residences.	Compliant			
INDEPENDENT REVIEW							
	4	If an owner of privately-owned land considers the development to be exceeding the relevant criteria in schedule 3, then he/she may ask the Secretary in writing for an independent review of the impacts of the development on his/her land.	No requests for independent review in the audit period.	Not Triggered			
		If the Secretary is satisfied that an independent review is warranted, then within 2 months of the Secretary's decision the Applicant must:	No requests for independent review in the audit period.	Not Triggered			
	(a)	commission a suitably qualified, experienced and independent person, whose appointment has been approved by the Secretary, to: - consult with the landowner to determine his/her concerns; - conduct monitoring to determine whether the development is complying with the relevant criteria in schedule 3; - if the development is not complying with these criteria then identify the measures that could be implemented to ensure compliance with the relevant criteria; and - in cases where there is an exceedance of any air quality criteria, and more than one mine is responsible for the exceedance, determine the relative share of each mine regarding the impact of the development;	No requests for independent review in the audit period.	Not Triggered			
	(b)	give the Secretary and landowner a copy of the independent review with a plan which details the proposed measures to be implemented in response to the independent review; and	No requests for independent review in the audit period.	Not Triggered			
	(c)	implement the necessary measures as directed by the Secretary.	No requests for independent review in the audit period.	Not Triggered			
LAND ACQUISITION							
	5	Within 3 months of receiving a written request from a landowner with acquisition rights, the Applicant must make a binding written offer to the landowner based on:	Offer made to one property owner	Compliant			
	(a)	the current market value of the landowner's interest in the land at the date of this written request, as if the land was unaffected by the development, having regard to the: - existing and permissible use of the land, in accordance with the applicable planning instruments at the date of the written request; and - presence of improvements on the land and/or any approved building or structure which has been physically commenced at the date of the landowner's written request, and is due to be completed subsequent to that date, but excluding any improvements that have resulted from the implementation of the additional noise and/or air quality mitigation measures in condition 2 of schedule 3;	The valuation includes these requirements.	Compliant			
	(b)	the reasonable costs associated with: - relocating within the Muswellbrook, Cessnock or Singleton local government area, or to any other local government area determined by the Secretary; and - obtaining legal advice and expert advice for determining the acquisition price of the land, and the terms upon which it is to be acquired; and	The valuation includes these requirements.	Compliant			
	(c)	reasonable compensation for any disturbance caused by the land acquisition process.	The valuation includes these requirements.	Compliant			
		However, if at the end of this period, the Applicant and landowner cannot agree on the acquisition price of the land and/or the terms upon which the land is to be acquired, then either party may refer the matter to the Secretary for resolution.	The matter had not been referred to the Secretary for resolution.	Not Triggered			
		Upon receiving such a request, the Secretary will request the President of the NSW Division of the Australian Property Institute to appoint a qualified independent valuer to: - consider submissions from both parties; - determine a fair and reasonable acquisition price for the land and/or the terms upon which the land is to be acquired, having regard to the matters referred to in paragraphs (a)-(c) above; - prepare a detailed report setting out the reasons for any determination; and - provide a copy of the report to both parties.	Independent Valuer used.	Compliant			
		Within 14 days of receiving the independent valuer's report, the Applicant must make a binding written offer to the landowner to purchase the land at a price not less than the independent valuer's determination. However, if either party disputes the independent valuer's determination, then within 14 days of receiving the independent valuer's report, they may refer the matter to the Secretary for review. Any request for a review must be accompanied by a detailed report setting out the reasons why the party disputes the independent valuer's determination. Following consultation with the independent valuer and both parties, the Secretary will determine a fair and reasonable acquisition price for the land, having regard to the matters referred to in paragraphs (a)-(c) above, the independent valuer's report, the detailed report of the party that disputes the independent valuer's determination and any other relevant submissions.	Offer made, but not taken up at the time of the audit. No referral to the secretary.	Compliant			
		Within 14 days of this determination, the Applicant must make a binding written offer to the landowner to purchase the land at a price not less than the Secretary's determination.	Not applicable	Not Triggered			

Reference	Condition	Requirement	Evidence	Audit Finding	Risk		
					Consequence	Likelihood	Risk
Development Consent SSD-5170							
		If the landowner refuses to accept the Applicant's binding written offer under this condition within 6 months of the offer being made, then the Applicant's obligations to acquire the land shall cease, unless the Secretary determines otherwise.	Not applicable	Not Triggered			
	6	The Applicant must pay all reasonable costs associated with the land acquisition process described in condition 5 above, including the costs associated with obtaining Council approval for any plan of subdivision (where permissible), and registration of this plan at the Office of the Registrar-General	Not applicable	Not Triggered			
SCHEDULE 5 - ENVIRONMENTAL MANAGEMENT, REPORTING AND AUDITING							
ENVIRONMENTAL MANAGEMENT							
Environmental Management Strategy							
	1	The Applicant must prepare an Environmental Management Strategy for the development to the satisfaction of the Secretary. This strategy must:	Prepared and approved at the time of the audit.	Compliant			
	(a)	be submitted to the Secretary for approval within 6 months of the date of this consent;	Extensions Granted	Compliant			
	(b)	provide the strategic framework for environmental management of the development;	Included in EMS	Compliant			
	(c)	identify the statutory approvals that apply to the development;	Included in EMS	Compliant			
	(d)	describe the role, responsibility, authority and accountability of all key personnel involved in the environmental management of the development;	Included in EMS	Compliant			
	(e)	describe the procedures that would be implemented to: - keep the local community and relevant agencies informed about the operation and environmental performance of the development; - receive, handle, respond to, and record complaints; - resolve any disputes that may arise during the course of the development; - respond to any non-compliance; - respond to emergencies; and	Included in EMS	Compliant			
	(f)	include: - copies of any strategies, plans and programs approved under the conditions of this consent; and - a clear plan depicting all the monitoring required to be carried out in relation to the development.	Section 3.2 at Table 4 lists all management plans required under the consent. Further, Section 1.3 provides a link to BMC's website where all the plans in Table 4 are included. Clear plans are included in Appendix A.	Compliant			
		The Applicant must implement the approved strategy as approved from time to time by the Secretary.	No evidence of lack of implementation.	Compliant			
Adaptive Management							
	2	The Applicant must assess and manage development-related risks to ensure that there are no exceedances of the criteria and/or performance measures in schedule 3. Any exceedance of these criteria and/or performance measures constitutes a breach of this consent and may be subject to penalty or offence provisions under the EP&A Act or EP&A Regulation.					
		Where any exceedance of these criteria and/or performance measures has occurred, the Applicant must, at the earliest opportunity:	As an Example Elevated compliance attended noise measurements on the night of 17-18 October 2016, the acoustic consultant communicated the results to the appropriate Bengalla personnel in accordance with the procedure specified in the NMP. The response to the water incident also complies with these requirements.	Compliant			
	(a)	take all reasonable and feasible steps to ensure that the exceedance ceases and does not recur;	The OCE immediately took steps to ensure that the exceedance ceased and did not recur.	Compliant			
	(b)	consider all reasonable and feasible options for remediation (where relevant) and submit a report to the Department describing those options and any preferred remediation measures or other course of action; and	Bengalla notified DP&E of the exceedance on 19 October 2016. An investigation report was submitted to DP&E on 28 October 2016.	Compliant			
	(c)	implement remediation measures as directed by the Secretary, to the satisfaction of the Secretary.	At the time of the audit, DP&E had not requested any further action.	Not Triggered.			
Management Plan Requirements							
	3	The Applicant must ensure that the management plans required under this consent are prepared in accordance with any relevant guidelines, and include:					
	(a)	detailed baseline data;	Included where relevant	Compliant			
	(b)	a description of: - the relevant statutory requirements (including any relevant approval, licence or lease conditions); - any relevant limits or performance measures/criteria; - the specific performance indicators that are proposed to be used to judge the performance of, or guide the implementation of, the development or any management measures;	Included where relevant	Compliant			
	(c)	a description of the measures that would be implemented to comply with the relevant statutory requirements, limits, or performance measures/criteria;	Included where relevant	Compliant			
	(d)	a program to monitor and report on the: - impacts and environmental performance of the development; - effectiveness of any management measures (see c above);	Included where relevant	Compliant			
	(e)	a contingency plan to manage any unpredicted impacts and their consequences;	Included where relevant	Compliant			
	(f)	a program to investigate and implement ways to improve the environmental performance of the development over time;	Included where relevant	Compliant			

Reference	Condition	Requirement	Evidence	Audit Finding	Risk		
					Consequence	Likelihood	Risk
Development Consent SSD-5170							
	(g)	a protocol for managing and reporting any: - incidents; - complaints; - non-compliances with statutory requirements; and - exceedances of the impact assessment criteria and/or performance criteria; and	Included where relevant	Compliant			
	(f)	a protocol for periodic review of the plan. <i>Note: The Secretary may waive some of these requirements if they are unnecessary or unwarranted for particular management plans.</i>	Included where relevant Noted	Compliant Noted			
Community Consultative Committee							
	6	The Applicant must operate a Community Consultative Committee (CCC) for the development to the satisfaction of the Secretary. This CCC must be operated in general accordance with the Guidelines for Establishing and Operating Community Consultative Committees for Mining Developments (Department of Planning, 2007, or its latest version). <i>Notes:</i> - The CCC is an advisory committee. The Department and other relevant agencies are responsible for ensuring that the Applicant complies with this consent. - In accordance with the guideline, the Committee should be comprised of an independent chair and appropriate representation from the Applicant, affected councils and the local community.	CCC minutes provided as evidence Noted	Compliant Noted			
REPORTING							
Incident Reporting							
	7	The Applicant must immediately notify the Secretary and any other relevant agencies of any incident. Within 7 days of the date of the incident, the Applicant must provide the Secretary and any relevant agencies with a detailed report on the incident, and such further reports as may be requested.	Incidents were reported in 7 days, in one instance an extension was requested and refused but the reporting time was compliant.	Compliant			
Regular Reporting							
	8	The Applicant must provide regular reporting on the environmental performance of the development on its website, in accordance with the reporting arrangements in any plans or programs approved under the conditions of this consent.	Monthly reporting and posting of the Annual Review.	Compliant			
INDEPENDENT ENVIRONMENTAL AUDIT							
	9	Within 1 year of the commencement of development under this consent, and every 3 years thereafter, unless the Secretary directs otherwise, the Applicant must commission and pay the full cost of an Independent Environmental Audit of the development. This audit must:	This Audit	Compliant			
	(a)	be conducted by a suitably qualified, experienced and independent team of experts whose appointment has been endorsed by the Secretary;	Approval letter in Report	Compliant			
	(b)	include consultation with the relevant agencies;	Consultation I report	Compliant			
	(c)	assess the environmental performance of the development and assess whether it is complying with the requirements in this consent and any relevant EPL or Mining Lease (including any assessment, plan or program required under these approvals);	This Audit	Compliant			
	(d)	review the adequacy of strategies, plans or programs required under the abovementioned approvals; and	This Audit	Compliant			
	(e)	recommend appropriate measures or actions to improve the environmental performance of the development, and/or any assessment, plan or program required under the abovementioned approvals.	This Audit	Compliant			
		<i>Note: This audit team must be led by a suitably qualified auditor and include experts in any field specified by the Secretary.</i>	Approval letter in Report, audit team	Compliant			
	10	Within 6 weeks of the completion of this audit, unless the Secretary agrees otherwise, the Applicant must submit a copy of the audit report to the Secretary, together with its response to any recommendations contained in the audit report.	Not Triggered	Not Triggered			
ACCESS TO INFORMATION							
	11	From the commencement of development under this consent, the Applicant must:					
	(a)	make copies of the following publicly available on its website: - the documents listed in condition 2(a) of Schedule 2; - current statutory approvals for the development; - approved strategies, plans and programs required under the conditions of this consent; - a comprehensive summary of the monitoring results of the development, reported in accordance with the specifications in any conditions of this consent, or any approved plans and programs; - a complaints register, which is to be updated monthly; - minutes of CCC meetings; - the annual reviews of the development (for the last 5 years, if applicable); - any independent environmental audit of the development, and the Applicant's response to the recommendations in any audit; - any other matter required by the Secretary; and	All this information was on the website and up to date as of 12-03-17.	Compliant			
	(b)	keep this information up-to-date,	All this information was on the website and up to date as of 12-03-17.	Compliant			
		to the satisfaction of the Secretary.	There was no formal method for testing the satisfaction of the secretary, however the website is public so by definition available for review by the Secretary and this audit commissioned for the Secretary covers compliance with this point.	Compliant			

Reference	Condition	Requirement	Evidence	Audit Finding	Risk		
					Consequence	Likelihood	Risk
Development Consent SSD-5170							
APPENDIX 3							
TERMS OF THE VOLUNTARY PLANNING AGREEMENT							
		Funding Component	Applicant Contribution				
		Bengalla Coal Community Fund	\$400,000 per annum Paid, evidence provided	Compliant			
		Road maintenance requirements within the Muswellbrook LGA	\$125,000 per annum Paid, evidence provided	Compliant			
		Council Environmental Officer position	\$20,000 per annum Paid, evidence provided	Compliant			
		A commitment from the Applicant to seek to engage four apprentices per annum for the life of the mine sourced from residents within the local area.	N/A				
		General	\$0.065 cents per tonne of product coal produced in excess of 8.5 Mt of product coal from the mine in any one calendar year.	Noted			
APPENDIX SNOISE COMPLIANCE ASSESSMENT							
Applicable Meteorological Conditions							
	1	The noise criteria in Table 4 of schedule 3 are to apply under all meteorological conditions except the following:	Noted, noise reports reviewed indicated compliance with these requirements.	Noted			
	(a)	wind speeds greater than 3 m/s measured at 10 m above ground level; or	Noted, noise reports reviewed indicated compliance with these requirements.	Noted			
	(b)	temperature inversion conditions between 1.5°C and 3°C/100 m and wind speeds greater than 2 m/s at 10 m above ground level; or	Noted, noise reports reviewed indicated compliance with these requirements.	Noted			
	(c)	temperature inversion conditions greater than 3°C/100 m.	Noted, noise reports reviewed indicated compliance with these requirements.	Noted			
Determination of Meteorological Conditions							
	2	Except for wind speed at microphone height, the data to be used for determining meteorological conditions shall be that recorded by the meteorological station located on the site.	Noted, noise reports reviewed indicated compliance with these requirements.	Noted			
Compliance Monitoring							
	3	Attended monitoring is to be used to evaluate compliance with the relevant conditions of this consent.	Noted, noise reports reviewed indicated compliance with these requirements.	Noted			
	4	This monitoring must be carried out at least once a month (but at least two weeks apart) unless the Secretary directs otherwise.	Noted, noise reports reviewed indicated compliance with these requirements.	Noted			
	5	Unless otherwise agreed with the Secretary, this monitoring is to be carried out in accordance with the relevant requirements for reviewing performance set out in the NSW Industrial Noise Policy (as amended from time to time), in particular the requirements relating to:	Noted, noise reports reviewed indicated compliance with these requirements.	Noted			
	(a)	monitoring locations for the collection of representative noise data;	Noted, noise reports reviewed indicated compliance with these requirements.	Noted			
	(b)	meteorological conditions during which collection of noise data is not appropriate;	Noted, noise reports reviewed indicated compliance with these requirements.	Noted			
	(c)	equipment used to collect noise data, and conformity with Australian Standards relevant to such equipment; and	Noted, noise reports reviewed indicated compliance with these requirements.	Noted			
	(d)	modifications to noise data collected, including for the exclusion of extraneous noise and/or penalties for modifying factors apart from adjustments for duration.	Noted, noise reports reviewed indicated compliance with these requirements.	Noted			

Reference	Condition	Requirement	Evidence	Audit Finding	Risk																						
					Consequence	Likelihood	Risk																				
Environment Protection Licence 6538																											
Anniversary Date 11th September																											
1 - ADMINISTRATIVE CONDITIONS																											
A1 - What the licence authorises and regulates																											
	A 1.1	This licence authorises the carrying out of the scheduled activities listed below at the premises specified in A2. The activities are listed according to their scheduled activity classification, fee-based activity classification and the scale of the operation.	Noted	Noted																							
		Unless otherwise further restricted by a condition of this licence, the scale at which the activity is carried out must not exceed the maximum scale specified in this condition.	This licence does not list a maximum production level	Noted																							
		<table border="1"> <thead> <tr> <th>Scheduled Activity</th> <th>Fee Based Activity</th> <th>Scale</th> </tr> </thead> <tbody> <tr> <td>Coal works</td> <td>Coal works</td> <td>> 5000000 T annual handling capacity</td> </tr> <tr> <td>Mining for coal</td> <td>Mining for coal</td> <td>> 5000000 T annual production capacity</td> </tr> </tbody> </table>						Scheduled Activity	Fee Based Activity	Scale	Coal works	Coal works	> 5000000 T annual handling capacity	Mining for coal	Mining for coal	> 5000000 T annual production capacity											
Scheduled Activity	Fee Based Activity	Scale																									
Coal works	Coal works	> 5000000 T annual handling capacity																									
Mining for coal	Mining for coal	> 5000000 T annual production capacity																									
A2 - Premises or plant to which this licence applies																											
	A 2.1	<table border="1"> <thead> <tr> <th>Premises Details</th> </tr> </thead> <tbody> <tr> <td>BENGALLA MINE</td> </tr> <tr> <td>BENGALLA ROAD VIA MUSWELLBROOK</td> </tr> <tr> <td>NSW 2333</td> </tr> <tr> <td>PREMISES BOUNDARY DEFINED IN PLAN TITLED "BENGALLA MINE EPL MONITORING POINTS WATER FIGURE 1" DATED REV D DATED 02/08/2016, EPA REFERENCE DOC16/445347 AND SHAPE FILES EPA REFERENCE DOC16/391399.</td> </tr> </tbody> </table>	Premises Details	BENGALLA MINE	BENGALLA ROAD VIA MUSWELLBROOK	NSW 2333	PREMISES BOUNDARY DEFINED IN PLAN TITLED "BENGALLA MINE EPL MONITORING POINTS WATER FIGURE 1" DATED REV D DATED 02/08/2016, EPA REFERENCE DOC16/445347 AND SHAPE FILES EPA REFERENCE DOC16/391399.	Noted	Noted																		
Premises Details																											
BENGALLA MINE																											
BENGALLA ROAD VIA MUSWELLBROOK																											
NSW 2333																											
PREMISES BOUNDARY DEFINED IN PLAN TITLED "BENGALLA MINE EPL MONITORING POINTS WATER FIGURE 1" DATED REV D DATED 02/08/2016, EPA REFERENCE DOC16/445347 AND SHAPE FILES EPA REFERENCE DOC16/391399.																											
A3 - Other activities																											
	A 3.1	This licence applies to all other activities carried on at the premises, including:	Noted	Noted																							
		<table border="1"> <thead> <tr> <th>Ancillary Activity</th> </tr> </thead> <tbody> <tr> <td>Crushing, Grinding or Separating Works</td> </tr> </tbody> </table>						Ancillary Activity	Crushing, Grinding or Separating Works																		
Ancillary Activity																											
Crushing, Grinding or Separating Works																											
2 - Discharges to Air and Water and Applications to Land																											
P1 - Location of monitoring/discharge points and																											
	P 1.1	The following points referred to in the table below are identified in this licence for the purposes of monitoring and/or the setting of limits for the emission of pollutants to the air from the point.	Noted	Noted																							
		<table border="1"> <thead> <tr> <th colspan="4">Air</th> </tr> <tr> <th>EPA Identification no.</th> <th>Type of Monitoring Point</th> <th>Type of Discharge Point</th> <th>Location Description</th> </tr> </thead> <tbody> <tr> <td>3</td> <td>Particulate monitoring (High Volume Air Sampler Network)</td> <td></td> <td>At locations where the level of particulate matter being sampled is representative of emissions from the operation of the mine taking into account prevailing wind direction and the location of residential properties or other sensitive receivers.</td> </tr> <tr> <td>4</td> <td>Particulate monitoring (PM10 Network)</td> <td></td> <td>At locations where the level of particulate matter being sampled is representative of emissions from the operation of the mine taking into account prevailing wind direction and the location of residential properties or other sensitive receivers.</td> </tr> <tr> <td>5</td> <td>Particulate monitoring (Dust deposition network)</td> <td></td> <td>At locations where dust deposition levels are representative of the levels experienced at residential properties, or other sensitive receivers, resulting from the operation of the mine.</td> </tr> </tbody> </table>						Air				EPA Identification no.	Type of Monitoring Point	Type of Discharge Point	Location Description	3	Particulate monitoring (High Volume Air Sampler Network)		At locations where the level of particulate matter being sampled is representative of emissions from the operation of the mine taking into account prevailing wind direction and the location of residential properties or other sensitive receivers.	4	Particulate monitoring (PM10 Network)		At locations where the level of particulate matter being sampled is representative of emissions from the operation of the mine taking into account prevailing wind direction and the location of residential properties or other sensitive receivers.	5	Particulate monitoring (Dust deposition network)		At locations where dust deposition levels are representative of the levels experienced at residential properties, or other sensitive receivers, resulting from the operation of the mine.
Air																											
EPA Identification no.	Type of Monitoring Point	Type of Discharge Point	Location Description																								
3	Particulate monitoring (High Volume Air Sampler Network)		At locations where the level of particulate matter being sampled is representative of emissions from the operation of the mine taking into account prevailing wind direction and the location of residential properties or other sensitive receivers.																								
4	Particulate monitoring (PM10 Network)		At locations where the level of particulate matter being sampled is representative of emissions from the operation of the mine taking into account prevailing wind direction and the location of residential properties or other sensitive receivers.																								
5	Particulate monitoring (Dust deposition network)		At locations where dust deposition levels are representative of the levels experienced at residential properties, or other sensitive receivers, resulting from the operation of the mine.																								
	P 1.2	The following utilisation areas referred to in the table below are identified in this licence for the purposes of the monitoring and/or the setting of limits for any application of solids or liquids to the utilisation area.																									
			Noted	Noted																							

Reference	Condition	Requirement	Evidence	Audit Finding	Risk																										
					Consequence	Likelihood	Risk																								
Environment Protection Licence 6538																															
	P 1.3	The following points referred to in the table are identified in this licence for the purposes of the monitoring and/or the setting of limits for discharges of pollutants to water from the point.	This dam and the Dry Creek monitoring point were the current discharge points at the time of the audit	Noted																											
		<table border="1"> <thead> <tr> <th>EPA Identification no.</th> <th>Type of Monitoring Point</th> <th>Type of Discharge Point</th> <th>Location Description</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Discharge to waters. Water quality monitoring. Volume monitoring.</td> <td>Discharge to waters. Water quality monitoring. Volume monitoring.</td> <td>Outlet pipe from 280ML HRSTS storage dam, shown as EPA01 on plan titled Bengalla Mine EPL Monitoring Points Water Figure 1* dated Rev D dated 02/08/2016. EPA Reference DOC16/445347</td> </tr> <tr> <td>2</td> <td>Tributary Monitoring Point</td> <td></td> <td>Downstream of Discharge Point 1 in Dry Creek shown as point EPA02 on plan titled Bengalla Mine EPL Monitoring Points Water Figure 1* dated Rev D dated 02/08/2016. EPA Reference DOC16/445347</td> </tr> </tbody> </table>						EPA Identification no.	Type of Monitoring Point	Type of Discharge Point	Location Description	1	Discharge to waters. Water quality monitoring. Volume monitoring.	Discharge to waters. Water quality monitoring. Volume monitoring.	Outlet pipe from 280ML HRSTS storage dam, shown as EPA01 on plan titled Bengalla Mine EPL Monitoring Points Water Figure 1* dated Rev D dated 02/08/2016. EPA Reference DOC16/445347	2	Tributary Monitoring Point		Downstream of Discharge Point 1 in Dry Creek shown as point EPA02 on plan titled Bengalla Mine EPL Monitoring Points Water Figure 1* dated Rev D dated 02/08/2016. EPA Reference DOC16/445347												
EPA Identification no.	Type of Monitoring Point	Type of Discharge Point	Location Description																												
1	Discharge to waters. Water quality monitoring. Volume monitoring.	Discharge to waters. Water quality monitoring. Volume monitoring.	Outlet pipe from 280ML HRSTS storage dam, shown as EPA01 on plan titled Bengalla Mine EPL Monitoring Points Water Figure 1* dated Rev D dated 02/08/2016. EPA Reference DOC16/445347																												
2	Tributary Monitoring Point		Downstream of Discharge Point 1 in Dry Creek shown as point EPA02 on plan titled Bengalla Mine EPL Monitoring Points Water Figure 1* dated Rev D dated 02/08/2016. EPA Reference DOC16/445347																												
	P 1.4	The following points referred to in the table below are identified in this licence for the purposes of weather and/or noise monitoring and/or setting limits for the emission of noise from the premises.	Noted	Noted																											
		<table border="1"> <thead> <tr> <th colspan="3">Noise</th> </tr> <tr> <th>EPA Identification no.</th> <th>Type of monitoring point</th> <th>Location description</th> </tr> </thead> <tbody> <tr> <td>6</td> <td>Meteorological Station</td> <td>Location identified as 'W1' in plan titled 'Bengalla Mine EPL Monitoring Points - Water- Figure 1', Rev D dated 02/08/2016 EPA reference DOC16/445347</td> </tr> <tr> <td>7</td> <td>Noise monitoring</td> <td>Location identified as 'AN01' (EPA 7) in plan titled 'Bengalla Mine - Bengalla Compliance Acoustic Monitoring Network - Figure 1', version 09/09/2016, EPA reference DOC16/456893</td> </tr> <tr> <td>8</td> <td>Noise monitoring</td> <td>Location identified as 'AN03' (EPA 8) in plan titled 'Bengalla Mine Bengalla Compliance Acoustic Monitoring Network Figure 1' Version 09/09/2016 EPA Reference DOC16/456893</td> </tr> <tr> <td>9</td> <td>Noise monitoring</td> <td>Location identified as 'AN04' (EPA9) in plan titled in plan titled 'Bengalla Mine Bengalla Compliance Acoustic Monitoring Network Figure 1' Version 09/09/2016 EPA Reference DOC16/456893</td> </tr> <tr> <td>12</td> <td>Air blast overpressure & ground vibration peak particle velocity monitoring</td> <td>Blast monitoring point identified as 'MRE (EPA 12)' in plan titled in plan titled 'Bengalla Mine Bengalla Compliance Acoustic Monitoring Network Figure 1' Version 09/09/2016 EPA Reference DOC16/456893</td> </tr> <tr> <td>19</td> <td>Air blast overpressure & ground vibration peak particle velocity monitoring</td> <td>Blast monitoring point identified as 'SCH (EPA 19)' in plan titled in plan titled 'Bengalla Mine Bengalla Compliance Acoustic Monitoring Network Figure 1' Version 09/09/2016 EPA Reference DOC16/456893</td> </tr> </tbody> </table>						Noise			EPA Identification no.	Type of monitoring point	Location description	6	Meteorological Station	Location identified as 'W1' in plan titled 'Bengalla Mine EPL Monitoring Points - Water- Figure 1', Rev D dated 02/08/2016 EPA reference DOC16/445347	7	Noise monitoring	Location identified as 'AN01' (EPA 7) in plan titled 'Bengalla Mine - Bengalla Compliance Acoustic Monitoring Network - Figure 1', version 09/09/2016, EPA reference DOC16/456893	8	Noise monitoring	Location identified as 'AN03' (EPA 8) in plan titled 'Bengalla Mine Bengalla Compliance Acoustic Monitoring Network Figure 1' Version 09/09/2016 EPA Reference DOC16/456893	9	Noise monitoring	Location identified as 'AN04' (EPA9) in plan titled in plan titled 'Bengalla Mine Bengalla Compliance Acoustic Monitoring Network Figure 1' Version 09/09/2016 EPA Reference DOC16/456893	12	Air blast overpressure & ground vibration peak particle velocity monitoring	Blast monitoring point identified as 'MRE (EPA 12)' in plan titled in plan titled 'Bengalla Mine Bengalla Compliance Acoustic Monitoring Network Figure 1' Version 09/09/2016 EPA Reference DOC16/456893	19	Air blast overpressure & ground vibration peak particle velocity monitoring	Blast monitoring point identified as 'SCH (EPA 19)' in plan titled in plan titled 'Bengalla Mine Bengalla Compliance Acoustic Monitoring Network Figure 1' Version 09/09/2016 EPA Reference DOC16/456893
Noise																															
EPA Identification no.	Type of monitoring point	Location description																													
6	Meteorological Station	Location identified as 'W1' in plan titled 'Bengalla Mine EPL Monitoring Points - Water- Figure 1', Rev D dated 02/08/2016 EPA reference DOC16/445347																													
7	Noise monitoring	Location identified as 'AN01' (EPA 7) in plan titled 'Bengalla Mine - Bengalla Compliance Acoustic Monitoring Network - Figure 1', version 09/09/2016, EPA reference DOC16/456893																													
8	Noise monitoring	Location identified as 'AN03' (EPA 8) in plan titled 'Bengalla Mine Bengalla Compliance Acoustic Monitoring Network Figure 1' Version 09/09/2016 EPA Reference DOC16/456893																													
9	Noise monitoring	Location identified as 'AN04' (EPA9) in plan titled in plan titled 'Bengalla Mine Bengalla Compliance Acoustic Monitoring Network Figure 1' Version 09/09/2016 EPA Reference DOC16/456893																													
12	Air blast overpressure & ground vibration peak particle velocity monitoring	Blast monitoring point identified as 'MRE (EPA 12)' in plan titled in plan titled 'Bengalla Mine Bengalla Compliance Acoustic Monitoring Network Figure 1' Version 09/09/2016 EPA Reference DOC16/456893																													
19	Air blast overpressure & ground vibration peak particle velocity monitoring	Blast monitoring point identified as 'SCH (EPA 19)' in plan titled in plan titled 'Bengalla Mine Bengalla Compliance Acoustic Monitoring Network Figure 1' Version 09/09/2016 EPA Reference DOC16/456893																													
		<table border="1"> <tbody> <tr> <td>20</td> <td>Air blast overpressure & ground vibration peak particle velocity monitoring</td> <td>Blast monitoring point identified as 'BLK (EPA 20)' in plan titled 'Bengalla Mine Bengalla Compliance Acoustic Monitoring Network Figure 1' Version 09/09/2016 EPA Reference DOC16/456893d</td> </tr> <tr> <td>21</td> <td>Meteorological Station -- to determine meteorological conditions for noise monitoring</td> <td>Temperature Inversion tower (E 269298 N 6425224) identified as W2 in plan titled 'Bengalla Compliance Acoustic Monitoring Network Figure 1' Version 09/09/2016 EPA Reference DOC16/456893</td> </tr> </tbody> </table>	20	Air blast overpressure & ground vibration peak particle velocity monitoring	Blast monitoring point identified as 'BLK (EPA 20)' in plan titled 'Bengalla Mine Bengalla Compliance Acoustic Monitoring Network Figure 1' Version 09/09/2016 EPA Reference DOC16/456893d	21	Meteorological Station -- to determine meteorological conditions for noise monitoring	Temperature Inversion tower (E 269298 N 6425224) identified as W2 in plan titled 'Bengalla Compliance Acoustic Monitoring Network Figure 1' Version 09/09/2016 EPA Reference DOC16/456893																							
20	Air blast overpressure & ground vibration peak particle velocity monitoring	Blast monitoring point identified as 'BLK (EPA 20)' in plan titled 'Bengalla Mine Bengalla Compliance Acoustic Monitoring Network Figure 1' Version 09/09/2016 EPA Reference DOC16/456893d																													
21	Meteorological Station -- to determine meteorological conditions for noise monitoring	Temperature Inversion tower (E 269298 N 6425224) identified as W2 in plan titled 'Bengalla Compliance Acoustic Monitoring Network Figure 1' Version 09/09/2016 EPA Reference DOC16/456893																													
3 - Limit Conditions																															
L1 - Pollution of waters																															
	L 1.1	Except as may be expressly provided in any other condition of this licence, the licensee must comply with section 120 of the Protection of the Environment Operations Act 1997.	Windmill Dam overtopping incident breached the POEO Act.	Not Compliant	C	3	Medium																								
L2 - Concentration limits																															
	L 2.1	For each monitoring/discharge point or utilisation area specified in the table(s) below (by a point number), the concentration of a pollutant discharged at that point, or applied to that area, must not exceed the concentration limits specified for that pollutant in the table.																													
	L 2.2	Where a pH quality limit is specified in the table, the specified percentage of samples must be within the specified ranges.																													
	L 2.3	To avoid any doubt, this condition does not authorise the pollution of waters by any pollutant other than those specified in the table(s).	Noted	Noted																											

Reference	Condition	Requirement	Evidence	Audit Finding	Risk																																					
					Consequence	Likelihood	Risk																																			
Environment Protection Licence 6538																																										
	L 2.4	Water and/or Land Concentration Limits <table border="1"> <thead> <tr> <th colspan="4">POINT 1</th> </tr> <tr> <th>Pollutant</th> <th>Units of Measure</th> <th></th> <th>100 percentile concentration limit</th> </tr> </thead> <tbody> <tr> <td>pH</td> <td>pH</td> <td></td> <td>6.5-9.5</td> </tr> <tr> <td>Total suspended solids</td> <td>milligrams per litre</td> <td></td> <td>120</td> </tr> </tbody> </table>	POINT 1				Pollutant	Units of Measure		100 percentile concentration limit	pH	pH		6.5-9.5	Total suspended solids	milligrams per litre		120	No discharges at this point in the audit period	Not Triggered																						
POINT 1																																										
Pollutant	Units of Measure		100 percentile concentration limit																																							
pH	pH		6.5-9.5																																							
Total suspended solids	milligrams per litre		120																																							
L3 - Volume and mass limits																																										
	L 3.1	For each discharge point or utilisation area specified below (by a point number), the volume/mass of:																																								
	(a)	liquids discharged to water; or;																																								
	(b)	solids or liquids applied to the area;																																								
		must not exceed the volume/mass limit specified for that discharge point or area.	No discharges at this point in the audit period	Not Triggered																																						
		<table border="1"> <thead> <tr> <th>Point</th> <th>Unit of Measure</th> <th>Volume/Mass Limit</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>megalitres per day</td> <td>200</td> </tr> </tbody> </table>	Point	Unit of Measure	Volume/Mass Limit	1	megalitres per day	200																																		
Point	Unit of Measure	Volume/Mass Limit																																								
1	megalitres per day	200																																								
L4 - Noise limits																																										
	L 4.1	Noise generated at the premises that is measured at each noise monitoring point established under this licence must not exceed the noise levels specified in Column 4 of the table below for that point during the corresponding time periods specified in Column 1 when measured using the corresponding measurement parameters listed in Column 2.																																								
		<table border="1"> <thead> <tr> <th colspan="4">POINT 7.9</th> </tr> <tr> <th>Time period</th> <th>Measurement parameter</th> <th>Measurement frequency</th> <th>Noise level dB(A)</th> </tr> </thead> <tbody> <tr> <td>Night</td> <td>Night-LAeq (15 minute)</td> <td>Monthly</td> <td>35</td> </tr> </tbody> </table>	POINT 7.9				Time period	Measurement parameter	Measurement frequency	Noise level dB(A)	Night	Night-LAeq (15 minute)	Monthly	35	One exceedance in October 2016.	Not Compliant	D	2	Medium																							
POINT 7.9																																										
Time period	Measurement parameter	Measurement frequency	Noise level dB(A)																																							
Night	Night-LAeq (15 minute)	Monthly	35																																							
		<table border="1"> <thead> <tr> <th colspan="4">POINT 8</th> </tr> <tr> <th>Time period</th> <th>Measurement parameter</th> <th>Measurement frequency</th> <th>Noise level dB(A)</th> </tr> </thead> <tbody> <tr> <td>Night</td> <td>LAeq (15 minute)</td> <td>Monthly</td> <td>40</td> </tr> </tbody> </table>	POINT 8				Time period	Measurement parameter	Measurement frequency	Noise level dB(A)	Night	LAeq (15 minute)	Monthly	40	None in the audit period.	Compliant																										
POINT 8																																										
Time period	Measurement parameter	Measurement frequency	Noise level dB(A)																																							
Night	LAeq (15 minute)	Monthly	40																																							
	L 4.2	Noise generated at the premises that is measured at each noise monitoring point established under this licence must not exceed the noise levels specified in Column 4 of the table below for that point during the corresponding time periods specified in Column 1 when measured using the corresponding measurement parameters listed in Column 2.																																								
		<table border="1"> <thead> <tr> <th>Location</th> <th>Day LAeq(15min)</th> <th>Evening LAeq(15min)</th> <th>Night LAeq (15min)</th> <th>Night LA1 (1min)</th> </tr> </thead> <tbody> <tr> <td>109, 110, 156, 161</td> <td>40</td> <td>40</td> <td>40</td> <td>45</td> </tr> <tr> <td>105, 108</td> <td>39</td> <td>39</td> <td>39</td> <td>45</td> </tr> <tr> <td>27, 109</td> <td>39</td> <td>39</td> <td>35</td> <td>45</td> </tr> <tr> <td>105, 120</td> <td>38</td> <td>38</td> <td>38</td> <td>45</td> </tr> </tbody> </table>	Location	Day LAeq(15min)	Evening LAeq(15min)	Night LAeq (15min)	Night LA1 (1min)	109, 110, 156, 161	40	40	40	45	105, 108	39	39	39	45	27, 109	39	39	35	45	105, 120	38	38	38	45															
Location	Day LAeq(15min)	Evening LAeq(15min)	Night LAeq (15min)	Night LA1 (1min)																																						
109, 110, 156, 161	40	40	40	45																																						
105, 108	39	39	39	45																																						
27, 109	39	39	35	45																																						
105, 120	38	38	38	45																																						
		<table border="1"> <tbody> <tr> <td>22, 23, 24, 25, 26, 43, 44</td> <td>38</td> <td>38</td> <td>35</td> <td>45</td> </tr> <tr> <td>167</td> <td>38</td> <td>38</td> <td>35</td> <td>45</td> </tr> <tr> <td>19, 04, 66</td> <td>38</td> <td>37</td> <td>39</td> <td>45</td> </tr> <tr> <td>180, 184, 188</td> <td>37</td> <td>37</td> <td>35</td> <td>45</td> </tr> <tr> <td>148</td> <td>37</td> <td>37</td> <td>37</td> <td>45</td> </tr> <tr> <td>102, 130, 145, 189</td> <td>36</td> <td>36</td> <td>36</td> <td>45</td> </tr> <tr> <td>All other privately-owned residences</td> <td>35</td> <td>35</td> <td>35</td> <td>45</td> </tr> </tbody> </table>	22, 23, 24, 25, 26, 43, 44	38	38	35	45	167	38	38	35	45	19, 04, 66	38	37	39	45	180, 184, 188	37	37	35	45	148	37	37	37	45	102, 130, 145, 189	36	36	36	45	All other privately-owned residences	35	35	35	45	One exceedance in October 2016 at AN04, which impacted privately owned properties on Racecourse Road.	Not Compliant	D	2	Medium
22, 23, 24, 25, 26, 43, 44	38	38	35	45																																						
167	38	38	35	45																																						
19, 04, 66	38	37	39	45																																						
180, 184, 188	37	37	35	45																																						
148	37	37	37	45																																						
102, 130, 145, 189	36	36	36	45																																						
All other privately-owned residences	35	35	35	45																																						

Reference	Condition	Requirement	Evidence	Audit Finding	Risk		
					Consequence	Likelihood	Risk
Environment Protection Licence 6538							
		The limits in the noise table above do not apply if the licensee has an approved written agreement with the relevant land owner(s) of these residences to generated high noise levels. The limits do not apply to residences owned by the proponent.	Noted	Noted			
	L 4.3	For the purpose of Conditions L4.1 and L4.2:					
	(a)	Day is defined as the period from 7am to 6pm Monday to Saturday and 8am to 6pm Sundays and Public Holidays.	Noted	Noted			
	(b)	Evening is defined as the period from 6pm to 10pm	Noted	Noted			
	(c)	Night is defined as the period from 10pm to 7am Monday to Saturday and 10pm to 8am Sundays and Public Holidays	Noted	Noted			
	(d)	LAeq(15minute) is defined as the equivalent continuous 'A' weighted sound pressure level- the energy average of the noise measured over a 15 minute period.	Noted	Noted			
	(e)	LA1 (1 minute) is defined as the sound pressure level exceeded for one percent of a 1 minute measurement period.	Noted	Noted			
	L 4.4	The noise emission limits identified in this licence apply under all meteorological conditions except for the following:					
	(a)	Wind speeds greater than 3m/s at 10 metres above ground level; or	Noted	Noted			
	(b)	Temperature inversion conditions between 1.5 degrees celcius and 3 degrees celcius/100m and wind speeds greater than 2m/s at 10m above ground level; or	Noted	Noted			
	(c)	Temperature inversion conditions greater than 3 degrees celcius/100m.	Noted	Noted			
	L 4.5	For the purpose of condition L4.4:					
	(a)	Data recorded from the meteorological station and inversion tower identified as EPA Licence Point 6 and 21 must be used to determine the meteorological conditions; and	Noted	Noted			
	(b)	Temperature inversion conditions (vertical temperature gradient in degrees celcius are to be determined by direct measurement over a minimum 50m height interval as referred to in Part E2 of Appendix E to the NSW Industrial Noise Policy.	Noted	Noted			
	L 4.6	For the purposes of the noise limits in this licence the 'night' period is defined as 10pm to 7am Monday to Saturday and 10pm to 8am Sundays and Public Holiday, however night time noise monitoring can be conducted from 9pm onwards but must be assessed against the night time criteria provided in this licence.	Noted	Noted			
L5 - Blasting							
	L 5.1	The airblast overpressure level from blasting operations in or on the premises must not exceed: 115 dB (Lin Peak) for more than 5% of the total number of blasts during each reporting period; at either monitoring point 12, 19 or 20 in Condition P1.4.	115dBA not exceed for more than 5% of blasts for the reporting periods across the audit period	Compliant			
	L 5.2	The airblast overpressure level from blasting operations in or on the premises must not exceed: 120 dB (Lin Peak) at any time; at either monitoring point 12, 19 or 20 in Condition P1.4.	120dBA not exceeded in the audit period	Compliant			
	L 5.3	The ground vibration peak particle velocity from blasting operations carried out in or on the premises must not exceed: 5 mm/second for more than 5% of the total number of blasts during each reporting period; at either monitoring point 12, 19 or 20 in Condition P1.4.	No exceedence of 5mm/s in the audit period	Compliant			
	L 5.4	The ground vibration peak particle velocity from blasting operations carried out in or on the premises must not exceed: 10 mm/second at any time; at either monitoring point 12, 19 or 20 in Condition P1.4.	No exceedence fo 10mm/s in the audit period.	Compliant			
	L 5.5	Offensive blast fume must not be emitted from the premises.	One \blast fume incident in the audit period, but fume did not leve the site	Compliant			
		<i>Definition: Offensive blast fume means post-blast gases from the detonation of explosives at the premises that by reason of their nature, duration, character or quality, or the time at which they are emitted, or any other circumstances: 1. are harmful to (or likely to be harmful to) a person that is outside the premises from which it is emitted, or 2. interferes unreasonably with (or is likely to interfere unreasonably with) the comfort or repose of a person who is outside the premises from which it is emitted.</i>	Noted	Noted			

Reference	Condition	Requirement	Evidence	Audit Finding	Risk										
					Consequence	Likelihood	Risk								
Environment Protection Licence 6538															
4 - Operating Conditions															
O1 - Activities must be carried out in a competent manner															
	O1.1	Licensed activities must be carried out in a competent manner.													
		This includes:													
	(a)	the processing, handling, movement and storage of materials and substances used to carry out the activity; and	No issues identified in the site inspection or document review.	Compliant											
	(b)	the treatment, storage, processing, reprocessing, transport and disposal of waste generated by the activity.	No issues identified in the site inspection or document review.	Compliant											
	O 2.1	All plant and equipment installed at the premises or used in connection with the licensed activity:													
	(a)	must be maintained in a proper and efficient condition; and	No issues identified in the site inspection or document review.	Compliant											
	(b)	must be operated in a proper and efficient manner.	Several instances of air quality data loss across the audit period attributed to incorrect programming of monitoring equipment	Not Compliant	D	2	Medium								
	O 3.1	The premises must be maintained in a condition which minimises or prevents the emission of dust from the premises.	The site was generally acceptably maintained for controlling dust.	Compliant											
5 - Monitoring and Recording Conditions															
M1 - Monitoring records															
	M 1.1	The results of any monitoring required to be conducted by this licence or a load calculation protocol must be recorded and retained as set out in this condition.													
	M 1.2	All records required to be kept by this licence must be:													
	(a)	in a legible form, or in a form that can readily be reduced to a legible form;	Monitoring results provided as evidence for the audit were consistent with these requirements	Compliant											
	(b)	kept for at least 4 years after the monitoring or event to which they relate took place; and	Monitoring results provided as evidence for the audit were consistent with these requirements	Compliant											
	(c)	produced in a legible form to any authorised officer of the EPA who asks to see them.	Has not been requested in the audit period	Not Triggered											
	M 1.3	The following records must be kept in respect of any samples required to be collected for the purposes of this licence:													
	(a)	the date(s) on which the sample was taken;	Monitoring results provided as evidence for the audit were consistent with these requirements	Compliant											
	(b)	the time(s) at which the sample was collected;	Monitoring results provided as evidence for the audit were consistent with these requirements	Compliant											
	(c)	the point at which the sample was taken; and	Monitoring results provided as evidence for the audit were consistent with these requirements	Compliant											
	(d)	the name of the person who collected the sample.	Monitoring results provided as evidence for the audit were consistent with these requirements	Compliant											
M2 - Requirement to monitor concentration of pollutants															
	M 2.1	For each monitoring/discharge point or utilisation area specified below (by a point number), the licensee must monitor (by sampling and obtaining results by analysis) the concentration of each pollutant specified in Column 1. The licensee must use the sampling method, units of measure, and sample at the frequency, specified opposite in the other columns:	Noted	Noted											
	M 2.2	Air Monitoring Requirements													
		POINT 3 <table border="1"> <thead> <tr> <th>Pollutant</th> <th>Units of measure</th> <th>Frequency</th> <th>Sampling Method</th> </tr> </thead> <tbody> <tr> <td>Total suspended particles</td> <td>micrograms per cubic metre</td> <td>Every 6 days</td> <td>AM-15</td> </tr> </tbody> </table>	Pollutant	Units of measure	Frequency	Sampling Method	Total suspended particles	micrograms per cubic metre	Every 6 days	AM-15	Annual Review 2013, 2014, 2015 and Monthly Monitoring Reports	Compliant			
Pollutant	Units of measure	Frequency	Sampling Method												
Total suspended particles	micrograms per cubic metre	Every 6 days	AM-15												
	Point 4 <table border="1"> <thead> <tr> <th>Pollutant</th> <th>Units of measure</th> <th>Frequency</th> <th>Sampling Method</th> </tr> </thead> <tbody> <tr> <td>PM10</td> <td>micrograms per cubic metre</td> <td>Every 6 days</td> <td>AM-16</td> </tr> </tbody> </table>	Pollutant	Units of measure	Frequency	Sampling Method	PM10	micrograms per cubic metre	Every 6 days	AM-16						
Pollutant	Units of measure	Frequency	Sampling Method												
PM10	micrograms per cubic metre	Every 6 days	AM-16												
	POINT 5 <table border="1"> <thead> <tr> <th>Pollutant</th> <th>Units of measure</th> <th>Frequency</th> <th>Sampling Method</th> </tr> </thead> <tbody> <tr> <td>Particulates - Deposited Matter</td> <td>grams per square metre per month</td> <td>Once a month (min. of 4 weeks)</td> <td>AM-19</td> </tr> </tbody> </table>	Pollutant	Units of measure	Frequency	Sampling Method	Particulates - Deposited Matter	grams per square metre per month	Once a month (min. of 4 weeks)	AM-19						
Pollutant	Units of measure	Frequency	Sampling Method												
Particulates - Deposited Matter	grams per square metre per month	Once a month (min. of 4 weeks)	AM-19												

Reference	Condition	Requirement	Evidence	Audit Finding	Risk																																					
					Consequence	Likelihood	Risk																																			
Environment Protection Licence 6538																																										
	M 2.3	Water and/ or Land Monitoring Requirements																																								
		<p>POINT 1</p> <table border="1"> <thead> <tr> <th>Pollutant</th> <th>Units of measure</th> <th>Frequency</th> <th>Sampling Method</th> </tr> </thead> <tbody> <tr> <td>Conductivity</td> <td>microsiemens per centimetre</td> <td>Continuous during discharge</td> <td>A probe designed to measure the range 0 to 10,000 uS/cm</td> </tr> <tr> <td>pH</td> <td>pH</td> <td>Daily during any discharge</td> <td>Grab sample</td> </tr> <tr> <td>TSS</td> <td>milligrams per litre</td> <td>Daily during any discharge</td> <td>Grab sample</td> </tr> </tbody> </table> <p>POINT 2</p> <table border="1"> <thead> <tr> <th>Pollutant</th> <th>Units of measure</th> <th>Frequency</th> <th>Sampling Method</th> </tr> </thead> <tbody> <tr> <td>Conductivity</td> <td>microsiemens per centimetre</td> <td>2 times daily during discharge</td> <td>A probe designed to measure the range 0 to 10,000 uS/cm</td> </tr> </tbody> </table>	Pollutant	Units of measure	Frequency	Sampling Method	Conductivity	microsiemens per centimetre	Continuous during discharge	A probe designed to measure the range 0 to 10,000 uS/cm	pH	pH	Daily during any discharge	Grab sample	TSS	milligrams per litre	Daily during any discharge	Grab sample	Pollutant	Units of measure	Frequency	Sampling Method	Conductivity	microsiemens per centimetre	2 times daily during discharge	A probe designed to measure the range 0 to 10,000 uS/cm	These samples were collected as required across the audit period	Compliant														
Pollutant	Units of measure	Frequency	Sampling Method																																							
Conductivity	microsiemens per centimetre	Continuous during discharge	A probe designed to measure the range 0 to 10,000 uS/cm																																							
pH	pH	Daily during any discharge	Grab sample																																							
TSS	milligrams per litre	Daily during any discharge	Grab sample																																							
Pollutant	Units of measure	Frequency	Sampling Method																																							
Conductivity	microsiemens per centimetre	2 times daily during discharge	A probe designed to measure the range 0 to 10,000 uS/cm																																							
M3 - Testing methods - concentration limits																																										
	M 3.1	Monitoring for the concentration of a pollutant emitted to the air required to be conducted by this licence must be done in accordance with:																																								
	(a)	any methodology which is required by or under the Act to be used for the testing of the concentration of the pollutant; or	Air quality monitoring reports (AECOM) quote these references and state the monitoring programs compliance over the audit period.	Compliant																																						
	(b)	if no such requirement is imposed by or under the Act, any methodology which a condition of this licence requires to be used for that testing; or	Not required	Not Triggered																																						
	(c)	if no such requirement is imposed by or under the Act or by a condition of this licence, any methodology approved in writing by the EPA for the purposes of that testing prior to the testing taking place.	Not required	Not Triggered																																						
		<i>Note: The Protection of the Environment Operations (Clean Air) Regulation 2010 requires testing for certain purposes to be conducted in accordance with test methods contained in the publication "Approved Methods for the Sampling and Analysis of Air Pollutants in NSW".</i>	Noted	Noted																																						
	M 3.2	Subject to any express provision to the contrary in this licence, monitoring for the concentration of a pollutant discharged to waters or applied to a utilisation area must be done in accordance with the Approved Methods Publication unless another method has been approved by the EPA in writing before any tests are conducted.	Noted, no licenced discharges in the audit period	Not Triggered																																						
M4 - Weather monitoring																																										
	M 4.1	At Point 6 and/or Point 21, the licensee must monitor (by sampling and obtaining results by analysis) the parameters specified in Column 1 of the table below, using the corresponding sampling method, units of measure, averaging period and sampling frequency, specified opposite in the columns 2,3,4 and 5.																																								
		<table border="1"> <thead> <tr> <th>Parameter</th> <th>Sampling Method</th> <th>Unit of Measure</th> <th>Averaging Period</th> <th>Frequency</th> </tr> </thead> <tbody> <tr> <td>Air Temperature</td> <td>AM-4</td> <td>degrees celcius</td> <td>1 hour</td> <td>Continuous</td> </tr> <tr> <td>Wind Direction</td> <td>AM-2 & AM-4</td> <td>degrees</td> <td>15 minute</td> <td>Continuous</td> </tr> <tr> <td>Wind Speed</td> <td>AM-2 & AM-4</td> <td>metres per second</td> <td>15 minute</td> <td>Continuous</td> </tr> <tr> <td>Temperature Lapse Rate</td> <td>Part E2 Appendix E of the NSW Industrial Noise Policy</td> <td>degrees</td> <td>15 minute</td> <td>Continuous</td> </tr> <tr> <td>Rainfall</td> <td>AM-4</td> <td>millimetres</td> <td>15 minute</td> <td>Continuous</td> </tr> <tr> <td>Relative Humidity</td> <td>AM-4</td> <td>percentage</td> <td>1 hour</td> <td>Continuous</td> </tr> </tbody> </table>	Parameter	Sampling Method	Unit of Measure	Averaging Period	Frequency	Air Temperature	AM-4	degrees celcius	1 hour	Continuous	Wind Direction	AM-2 & AM-4	degrees	15 minute	Continuous	Wind Speed	AM-2 & AM-4	metres per second	15 minute	Continuous	Temperature Lapse Rate	Part E2 Appendix E of the NSW Industrial Noise Policy	degrees	15 minute	Continuous	Rainfall	AM-4	millimetres	15 minute	Continuous	Relative Humidity	AM-4	percentage	1 hour	Continuous	Weather data was presented in the AR for these two points.	Compliant			
Parameter	Sampling Method	Unit of Measure	Averaging Period	Frequency																																						
Air Temperature	AM-4	degrees celcius	1 hour	Continuous																																						
Wind Direction	AM-2 & AM-4	degrees	15 minute	Continuous																																						
Wind Speed	AM-2 & AM-4	metres per second	15 minute	Continuous																																						
Temperature Lapse Rate	Part E2 Appendix E of the NSW Industrial Noise Policy	degrees	15 minute	Continuous																																						
Rainfall	AM-4	millimetres	15 minute	Continuous																																						
Relative Humidity	AM-4	percentage	1 hour	Continuous																																						
M5 - Recording of pollution complaints																																										
		The licensee must keep a legible record of all complaints made to the licensee or any employee or agent of the licensee in relation to pollution arising from any activity to which this licence applies.	Reviewed Complaint database																																							

Reference	Condition	Requirement	Evidence	Audit Finding	Risk														
					Consequence	Likelihood	Risk												
Environment Protection Licence 6538																			
		The record must include details of the following:																	
	(a)	the date and time of the complaint;	Reviewed Complaint database, found compliant	Compliant															
	(b)	the method by which the complaint was made;	Reviewed Complaint database, found compliant	Compliant															
	(c)	any personal details of the complainant which were provided by the complainant or, if no such details were provided, a note to that effect;	Reviewed Complaint database, found compliant	Compliant															
	(d)	the nature of the complaint;	Reviewed Complaint database, found compliant	Compliant															
	(e)	the action taken by the licensee in relation to the complaint, including any follow-up contact with the complainant; and	Reviewed Complaint database, found compliant	Compliant															
	(f)	if no action was taken by the licensee, the reasons why no action was taken.	Reviewed Complaint database, found compliant	Compliant															
	M 5.3	The record of a complaint must be kept for at least 4 years after the complaint was made.	Reviewed Complaint database, found compliant	Compliant															
	M 5.4	The record must be produced to any authorised officer of the EPA who asks to see them.	No such requests in the audit period	Compliant															
M6 - Telephone complaints line																			
	M 6.1	The licensee must operate during its operating hours a telephone complaints line for the purpose of receiving any complaints from members of the public in relation to activities conducted at the premises or by the vehicle or mobile plant, unless otherwise specified in the licence.	Tested in site inspection	Compliant															
	M 6.2	The licensee must notify the public of the complaints line telephone number and the fact that it is a complaints line so that the impacted community knows how to make a complaint.	On the website, on the contact us page. Also noted in the community newsletters	Compliant															
	M 6.3	The preceding two conditions do not apply until 3 months after: the date of the issue of this licence.	Noted, not relevant to the audit period	Not Triggered															
M7 - Requirement to monitor volume or mass																			
	M 7.1	For each discharge point or utilisation area specified below, the licensee must monitor:																	
	(a)	the volume of liquids discharged to water or applied to the area;	No licensed discharges in the audit period	Not Triggered															
	(b)	the mass of solids applied to the area;	No licensed discharges in the audit period	Not Triggered															
	(c)	the mass of pollutants emitted to the air;	No licensed discharges in the audit period	Not Triggered															
		at the frequency and using the method and units of measure, specified below.	No licensed discharges in the audit period	Not Triggered															
		<table border="1"> <thead> <tr> <th colspan="3">POINT 1</th> </tr> <tr> <th>Frequency</th> <th>Unit of Measure</th> <th>Sampling Method</th> </tr> </thead> <tbody> <tr> <td>Continuous during discharge</td> <td>megalitres per day</td> <td>Ultrasonic flow meter</td> </tr> </tbody> </table>	POINT 1			Frequency	Unit of Measure	Sampling Method	Continuous during discharge	megalitres per day	Ultrasonic flow meter								
POINT 1																			
Frequency	Unit of Measure	Sampling Method																	
Continuous during discharge	megalitres per day	Ultrasonic flow meter																	
M8 - Blasting																			
		The licensee must monitor all blasts carried out in or on the premises at or near the nearest residence or noise sensitive location (such as a school or hospital) that is likely to be most affected by the blast and that is not owned by the licensee or subject of a private agreement between the owner of the residence or noise sensitive location and the licensee relating to alternative blasting limits.	Noted	Noted															
	M 8.2	To determine compliance with conditions LS.1, LS.2 and LS.3:																	
	(a)	Airblast overpressure and ground vibration levels must be measured and electronically recorded for monitoring points 12, 19 and 20 for the parameters specified in Column 1 of the table below; and	All blasts monitored	Compliant															
	(b)	The licensee must use the units of measure, sampling method, and sample at the frequency specified opposite in the other columns.																	
		<table border="1"> <thead> <tr> <th>Parameter</th> <th>Units of Measure</th> <th>Frequency</th> <th>Sampling Method</th> </tr> </thead> <tbody> <tr> <td>Airblast Overpressure</td> <td>Decibels (Linear Peak)</td> <td>All blasts</td> <td>Australian Standard AS 2187.2-2006</td> </tr> <tr> <td>Ground Vibration Peak Velocity</td> <td>millimetres per second</td> <td>All blasts</td> <td>Australian Standard AS 2187.2-2006</td> </tr> </tbody> </table>	Parameter	Units of Measure	Frequency	Sampling Method	Airblast Overpressure	Decibels (Linear Peak)	All blasts	Australian Standard AS 2187.2-2006	Ground Vibration Peak Velocity	millimetres per second	All blasts	Australian Standard AS 2187.2-2006	Units in compliance with these requirements	Compliant			
Parameter	Units of Measure	Frequency	Sampling Method																
Airblast Overpressure	Decibels (Linear Peak)	All blasts	Australian Standard AS 2187.2-2006																
Ground Vibration Peak Velocity	millimetres per second	All blasts	Australian Standard AS 2187.2-2006																

Reference	Condition	Requirement	Evidence	Audit Finding	Risk										
					Consequence	Likelihood	Risk								
Environment Protection Licence 6538															
M9 - Other monitoring and recording conditions															
	M 9.1	HRSTS Monitoring The licensee must continuously operate and maintain communication equipment which makes the conductivity and flow measurements, taken at Point 1 available to the "Service provider" within one hour of those measurements being taken and makes them available in the format specified in the "Hunter River Salinity Trading Scheme Discharge Point Site Equipment" as published by the Department of Land and Water Conservation on 7 May 2002.	Noted	Noted											
	M 9.2	The licensee must ensure that the results of the measurements it takes at the tributary monitoring points are available to the regional water quality monitoring network operated by the service provider within 1 hour of its recording.	No licensed discharges in the audit period	Not Triggered											
	M 9.3	The licensee must ensure that all monitoring data is within a margin of error of 5% for conductivity measurements and 10% for discharge flow measurement.	No licensed discharges in the audit period	Not Triggered											
	M 9.4	The licensee must mark monitoring point(s) 1 & 2, with a sign which clearly indicates the name of the licensee, whether the monitoring point is up or down stream of the discharge point(s) and that it is a monitoring point for the Hunter River Salinity Trading Scheme.	Signs were not sighted this audit, they were verified in previous audits and photos were provided.	Compliant											
M10 - Noise monitoring															
	M 10.1	To assess compliance with the noise limits specified within this licence, the licensee must undertake operator attended noise monitoring at each specified noise monitoring point in accordance with the table below.													
		<p>POINT 7.8.9</p> <table border="1"> <thead> <tr> <th>Assessment period</th> <th>Minimum frequency in a reporting period</th> <th>Minimum duration within assessment period</th> <th>Minimum number of assessment period</th> </tr> </thead> <tbody> <tr> <td>Night</td> <td>Monthly</td> <td>15 minutes</td> <td>1 operation day</td> </tr> </tbody> </table>	Assessment period	Minimum frequency in a reporting period	Minimum duration within assessment period	Minimum number of assessment period	Night	Monthly	15 minutes	1 operation day	Noise monitoring reports submitted as evidence, attended noise monitoring reported in the Annual Reviews.	Compliant			
Assessment period	Minimum frequency in a reporting period	Minimum duration within assessment period	Minimum number of assessment period												
Night	Monthly	15 minutes	1 operation day												
6 - Reporting Conditions															
R1 - Annual return documents															
	R 1.1	The licensee must complete and supply to the EPA an Annual Return in the approved form comprising:	Annual Returns for the audit period submitted as evidence												
		1. a Statement of Compliance,	Annual Returns for the audit period submitted as evidence	Compliant											
		2. a Monitoring and Complaints Summary,	Annual Returns for the audit period submitted as evidence	Compliant											
		3. a Statement of Compliance - Licence Conditions,	Annual Returns for the audit period submitted as evidence	Compliant											
		4. a Statement of Compliance - Load based Fee,	Annual Returns for the audit period submitted as evidence	Compliant											
		5. a Statement of Compliance - Requirement to Prepare Pollution Incident Response Management Plan,	Annual Returns for the audit period submitted as evidence	Compliant											
		6. a Statement of Compliance - Requirement to Publish Pollution Monitoring Data; and	Annual Returns for the audit period submitted as evidence	Compliant											
		7. a Statement of Compliance - Environmental Management Systems and Practices.	Annual Returns for the audit period submitted as evidence	Compliant											
		At the end of each reporting period, the EPA will provide to the licensee a copy of the form that must be completed and returned to the EPA.	Noted	Noted											
	R 1.2	An Annual Return must be prepared in respect of each reporting period, except as provided below. Note: The term "reporting period" is defined in the dictionary at the end of this licence. Do not complete the Annual Return until after the end of the reporting period.	Noted	Noted											
	R 1.3	Where this licence is transferred from the licensee to a new licensee:	Not in the audit period	Not Triggered											
	(a)	the transferring licensee must prepare an Annual Return for the period commencing on the first day of the reporting period and ending on the date the application for the transfer of the licence to the new licensee is granted; and	Not in the audit period	Not Triggered											
	(b)	the new licensee must prepare an Annual Return for the period commencing on the date the application for the transfer of the licence is granted and ending on the last day of the reporting period.	Not in the audit period	Not Triggered											
		Note: An application to transfer a licence must be made in the approved form for this purpose.	Noted	Noted											
	R 1.4	Where this licence is surrendered by the licensee or revoked by the EPA or Minister, the licensee must prepare an Annual Return in respect of the period commencing on the first day of the reporting period and ending on:	Not in the audit period	Not Triggered											
	(a)	in relation to the surrender of a licence - the date when notice in writing of approval of the surrender is given; or	Not in the audit period	Not Triggered											
	(b)	in relation to the revocation of the licence - the date from which notice revoking the licence operates.	Not in the audit period	Not Triggered											

Reference	Condition	Requirement	Evidence	Audit Finding	Risk		
					Consequence	Likelihood	Risk
Environment Protection Licence 6538							
	R 1.5	The Annual Return for the reporting period must be supplied to the EPA via eConnect EPA or by registered post not later than 60 days after the end of each reporting period or in the case of a transferring licence not later than 60 days after the date the transfer was granted (the 'due date').	Not in the audit period	Not Triggered			
	R 1.6	The licensee must retain a copy of the Annual Return supplied to the EPA for a period of at least 4 years after the Annual Return was due to be supplied to the EPA.	Records were provided that were for the 4 years back period.	Compliant			
	R 1.7	Within the Annual Return, the Statements of Compliance must be certified and the Monitoring and Complaints Summary must be signed by:	Statements of Compliance were signed.	Compliant			
	(a)	the licence holder; or	The Ars were signed by appropriate site representatives	Compliant			
	(b)	by a person approved in writing by the EPA to sign on behalf of the licence holder.	Not required	Noted			
R2 - Notification of environmental harm							
		<i>Note: The licensee or its employees must notify all relevant authorities of incidents causing or threatening material harm to the environment immediately after the person becomes aware of the incident in accordance with the requirements of Part 5.7 of the Act.</i>	All incident reporting in the Audit period has been compliant	Compliant			
	R 2.1	Notifications must be made by telephoning the Environment Line service on 131 555.	Noted	Noted			
	R 2.2	The licensee must provide written details of the notification to the EPA within 7 days of the date on which the incident occurred.	All incident reporting in the Audit period has been compliant	Compliant			
R3 - Written report							
	R 3.1	Where an authorised officer of the EPA suspects on reasonable grounds that:					
	(a)	where this licence applies to premises, an event has occurred at the premises; or	All incident reporting in the Audit period has been compliant	Compliant			
	(b)	where this licence applies to vehicles or mobile plant, an event has occurred in connection with the carrying out of the activities authorised by this licence, and the event has caused, is causing or is likely to cause material harm to the environment (whether the harm occurs on or off premises to which the licence applies), the authorised officer may request a written report of the event.	Noted	Noted			
	R 3.2	The licensee must make all reasonable inquiries in relation to the event and supply the report to the EPA within such time as may be specified in the request.	All incident reporting in the Audit period has been compliant	Compliant			
	R 3.3	The request may require a report which includes any or all of the following information:					
	(a)	the cause, time and duration of the event;	All incident reporting in the Audit period has been compliant	Compliant			
	(b)	the type, volume and concentration of every pollutant discharged as a result of the event;	All incident reporting in the Audit period has been compliant	Compliant			
	(c)	the name, address and business hours telephone number of employees or agents of the licensee, or a specified class of them, who witnessed the event;	All incident reporting in the Audit period has been compliant	Compliant			
	(d)	the name, address and business hours telephone number of every other person (of whom the licensee is aware) who witnessed the event, unless the licensee has been unable to obtain that information after making reasonable effort;	All incident reporting in the Audit period has been compliant	Compliant			
	(e)	action taken by the licensee in relation to the event, including any follow-up contact with any complainants;	All incident reporting in the Audit period has been compliant	Compliant			
	(f)	details of any measure taken or proposed to be taken to prevent or mitigate against a recurrence of such an event; and	All incident reporting in the Audit period has been compliant	Compliant			
	(g)	any other relevant matters.	All incident reporting in the Audit period has been compliant	Compliant			
	R 3.4	The EPA may make a written request for further details in relation to any of the above matters if it is not satisfied with the report provided by the licensee. The licensee must provide such further details to the EPA within the time specified in the request.	Noted, not required in the audit period	Noted			
R4 - Other reporting conditions							
HRSTS Reporting	R 4.1	The licensee must compile a written report of the activities under the Scheme for each scheme year. The scheme year shall run from 1 July to 30 June each year. The written report must be submitted to the EPA's regional office within 60 days after the end of each scheme year and be in a form and manner approved by the EPA. The information will be used by the EPA to compile an annual scheme report.	HRSTS report showing no discharge provided as evidence	Compliant			
Blast Monitoring Report	R 4.2 (a)	A report containing the monitoring results of blast compliance monitoring specified in this licence must be submitted annually with the Annual Return as set out in Condition R1.	EPL modified to include this requirement in the current reporting period, no Ars generated with this appended report to date.	Not Triggered			
	R 4.2 (b)	The report must include an explanation of any exceedences of blasting limits and what management and mitigations measures were put in place to prevent further exceedences.	EPL modified to include this requirement in the current reporting period, no Ars generated with this appended report to date.	Not Triggered			
Noise Monitoring Report	R 4.3 (a)	A report containing the monitoring results of noise compliance monitoring specified in this licence must be submitted annually with the Annual Return as set out in Condition R1.	EPL modified to include this requirement in the current reporting period, no Ars generated with this appended report to date.	Not Triggered			
	R 4.3 (b)	The report must include an explanation of any exceedences of noise limits and what management and mitigation measures were put in place to prevent further exceedences.	EPL modified to include this requirement in the current reporting period, no Ars generated with this appended report to date.	Not Triggered			

Reference	Condition	Requirement	Evidence	Audit Finding	Risk		
					Consequence	Likelihood	Risk
Environment Protection Licence 6538							
7 - General Conditions							
G1 - Copy of licence kept at the premises or plant							
	G 1.1	A copy of this licence must be kept at the premises to which the licence applies.	Available on the intranet and internet at site	Compliant			
	G 1.2	The licence must be produced to any authorised officer of the EPA who asks to see it.	No such requests in the audit period	Not Triggered			
	G 1.3	The licence must be available for inspection by any employee or agent of the licensee working at the premises.	Noted, see G1.1	Compliant			
8 - Pollution Studies and Reduction Programs							
U1 - Coal Mine Wind Erosion of Exposed Land Assessment							
	U 1.1	The licensee must undertake the following steps: 1. Calculate the wind erosion exposed surface area (in hectares) within the premises as of 31 July 2015. 2. Determine the wind erosion exposed surface area (in hectares) predicted as at 31 July 2015 within the licensee's Environmental Assessment for the premises. 3. Compare the areas calculated in steps 1 and 2. 4. Submit a written report to the EPA at hunter.region@epa.nsw.gov.au containing the analysis required in steps 1 to 3, by 29 September 2015.	This has been completed and was compliant, this condition removed from the EPL in November 2016	Compliant			
		The report submitted to the EPA must be accompanied by spatial data to confirm the wind erosion exposed surface area calculations. The following data is required: · Shapefiles showing the premises boundary. · Shapefiles showing the wind erosion exposed area within the premises as of 31 July 2015 · Shapefiles showing areas classified as stabilised surface as of 31 July 2015. · Details of any studies undertaken to verify that the areas of stabilised surface meet the definition.	This has been completed and was compliant, this condition removed from the EPL in November 2016	Compliant			
9 - Special Conditions							
E1 - Hunter River Salinity Trading Scheme							
	E 1.1	This licence authorises the discharge of saline water into the Hunter River Catchment from an authorised discharge point (or points), in accordance with the Protection of the Environment Operations (Hunter River Salinity Trading Scheme) Regulation 2009.	Noted	Noted			
	E 1.2	For the purposes of Clauses 23 and 29 of the Protection of the Environment Operations (Hunter River Salinity Trading Scheme) Regulation 2002 the licensee must apply the conversion factor of 0.6.	Noted	Noted			

Condition	Requirement	Evidence	Audit Finding	Risk		
				Consequence	Likelihood	Risk
Mining Lease ML 1739						
4	The lease holder shall comply with any direction, given or which may be given by the Inspector regarding the dumping, depositing or removal of material extracted, as well as the stabilisation and revegetation of any dumps of coal, minerals, mine residues, tailings or overburden situated on the subject area or the associated colliery holding.	No such direction has been given by the Inspector.	Not Triggered			
5	The lease holder shall observe any instructions given or which may be given by the Minister with a view to minimising or preventing public inconvenience or damage to public or private property.	No such direction has been given by the Minister.	Not Triggered			
6	If required to do so by the Minister and within such times as may be stipulated by the Minister, the lease holder shall carry out to the satisfaction of the Minister surveys of structures, buildings and pipelines on adjacent landholdings to determine the effect of operations on any such structures, buildings and pipelines.	No such direction has been given by the Minister. Surveys conducted under the Blast MP.	Not Triggered			
7	(a) The lease holder shall each year once operations have commenced, submit for the Minister's approval an "Annual Environmental Management Report" relating to the operations of the lease holder on the subject area. (b) The date by which the Report must be submitted will be determined by the Minister after consulting with the lease holder. (c) The Report shall comprise: (i) a plan showing short, medium and long term mining plans; (ii) a rehabilitation report (in respect of open cut operations) and/or a surface environmental management report (in respect of underground operations) (iii) a review of performance in terms of Environmental Protection Authority and Department of Water Resources licence and approval conditions (related to the Clean Air Act 1961, the Clean Waters Act 1970, the Noise Control Act 1975, the Environmentally Hazardous Chemical Act 1985, the Pollution Control Act 1970 and the Water Act 1912) applicable to the subject area; (iv) a review of performance in terms of Development Consent conditions for the subject area; (v) a listing of any variations obtained to approvals applicable to the subject area during the previous year.	The Annual Review (was AEMR) for 2015 was submitted to DRE on 31/03/16. This document was prepared in accordance with the Annual Review Guideline (NSW Government, 2015). DP&E acknowledged receipt of the document on 31/03/16 (see email from C Knight). DRE acknowledged receipt of the document on 13/04/16 (see email from S Jardine). The Annual Review for 2016 is required to be submitted before 31/03/17. Reports and correspondence submitted as evidence	Compliant			
	(d) The Minister may, by notice in writing, direct the lease holder to undertake any operations or remedial actions in such a manner and within such period as may be specified in that notice, so as to ensure that operations on the subject area conform to the requirements of relevant statutory approvals or licences.	No such direction has been given by the Minister.	Not Triggered			
	(e) The lease holder shall conduct operations on the subject area in accordance with an "open cut application" approved by the Minister and any conditions contained in the Minister's approval of that application. Where the lease holder is of the opinion that the approved operations should be amended the lease holder shall submit an amendment for the Minister's approval.	Mining operations are conducted according to the "Mine Operations Plan 2015-2021". This MOP was approved by DRE on 03/07/15 (see letter from C Lewis). Bengalla submitted an application for amendment of the MOP on 28/01/16. The amendment was approved by DRE on 12/04/16 (see letter from M Meyer). This amendment to the MOP reflected Modification 1 to the Development Consent.	Compliant			
8	If so directed by the Minister, the lease holder shall rehabilitate to the satisfaction of the Minister any lands within the subject area which may have been disturbed by the lease holder.	Progressive rehabilitation is undertaken according to the approved MOP (Sections 5 to 8). There have been no specific directions from the Minister regarding rehabilitation.	Compliant			
9	Upon completion of operations on the surface of the subject area or upon the expiry or sooner determinations of this authority or any renewal thereof, the lease holder shall remove from such surface such buildings, machinery, plant, equipment, constructions and works as may be directed by the Minister and such surface shall be rehabilitated and left in a clean, tidy and safe condition to the satisfaction of the Minister.	Bengalla has approval to undertake mining activities until 2039.	Not Triggered			
10	If so directed by the Minister, the lease holder shall rehabilitate to the satisfaction of the Minister and within such time as may be allowed by the Minister any lands within the subject area which may have been disturbed by mining or prospecting operations whether such operations were or were not carried out by the lease	See response to Condition 8.	Compliant			
11	The lease holder shall take all reasonable precautions against causing outbreak of fire on the subject area.	Bengalla has implemented PRO-0684 Bengalla Mine Bushfire Management.	Compliant			

Condition	Requirement	Evidence	Audit Finding	Risk		
				Consequence	Likelihood	Risk
Mining Lease ML 1739						
12	<p>The lease holder shall monitor noise and vibration and institute controls, generally in accordance with the recommendation of Australian Standard AS – 2187 – 1993 and ANZEC Guidelines.</p> <p>(a) <u>Ground Vibration</u> The lease holder shall design all blasts on the basis that the ground vibration peak particle velocity generated by any blasting within the subject area, shall not exceed the levels in or conditions of the EPA Licence for the mine, at any dwelling or occupied premises not owned by the lease holder, the holder of an authority under the Mining Act, Pacific Power, or any property referred to in Condition 21A of the development consent, or not subject to a valid agreement with the lease holder, with respect to the effects of blasting.</p> <p>(b) <u>Blast Overpressure</u> The lease holder shall design all blasts on the basis that the blast overpressure noise level generated by any blasting within the subject area, shall not exceed the levels in or conditions of the EPA Licence for the mine, at any dwelling or occupied premises not owned by lease holder, the holder of an authority under the Mining Act, Pacific Power, or any property referred to in Condition 21A of the development consent, or not subject to a valid agreement with the lease holder, with respect to the effects of blasting.</p>	<p>Overpressure and ground vibration are measured using instruments that comply with the Australian Standard (Table 2 of Ecotech's Monthly Summary Reports). Blast effects are measured at three locations that are representative of private receivers.</p> <p>There were no exceedances of the 115 dB limit in 2015.</p> <p>There was one blast on 10/10/16 which generated an overpressure of 117.2 dB at the BLK monitoring point ("Blast Results 2016"). This represents less than 5% of all blasts in 2016.</p> <p>There were no exceedances of the 120 dB limit during the audit period (Blast Results spreadsheets).</p> <p>There were no exceedances of the ground vibration criteria during the audit period (Blast Results spreadsheets).</p>	Compliant			
13	If so directed by the Minister, the lease holder shall ensure that operations are carried out in such manner so as to minimise disturbance to flora and fauna within the subject area.	Bengalla operates under a Biodiversity Management Plan (dated August 2015). This BMP was approved by DP&E on 14/08/15 (letter from S Brooks). Pre-clearance surveys are undertaken to collect and re-locate fauna prior to land disturbance. Examples of pre-clearance surveys are provided in Appendix B of the 2015 Annual Review.	Compliant			
14	The lease holder shall conduct operations in such a manner as not to cause or aggravate soil erosion and the lease holder shall observe and perform any instructions given or which may be given by the Minister with a view to minimising or preventing soil erosion.	Bengalla operates under a Water Management Plan (dated August 2015). The WMP was approved by DP&E on 14/08/15 (letter from S Brooks). Erosion and sediment controls are listed in Appendix C of the WMP.	Compliant			
15	<p>The lease holder shall pay to Muswellbrook Shire Council, Department of Water Conservation, the Chief Executive, Roads and Traffic Authority the cost incurred by such Council or Department or Chief Executive, of making good any damage caused by operations carried on by or under the authority of the lease holder to any road adjoining or traversing the surface or the excepted surface, as the case may be of the subject area.</p> <p>PROVIDED HOWEVER that the amount to be paid by the lease holder as aforesaid shall be reduced by such sum of money if any as may be paid to the said Council the Department of Conservation and Land Management or the Chief Executive, Roads and Traffic Authority as the case may be from the Mine Subsidence Compensation Fund constituted under the Mine Subsidence Compensation Act, 1961, in settlement of a claim for compensation for the same damage.</p>	<p>Pavement wear occurred on Wybong Road which BMC contributed to the cost of undertaking the remedial works where those works were undertaken by the MSC.</p> <p>Bengalla were invoiced for part of the remedial works as agreed with MSC.</p>	Compliant			
16	In the event of operations being conducted on the surface of any road, track or firetrail traversing the subject area or in the event of such operations causing damage to or interference with any such road, track or firetrail the lease holder, at his own expense, shall if directed to do so by the Minister provide to the satisfaction of the Minister an alternative road, track or firetrail in a position as required by the Minister and shall allow free and uninterrupted access along such alternate road, track or firetrail and, if required to do so by the Minister, the lease holder shall upon completion of operations rehabilitate the surface of the original road, track or firetrail to a condition satisfactory to the Minister.	<p>Mining operations during this audit period have not intersected any roads or tracks.</p> <p>The Bengalla Link Road will be realigned in the future.</p>	Not Triggered			
17	<p>(a) The marks in connection with any trigonometrical station, Permanent Mark or State Survey Mark (under the Survey Co-ordination Act 1949) erected on or near the subject area shall not be interfered with the unrestricted right of access no such station is reserved at all times</p> <p>(b) The lease holder shall take all necessary precautions to preserve the trigonometrical station, Permanent Mark or State Survey Mark (under the Survey Co-ordination Act, 1949) and the cairn, mast and vanes which might be erected upon the subject area.</p> <p>(c) No buildings or other structures shall be erected which would make observations to and from surrounding trigonometrical stations difficult to effect.</p> <p>(d) In the event of operations interfering with or damaging any trigonometrical station, Permanent Mark or State Survey Mark (under the Survey Co-ordination Act, 1949) erected on or near the subject area, or if required to do so by the Minister, the lease holder shall relocate any such trigonometrical station, Permanent Mark or State Survey Mark (under the Survey Co-ordination Act, 1949) to the satisfaction of, and in a position required by, the Department of Conservation and Land Management, the Land Information Centre, Bathurst</p>	<p>One state survey mark (SSM78795) is located within ML 1397. This survey mark has not been affected by mining (see image showing setback from endwall to SSM78795).</p> <p>There are no trigonometrical stations located within ML 1397.</p>	Compliant			

Condition	Requirement	Evidence	Audit Finding	Risk		
				Consequence	Likelihood	Risk
Mining Lease ML 1739						
18	The lease holder shall as far as is practicable, conduct operations so as not to interfere with or impair the stability or efficiency of any transmission line, communication line or pipeline traversing the subject area and shall comply with any direction given or which may be given by the Minister in this regard.	There are no public pipelines located within the ML area.	Not Triggered			
19	The lease holder shall during each year of the term of the authority: (a) ensure that at least 49 workers are efficiently employed on the subject area or (c) expend on operations carried out in the course of prospecting or mining the subject area, an amount of not less than \$857,500.00. The Minister may at any time after a period of two (2) years from the date on which this authority has effect or from the date on which the renewal of this authority has effect, increase or decrease the amount of expenditure of labour required.	As at December 2015, there were 705 persons employed at Bengalla Mine, comprised of 384 employees and 321 contractors (Health and Safety Report - December 2015).	Compliant			
21	Within a period of three months from the date of this authority or a period of three months from the date of service of the notice of renewal, or within such further time as the Director-General may allow, the lease holder shall serve on each owner and occupier of the private land on each occupier of the Crown land held under a pastoral lease within the subject area a notice in writing indicating that this authority has been granted or renewed and whether the authority includes the surface. The notice shall be accompanied by an adequate plan and description of the subject area. If there are ten or more owners or occupiers are affected, the lease holder may serve the notice by publication in a newspaper circulating in the region where the subject area is situated. The notice shall indicate that this authority has been granted or renewed, state whether the authority includes the surface and shall contain an adequate plan and description of the subject area.	ML 1397 was last renewed on 22/06/16. There were no notification requirements within this audit period.	Not Triggered			
22	(a) Where the inspector is of the opinion that any condition of this authority relating to operations within the subject area, or any provisions of the Mining Act, 1992, relating to operations within the subject area, are not being complied with by the lease holder, the Inspector may serve on the lease holder a notice stating that and give particulars of the reason why, and may in such notice direct the lease holder: (i) to cease operations within the subject area in contravention of that condition or Act; and (ii) to carry out within the specified time works necessary to rectify or remedy the situation. (b) The lease holder shall comply with the directions contained in any notice served pursuant to sub paragraph (a) of this condition. The Director-General may confirm, vary or revoke any such direction. (c) A notice referred to in this condition may be served on the Colliery Manager.	No environmental notices received during audit period.	Not Triggered			
25	(a) Where the lease holder desires to commence prospecting operations in the subject area, the lease holder shall notify the Director-General in writing and shall comply with such additional conditions as the Minister may impose including any condition requiring the lodgement of an additional bond or other form of security for rehabilitation of the area affected by such operations. (b) Where the lease holder notifies the Director-General pursuant to sub paragraph (a) of this condition, the lease holder shall furnish with that notification details of the type of prospecting methods that would be adopted and the extent and location of the area that would be affected by them.	The commencement of prospecting operations occurred prior to this audit period.	Not Triggered			

Condition	Requirement	Evidence	Audit Finding	Risk		
				Consequence	Likelihood	Risk
Mining Lease ML 1739						
26	<p>(a) The lease holder shall, within two (2) months of being requested by the Director-General, lodge with the Minister the sum of \$50,000.00 in accordance with Instructions for Manner and Lodgement of Security Deposits as security for the fulfilment of the obligations of the lease holder under this authority. In the event that the lease holder fails to fulfil any of its obligations under this authority the said sum may be applied at the discretion of the Minister towards the costs of fulfilling such obligations. For the purpose of this clause a lease holder shall be deemed to have failed to fulfil its obligations under this authority, if it fails to comply with any condition or provision of this authority, any provision of the Act or regulations made thereunder or any condition or direction imposed or given pursuant to a condition or provision of this authority or of any provision of the Act or regulations made thereunder.</p> <p>(b) The Minister may at any time after the commencement of this authority or any renewal thereof, vary the amount of security required in accordance with this condition.</p> <p>(c) Where the amount of security has been increased pursuant to clause (b) thereof, the lease holder shall within two (2) months of being requested by the Minister, lodge a security for the amount of security required, in which case the Minister shall refund or release to the lease holder the security previously lodged.</p>	The security deposit for ML 1397 was lodged prior to this audit period.	Not Triggered			
28	The lease holder shall be responsible for the costs associated with any repairs to, replacement of and removal of any assets owned by EnergyAustralia, within the lease area, should such assets be damaged as a result of activities by the lease holder within the subject area.	No damage during audit period	Not Triggered			

Condition	Requirement	Evidence	Audit Finding	Risk		
				Consequence	Likelihood	Risk
Mining Lease 1450						
2	<p>(1) Mining operations, including mining purposes, must be conducted in accordance with a Mining Operations Plan (the Plan) satisfactory to the Director-General. The Plan together with environmental conditions of development consent and other approvals will form the basis for:</p> <p>(a) ongoing mining operations and environmental management; and</p> <p>(b) ongoing monitoring of the project.</p> <p>(2) The Plan must be prepared in accordance with the Director-General's guidelines current at the time of lodgement.</p> <p>(3) A Plan must be lodged with the Director-General:</p> <p>(a) prior to the commencement of operations;</p> <p>(b) subsequently as appropriate prior to the expiry of any current Plan; and</p> <p>(c) in accordance with any direction issued by the Director-General.</p> <p>(4) The Plan must present a schedule of proposed mine development for a period of up to seven (7) years and contain diagrams and documentation which identify:</p> <p>(a) area(s) proposed to be disturbed under the Plan;</p> <p>(b) mining and rehabilitation method(s) to be used and their sequence;</p> <p>(c) areas to be used for disposals of tailings/waste;</p> <p>(d) existing and proposed surface infrastructure;</p> <p>(e) progressive rehabilitation schedules;</p> <p>(f) areas of particular environmental sensitivity;</p> <p>(g) water management systems (including erosion and sediment controls);</p> <p>(h) proposed resource recovery; and</p> <p>(i) where the mine will cease extraction during the term of the Plan, a closure plan including final rehabilitation objectives/methods and post mining landuse/vegetation.</p> <p>(5) The Plan when lodged will be reviewed by the Department of Mineral Resources.</p>	<p>Mining operations are conducted according to the "Mine Operations Plan 2015-2021". This MOP was approved by DRE on 03/07/15 (letter from C Lewis). Bengalla submitted an application for amendment of the MOP on 28/01/16. The amendment was approved by DRE on 12/04/16 (letter from M Meyer). This amendment to the MOP reflected Modification 1 to the Development Consent.</p>	Compliant			
2	<p>(6) The Director-General may within two months of the lodgement of a Plan, require modification and relodgement.</p> <p>(7) If a requirement in accordance with clause (6) is not issued within two months of the lodgement of a Plan, lease holder may proceed with implementation of the Plan submitted subject to the lodgement of the required security deposit within the specified time.</p> <p>(8) During the life of the Mining Operations Plan, proposed modifications to the Plan must be lodged with the Director-General and will be subject of the review process outlined in (5)-(7) above.</p>	<p>Mining operations are conducted according to the "Mine Operations Plan 2015-2021". This MOP was approved by DRE on 03/07/15 (letter from C Lewis). Bengalla submitted an application for amendment of the MOP on 28/01/16. The amendment was approved by DRE on 12/04/16 (letter from M Meyer). This amendment to the MOP reflected Modification 1 to the Development Consent.</p>	Compliant			
3	<p>(1) Within 12 months of the commencement of mining operations and thereafter annually, or at such other times as may be allowed by the Director-General, the lease holder must lodge an Annual Environmental Management Report (AEMR) with the Director-General.</p> <p>(2) The AEMR must be prepared in accordance with the Director-General's guidelines current at the time of reporting and contain a review and forecast of performance for the preceding and ensuing twelve months in terms of:</p> <p>(a) the accepted Mining Operations Plan;</p> <p>(b) development consent requirements and conditions;</p> <p>(c) Environment Protection Authority and Department of Land and Water Conservation licences and approvals;</p> <p>(d) any other statutory environmental requirements;</p> <p>(e) details of any variations to environmental approvals applicable to the lease area; and</p> <p>(f) where relevant, progress towards final rehabilitation objectives.</p>	<p>The Annual Review (was AEMR) for 2015 was submitted to DRE on 31/03/16. This document was prepared in accordance with the Annual Review Guideline (NSW Government, 2015).</p> <p>DP&E acknowledged receipt of the document on 31/03/16 (email from C Knight). DRE acknowledged receipt of the document on 13/04/16 (email from S Jardine).</p> <p>The Annual Review for 2016 is required to be submitted before 31/03/17.</p>	Compliant			
3	<p>(3) After considering an AEMR the Director-General may, by notice in writing, direct the lease holder to undertake operations, remedial actions or supplementary studies in the manner and within the period specified in the notice to ensure that operations on the lease area are conducted in accordance with sound mining and environmental practice.</p> <p>(4) The lease holder shall, as and when directed by the Minister, co-operate with the Director-General to conduct and facilitate review of the AEMR involving other government agencies.</p>	<p>After reviewing the 2015 Annual Review, DRE requested a site inspection (email from S Jardine on 13/04/16). The site inspection was held on 29/11/16 (meeting minutes dated 29/11/16)</p>	Compliant			
4	<p>The lease holder shall comply with any direction, given or which may be given by the Inspector regarding the dumping, depositing or removal of material extracted, as well as the stabilisation and revegetation of any dumps of coal, minerals, mine residues, tailings or overburden situated on the subject area or the associated colliery holding.</p>	<p>No such direction has been given by the Minister.</p>	Not Triggered			
5	<p>The lease holder shall observe any instructions given or which may be given by the Minister with a view to minimising or preventing public inconvenience or damage to public or private property.</p>	<p>No such direction has been given by the Minister.</p>	Not Triggered			
6	<p>If required to do so by the Minister and within such times as may be stipulated by the Minister, the lease holder shall carry out to the satisfaction of the Minister surveys of structures, buildings and pipelines on adjacent landholdings to determine the effect of operations on any such structures, buildings and pipelines.</p>	<p>No such direction has been given by the Minister.</p>	Not Triggered			

Condition	Requirement	Evidence	Audit Finding	Risk		
				Consequence	Likelihood	Risk
Mining Lease 1450						
7	(a) The lease holder shall each year once operations have commenced, submit for the Minister's approval an "Annual Environmental Management Report" relating to the operations of the lease holder on the subject area. (b) The date by which the Report must be submitted will be determined by the Minister after consulting with the lease holder. (c) The Report shall comprise: (i) a plan showing short, medium and long term mining plans; (ii) a rehabilitation report (in respect of open cut operations) and/or a surface environmental management report (in respect of underground operations) (iii) a review of performance in terms of Environmental Protection Authority and Department of Water Resources licence and approval conditions (related to the Clean Air Act 1961, the Clean Waters Act 1970, the Noise Control Act 1975, the Environmentally Hazardous Chemical Act 1985, the Pollution Control Act 1970 and the Water Act 1912) applicable to the subject area; (iv) a review of performance in terms of Development Consent conditions for the subject area; (v) a listing of any variations obtained to approvals applicable to the subject area during the previous year.	Refer to the response to Condition 3	Compliant			
7	(d) The Minister may, by notice in writing, direct the lease holder to undertake any operations or remedial actions in such a manner and within such period as may be specified in that notice, so as to ensure that operations on the subject area conform to the requirements of relevant statutory approvals or licences.	No such direction has been given by the Minister.	Not Triggered			
7	(e) The lease holder shall conduct operations on the subject area in accordance with an "open cut application" approved by the Minister and any conditions contained in the Minister's approval of that application. Where the lease holder is of the opinion that the approved operations should be amended the lease holder shall submit an amendment for the Minister's approval.	Refer to the response to Condition 2	Compliant			
8	If so directed by the Minister, the lease holder shall rehabilitate to the satisfaction of the Minister any lands within the subject area which may have been disturbed by the lease holder.	Progressive rehabilitation is undertaken according to the approved MOP (Sections 5 to 8). There have been no specific directions from the Minister regarding rehabilitation.	Compliant			
9	Upon completion of operations on the surface of the subject area or upon the expiry or sooner determinations of this authority or any renewal thereof, the lease holder shall remove from such surface such buildings, machinery, plant, equipment, constructions and works as may be directed by the Minister and such surface shall be rehabilitated and left in a clean, tidy and safe condition to the satisfaction of the Minister.	Bengalla has approval to undertake mining activities until 2039. Infrastructure in place until mine closure.	Not Triggered			
10	If so directed by the Minister, the lease holder shall rehabilitate to the satisfaction of the Minister and within such time as may be allowed by the Minister any lands within the subject area which may have been disturbed by mining or prospecting operations whether such operations were or were not carried out by the lease holder.	See response to Condition 8.	Compliant			
11	The lease holder shall take all reasonable precautions against causing outbreak of fire on the subject area.	Bengalla has implemented PRO-0684 Bengalla Mine Bushfire Management.	Compliant			
12	The lease holder shall monitor noise and vibration and institute controls, generally in accordance with the recommendation of Australian Standard AS – 2187 – 1993 and ANZEC Guidelines. (a) <u>Ground Vibration</u> The lease holder shall design all blasts on the basis that the ground vibration peak particle velocity generated by any blasting within the subject area, shall not exceed the levels in or conditions of the EPA Licence for the mine, at any dwelling or occupied premises not owned by the lease holder, the holder of an authority under the Mining Act, Pacific Power, or any property referred to in Condition 21A of the development consent, or not subject to a valid agreement with the lease holder, with respect to the effects of blasting. (b) <u>Blast Overpressure</u> The lease holder shall design all blasts on the basis that the blast overpressure noise level generated by any blasting within the subject area, shall not exceed the levels in or conditions of the EPA Licence for the mine, at any dwelling or occupied premises not owned by lease holder, the holder of an authority under the Mining Act, Pacific Power, or any property referred to in Condition 21A of the development consent, or not subject to a valid agreement with the lease holder, with respect to the effects of blasting.	Overpressure and ground vibration are measured using instruments that comply with the Australian Standard (see Table 2 of Ecotech's Monthly Summary Reports). Blast effects are measured at three locations that are representative of private receivers. There were no exceedances of the 115 dB limit in 2015. There was one blast on 10/10/16 which generated an overpressure of 117.2 dB at the BLK monitoring point ("Blast Results 2016"). This represents less than 5% of all blasts in 2016. There were no exceedances of the 120 dB limit during the audit period (Blast Results spreadsheets). There were no exceedances of the ground vibration criteria during the audit period (Blast Results spreadsheets).	Compliant			
13	If so directed by the Minister, the lease holder shall ensure that operations are carried out in such manner so as to minimise disturbance to flora and fauna within the subject area.	Bengalla operates under a Biodiversity Management Plan (dated August 2015). This BMP was approved by DP&E on 14/08/15 (letter from S Brooks). Pre-clearance surveys are undertaken to collect and re-locate fauna prior to land disturbance. Examples of pre-clearance surveys are provided in Appendix B of the 2015 Annual Review.	Compliant			
14	The lease holder shall conduct operations in such a manner as not to cause or aggravate soil erosion and the lease holder shall observe and perform any instructions given or which may be given by the Minister with a view to minimising or preventing soil erosion.	Bengalla operates under a Water Management Plan (dated August 2015). The WMP was approved by DP&E on 14/08/15 (letter from S Brooks). Erosion and sediment controls are listed in Appendix C of the WMP.	Compliant			

Condition	Requirement	Evidence	Audit Finding	Risk		
				Consequence	Likelihood	Risk
Mining Lease 1450						
15	The lease holder shall pay to Muswellbrook Shire Council, Department of Water Conservation, the Chief Executive, Roads and Traffic Authority the cost incurred by such Council or Department or Chief Executive, of making good any damage caused by operations carried on by or under the authority of the lease holder to any road adjoining or traversing the surface or the excepted surface, as the case may be of the subject area. PROVIDED HOWEVER that the amount to be paid by the lease holder as aforesaid shall be reduced by such sum of money if any as may be paid to the said Council the Department of Conservation and Land Management or the Chief Executive, Roads and Traffic Authority as the case may be from the Mine Subsidence Compensation Fund constituted under the Mine Subsidence Compensation Act, 1961, in settlement of a claim for compensation for the same damage.	No damage to public infrastructure has occurred as a result of Bengalla's operations relevant to ML 1450.	Not Triggered			
16	In the event of operations being conducted on the surface of any road, track or firetrail traversing the subject area or in the event of such operations causing damage to or interference with any such road, track or firetrail the lease holder, at his own expense, shall if directed to do so by the Minister provide to the satisfaction of the Minister an alternative road, track or firetrail in a position as required by the Minister and shall allow free and uninterrupted access along such alternate road, track or firetrail and, if required to do so by the Minister, the lease holder shall upon completion of operations rehabilitate the surface of the original road, track or firetrail to a condition satisfactory to the Minister.	Mining operations during this audit period have not intersected any roads or tracks. The Bengalla Link Road will be realigned in the future - Approx. year 15 (2029)	Not Triggered			
18	The lease holder shall as far as is practicable, conduct operations so as not to interfere with or impair the stability or efficiency of any transmission line, communication line or pipeline traversing the subject area and shall comply with any direction given or which may be given by the Minister in this regard.	There are no public pipelines located within the ML area.	Not Triggered			
19	The lease holder shall during each year of the term of the authority: (a) ensure that at least 7 workers are efficiently employed on the subject area or (b) expend on operations carried out in the course of prospecting or mining the subject area, an amount of not less than \$122,500.00. The Minister may at any time after a period of two (2) years from the date on which this authority has effect or from the date on which the renewal of this authority has effect, increase or decrease the amount of expenditure of labour required.	As at December 2015, there were 705 persons employed at the site (see "2015 No. People on Site").	Compliant			
21	Within a period of three months from the date of this authority or a period of three months from the date of service of the notice of renewal, or within such further time as the Director-General may allow, the lease holder shall serve on each owner and occupier of the private land on each occupier of the Crown land held under a pastoral lease within the subject area a notice in writing indicating that this authority has been granted or renewed and whether the authority includes the surface. The notice shall be accompanied by an adequate plan and description of the subject area. If there are ten or more owners or occupiers affected, the lease holder may serve the notice by publication in a newspaper circulating in the region where the subject area is situated. The notice shall indicate that this authority has been granted or renewed, state whether the authority includes the surface and shall contain an adequate plan and description of the subject area.	ML 1450 was granted on 10/07/99. There were no notification requirements during this audit period.	Not Triggered			
22	(a) Where the inspector is of the opinion that any condition of this authority relating to operations within the subject area, or any provisions of the Mining Act, 1992, relating to operations within the subject area, are not being complied with by the lease holder, the inspector may serve on the lease holder a notice stating that and give particulars of the reason why, and may in such notice direct the lease holder: (i) to cease operations within the subject area in contravention of that condition or Act; and (ii) to carry out within the specified time works necessary to rectify or remedy the situation. (b) The lease holder shall comply with the directions contained in any notice served pursuant to sub paragraph (a) of this condition. The Director-General may confirm, vary or revoke any such direction. (c) A notice referred to in this condition may be served on the Colliery Manager.	Renewal date not within the audit period	Not Triggered			
25	(a) Where the lease holder desires to commence prospecting operations in the subject area, the lease holder shall notify the Director-General in writing and shall comply with such additional conditions as the Minister may impose including any condition requiring the lodgement of an additional bond or other form of security for rehabilitation of the area affected by such operations. (b) Where the lease holder notifies the Director-General pursuant to sub paragraph (a) of this condition, the lease holder shall furnish with that notification details of the type of prospecting methods that would be adopted and the extent and location of the area that would be affected by them.	The commencement of prospecting operations occurred prior to this audit period.	Not Triggered			

Condition	Requirement	Evidence	Audit Finding	Risk		
				Consequence	Likelihood	Risk
Mining Lease 1450						
26	<p>(a) The lease holder shall, within two (2) months of being requested by the Director-General, lodge with the Minister the sum of (Ten Thousand Dollars) \$10,000.00 in accordance with Instructions for Manner and Lodgement of Security Deposits as security for the fulfilment of the obligations of the lease holder under this authority. In the event that the lease holder fails to fulfil any of its obligations under this authority the said sum may be applied at the discretion of the Minister towards the costs of fulfilling such obligations. For the purpose of this clause a lease holder shall be deemed to have failed to fulfil its obligations under this authority, if it fails to comply with any condition or provision of this authority, any provision of the Act or regulations made thereunder or any condition or direction imposed or given pursuant to a condition or provision of this authority or of any provision of the Act or regulations made thereunder.</p> <p>(b) The Minister may at any time after the commencement of this authority or any renewal thereof, vary the amount of security required in accordance with this condition.</p> <p>(c) Where the amount of security has been increased pursuant to clause (b) thereof, the lease holder shall within two (2) months of being requested by the Minister, lodge a security for the amount of security required, in which case the Minister shall refund or release to the lease holder the security previously lodged.</p>	The security deposit was lodged prior to this audit period.	Not Triggered			
29	Where practicable the lease holder shall, upon completion of mining, revegetate the area with tree species and understorey vegetation native to the district and preferably to that site, with seed collected from local stock.	Seed harvesting is undertaken throughout the year to obtain stock for rehabilitation. Seed collection is undertaken during the seeding periods for the target native species and prior to clearing (Section 4.2.6 and Appendix C of the Biodiversity Management Plan). Bengalla has developed seed mixes for the establishment of: - Central Hunter Grey Box - Ironbark Woodland - Central Hunter Ironbark - Spotted Gum - Grey Box Forest.	Compliant			
30	The lease holder shall pay Rail Access Corporation the cost of making good any damage caused by operations carried on, by, or under the authority of the lease holder to any rail infrastructure of the subject area.	No notices received during the audit period	Not Triggered			
31	The lease holder shall provide and maintain to the satisfaction of the Minister efficient means to prevent contamination, pollution, erosion or siltation of any river, stream, creek, tributary, lake, dam, reservoir, watercourse, groundwater or catchment area or any undue interference to fish or their environment and shall observe any instruction given or may be given by the Minister with a view to preventing or minimising the contamination, pollution, erosion or siltation of any river, stream, creek, tributary, lake, dam, reservoir, watercourse, groundwater or catchment area or any undue interference to fish or their environment.	Bengalla operates under a Water Management Plan (dated August 2015). The WMP was approved by DP&E on 14/08/15 (letter from S Brooks). Erosion and sediment controls are listed in Appendix C of the WMP. No directions have been given by the Minister regarding water management.	Compliant			

Condition	Requirement	Evidence	Audit Finding	Risk		
				Consequence	Likelihood	Risk
Mining Lease 1469						
2	<p>(1) Mining operations, including mining purposes, must be conducted in accordance with a Mining Operations Plan (the Plan) satisfactory to the Director-General. The Plan together with environmental conditions of development consent and other approvals will form the basis for:</p> <p>(a) ongoing mining operations and environmental management; and</p> <p>(b) ongoing monitoring of the project.</p> <p>(2) The Plan must be prepared in accordance with the Director-General's guidelines current at the time of lodgement.</p> <p>(3) A Plan must be lodged with the Director-General:</p> <p>(a) prior to the commencement of operations;</p> <p>(b) subsequently as appropriate prior to the expiry of any current Plan; and</p> <p>(c) in accordance with any direction issued by the Director-General.</p> <p>(4) The Plan must present a schedule of proposed mine development for a period of up to seven (7) years and contain diagrams and documentation which identify:</p> <p>(a) area(s) proposed to be disturbed under the Plan;</p> <p>(b) mining and rehabilitation method(s) to be used and their sequence;</p> <p>(c) areas to be used for disposals of tailings/waste;</p> <p>(d) existing and proposed surface infrastructure;</p> <p>(e) progressive rehabilitation schedules;</p> <p>(f) areas of particular environmental sensitivity;</p> <p>(g) water management systems (including erosion and sediment controls);</p> <p>(h) proposed resource recovery; and</p> <p>(i) where the mine will cease extraction during the term of the Plan, a closure plan including final rehabilitation objectives/methods and post mining landuse/vegetation.</p> <p>(5) The Plan when lodged will be reviewed by the Department of Mineral Resources.</p>	<p>Mining operations are conducted according to the "Mine Operations Plan 2015-2021". This MOP was approved by DRE on 03/07/15 (see letter from C Lewis).</p> <p>Bengalla submitted an application for amendment of the MOP on 28/01/16. The amendment was approved by DRE on 12/04/16 (see letter from M Meyer). This amendment to the MOP reflected Modification 1 to the Development Consent.</p>	Compliant			
2	<p>(6) The Director-General may within two months of the lodgement of a Plan, require modification and relodgement.</p> <p>(7) If a requirement in accordance with clause (6) is not issued within two months of the lodgement of a Plan, lease holder may proceed with implementation of the Plan submitted subject to the lodgement of the required security deposit within the specified time.</p> <p>(8) During the life of the Mining Operations Plan, proposed modifications to the Plan must be lodged with the Director-General and will be subject to the review process outlined in (5)-(7) above.</p>	<p>Mining operations are conducted according to the "Mine Operations Plan 2015-2021". This MOP was approved by DRE on 03/07/15 (letter from C Lewis).</p> <p>Bengalla submitted an application for amendment of the MOP on 28/01/16. The amendment was approved by DRE on 12/04/16 (letter from M Meyer). This amendment to the MOP reflected Modification 1 to the Development Consent.</p>	Compliant			
3	<p>(1) Within 12 months of the commencement of mining operations and thereafter annually, or at such other times as may be allowed by the Director-General, the lease holder must lodge an Annual Environmental Management Report (AEMR) with the Director-General.</p> <p>(2) The AEMR must be prepared in accordance with the Director-General's guidelines current at the time of reporting and contain a review and forecast of performance for the preceding and ensuing twelve months in terms of:</p> <p>(a) the accepted Mining Operations Plan;</p> <p>(b) development consent requirements and conditions;</p> <p>(c) Environment Protection Authority and Department of Land and Water Conservation licences and approvals;</p> <p>(d) any other statutory environmental requirements;</p> <p>(e) details of any variations to environmental approvals applicable to the lease area; and</p> <p>(f) where relevant, progress towards final rehabilitation objectives.</p>	<p>The Annual Review (was AEMR) for 2015 was submitted to DRE on 31/03/16. This document was prepared in accordance with the Annual Review Guideline (NSW Government, 2015).</p> <p>DP&E acknowledged receipt of the document on 31/03/16 (email from C Knight). DRE acknowledged receipt of the document on 13/04/16 (email from S Jardine).</p> <p>The Annual Review for 2016 is required to be submitted before 31/03/17.</p>	Compliant			
3	<p>(3) After considering an AEMR the Director-General may, by notice in writing, direct the lease holder to undertake operations, remedial actions or supplementary studies in the manner and within the period specified in the notice to ensure that operations on the lease area are conducted in accordance with sound mining and environmental practice.</p> <p>(4) The lease holder shall, as and when directed by the Minister, co-operate with the Director-General to conduct and facilitate review of the AEMR involving other government agencies.</p>	<p>After reviewing the 2015 Annual Review, DRE requested a site inspection (see email from S Jardine on 13/04/16). The site inspection was held on 29/11/16 (meeting minutes dated 29/11/16)</p>	Compliant			
15	<p>The lease holder shall comply with any direction, given or which may be given by the Inspector regarding the dumping, depositing or removal of material extracted as well as the stabilisation and revegetation of any dumps of coal, minerals, mine residues, tailings or overburden situated on the subject area or the associated colliery holding.</p>	<p>No such direction has been given by the Minister.</p>	Not Triggered			
16	<p>The lease holder shall comply with any direction, given or which may be given by the Minister regarding the spraying of coal dumps on the subject area.</p>	<p>No such direction has been given by the Minister.</p>	Not Triggered			

Condition	Requirement	Evidence	Audit Finding	Risk		
				Consequence	Likelihood	Risk
Mining Lease 1469						
17	The lease holder shall take such precautions as are necessary to abate any dust nuisance.	Bengalla operate a real time monitoring network that will alarm when particulate levels are high. Bengalla have 5 water carts on site to manage road dust. See Air Quality Management Plan for further information. In addition, Bengalla utilise a site specific forecasting system to allow sufficient time for Bengalla to alter operations to manage any dust risk leaving site	Compliant			
18	The lease holder shall not interfere in any way with any fences on or adjacent to the subject area unless with the prior written approval of the owner thereof or the Minister and subject to such conditions as the Minister may stipulate.	Noted	Noted			
19	The lease holder shall observe any instruction given or which may be given by the Minister with a view to minimising or preventing public inconvenience or damage to public or private property.	No such direction has been given by the Minister.	Not Triggered			
20	If required to do so by the Minister and within such times as may be stipulated by the Minister, the lease holder shall carry out to the satisfaction of the Minister surveys of structures, buildings and pipelines on adjacent landholdings to determine the effect of operations on any such structures, buildings and pipelines.	No such direction has been given by the Minister.	Not Triggered			
21	If so directed by the Minister, the lease holder shall rehabilitate to the satisfaction of the Minister any lands within the subject area which may have been disturbed by the lease holder.	Progressive rehabilitation is undertaken according to the approved MOP (Sections 5 to 8). There have been no specific directions from the Minister regarding rehabilitation.	Compliant			
22	Upon completion of operations on the surface of the subject area or upon the expiry or sooner determinations of this authority or any renewal thereof, the lease holder shall remove from such surface such buildings, machinery, plant, equipment, constructions and works as may be directed by the Minister and such surface shall be rehabilitated and left in a clean, tidy and safe condition to the satisfaction of the Minister.	Bengalla has approval to undertake mining activities until 2039.	Not Triggered			
23	If so directed by the Minister, the lease holder shall rehabilitate to the satisfaction of the Minister and within such time as may be allowed by the Minister any lands within the subject area which may have been disturbed by mining or prospecting operations whether such operations were or were not carried out by the lease holder.	Noted	Noted			
24	The lease holder shall take all reasonable precautions against causing outbreak of fire on the subject area.	Bengalla has implemented PRO-0684 Bengalla Mine Bushfire Management.	Compliant			
25	The lease holder shall provide and maintain to the satisfaction of the Minister efficient means to prevent contamination, pollution, erosion or siltation of any river, stream, creek, tributary, lake, dam, reservoir, watercourse, groundwater or catchment area or any undue interference to fish or their environment and shall observe any instruction given or may be given by the Minister with a view to preventing or minimising the contamination, pollution, erosion or siltation of any river, stream, creek, tributary, lake, dam, reservoir, watercourse, groundwater or catchment area or any undue interference to fish or their environment.	Bengalla operates under a Water Management Plan (dated August 2015). The WMP was approved by DP&E on 14/08/15 (letter from S Brooks). Erosion and sediment controls are listed in Appendix C of the WMP. No directions have been given by the Minister regarding water management.	Compliant			
26	The lease holder shall monitor noise and vibration and institute controls, generally in accordance with the recommendation of Australian Standard AS – 2187 – 1993 and ANZEC Guidelines. (a) Ground Vibration The lease holder shall design all blasts on the basis that the ground vibration peak particle velocity generated by any blasting within the subject area, shall not exceed the levels in or conditions of the EPA Licence for the mine, at any dwelling or occupied premises not owned by the lease holder, the holder of an authority under the Mining Act, Pacific Power, or any property referred to in Condition 21A of the development consent, or not subject to a valid agreement with the lease holder, with respect to the effects of blasting. (b) Blast Overpressure The lease holder shall design all blasts on the basis that the blast overpressure noise level generated by any blasting within the subject area, shall not exceed the levels in or conditions of the EPA Licence for the mine, at any dwelling or occupied premises not owned by lease holder, the holder of an authority under the Mining Act, Pacific Power, or any property referred to in Condition 21A of the development consent, or not subject to a valid agreement with the lease holder, with respect to the effects of blasting.	Overpressure and ground vibration are measured using instruments that comply with the Australian Standard (see Table 2 of Ecotech's Monthly Summary Reports). Blast effects are measured at three locations that are representative of private receivers. There were no exceedances of the 115 dB limit in 2015. There was one blast on 10/10/16 which generated an overpressure of 117.2 dB at the BLK monitoring point ("Blast Results 2016"). This represents less than 5% of all blasts in 2016. There were no exceedances of the 120 dB limit during the audit period (Blast Results spreadsheets). There were no exceedances of the ground vibration criteria during the audit period (Blast Results spreadsheets).	Compliant			
27	If so directed by the Minister, the lease holder shall ensure that operations are carried out in such manner so as to minimise disturbance to flora and fauna within the subject area.	Bengalla operates under a Biodiversity Management Plan (dated August 2015). This BMP was approved by DP&E on 14/08/15 (letter from S Brooks). Pre-clearance surveys are undertaken to collect and re-locate fauna prior to land disturbance. Examples of pre-clearance surveys are provided in Appendix B of the 2015 Annual Review.	Compliant			

Condition	Requirement	Evidence	Audit Finding	Risk		
				Consequence	Likelihood	Risk
Mining Lease 1469						
29	The lease holder shall maintain an arboreal screen to the satisfaction of the Minister within such parts of the subject area as may be specified by the Minister and shall plant such trees or shrubs as may be required by the Minister to preserve the arboreal screen in a condition satisfactory to the Minister.	Noted	Noted			
30	The lease holder shall conduct operations in such a manner as not to cause or aggravate soil erosion and the lease holder shall observe and perform any instructions given or which may be given by the Minister with a view to minimising or preventing soil erosion.	Bengalla operates under a Water Management Plan (dated August 2015). The WMP was approved by DP&E on 14/08/15 (letter from S Brooks). Erosion and sediment controls are listed in Appendix C of the WMP.	Compliant			
31	The lease holder shall pay to Muswellbrook Shire Council, Department of Water Conservation, the Chief Executive, Roads and Traffic Authority the cost incurred by such Council or Department or Chief Executive, of making good any damage caused by operations carried on by or under the authority of the lease holder to any road adjoining or traversing the surface or the excepted surface, as the case may be of the subject area. PROVIDED HOWEVER that the amount to be paid by the lease holder as aforesaid shall be reduced by such sum of money if any as may be paid to the said Council the Department of Conservation and Land Management or the Chief Executive, Roads and Traffic Authority as the case may be from the Mine Subsidence Compensation Fund constituted under the Mine Subsidence Compensation Act, 1961, in settlement of a claim for compensation for the same damage.	No damage to public infrastructure has occurred as a result of Bengalla's operations relevant to ML 1469.	Not Triggered			
32	In the event of operations being conducted on the surface of any road, track or firetrail traversing the subject area or in the event of such operations causing damage to or interference with any such road, track or firetrail the lease holder, at his own expense, shall if directed to do so by the Minister provide to the satisfaction of the Minister an alternative road, track or firetrail in a position as required by the Minister and shall allow free and uninterrupted access along such alternate road, track or firetrail and, if required to do so by the Minister, the lease holder shall upon completion of operations rehabilitate the surface of the original road, track or firetrail to a condition satisfactory to the Minister.	Mining operations during this audit period have not intersected any roads or tracks. The Bengalla Link Road will be realigned in the future.	Not Triggered			
33	(a) Operations shall be carried out in such a way as not to cause any pollution of the Hunter River Catchment Area. (b) If the lease holder is using or about to use any process which in the opinion of the Minister is likely to cause contamination of the waters of the said Catchment Area the lease holder shall refrain from using or cease using as the case may require such process within twenty four (24) hours of the receipt by the lease holder of a notice in writing under the hand of the Minister requiring the lease holder to do so. (c) the lease holder shall comply with any regulations now in force or hereafter to be in force for the protection of the said Catchment Area.	Noted	Noted			
41	The lease holder shall as far as is practicable, conduct operations so as not to interfere with or impair the stability or efficiency of any transmission line, communication line or pipeline traversing the subject area and shall comply with any direction given or which may be given by the Minister in this regard.	There are no public pipelines located within the ML area.	Not Triggered			
43	The lease holder shall not knowingly destroy, deface or damage any aboriginal place or relic within the subject area except in accordance with an authority issued under the National Parks and Wildlife Act, 1974, and shall take every precaution in drilling, excavating or disturbing the land against any such destruction, defacement or damage.	Bengalla operates under an Aboriginal Cultural Heritage Management Plan (June 2016). During the EIS for the Bengalla Continuation of Mining Project, Bengalla undertook an aboriginal artefact salvage program of all known artefacts contained within the approved disturbance boundary.	Compliant			
44	The lease holder shall during each year of the term of the authority: (a) ensure that at least 1 worker are efficiently employed on the subject area or (c) expend on operations carried out in the course of prospecting or mining the subject area, an amount of not less than Seventeen Thousand Five Hundred Dollars (\$17,500.00). The Minister may at any time after a period of two (2) years from the date on which this authority has effect or from the date on which the renewal of this authority has effect, increase or decrease the amount of expenditure of labour required.	As at December 2015, there were 705 persons employed at the site (see "2015 No. People on Site").	Compliant			
46	Within a period of three months from the date of this authority or a period of three months from the date of service of the notice of renewal, or within such further time as the Director-General may allow, the lease holder shall serve on each owner and occupier of the private land on each occupier of the Crown land held under a pastoral leaser within the subject area a notice in writing indicating that this authority has been granted or renewed and whether the authority includes the surface. The notice shall be accompanied by an adequate plan and description of the subject area. If there are ten or more owners or occupiers are affected, the lease holder may serve the notice by publication in a newspaper circulating in the region where the subject area is situated. The notice shall indicate that this authority has been granted or renewed, state whether the authority includes the surface and shall contain an adequate plan and description of the subject area.	ML 1469 was granted on 5/6/00. There were no notification requirements during this audit period.	Not Triggered			

Condition	Requirement	Evidence	Audit Finding	Risk		
				Consequence	Likelihood	Risk
Mining Lease 1469						
47	(a) Where an Inspector under the Mining Act 1992 is of the opinion that any condition of the authority relating to operations within the subject area, or any provision of the Mining Act, 1992, relating to operations within the subject area, are not being complied with by the lease holder, the Inspector may serve on the lease holder a notice stating that and give particulars of the reason why, and may in such notice direct the lease holder: (i) to cease operations within the subject area in contravention of that condition or Act; and (ii) to carry out within the specified time works necessary to rectify or remedy the situation. (b) The lease holder shall comply with the directions contained in any notice served pursuant to sub paragraph (a) of this condition. The Director General may confirm, vary or revoke any such direction. (c) A notice referred to in his condition may be served on the Colliery Manager.	No environmental notices received during audit period.	Not Triggered			
50	(a) Where the lease holder desires to commence prospecting operations in the subject area, the lease holder shall notify the Director-General in writing and shall comply with such additional conditions as the Minister may impose including any condition requiring the lodgement of an additional bond or other form of security for rehabilitation of the area affected by such operations. (b) Where the lease holder notifies the Director-General pursuant to sub paragraph (a) of this condition, the lease holder shall furnish with that notification details of the type of prospecting methods that would be adopted and the extent and location of the area that would be affected by them.	The commencement of prospecting operations occurred prior to this audit period.	Not Triggered			
51	(a) The lease holder shall, within two (2) months of being requested by the Director-General, lodge with the Minister the sum of (Ten Thousand Dollars) \$10,000.00 in accordance with Instructions for Manner and Lodgement of Security Deposits as security for the fulfilment of the obligations of the lease holder under this authority. In the event that the lease holder fails to fulfil any of its obligations under this authority the said sum may be applied at the discretion of the Minister towards the costs of fulfilling such obligations. For the purpose of this clause a lease holder shall be deemed to have failed to fulfil its obligations under this authority, if it fails to comply with any condition or provision of this authority, any provision of the Act or regulations made thereunder or any condition or direction imposed or given pursuant to a condition or provision of this authority or of any provision of the Act or regulations made thereunder. (b) The Minister may at any time after the commencement of this authority or any renewal thereof, vary the amount of security required in accordance with this condition. (c) Where the amount of security has been increased pursuant to clause (b) thereof, the lease holder shall within two (2) months of being requested by the Minister, lodge a security for the amount of security required, in which case the Minister shall refund or release to the lease holder the security previously lodged.	The security deposit for was lodged prior to this audit period.	Not Triggered			

Condition	Requirement	Evidence	Audit Finding	Risk		
				Consequence	Likelihood	Risk
Mining Lease 1711						
1	<p>a) Within a period of three months from the date of grant/renewal of this mining lease, the lease holder must serve on each landholder a notice in writing indicating that this mining lease has been granted/renewed and whether the lease includes the surface. A plan identifying each landholder and individual land parcel subject to the lease area, and a description of the lease area must accompany the notice.</p> <p>b) If there are ten or more landholders, the lease holder may serve the notice by publication in a newspaper circulating in the region where the lease area is situated. The notice must indicate that this mining lease has been granted/renewed; state whether the lease includes the surface and must contain a plan and description of the lease area. If a notice is made under condition 1(b), compliance with condition 1(a) is not required.</p>	<p>ML 1711 was granted to Bengalla on 29/09/15.</p> <p>Bengalla notified Coal & Allied, MSC and DPI-Lands on 21/12/15 that ML 1711 had been granted. The notifications included a plan of the mining lease area and indicated the depths to which the ML applies.</p>	Compliant			
2	Any disturbance resulting from the activities carried out under this mining lease must be rehabilitated to the satisfaction of the Minister.	The only disturbance undertaken within ML 1711 was for the construction of the CW-1 dam. This area will be rehabilitated once the dam is decommissioned.	Not Triggered			
3	<p>(a) The lease holder must comply with an approved Mining Operations Plan (MOP) in carrying out any significant surface disturbing activities, including mining operations, mining purposes and prospecting. The lease holder must apply to the Minister for approval of a MOP. An approved MOP must be in place prior to commencing any significant disturbing activities, including mining operations, mining purposes and prospecting.</p> <p>(b) The MOP must identify the post mining land use and set out a detailed rehabilitation strategy which:</p> <p>(i) identifies areas that will be disturbed;</p> <p>(ii) details the staging of specific mining operations, mining purposes and prospecting;</p> <p>(iii) identifies how the mine will be managed and rehabilitated to achieve the post mining land use;</p> <p>(iv) identifies how mining operations, mining purposes and prospecting will be carried out in order to prevent and or mining harm to the environment; and</p> <p>(v) reflects the conditions of approval under:</p> <p>- the Environmental Planning and Assessment Act 1979;</p> <p>- the Protection of the Environment Operations Act 1997; and</p> <p>- any other approvals relevant to the development including the conditions of this mining lease.</p> <p>(d) The lease holder may apply to the Minister to amend an approved MOP at any time.</p> <p>(e) It is not a breach of this condition if:</p> <p>(i) the operations which, but for this condition 3(e) would be a breach of condition 3(a), were necessary to comply with a lawful order or direction given under the Environmental Planning and Assessment Act 1979, the Protection of the Environment Operations Act 1997, the Mine Health and Safety Act 2004 / Coal Mine Health and Safety Act 2002 and Mine Health and Safety Regulation 2007 / Coal Mine Health and Safety Regulation 2006 or the Work Health and Safety Act 2011; and</p> <p>(ii) the Minister had been notified in writing of the terms of the order or direction prior to the operations constituting the breach being carried out.</p> <p>(f) The lease holder must prepare a Rehabilitation Report to the satisfaction of the Minister. The report must:</p> <p>(i) provide a detailed review of the progress of rehabilitation against the performance measures and criteria established in the approved MOP;</p> <p>(ii) be submitted annually on the grant anniversary date (or at such other times as agreed by the Minister); and</p> <p>(iii) be prepared in accordance with any relevant annual reporting guidelines published on the Department's website at www.resources.nsw.gov.au/environment.</p> <p>Note: The rehabilitation report replaces the Annual Environmental Management Report.</p>	<p>Mining operations are conducted according to the "Mine Operations Plan 2015-2021". This MOP was approved by DRE on 03/07/15 (letter from C Lewis).</p> <p>Bengalla submitted an application for amendment of the MOP on 28/01/16. The amendment was approved by DRE on 12/04/16 (letter from M Meyer). This amendment to the MOP reflected Modification 1 to the Development Consent.</p> <p>The requirement for a Rehabilitation Report is satisfied through the preparation of an Annual Review (which has replaced the Annual Environmental Management Report). Rehabilitation activities are discussed in Section 8 of the Annual Review.</p>	Compliant			

Condition	Requirement	Evidence	Audit Finding	Risk		
				Consequence	Likelihood	Risk
Mining Lease 1711						
4	<p>(a) The lease holder must submit a Compliance Report to the satisfaction of the Minister. The report must be prepared in accordance with any relevant guidelines or requirements published by the Minister for compliance reporting.</p> <p>(b) The Compliance Report must include:</p> <p>(i) the extent to which the conditions of this mining lease or any provisions of the Act or the regulations applicable to activities under this mining lease, have or have not been complied with;</p> <p>(ii) particulars of any non-compliance with any such conditions or provisions,</p> <p>(iii) the reasons for any such non-compliance;</p> <p>(iv) any action taken, or to be taken, to prevent any recurrence, or to mitigate the effects, of that non-compliance.</p> <p>(c) The Compliance Report must be lodged with the Department annually on the grant anniversary date for the life of this mining lease.</p> <p>(d) In addition to annual lodgement under condition 4(c) above, a Compliance Report:</p> <p>(i) must accompany any application to renew this mining lease under the Act;</p> <p>(ii) must accompany any application to transfer this mining lease under the Act; and</p> <p>(iii) must accompany any application to cancel, or to partially cancel, this mining lease under the Act.</p> <p>(e) Despite the submission of any Compliance Report under (c) or (d) above, the titleholder must lodge a Compliance Report with the Department at any date or dates otherwise required by the Minister.</p> <p>(f) A Compliance Report must be submitted one month prior to the expiry of this mining lease, where the licence holder is not seeking to renew or cancel this mining lease.</p>	A Compliance Report for 2015-16, using DRE's standard form, was submitted on 29/09/16 (Bengalla Annual Compliance Report for ML 1711 for 2016). There were no non-compliances with the conditions of ML 1711 in this reporting period.	Compliant			
5	<p>(a) The lease holder must notify the Department of all:</p> <p>(i) breaches of the conditions of this mining lease or breaches of the Act causing or threatening material harm to the environment; and</p> <p>(ii) breaches of environmental protection legislation causing or threatening material harm to the environment (as defined in the Protection of the Environment Operations Act 1997); arising in connection with significant surface disturbing activities, including mining operations, mining purposes and prospecting operations, under this mining lease. The notification must be given immediately after the lease holder becomes aware of the breach.</p> <p>(b) The lease holder must submit an Environmental Incident Report to the Department within seven (7) days of all breaches referred to in condition 5(a)(i) and (ii). The Environmental Incident Report must include:</p> <p>(i) the details of the mining lease;</p> <p>(ii) contact details for the lease holder;</p> <p>(iii) a map identifying the location of the incident and where material harm to the environment has or is likely to occur;</p> <p>(iv) a description of the nature of the incident or breach, likely causes and consequences;</p> <p>(v) a timetable showing actions taken or planned to address the incident and to prevent future incidents or breaches referred to in 5(a).</p> <p>(vi) a summary of all previous incidents or breaches which have occurred in the previous 12 months relating to significant surface disturbing activities, including mining operations, mining purposes and prospecting operations under this mining lease.</p> <p>(c) In addition to the requirements set out in conditions 5(a) and (b), the lease holder must immediately advise the Department of any notification made under section 148 of the Protection of the Environment Operations Act 1997 arising in connection with significant surface disturbing activities including mining operations, mining purposes and prospecting operations, under this mining lease.</p>	There have been no breaches of the conditions of this mining lease.	Compliant			

Condition	Requirement	Evidence	Audit Finding	Risk		
				Consequence	Likelihood	Risk
Mining Lease 1711						
6	<p>(a) In this condition:</p> <p>(i) approved Extraction Plan means a plan, being: A. an extraction plan or subsidence management plan approved in accordance with the conditions of a relevant development consent and provided to the Secretary; or B. a subsidence management plan relating to the mining operations subject to this lease: I. submitted to the Secretary on or before 31 December 2014; and II. approved by the Secretary.</p> <p>(ii) relevant development consent means a development consent or project approval issued under the Environmental Planning & Assessment Act 1979 relating to the mining operations subject to this lease.</p> <p>(b) The lease holder must not undertake any underground mining operations that may cause subsidence except in accordance with an approved Extraction Plan.</p> <p>(c) The lease holder must ensure that the approved Extraction Plan provides for the effective management of risks associated with any subsidence resulting from mining operations carried out under this lease.</p> <p>(d) The lease holder must notify the Secretary within 48 hours of any:</p> <p>(i) incident caused by subsidence which has a potential to expose any person to health and safety risks; (ii) significant deviation from the predicted nature, magnitude, distribution, timing and duration of subsidence effects, and of the potential impacts and consequences of those deviations on built features and the health and safety of any person; or (iii) significant failure or malfunction of a monitoring device or risk control measure set out in the approved Extraction Plan addressing: A. built features; B. public safety; or C. subsidence monitoring.</p>	Bengalla does not engage in any underground mining activities.	Not Triggered			
7	The lease holder must optimise the recovery of the minerals that are the subject of this mining lease to the extent economically feasible.	The ML 1711 area is for CW1 dam and associated infrastructure only.	Not Triggered			
8	<p>The lease holder is required to provide and maintain a security deposit to secure funding for the fulfillment of obligations of all or any kind under the mining lease, including obligations of all or any kind under the mining lease that may arise in the future.</p> <p>The amount of the security deposit to be provided as a group security has been assessed by the Minister at \$49,100,000.</p> <p>The leases covered by the group security include: Mining Lease 1397 (Act 1992), Mining Lease 1450 (Act 1992), Mining Lease 1469 (Act 1992) and Mining Lease 1592 (Act 1992).</p> <p>This group security is extended to apply to this lease.</p>	Total current security is \$73,300,300	Compliant			
9	<p>The lease holder must make every reasonable attempt, and be able to demonstrate its attempts, to enter into a cooperation agreement with the holders(s) of any overlapping title(s). The cooperation agreement should address but not be limited to issue such as:</p> <ul style="list-style-type: none"> - access arrangements - operations interaction procedures - dispute resolution - information exchange - well location - timing of drilling - potential resource extraction conflicts; and - rehabilitation issues. 	There are no overlapping active titles.	Not Triggered			

Condition	Requirement	Evidence	Audit Finding	Risk		
				Consequence	Likelihood	Risk
Mining Lease 1728						
1	<p>a) Within a period of three months from the date of grant/renewal of this mining lease, the lease holder must serve on each landholder a notice in writing indicating that this mining lease has been granted/renewed and whether the lease includes the surface. A plan identifying each landholder and individual land parcel subject to the lease area, and a description of the lease area must accompany the notice.</p> <p>b) If there are ten or more landholders, the lease holder may serve the notice by publication in a newspaper circulating in the region where the lease area is situated. The notice must indicate that this mining lease has been granted/renewed; state whether the lease includes the surface and must contain a plan and description of the lease area. If a notice is made under condition 1(b), compliance with condition 1(a) is not required.</p>	<p>ML 1728 was granted on 10/02/16. Bengalla owns all of the land within the area of ML 1728. Bengalla submitted a letter to Muswellbrook Shire Council, DPI - Lands, Westfarmers Bengalla Limited, Talpower Bengalla Pty Limited, Mitsui Bengalla Investment Pty Ltd and CNA Bengalla Investments Pty Ltd dated 9/5/2016</p>	Compliant			
2	<p>Any disturbance resulting from the activities carried out under this mining lease must be rehabilitated to the satisfaction of the Minister.</p>	<p>The only disturbance undertaken within ML 1728 was for the construction of the Western Diversion Levee and diversion pipeline for dam CW-1. These areas will be rehabilitated after the drain and pipeline have been decommissioned.</p>	Not Triggered			
3	<p>(a) The lease holder must comply with an approved Mining Operations Plan (MOP) in carrying out any significant surface disturbing activities, including mining operations, mining purposes and prospecting. The lease holder must apply to the Minister for approval of a MOP. An approved MOP must be in place prior to commencing any significant disturbing activities, including mining operations, mining purposes and prospecting.</p> <p>(b) The MOP must identify the post mining land use and set out a detailed rehabilitation strategy which:</p> <p>(i) identifies areas that will be disturbed;</p> <p>(ii) details the staging of specific mining operations, mining purposes and prospecting;</p> <p>(iii) identifies how the mine will be managed and rehabilitated to achieve the post mining land use;</p> <p>(iv) identifies how mining operations, mining purposes and prospecting will be carried out in order to prevent and or mining harm to the environment; and</p> <p>(v) reflects the conditions of approval under:</p> <ul style="list-style-type: none"> - the Environmental Planning and Assessment Act 1979; - the Protection of the Environmental Operations Act 1997; and - any other approvals relevant to the development including the conditions of this mining lease. <p>(c) The MOP must be prepared in accordance with the ESG3: Mining Operations Plan (MOP) Guidelines September 2013 published on the Department's website at www.resources.nsw.gov.au/environment</p> <p>(d) The lease holder may apply to the Minister to amend an approved MOP at any time.</p> <p>(e) It is not a breach of this condition if:</p> <p>(i) the operations which, but for this condition 3(e) would be a breach of condition 3(a), were necessary to comply with a lawful order or direction given under the Environmental Planning and Assessment Act 1979, the Protection of the Environment Operations Act 1997, the Mine Health and Safety Act 2004 / Coal Mine Health and Safety Act 2002 and Mine Health and Safety Regulation 2007 / Coal Mine Health and Safety Regulation 2006 or the Work Health and Safety Act 2011; and</p> <p>(ii) the Minister had been notified in writing of the terms of the order or direction prior to the operations constituting the breach being carried out.</p> <p>(f) The lease holder must prepare a Rehabilitation Report to the satisfaction of the Minister. The report must:</p> <p>(i) provide a detailed review of the progress of rehabilitation against the performance measures and criteria established in the approved MOP;</p> <p>(ii) be submitted annually on the grant anniversary date (or at such other times as agreed by the Minister); and</p> <p>(iii) be prepared in accordance with any relevant annual reporting guidelines published on the Department's website at www.resources.nsw.gov.au/environment.</p> <p>Note: The rehabilitation report replaces the Annual Environmental Management Report.</p>	<p>Mining operations are conducted according to the "Mine Operations Plan 2015-2021". This MOP was approved by DRE on 03/07/15 (letter from C Lewis).</p> <p>Bengalla submitted an application for amendment of the MOP on 28/01/16. The amendment was approved by DRE on 12/04/16 (letter from M Meyer). This amendment to the MOP reflected Modification 1 to the Development Consent.</p> <p>The requirement for a Rehabilitation Report is satisfied through the preparation of an Annual Review (which has replaced the Annual Environmental Management Report). Rehabilitation activities are discussed in Section 8 of the Annual Review.</p>	Compliant			
4	<p>(a) The lease holder must submit a Compliance Report to the satisfaction of the Minister. The report must be prepared in accordance with any relevant guidelines or requirements published by the Minister for compliance reporting.</p> <p>(b) The Compliance Report must include:</p> <p>(i) the extent to which the conditions of this mining lease or any provisions of the Act or the regulations applicable to activities under this mining lease, have or have not been complied with;</p> <p>(ii) particulars of any non-compliance with any such conditions or provisions,</p> <p>(iii) the reasons for any such non-compliance;</p> <p>(iv) any action taken, or to be taken, to prevent any recurrence, or to mitigate the effects, of that non-compliance.</p> <p>(c) The Compliance Report must be lodged with the Department annually on the grant anniversary date for the life of this mining lease.</p> <p>(d) In addition to annual lodgement under condition 4(c) above, a Compliance Report:</p> <p>(i) must accompany any application to renew this mining lease under the Act;</p> <p>(ii) must accompany any application to transfer this mining lease under the Act; and</p> <p>(iii) must accompany any application to cancel, or to partially cancel, this mining lease under the Act.</p> <p>(e) Despite the submission of any Compliance Report under (c) or (d) above, the titleholder must lodge a Compliance Report with the Department at any date or dates otherwise required by the Minister.</p> <p>(f) A Compliance Report must be submitted one month prior to the expiry of this mining lease, where the licence holder is not seeking to renew or cancel this mining lease.</p>	<p>The first Compliance Report for ML 1728 was submitted 10/02/17.</p>	Compliant			

Condition	Requirement	Evidence	Audit Finding	Risk		
				Consequence	Likelihood	Risk
5	<p>(a) The lease holder must notify the Department of all:</p> <p>(i) breaches of the conditions of this mining lease or breaches of the Act causing or threatening material harm to the environment; and</p> <p>(ii) breaches of environmental protection legislation causing or threatening material harm to the environment (as defined in the Protection of the Environment Operations Act 1997); arising in connection with significant surface disturbing activities, including mining operations, mining purposes and prospecting operations, under this mining lease. The notification must be given immediately after the lease holder becomes aware of the breach.</p> <p>(b) The lease holder must submit an Environmental Incident Report to the Department within seven (7) days of all breaches referred to in condition 5(a)(i) and (ii). The Environmental Incident Report must include:</p> <p>(i) the details of the mining lease;</p> <p>(ii) contact details for the lease holder;</p> <p>(iii) a map identifying the location of the incident and where material harm to the environment has or is likely to occur;</p> <p>(iv) a description of the nature of the incident or breach, likely causes and consequences;</p> <p>(v) a timetable showing actions taken or planned to address the incident and to prevent future incidents or breaches referred to in 5(a).</p> <p>(vi) a summary of all previous incidents or breaches which have occurred in the previous 12 months relating to significant surface disturbing activities, including mining operations, mining purposes and prospecting operations under this mining lease.</p> <p>(c) In addition to the requirements set out in conditions 5(a) and (b), the lease holder must immediately advise the Department of any notification made under section 148 of the Protection of the Environment Operations Act 1997 arising in connection with significant surface disturbing activities including mining operations, mining purposes and prospecting operations, under this mining lease.</p>	<p>There have been no breaches of the conditions of this mining lease.</p> <p>There were no environmental incidents within the ML 1728 area.</p>	Compliant			
8	<p>The lease holder is required to provide an maintain a security deposit to secure funding for the fulfillment of obligations of all or any kind under the mining lease, including obligations of all or any kind under the mining lease that may arise in the future.</p> <p>The amount of the security deposit to be provided as a group security has been assessed by the Minister at \$73,300,300. The leases covered by the group security include: Mining Lease 1397, 1450, 1469 and Mining 1592 (Act 1992). This group security is extended to apply to this lease.</p>	Total current security is \$73,300,300	Compliant			
9	<p>The lease holder must make every reasonable attempt, and be able to demonstrate its attempts, to enter into a cooperation agreement with the holders(s) of any overlapping title(s). The cooperation agreement should address but not be limited to issue such as:</p> <ul style="list-style-type: none"> - access arrangements - operations interaction procedures - dispute resolution - information exchange - well location - timing of drilling - potential resource extraction conflicts; and 	No overlapping active titles	Not Triggered			

Condition	Requirement	Evidence	Audit Finding	Risk		
				Consequence	Likelihood	Risk
Mining Lease 1729						
1	<p>a) Within a period of three months from the date of grant/renewal of this mining lease, the lease holder must serve on each landholder a notice in writing indicating that this mining lease has been granted/renewed and whether the lease includes the surface. A plan identifying each landholder and individual land parcel subject to the lease area, and a description of the lease area must accompany the notice.</p> <p>b) If there are ten or more landholders, the lease holder may serve the notice by publication in a newspaper circulating in the region where the lease area is situated. The notice must indicate that this mining lease has been granted/renewed; state whether the lease includes the surface and must contain a plan and description of the lease area. If a notice is made under condition 1(b), compliance with condition 1(a) is not required.</p>	<p>ML 1728 was granted on 10/02/16. Bengalla submitted a letter to Muswellbrook Shire Council, DPI - Lands, Westfarmers Bengalla Limited, Talpower Bengalla Pty Limited, Mitsui Bengalla Investment Pty Ltd, Coal & Allied Operations Pty Ltd and CNA Bengalla Investments Pty Ltd dated 9/5/2016</p>	Compliant			
2	<p>Any disturbance resulting from the activities carried out under this mining lease must be rehabilitated to the satisfaction of the Minister.</p>	<p>The only disturbance undertaken within ML 1729 was for the construction of the Western Diversion Levee and diversion pipeline for dam CW-1. These areas will be rehabilitated after the drain and pipeline have been decommissioned.</p>	Not Triggered			
3	<p>(a) The lease holder must comply with an approved Mining Operations Plan (MOP) in carrying out any significant surface disturbing activities, including mining operations, mining purposes and prospecting. The lease holder must apply to the Minister for approval of a MOP. An approved MOP must be in place prior to commencing any significant disturbing activities, including mining operations, mining purposes and prospecting.</p> <p>(b) The MOP must identify the post mining land use and set out a detailed rehabilitation strategy which:</p> <ul style="list-style-type: none"> (i) identifies areas that will be disturbed; (ii) details the staging of specific mining operations, mining purposes and prospecting; (iii) identifies how the mine will be managed and rehabilitated to achieve the post mining land use; (iv) identifies how mining operations, mining purposes and prospecting will be carried out in order to prevent and or mining harm to the environment; and (v) reflects the conditions of approval under: <ul style="list-style-type: none"> - the Environmental Planning and Assessment Act 1979; - the Protection of the Environmental Operations Act 1997; and - any other approvals relevant to the development including the conditions of this mining lease. <p>(c) The MOP must be prepared in accordance with the ESG3: Mining Operations Plan (MOP) Guidelines September 2013 published on the Department's website at www.resources.nsw.gov.au/environment</p> <p>(d) The lease holder may apply to the Minister to amend an approved MOP at any time.</p> <p>(e) It is not a breach of this condition if:</p> <ul style="list-style-type: none"> (i) the operations which, but for this condition 3(e) would be a breach of condition 3(a), were necessary to comply with a lawful order or direction given under the Environmental Planning and Assessment Act 1979, the Protection of the Environment Operations Act 1997, the Mine Health and Safety Act 2004 / Coal Mine Health and Safety Act 2002 and Mine Health and Safety Regulation 2007 / Coal Mine Health and Safety Regulation 2006 or the Work Health and Safety Act 2011; and (ii) the Minister had been notified in writing of the terms of the order or direction prior to the operations constituting the breach being carried out. <p>(f) The lease holder must prepare a Rehabilitation Report to the satisfaction of the Minister. The report must:</p> <ul style="list-style-type: none"> (i) provide a detailed review of the progress of rehabilitation against the performance measures and criteria established in the approved MOP; (ii) be submitted annually on the grant anniversary date (or at such other times as agreed by the Minister); and (iii) be prepared in accordance with any relevant annual reporting guidelines published on the Department's website at www.resources.nsw.gov.au/environment. <p>Note: The rehabilitation report replaces the Annual Environmental Management Report.</p>	<p>Mining operations are conducted according to the "Mine Operations Plan 2015-2021". This MOP was approved by DRE on 03/07/15 (see letter from C Lewis).</p> <p>Bengalla submitted an application for amendment of the MOP on 28/01/16. The amendment was approved by DRE on 12/04/16 (see letter from M Meyer). This amendment to the MOP reflected Modification 1 to the Development Consent.</p> <p>The requirement for a Rehabilitation Report is satisfied through the preparation of an Annual Review (which has replaced the Annual Environmental Management Report). Rehabilitation activities are discussed in Section 8 of the Annual Review.</p>	Compliant			

<p>4</p>	<p>(a) The lease holder must submit a Compliance Report to the satisfaction of the Minister. The report must be prepared in accordance with any relevant guidelines or requirements published by the Minister for compliance reporting. (b) The Compliance Report must include: (i) the extent to which the conditions of this mining lease or any provisions of the Act or the regulations applicable to activities under this mining lease, have or have not been complied with; (ii) particulars of any non-compliance with any such conditions or provisions, (iii) the reasons for any such non-compliance; (iv) any action taken, or to be taken, to prevent any recurrence, or to mitigate the effects, of that non-compliance. (c) The Compliance Report must be lodged with the Department annually on the grant anniversary date for the life of this mining lease. (d) In addition to annual lodgement under condition 4(c) above, a Compliance Report: (i) must accompany any application to renew this mining lease under the Act; (ii) must accompany any application to transfer this mining lease under the Act; and (iii) must accompany any application to cancel, or to partially cancel, this mining lease under the Act. (e) Despite the submission of any Compliance Report under (c) or (d) above, the titleholder must lodge a Compliance Report with the Department at any date or dates otherwise required by the Minister. (f) A Compliance Report must be submitted one month prior to the expiry of this mining lease, where the licence holder is not seeking to renew or cancel this mining lease.</p>	<p>The first Compliance Report for ML 1729 was submitted 10/02/17.</p>	<p>Compliant</p>			
<p>5</p>	<p>(a) The lease holder must notify the Department of all: (i) breaches of the conditions of this mining lease or breaches of the Act causing or threatening material harm to the environment; and (ii) breaches of environmental protection legislation causing or threatening material harm to the environment (as defined in the Protection of the Environment Operations Act 1997); arising in connection with significant surface disturbing activities, including mining operations, mining purposes and prospecting operations, under this mining lease. The notification must be given immediately after the lease holder becomes aware of the breach. (b) The lease holder must submit an Environmental Incident Report to the Department within seven (7) days of all breaches referred to in condition 5(a)(i) and (ii). The Environmental Incident Report must include: (i) the details of the mining lease; (ii) contact details for the lease holder; (iii) a map identifying the location of the incident and where material harm to the environment has or is likely to occur; (iv) a description of the nature of the incident or breach, likely causes and consequences; (v) a timetable showing actions taken or planned to address the incident and to prevent future incidents or breaches referred to in 5(a). (vi) a summary of all previous incidents or breaches which have occurred in the previous 12 months relating to significant surface disturbing activities, including mining operations, mining purposes and prospecting operations under this mining lease. (c) In addition to the requirements set out in conditions 5(a) and (b), the lease holder must immediately advise the Department of any notification made under section 148 of the Protection of the Environment Operations Act 1997 arising in connection with significant surface disturbing activities including mining operations, mining purposes and prospecting operations, under this mining lease.</p>	<p>There have been no breaches of the conditions of this mining lease. There were no environmental incidents within the ML 1729 area.</p>	<p>Compliant</p>			
<p>6</p>	<p>(a) In this condition: (i) approved Extraction Plan means a plan, being: A. an extraction plan or subsidence management plan approved in accordance with the conditions of a relevant development consent and provided to the Secretary; or B. a subsidence management plan relating to the mining operations subject to this lease: I. submitted to the Secretary on or before 31 December 2014; and II. approved by the Secretary. (ii) relevant development consent means a development consent or project approval issued under the Environmental Planning & Assessment Act 1979 relating to the mining operations subject to this lease. (b) The lease holder must not undertake any underground mining operations that may cause subsidence except in accordance with an approved Extraction Plan. (c) The lease holder must ensure that the approved Extraction Plan provides for the effective management of risks associated with any subsidence resulting from mining operations carried out under this lease. (d) The lease holder must notify the Secretary within 48 hours of any: (i) incident caused by subsidence which has a potential to expose any person to health and safety risks; (ii) significant deviation from the predicted nature, magnitude, distribution, timing and duration of subsidence effects, and of the potential impacts and consequences of those deviations on built features and the health and safety of any person; or (iii) significant failure or malfunction of a monitoring device or risk control measure set out in the approved Extraction Plan addressing: A. built features; B. public safety; or C. subsidence monitoring.</p>	<p>Bengalla did not engage in any underground mining activities.</p>	<p>Not Triggered</p>			

<p>8</p>	<p>The lease holder is required to provide an maintain a security deposit to secure funding for the fulfillment of obligations of all or any kind under the mining lease, including obligations of all or any kind under the mining lease that may arise in the future. The amount of the security deposit to be provided as a group security has been assessed by the Minister at \$73,300,300. The leases covered by the group security include: Mining Lease 1397, 1450, 1469 and Mining 1592 (Act 1992). This group security is extended to apply to this lease.</p>	<p>Total current security is \$73,300,300</p>	<p>Compliant</p>			
<p>9</p>	<p>The lease holder must make every reasonable attempt, and be able to demonstrate its attempts, to enter into a cooperation agreement with the holders(s) of any overlapping title(s). The cooperation agreement should address but not be limited to issue such as: - access arrangements - operations interaction procedures - dispute resolution - information exchange - well location - timing of drilling - potential resource extraction conflicts; and - rehabilitation issues.</p>	<p>There is no overlapping active leases</p>	<p>Not Triggered</p>			
<p>10</p>	<p>(a) Notwithstanding any Mining Operations Plan, the lease holder must not mine within any part of the lease area which is within the Notification Area of the Bengalla Clean Water and Bengalla Discharge Water Dam without the prior approval of the Minister and subject to any conditions stipulated. (b) Where the lease holder desires to mine within the notification area he or she must: (i) at least twelve (12) months before mining is to commence or such lesser time as the Minister may permit, notify the Minister of the desire to do so. A plan of the mining system to be implemented must accompany the notice; and (ii) provide such information as the Minister may direct. (c) The Minister must not, except in the circumstances set out in sub-paragraph (ii), grant approval unless sub-paragraph (i) of this paragraph has been complied with. This sub-paragraph is complied with if: (i) the Dams Safety Committee as constituted by Section 7 of the Dams Safety Act 1978 and the owner of the dam have been notified in writing of the desire to mine referred to in paragraph (b). (ii) the notifications referred to in clause (a) are accompanied by a description or plan of the area to be mined. (iii) the Director-General has complied with any reasonable request made by the Dams Safety Committee or the owner of the dam for further information in connection with the mining proposal. (iv) the Dams Safety Committee has made its recommendations concerning the mining proposal or has informed the Minister in writing that it does not proposed to make any such recommendations; and (v) where the Dams Safety Committee has made recommendations the approval is in terms that are: - in accordance with those recommendations; or - where the Minister does not accept those recommendations or any of them - in accordance with a determination under sub-paragraph (ii) of this paragraph. (vi) Where the Minister does not accept the recommendations of the Dams Safety Committee or where the Dams Safety Committee has failed to make any recommendations and has not informed the Minister in writing that it does not proposed to make any recommendations, the approval shall be in terms that are, in relation to matters dealing with the safety of the dam: - as determined by agreement between the Minister and the Minister administering the Dams Safety Act 1978; or - in the event of failure to reach such agreement - as determined by the Premier. (d) The Minister, on notice from the Dams Safety Committee, may at any time or times: (i) cancel any approval given where a notice pursuant to Section 18 of the Dams Safety Act 1978 is given. (ii) suspend for a period of time, alter, omit from or add to any approval given or conditions imposed.</p>	<p>Approval to undertake mining within the Prescribed Dam Area of the existing Staged Discharge Dam given by the Dam Safety Committee 31 August 2015 with mining currently occurring within ML 1397 only not ML 1729.</p>	<p>Compliant</p>			

Reference	Condition	Requirement	Evidence	Audit Finding	Risk		
					Consequence	Likelihood	Risk
Water Supply Works, 20CA201647 & 20WA201006							
Expiry 30-6-17							
Water Sharing Plan							
MW0835-00001		The approval holder must not take water using any work specified on this approval unless in compliance with the conditions of the access licence under which water is being taken.	Noted	Noted			
MW0116-00373		The approval holder must not take water using works on this approval under a: (A) domestic and stock access licence, or (B) local water utility access licence or (C) major utility access licence, unless it is in accordance with a water supply order lodged with and approved by the nominated WaterNSW customer service officer not less than 4 days prior to when the water is to be taken.	Annual Reviews state that water is extracted in accordance with the RTEMS and volumes are matched to licenses limits on an ongoing basis.	Compliant			
MW0837-00001		The approval holder must not take any water using any work on this approval if the water allocation account of the access licence from which the water is to be taken, is or will go into debit.	Annual Reviews state that water is extracted in accordance with the RTEMS and volumes are matched to licenses limits on an ongoing basis.	Compliant			
MW0117-00375		The approval holder must not take water using works on this approval under a: (A) regulated river (high security) access licence or (B) regulated river (general security) access licence, unless it is in accordance with a water supply order lodged with and approved by the nominated WaterNSW customer service officer not less than 4 days prior to when the water is to be taken, except when taking water that is accounted as uncontrolled (known as 'uncontrolled water allocations').	Annual Reviews state that water is extracted in accordance with the RTEMS and volumes are matched to licenses limits on an ongoing basis.	Compliant			
MW0839-00001		The approval holder must provide a certificate issued by the manufacturer or other such competent, qualified person certifying the accuracy of device or devices used for measuring the volume of water extracted by the approved works, in accordance with any written direction from the Minister.	No such direction in the audit period	Not Triggered			
MW0838-00001		The approval holder must install, maintain and operate any device or devices for measuring the volume of water extracted by the approved works in accordance with any manufacturer's specifications, when required in accordance with any written direction from the Minister.	No such direction in the audit period	Not Triggered			
MW0840-00001		The approval holder must inform the relevant licensor within seven (7) days if the device or devices used for measuring the volume of water taken from the approved work ceases to record water usage accurately. In such cases the approval holder must notify the Department of: (i) the duration of the failure of the measuring device(s), and (ii) the total hours that the work was operated while the measuring device was not functioning, and (iii) where irrigation is undertaken, the area of land in hectares that has been irrigated during the period where the measuring device was not functioning.	The devices have operated correctly through the audit period	Not Triggered			
MW0851-00001		The approval holder must provide the Minister, in the approved form, with the following information when requested: (A) a report detailing the quantity of water taken through the authorised work(s) and recorded by the approved measuring device, or where the work does not have a measuring device fitted to it, advise the Minister of the duration of any pumping, and, (B) where the water is used for irrigation, the area of land irrigated, the planting date, area and yield of all crops grown on the property for each season. These details must include: (i) the volume of water taken from the water source and applied directly to crops and/or pasture, (ii) the volume of water taken from the water source and held in on-farm storages, (iii) the volume of water taken from on-farm storages and applied to crops (including pasture); (iv) the type and area of each crop (including pasture) irrigated; (v) the method of irrigation for each class of crop and/or pasture; and (vi) the volume of water applied to each individual class of crop and/or pasture.	This has not been requested in the audit period	Not Triggered			

Reference	Condition	Requirement	Evidence	Audit Finding	Risk		
					Consequence	Likelihood	Risk
Water Supply Works, 20CA201647 & 20WA201006							
Expiry 30-6-17							
MK0841-00001		The approval holder must within two (2) months of completing construction of any work permitted by this approval and in a form approved by the Minister, provide the relevant licensor with the following: i) the location of the authorised work on the Lot and Deposited Plan preferably using GPS references, and ii) details of the work (including the size, dimensions and capacity of the work).	All works were completed prior to the audit period.	Not Triggered			
DK1215-00001		The holder of the approval must not construct or install works used for conveying, distributing or storing water taken by means of the approved work that obstruct the reasonable passage of floodwaters into or from a river.	Noted, the site inspection did not identify any such works.	Compliant			
DK1362-00001		The approval holder must not allow any tailwater or drainage water to discharge, by any means including surface or sub-surface drains or pipes, from the approval holders property, into or onto: - any adjoining public or crown road - any other persons land - any crown land - any river, creek or watercourse - any groundwater aquifer - any area of native vegetation as described in the Native Vegetation Conservation Act 1997 or the Native Vegetation Act 2003. - any wetlands of environmental significance - any identified site of aboriginal significance - any identified site of cultural significance.	No water extracted under this approval left the Bengalla Mine site in the audit period.	Compliant			

Reference	Condition	Requirement	Evidence	Audit Finding	Risk		
					Consequence	Likelihood	Risk
Water Supply Works, 20WA207669							
Groundwater Extraction - Bore							
Expiry 30-7-19							
Water Sharing Plan		Hunter Unregulated and Alluvial Water Sources					
MW2338-00001		The completed logbook must be retained for five (5) years from the last date recorded in the logbook.	Bengalla Mine kept suitable records of water take during the audit period, this is evidenced by the Water Balance presented in the Annual Reviews, these calculations would not have been possible without adequate supporting data. Whilst undertaking the site inspection, the auditor reviewed the water management system that was controlled centrally and semiautomatically in a SCADA (supervisory control and data acquisition) System. The system supported operation, monitoring and data collection and collation for water management at the site.	Compliant			
MW2337-00001		The approval holder must not take water using works on this approval under a: (A) domestic and stock access licence, or (B) local water utility access licence or (C) major utility access licence, unless it is in accordance with a water supply order lodged with and approved by the nominated WaterNSW customer service officer not less than 4 days prior to when the water is to be taken.	Bengalla Mine kept suitable records of water take during the audit period, this is evidenced by the Water Balance presented in the Annual Reviews, these calculations would not have been possible without adequate supporting data. Whilst undertaking the site inspection, the auditor reviewed the water management system that was controlled by a SCADA (supervisory control and data acquisition) System. The system supported operation, monitoring and data collection and collation for water management at the site including pumped volumes and water storage levels.	Compliant			
DK1198-00001		The approval holder must allow the relevant licensor or any person authorised by it, full and free access to the works, either during or after construction, for the purpose of carrying out inspection or test of the works and its fittings and shall carry out any work or alterations deemed necessary by the department for the protection and proper maintenance of the works, or the control of the water extracted and for the protection of the quality and the prevention from pollution or contamination of sub-surface water.	Noted, this had not been formally requested in the audit period.	Not Triggered			
DK1199-00001		(A) The approval holder must notify the relevant licensor if a flowing supply of water is obtained. The bore must then be lined with casing and cemented and a suitable closing gear must be attached to the borehead as specified by the relevant licensor. (B) If a flowing supply of water is obtained from the work, the approval holder must only distribute water from the bore head by a system of pipe lines and must not distribute it in drains, natural or artificial channels or depressions.	A) Annual Reviews detail water take, the nature of the operation is such that water take is inevitable and the Department were aware of this when the license was established. B) Not applicable to the works.	Compliant			
DK1208-00001		The approval holder must not construct or install works used for the purpose of conveying, distributing or storing water from the works authorised by this approval, that obstruct the reasonable passage of floodwaters flowing in, to, or from a river or lake.	Not applicable to the works.	Not Triggered			
DK1207-00001		The approval holder must not allow any tailwater/ drainage to discharge into or onto: - any adjoining public or crown road; - any other persons land; - any crown land; - any river, creek or watercourse; - any native vegetation as described under the Native Vegetation Conservation Act 1997 or Native Vegetation Act 2003; - any wetlands of environmental significance.	No water extracted under this approval left the Bengalla Mine site in the audit period.	Compliant			

Reference	Condition	Requirement	Evidence	Audit Finding	Risk		
					Consequence	Likelihood	Risk
Basic Rights, 20WA207673							
Groundwater extraction - Bore							
Expiry 30-7-19							
Water Sharing Plan		Hunter Regulated Alluvial Water Sources					
DK1198-00001		The approval holder must allow the relevant licensor or any person authorised by it, full and free access to the works, either during or after construction, for the purpose of carrying out inspection or test of the works and its fittings and shall carry out any work or alterations deemed necessary by the department for the protection and proper maintenance of the works, or the control of the water extracted and for the protection of the quality and the prevention from pollution or contamination of sub-surface water.	Noted, this had not been formally requested in the audit period.	Not Triggered			
DK1199-00001		The approval holder must not take water using works on this approval under a: (A) domestic and stock access licence, or (B) local water utility access licence or (C) major utility access licence, unless it is in accordance with a water supply order lodged with and approved by the nominated WaterNSW customer service officer not less than 4 days prior to when the water is to be taken.	A) Annual Reviews detail water take, the nature of the operation is such that water take is inevitable and the Department were aware of this when the license was established. B) Not applicable to the works.	Compliant			
DK1208-00001		The approval holder must not construct or install works used for the purpose of conveying, distributing or storing water from the works authorised by this approval, that obstruct the reasonable passage of floodwaters flowing in, to, or from a river or lake.	Not applicable to the works.	Not Triggered			
DK1207-00001		The approval holder must not allow any tailwater/ drainage to discharge into or onto: - any adjoining public or crown road; - any other persons land; - any crown land; - any river, creek or watercourse; - any native vegetation as described under the Native Vegetation Conservation Act 1997 or Native Vegetation Act 2003; - any wetlands of environmental significance.	No water extracted under this approval left the Bengalla Mine site in the audit period.	Compliant			

Reference	Condition	Requirement	Evidence	Audit Finding	Risk		
					Consequence	Likelihood	Risk
Basic Rights, 20WA207597							
Groundwater extraction - Bore							
Expiry none							
Water Sharing Plan		Hunter Regulated River Alluvial Water Sources					
DK1198-00001		The approval holder must allow the relevant licensor or any person authorised by it, full and free access to the works, either during or after construction, for the purpose of carrying out inspection or test of the works and its fittings and shall carry out any work or alterations deemed necessary by the department for the protection and proper maintenance of the works, or the control of the water extracted and for the protection of the quality and the prevention from pollution or contamination of sub-surface water.	Noted, this had not been formally requested in the audit period.	Not Triggered			
DK1199-00001		The approval holder must not take water using works on this approval under a: (A) domestic and stock access licence, or (B) local water utility access licence or (C) major utility access licence, unless it is in accordance with a water supply order lodged with and approved by the nominated WaterNSW customer service officer not less than 4 days prior to when the water is to be taken.	A) Annual Reviews detail water take, the nature of the operation is such that water take is inevitable and the Department were aware of this when the license was established. B) Not applicable to the works.	Compliant			
DK1208-00001		The approval holder must not construct or install works used for the purpose of conveying, distributing or storing water from the works authorised by this approval, that obstruct the reasonable passage of floodwaters flowing in, to, or from a river or lake.	Not applicable to the works.	Not Triggered			
DK1207-00001		The approval holder must not allow any tailwater/ drainage to discharge into or onto: - any adjoining public or crown road; - any other persons land; - any crown land; - any river, creek or watercourse; - any native vegetation as described under the Native Vegetation Conservation Act 1997 or Native Vegetation Act 2003; - any wetlands of environmental significance.	No water extracted under this approval left the Bengalla Mine site in the audit period.	Compliant			

Reference	Condition	Requirement	Evidence	Audit Finding	Risk		
					Consequence	Likelihood	Risk
Water Supply Works, 20WA212269							
Extraction - River - pumping							
Expiry 19-02-22							
Water Sharing Plan		Hunter Regulated River Water Source					
MW0117-00758		The approval holder must not take water using works on this approval under a: (A) regulated river (high security) access licence or (B) regulated river (general security) access licence, unless it is in accordance with a water supply order lodged with and approved by the nominated WaterNSW customer service officer not less than 4 days prior to when the water is to be taken, except when taking water that is accounted as uncontrolled (known as 'uncontrolled water allocations').	Noted	Noted			
MW0835-00001		The approval holder must not take water using works on this approval under a: (A) domestic and stock access licence, or (B) local water utility access licence or (C) major utility access licence, unless it is in accordance with a water supply order lodged with and approved by the nominated WaterNSW customer service officer not less than 4 days prior to when the water is to be taken.	Annual Reviews state that water is extracted in accordance with the RTEMS and volumes are matched to licenses limits on an ongoing basis.	Compliant			
MW0116-00748		The approval holder must not take water using works on this approval under a: (A) domestic and stock access licence, or (B) local water utility access licence or (C) major utility access licence, unless it is in accordance with a water supply order lodged with and approved by the nominated WaterNSW customer service officer not less than 4 days prior to when the water is to be taken.	Annual Reviews state that water is extracted in accordance with the RTEMS and volumes are matched to licenses limits on an ongoing basis.	Compliant			
MW0837-00001		The approval holder must not take any water using any work on this approval if the water allocation account of the access licence from which the water is to be taken, is or will go into debit.	Annual Reviews state that water is extracted in accordance with the RTEMS and volumes are matched to licenses limits on an ongoing basis.	Compliant			
MW0839-00001		The approval holder must provide a certificate issued by the manufacturer or other such competent, qualified person certifying the accuracy of device or devices used for measuring the volume of water extracted by the approved works, in accordance with any written direction from the Minister.	No such direction in the audit period	Not Triggered			
MW0838-00001		The approval holder must install, maintain and operate any device or devices for measuring the volume of water extracted by the approved works in accordance with any manufacturer's specifications, when required in accordance with any written direction from the Minister.	No such direction in the audit period	Not Triggered			
MW0840-00001		The approval holder must inform the relevant licensor within seven (7) days if the device or devices used for measuring the volume of water taken from the approved work ceases to record water usage accurately. In such cases the approval holder must notify the Department of: (i) the duration of the failure of the measuring device(s), and (ii) the total hours that the work was operated while the measuring device was not functioning, and (iii) where irrigation is undertaken, the area of land in hectares that has been irrigated during the period where the measuring device was not functioning.	The devices have operated correctly through the audit period	Not Triggered			
MW0851-00001		The approval holder must provide the Minister, in the approved form, with the following information when requested: (A) a report detailing the quantity of water taken through the authorised work(s) and recorded by the approved measuring device, or where the work does not have a measuring device fitted to it, advise the Minister of the duration of any pumping, and, (B) where the water is used for irrigation, the area of land irrigated, the planting date, area and yield of all crops grown on the property for each season. These details must include: (i) the volume of water taken from the water source and applied directly to crops and/or pasture, (ii) the volume of water taken from the water source and held in on-farm storages, (iii) the volume of water taken from on-farm storages and applied to crops (including pasture); (iv) the type and area of each crop (including pasture) irrigated; (v) the method of irrigation for each class of crop and/or pasture; and (vi) the volume of water applied to each individual class of crop and/or pasture.	This has not been requested in the audit period	Not Triggered			
MK0841-00001		The approval holder must within two (2) months of completing construction of any work permitted by this approval and in a form approved by the Minister, provide the relevant licensor with the following: i) the location of the authorised work on the Lot and Deposited Plan preferably using GPS references, and ii) details of the work (including the size, dimensions and capacity of the work).	All works were completed prior to the audit period.	Not Triggered			

Reference	Condition	Requirement	Evidence	Audit Finding	Risk		
					Consequence	Likelihood	Risk
Water Supply Works, 20WA207674							
Groundwater Extraction - Bore							
Expiry 30-7-19							
Water Sharing Plan							
		Hunter Regulated River Alluvial Water Source					
MW2338-00001		The completed logbook must be retained for five (5) years from the last date recorded in the logbook.	Bengalla Mine kept suitable records of water take during the audit period, this is evidenced by the Water Balance presented in the Annual Reviews, these calculations would not have been possible without adequate supporting data. Whilst undertaking the site inspection, the auditor reviewed the water management system that was controlled centrally and semiautomatically in a SCADA (supervisory control and data acquisition) System. the system supported operation, monitoring and data collection and collation for water management at the site.	Compliant			
MW2337-00001		The approval holder must not take water using works on this approval under a: (A) domestic and stock access licence, or (B) local water utility access licence or (C) major utility access licence, unless it is in accordance with a water supply order lodged with and approved by the nominated WaterNSW customer service officer not less than 4 days prior to when the water is to be taken.	Bengalla Mine kept suitable records of water take during the audit period, this is evidenced by the Water Balance presented in the Annual Reviews, these calculations would not have been possible without adequate supporting data. Whilst undertaking the site inspection, the auditor reviewed the water management system that was controlled by a SCADA (supervisory control and data acquisition) System. The system supported operation, monitoring and data collection and collation for water management at the site including pumped volumes and water storage levels.	Compliant			
DK1198-00001		The approval holder must allow the relevant licensor or any person authorised by it, full and free access to the works, either during or after construction, for the purpose of carrying out inspection or test of the works and its fittings and shall carry out any work or alterations deemed necessary by the department for the protection and proper maintenance of the works, or the control of the water extracted and for the protection of the quality and the prevention from pollution or contamination of sub-surface water.	Noted, this had not been formally requested in the audit period.	Not Triggered			
DK1199-00001		(A) The approval holder must notify the relevant licensor if a flowing supply of water is obtained. The bore must then be lined with casing and cemented and a suitable closing gear must be attached to the borehead as specified by the relevant licensor. (B) If a flowing supply of water is obtained from the work, the approval holder must only distribute water from the bore head by a system of pipe lines and must not distribute it in drains, natural or artificial channels or depressions.	A) Annual Reviews detail water take, the nature of the operation is such that water take is inevitable and the Department were aware of this when the license was established. B) Not applicable to the works.	Compliant			
DK1208-00001		The approval holder must not construct or install works used for the purpose of conveying, distributing or storing water from the works authorised by this approval, that obstruct the reasonable passage of floodwaters flowing in, to, or from a river or lake.	Not applicable to the works.	Not Triggered			
DK1207-00001		The approval holder must not allow any tailwater/ drainage to discharge into or onto: - any adjoining public or crown road; - any other persons land; - any crown land; - any river, creek or watercourse; - any native vegetation as described under the Native Vegetation Conservation Act 1997 or Native Vegetation Act 2003; - any wetlands of environmental significance.	No water extracted under this approval left the Bengalla Mine site in the audit period.	Compliant			

Reference	Condition	Requirement	Evidence	Audit Finding	Risk		
					Consequence	Likelihood	Risk
Basic Rights, 20WA207642	Groundwater extraction - Bore						
Expiry none							
Water Sharing Plan		Hunter Regulated River Alluvial Water Source					
		The approval holder must not take water using works on this approval under a: (A) domestic and stock access licence, or (B) local water utility access licence or (C) major utility access licence, unless it is in accordance with a water supply order lodged with and approved by the nominated WaterNSW customer service officer not less than 4 days prior to when the water is to be taken.	Noted	Noted			

Reference	Condition	Requirement	Evidence	Audit Finding	Risk		
					Consequence	Likelihood	Risk
Water Supply Works, 20WA210119		River Extraction- Pumps					
Expiry 31-7-22							
Water Sharing Plan		Upper Hunter River Water Source					
MW2338-00001		The completed logbook must be retained for five (5) years from the last date recorded in the logbook.	Bengalla Mine kept suitable records of water take during the audit period, this is evidenced by the Water Balance presented in the Annual Reviews, these calculations would not have been possible without adequate supporting data. Whilst undertaking the site inspection, the auditor reviewed the water management system that was controlled centrally and semi-automatically in a SCADA (supervisory control and data acquisition) System. The system supported operation, monitoring and data collection and collation for water management at the site.	Compliant			
MW2337-00001		The approval holder must not take water using works on this approval under a: (A) domestic and stock access licence, or (B) local water utility access licence or (C) major utility access licence, unless it is in accordance with a water supply order lodged with and approved by the nominated WaterNSW customer service officer not less than 4 days prior to when the water is to be taken.	Bengalla Mine kept suitable records of water take during the audit period, this is evidenced by the Water Balance presented in the Annual Reviews, these calculations would not have been possible without adequate supporting data. Whilst undertaking the site inspection, the auditor reviewed the water management system that was controlled by a SCADA (supervisory control and data acquisition) System. The system supported operation, monitoring and data collection and collation for water management at the site including pumped volumes and water storage levels..	Compliant			
DK1215-00001		The holder of the approval must not construct or install works used for conveying, distributing or storing water taken by means of the approved work that obstruct the reasonable passage of floodwaters into or from a river.	Not applicable to the works.	Not Triggered			

Reference	Condition	Requirement	Evidence	Audit Finding	Risk		
					Consequence	Likelihood	Risk
Water Supply Works, 20WA201594							
River Extraction - Pumping							
Expiry 18-3-18							
Water Sharing Plan							
MW0835-00001		Hunter Regulated River Water Source The approval holder must not take water using any work specified on this approval unless in compliance with the conditions of the access licence under which water is being taken.	Noted	Noted			
MW0116-00057		The approval holder must not take water using works on this approval under a: (A) domestic and stock access licence, or (B) local water utility access licence or (C) major utility access licence, unless it is in accordance with a water supply order lodged with and approved by the nominated WaterNSW customer service officer not less than 4 days prior to when the water is to be taken.	Annual Reviews state that water is extracted in accordance with the RTEMS and volumes are matched to licenses limits on an ongoing basis.	Compliant			
MW0837-00001		The approval holder must not take any water using any work on this approval if the water allocation account of the access licence from which the water is to be taken, is or will go into debit.	Annual Reviews state that water is extracted in accordance with the RTEMS and volumes are matched to licenses limits on an ongoing basis.	Compliant			
MW0117-00055		The approval holder must not take water using works on this approval under a: (A) regulated river (high security) access licence or (B) regulated river (general security) access licence, unless it is in accordance with a water supply order lodged with and approved by the nominated WaterNSW customer service officer not less than 4 days prior to when the water is to be taken, except when taking water that is accounted as uncontrolled (known as 'uncontrolled water allocations').	Annual Reviews state that water is extracted in accordance with the RTEMS and volumes are matched to licenses limits on an ongoing basis.	Compliant			
MW0839-00001		The approval holder must provide a certificate issued by the manufacturer or other such competent, qualified person certifying the accuracy of device or devices used for measuring the volume of water extracted by the approved works, in accordance with any written direction from the Minister.	No such direction in the audit period	Not Triggered			
MW0838-00001		The approval holder must install, maintain and operate any device or devices for measuring the volume of water extracted by the approved works in accordance with any manufacturer's specifications, when required in accordance with any written direction from the Minister.	No such direction in the audit period	Not Triggered			
MW0840-00001		The approval holder must inform the relevant licensor within seven (7) days if the device or devices used for measuring the volume of water taken from the approved work ceases to record water usage accurately. In such cases the approval holder must notify the Department of: (i) the duration of the failure of the measuring device(s), and (ii) the total hours that the work was operated while the measuring device was not functioning, and (iii) where irrigation is undertaken, the area of land in hectares that has been irrigated during the period where the measuring device was not functioning.	The devices have operated correctly through the audit period	Not Triggered			
MW0851-00001		The approval holder must provide the Minister, in the approved form, with the following information when requested: (A) a report detailing the quantity of water taken through the authorised work(s) and recorded by the approved measuring device, or where the work does not have a measuring device fitted to it, advise the Minister of the duration of any pumping, and, (B) where the water is used for irrigation, the area of land irrigated, the planting date, area and yield of all crops grown on the property for each season. These details must include: (i) the volume of water taken from the water source and applied directly to crops and/or pasture, (ii) the volume of water taken from the water source and held in on-farm storages, (iii) the volume of water taken from on-farm storages and applied to crops (including pasture); (iv) the type and area of each crop (including pasture) irrigated; (v) the method of irrigation for each class of crop and/or pasture; and (vi) the volume of water applied to each individual class of crop and/ or pasture.	This has not been requested in the audit period	Not Triggered			
MK0841-00001		The approval holder must within two (2) months of completing construction of any work permitted by this approval and in a form approved by the Minister, provide the relevant licensor with the following: i) the location of the authorised work on the Lot and Deposited Plan preferably using GPS references, and ii) details of the work (including the size, dimensions and capacity of the work).	All works were completed prior to the audit period.	Not Triggered			
DK1215-00001		The holder of the approval must not construct or install works used for conveying, distributing or storing water taken by means of the approved work that obstruct the reasonable passage of floodwaters into or from a river.	Noted, the site inspection did not identify any such works.	Compliant			
DK1362-00001		The approval holder must not allow any tailwater or drainage water to discharge, by any means including surface or sub-surface drains or pipes, from the approval holders property, into or onto: - any adjoining public or crown road - any other persons land - any crown land - any river, creek or watercourse - any groundwater aquifer - any area of native vegetation as described in the Native Vegetation Conservation Act 1997 or the Native Vegetation Act 2003. - any wetlands of environmental significance - any identified site of aboriginal significance - any identified site of cultural significance.	No water extracted under this approval left the Bengalla Mine site in the audit period.	Compliant			

Reference	Commitment	Requirement	Evidence	Audit Finding	Risk		
					Consequence	Likelihood	Risk
Continuation of Bengalla Mine, Environmental Impact Statement, September 2013							
The Continuation Project was aimed at accessing coal resources to the west of the existing project (that were identified in the original EIS) and extending mine life by a further 24 year:							
Section 8 Impacts Management and Mitigation							
Air Quality							
	8.1.4	Maintain sufficient levels of moisture in trafficed surfaces	See review of AQMP	Noted			
		Limit vehicle speeds in construction areas	See review of AQMP	Noted			
		Cessation of activities in periods of high dust	See review of AQMP	Noted			
		Install TEOMs to largely replace HVAS	See review of AQMP	Noted			
		Best endeavours to establish AQ data sharing with neighbouring mines	See review of AQMP	Noted			
		Adjustment of the monitoring network as the site proceeds west.	See review of AQMP	Noted			
		Update of the existing dust and blast management systems with real time air quality management system combined with predictive meteorological forecasting	See review of AQMP	Noted			
		Revise the AQMP to include: 1. KPIs 2. Monitoring Methods. 3. Location frequency and duration of monitoring. 4. Monitoring, response and reporting procedures	See review of AQMP	Noted			
Greenhouse Gas							
	8.2.4	Monitor fuel efficiency of diesel equipment	See review of AQMP	Noted			
		Optimising conditions of fleet operations	See review of AQMP	Noted			
		Use of high efficiency Electric motors	See review of AQMP	Noted			
		Energy efficient lighting systems	See review of AQMP	Noted			
Noise							
	8.3.4	The proposed relocated ROM hopper will include an equivalent level of noise control as the existing hopper, which was designed and constructed following best practice procedures	Not yet moved.	Not Triggered			
		Best practice modifications will continue to be implemented at the CHPP building, which currently produces a sound power level of 115 dBA	This continues	Compliant			
		Conveyors will continue to be limited to a sound power level of no more than 76 dBA per metre for sections of conveyor that cannot be enclosed	Noted, no changes to date.	Not Triggered			
		The rail load out facility, stackers and reclaimers will continue to be managed and modified following best practice control measures.	Noted, no changes to date.	Noted			
		The NMP will be updated	NMP has been updated, most recently for MOD 2	Compliant			
		Real time noise monitoring will be undertaken at representative receptors and the data will be used onsite in noise management to avoid exceedences	Noted, no changes to date.	Noted			
Blasting							
	8.4.4	Maximum of 12 blast events per week during the hours of 7:00 am to 5:00 pm, Monday to Saturday;	Not exceeded in the audit period	Compliant			
		Commitment for a maximum of one blast event per day during the hours of 11:00 am to 3:00 pm on Sundays only for blasts scheduled within 500 m of the M A as defined on Figure 17 (or the approved but not yet constructed Mount Pleasant Project infrastructure area);	Not permitted SSD 5170 approval conditions and the audit has been conducted only when the SDD 5170 has been in place	Compliant			
		MSC along with all privately owned residents located within the Project noise management receptor zone See Table 40 and Table 41) will be offered to be notified of a Sunday blast.	Not permitted SSD 5170 approval conditions and the audit has been conducted only when the SDD 5170 has been in place	Compliant			
		Blast design procedures to be undertaken by appropriately qualified personnel to minimise the potential for overpressure, ground vibration and blast fume impacts to residential receptors, surrounding infrastructure and BMC employees;	Blast design team were professional, experienced engineers	Compliant			
		Ongoing review of real-time meteorological monitoring information (wind speed, direction, inversion) before the timing of any blast;	Observed in site inspectio and in documentation	Compliant			
		The existing blast monitoring system will be regularly reviewed and implemented to ensure it is representative of the nearest sensitive receptors in consultation with relevant regulators;	"Blast monitors are calibrated as per AS 2187.2:2006. Location of blast monitors are reviewed after each modification in accordance with the Blast Management Plan." During the audit period this was twice which is adequate.	Compliant			
		Procedures for the notification of neighbours of upcoming blast events (timing and location) and maintenance of the BMC Blasting Hotline;	This occurred in the audit period	Compliant			
		The Blast MP will include: Management measures to close public roads, rail infrastructure and evacuate M As within 500 m of a blast site during the blast event and until potentially impacted areas are clear of dust and fumes; and A summary of blast monitoring sites and procedures.	The BMP included these measures and a Road Closure Plan.	Compliant			

Reference	Commitment	Requirement	Evidence	Audit Finding	Risk		
					Consequence	Likelihood	Risk
Continuation of Bengalla Mine, Environmental Impact Statement, September 2013							
The Continuation Project was aimed at accessing coal resources to the west of the existing project (that were identified in the original EIS) and extending mine life by a further 24 year:							
Visual Impact							
	8.5.4 Onsite Treatments	The preparation of detailed landscape plans to achieve outcomes that emulate the grassland open woodland/scattered tree landscapes of surrounding hills as generally described in Section 8.21 to achieve a minimum of 10% tree cover with a higher density coverage on the eastern face of the overburden emplacement area (or as otherwise agreed with MSC);	Included in the MOP.	Compliant			
		As part of above, complete landscape design for the realigned Dry Creek along with the OEAs, incorporating the ecological mitigation strategies for the Project to achieve a more natural riparian setting;	Not yet required.	Not Triggered			
		Early, progressive establishment and rehabilitation of the outer faces of the Main OEA, particularly the southern slopes adjacent to the Main Northern Rail Line and CHPP. This will minimise the pre-rehabilitation areas to external sensitive view locations;	Site observations indicate compliance with this commitment.	Compliant			
		Maintenance of existing tree planting areas and development of new areas (or equivalent mitigation measure) (as shown on Figure 14 to Figure 18) and the preparation of landscape design for planting areas to achieve the best visual outcome to critical eastern and southern views inclusive of planting patterns consistent with the limited, woodland and grassland of the existing landscape (not subject to coal mining);	Visual Management Plan, MOP are in general compliance with this requirement	Compliant			
		Temporarily seeding the Western OEA to establish grass cover as soon as practical, commencing from the western and northern sides to reduce visibility;	Western OEA not yet commenced	Not Triggered			
		Re-establishment of rehabilitated areas for agricultural use consistent with successful tree establishment upon completion of mining;	Mining not completed	Not Triggered			
		Design drop down drainage structure alignments to vary with the topographic form of the Main OEA and avoid extensive straight line drop downs;	Noted, not yet implemented	Not Triggered			
		Utilisation of tree areas to assist in breaking up views to drainage structures;	Noted, not yet implemented	Not Triggered			
		Finished new fixed infrastructure developments in forest tones such as olive green or grey as far as practical to reduce visual contrast with the surrounding landscape, consistent with regulatory and safety requirements; and	No new developments in the audit period	Not Triggered			
		Completion of topographic and tree planting design around the explosive storage facility and reload facility to reduce its visibility in the landscape.	The explosives storage facility will be relocated in 2017 and again in 2019 as a result of the planned pit progression. Any trees planted following the 2017 relocation will not reach a sufficient height for visual mitigation prior to the 2019 relocation, as such no tree planting around the explosives storage facility is planned at this stage. Please note the explosives facility is bunded preventing direct viewing.	Not Triggered			
	Offsite Treatments	Tree screen planting (or equivalent mitigation measure) along Wybong Road will be extended to the western edge of the Project Boundary as generally shown on Figure 18;	Not yet completed.	Not Triggered			
		Landscape plans for screening the eastern side of Bengalla Link Road will be prepared and implemented. Planting (or equivalent mitigation measure) already established on Bengalla Link Road along the deviation and Roxburgh Road will be extended to the western end of the Project Boundary;	Not yet completed.	Not Triggered			
		Where appropriate, tree screen planting (or equivalent mitigation measure) will be implemented along Denman Road, Roxburgh Road, Wybong Road in consultation with local receptors and the RMS;	AECOM have been commissioned to develop a plan for tree planting along public roads. The plan is in the development phase and no tree planting has been undertaken as of yet. BMC has until 1 October 2017 to undertake the tree plantings.	Not Triggered			
		Compete a site inspection and where required, prepare landscape strategies for receptors that will experience prolonged high levels of visual impact, where requested;	VIMP	Compliant			
		Ensure offsite landscape treatments at Edinglassie and Rous Lench create visual separation between these elements and active faces of the OEA in consultation with Mt Arthur Coal Mine; and	VIMP	Not Triggered			
		The reinforcement of plantings close to viewing locations will be undertaken where night lighting is visible.	VIMP	Not Triggered			
		Update the Landscape MP	No longer a Landscape Management Plan, now in the MOP. The MOP was updated.	Compliant			

Reference	Commitment	Requirement	Evidence	Audit Finding	Risk		
					Consequence	Likelihood	Risk
Continuation of Bengalla Mine, Environmental Impact Statement, September 2013							
The Continuation Project was aimed at accessing coal resources to the west of the existing project (that were identified in the original EIS) and extending mine life by a further 24 year:							
Water							
Surface Water	8.6.4	Water Management plan The Water Management Plan will also include: • Detailed baseline data on surface water flows and quality for water bodies that could potentially be impacted by the Project; • Surface water and stream health impact assessment criteria including trigger levels for investigating any potentially adverse surface water impacts; and • A program to monitor and assess: — Surface water flows and quality; — Impacts on water uses; — Stream health; and — Channel Stability.	Hunter river data included. These are included in the WMP. This program is included in the WMP.	Compliant			
		BMC will hold all relevant licences, share component and allocation required to comply with the WM Act and Water Act at all times water is taken, whether during or after the life of the Project (see Section 5.4.4),	See Water Licence Review elsewhere in his audit	Compliant			
Groundwater	8.7.4	The Water Management Plan will also include (at least): Detailed baseline data on groundwater levels, yield and quality in the region; Groundwater impact assessment criteria, including trigger levels for investigating potentially adverse groundwater impacts; A program to monitor and assess: Groundwater inflows to the mining operations; — Impacts on local (including alluvial) groundwater systems; — Impacts on the groundwater supply of potentially affected landowners; and — Impacts on any groundwater dependent ecosystems and riparian vegetation	This data is included and considered. GW Impact assessment criteria are included. Inflows are monitored as part of the Water Balance.	Compliant			
		The Groundwater Management Plan will be revised for the Project and will address the following: Increased zone of depressurisation in the Permian; Drawdown in the Hunter River alluvium; Groundwater seepages into the open cut mining area; Health of GDEs; Water licensing; and Groundwater quality in the final void and aquifers.	AGE updated the GW model for the EIS for the Continuation Project	Compliant			
Geochemical							
	Overburden	The ongoing management of overburden will consider the geochemistry of the material with respect to its potential risk to cause harm to the environment and its suitability for use in construction and revegetation. BMC will ensure: The current management methods for PAF Archerfield Sandstone overburden will continue. This will occur in the Main OEA open mining area by covering Archerfield Sandstone material with acid neutralising and inert overburden to a depth of at least 5 m; That no Archerfield Sandstone materials will be placed in the Western OEA to avoid any potential connectivity with the adjacent Dry Creek; and The current practice of pre-stripping of topsoil from areas to be disturbed will continue as outlined in Section 3.4. The topsoil cover will then be utilised as part of the final rehabilitation to limit the risk of dispersion and erosion of potentially sodic overburden.	There was a management plan in place for this material.	Compliant			
	Coal Reject	BMC will implement the following management measures: No coarse reject materials will be emplaced in the Western OEA to avoid any potential connectivity with the adjacent Dry Creek; Consistent with current practice, coal reject materials will not be co-disposed with overburden materials within any part of the Main OEA that have been identified to overlie alluvial soils. There may be some scope for co-disposal of coal rejects in some areas that drain towards the open mining area, however only if existing groundwater/hydrogeological studies completed by BMC clearly demonstrate a low risk of seepage connectivity to alluvial soils; and Current management methods for coal reject materials (burial under NAF overburden) within the open mining area will continue. This practice has been determined through monitoring to be successful in minimising the risk of any significant impact to the environment.	Western OEA not commenced at the time of the audit.	Not Triggered			

Reference	Commitment	Requirement	Evidence	Audit Finding	Risk		
					Consequence	Likelihood	Risk
Continuation of Bengalla Mine, Environmental Impact Statement, September 2013							
The Continuation Project was aimed at accessing coal resources to the west of the existing project (that were identified in the original EIS) and extending mine life by a further 24 year:							
Aboriginal Cultural Heritage							
	8.9.4	The revision Of the ACHMP will include: Detailed salvage methodologies to be carried out prior to the commencement of the Project, including: — Surface collection (salvage) of stone artefacts; and — Scarred tree assessment and removal. Identification of appropriate long term management options for recovered artefacts which will be developed in consultation with RAPs; Procedures for the protection and conservation of archaeological sites that are not impacted by the Project by means of fencing and other appropriate management measures; Protocols for the updating of BMCs existing Aboriginal site database, including its ongoing maintenance, throughout the life of Project; Provisions regarding the appropriate management action(s) for previously unrecorded Aboriginal sites identified within the Project Boundary; and A standard procedure to be detailed in the ACHMP in the event that skeletal remains are identified within the Project Boundary throughout the operational life of the Project.	The ACHMP contains all these details.	Compliant			
	Salvage	Within the Disturbance Boundary surface collection will be undertaken for all 259 artefact scatters and isolated finds to be directly impacted by the Project. This will occur prior to the commencement of ground disturbance works and with the involvement of RAP representatives.	These were salvaged along with a few more (263 surface collection sites and the systematic salvage of site B10 the potential quarry site). All were salvaged prior to ground disturbance.	Compliant			
	Scarred Trees	Prior to disturbances the three potential scarred trees to be impacted by the Project will be subject to an aborist inspection, with the participation of RAPs, in order to assess their status as Aboriginal scarred trees. If the scars on the trees are determined to be of Aboriginal origin, they will be removed under the supervision of a qualified aborist, archaeologist and RAP representatives prior to impact.	The scar trees are ahead of curent mining and are unlikely to be impacted in the near future.	Not Triggered			
	Management	Conservation and management will be undertaken for all archaeological sites (n 26) within the Project Boundary that will not be impacted by the Project. These sites isted in Table 61, will be identified on site plans to avoid their accidental destruction and details for the care of these sites will be included in the revised ACHMP. Aboriginal archaeological sites that will not be impacted by the Project but occur within 200 m of proposed impacts (i.e. mine activities (n 9)) are to be protected via permanent stock-proof fencing and appropriate associated signage.	The ACHMP detailed the management and preservation of these sites.	Compliant			
Historical Heritage							
	8.10.4	The indirect impacts will continue to be managed through the existing European Heritage Management Plan that includes a Conservation Management Plan for both Bengalla and Overdene Homesteads, which will be revised for the Project. The European Heritage Management Plan will be updated for the Project in consultation with relevant regulators.	The Heritage Management Plan includes these items. The HMP was updated for the new approval	Compliant			
		A Stockyard is located within the proposed Disturbance Boundary, archival recording of the site will be undertaken to account for the significance Of the item and ensure that information pertaining to this item is retained into the future. The recording will comply with the Heritage Branch guidelines How to Prepare Archival Records of Heritage Items (1998) and Photographic Recordings of Heritage Items using Film or Digital Capture (2006).	This is detailed in the HMP, the stockyard has not been impacted to date.	Not Triggered			

Reference	Commitment	Requirement	Evidence	Audit Finding	Risk		
					Consequence	Likelihood	Risk
Continuation of Bengalla Mine, Environmental Impact Statement, September 2013							
The Continuation Project was aimed at accessing coal resources to the west of the existing project (that were identified in the original EIS) and extending mine life by a further 24 year:							
Ecology							
	8.11.4	Mitigating impacts to ecology have been favoured through Project pre-clearance and clearance protocols, which will be contained in a Biodiversity Management Plan (BMP) to be prepared prior to the commencement of the Project, to the satisfaction of DP&L.	Noted, GDP process reviewed onsite.	Compliant			
		Proposed management measures to account for impacts to sensitive flora and fauna include: Continued use of an updated Land Disturbance Permit Process (described in Section 3.13) to ensure compliance with relevant licences and approvals and that appropriate environmental safeguards and mitigation measures are implemented prior to any disturbance; Limiting vegetation disturbance areas as far as practical so as to minimise the loss of habitat at any one time; Safe relocation of animals occupying trees to nearby woodlands in advance of disturbance by an appropriately qualified person; Removal (and relocation within the Project Boundary) of key habitat features such as tree hollows, large logs and boulders from within Disturbance Boundary; Provision Of nesting boxes or tree hollows in nearby woodland proportionate to those removed; Progressive high quality rehabilitation and revegetation of disturbed areas, which will in the long-term, replace lost habitats for threatened fauna. Disturbed areas will be reinstated following mining to agricultural land with at least 10% open woodland corridors across the majority of the Disturbance Boundary and higher density coverage of the eastern face of the OEA to provide fauna habitat and movement;	GBDP process provides evidence of this. All of this was verified elsewhere Nestboxes have not been installed to date but hollows have been relocated.	Compliant			
		Planting, relocation and/or propagation of species conforming to Box Gum Woodland and Derived Native Grassland in rehabilitated areas and/or other suitable sites within the Study Area to assist in the recovery of their populations; Planting of treed areas principally on either side of the Dry Creek frontage, along paddock fence lines and as copses in paddocks and also as large patches of treed vegetation, located on the eastern face of the OEA; Translocating and direct placement of topsoil for rehabilitation when practical to conserve the native seed bank and assist diversity; Implementation Of dust and noise minimisation measures to reduce potential indirect impacts to vegetation condition and habitat quality in areas outside the Disturbance Boundary; Implementation of dam drainage protocols (safe relocation of animals, timing of works to non-breeding seasons for target species and disease transmission reduction initiatives) prior to any dam decommissioning; Erosion and sediment controls to maintain habitat integrity/ function and reduce the potential spread of weeds; Weed and pest management; and Visual and lighting management, to reduce potential indirect impacts to nocturnal fauna in areas nearby operations.	Most of these requirements are underway the rest are planned. Dust and noise reviewed elsewhere in the audit. Water Management reviewed elsewhere in the audit. Weed and ferals management reviewed and found to be satisfactory Visual and lighting reviewed and found to be satisfactory. No farm dams have been drained in the audit period	Compliant			
		A regular ecological monitoring program will be developed as a component of the biodiversity management plan to monitor the ongoing status and health of flora and fauna communities that will be retained within the study area as well as previously- disturbed rehabilitated areas.	Sighted documented reporting for these surveys/monitoring	Compliant			
		BMC will provide a financial contribution to the Upper Hunter Offset Fund in accordance with the credits generated under the upper hunter strategic assessment (or alternative offset strategy as agreed with relevant regulators) to secure sufficient offsets to compensate for the direct removal of native vegetation.	No longer required, the BOMP covers this until in perpetuity protection is agreed with OEH and DoE	Not Triggered			
		A Dry Creek Reinstatement Management Plan will be developed in conjunction with relevant regulators to ensure a relevant, natural and functioning ecological community. Native grasses, reeds and shrub species that are characteristic of the Hunter Floodplain Red Gum Woodland community will be planted in the reconstructed bed and riparian areas of the realigned Dry Creek.	Not yet commenced.	Not Triggered			
		Mine-owned riparian areas of dry creek nearby the Hunter River and a retained area (adjacent to the CHPP within the project boundary that were not affected by the disturbance boundary will also be rehabilitated (including the planting of the regionally endangered population river red gum).	This has not been started yet.	Not Triggered			
Traffic							
	8.13.4	Bengalla Link Road BMC will continue to be responsible for the costs of the maintenance of the Bengalla Link Road to the Bengalla Mine Access Road for the life of the Project. BMC will also ensure that all road signs are maintained and provide at least 24 hrs of notice of road closure on Wybong Road and Bengalla Link Road.	Sighted invoice for line marking and guideposts for the Bengalla Link Road.	Compliant			

Reference	Commitment	Requirement	Evidence	Audit Finding	Risk		
					Consequence	Likelihood	Risk
Continuation of Bengalla Mine, Environmental Impact Statement, September 2013							
The Continuation Project was aimed at accessing coal resources to the west of the existing project (that were identified in the original EIS) and extending mine life by a further 24 years:							
Social							
	8.14.4	<p>Construction Phase</p> <p>The following measures will be undertaken to assist MSC in its policy and planning to account for the potential cumulative social impacts of the construction phase of the Project in consideration of the status of other mining operations:</p> <p>Monitoring Of the proportion Of non-local operational workforce hires;</p> <p>Provide applicable construction workforce data to assist MSC in monitoring local housing demand and supply, housing prices and affordability and plan appropriately for land and housing provision; and</p> <p>Include contract specifications to include provisions for a high loading for the cost of temporary accommodation in order to encourage sustainable accommodation practices, where practical.</p>	BMC provides the Muswellbrook Shire Council (MSC) with an annual update on workforce statistics in the form of the Annual review which is provided directly to the MSC and is also available on the Bengalla website. The 2015 Annual Review states that BMC has "A workforce of approximately 900 full time equivalent personnel (plus contractors) at peak production.	Compliant			
		<p>Operational Phase</p> <p>BMC will provide timely and appropriate operations workforce information to MSC, to assist Council to plan for future needs in relation to housing and accommodation, affordable housing and child care.</p>	BMC provides the Muswellbrook Shire Council (MSC) with an annual update on workforce statistics in the form of the Annual review which is provided directly to the MSC and is also available on the Bengalla website. The 2015 Annual Review states that BMC has "A workforce of approximately 900 full time equivalent personnel (plus contractors) at peak production.	Compliant			
	VPA	A new VPA is to be established for the project	This has been completed, the revised VPA had been signed and approved by both parties.	Compliant			
Waste							
	8.17.5	Regular inspections and monitoring will be conducted by qualified personnel to ensure adequate maintenance and operation of the waste facilities and to ensure management practices are sufficient to manage any waste products.	The waste contractor performed this duty as part of the waste management contract	Compliant			
		BMC will ensure that each major waste stream is segregated in the appropriate receptacles for recycling, reuse and / or disposal.	Wastes were segregated and evidenced in the site inspection.	Compliant			
Soils and Land Capability							
	8.19.4	<p>BMC will update the Rehabilitation Management Plan for commitments below . The mitigation and management measures included within the Rehabilitation Management Plan that will be provided in the revised plan include</p> <p>Suitable topsoil from each of the soil types will be stripped prior to overburden emplacement. To ensure that the better quality topsoil is not mixed with the inferior subsoil, selective soil stripping practices will occur;</p> <p>Prior to any surface disturbance a relevant GDP will be completed to ensure that the limits of these works are pegged and delineated by a suitably qualified person;</p> <p>Topsoil will be maintained in a slightly moist condition during stripping;</p> <p>Stripped material will be placed onto reshaped overburden and spread immediately, if practical;</p>	<p>The rehabilitation plan is not the MOP last updated 2016.</p> <p>The MOP covered all of these items</p>	Compliant			
		<p>Grading or pushing soil into windrows with graders or dozers for later collection for loading into rear dump trucks by front-end loaders;</p> <p>Soil transported by overburden trucks may be placed directly into storage;</p> <p>If long-term stockpiling is planned (i.e. greater than 12 months), these will be seeded and fertilised;</p> <p>As a general rule, a maximum stockpile height of 3 m will be maintained. Clayey soils will be stored in lower stockpiles for shorter periods Of time compared to coarser textured sandy soils;</p> <p>Prior to re-spreading stockpiled topsoil onto reshaped overburden, an assessment of weed, infestation on stockpiles will be undertaken to limit any potential distribution of weed species; and</p> <p>Topsoil should be spread to a minimum depth range of 0.1 m (steep slopes) to 0.2 m (flatter areas).</p>					
Agriculture							
	8.20.4	<p>BMC will implement a number Of mitigation and management measures including:</p> <ul style="list-style-type: none"> Developing a final landform that s consistent with pre mining agricultural land use; Continuing, where possible, with the existing licensee arrangements for BMC agricultural land; Continuing with arrangements for sustainable farming practices, in collaboration With licensees and the Hunter-Central Rivers Catchment Management Authority. This will include the implementation and monitoring of annual farm plans, BMC financial support for programs and the effective management of land situated outside the Disturbance Boundary; 	<p>The MOP detailed the final landform and the vegetation characteristics and was compliant with these items.</p> <p>Farm Management Plans were provided as evidence</p>	Compliant			

Reference	Commitment	Requirement	Evidence	Audit Finding	Risk		
					Consequence	Likelihood	Risk
Continuation of Bengalla Mine, Environmental Impact Statement, September 2013							
The Continuation Project was aimed at accessing coal resources to the west of the existing project (that were identified in the original EIS) and extending mine life by a further 24 year:							
Rehabilitation and Mine Closure							
	8.21.9	Rehabilitation monitoring of the reinstated channel of Dry Creek will include regular inspections of rehabilitated areas to assess: Structural stability; The effectiveness of erosion and sediment control measures; The effectiveness of the realigned section of Dry Creek; Revegetation success of mine rehabilitation; and The effectiveness of weed and pest management measures.	Not yet reinstated.	Not Triggered			
		Rehabilitation will be designed to permit the reintroduction of relevant agricultural activities into appropriate the rehabilitated landform as soon as practicable.	Trials have ben undertaken, there is no evidence at this time to suggest this will not be possible at relinquishment.	Compliant			
		Final rehabilitation completion criteria for mine closure will be developed and agreed in consultation with the relevant government agencies and community and incorporated into the Final Void and Mine Closure Plan (developed as part of the Rehabilitation Management Plan).	This is ongoing	Compliant			
		Should BMC wish to cease operations at Year 24 a Mine Closure Plan will be developed within five years of the scheduled mine closure.	Noted	Noted			

Reference	Commitment	Requirement	Evidence	Audit Finding	Risk		
					Consequence	Likelihood	Risk
BENGALLA MINE - DEVELOPMENT CONSENT MODIFICATION, August 2015, Statement of Environmental Effects							
<p>This Modification was sought for the following:</p> <ul style="list-style-type: none"> -Alterations to various water management infrastructure components including: <ul style="list-style-type: none"> o Utilisation of the Satellite Pit as a temporary dirty water catchment dam; o Relocation of the Staged Discharge Dam Hunter River Salinity Trading Scheme staged discharge release point; o Construction of clean water diversion levees in locations other than those already approved; and o Revised locations for the proposed relocation of the Hunter River and Washery Dams. - Additional locations for the siting of the Explosives Storage Facility; and - The placement of fill from the excavation of Clean Water Dam 1 adjacent to it. 							
Statement of Commitments							
	7	All construction activities potentially audible at sensitive receivers will be conducted between the hours of 7 am to 6 pm, Monday to Friday and 8 am to 1 pm on Saturdays. No construction works will occur on Sundays or Public Holidays.	Compliance Inspection Daily Reports provided as evidence, which were conducted at the beginning and end of each shift, the construction of CW1 was generally conducted in accordance with this condition.	Compliant			
		Disturbance associated with the construction of the Northern Clean Water Diversion Levees will be contained to the area as shown on Figure 7. Disturbance areas will be clearly demarcated and sign posted, where appropriate.	The GDP boundary for the Northern Clean Water Diversion Levees aligned with 'Figure 7' (from the BMP). The Project Coordinator Ian Webber has confirmed that the GDP boundary was pegged by Robson Surveyors with flagging put in place.	Compliant			
		Impacts to mature trees associated with the construction of the Northern Clean Water Diversion Levees will be avoided where possible which will be identified during the completion of pre-clearance and clearance surveys in accordance with the Biodiversity Management Plan or its latest version.	GDP for levee provided as evidence, preclearance inspections noted in GDP and signed off.	Compliant			
		Following completion of the Northern Clean Water Diversion Levees, the vegetation communities will be rehabilitated back to its previous condition using locally endemic groundcover species from the Box Gum Woodland and Derived Native Grassland community.	The Northern Clean Water Diversion Levees have been stabilised via hydroseeding but will not be rehabilitated until the Dry Creek reinstatement.	Not Triggered			
		To ensure dust emissions from the development of the CW1 Emplacement Area are minimised where possible, appropriate operational and physical dust mitigation measures will be implemented such as maintaining sufficient levels of moisture on the surface of trafficked surfaces and limiting vehicle speeds.	Dust emissions from the development of the CW1 Emplacement Area were minimised through the use of 2 x 740 Articulated Water Carts and 2 road registered water carts throughout the project. Confirmed at interview and with photos of the equipment operating during the construction works.	Compliant			
		Rehabilitation will commence as soon as practicable following completion of the CW1 Emplacement Area.	The CW1 emplacement area was revegetated in November 2016. The area was rehabilitated at the time of the audit and sighted during the inspection. The construction reports showed the rehabilitation commenced immediately following construction.	Compliant			
		AHIMS sites 37-2-1469, 37-2-2891, 37-2-2896, and 37-2-2897 will be temporarily fenced and signposted as appropriate during construction of the Northern Clean Water Diversion Levees.	GDP 1534 states that Aboriginal sites 37-2-1469, 37-2-2891, 37-2-2896, and 37-2-2897 were fenced and signposted.	Compliant			
		Impacts to previously recorded AHIMS site A7-A8 (#37-2-1468) and newly recorded Aboriginal sites BM-AS2715 and BM-IA24-15 will be salvaged in accordance with BMC's existing ACHMP following approval of the Modification.	BM IA24-15 not recorded as salvaged the other sites were noted in the salvage report. BM IA24-15 was salvaged but was noted by the wrong card number in the report, Evidence provided as communications from the archaeologist and from OEH.	Compliant			
		AHIMS site cards for Aboriginal sites BM-AS27-15 and BM-IA24-15 will be submitted to the AHIMS register.	The salvage report states the salvage was done in compliance with the ACHMP and the ACHMP requires submission of the cards. Communication from OEH confirming submission supplied as evidence.	Compliant			
		BMC will update (at least) the SSD-5170 required Water Management Plan and Aboriginal Archaeology and Cultural Heritage Management Plan following approval of the Modification.	The WMP and ACHMP were updated following approval of SSD 5170	Compliant			

Reference	Commitment	Requirement	Evidence	Audit Finding	Risk		
					Consequence	Likelihood	Risk
<p>BENGALLA MINE - SSD 5170 CONSENT MODIFICATION Environmental Assessment, April 2016</p> <p>This proposed Modification is sought under section 96(2) of the <i>Environmental Planning and Assessment Act 1979</i> for the following:</p> <ul style="list-style-type: none"> Alterations to the approved height of the Main Overburden Emplacement Area 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): <ul style="list-style-type: none"> The Northern Relief Area constructed to a maximum height of Reduced Level 300; and The Southern Relief Area constructed to a maximum height of Reduced Level 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). 							
Determined 1-07-2016							
7.0 Impacts Mitigation and Management							
Visual	7.1.2	Relevant to this Modification the following on site rehabilitation and visual screening treatments will continue to be maintained: <ul style="list-style-type: none"> The implementation of dense woody vegetation across the eastern face of the Main OEA exposed to Muswellbrook and Denman Road; Progressive establishment and rehabilitation of the outer faces of the Main OEA, particularly the southern slopes adjacent to the Muswellbrook- Ulan Rail Line; Maintenance of existing tree planting areas; and Design drainage to vary with the topographic form of the Main OEA and avoid straight line drop downs where reasonable and feasible. 	Studies underway on the most effective method to introduce woody vegetation into the existing rehabilitated areas Progressive rehab of the outer faces underway Treed area maintenance ongoing Altered drainage design not implemented	Not Triggered			
Water	7.4.2	The Visual Relief Areas will be designed, installed and maintained to encapsulate and prevent migration of tailings, acid forming and potentially acid forming materials, and saline and sodic material.	Assessed elsewhere in the audit found compliant in regard of previous emplacement practises, though the visual Relief Area emplacements have not yet been formed so currently not triggered.	Not Triggered			
Rehabilitation and Landform	7.9.2	Once established, the Visual Relief Areas will be shaped to allow the progressive implementation of rehabilitation as soon as reasonable and feasible. Rehabilitation development will include a range of measures, including topsoil management and relocation, establishment of erosion and sediment controls, habitat reinstatement and revegetation works. SSD-5170 Schedule 3, Condition 45 notes that rehabilitation should be conducted progressively as soon as practicable following disturbance.	Not yet established, the rest of the commitment is in accordance with the SSD 5170 rehab commitments found compliant elsewhere in this audit.	Not Triggered			
		Schedule 3 Condition 44 of SSD-5170 further requires the Main OEA exposed to Muswellbrook and Denman Road to be rehabilitated with dense woody vegetation as soon as reasonable and feasible following the completion of mining operations. BMC has commenced the development of a strategy to assist in implementing Condition 44 of SSD-5170. The strategy will be prepared in consultation with DP&E and DRE. It is anticipated that the strategy, where appropriate, will apply to the eastern facing components of the Visual Relief Areas should this Modification be approved. The strategy will then be reflected in the Bengalla Rehabilitation Management Plan (as Modified) and the Bengalla MOP (as Modified).	Studies underway on the most effective method to introduce woody vegetation into the existing rehabilitated areas Project Execution Plan 2016 - Rehabilitation, June 2016 provided as evidence. The MOP has not been updated to account for the changes from SSD5170 MOD 2. Recommendation - Whilst there is no deadline offered for the development of the MOP, it is essential the MOP be altered to cover the change in landform.	Not Triggered			

Reference	Commitment	Requirement	Evidence	Audit Finding	Risk		
					Consequence	Likelihood	Risk
BENGALLA MINE - MINE OPERATIONS PLAN, 2015-2021- Amendment A (SSD- 5170) - Modification 1 28 January 2016							
Environmental Risk	3						
	3.2.2.1	Geology and Geochemistry					
		ARD, reject and carbonaceous materials are all dumped at least 5m below the final landform	There is a management plan that directs this. During the site inspection no materials were noted dumped in positions close to final surface RLs.	Compliant			
	3.2.2.2	Spontaneous Combustion					
		Heated material is to be buried within 100m of pit floor and greater than 100m below final surface level	No heated material in the audit period	Not Triggered			
Performance Indicators and Completion Criteria	6						
	6.1	Seek evidence that Table 16, 17, 18, 19 and 20 are being monitored.	Rehabilitation Monitoring Report and Rehabilitation Audit	Compliant			
Rehabilitation Implementation	7						
	7.2.2	Stripping topsoil should be under slightly moist conditions to maintain soil structure as well as minimise dust.	Noted	Noted			
		Vehicle traffic over both the stripping area and stockpiling area should also be kept to a minimum.	Demarcation of the areas noted in the site inspection. Induction notes driving permissions and restrictions.	Compliant			
		Where possible, topsoil will be placed directly onto shaped rehabilitation areas as up to 10% of topsoil is lost each time it is handled in addition to stimulation of weeds.	Where possible this is done (pers comm E&C Manager)	Compliant			
		When stockpiling topsoil weed control is one of the most important issues. This is generally by cultivating to a depth of 30cm and sowing a pasture crop to out compete weeds from forming and generating more weed seed bank. The seed mix with either be Millet (Aug-January) or Oats (February-July) for short term stockpiles up to 6 months, or the pasture mix in Table 23 for longer term stockpiles if the topsoil will be used for a pasture domain so it does not compete with the native domain.	Specified here and noted onsite. This is an ongoing problem for Bengalla due to the strength of the weed seed bank in site topsoil.	Compliant			
	7.2.3	The current Final Landform has a maximum overall slope of 10 degrees up from the toe of the dump, flattening off towards the top to create an undulating surface to integrate into the surrounding landscape.	Noted	Noted			
		Localised slopes are designed up to 14-18 degrees around water management areas to allow for their inclusion to control erosion and sediment.	Noted, some areas around sediment dams at base of rehab slope exceed this slope. (found non-compliant last audit).	Not Compliant	C	3	Medium
		Drainage lines from the final landforms will be compatible with the surrounding drainage network. This will be achieved using a combination of controls such as graded contour banks, designed channels and drop structures, and where necessary watercourse reinforcement.	No obvious misalignments were noted in the site inspection.	Compliant			
	7.2.4	Soil analysis is undertaken on re-contoured areas to determine suitable ameliorants for revegetation.	Yes, on 16 and 17 May 2016 six topsoil samples were taken from existing topsoil stockpiles. Samples were analysed by SGS Australia Pty Ltd.	Compliant			
		Soil amelioration and treatment requirements are based on agronomic test and may include the use of gypsum or bio solids to improve topsoil condition. The Gypsum is initially spread and worked into recovered topsoil on the contour to mix and bind the topsoil into the reshaped surface.	In the 2015 rehabilitation monitoring reports AECOM recommended that fertiliser not be used on rehabilitation areas as it encourages weed germination however gypsum was applied to the 2016 rehabilitation areas. Evidence provided.	Compliant			
		Topsoil will be spread across the dozed areas and slopes to the appropriate coverage (100-200mm) and then rock raked to remove any large exposed rocks larger than 200mm in size.	Rehabilitation monitoring final report Dec 2015, Section 4.2.6 - Growing media "Topsoil cover in newer rehab generally adequate (RHB NW7, THB NWS, THB NW9) with 100 mm +, however exposed soil profile many rills, uneven topsoil ranging from 50-250 mm depth. Topsoil inadequate at THB NW2 (50mm) and THB NW6 (70mm) did not meet MOP completion criteria of 100mm" However there was no evidence of this occurring during the audit period.	Compliant			

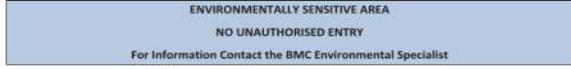
Reference	Commitment	Requirement	Evidence	Audit Finding	Risk																																															
					Consequence	Likelihood	Risk																																													
BENGALLA MINE - MINE OPERATIONS PLAN, 2015-2021- Amendment A (SSD- 5170) - Modification 1 28 January 2016																																																				
	7.2.5	Ecosystem Establishment																																																		
	7.2.5.1	Evidence that the species mix conforms with Table 23	Pasture mix was used on the contour banks in the 2016 rehabilitation areas. This mix was based on the MOP pasture mix in Table 23 however, it was modified slightly based on seed availability and advice from AECOM.	Compliant																																																
	7.2.5.2	Felled timber that has been stockpiled may be spread across topsoiled areas in either loose stockpiles of timber along the contour of the slope to assist erosion control, or in piles to create concentrated habitat mounds. Placement of the timber is planned around topsoil application to minimise compaction and interaction with surface preparation/ripping prior to seeding.	Noted in site inspection	Compliant																																																
		A light cover crop will be incorporated into the native seed mix for the target communities, consisting of a light rate of 5kg/ha of Millet or Oats (depending on season), and 3kg/ha Ryegrass to assist in stabilisation while native plants are establishing.	Noted in site inspection	Compliant																																																
		Evidence that the woodland species mix conforms with either Table 24 or Table 25	The 2015 and 2016 rehabilitation areas were within the planned woodland domain and as such they were seeded with a woodland seed mix (see attached documents). The seed mixes used on the 2015 and 2016 rehabilitation areas and the rehabilitation trial area contained species from the local Box Gum communities as per the 2015-2021 Mine Operations Plan (MOP) Amendment A Tables 24 and 25. As per the MOP (section 7.2.5.2 Woodland, paragraph 4) the 2016 seed mix was slightly modified due to seed availability and recommendations made by rehabilitation specialists, Global soil services and AECOM.	Compliant																																																
	7.2.7	Evidence that the table is compliant at the time of the audit.																																																		
		<p>Table 26: Disturbance and Rehabilitation Progression during the term of the MOP</p> <table border="1"> <thead> <tr> <th>YEAR</th> <th>Total Disturbance Area (Ha)</th> <th>Total Rehabilitation Area (Ha) (Per MOP Year)</th> <th>Cumulative Rehabilitation Area*</th> <th>Comments/Explanation</th> </tr> </thead> <tbody> <tr> <td>Start of MOP 0 (2014)</td> <td>782</td> <td>-</td> <td>186</td> <td></td> </tr> <tr> <td>1 (2015)</td> <td>892</td> <td>41**</td> <td>228</td> <td>20Ha - South dump face (21Ha existing CHPP bund)</td> </tr> <tr> <td>2 (2016)</td> <td>1006</td> <td>18</td> <td>247</td> <td>15Ha - South dump face 3Ha - North face</td> </tr> <tr> <td>3 (2017)</td> <td>1052</td> <td>7</td> <td>254</td> <td>7Ha - South dump face</td> </tr> <tr> <td>4 (2018)</td> <td>1052</td> <td>12</td> <td>266</td> <td>12Ha - South dump face</td> </tr> <tr> <td>5 (2019)</td> <td>1079</td> <td>21</td> <td>287</td> <td>11Ha - South dump face 10Ha - North face</td> </tr> <tr> <td>6 (2020)</td> <td>1110</td> <td>22</td> <td>308</td> <td>12Ha - South dump face 10Ha - North face</td> </tr> <tr> <td>End of MOP 7 (2021)</td> <td>1137</td> <td>22</td> <td>331</td> <td>12Ha - South dump face 10Ha - North face</td> </tr> </tbody> </table>	YEAR	Total Disturbance Area (Ha)	Total Rehabilitation Area (Ha) (Per MOP Year)	Cumulative Rehabilitation Area*	Comments/Explanation	Start of MOP 0 (2014)	782	-	186		1 (2015)	892	41**	228	20Ha - South dump face (21Ha existing CHPP bund)	2 (2016)	1006	18	247	15Ha - South dump face 3Ha - North face	3 (2017)	1052	7	254	7Ha - South dump face	4 (2018)	1052	12	266	12Ha - South dump face	5 (2019)	1079	21	287	11Ha - South dump face 10Ha - North face	6 (2020)	1110	22	308	12Ha - South dump face 10Ha - North face	End of MOP 7 (2021)	1137	22	331	12Ha - South dump face 10Ha - North face	2015 Annual Review, the numbers in that report were generally consistent with those quoted in Table 26, 207.7ha reported, 228ha nominated in the MOP. The 2016 AR showed that 2016 Rehabilitation was behind schedule and works would be implemented in 2017 to correct the amount of rehabilitation undertaken. Evidence was provided that the rehabilitation planned for 2017 would bring the rehabilitation back into alignment with the planned rehabilitation in the MOP.	Compliant			
YEAR	Total Disturbance Area (Ha)	Total Rehabilitation Area (Ha) (Per MOP Year)	Cumulative Rehabilitation Area*	Comments/Explanation																																																
Start of MOP 0 (2014)	782	-	186																																																	
1 (2015)	892	41**	228	20Ha - South dump face (21Ha existing CHPP bund)																																																
2 (2016)	1006	18	247	15Ha - South dump face 3Ha - North face																																																
3 (2017)	1052	7	254	7Ha - South dump face																																																
4 (2018)	1052	12	266	12Ha - South dump face																																																
5 (2019)	1079	21	287	11Ha - South dump face 10Ha - North face																																																
6 (2020)	1110	22	308	12Ha - South dump face 10Ha - North face																																																
End of MOP 7 (2021)	1137	22	331	12Ha - South dump face 10Ha - North face																																																
Rehabilitation Monitoring and Research	8																																																			
	8.1	Rehabilitation Monitoring consists of the following																																																		
		An annual transect-based (detailed) rehabilitation monitoring programme - Ecosystem Function Analysis	Noted in Rehabilitation Monitoring Report.	Compliant																																																
		Annual rehabilitation audit consisting of a reconnaissance level / walk through rapid assessment of all rehabilitated lands, and include observations of rehabilitation and some design recommendations for remediation of failed areas.	Noted in Rehabilitation Monitoring Report.	Compliant																																																
		Permanent monitoring transects and associated photo reference sites are established in areas of post-mined rehabilitated lands and correspondingly in an adjacent undisturbed areas to provide analogue/reference sites.	Noted in Rehabilitation Monitoring Report.	Compliant																																																

Reference	Commitment	Requirement	Evidence	Audit Finding	Risk		
					Consequence	Likelihood	Risk
BENGALLA MINE - MINE OPERATIONS PLAN, 2015-2021- Amendment A (SSD- 5170) - Modification 1 28 January 2016							
	8.2	Research and Rehabilitation Trials and Use of Analogue Sites					
	8.2.2	Analogue Sites					
		Currently 2 established sites (at time of preparation of the MOP), 2 new sites to be identified.	Noted	Noted			
	8.2.3	Grazing Trials on Rehabilitated Lands					
		Infrastructure installed in 2015 (fencing etc), has trial been furthered since then.	Yes trial now completed, cattle no longer onsite.	Compliant			
	8.2.4	Species Suitability Trials					
		Trial plots of the 2 nominated vegetation communities are planned to be sown to compare regrowth rates, stem density, canopy development. Results from these trials will be used to develop and refine completion criteria as an ongoing process.	No evidence of this occurring at the ime of the audit.	Not Triggered			
	8.2.5	Weed Control Trials on Rehabilitated Lands					
		Both herbicides and grazing are currently being trialled on different areas of the rehab to address current weed issues. The results of these trials will be used in continuous improvement of weed control on site.	Grazing trial completed. Herbicides still used for weed control at the time of the audit.	Compliant			
Intervention and Adaptive Management	9						
	9.2	Trigger Action Response Plan					
		Have there been any TARP triggering situations? (identified from ARs and Rehabilitation Reporting)	None identified. A drop structure had partially failed but the TARP was not specifically used in the maintenance works.	Not Triggered			
		Has the TARP been triggered in the audit period?	No	Not Triggered			
		If so, how was Table 29 used to remedy the situation?	Not applicable	Not Triggered			
Reporting	10						
		The Annual Review will include: <input checked="" type="checkbox"/> A summary of mining operations <input checked="" type="checkbox"/> A summary of rehabilitation activities <input checked="" type="checkbox"/> Environmental performance of: o Surface water o Ground water o Erosion and sediment control o Waste management o Contaminated land o Flora and Fauna o Weeds and Pests <input checked="" type="checkbox"/> Trends in monitoring data <input checked="" type="checkbox"/> Non-compliances <input checked="" type="checkbox"/> Actions based on non-conformances, incidents or monitoring results <input checked="" type="checkbox"/> Proposed activities Including: o Maintenance on Rehabilitation o Research and Trials <input checked="" type="checkbox"/> Any other environmental areas required by the DRE	Included in AR	Compliant			
		Rehabilitation monitoring is also reported to assess compliance against completion criteria.	Included in AR	Compliant			

Reference	Condition	Requirement	Evidence	Audit Finding	Risk		
					Consequence	Likelihood	Risk
Air Quality Management Plan, January 2016							
Consultation with DP&E, EPA and MSC provided in plan							
Stakeholder Engagement	2						
		Require evidence of DP&E approval of the plan	Letter of approval appended to plan	Compliant			
Air Quality Management Measures	3						
	3.1	Air quality Criteria					
		Long Term Criteria					
		TSP Annual 90µg/m ³	Dust criteria used for the assessment of environmental performance monthly and annual Environmental Monitoring Reports and in Annual Environmental Management Reports (AEMR). Monitoring Results show that all monitoring stations comply with these criteria as reported within the audit period AEMR.	Compliant			
		PM ₁₀ Annual 30µg/m ³					
		Deposited Dust Annual Max Increase 2g/m ² /month Max Total 4g/m ² /month Short Term Criteria					
		PM10 24 Hour 50µg/m ³	Dust criteria used for the assessment of environmental performance in AEMR's and quarterly Environmental Monitoring Reports. AEMR results as follows: · 2013-2015 Annual Reports outlined a number of exceedance of the 24 hour PM10 criteria for High Volume Air Sampling (HVAS) monitoring: o 6 measurements above the criteria within the audit period in 2013 o 10 measurements above the criteria in 2014 o 1 measurement above the criteria in 2015 o 4 measurements in 2016 Investigations into the contribution to the measurement from BMC for all exceedances showed that the BMC contribution to be less than the criteria in all cases and deemed to be in compliance with the criteria.	Compliant			
	3.2	Air Quality Acquisition Criteria					
		Long Term Criteria					
		TSP Annual 90µg/m ³	All measured short and long term dust concentrations were in compliance with the ambient AQ criteria for BMC and hence there were no triggers for land acquisition. All Dust Deposition Gauge (DDG) results at sensitive receptor locations around the BMC were below the long term acquisition criteria.	Compliant			
		PM ₁₀ Annual 30µg/m ³					
		Deposited Dust Annual Max Increase 2g/m ² /month Max Total 4g/m ² /month Short Term Criteria					
		PM10 24 Hour 50µg/m ³	All measured short and long term dust concentrations were in compliance with the ambient AQ criteria for BMC and hence there were no triggers for land acquisition. All Dust Deposition Gauge (DDG) results at sensitive receptor locations around the BMC were below the long term acquisition criteria.	Compliant			
	Note	Notes for AQ criteria: a Total impact (i.e. incremental increase in concentrations due to the development plus background concentrations due to other sources); b Incremental impact (i.e. incremental increase in concentrations due to the development on its own); c Deposited dust is to be assessed as insoluble solids as defined by Standards Australia, AS/NZS 3580.10.1:2003: Methods for Sampling and Analysis of Ambient Air - Determination of Particulate Matter - Deposited Matter - Gravimetric Method; and d Excludes extraordinary events such as bushfires, prescribed burning, dust storms, sea fog, fire incidents, illegal activities or any other activity agreed to by the Secretary.					

Reference	Condition	Requirement	Evidence	Audit Finding	Risk		
					Consequence	Likelihood	Risk
Air Quality Management Plan, January 2016							
	3.4.1	BMC implements dust management practices including: - Dust management techniques (e.g. water sprays, sheltered emplacement during high wind, drop heights of materials and expedited rehabilitation); - Guidance to employees on dust management measures and visual identification of dust for specific sources and activities; - Commitment to achieving 85% control on primary haul roads primarily through watering or the use of chemical dust suppression agents; - The use of automated monitoring systems (visual monitors and dust and wind speed alarms) situated in and the active pit that detect adverse dust and conditions; - Temporary cessation of particular operations during adverse weather conditions.	Observations on the day of the audit were that dust management techniques being employed were working well with only minor dust generation observed from site operations. In particular the following was noted: - Drop heights dumping on OB and into haul trucks was being maintained at low levels minimising dust generation. - Water carts were constantly in operation on haul roads during the day of the audit. - Some areas on haul road corners were observed to have OB rubble which could result in abrasion dust generation. - Procedures noted to include the provision for staged reduction in operations dependent on the levels of dust generation. - Visual monitoring noted in the control room during the audit period.	Compliant			
	3.4.2	Dust control measures dust and wind speed alarms to the OCE and Environment staff Cease operations when wind speed is above 5.2m/s or in high dust situations Use of forecasting to predict adverse weather conditions No blasting when wind speeds are above 10m/s No bulldozer operations on exposed areas during high dust periods.	Forecasting system was observed on the computer system and the methods for using the system within the mine operational planning outlined. Wind speed alerts are part of the control room observed by Peter Horn. No high wind speeds were observed on the day of the audit but the system was in place to reduce / cease activities should conditions change and high wind speeds be observed.	Compliant			
	Stockpiles	Automated stockpile sprays when wind speed exceeds 5.6m/s Coal stockpile spray systems are informed by online weather data Monitoring of the stacking machine to ensure drop heights are minimised Visual surveillance of the stockpiles to ensure dust plumes do not rise above the boom or leave the stockpile boundaries.	Stockpile sprays were not observed to be operating on the day of the audit, but were in place. Low wind speeds were the reason for the sprays not working. The product drop height for the stacker was observed to be higher than is ideal. There was only a minor observable dust plume, but with stronger winds and dryer conditions there could be the generation of dust with higher drop heights.	Not Compliant	E	2	Medium
	Dragline	Avoid overfilling the dragline bucket Avoid spillage from the bucket Restrict drop height Place material to avoid large rocks rolling down the spoil Regular assessment of dust created by dragline - operator and team leader Dust related dragline stoppages are logged.	Dragline was not operating on the day of the audit. Dragline dust generation monitored from the control room along with the operators. Excessive dust results in suspension of the dragline operations.	Compliant			
	Drilling	Rigs fitted with vacuum systems, dust skirts, water sprays. Inspections at shift start include dust suppression devices operations cease if devices not working and excessive dust is generated. drill operators and drill and blast crews take care not to disturb drill cutting crusts. all drill sites watered post drilling to crust surface and cuttings visible dust above the drill deck is not acceptable small water cart for drill benches	Drill rigs were not in operation on the day of the audit. Inspection of the rigs confirmed the presence of air quality mitigation equipment.	Compliant			
	Hauling	Traffic movements demarcated and traffic restricted to these areas Levels of visible dust assessed regularly by operators and supervisors (OCE?)	Water carts were observed on the haul roads throughout the mine. Overburden debris was noted on the roadway corners that could create dust when crushed under the weight of the haul trucks. Minor dust plumes noted behind the haul trucks. All plume levels were at or below the level of the wheels and dispersed rapidly with no observable plume observed moving away from the trucks.	Compliant			
	Overburden	cease during high dust periods	Low wind conditions during audit visit. Overburden excavation observed. Material was very dusty, but excavator maintained very low drop heights and minimal disturbance to minimise the dust generation which dispersed quickly and was not observed to be moving off-site.	Compliant			
	Coal Transfers	Enclosure or partial enclosure of conveyors skirting at transfer points	Coal transfer points were all enclosed as required and the base of the enclosures were well maintained and generally free of coal residue.	Compliant			
	Scrapers	Suspension of topsoil stripping during high winds or dry conditions Haul road used by scrapers are watered	When Dispatch receive wind speed alarms from the SCADA system (see attached Out of Pit Mining Operations Alert) they notify the OCE. The OCE then modifies the operations including suspending topsoil stripping operations. Copies of alarms and equipment downtime records provided as evidence.	Compliant			
	ROM Coal trucking	ROM hopper has water sprays	No ROM haulage was occurring on the day of the AQ audit due to the ROM bin being closed.				

Reference	Condition	Requirement	Evidence	Audit Finding	Risk		
					Consequence	Likelihood	Risk
Air Quality Management Plan, January 2016							
		excavator drop heights reduces as far as possible	no ROM hauling was occurring on the day of the AQ audit due to the ROM bin being closed for maintenance. ROM Bin monitored visually from the control room with water carts requested whenever dust levels become excessive.	Compliant			
		Visible dust during loading not above operators cabin	Sprays in the ROM Hopper can be activated manually or set to activate when a truck is dumping in the hopper (photos provided as evidence).				
		water cart called for when dust is above half the wheel height					
		alter or cease operations when visible dust leaves the mine site					
	Wind erosion						
		topsoil stripping limited to two strips ahead of mining	Revegetation and interim stabilisation observed on the day of the audit.	Compliant			
		interim stabilisation of exposed areas of overburden through temporary vegetation or chemical suppression	Exposed areas were minimised across the mine.				
Air Quality Monitoring							
	4						
		TEOMs to replace HVAS, committed to in the 2013 EIS. Determined 3-03-15, 2 years ago.	Not yet implemented.	Not Triggered			
	4.2.3	4 E-bam monitors	4 E-BAM locations and 2 DustTrak locations observed along with HVAS units	Compliant			
		2 Dust Trak monitors					
		Both used to inform operational control of air quality					
	4.3	Predictive System					
		Includes: - A predictive component using forecast weather and dispersion modelling - A reactive component using real time meteorology, air quality modelling and dispersion modelling - Short term tiered trigger levels and notifications for managing impacts - A daily forecast report including temperature inversions, wind conditions, dust risk and recommended control actions	Predictive system was observed on the computer of the mine environment officer. The procedure for use and linking to the operational activities was shown.	Compliant			
		An initial review will be conducted by a professional atmospheric scientist to validate the model.	Outside the audit period	Not Triggered			
		A periodic review of the system will be conducted to validate its operation against actual air quality and weather data gathered.	6 monthly reviews are conducted by Jacobs.	Compliant			
	Air Quality Risk	Low risk					
		Hourly Wind Speed>5.6m/s Temperature >30°C No rainfall in 24 hours previous	Noted	Noted			
		Management actions (as assessed above)					
		Medium Risk					
		Hourly Wind Speed>5.6-8.0m/s Temperature >35°C No rainfall in 48 hours previous	Noted	Noted			
		Management actions: - Relocation of water carts to specific areas of the site - Scaling back or cessation of hauling in more exposed areas of the site - Relocation of dumping away from exposed areas to the site - Cessation of topsoil stripping - Relocation of dozers from exposed areas - ensure adequate water is available for drills					
		High Risk					
		Hourly Wind Speed>10.0m/s					
	4.4	All dust generating activities cease. Video Cameras	Equipment shutdown logs provided as evidence, sighted cameras.	Compliant			
		Used for observation of site conditions, 4 cameras installed					
Greenhouse Gas							
	5						
	5.2	Management and Continuous Improvement					
		Use of B2 Diesel					
		Energy Efficiency Project (first 5 yr cycle completed)					
		Ongoing energy efficiency actions include: - Monitoring fuel efficiency in fleet - Use of high efficiency electric motors - Energy efficient lighting systems	The use of B2 diesel was reported in the AQMP and annual electricity usage and diesel usage and GHG production reported annually.	Compliant			
Reporting and Auditing							
	7						
	7.3	Review AQMP within 3 months following: - Annual Review - Incident Report - Audit Report - Modification of Consent (MODs 1 and 2)	Version audited was from January 2016, it had taken MOD 1 into account, no other triggers for a revision were identified.	Compliant			

Reference	Commitment	Requirement	Evidence	Audit Finding	Risk		
					Consequence	Likelihood	Risk
Aboriginal Cultural Heritage Management Plan, May 2016							
Stakeholder Consultation	4						
	4.1.2	Has B10 been salvaged? Has a copy of the salvage report for B10 been provided to OEH?	B10 had been salvaged at the time of the audit. The salvage report provided as evidence was still in draft.	Not Triggered			
	4.2.5	Have any RAPs asked to be added to the Newsletter mailing list?	None in the audit period	Not Triggered			
		Notification Triggers					
		Significant changes to Bengalla Operations with implications for aboriginal heritage Unexpected discoveries.	The RAPs were consulted for the salvage work conducted for SSD 5170.	Compliant			
		All RAPs will be provided the opportunity to take part in salvage works.	Confirmed at interview, RAPs are engaged on a revolving request basis. A list of the RAPs is kept by site and as work arises they are invited in numbers suitable for the task at hand to take part in the work.	Compliant			
		BMC will meet with any RAPs on request.	No meeting requests from the RAPs in the audit period outside of the formal processes undertaken by Bengalla.	Not Triggered			
Management of Non-impacted Aboriginal Sites	5						
	5.1	BMC will maintain a GIS database of all known archaeological sites within the project boundary	Sighted in the site inspection, evidence in the form of GDPs provided	Compliant			
		The data base will be used for GDP approvals and will be available to all personnel who need the information	Sighted in the site inspection, evidence in the form of GDPs provided	Compliant			
		Staff and contractors will be trained in identification of sites and BMCs obligations for management of those sites.	This was in the site induction.	Compliant			
	5.2	All Aboriginal archaeological sites that have not been salvaged which were identified in the EIS or SEE and occur 200 m outside the Disturbance Boundary will not be impacted and will be protected. Site fencing will be erected after a site inspection and consultation with a qualified archaeologist.	Sighted in the site inspection.	Compliant			
		As part of the SEE, to ensure no impacts occur during the construction of the Northern Clean Water Diversion Levees AHIMS sites 37-2-1469, 37-2-2891, 37-2-2892, 37-2-2896, 37-2-2897 and 37-2-2889 will be temporarily fenced and appropriately signposted prior to construction.	These were not reviewed specifically but some fenced off archaeology sites were observed along the route of the levee in the site inspection. GDP 1534 states that Aboriginal sites 37-2-1469, 37-2-2891, 37-2-2892, 37-2-2896, 37-2-2897 and 37-2-2889 were fenced and signposted.	Compliant			
		Metal signs attached to fencing will state: 	Photo of this sign taken in the site inspection.	Compliant			
	5.3.1	GDP process for archaeological sites: 1. Search the Aboriginal Sites 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 Environmental 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; i. Where the proposed disturbance works are approved and including those 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.	GDPs provided as evidence	Compliant			
	5.3.2	Where vegetation has built within the boundary of a previously recorded Aboriginal site, clearing should be undertaken in a manner that does not cause ground disturbance to the site.	Noted, this has not been required to date.	Compliant			
	5.3.3	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.	Noted, this has not been required to date.	Compliant			
	5.4	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.	No such requests in the audit period.	Not Triggered			
Archaeological Salvage Program	6						
	6.1	The salvage program will include: - Surface collection of 263 Aboriginal sites; - Archaeological test and open area 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.	The salvage report provided as evidence includes these items except the scar trees, these have not been salvaged as they are not yet threatened by mining.	Not Triggered			

Reference	Commitment	Requirement	Evidence	Audit Finding	Risk		
					Consequence	Likelihood	Risk
Aboriginal Cultural Heritage Management Plan, May 2016							
	6.2.1	Surface collection will be undertaken by a combined field team of archaeologists and RAP representatives and will involve: 1. Flagging of all visible artefacts at each site; 2. Recording of individual artefact locations using a hand-held differential GPS. All artefacts will be assigned a unique numerical identifier for data accessioning and analysis purposes; and 3. Individual bagging of artefacts with appropriate labelling.	The salvage report provided as evidence records these actions	Compliant			
	6.3	Details salvage methodology for B10 prior to mining,	The salvage report included a detailed methodology and rationale for B10.	Compliant			
	6.3.3	Geomorphological Assessment A suitably qualified geomorphologist will be engaged to undertake a geomorphological assessment of excavated soils and soil profiles within the NEZ. This assessment will involve the following: - A desktop review of existing soil data and historic aerial photographs for the NEZ; - A visual inspection of excavated soils and soil profiles during the excavation; and - Characterisation of extant soils and soil profiles using standard sedimentological techniques and terminology. The engaged geomorphologist will provide a stand-alone report detailing the results of their assessment.	The Salvage Report included a geomorphological assessment and the original report was appended.	Compliant			
	6.4	Potential Scarred Tree Assessment & Removal Three AHIMS registered potential scarred trees will be impacted by the Project (37-2-3095, 37-2-3107, and 37-2-3064). These trees are located on land owned by Coal & Allied and will be subject to an arborist inspection, with the participation of RAP representatives, prior to BMC impacting them, in order to assess their status as Aboriginal scarred trees. This inspection will occur prior to predicted impacts to ensure sufficient time for analysis and mitigation if required.	Scar Trees have not been salvaged / removed at the time of the audit.	Not Triggered			
	6.5	Notification Triggers					
	6.6	ASIR Cards Aboriginal Site Impact Recording (ASIR) cards for all previously registered and salvaged sites will be submitted to OEH within 12 months of the completion of the salvage. This will include sites previously approved for impacts as part of previous approvals but still listed on AHIMS as valid.	Sighted email from archaeologist noting that all ASIR cards had been submitted.	Compliant			
	6.7	Care and Control of Salvaged Objects Following completion of the salvage BMC will store all recovered artefacts in an appropriate secure and signposted 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	Artefacts were kept onsite at the time of the audit.	Compliant			
PROCEDURE FOR PREVIOUSLY UNRECORDED ABORIGINAL OBJECTS							
	7						
	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 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. Should it be determined that the site is within the Disturbance Boundary and 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 (refer to procedure in Section 6.2 prior to impacts). 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. Should it be determined that 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.	The only object identified was a single artefact found on the windrow of a site road. The procedure was followed as far as it was relevant for a find of this type in a disturbed area. Confirmed at interview, E&C Manager.	Compliant			

Reference	Commitment	Requirement	Evidence	Audit Finding	Risk		
					Consequence	Likelihood	Risk
Aboriginal Cultural Heritage Management Plan, May 2016							
	7.2	<p>Scarred Trees</p> <p>In the event that a potential Aboriginal scarred tree is identified within the Disturbance Boundary, the following procedure will be implemented:</p> <ol style="list-style-type: none"> 1. Works will cease in the area to prevent any further impacts to the object(s); 2. BMC Management 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 it will be removed according to the procedure outlined in Section 6.3.4; 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 6.3.4. The BMC Sites Database will be updated and an AHIMS site card completed and submitted to OEH. 	No new scar trees were identified in the audit period.	Not Triggered			
	7.3	<p>Human Skeletal Remains</p> <p>In the event that human skeletal remains are identified, the following procedure will be adopted:</p> <ol style="list-style-type: none"> 1. When suspected human remains are identified, all work in the near vicinity will cease; 2. BMC Management 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 identify 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 can 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. 	No such finds in the audit period	Not Triggered			
NON-COMPLIANCE & COMPLAINTS MANAGEMENT							
	8						
	8.1	<p>Non Compliance</p> <p>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:</p> <ol style="list-style-type: none"> a) BMC Management 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: <ul style="list-style-type: none"> - 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: <ul style="list-style-type: none"> - 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. 	None identified in the audit period	Not Triggered			
	8.2	<p>Complaints</p> <p>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 all community complaints and subsequent actions. The following details will be recorded:</p> <ul style="list-style-type: none"> The nature of the complaint; How the complaint was made; Actions (if appropriate); and Consultation undertaken. 	Reviewed elsewhere in the audit	Compliant			
REPORTING & AUDITING							
	9						
	9.3	<p>ACHMP Review</p> <p>This ACHMP will be reviewed in accordance with Schedule 5, Condition 5 of SSD-5170 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).</p>	The ACHMP was reviewed in response to SSD 5170 and again for MOD2	Compliant			
	9.4	<p>Aboriginal Heritage Awareness Training</p> <p>Subsequent to the approval of this ACHMP, relevant BMC employees and contractors will undertake the Aboriginal Heritage Awareness Training Program. BMC will maintain a database of employees and contractors that have undertaken the Aboriginal Heritage Awareness Training.</p> <p>The purpose of the program is to broaden general awareness and understanding of Aboriginal culture and heritage. It will introduce the fundamentals of why and how Aboriginal heritage and culture is protected in NSW and what their role is in protecting Aboriginal sites and objects within the BMC.</p>	Awareness training is included in the site induction. Records of inducted persons are kept.	Compliant			

Reference	Condition	Requirement	Evidence	Audit Finding	Risk		
					Consequence	Likelihood	Risk
Biodiversity Management Plan, August 2016							
4.0 Management Actions							
Ground Disturbance Permit	4.1	BMC will continue to utilise an effective ground Disturbance Permit process prior to any clearance of native vegetation.	Sighted in site inspection. A number of GDPs were provided as evidence.	Compliant			
	4.1	As far as practicable, clearance of woodland areas will be avoided during the winter months (June to September) in order to avoid impacting hibernating bats and during appropriate times of the year to avoid important growing or flowering periods for known threatened flora species.	This time was generally avoided in the audit period, one incident relating to clearing was reported and al the GDP requirements were completed including not clearing in the period specified.	Compliant			
Pre - clearance and clearance procedure	4.2	As part of the GDP process, ecological pre clearing and clearing surveys will be carried out by suitably qualified person to minimise harm to native flora and fauna.	Noted in GDPs reviewed for this audit.	Compliant			
	4.2	Native trees and shrubs will also be assessed for their potential as seed sources and any available seed harvested and/or distributed on completed rehabilitation areas.	Evidence provided, Report from HLM noting collection of seed ahead of mining on dates from September through to February.	Compliant			
	4.2.6	Seed harvest of native species will be conducted throughout the year and from all BMC owned land to coincide with the seeding period for target species.	Evidence provided, Report from HLM noting collection of seed ahead of mining on dates from September through to February.	Compliant			
4.3 Weed Management							
Weed Management Areas	4.3.2	Weed management will focus on weed control at the interface of disturbance areas and the adjacent native vegetation to be retained. Weed management will also include site inspections in the residual native vegetation areas within Bengalla Mine to identify any weed outbreaks and WONS or Noxious Weeds, so that appropriate controls can be implemented	Weed management report provided as evidence. Weed management reported in the AR.	Compliant			
Weed Control Strategy	4.3.3	Monitoring All Weed Control Zones will be inspected by a suitably qualified person to develop a weeding plan. Site inspections will be conducted at least annually, preferably during times when weed growth is most common such as autumn and spring.	Weed management report provided as evidence. Weed management reported in the AR.	Compliant			
	4.3.3	Incidental observations as part of daily activities (from the BMC Environmental Team) will be the primary mechanism for the identification of annual weed growth. The weeding plan will include identification of key weeding areas and weed species to target, identification of sensitive areas to avoid, as well as recommendations regarding appropriate weeding techniques to implement.	Inspection checklists included weeds.	Compliant			
	4.3.3	Maintenance weeding will continue to be undertaken annually in the Weed Control Zones for the life of Bengalla Mine.	Noted, conducted to the time of the audit	Not Triggered			
Timing	4.3.5	Existing weed control activities are independent of the clearing stages and will continue to occur for Bengalla. Weed management will be undertaken in the areas of vegetation to be cleared to prevent weeds from spreading beyond these areas into vegetation that will be retained. An appropriate weed control program will be undertaken in Spring and Autumn and reported on in the Annual Review. Once mining has ceased in an area and mined areas are rehabilitated, weed control will also be conducted on the rehabilitated land. Further information on weed management of the rehabilitation areas is provided in the Rehabilitation Management Plan.	Weed control program - Annual Review Weed control rehabilitated land (Photo monitoring, disturbance monitoring) Rehabilitation Management Plan Bengalla Annual Review 2015 Part 1 Section 6.15 page 67 Bengalla Mine Rehabilitation Monitoring - Dec 2015 page 17 Rehabilitation management Plan 1 Feb 2017	Compliant			
Potential Corrective Actions	4.3.7	If weed densities are increasing, or spike to due to seasonal factors, the potential corrective actions that will be implemented include: -Increase frequency of control actions; and - Additional efforts to control target species or methods extended to cover newly occurring weed species.	Recommendations for prioritisation of weed control intensity Bengalla Rehabilitation Monitoring Final Report Dec 2015Section 4.3 page 43	Compliant			
Documentation	4.3.8	The Environmental and Approvals Specialist will maintain a database of activities and document the results and outcomes of weed management in the Annual Review.	Bengalla targeted approximately 164 ha of land for weed treatment during the report period (results provided). Priority areas for treatment include the mine site boundary, rehabilitation areas, topsoil stockpiles and mine infrastructure areas. Weed management activities specific to rehabilitation areas are described. Bengalla Annual Review 2015 Part 1 Section 6.15 page 67	Compliant			
Ecological Monitoring Program							
Introduction	5.1	Condition 29 requires the implementation of a program to monitor and report on the effectiveness of mitigation measures, and progress against the detailed performance and completion criteria on the site.	AECOM Rehabilitation Audit 2015 Table 4, page 20	Compliant			
Scope	5.3.2	Weed monitoring will be undertaken at Bengalla. Rehabilitation areas will also be added to the monitoring program 12 months after rehabilitation commences.	AECOM Rehabilitation Audit 2015 Table 4, page 21	Compliant			
frequency	5.3.5	Weeds will be monitored annually within quadrats and transects established at the site of any infestation, and the percentages of weeds will be calculated. Weed occurrences will also be routinely noted by the Environmental Department as part of general observations	AECOM Rehabilitation Audit 2015 Table 4, page 22	Compliant			
Data Storage and Analysis	5.3.6	All weed monitoring data will be stored for later use and analysis. Data will be added to annually so that it will form a data set that is amenable to analysis.	Weed data provided	Compliant			
Completion Criteria	5.3.7	The general completion criteria for weeds at Bengalla are shown in Table 8 and are as follows: -Measurable decline in weed density and distribution; - Measurable decline in weed diversity; and - Minimal recruitment of new weed species. If negligible numbers of weeds are recorded using these methods during the first year of monitoring, then no control will be recommended and further monitoring will be conducted to ensure that weed numbers do not increase. If numbers of weeds are considered to be too high, then control measures will be undertaken and further monitoring undertaken to quantify the effectiveness of the control measures. Specific targets will be implemented following the first round of monitoring as part of the Annual Review	Specific target management activities for 2016 environmental management (including weeds) progress to be reported Annual Review 2016 Bengalla Annual Review 2015 Part 1 Rehabilitation Monitoring results page 80 and Section 12 page 99	Compliant			

Reference	Condition	Requirement	Evidence	Audit Finding	Risk		
					Consequence	Likelihood	Risk
Biodiversity Management Plan, August 2016							
Reporting	5.3.8	After the first 12 months of weed monitoring has been completed, all monitoring data collected will be analysed within Annual Review. That report will critically review the efficiency of all methods used and all data collected and provide recommendations to fine tune methods as required.	Fox and rabbit recorded as exotic pests but occur in low numbers and not considered major threat to native flora and fauna at Bengalla. Pigeon control was implemented to control population impacting CHPP and workshop Bengalla Annual Review 2015 Part 1 Section 6.15 page 67	Compliant			
5.4 Feral Animal Monitoring							
Purpose	5.4.1	The Abundance of feral animals within the weed control areas (see figure 7) will be monitored to provide the necessary information to trigger management and to determine the efficacy of management action and to determine the efficacy of management actions undertaken aimed at reducing feral animal abundance	Feral animals monitored during 2015/16 Vertebrate Pest Control Report Autumn 2016, Vertebrate Pest Control Report Spring 2016	Compliant			
Scope	5.4.2	Feral animal monitoring will be undertaken within the Project Boundary. The monitoring program will be regularly updated to ensure progressive rehabilitation areas are included.	Monitoring conducted within boundary and rehab areas Vertebrate Pest Control Report Autumn 2016, Vertebrate Pest Control Report Spring 2016	Compliant			
Target	5.4.3	Fauna The target fauna species are the major feral animal species recorded within the Project Boundary the European Red Fox and the European rabbit.	2015 Fox and rabbit recorded as exotic pests but occur in low numbers and not considered major threat to native flora and fauna at Bengalla. 2016 pest control included wild dogs, foxes, wild pigs and Pigeons "Bengalla Annual Review 2015 Part 1 Section 6.15 page 58 Vertebrate Pest Control Report Autumn 2016, Vertebrate Pest Control Report Spring 2016. European Red Fox and the European rabbit were not specifically targeted in this period due to low or perceived low numbers.	Compliant			
Frequency	5.4.5	Monitoring will be conducted routinely via general observations and as part of the annual monitoring program. If levels of feral animals are considered to present a threat, then it may be necessary to monitor more often to determine the results of unprogrammed control activities. Monitoring will be conducted during the life of the Project to determine how feral animal control is operating against set objectives and will provide an opportunity to change the management program if required in response.	Pigeon control during 2015 example of general observation followed by action Bengalla Annual Review 2015 Part 1 Section 6.15 page 67	Compliant			
Data Storage and Analysis	5.4.6	All feral animal data will be stored for later use and analysis. Data will be added to annually so that it will form a data set that is amenable to analysis.	Feral animal data stored, verified onsite	Compliant			
Completion Criteria	5.4.7	The general completion criteria for feral animals on the Project Boundary are as follows: - Measurable decline in feral fauna abundance; - Minimal recruitment of new feral species. If negligible numbers of feral fauna are recorded using these methods then no control will be recommended and further monitoring will be conducted to ensure that feral fauna numbers do not increase. If numbers of feral fauna are considered to be too high, then control measures will be undertaken and further monitoring undertaken to quantify the effectiveness of the control measures. Specific targets will be implemented following the first round of monitoring as part of the Annual Review. 5.4.	Completion Criteria after 5 years (maintenance of feral animal populations) Vertebrate Pest Control Report Autumn 2016, Vertebrate Pest Control Report Spring 2016 Recommendation provided in report for vertebrate pest monitoring to continue to pressure numbers of feral fauna	Compliant			
Reporting	5.4.8	Results from feral animal monitoring/observations be discussed within the Annual Review. That report will critically review the efficiency of all methods used and relevant data collected and provide recommendations to fine tune control methods as required (see Section 6.4).	Feral animal monitoring/observations discussed Bengalla Mine Annual Review 2015 page 58	Compliant			
Plant Pathogen Monitoring	5.5	As part of the regular monitoring program, vegetation health will be monitored and if any suspected dieback is detected, the risks from such symptoms will be examined and if necessary, additional measures will be developed and implemented to address the risk.	The field inspection revealed existing native vegetation and plantations on Bengalla to be in good condition and no evidence of dieback was found. Bengalla Annual Review 2015 part 2 page 58	Compliant			

Reference	Condition	Requirement	Evidence	Audit Finding	Risk		
					Consequence	Likelihood	Risk
Biodiversity Offset Management Plan, February 2016							
7.0 Vegetation management strategies							
Management Zones	7.1	In order to facilitate the management of different kinds of vegetation across the Biodiversity Offset Areas, each has been divided into zones, according to the different strategies required to return the zones to high quality woodland and forest vegetation. The following management zones have been nominated and apply to all Biodiversity Offset Areas: Zone 1: Conservation and management of existing forest and woodland; Zone 2: Assisted regeneration of canopy species in Derived Native Grasslands; and Zone 3: Riparian regeneration and management.	2016 Annual Biodiversity Monitoring Report, Cumberland Ecology S.1.2.3	Compliant			
Zone 1 : Existing Forest and Woodland	7.1.1	Strategy This will include some fencing of sensitive areas, reduction of livestock, weed and feral animal management, and ongoing monitoring. Weed invasion and over grazing by stock represent some of the most significant impacts to areas of existing bushland in the Biodiversity Offset Areas, and managing these two processes is expected to result in significant improvements in biodiversity. To limit the fire fuel load on the ground, control grazing (see Section 8.3) may be conducted across Zone 1 as part of bushfire management (see Section 8.4). No control grazing is proposed for Merriwa River Offset Area as it is not seen as being necessary for the regeneration of this Biodiversity Offset Area.	2016 Annual Biodiversity Monitoring Report, Cumberland Ecology Noted	Noted			
Zone 2: Assisted Regeneration of Canopy Species in Derived Native Grasslands	7.1.2	Strategy In the medium to long term, trees and shrubs are expected to regenerate into such areas as the condition of the Derived Native Grassland is improved through potential inclusion of control grazing and weed management (Lindenmayer, Bennett et al., 2010). Control grazing (see Section 8.3) in areas lacking regenerating canopy species may be employed in order to reduce the numbers of weed species present. In addition, follow-up weeding will target any remaining weeds (see Section 8.5 and Appendix B). Areas of regenerating canopy species will not be grazed in order to sustain regeneration; however, maintenance weeding will occur to promote further regeneration in these areas. Appendix B provides an indicative list of proposed weed and pest control strategies, which may be varied and enhanced should other control strategies be identified in future. Control grazing may occur for the Zone 2 areas of Kenalea Properties and Black Mountain Offset Areas	2016 Annual Biodiversity Monitoring Report, Cumberland Ecology Noted	Noted			

Reference	Condition	Requirement	Evidence	Audit Finding	Risk		
					Consequence	Likelihood	Risk
Biodiversity Offset Management Plan, February 2016							
		<p>Control Grazing Rules and Triggers</p> <p>To avoid overgrazing:</p> <ul style="list-style-type: none"> - Stocking rates must not exceed 4 Dry Sheep Equivalent (DSE) per hectare (Dorrrough, Stol et al. 2008); - Stocking rates will be reduced during winter when plant growth rates are slow; and - Stocking rates will be reduced following good summer and autumn rains to allow plants to recover and encourage seedling establishment. <p>To protect sensitive areas from grazing:</p> <ul style="list-style-type: none"> - Grazing may be carried out strategically so that competition and seed production from pasture weed species is reduced; and - Grazing management may allow for rest periods to maintain adequate groundcover and litter, particularly at the time of season break of annual broad-leaved weeds to reduce the likelihood of germination of these weeds. 	2016 Annual Biodiversity Monitoring Report, Cumberland Ecology Noted	Noted			
Zone 3: Riparian Regeneration and Management	7.1.3	<p>Strategy</p> <p>Ongoing management for Zone 3 will include weed and feral animal management to reduce or avoid potential impacts from weeds or feral animals.</p> <p>The riparian corridors will be assessed annually for any weed recruitment and subsequent maintenance weeding will be conducted where necessary.</p> <p>Existing riparian communities areas are currently mature, functioning examples of natural ecosystems, but their condition is expected to improve with time as trees mature, tree hollows are generated, and as regeneration of the understorey takes place when livestock are removed (McIntyre, McIvor et al. 2002).</p> <p>However, maintenance weed control (see Section 8.5 and Appendix B) will be required to occur annually in order to prevent the establishment of weed populations that would be a threat to the regeneration of the mid-storey and ground storey flora.</p>	2020 Annual Biodiversity Monitoring Report, Cumberland Ecology Noted	Noted			
8.0 Conservation and Management Strategies							
Fencing, Gates and Signage	8.1	<p>Where it exists, boundary fencing will remain around all Biodiversity Offset Areas and will be inspected annually to identify any areas that may require maintenance.</p> <p>Internal fencing within Kenalea Properties and Black Mountain will be maintained to allow management of Control grazing (see Section 8.3) in these properties, if control grazing is to be employed.</p> <p>Current gates for the entrance to the Biodiversity Offset Areas will be retained and kept locked with the keys held by BMC.</p> <p>BMC will install signage at the Biodiversity Offset Areas entrances to inform the public of only authorised access to the properties.</p>	2016 Annual Biodiversity Monitoring Report, Cumberland Ecology As the BOMP was approved in March 2017, the inspections were not triggered in the 2016 report	Not Triggered			

Reference	Condition	Requirement	Evidence	Audit Finding	Risk																					
					Consequence	Likelihood	Risk																			
Biodiversity Offset Management Plan, February 2016																										
Controlled Activities	8.2	All contractors, small holders and visitors to the Biodiversity Offset Areas will be inducted for the following unpermitted activities unless required as part of ongoing management practices: - Fires; - Removal of firewood; - Removal of rocks, sand or gravel; - Clearing of native vegetation; - Recreational hunting; - Baiting (unless permitted as part of the control of feral animals); - Trapping or shooting (unless permitted as part of the control of feral animals); - Use of fertilisers; and - Grazing within Merriwa River Offset Area or within Zone 3 Management Zone.	2016 Annual Biodiversity Monitoring Report, Cumberland Ecology As the BOMP was approved in March 2017, the inspections were not triggered in the 2016 report	Not Triggered																						
Control Grazing	8.3	The control grazing principles across both Kenalea Properties and Black Mountain include: - Plants need adequate rest and rest periods are adjusted to suit the recovery needs and growth rates of the desirable plants; - Cattle stocking numbers are kept low (below 4 DSE) to avoid overstress on areas of regeneration; - Grazing plans require monitoring and control; - Periods of grazing should be kept as short as practical; and - Aims to increase species diversity.	2016 Annual Biodiversity Monitoring Report, Cumberland Ecology As the BOMP was approved in March 2017, the inspections were not triggered in the 2016 report	Not Triggered																						
		All areas to be used for control grazing purposes will be adequately fenced to enable grazing by sheep, cattle or horses. Limited access by stock for watering purposes will be made available.	2016 Annual Biodiversity Monitoring Report, Cumberland Ecology As the BOMP was approved in March 2017, the inspections were not triggered in the 2016 report	Not Triggered																						
	Table 7	<table border="1"> <thead> <tr> <th colspan="4">Control Grazing Performance Criteria</th> </tr> <tr> <th>Management Zone</th> <th>5-Year Performance Criteria</th> <th>10-Year Performance Criteria</th> <th>21-Year Completion Criteria</th> </tr> </thead> <tbody> <tr> <td>Management Zone 1</td> <td>Fire fuel reduction No decrease against flora and fauna monitoring performance criteria</td> <td>Fire fuel reduction No decrease against flora and fauna monitoring performance criteria</td> <td>Fire fuel reduction No decrease against flora and fauna monitoring performance criteria</td> </tr> <tr> <td>Management Zone 2</td> <td>Fire fuel reduction No decrease against flora and fauna monitoring performance criteria Net decrease in weed density</td> <td>Fire fuel reduction No decrease against flora and fauna monitoring performance criteria Net decrease in weed density</td> <td>Fire fuel reduction No decrease against flora and fauna monitoring performance criteria Net decrease in weed density</td> </tr> <tr> <td>Management Zone 3</td> <td>Fire fuel reduction No decrease against flora and fauna monitoring performance criteria Net decrease in weed density</td> <td>Fire fuel reduction No decrease against flora and fauna monitoring performance criteria Net decrease in weed density</td> <td>Fire fuel reduction No decrease against flora and fauna monitoring performance criteria Net decrease in weed density</td> </tr> </tbody> </table>	Control Grazing Performance Criteria				Management Zone	5-Year Performance Criteria	10-Year Performance Criteria	21-Year Completion Criteria	Management Zone 1	Fire fuel reduction No decrease against flora and fauna monitoring performance criteria	Fire fuel reduction No decrease against flora and fauna monitoring performance criteria	Fire fuel reduction No decrease against flora and fauna monitoring performance criteria	Management Zone 2	Fire fuel reduction No decrease against flora and fauna monitoring performance criteria Net decrease in weed density	Fire fuel reduction No decrease against flora and fauna monitoring performance criteria Net decrease in weed density	Fire fuel reduction No decrease against flora and fauna monitoring performance criteria Net decrease in weed density	Management Zone 3	Fire fuel reduction No decrease against flora and fauna monitoring performance criteria Net decrease in weed density	Fire fuel reduction No decrease against flora and fauna monitoring performance criteria Net decrease in weed density	Fire fuel reduction No decrease against flora and fauna monitoring performance criteria Net decrease in weed density	2016 Annual Biodiversity Monitoring Report, Cumberland Ecology As the BOMP was approved in March 2017, the inspections were not triggered in the 2016 report	Not Triggered		
Control Grazing Performance Criteria																										
Management Zone	5-Year Performance Criteria	10-Year Performance Criteria	21-Year Completion Criteria																							
Management Zone 1	Fire fuel reduction No decrease against flora and fauna monitoring performance criteria	Fire fuel reduction No decrease against flora and fauna monitoring performance criteria	Fire fuel reduction No decrease against flora and fauna monitoring performance criteria																							
Management Zone 2	Fire fuel reduction No decrease against flora and fauna monitoring performance criteria Net decrease in weed density	Fire fuel reduction No decrease against flora and fauna monitoring performance criteria Net decrease in weed density	Fire fuel reduction No decrease against flora and fauna monitoring performance criteria Net decrease in weed density																							
Management Zone 3	Fire fuel reduction No decrease against flora and fauna monitoring performance criteria Net decrease in weed density	Fire fuel reduction No decrease against flora and fauna monitoring performance criteria Net decrease in weed density	Fire fuel reduction No decrease against flora and fauna monitoring performance criteria Net decrease in weed density																							
Bushfire Management	8.4	The quick identification of a threatening bushfire, notification of the Rural Fire Service (RFS) and suppression is the primary goal. BMC will provide maps and contact details of the properties to the RFS. An appropriate burning regime can be a useful to enhance the condition of Box Gum Grassy Woodlands.	The relevant information was provided to RFS (local and regional) in January 2017. Maps will be provided after fire trails are complete. See attached documents. Eco Logical Australia have been contracted to determine a burning regime to enhance the condition of Box Gum Grassy Woodlands. Assessment to commence August 2017.	Not Triggered																						

Reference	Condition	Requirement	Evidence	Audit Finding	Risk		
					Consequence	Likelihood	Risk
Biodiversity Offset Management Plan, February 2016							
	8.4.2	<p>Key control measures will focus on:</p> <ul style="list-style-type: none"> - Documentation and maintenance of access tracks and water supply points for suppression activities; - Potential use of grazing to reduce fuel build-up of potential exposed ignition sources, prior to the fire season; - Use of cool burns when deemed necessary (with any required approvals and/or permits from the RFS) to reduce fuel build-up to protect biodiversity and conservation values; - Establishment of asset protection zones around priority infrastructure; - Appropriate investment fire suppression assets; and - Communication of BMC Bushfire Management Plan and response procedures for provision to key stakeholders, including land managers, neighbours, consultants, contractors and employees. 	<p>The relevant information was provided to RFS (local and regional) in January 2017. Maps will be provided after fire trails are complete. See attached documents.</p> <p>Eco Logical Australia have been contracted to determine a burning regime to enhance the condition of Box Gum Grassy Woodlands. Assessment to commence August 2017.</p>	Not Triggered			
		<p>Any fuel hazard reduction burns will be planned in accordance with the <i>Bush Fire Environmental Assessment Code for New South Wales</i> (Rural Fire Service, February 2006) and the guidelines contained in the <i>Threatened Species Hazard Reduction Lists for the Bush Fire Environmental Assessment Code</i>.</p>	Noted	Noted			
Weed Control	8.5.3	<p>Weed removal will be undertaken in accordance with the following to minimise impacts upon existing vegetation and habitats:</p> <ul style="list-style-type: none"> - Avoid over-clearing and remove only targeted species; - Limit spread of weeds from disturbance areas or off-site areas to weed control areas by washing down vehicles and machinery where appropriate, prior to moving them out of designated disturbance/clearance areas; - Employ minimal disturbance techniques to avoid soil and surrounding vegetation disturbance, and replacement of disturbed mulch/leaf-litter; - Remove of fruiting/seeding parts of weeds carefully, to minimise spread of plant propagules; - Use of chemicals and sprays only during suitable weather conditions (i.e. not during wet or windy conditions), and only during appropriate seasons; and - Avoid disturbance of native fauna or nesting/breeding sites. 	<p>2016 Annual Biodiversity Monitoring Report, Cumberland Ecology</p> <p>2016 Annual Return</p> <p>Both reports cover weed management.</p>	Compliant			
	8.5.4	<p>Weed monitoring will be undertaken annually as part of the Biodiversity Monitoring Program</p>	<p>pg 74 2016 Annual Review:</p> <p>In 2016, BMC undertook weed inspections on all offset properties and treated weeds as required. Areas treated were recorded by GPS and documented in the contractor's report.</p> <p>Weeds treated included St John Wort, Paterson Curse, Prickly Pear and Tiger Pear. Weed treatment techniques included spot spraying with a quick-spray unit and manual removal when treating Prickly Pear and Tiger Pear.</p>	Compliant			

Reference	Condition	Requirement	Evidence	Audit Finding	Risk		
					Consequence	Likelihood	Risk
Biodiversity Offset Management Plan, February 2016							
	8.5.6	The results and outcomes of weed management will be documented for each year in the Annual Review	pg 74 2016 Annual Review: In 2016, BMC undertook weed inspections on all offset properties and treated weeds as required. Areas treated were recorded by GPS and documented in the contractor's report. Weeds treated included St John Wort, Paterson Curse, Prickly Pear and Tiger Pear. Weed treatment techniques included spot spraying with a quick-spray unit and manual removal when treating Prickly Pear and Tiger Pear.	Compliant			
Feral Animal Management	8.6.1	Monitoring of the feral animal population in the Biodiversity Offset Areas will be undertaken annually as part of the Biodiversity Monitoring Program	pg 75 2016 Annual Review: BMC has undertaken an 8-week pig trapping program and two 4-week dog baiting programs on the offset properties as per the requirement outlined in the draft BOMP. Although these species are exotic pests, due to low numbers, they are not considered to be a major threat to the native flora and fauna on the offsets. During May 2016, BMC participated in an aerial dog baiting operation organized by Local Land Services. Dog baiting was undertaken on all offset properties.	Compliant			
	8.6.3	The results and outcomes of feral animal management will be documented for each year in the Annual Review	pg 75 2016 Annual Review: BMC has undertaken an 8-week pig trapping program and two 4-week dog baiting programs on the offset properties as per the requirement outlined in the draft BOMP. Although these species are exotic pests, due to low numbers, they are not considered to be a major threat to the native flora and fauna on the offsets. During May 2016, BMC participated in an aerial dog baiting operation organized by Local Land Services. Dog baiting was undertaken on all offset properties.	Compliant			
Maintenance Track Improvement and Additional Infrastructure	8.7	Maintenance of existing tracks and installation of additional infrastructure may be required to provide safe access for BMC personnel, land managers, consultants and contractors and to enable management actions to be implemented. Construction activities may cause localised site disturbance.	2016 Annual Biodiversity Monitoring Report, Cumberland Ecology	Compliant			
		BMC will ensure compliance with all legal and environmental protection measures prior to any significant disturbance. All relevant information and revised geographic information related to improvements and additional infrastructure will be recorded and stored by BMC. Routine inspections and maintenance of infrastructure (e.g. tracks, fencelines and gates) will be undertaken to ensure that they are fit for purpose.	2016 Annual Biodiversity Monitoring Report, Cumberland Ecology	Compliant			

Reference	Condition	Requirement	Evidence	Audit Finding	Risk		
					Consequence	Likelihood	Risk
Biodiversity Offset Management Plan, February 2016							
Biodiversity Monitoring Program	9						
Permanent Monitoring Sites	9.2	A total of 28 permanent monitoring sites will be established across all the offsets, with six grassland and six woodland sites on Kenalea Properties, eight woodland sites on Black Mountain, and six woodland sites on Merriwa River.	<p>pg 71 and 72 of 2016 Annual Review: The ecological monitoring program of the offsite biodiversity offset areas commenced in 2016. The purpose of the monitoring program is to monitor the ongoing status and health of flora and fauna in the biodiversity offset areas to ensure the 'maintain and enhance' objective is being achieved. The monitoring programme is a requirement of SSD-5170 (as modified) and EPBC 2012/6378 conditions of approval. Bengalla Mine Annual Review 2016 31 March 2017 for Bengalla Mining Company Pty Limited Page 72 Ref: 170331 Bengalla Annual Review 2016.docx HANSEN BAILEY</p> <p>A total of 28 permanent flora monitoring sites were established and surveyed, including six woodland (Zone 1), six grassland (Zone 2), and two riparian sites (Zone 3) within the Kenalea Properties, eight woodland (Zone 1) sites within Black Mountain, and six woodland (Zone 1) sites within Merriwa River.</p>	Compliant			
		<p>Kenalea Properties (14 sites, Figure 18):</p> <ul style="list-style-type: none"> o 6 sites: Box Gum Woodland; o 6 sites: Box Gum Woodland Derived Native Grassland; and o 2 sites: Riparian River Oak Open Forest; 	As above	Compliant			
		<p>Black Mountain (8 Sites, Figure 19):</p> <ul style="list-style-type: none"> o 2 sites: Upland Grassy Box Woodland; o 2 sites: Midland Grassy Box Woodland; o 2 sites: Lowland Grassy Box Woodland; o 1 Ironbark Grassy Woodland; and o 1 site: River Oak Forest; 	As above	Compliant			
		<p>Merriwa river (6 sites, Figure 20):</p> <ul style="list-style-type: none"> o 2 sites: Ironbark Open Forest on Sandstone (Narrow-leaved Ironbark); o 2 sites: Box Woodland on Basalt (CEEC/EEC); o 1 site: Narrow-leaved Ironbark Alluvial Open Forest; and o 1 site: Redgum Alluvial Open Woodland. 	As above	Compliant			
		At each permanent monitoring site, a plot of 20 x 50 m will be permanently marked by placement of a star picket at the top of hill end of the midline of each plot and by recording the location of pickets using GPS. This plot will be dissected by a 50 m transect line with each end of the transect line marked with a permanent star picket. Within the base plot a subplot will be established, measuring 20 m x 20 m at the origin end.	2016 Annual Biodiversity Monitoring Report, Cumberland Ecology S. 2.1.1 and 2.2.1	Compliant			

Reference	Condition	Requirement	Evidence	Audit Finding	Risk		
					Consequence	Likelihood	Risk
Biodiversity Offset Management Plan, February 2016							
		<p>Each fixed monitoring plot the following measurement will be collected and recorded from within the base plot:</p> <ul style="list-style-type: none"> - The relative frequency of occurrence of each plant species in each stratum within a 20 m x 20 m subplot; - Regeneration of canopy species; - Evidence of disturbance by pest animals; - Number and sizes of hollows and the species of tree in which the hollow occurs; - Standing dead timber and cumulative length of fallen logs; - Proximity to water, rocks, caves and overhangs; - A waypoint to mark the location of the quadrat, using a handheld GPS; - Photographs of the quadrat from a fixed point and in a fixed direction and angle; and - General comments especially on seasonal conditions, past management, etc. 	2016 Annual Biodiversity Monitoring Report, Cumberland Ecology S. 2.1.1 and 2.2.1	Compliant			
		<p>Within the 20m x 20m subplot, full-floristic measurements will be collected and recorded for:</p> <ul style="list-style-type: none"> - All vascular flora species present; - The stratum in which each species occurred; - A measure or estimate of the appropriate cover measure for each recorded species; and - An abundance rating for each of the species within the subplot. 	2016 Annual Biodiversity Monitoring Report, Cumberland Ecology S. 2.1.1 and 2.2.1	Compliant			
		<p>Within the 20m x 20m subplot, four 10m x 10m plots to measure:</p> <ul style="list-style-type: none"> - Native groundcover plants (< 1m) % cover; - Mosses and lichens % cover; - Weeds % cover; - Organic litter % cover; and - Rock/bare ground % cover. 	2016 Annual Biodiversity Monitoring Report, Cumberland Ecology S. 2.1.1 and 2.2.1	Compliant			
		<p>The relative abundance and cover of each species within each quadrat will be recorded following guidelines of the <i>Native Vegetation Interim Type Standard</i> (Sivertsen, 2009) with a measure or estimate of the appropriate cover measure for each recorded species; recorded from 1–5% and then to the nearest 5%.</p>	2016 Annual Biodiversity Monitoring Report, Cumberland Ecology S. 2.1.1 and 2.2.1	Compliant			
		<p>Along the 50m transect line, data collected at 1m intervals will include:</p> <ul style="list-style-type: none"> - Presence of weeds, native grasses, native shrubs, and other native vascular plants; <p>In addition, along the 50m transect line, data collected at 5m intervals will include:</p> <ul style="list-style-type: none"> - Native canopy (tree) projective foliage cover; - Native mid-storey (i.e. cover of native shrubs/small trees >1m); and - Weed canopy/mid-storey cover (i.e. cover of weeds >1m). 	2016 Annual Biodiversity Monitoring Report, Cumberland Ecology S. 2.1.1 and 2.2.1	Compliant			

Reference	Condition	Requirement	Evidence	Audit Finding	Risk		
					Consequence	Likelihood	Risk
Biodiversity Offset Management Plan, February 2016							
Threatened Species	9.4	<p>Threatened species monitoring will:</p> <ul style="list-style-type: none"> - Identify changes in population numbers over time; - Determine the success of conservation measures; and - Highlight areas for improvement if these measures are found to be inadequate. <p>Targeted searches will be undertaken for threatened species across all Biodiversity Offset Areas for threatened species known to occur within the Impact area and Biodiversity Offset Areas. This will include:</p> <ul style="list-style-type: none"> - Opportunistic searches for Tiger Orchid in suitable habitat; - Woodland bird surveys; - Winter bird surveys for Regent Honeyeater and Swift Parrot; - Ultrasonic bat detectors for threatened micro-bats; and - Infrared Cameras for Spotted-tailed Quoll and Squirrel Glider. 	2016 Annual Biodiversity Monitoring Report, Cumberland Ecology S. 2.2.2	Compliant			
Woodland Birds	9.4.1	<p>At each permanent monitoring site, bird species will be surveyed at dawn for one visit during Spring/Summer. All species seen or heard calling will be recorded. Any evidence of species from nests, droppings will also be recorded for each monitoring site. The focus of the bird surveys will be on the threatened birds listed under the EPBC Act and/or the TSC Act that have been recorded within the Project Boundary or which have potential to occur.</p> <p>These include the following:</p> <ul style="list-style-type: none"> - Brown Treecreeper; - Speckled Warbler; - Grey-crowned Babbler (eastern subspecies); and - Black-chinned Honeyeater (eastern subspecies). 	2016 Annual Biodiversity Monitoring Report, Cumberland Ecology S. 2.2.2	Compliant			
Wintering Birds	9.4.2	<p>At each permanent monitoring site winter resident bird species will be surveyed at dawn during a suitable period (generally between June and August). All species seen or heard calling will be recorded. The focus of the wintering bird surveys will be on the threatened birds listed under the EPBC Act and TSC Act whose habitat has been offset due to these species having the potential to occur within the Project Boundary.</p> <p>These include the following MNES species:</p> <ul style="list-style-type: none"> - Regent Honeyeater; and - Swift Parrot. 	2016 Annual Biodiversity Monitoring Report, Cumberland Ecology S. 2.2.2	Compliant			
Bats	9.4.3	<p>The focus of the bat surveys will be on the species of bat species listed as Vulnerable under the EPBC Act and/or the TSC Act that have been recorded within the Project Boundary or which have potential to occur. These include the following:</p> <ul style="list-style-type: none"> - Yellow-bellied Sheath-tail-bat; - Eastern Bentwing-bat; - Southern Myotis; - Eastern Cave Bat; - Large-eared Pied Bat; - South-eastern Long-eared Bat; and - Grey-headed Flying-fox. 	2016 Annual Biodiversity Monitoring Report, Cumberland Ecology S. 2.2.2	Compliant			

Reference	Condition	Requirement	Evidence	Audit Finding	Risk																										
					Consequence	Likelihood	Risk																								
Biodiversity Offset Management Plan, February 2016																															
Spotted-tail Quolls and other terrestrial Fauna	9.4.4	Motion-detection cameras will be utilised to target Spotted-tail Quolls and other terrestrial fauna. Four motion-detection cameras will be set out on the trunks of trees near signs of animal activity (i.e. Trails, wallows, diggings etc.) within woodland areas during the winter monitoring session and left in situ until they are collected during the Spring/Summer monitoring session.	2016 Annual Biodiversity Monitoring Report, Cumberland Ecology S. 2.2.2	Compliant																											
Arboreal Mammals	9.4.5	Motion-detection cameras will be utilised during the Spring/Summer monitoring to target Squirrel Gliders and other arboreal mammals. Two motion-detection cameras will be set out for two nights at each Biodiversity Offset Area and will be mounted to a nectar bait station attached to the trunk of a tree. Survey locations will be chosen in the first year monitoring and will be based on the availability of hollow-bearing trees in the area.	2016 Annual Biodiversity Monitoring Report, Cumberland Ecology S. 2.2.2	Compliant																											
Performance Indicators - Weeds	9.5.2	<table border="1"> <thead> <tr> <th colspan="4">Completion Criteria for Weed Monitoring</th> </tr> <tr> <th>Task</th> <th>5-Year Performance Criteria</th> <th>10-Year Performance Criteria</th> <th>21-Year Completion Criteria</th> </tr> </thead> <tbody> <tr> <td>Weed density and distribution</td> <td>Baseline and annual monitoring completed</td> <td>Annual monitoring completed Less than 15% cover of weeds in each management zone</td> <td>Annual monitoring completed Less than 5% cover of weeds in each management zone</td> </tr> <tr> <td>Weed diversity</td> <td>Baseline and annual monitoring completed</td> <td>Annual monitoring completed Limited new weed species</td> <td>Annual monitoring completed Limited new weed species</td> </tr> <tr> <td>Twice a year weed inspections</td> <td>Inspections and reports completed</td> <td>Inspections and reports completed</td> <td>Inspections and reports completed</td> </tr> <tr> <td>Weed control program</td> <td>All weed control events recorded</td> <td>All weed control events recorded</td> <td>All weed control events recorded</td> </tr> </tbody> </table>	Completion Criteria for Weed Monitoring				Task	5-Year Performance Criteria	10-Year Performance Criteria	21-Year Completion Criteria	Weed density and distribution	Baseline and annual monitoring completed	Annual monitoring completed Less than 15% cover of weeds in each management zone	Annual monitoring completed Less than 5% cover of weeds in each management zone	Weed diversity	Baseline and annual monitoring completed	Annual monitoring completed Limited new weed species	Annual monitoring completed Limited new weed species	Twice a year weed inspections	Inspections and reports completed	Inspections and reports completed	Inspections and reports completed	Weed control program	All weed control events recorded	All weed control events recorded	All weed control events recorded	2016 Annual Biodiversity Monitoring Report, Cumberland Ecology	Compliant			
Completion Criteria for Weed Monitoring																															
Task	5-Year Performance Criteria	10-Year Performance Criteria	21-Year Completion Criteria																												
Weed density and distribution	Baseline and annual monitoring completed	Annual monitoring completed Less than 15% cover of weeds in each management zone	Annual monitoring completed Less than 5% cover of weeds in each management zone																												
Weed diversity	Baseline and annual monitoring completed	Annual monitoring completed Limited new weed species	Annual monitoring completed Limited new weed species																												
Twice a year weed inspections	Inspections and reports completed	Inspections and reports completed	Inspections and reports completed																												
Weed control program	All weed control events recorded	All weed control events recorded	All weed control events recorded																												
Performance Indicators - Feral Animals	9.6.3	<table border="1"> <thead> <tr> <th colspan="4">Completion Criteria for Feral Animals</th> </tr> <tr> <th>Task</th> <th>5-Year Performance Criteria</th> <th>10-Year Performance Criteria</th> <th>21-Year Completion Criteria</th> </tr> </thead> <tbody> <tr> <td>Population size estimates per species</td> <td>Baseline and annual monitoring completed</td> <td>Steady downward trend in population size No new species</td> <td>Steady downward trend in population size No new species</td> </tr> <tr> <td>Feral Animal control program</td> <td>All feral animal control events recorded</td> <td>All feral animal control events recorded</td> <td>All feral animal control events recorded</td> </tr> <tr> <td>Area of impacted native vegetation per species based on monitoring</td> <td>Baseline</td> <td>Less than 10% of each management zone</td> <td>Less than 5% of each management zone</td> </tr> </tbody> </table>	Completion Criteria for Feral Animals				Task	5-Year Performance Criteria	10-Year Performance Criteria	21-Year Completion Criteria	Population size estimates per species	Baseline and annual monitoring completed	Steady downward trend in population size No new species	Steady downward trend in population size No new species	Feral Animal control program	All feral animal control events recorded	All feral animal control events recorded	All feral animal control events recorded	Area of impacted native vegetation per species based on monitoring	Baseline	Less than 10% of each management zone	Less than 5% of each management zone	2016 Annual Biodiversity Monitoring Report, Cumberland Ecology	Compliant							
Completion Criteria for Feral Animals																															
Task	5-Year Performance Criteria	10-Year Performance Criteria	21-Year Completion Criteria																												
Population size estimates per species	Baseline and annual monitoring completed	Steady downward trend in population size No new species	Steady downward trend in population size No new species																												
Feral Animal control program	All feral animal control events recorded	All feral animal control events recorded	All feral animal control events recorded																												
Area of impacted native vegetation per species based on monitoring	Baseline	Less than 10% of each management zone	Less than 5% of each management zone																												
Biodiversity Offset Management Plan Annual Report	9.6.4	A Biodiversity Offset Management Plan Annual Report (BOMP Annual Report) will be prepared annually in order to track and assess the performance of the biodiversity management measures contained in this BOMP over the preceding 12 month period. Results from the BOMP Annual Report will be included within the Annual Review. The BOMP Annual Report will be created following the completion of annual monitoring and will provide the results of the year's surveys, and compare them to those of previous years. The BOMP Annual Report will contain details of all the vegetation monitoring, threatened species monitoring, weed monitoring and feral animal monitoring that has been conducted during the preceding year. This report will describe the works undertaken, present the findings of the monitoring activities, discuss any problems encountered in implementing this BOMP, and will recommend any adaptations or additions to this BOMP. Recommendations will be made which will feed into the management of each area during the coming year.	2016 Annual Biodiversity Monitoring Report, Cumberland Ecology	Compliant																											

Reference	Condition	Requirement	Evidence	Audit Finding	Risk		
					Consequence	Likelihood	Risk
Biodiversity Offset Management Plan, February 2016							
		The BOMP Annual Report will assess the performance of management rehabilitation and restoration actions within the Biodiversity Offset Areas, and identify any measures that should be implemented to improve the performance of these actions. The BOMP Annual Report will critically review the efficacy of all methods used and all data collected and provide recommendations to fine tune methods as required. The BOMP Annual Report will form a long term record of the flora and fauna management on the Biodiversity Offset Areas and will help determine what the overall impact of the Project has been and will determine the efficacy of the mitigation measures implemented. It is expected that this information will form a valuable data set that will inform future management activities.					
REPORTING, REVIEW AND CONTINUOUS IMPROVEMENT	10						
Management Plan Revision	10.2	In accordance with SSD-5170 Schedule 5, Condition 4, BMC shall review and if necessary, revise the Biodiversity Management Plans, to the satisfaction of the Secretary. Where the review leads to a revision of the BOMP, then within four weeks of the review the revised document must be submitted to the Secretary for approval, unless otherwise agreed with the Secretary. If no changes to this BOMP are as a result of the above then BMC will review and, if necessary, revised (in consultation with relevant government agencies and landholders) on at least a three yearly basis (or as otherwise directed by the Secretary of DP&E).	This has not been require dn the audit period	Not Triggered			
Annual Review	10.3	The Annual Review will include the presentation of and commentary on the biodiversity offset monitoring results and any management actions implemented at Bengalla over the reporting period.	2016 Annual Review includes reporting on the BOMP	Compliant			

Reference	Commitment	Requirement	Evidence	Audit Finding	Risk													
					Consequence	Likelihood	Risk											
Blast Management Plan, February 2016																		
Stakeholder Engagement	2																	
	2.1	Regulatory Consultation Schedule 3, Condition 15 of SSD-5170 requires that this BMP must be developed in consultation with the Environment Protection Authority (EPA) and Muswellbrook Shire Council (MSC) to the satisfaction of the Secretary of DP&E	Consultation noted in plan. Approval by DP&E appended to plan	Compliant														
Blast Monitoring	3																	
		The blast monitors record the following characteristics for each blast which triggers relevant threshold levels and relays information live to the Ecotech website (or other equivalent supplier) and via SMS to BMC Environmental staff: - Time and date; - Peak vector sum (mm/s); - Air overpressure peak (dB(Lin Peak)); and - Waveform trace, where applicable.	Noted, sighted SMS messages in site inspection.	Compliant														
		Calibration and maintenance of monitoring equipment is carried out by a specialised blast monitoring service provider.	ECOTECH calibrated the blast monitoring system through the audit period.	Compliant														
	3.1	Monitoring of Historic Heritage Sites In accordance with Condition 32(b), Schedule 3 of SSD - 5170, BMC is required to monitor, notify and manage the effects on blasting on potentially affected historic heritage items. Heritage sites to be monitored are listed in Table 3 in the BMP.	Edniglassie and Bengalla Homesteads were included in the monitoring program.	Compliant														
BLAST MANAGEMENT MEASURES	4																	
	4.1	Blasting Criteria																
		<p style="text-align: center;">Table 4 Blasting Criteria</p> <table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th>Location</th> <th>Airblast overpressure (dB(Lin Peak))</th> <th>Ground vibration (mm/s)</th> <th>Allowable exceedance</th> </tr> </thead> <tbody> <tr> <td rowspan="2">Residence on privately owned land *</td> <td>115</td> <td>5</td> <td>5% of the total number of blasts over a period of 12 months*</td> </tr> <tr> <td>120</td> <td>10</td> <td>0%</td> </tr> </tbody> </table> <p style="text-align: center; font-size: small;">* A blast refers to a single blast event, which may involve a number of individual blasts fired in quick succession in a discrete area of the mine.</p>	Location	Airblast overpressure (dB(Lin Peak))	Ground vibration (mm/s)	Allowable exceedance	Residence on privately owned land *	115	5	5% of the total number of blasts over a period of 12 months*	120	10	0%	Bengalla have been compliant with these criteria through the audit period.	Compliant			
Location	Airblast overpressure (dB(Lin Peak))	Ground vibration (mm/s)	Allowable exceedance															
Residence on privately owned land *	115	5	5% of the total number of blasts over a period of 12 months*															
	120	10	0%															
	4.3	Regulatory Control Measures																
		All blasting is conducted on site between 7 am and 5 pm, Monday to Saturday inclusive. No blasting occurs on Sundays, public holidays, or at any other time without the written approval of the Secretary;	The approval of the secretary was not sought in the audit period The blast database was reviewed and no Sunday or public Holiday or blasts outside hours were identified.	Compliant														
		Blasting frequency does not exceed a maximum of two blasts per day and six blasts per week when averaged over a calendar year (this does not include blasts that generate a ground vibration of 0.5 mm/s or less at any residence on privately owned land/or to blasts required to ensure the safety of the mine, its workers or the general public);	The blast database confirms this requirement was complied with	Compliant														
		Consideration is given to the frequency and duration of road closures and avoidance of road closures during peak traffic periods (including where practical, to occur at times which do not impede school bus operations);	The Road closure Management Plan includes planned closure times and requirements relating to timing.	Compliant														
		Coordinate blast times with MAC and Mount Pleasant (when operating)	MAC and Mt Pleasant are on the blast notification list. Blast timing is reviewed against the other sites notifications	Compliant														
		Operate a 'Blasting Hotline' (02 6542 9591) which provides the community with daily blast times and locations;	This was in place.	Compliant														
		Operate a blast SMS notification service which: o Provides details of the upcoming blast (including date and approximate time) and sends an update if a blast has been delayed or cancelled; o Is offered to all persons currently identified on the Blast Notification List and will be provided to any community member who registers for the service; o Details of the blast SMS notification service will be communicated to the BMC CCC; and	Sighted SMS service in action during the site inspection	Compliant														
	4.4	Blast Design																

Reference	Commitment	Requirement	Evidence	Audit Finding	Risk		
					Consequence	Likelihood	Risk
Blast Management Plan, February 2016							
		Techniques utilised at BMC include: - Identification of infrastructure within 500 metres of potential blast zones; - MIC contained to a level so that blasting that will comply with the criteria detailed in Section 4.1; - Use of adequate stemming, a delay detonation system, and careful drilling and hole loading to ensure that the required blast design is implemented; - Monitoring of blasts to determine whether airblast and ground vibration limits are met; - Post blast review where appropriate of monitoring results and modification of future blast designs, if necessary; - Periodic review of blast management practices to evaluate performance and identify responsive action or system improvements, if required; and - Account for any adverse meteorological conditions that may be prevailing at the time of the blast and, defer or modify the blast to accommodate those conditions where appropriate (as detailed in Section 4.5).	Observed in site inspection and at interview with D&B Engineer	Compliant			
	4.5	Weather Conditions Blasting operations are assisted by the 'Blasting Permission System' which integrates real-time meteorological information (wind speed, inversion strength and wind direction). During blast scheduling, additional consideration is given to the size and design of the blast pattern relative to extremities of the mining areas, neighbours, material type, expected dust and/or blast fume generation potential, sleep time and hot or reactive ground.	Observed in site inspection and at interview with D&B Engineer and Environment Staff	Compliant			
		The following process is followed: At least 1 hour prior to scheduled blast time: - Meteorological information is checked for wind speed, direction and temperature inversion conditions before preparing to fire the blast. These conditions should be monitored if conditions are close to the risk limits set by the site. Two minutes prior to scheduled blast time: - Shotfirer to reconfirm meteorological conditions. If a blast needs to be delayed: - Notify relevant supervisor and Superintendent Dragline Drill and Blast; and - If delay will extend beyond licence time limit, then procedures for postponing tied shots should be followed. If a blast cannot be delayed due to sleep time duration or other factors and will occur outside of the approved blast times: - The relevant regulator will be notified of the circumstances of the blast. Written regulatory approval from DP&E is required prior to any blasting outside of the approved hours under SSD-5170.	Observed in site inspection and at interview with D&B Engineer	Compliant			
ROAD CLOSURE MANAGEMENT PLAN	5						
	5.2	Other Mine Owned Land SSD-5170 Condition 14(c) states that no blasting will be undertaken within 500 m of any land outside the site that is not owned by BMC unless a written agreement is in place which allows blasting to be carried out closer to the land and DP&E has been advised in writing. Only mine-owned land (Coal & Allied) as part of the Mt Pleasant Project is within 500 m of proposed blast activities for the 24 year project life of Bengalla. As such, no agreement is required.	Agreements with MSC via review and consultation on the road closure plan. Mount Pleasant sold in January 2016, Master Cooperation Agreement (MCA) executed 5 May 2011 in place but over the audit period with aspects covering blasting. A Blasting Protocol was being developed the time of the audit.	Compliant			
	5.3	Muswellbrook-Ulan Rail Line Closure SSD-5170 Condition 14(b) states that no blasting will be undertaken within 500 m of the Ulan-Muswellbrook Rail Line unless a written agreement is in place which allows blasting to be carried out closer to the infrastructure and DP&E has been advised in writing. BMC currently has a Blasting Deed dated 6 April 2009 in place with the Australian Rail Track Corporation that facilitates blasting within 500 m of the Muswellbrook-Ulan Rail Line, which will be updated as required.	Agreement is in place, no blasting within 500m in the audit period.	Compliant			
	5.4	Closure of Public Roads (details from Appendix C)					
		In the Week Prior to Blasting A Bengalla nominated person will notify the following personnel of the date and time of Bengalla's intention to blast via Muswellbrook Shire Council (MSC) website, utilising the 'Blast Submission Form' currently at the following address: http://27.50.65.67/~muswell/index.php/blasting-notices Emergency services including Muswellbrook Fire Brigade, Rural Fire Service, Ambulance Service, Police and State Emergency Service will be advised of planned road closures, including proposed times in advance by email (or other method determined in consultation with each authority).	The MSC website is used for all blasting notifications.	Compliant			

Reference	Commitment	Requirement	Evidence	Audit Finding	Risk		
					Consequence	Likelihood	Risk
Blast Management Plan, February 2016							
		<p>The Working Day Before Blasting Bengalla's nominated Blasting Coordinator will confirm with the Main Switchboard Secretary the scheduled date and time of the blast with the following done 24 hours prior to the proposed blast. 1. Via the MSC website, currently at the following address http://27.50.65.67/~muswellb/index.php/blasting-notice 2. Bengalla's Environmental Specialist Phone: 02 6542 9525 Signs will be posted along the public road in both directions indicating that "this road is subject to short closures with up to 20 minutes delay for mine blasting purposes". The sign will also display the next blast / closure date, time and contact details as shown in Figure 1.1 and Figure 1.2 for each of Bengalla Link Road and Wybong Road, respectively. Blasting is to be undertaken during daylight hours only. Public road closures resulting from blasting at Bengalla shall be scheduled to occur at times which do not impede school bus operations. The buses operate on Wybong Rd between 8:00 - 8:20 am and 3:40 - 4:00 pm</p>	Detailed in the Road closure plan and reviewed onsite. No closure of Bengalla Link Road in the audit period. Wybong road closed a number of times.	Compliant			
		<p>The Day of Blasting A Bengalla's nominated Blasting Coordinator will confirm with the Main Switchboard Secretary the scheduled date and time of the blast. This is to be communicated via MSC Council's website updated by 2 hours prior to the blast time. B Bengalla's Main Switchboard Secretary will confirm the scheduled date and time of the blast with: persons listed below and any person listed on the Blast Notification Form as agreed to by the Environmental Specialist and the Dragline, Drill and Blast Superintendent. C Person required to be notified as per the approval by MSC to Close Public Roads to allow blasting operation to be undertaken at Bengalla; 1. Muswellbrook Shire Council website http://27.50.65.67/~muswellb/index.php/blasting-notice 2. Bengalla's Environmental Specialist Phone: 02 6542 9525 3. Emergency services including Muswellbrook Fire Brigade, Rural Fire Service, Ambulance Service, Police and State Emergency Service will be advised of planned road closures, including proposed times by email (or other method determined in consultation with each authority).</p>	This process was reviewed onsite.	Compliant			
		<p>Thirty Minutes Prior to Blasting The Shotfirer will inform Bengalla's nominated Blasting Coordinator of his anticipated firing time. The appropriate signs as per the approved traffic control plan shown in Figure 2, and attached to this procedure will be positioned and spaced as illustrated on the plan for approaching traffic to see. All signs are to be designed and manufactured to meet the requirements of AS1743. Road closure signs have been designed and manufactured in accordance with AS1743. Before road closure commences, signs and devices at approaches to the closure site shall be erected in accordance with the Traffic Control Plan (TCP) by personnel who have "Apply Traffic Control Plans" certification (as a minimum). The appropriate signs, as displayed below in Figure 2 (Traffic Control Plan (TCP) for Blasting Events adjacent Bengalla Link Road) and Figure 3 (TCP for Blasting Events adjacent Wybong Road) will be positioned along the public road, in the order they appear below, for approaching traffic to see. Barrier boards will be placed across the road to prevent the passage of vehicles through the restricted area. All signs are to be manufactured with class 1 reflective labelling. In times of inclement weather (heavy rain, fog, etc), in addition to the signs displayed in Figure 1.1 and Figure 1.2, there shall also be a sufficient number of orange flashing beacons positioned prior to and at the road closure to ensure the prominence of that road closure.</p>	This process was reviewed onsite.	Compliant			
		<p>Ten Minutes Prior to Blasting The Shotfirer will place both inside and outside sentries in position. All sentries will have a two-way radio for communication with mining personnel responsible for controlling the blast (i.e. the Shotfirer) and each other. In addition to this, outside sentries located on the public road shall wear approved high visibility clothing and shall control traffic using a stop/slow bat. The outside sentries located on the public roads will communicate with each other to ensure that there is no traffic or people within the sentry locations. Bengalla's nominated Blasting Coordinator will then clear the blasting area as per Bengalla Procedure PRO-0486 TIE UP & BLASTING PATTERNS. When clearing the public road they will place temporary barriers across the road at each sentry location.</p>	This process was reviewed onsite.	Compliant			
		<p>Two Minutes Prior to Blasting When confirmation has been received from Bengalla's nominated Blasting Coordinator that the blasting area within the sentries is all clear, the Shotfirer will initiate the two minute warning at the commencement of the normal blasting procedure. The PRO-0486 TIE UP & BLASTING PATTERNS procedure will then be followed with all sentries acting under instruction from the Shotfirer.</p>	This process was reviewed onsite.	Compliant			

Reference	Commitment	Requirement	Evidence	Audit Finding	Risk		
					Consequence	Likelihood	Risk
Blast Management Plan, February 2016							
		<p>One Minute Post Blast At the completion of one minute after firing, the Shotfirer will instruct Bengalla's nominated Blasting Coordinator to inspect the public road for any post-blast fumes, dust, debris or damage. On inspection of public roads: * If there is no evidence of post-blasting fumes, dust, debris or damage then Bengalla's nominated Blasting Coordinator will notify the Shotfirer who will then give permission to reopen the public road; or * If there is evidence of debris or damage, then Bengalla's nominated Blasting Coordinator will notify the Shotfirer of such debris or damage. The sentries on the public road will hold the 'stop' position and delay through traffic until such stage as the debris is removed and disposed of lawfully, damage is repaired or controlled traffic conditions put in place. When the road has been given the "all clear", the road will be opened to through traffic and all temporary traffic control signs associated with the closure removed by appropriately qualified traffic controllers. If damage to the road is confirmed to be a direct result of damage arising from Bengalla's blasting activities, then the following process will be implemented: * Council will be notified of damage immediately by contacting the main phone number 6549 3700; and * Appropriate traffic management and remediation work will be undertaken ensuring unnecessary delay is avoided and the road restored to the standard required by Council at no cost to Council. Bengalla's Blasting Coordinator will then remove the temporary barriers from across the public road and the sentries will remain in position with the "SLOW" sign displayed.</p>	This process was reviewed onsite.	Compliant			
		<p>Clearing of the Shot After the nominated waiting period, the Shotfirer will proceed with his inspection of the shot. If the shot is clear of any misfires then he will continue with the PRO-Q486 TIE UP & BLASTING PATTERNS procedure. If a misfire is located it will be treated as a separate blast and the public road closure procedure will be re-initiated, either at that time or at a later date. On completion of blasting, the Shotfirer will give permission for all sentries to leave their positions. At this stage all temporary blasting signs will be removed from the public road.</p>	This process was reviewed onsite.	Compliant			
		<p>Emergency Event If the sentries placed on the public road encounter any of the following; 1. an emergency vehicle (i.e. Police, Ambulance, Fire Brigade, Mines Rescue etc); 2. a distressed or desperate citizen who insists on passing through; or 3. any other situation where individual citizens or authorities object to being stopped, then the sentry will communicate with the Shotfirer the circumstances. The Shotfirer will then abort blasting to allow the vehicle to pass through the sentries. Once the vehicle is clear of the blasting area, Bengalla's Blasting Coordinator will give the Shotfirer the all clear again to recommence the shotfiring procedures. Sentries manning the stations on the public road are at all times subject to the requirements of the Police, other officers of the law and the Roads and Traffic Authority.</p>	This was not able to be reviewed onsite, there were clearly provisions in place though.	Not Able to be Verified			
REPORTING & AUDITING	6						
	6.3	<p>Plan Review SSD-5170 Schedule 5, Condition 5 requires that within three months of the submission of the following documents, BMC shall review, and if necessary, revise the BMP in consultation with the EPA and MSC to the satisfaction of the Secretary of DP&E: - Annual Review in accordance with Schedule 5, Condition 4; - Incident report under Schedule 5, Condition 7; - Audit report under Schedule 5, Condition 9; or - Modification to the conditions of consent (unless the conditions require otherwise).</p>	Plan revised for MOD 2 of SSD 5170. No triggers for revision since then.	Compliant			
	6.4	<p>Exceedance of Criteria SSD-5170 Schedule 5, Condition 3 requires BMC to prepare a protocol to manage and report exceedances of the impact assessment criteria and/or performance criteria listed in this BMP to the relevant regulatory agencies. An exceedance in criteria will trigger the response plan and reporting .</p>	No exceedance of criteria in the audit period, all reporting conducted in response to complaints or queries from the regulators.	Not Triggered			
	6.5	<p>Reporting an Incident SSD-5170 Schedule 5, Condition 7 requires BMC to report any incident that has caused, or threatens to cause material harm to the environment; and/or breaches or exceeds the limits or performance measures/criteria in the consent. BMC shall immediately notify the Secretary of the DP&E and any other relevant regulatory agencies of any incident (and the EPA in accordance with EPL 6538). Within 7 days of the date of the incident, BMC will provide the Secretary of DP&E (and the EPA in accordance with EPL 6538) and any relevant agencies with a detailed report on the incident, and such further information as may be requested.</p>	Several incidents were reported in the audit period only one related to blasting and it was a fume incident.	Compliant			

Reference	Commitment	Requirement	Evidence	Audit Finding	Risk		
					Consequence	Likelihood	Risk
Blast Management Plan, February 2016							
	6.6	<p>Complaints BMC has an existing Community Complaints Procedure which details how to receive, respond to, record and address community complaints including blasting related issues. BMC management will continue to keep a record of all community complaints and subsequent actions. At least the following details are recorded:</p> <ul style="list-style-type: none"> - Complainant details (where provided); - The nature of the complaint; - How the complaint was made; - Actions (if appropriate); and - Consultation undertaken. <p>Complaints and enquiries regarding blasting issues and any other environmental matters should be directed to the 24 hour complaints hotline: 1800 656 892. A register of complaints will be published monthly on BMC's website in accordance with Schedule 5, Condition 11(a).</p>	Reviewed onsite and copies of the complaints register were reviewed.	Compliant			
	6.9	<p>Property Inspections Should BMC receive a written request from the owner of any privately owned land within 3 km of the approved open cut mining pit, BMC will undertake a structural inspection of the land in accordance with the requirements of SSD-5170 Schedule 3, Conditions 11-12.</p>	There were rwequests in the audit period, letters showing the results of the inspections provided as evidence.	Compliant			

Reference	Condition	Requirement	Evidence	Audit Finding	Risk		
					Consequence	Likelihood	Risk
Post Blast Fume Generation Mitigation and Management Plan, January 2012							
Responsibilities Table	pg 4						
		Blast Design to consider: - Geology and rock mass conditions. - Explosive product selection appropriate to ground and water conditions. - Historical blast performance for the current area. - Weather conditions during loading and firing.	These requirements were reviewed onsite	Compliant			
		Checking blasting permissions page prior to firing to ensure favourable conditions (Env staff).	These requirements were reviewed onsite	Compliant			
		- On bench water management. - bench preparation prior to drilling. - Review the use of products appropriate to conditions. - Review actual loaded condition of blast prior to shot being fired.	These requirements were reviewed onsite	Compliant			
		Driller to Report anomalous ground conditions to drill supervisor.	These requirements were reviewed onsite	Compliant			
		Shotfirer to: - Notify any variance from design. - Identify and report hole slumping. - Rate and record the fume characteristics of all blasts using AESIG fume rating system. - Share Best Practice for learning relating to fume management.	These requirements were reviewed onsite	Compliant			
		Sleep times of 4 days maximum for all shots. Sleeping a blast more than 4 days requires Mine Managers approval.	These requirements were reviewed onsite	Compliant			
		Use appropriate stemming material.	These requirements were reviewed onsite	Compliant			
		Assess all holes prior to loading. Use number and location of wet holes as a basis for explosives product selection. Minimise time between drilling and loading, especially in soft and clay strata. Note: Enough time should be allowed for any dynamic water in the hole to be identified.	These requirements were reviewed onsite	Compliant			
		Load wet holes first and dip remaining holes prior to loading. Adjust explosive product selection according to manufacturer's recommendations.	These requirements were reviewed onsite	Compliant			
Record keeping	Blast designer	<ul style="list-style-type: none"> • Blast design. • Design checklist. • Drill pattern plans. • Load sheet. • Blasting schedule. • Location of blast. • Type of blast. • Weather forecast. • Video of blast. • Operator is to ensure that filming continues post detonation, to ensure any potential fume or dust clouds are captured. • Environmental Records. • Air blast. • Vibration. 	These requirements were reviewed onsite	Compliant			
	Shotfirer	<ul style="list-style-type: none"> • Quantity (weight/numbers of units) of explosives delivered. • Quantity (weight/numbers of units) of explosives used on a shot basis. 	These requirements were reviewed onsite	Compliant			
	Shotfirers Report	<ul style="list-style-type: none"> • Date/time of firing. • Name, type and location of shot. • Explosives type, tonnages delivered of explosives used. • Number of holes charged (for day/total). • Pattern size. • Hole diameter. • Average hole depth. • Numbers of holes fired. • General comment on blast loading progress or results. • Environmental comments. • Fume category if required. • Noise results. • Vibration results. 	These requirements were reviewed onsite	Compliant			

Reference	Condition	Requirement	Evidence	Audit Finding	Risk		
					Consequence	Likelihood	Risk
Environmental Management Strategy, February 2016							
Introduction	1						
		Refers extensively to ownership of Bengalla by Coal & Allied and Rio Tinto, neither of which have a stake in the site currently.	EMS requires revision.	Not Compliant Administrative			
PURPOSE AND SCOPE	2						
		as for 1	EMS requires revision, same non-compliance, counted as one.	As above			
HSEQ MANAGEMENT SYSTEM	5						
		At Bengalla, EMS documents are maintained within Lotus Notes.	Noted	Noted			
IMPLEMENTATION AND OPERATION	8						
	8.2	<p>Training and Competency Coal & Allied aims to ensure that all employees and contractors have the appropriate environmental training and awareness, so that they understand their environmental responsibilities and can ensure work is carried out in a manner that appropriately manages impacts on the environment. All employees and contractors are required to undertake a Coal & Allied induction, which provides environmental awareness training and general environmental procedures training prior to commencing work on site. Prior to working on a particular Coal & Allied site, contractors must also complete a site-specific familiarisation. Environmental awareness is also revisited during toolbox sessions on a regular basis, which equips personnel to:</p> <ul style="list-style-type: none"> - Effectively undertake their tasks in accordance with the relevant environmental procedures in order to prevent or minimise environmental impacts; and - Recognise the environmental hazards associated with their specific work tasks, through a risk based assessment process. 	Reviewed induction documentation and training records	Compliant			
		Near neighbour newsletter - issued quarterly	Newsletters were issued post CCC meetings, were available on website	Compliant			
MANAGEMENT REVIEW	10						
	10.1	<p>Review and Distribution of this Strategy This Strategy will be formally reviewed and updated at least every five years, or as required. In addition, the strategy will be reviewed, and if necessary revised; Within three (3) months of submission of: o An annual review under Condition 4; o An incident report under Condition 7; o An audit report under Condition 9; or o Any modification to the conditions of consent, for the BMC Consent (SSD-5170).</p>	The EMS requires review. Most recent issue is 2016 and none of these triggers have occurred since then	Compliant			
	10.2	<p>Continuous Improvement The overall intent of the HSEQMS is to prevent or reduce potential or actual environmental impacts and continuously improve Coal & Allied's environmental performance. This is achieved by an annual management review of the HSEQMS at each site and the regular internal audit of the performance of the HSEQMS to ensure it continues to be suitable, appropriate and effective.</p>	Noted, these are internal requirements.	Noted			

Reference	Condition	Requirement	Evidence	Audit Finding	Risk																																																																		
					Consequence	Likelihood	Risk																																																																
Noise Management Plan, February 2016																																																																							
STAKEHOLDER ENGAGEMENT	2																																																																						
	2.1	Regulatory Consultation Schedule 3, Condition 7 of SSD-5170 states that the NMP must be developed in consultation with the Environment Protection Authority (EPA) to the satisfaction of the Secretary of DP&E.	Consultation sighted in NMP, approval by DP&E attached to NMP.	Compliant																																																																			
NOISE MANAGEMENT MEASURES	4																																																																						
	4.1	Noise Criteria																																																																					
		<p align="center">Table 4 Noise Criteria (dBA)</p> <table border="1"> <thead> <tr> <th rowspan="2">Location</th> <th>Day</th> <th>Evening</th> <th colspan="2">Night</th> </tr> <tr> <th>L_{Aeq} (15 min)</th> <th>L_{Aeq} (15 min)</th> <th>L_{Aeq} (15 min)</th> <th>L_{A1E} (1 min)</th> </tr> </thead> <tbody> <tr> <td>109, 110, 156, 161</td> <td>40</td> <td>40</td> <td>40</td> <td>45</td> </tr> <tr> <td>106, 108</td> <td>39</td> <td>39</td> <td>39</td> <td>45</td> </tr> <tr> <td>27, 169</td> <td>39</td> <td>39</td> <td>36</td> <td>45</td> </tr> <tr> <td>105, 126</td> <td>38</td> <td>38</td> <td>38</td> <td>45</td> </tr> <tr> <td>22, 23, 24, 25, 29, 43, 44</td> <td>38</td> <td>38</td> <td>36</td> <td>45</td> </tr> <tr> <td>167</td> <td>38</td> <td>38</td> <td>35</td> <td>45</td> </tr> <tr> <td>19, 64, 66</td> <td>38</td> <td>37</td> <td>36</td> <td>45</td> </tr> <tr> <td>180, 184, 186</td> <td>37</td> <td>37</td> <td>35</td> <td>45</td> </tr> <tr> <td>146</td> <td>37</td> <td>37</td> <td>37</td> <td>45</td> </tr> <tr> <td>102, 130, 145, 189</td> <td>36</td> <td>36</td> <td>36</td> <td>45</td> </tr> <tr> <td>All other privately-owned residences</td> <td>35</td> <td>35</td> <td>35</td> <td>45</td> </tr> </tbody> </table>	Location	Day	Evening	Night		L _{Aeq} (15 min)	L _{Aeq} (15 min)	L _{Aeq} (15 min)	L _{A1E} (1 min)	109, 110, 156, 161	40	40	40	45	106, 108	39	39	39	45	27, 169	39	39	36	45	105, 126	38	38	38	45	22, 23, 24, 25, 29, 43, 44	38	38	36	45	167	38	38	35	45	19, 64, 66	38	37	36	45	180, 184, 186	37	37	35	45	146	37	37	37	45	102, 130, 145, 189	36	36	36	45	All other privately-owned residences	35	35	35	45	One exceedance in October 2016 at AN04 which is nested in amongst several privately owned residences.	Not Compliant	D	2	Medium
Location	Day	Evening		Night																																																																			
	L _{Aeq} (15 min)	L _{Aeq} (15 min)	L _{Aeq} (15 min)	L _{A1E} (1 min)																																																																			
109, 110, 156, 161	40	40	40	45																																																																			
106, 108	39	39	39	45																																																																			
27, 169	39	39	36	45																																																																			
105, 126	38	38	38	45																																																																			
22, 23, 24, 25, 29, 43, 44	38	38	36	45																																																																			
167	38	38	35	45																																																																			
19, 64, 66	38	37	36	45																																																																			
180, 184, 186	37	37	35	45																																																																			
146	37	37	37	45																																																																			
102, 130, 145, 189	36	36	36	45																																																																			
All other privately-owned residences	35	35	35	45																																																																			
	4.3.2	Operational Controls																																																																					
		Mobile equipment, including trucks, dozers, graders and water carts generally operate on elevated and exposed sections of the OEA during the day and early evening and on lower and more shielded sections of the OEA during the sensitive night period	Discussed at interview, reviewed equipment down time log.	Compliant																																																																			
		Mining machinery generally work below the surface during the sensitive night period, undertaking surface work (including clearing, topsoil stripping, stockpiling and rehabilitation) is completed during the day	Noted	Noted																																																																			
		Drilling and drill pad preparation generally occurs at least 6 m below the natural surface during the evening and night	Noted	Noted																																																																			
		Operation of a real time noise monitoring system to provide feedback regarding Bengalla's acoustic performance allowing equipment to be carefully positioned to avoid excessive noise at receivers	The noise alarm was working at the time of the audit and no evidence of poor performance was identified at other times throughout the audit period.	Compliant																																																																			
		Continue to work closely with our suppliers to develop a three phase approach to continuous improvement of the sound power performance to achieve best practice noise attenuation on haul trucks	Noted	Noted																																																																			
		Use of wheeled dozers instead of tracked dozers on exposed areas	Wheeled dozers are not used, they cannot conduct the same work on overburden emplacements as tracked dozers. This is likely to never have occurred, the management plan should be modified to remove this control.	Not Compliant Administrative																																																																			
		Maintain the existing data link from the weather monitoring station to allow informed decisions to be made regarding appropriate equipment operating locations	This was in place at the time of the audit.	Compliant																																																																			
		Maintain the existing real time noise monitoring system to provide feedback regarding Bengalla's acoustic performance and to allow equipment operating locations to be fine-tuned to avoid excessive noise at receivers	This was in place at the time of the audit.	Compliant																																																																			
		Maintenance of the existing, large bund approximately 24 m high adjacent the southern boundary of the CHPP	This was in place at the time of the audit.	Compliant																																																																			
		The north-south alignment of the mining area also results in some acoustic shielding for receptors located east and west of the Project, with receptors to the east shielded by the OEA and receptors to the west shielded from some equipment operating in deeper mining areas	Noted	Noted																																																																			

Reference	Condition	Requirement	Evidence	Audit Finding	Risk		
					Consequence	Likelihood	Risk
Noise Management Plan, February 2016							
		Feasible and reasonable noise mitigation measures have been incorporated into the existing CHPP and will be continued in all proposed infrastructure modifications associated with the Project, including: o The proposed relocated ROM hopper will include an equivalent level of noise control as the existing hopper, which was designed and constructed following best practice procedures; o Best practice modifications will continue to be implemented at the CHPP building, which currently produces a sound power level of 115 dBA; o Conveyors will continue to be limited to a sound power level of no more than 76 dBA per metre for sections of conveyor that cannot be enclosed; and o The rail load out facility, stackers and reclaimers will continue to be managed and modified following best practice control measures.	The ROM hopper had not been relocated at the time of the audit. The other infrastructure noted her has not been altered since the approval of SSD-5170.	Compliant			
	4.3.3	Road Noise Specific, additional mitigation measures are not required for road noise however, BMC shall ensure that as part of training, personnel and contractors will be made aware of responsibilities in relation to traffic interactions as they travel to and from the mine site.	No such training occurred in the audit period.	Not Compliant	E	2	Medium
	4.4	Management System To assist in ensuring cumulative noise impacts from dump and haul, dragline, and blasting activities within the vicinity of Bengalla remain below the relevant criteria, consultation and data sharing are undertaken with neighbouring mines.	Noted	Noted			
	4.4.1	Forecasting A review of forecast meteorological information assists in identifying potential noise enhancing conditions (if any). This allows key personnel to plan operations, including: - Ongoing operation of normal activities; or - Modifications to normal activities (see Section 4.4.4 and Section 4.4.5), which are considered to pose a noise risk to private receivers under those conditions.	A forecasting system was in place and adequate for the task.	Compliant			
	4.4.4	Proactive Noise Controls					
		Operation of a real time noise monitoring system and supplementary attended monitoring at night to provide feedback regarding the operation's acoustic performance	In place at the time of the audit	Compliant			
		Mine planning for the scheduling and siting of active dump areas and haul roads away from impacted private receivers during night time operations;	In place at the time of the audit	Compliant			
		Construction of noise and visual bunds and tree screens surrounding the operation;	In place at the time of the audit	Compliant			
		Installation of noise attenuation units on mobile and some fixed plant;	In place at the time of the audit	Compliant			
		Regular maintenance of all mobile plant to manufacturer's specification;	In place at the time of the audit	Compliant			
		Regular independent attended noise monitoring surveys at representative private receiver locations;	In place at the time of the audit	Compliant			
		Consideration of noise impacts during risk assessments and change management procedures for substantive changes to operating conditions;	In place at the time of the audit	Compliant			
		Provision of noise awareness training to all employees.	In place at the time of the audit	Compliant			
	4.4.5	Reactive Noise Controls to Operations Where compliance and supplementary attended noise monitoring (see Section 5.1) identifies emissions exceeding the noise criterion in the consent at any location identified in Table 8, Bengalla will modify and/or cease operations in the area of the site considered to be creating the issue prior to progressively restarting operations	As evidenced by the reactive approach to the noise incident sited above.	Compliant			
		Where unattended (real-time) monitoring identifies emissions exceeding trigger levels or noise criterion in the consent for representative receiver locations, modifications to the operation will be made	Process reviewed at site inspection and during interviews.	Compliant			
NOISE MONITORING PROGRAM	5						
	5.1.1	Frequency and Monitoring Period Consistent with the Draft Application Note, compliance attended monitoring is undertaken by an appropriately qualified acoustic consultant nominally once per calendar month (but at least two weeks apart) during the night period (10 pm to 7 am) at locations representative of the nearest private receivers. (3 locations, Racecourse Rd, Denman Rd and Wybong Rd)	Sample monitoring reports and noise monitoring posted on the website confirm this was the case through the audit period.	Compliant			

Reference	Condition	Requirement	Evidence	Audit Finding	Risk		
					Consequence	Likelihood	Risk
Noise Management Plan, February 2016							
	5.1.3	<p>If mining noise levels exceed any criterion and are taken in valid meteorological conditions then the following steps are to be implemented:</p> <ol style="list-style-type: none"> 1. The reading is to be recorded. Site personnel (including the Open Cut Examiner (OCE) and/or the Mine Monitoring and Control personnel) on duty are to be advised by the acoustic consultant that the reading has exceeded the criterion. Proceed to Step 2; 2. The OCE will modify or cease operations in the area of the site identified by the acoustic consultant to be causing / contributing to the exceedance prior to progressively restarting operations. Operational response(s) to any exceedance of noise criteria during compliance attended noise monitoring are required to be actioned prior to the second reading being taken where reasonable and feasible (see Step 3). All actions taken in response to any exceedance shall be recorded by the OCE; 3. Within 75 minutes after the first reading (and no earlier than 10 pm), a second 15 minute reading is to be taken. If this reading exceeds any criterion then proceed to Step 4; and 4. If the second reading exceeds any criterion and is attributable to site and taken in valid meteorological conditions then the result is to be recorded, note the location has failed and is deemed a "noise affected night" at that location. An additional monitoring test (follow up measurement) will be scheduled at the location within one week. 5. For the purposes of compliance attended monitoring, an exceedance is any reading above the criterion stipulated in SSD-5170. Pending the extent of the exceedance, BMC may or may not be in compliance as described in Section 5.1.6; and 6. All monitoring that results in a night being deemed a "noise affected night" will be reported to DP&E, other relevant regulators and the community as required at the earliest opportunity as per the notification requirements in Section 2.2.1. Where appropriate, an investigation will be undertaken and a report on the results of that investigation will be provided to the DP&E using all or part of the procedure identified in Section 7.4.1. 	The October 2016 incident investigation confirms this approach	Compliant			
	5.1.6	<p>Non-Compliance Section 11 of the INP states that a development will be deemed to be in non-compliance with its consent if the noise level recorded during compliance attended monitoring is more than 2 dB above the applicable criteria. This may occur for two reasons:</p> <ul style="list-style-type: none"> - The noise from Bengalla is excessive, in which case Bengalla is truly not complying with its consent; or - The noise was increased by extreme, non-standard weather effects, in which case the development is considered compliant with its consent (SSD-5170) given that it has taken measures to minimise the noise impacts during temperature inversions. <p>In the event that a non-compliance is found to be caused by excessive noise generated from Bengalla, measures for the mitigation of noise will be considered and implemented (see Section 4.0). In the event of non-compliance, the non-compliance will be reported to the DP&E and other relevant regulators at the earliest opportunity as per the notification requirements</p>	The October 2016 incident investigation confirms this approach	Compliant			
	5.2.3	<p>Operational Noise Measurements If mining noise levels exceed any criterion the following steps will be implemented:</p> <ol style="list-style-type: none"> 1. OCE and/or the Mine Monitoring and Control personnel is to be contacted; 2. Mine Monitoring and Control personnel reviews the location of equipment and meteorological conditions to determine if the source of the noise is likely to be generated from Bengalla and discusses this with the person undertaking supplementary monitoring; 3. If the source of the noise appears to be generated from Bengalla then the OCE will be notified of a potentially elevated level of noise; 4. The OCE (who is in the operational area) identifies noise sources by personal audible observation; and 5. If it is deemed by the OCE that the identified noise is a dominant source then the OCE will implement appropriate reasonable and feasible measures, which may include modifying, relocating or ceasing operations, to reduce noise from Bengalla until such time the supplementary attended monitoring reads a result below the applicable criterion. 	The October 2016 incident investigation confirms this approach	Compliant			
	5.3	<p>Unattended (Real Time) Monitoring In addition to the regular compliance and supplementary attended monitoring program, BMC also operates two continuous unattended real time noise monitoring units as a management tool</p>	Noted	Noted			
	5.3.1	BMC has historically recorded a low number of complaints between 9 pm and 10 pm. To ensure this period is effectively managed, the RTEMS trigger levels will apply from 9 pm and continue through to the end of the night period (7 am).	See comments above	Noted			

Reference	Condition	Requirement	Evidence	Audit Finding	Risk		
					Consequence	Likelihood	Risk
Noise Management Plan, February 2016							
	5.3.2	<p>Monitoring Locations and (Reactive) Trigger Levels Trigger levels are set to align and consequently alarm with the LAeq (less than 1,000 Hz) data set generated from the RTEMS. Figure 5 conceptually illustrates the two trigger levels and the reactive process which has been developed for the RTEMS (consistent with the Draft Application Note) including: -Amber trigger – Representing noise levels at the monitoring location approximately 2 dBA below the equivalent night time impact criterion at the nearest private residence. Triggered when two successive 15 minute averages above defined trigger levels are recorded; and - Red trigger – Representing noise levels at the monitoring location approximately equal to the equivalent night time impact criterion at the nearest private residence. Triggered when two successive 15 minute averages above defined trigger levels are recorded.</p>	<p>Noted See coments above re October 2016 incident.</p>	Compliant			
	5.3.3	<p>Operational Implementation of Real Time Monitoring In the event that an amber trigger notification is received, the following actions are typically undertaken to reduce noise within 75 minutes of the amber trigger: Mine Monitoring and Control Supervisor reviews the location of equipment and meteorological conditions to determine if the source of the noise is likely to be generated from Bengalla; 1. If the source of the noise appears to be generated from Bengalla then the OCE will be notified of a potentially elevated level of noise; 2. The OCE (who is in the operational area) identifies noise sources by personal audible observation; 3. If it is deemed by the OCE that the identified noise is a dominant source then the OCE will implement appropriate reasonable and feasible measures to reduce noise from Bengalla; and 4. The OCE determines if any further actions are required or if results are within an acceptable range based on the review of real time noise data. In the event that a red trigger notification is received, the following actions are typically undertaken to reduce noise within 75 minutes of the red trigger: 1. Steps 1 to Step 4 from the amber trigger notification are repeated, including a review of real time noise data and modification of operations as required; 2. The OCE and/or Mine Monitoring and Control personnel may request trained BMC personnel to complete a noise recording at the appropriate attended noise monitoring site (which is the nearest attended noise monitoring site to the RTEMS that has been triggered); 3. The OCE is advised by personnel of the noise level reading from the sound level meter and the audible source of the noise monitored; and 4. If the noise is determined to be originating from Bengalla then all reasonable and feasible mitigation measures will be implemented until such time as the RTEMS records results below the red trigger for two successive 15 minute periods. Such measures will continue to be implemented under the equivalent meteorological conditions to maintain noise below the red trigger level.</p>	<p>This was reviewed with an OCE in the site inspection</p>	Compliant			
	5.4	<p>Cumulative Impacts To assist in ensuring there are no cumulative noise impacts around Bengalla, BMC utilises two real time noise monitors to provide noise level data. If real time monitors identify excessive mining noise being generated by another mine site, the Environmental Specialist (or delegate) will contact that site to discuss the situation. This practice will occur with Mount Pleasant should it commence. In addition, a copy of the final NMP will be provided to Mt Arthur Coal Mine and Mount Pleasant Project personnel.</p>	<p>Noted. No evidence of this coordination was provided but it is understood that where cumulative issues occur they are resolved in a cooperative manner. During the audit period Bengalla did not identify any excessive noise form neighbouring mines. Therefore there was no requirement to contact neighbouring mines on this issue.</p>	Not Triggered			
LANDHOLDER NOTIFICATIONS, MITIGATION & ACQUISITION	6						
	6.2	Future Tenancy Agreements					
		<p>Prior to entering into any future tenancy agreement for any BMC owned land that is predicted to experience exceedances of the recommended dust and/or noise criteria, or for any of the land listed in Schedule 3, Condition 1 of SSD-5170 that is subsequently purchased by BMC, BMC will: - Advise the prospective tenants of the potential impacts associated with living on the land and give them a copy of the NSW Health fact sheet entitled "Mine Dust and You" (as may be updated from time to time); and - Advise the prospective tenants of the rights they would have under SSD-5170.</p>	<p>Evidence provided indicating compliance</p>	Compliant			

Reference	Condition	Requirement	Evidence	Audit Finding	Risk		
					Consequence	Likelihood	Risk
Noise Management Plan, February 2016							
	6.3	<p>Acquisition upon Request Upon receipt of a written request from the owner of the land, BMC will follow the procedures in SSD-5170 Schedule 4, Conditions 5 and 6 to acquire any property stipulated in SSD-5170 Schedule 3, Condition 1 (summarised in Appendix A, Table A-1). Upon receipt of a written request from the owner of the land, BMC will follow the procedures in SSD-5170 Schedule 4, Conditions 5 and 6 to acquire any property stipulated in SSD-5170 Schedule 3, Condition 2 (summarised in Appendix A, Table A-1) if that land is no longer subject to acquisition upon request under a relevant development consent or project approval for Mt Arthur Coal or the Mt Pleasant Project.</p>	<p>No acquisition requests resulting from noise issues. One acquisition request in the audit period that was assessed in the SSD 5170 section of the audit as compliant</p>	Compliant			
	6.4	<p>Mitigation upon Request Upon receiving a written request from the owner of any residence on the land listed in SSD-5170 Table 1 (unless the landowner of that land has requested acquisition), SSD-5170 Table 2 (if acquisition or additional mitigation by the mine listed in Table 2 is no longer available for the landowner of that land) and on the land listed in SSD-5170 Table 3 (summarised in Appendix A, Table A-1), BMC shall implement additional mitigation measures. In consultation with the owner of the residence, BMC may implement the following: - Noise mitigation measures (such as double-glazing, insulation and/or air conditioning); and/or - Air quality mitigation measures (such as air filters, a first flush roof water drainage system and/or air conditioning). These measures must be reasonable and feasible and directed towards reducing the noise and/or air quality impacts of Bengalla on any residence. BMC shall also be responsible for the reasonable costs of ongoing maintenance of these additional mitigation measures until the cessation of mining operations. If within three months of receiving this request from the owner, BMC and the owner cannot agree on the measures to be implemented, or there is a dispute about the implementation of these measures, then either party may refer the matter to the Secretary for resolution.</p>	<p>Mitigation on request has occurred in the audit period and the information provided as evidence alligns with these requirements.</p>	Compliant			
	6.5	<p>Acquisition Process Within three months of receiving a written request from a landowner with acquisition rights, BMC will make a binding written offer to the landowner</p>	<p>No acquisition requests resulting from noise issues. One acquisition request in the audit period that was assessed in the SSD 5170 section of the audit as compliant</p>	Compliant			
	6.6	<p>Independent Monitoring Results Review If an owner of privately-owned land considers Bengalla to be exceeding the relevant criteria in SSD-5170 Schedule 3 (as stipulated in Section 6.0), then they may ask the Secretary in writing for an independent review of the impacts of the development on their land.</p>	<p>This has not occurred in the audit period.</p>	Not Triggered			
REPORTING & AUDITING	7						
	7.3	<p>Review the NMP Within three months of the submission of the following documents, BMC shall review, and if necessary, revise the NMP in consultation with the EPA and MSC to the satisfaction of the Secretary of DP&E: - Annual review in accordance with Schedule 5, Condition 4; - Incident report under Schedule 5, Condition 7; - Audit report under Schedule 5, Condition 9; or - Modification to the conditions of consent (unless the conditions require otherwise). Should the Bengalla Mining Operations Plan (MOP) be updated to include any changes relevant to this NMP then this will also trigger the requirement to update this NMP.</p>	<p>The NMP was reviewed following MOD2 Approval and review had not been triggered again up to the time of the audit.</p>	Compliant			
	7.4	<p>Reporting an Exceedance SSD-5170 Schedule 5, Condition 3 requires BMC to prepare a protocol to manage and report exceedances of the impact assessment criteria and/or performance criteria listed in this NMP to the relevant regulatory agencies</p>	<p>See Oct 2016 incident report above</p>	Compliant			
	7.4.2	<p>Contingency Plan If noise emissions were to consistently approach or exceed the relevant noise criteria, active noise controls and/or refined trigger response levels will be implemented and additional control measures investigated. Mining operations will be modified or halted until noise levels return to an acceptable range and/or the source of the exceedances can be determined and managed.</p>	<p>This has not been required in the audit period</p>	Not Triggered			
	7.5	<p>Reporting an Incident</p>					
	7.5.1	<p>Regulatory Agencies BMC shall immediately notify the Secretary and any other relevant regulatory agencies of any incident (and the EPA in accordance with EPL 6538). Within seven days of the date of the incident, BMC will provide the Secretary (and the EPA in accordance with EPL 6538) and any relevant agencies with a detailed report on the incident, and such further reports as may be requested.</p>	<p>See Oct 2016 incident report above</p>	Compliant			
	7.5.2	<p>Landholders and Tenants Following confirmation of an incident, notification of landholders and tenants will occur.</p>	<p>See Oct 2016 incident report above</p>	Compliant			

Reference	Condition	Requirement	Evidence	Audit Finding	Risk		
					Consequence	Likelihood	Risk
Noise Management Plan, February 2016							
	7.6	Complaints BMC has an existing Complaints Management Procedure which details how to receive, respond to, record and address community complaints including noise related issues. BMC management will continue to keep a record of all community complaints and subsequent actions. At least the following details are recorded: - Complainant details (where provided); - The nature of the complaint; - How the complaint was made; - Actions (if appropriate); and - Consultation undertaken	Complaints management was reviewed in SSD 5170 section of the audit	Compliant			

Reference	Location	Requirement	Evidence	Audit Finding	Risk		
					Consequence	Likelihood	Risk
Environmental Pollution Incident Response Management Plan, June 2012							
Document Maintenance	pg 9	<p>This plan will be reviewed by the Environment Specialist annually and after any incident or test, which provides suggestions for improvements. Additionally, changes can be made as a result of:</p> <ul style="list-style-type: none"> • Practice reviews; • Local regulatory or procedural changes; and • Amendments to Bengalla Mining Company (BMC) policies and procedures. <p>All changes to this plan must be approved by the Business Resilience Team (BRT) and authorised by the BRT Leader. If necessary, legal advice will be obtained prior to approval of the amendment. When necessary, the revised procedure will be tested (rehearsed) prior to approval of the amendment.</p>	<p>Version audited not updated since 2012. Tested in November 2016 and 2015. The PIRMP was not updated at the time of the audit but a copy of the updated PIRMP was provided post site inspection as evidence.</p>	Compliant			

Reference	Commitment	Requirement	Evidence	Audit Finding	Risk		
					Consequence	Likelihood	Risk
Water Management Plan, December 2016							
Water Performance Measures	Table 1						
	Water management – General	Minimise the use of clean water on-site Minimise the need for make-up water from external supplies Minimise cumulative water impacts with the other mines in the region	Noted evidence of pumping / piping infrastructure on site dams and sediment basins to capture and reuse in mine water system. Water management system configuration designed to maintain water on site for internal use. In pit windrows / drainage noted and drains to pit sumps for reuse onsite. Drainage from rehab areas collected in series of sediment basins - connected to mine water system via pump/pipe system for internal reuse.	Compliant			
	Construction and operation of infrastructure	Design, install and maintain erosion and sediment controls generally in accordance with the series <i>Managing Urban Stormwater: Soils and Construction including Volume 1, Volume 2A – Installation of Services and Volume 2C – Unsealed Roads</i> Design, install and maintain the infrastructure within 40 m of watercourses generally in accordance with the <i>Guidelines for Controlled Activities on Waterfront Land</i> (DPI 2007), or its latest version** Design, install and maintain any creek crossings generally in accordance with the <i>Policy and Guidelines for Fish Habitat Conservation and Management</i> (DPI, 2013) and <i>Why Do Fish Need To Cross The Road? Fish Passage Requirements for Waterway Crossings</i> (NSW Fisheries 2003), or their latest versions	Evidence noted during site inspection that application of temporary erosion and sediment controls had been applied for construction of CW1 and diversion. Lay down and disturbed areas were in state of ongoing rehabilitation and were in good condition. Permanent scour protection (placed rock) was observed for diversion construction, with rehabilitation drainage also well stabilised with steep slope drains protected with large rock (noting that earlier rehabilitation areas rock was showing signs of weathering and this may cause an issue for longer term stability and requires monitoring.) No comment regarding fish creek crossing - not inspected.	Compliant			
	Clean water diversion & storage infrastructure	Design, install and maintain the clean water system to capture and convey the 100 year ARI flood Maximise as far as reasonable and feasible the diversion of clean water around disturbed areas on-site Design, install and maintain any temporary clean water diversion infrastructure to minimise erosion potential at discharge locations	Clean water diversion has been constructed and is operational around CW1. Jacobs CW1 Dam Design Report (Parsons Brinckerhoff, 2014) Indirectly confirms capacity of CW1 diversion as being 1:100 year ARI. Diversion drain for creek diversion also completed. Scour protection at key locations and discharge points was observed.	Compliant			
	Sediment dams	Design, install and maintain the dams generally in accordance with the series <i>Managing Urban Stormwater: Soils and Construction – Volume 1 and Volume 2E Mines and Quarries</i>	Sediment dams on rehabilitation areas observed - in stable condition. Water levels in basins controlled by pump/pipe system with automatic/manual control capability and alarms to manage water levels. All sediment dams observed had low level of water (dry conditions) with no visible signs of recent overflow off site.	Compliant			
	Mine water storage	Design, install and maintain mine water storage infrastructure to ensure no unlicensed or uncontrolled discharge of mine water off-site On-site storages (including mine infrastructure dams and treatment dams) are suitably designed, installed and maintained to minimise permeability Adequate freeboard within the pit void at all times to minimise the risk of discharge to surface waters	Breach 15-01-16 noted - "In a storm event, water spilled offsite from the West Windmill Dam and the North ROM Dam. The water was sediment laden but not saline or pH impacted. EPA investigated and issued a cleanup notice that Bengalla complied with. Bengalla entered an Enforceable Undertaking with the EPA to undertake measures to ensure there is no repetition of the event. The EU is due to be completed on 17-2-17."	Not Compliant	C	3	Medium
	Overburden emplacements	Design, install and maintain emplacements to encapsulate and prevent migration of tailings, acid forming and potentially acid forming materials, and saline and sodic material Design, install and maintain emplacements to prevent and/or manage long term saline groundwater seepage	Bengalla had a management plan for this material, there was no evidence of mismanagement of acid drainage or saline seeps at the site.	Compliant			
	Chemical and hydrocarbon storage	Chemical and hydrocarbon products to be stored in banded areas in accordance with the relevant Australian Standards	Reviewed in site inspection, found compliant	Compliant			
	Aquatic and riparian ecosystem	Maintain or improve baseline channel stability Develop site-specific in-stream water quality objectives in accordance with ANZECC 2000 and Using the <i>ANZECC Guidelines and Water Quality Objectives in NSW procedures</i> (DECC, 2006), or its latest version	No measures in WMP for monitoring baseline channel stability Hunter River Water Quality objectives presented in Appendix C - 'Preliminary Trigger Values for Hunter River Water Quality Assessment'	Not Compliant	D	2	Medium
STAKEHOLDER CONSULTATION	2						
	2.1	Regulatory Consultation Schedule 3, Condition 25 of SSD-5170 states that the WMP must be developed in consultation with the Environment Protection Authority (EPA) and NSW Office of Water (NOW) to the satisfaction of the Secretary of DP&E.	Consultations notes were provided in the plan. The approval from DP&E was appended to the plan.	Compliant			
SURFACE WATER MANAGEMENT PLAN	3						
	3.3	Water Management System The water management system is designed relevant to Schedule 3, Condition 24 of SSD-5170 (as modified) "water management performance measures"	Noted	Noted			
	Table 3	Clean Water Water pumped from the Hunter River into the Hunter River Raw Water Dam or run-off from a catchment that is undisturbed by mining and associated activities. Runoff from fully rehabilitated mined out areas where the rehabilitation area has been relinquished.	Noted	Noted			
		Mine Water Water that accumulates within, or drains from, active mining and infrastructure areas and any other areas where run-off may have or has come into contact with coal or carbonaceous material (synonymous with 'dirty water').	Noted	Noted			
		Sediment Water Runoff from areas disturbed by mining and associated activities that has not come into contact with coal or carbonaceous material. Includes water from non-relinquished rehabilitation areas.	Noted	Noted			

Reference	Commitment	Requirement	Evidence	Audit Finding	Risk		
					Consequence	Likelihood	Risk
Water Management Plan, December 2016							
		Contaminated Water Associated with water used by the vehicle wash bay and bathroom that is captured and processed in the waste water treatment plant (WWTP) to enable its transfer and reuse in the mine water system.	Noted	Noted			
	3.3.1	Existing Water Management System Configuration The main components of the existing Bengalla water management system infrastructure include: - The Washery Dam which supplies process water to the CHPP and truck fill stations. The Washery Dam is also used as a transfer dam, receiving excess mine water which is then pumped to the Staged Discharge Dam; - The Staged Discharge Dam is the EPA (EPL 6538) licensed release point for saline water when required in accordance with the HRSTS; - Water supply infrastructure including the Hunter River intake and pipeline and the Hunter River Raw Water Dam which acts as a storage dam for Hunter River water pumped to site; - The Bengalla WWTP which treats effluent and directs it into the Benmgalla Water Supply for reuse; - The East and West Facilities Dams capture CHPP return water, contaminated water from the WWTP and vehicle wash, mine water runoff and mine water transferred from the Wantana West Dam and ROM North Dam. Water from the East and West Facilities Dams is transferred to the Washery Dam; - The South Loop Road Dam and Endwall Dam receive mine water from the pit; - Sediment traps, drainage channels and sediment dams to collect and treat runoff from spoil and hardstand areas; and - Various other minor sediment and mine water catchment dams.	Noted	Noted			
	3.3.2	Further water management infrastructure will be constructed or an existing function varied to facilitate ongoing mining operations. In addition to the existing water management infrastructure the following components will be required to be completed during 2016-2021. These are illustrated on Figure 7 and include: - Completion of CW1 (which functions as a dry detention basin) and associated clean water drains to re-direct clean water runoff around areas disturbed by mining and associated activities; - Completion of the Western Diversion Levee; - Relocation of the existing Staged Discharge Dam (ED1) and EPL 6538 HRSTS Discharge Location as shown on Figure 2; and - Construction of various mine water dams, diversion drains, levees, sediment dams and associated drainage works, as required.	Completion of CW1 observed, as well as clean water diversions. Western Diversion levee complete. Pumping infrastructure for the future relocation of Staged Discharge Dam almost completed (infrastructure in place, appeared to still be in commissioning phase). Other various mine water dams et al observed as being in place, operational and in appearance of being well maintained.	Compliant			
	3.3.3	Post 2021 works	Not assessed in this audit	Not Triggered			
	3.4	Clean Water Management Water that has had contact with coal (e.g. groundwater inflows and surface runoff to the open cut pit or stormwater runoff from the ROM and product coal stockpiles) or contact with water that has had contact with coal is considered to be 'mine' water. - The mine water management system involves the following: - Water collected in the active mining areas will be pumped to the Wantana West Dam, and then to other mine water storages, including the Washery Dam; - Water stored in the Washery Dam will be used for all mine site demands, excluding the vehicle wash-down demand, which is exclusively drawn from the Hunter River Raw Water Dam; - Utilisation of the pit for mine water, where necessary, to prevent uncontrolled spills; and - The Staged Discharge Dam is the licensed discharge point for the HRSTS.	Based on site observations, mine water system appeared to be in general compliance	Compliant			
		Over the life of Bengalla, there are a minimum of three clean water dams to be constructed: - Dry Creek CW1 – north of Wybong Road (see Section 4.0); - Relocated Raw Water Dam – relocation of existing storage dam in a location generally west of its current position; and - Spare Dam – highwall dam west of Main pit (not required until after 2030 and as a result is not included in this WMP).	Dry Creek CW1 complete. Other works in planning phase	Compliant			
	3.5	Mine Water Management The management of mine water involves the following: - Mine water is used on site or discharged in accordance with EPL 6538 and the HRSTS; - Water stored in the Washery Dam will be used for mine site demands, excluding the vehicle wash-down, fire suppression and drinking and shower purposes; - Utilisation of the pit for mine water storage, as required; and - The Staged Discharge Dam is the licensed discharge point for the HRSTS.	No observations on site indicated any evidence to the contrary	Compliant			

Reference	Commitment	Requirement	Evidence	Audit Finding	Risk		
					Consequence	Likelihood	Risk
Water Management Plan, December 2016							
	3.6	Sediment Water Management					
		Sediment water is currently detained within the Bengalla water management system as regulated. Following the relinquishment of established rehabilitation areas it is anticipated that some sediment dams will be removed from the mine water management system and water from rehabilitated areas will be released to the environment	At present all existing rehabilitation areas appear to report to the existing site sediment dams and this water is collected / pumped back to the Washery Dam for use on site within the mine water management system	Compliant			
	3.7	Contaminated Water Management Contaminated water at Bengalla is generated by the bathhouse and vehicle wash bay. Contaminated water from the bathhouse is processed through the WWTP which directs the contaminated water into the process water circuit for reuse in the mine water system. Contaminated water from the vehicle wash bay is processed through a hydrocarbon separation system which directs waste oil into a waste oil tank and directs the water component into the facilities sump. The water from the facilities sump overflows into the East Facilities Dams for reuse in the Bengalla water management system.	Inspected the vehicle wash bay - observed that hydrocarbon sheen present on water stored in the facilities sump. Buildup noted in grit trap but did not appear to be at full capacity. Controls are in place to manage hydrocarbons in the wash bay dam. The overflow pipe from the wash bay dam to the facilities dams is designed so that the opening of the overflow is located low in the dam. The water from the bottom of the wash bay dam over flows and not the hydrocarbons on the surface. The wash bay sump is cleaned out 2 - 3 times a week and as part of this process the wash bay dam is inspected however this inspection is not documented. If excessive hydrocarbons are found in the wash bay dam this is reported to the supervisor. Excess hydrocarbons are sucked out of the wash bay dam by the waste contactor, Remondis, as required.	Compliant			
	3.8 Prescribed Dams	The following dams at Bengalla are prescribed under the Dams Safety Act 2015: - Staged Discharge Dam; and - CW1 (see Section 4.0). In accordance with the requirements of the DSC, BMC (as prescribed dam owners) will arrange for: - Proper operation and maintenance of their dams using trained personnel; - Regular dam surveillance; - Appropriate emergency planning and security precautions for their dams; - Ongoing assessment of their dams' behaviour by experienced personnel and regular review of their dams' compliance with current Dams Safety Committee (DSC) requirements; and - Actions in response to these assessments to ensure that their dams are maintained in a safe condition.	Training certificates sighted - Ben Simpson, Laurel McGinnity 'Dam Safety Management for Ash, Tailings and Mining Dams Course' by DSC. Daily Visual Surveillance Sheets sighted (February Dam Safety Monthly Report) DSC Management Plan sighted - has been updated for CW1. Annual Review 2016 notes an inspection of Staged Discharge Dam in November 2016 and report to DSC. Emergency plan not sighted.	Compliant			
	3.9	Erosion and Sediment Control					
	3.9.1	Introduction The following design guidelines are applicable to the new sediment dams the purpose of which is indicated as 'sediment water' in Table 5: - <i>Managing Urban Stormwater, Soils and Construction, Volume 1</i> (Landcom, 2004) ('Blue Book'); - <i>Managing Urban Stormwater, Soils and Construction, Volume 2E Mines and Quarries</i> (Department of Environment and Climate Change, 2008). With respect to the guidelines noted above sediment dams on Bengalla Mine will generally be 'Wet Basins' as they are the type specified for 'Type D/F' soils. Key criteria for the design of the sediment dams are contained in Table 6.1 of Volume 2E.	Wet basins were observed as being in place - water levels were low, as per Type F/D basins in dry weather with pipe/pump arrangements for pumping water to the Washery Dam for reuse on site.	Compliant			
	3.9.2	Management of Flood Impacts As part of BMC's ongoing mine planning processes a flooding assessment of Dry Creek was completed by Parsons Brinkerhoff (PB) associated with Dry Creek. This flooding assessment indicated that a levee would eventually be required to be constructed on the eastern side of Dry Creek immediately upstream of the South Haul Road to prevent a 1 in 100 year ARI peak flow storm event potentially spilling into the open cut mining area (see Figure 5). It is anticipated that the levee will be required for approximately 18 months until the construction of the Dry Creek Diversion system (as described in Section 4.0) is completed. Two diversion levees will be constructed north of Wybong Road to direct clean water into CW1. The location of the CW1 diversion levees are shown on Figure 8. All water captured in CW1 will be re-directed around the active mining area and released back into Dry Creek catchment at the CW discharge location. CW1 is serviced by a pump station comprised of three duty pumps and one standby pump. The pump station is capable of supporting a maximum flow rate of 1,085 L/s. The pump station will be activated whenever the storage in CW1 reaches the minimum level for pumping so that detention time within the dam is minimised. As such, CW1 is designed to be operated as empty and effectively functions as a dry detention basin. All proposed sediment and erosion control infrastructure will be located outside the Hunter River 100 year ARI flood extent as shown on Figure 7.	Dry Creek diversion system now complete. CW1 and pump station inspected. CW1 empty at time of inspection (dry weather conditions). No ESCP infrastructure noted in vicinity of Hunter River.	Compliant			

Reference	Commitment	Requirement	Evidence	Audit Finding	Risk		
					Consequence	Likelihood	Risk
Water Management Plan, December 2016							
	3.9.3	Existing Sediment Control Structures The locations of the required erosion and sediment control structures are shown on Figure 7. Existing sediment dams have been designed to remove suspended sediment of 0.1 mm diameter and greater, based on detaining water for a period of 1 hour during a 1 in 10 year storm event. Existing sediment dams are designed to capture sediment water for reuse in the Bengalla water management system. Rehabilitated land is shaped with contour banks at varying vertical spacing to minimise downslope flows. Contour banks carry water across the slopes to sediment dams where it is either released off-site following settlement, or pumped back into the Bengalla water management system.	Sediment dams inspected during audit. Vertical drains down steep rehabilitation slopes mostly stable - some issues noted regarding rock hardness on scour protection (showed signs of weathering). Was noted by site personnel and verbal indication that program in place to replace some of rock and monitor on an ongoing basis.	Compliant			
	3.9.4	Proposed Sediment Control Structures					
		Construction Construction activities generally require the removal of vegetation and disturbance to the land surface. Prior to disturbance of land, appropriate erosion and sediment controls will be established. Erosion and sediment controls may include silt fences, hay bales and other measures consistent with current best practice standards.	Recent construction activities appear generally to have been well managed with evidence of reinstatement of disturbed areas and ESCP controls having been in place. Exception being in one location near laydown/stockpile area (southern end of western diversion) the disturbed area and stockpiles were discharge directly into diversion drain (clean water) with no erosion controls in place.	Not Compliant	D	2	Medium
		Operations Sediment and erosion controls at Bengalla are designed to effectively manage sediment water runoff. Sediment mobilisation and erosion will be minimised where reasonable and feasible by: - Installing appropriate erosion and sediment controls prior to disturbance of land; - Limiting the extent of the disturbance to the practical minimum; - Reducing the flow rate of water across the ground surface, particularly on exposed surfaces and in areas where water concentrates; - Progressively rehabilitating disturbed land and constructing drainage controls to improve stability of rehabilitated land; - Ripping of topsoil during the rehabilitation process to promote infiltration; - Protecting natural drainage lines and watercourses by installing sediment and erosion controls such as diversion banks, channels and sediment dams; - Steep gradients will require the installation of rock riprap, geotextile fabric sediment filters or other suitable measures, as required; and - Restricting access to rehabilitated areas.	Observed during site audit: - Evidence of recently removed / reinstated temporary controls for construction of Dry Creek Diversion system. - Rehabilitated land areas: included series of contour banks and slope drainage to minimise erosion. Overall drainage systems appeared stable and well vegetated or with scour protection. - Recent ripping and seeding of recently constructed earthworks. - Sediment basins, and scour protection where appropriate on diversion drains etc. - Steep slope / batter drains with rock rip rap (noting that some earlier rock appears to be weathering and may require future replacement - at present still performing adequately). - Access to rehab areas appeared limited. Observed early signs of scouring of steep batter gradients on upstream embankment face of CW1. Design of crest resulting in concentrated flows down batter with no erosion protection measures in place.	Compliant			
	3.9.5	Maintenance Dams, contour banks and drainage lines across Bengalla are inspected to assess their integrity and efficiency to control and capture water. Maintenance works, which may include repair of any erosion damage to channel banks and desilting of sediment dams, is undertaken on these structures as required.	Did not sight documented evidence of inspections - however noted that the infrastructure appeared very well maintained, will all dams at low levels of water and sediment build up, channel banks, drains in good condition.	Compliant			
	3.9.6	Discharges under the HRSTS Excess water from Bengalla can be discharged into the Hunter River under the HRSTS during periods of "high" or "flood" flows. The HRSTS was introduced by the NSW Government to reduce salinity levels in the Hunter River and allow controlled water discharges. Discharges from the Staged Discharge Dam are regulated by BMC's EPL 6538. Bengalla is permitted to discharge up to 200 ML per day under the HRSTS, in accordance with EPL 6538 and conditions stipulated in 'Managed Envelope of Residual Flood Flows' (MERFF). Discharges are released from the existing Staged Discharge Dam (and will be released from the relocated dam) into Dry Creek. Additional surface water monitoring is required to be undertaken during a discharge event. As approved in the Mod 1 SEE, the HRSTS discharge location will be relocated to a point along the Western Diversion Levee once the temporary Dry Creek diversion is implemented (as described in Section 4.0). This will ensure an appropriate discharge point is maintained at all times (see Figure 5).	Environmental Monitoring Data monthly report - discharges under HRSTS reported in monthly reports. Monitoring data reported for month if discharges occurred (i.e. discharge event in September 2016 - includes reported data for Volume, EC, TSS and pH). Dry Creek Diversion is implemented, with relocation of Staged Discharge Dam still in progress. Discharge location for HRSTS still under relocation at time of audit. Existing discharge location was still operational.	Compliant			
	3.1	Tailings will continue to be managed through drying and co-disposal in the Main OEA. Ultrafine material (smaller than 0.125 mm) is thickened, dewatered on belt press filters and then combined with other reject streams for disposal. Reject material is dried in cells located within the areas for overburden re-emplacment, buried within the Main OEA and finally capped with a minimum of 5 m of inert material.	Cells for drying of reject material noted west of active pit. Noted from manner material placement appeared to still have relatively high moisture content.	Compliant			

Reference	Commitment	Requirement	Evidence	Audit Finding	Risk		
					Consequence	Likelihood	Risk
Water Management Plan, December 2016							
		BMC will implement the following management measures with regard to reject material or Potentially Acid Forming (PAF) overburden: - To avoid potential connectivity with the adjacent Dry Creek, no coarse reject materials will be emplaced in the Western OEA; - The current practice of burying coal reject materials under at least 5 m of inert overburden will continue. This practice has been determined to be successful in minimising the risk of any significant impact to the environment; - To avoid potential connectivity with the adjacent Dry Creek, no Archerfield Sandstone materials will be placed in the Western OEA; and - Coal reject and overburden materials will not be co-disposed in areas of the Main OEA that overlie alluvial soils.	The western OEA had not commenced at the time of the audit. There was a management plan in place for these materials at the time of the audit. The areas of the main OEA that overlay the alluvials were completed or being shaped and topsoiled at the time of the audit, all materials had been placed in these areas so the positioning NAG and PAG in these areas could not be inspected however the replacement management followed the materials management plan mentioned above.	Compliant			
		The Southern OEA Extension is complete however the following measures regarding emplacement areas for reject material, acid forming, PAF, saline and sodic materials will be implemented to ensure no potential impacts on aquifer water quality from the emplacement of overburden onto alluvial land: - No overburden material from the Wynn coal seam will be placed within the Southern OEA Extension which overlies or has potential connectivity with alluvial soils; - Coal reject and overburden materials will not be co-disposed in areas of the Southern OEA Extension that overlie or have potential connectivity with alluvial soils; and - Progressively rehabilitation of the Southern OEA Extension will be conducted to further reduce rainfall infiltration into the spoil and hence infiltration from the base of spoil to the alluvial gravels.	The western OEA had not commenced at the time of the audit. There was a management plan in place for these materials at the time of the audit. The areas of the main OEA that overlay the alluvials were completed or being shaped and topsoiled at the time of the audit, all materials had been placed in these areas so the positioning NAG and PAG in these areas could not be inspected however the replacement management followed the materials management plan mentioned above. Progressive rehabilitation was acceptable at the time of the audit.	Compliant			
TEMPORARY DRY CREEK DIVERSION	4						
	4.1.2	Clean Water Dam 1 As mining activities at Bengalla progress to the west, Dry Creek will be intercepted by mining. As such, the construction of CW1 north of Wybong Road will be required to be commenced in 2015 (see Figure 10) and will remain in place until approximately Year 20. The Dry Creek catchment north of CW1 is 665 ha. CW1 will provide for the catchment of all water upstream of its location and will be designed and constructed in accordance with Landcom (2004) and be capable of containing a 1 in 200 year ARI, 72 hour storm rainfall event. CW1 has a surcharge capacity of 900 ML to reduce the potential for clean water entering BMC's active mining area. A pump rate of up to 1,085 litres/second (l/s) has been approved for CW1. As described above, the pumps stationed at CW1 will be activated whenever the water storage in CW1 reaches the minimum level for pumping and will operate continuously until the dam is effectively emptied, with the result that CW1 functions as a dry detention basin.	Completion of CW1 observed. Design report (Parsons Brinckerhoff, 2014) sighted with design criteria consistent with approval and WMP	Compliant			
	4.1.3	CW1 Pipeline & Discharge Point To maintain safe operating levels, clean water from CW1 will have a pipe design flow of approximately 1,085 L/s to divert clean water around mining operations. The pipeline will be approximately 5.5 km long and will be transported to a discharge point (CWDP1) west of the current Mine Access Road. An impact energy dissipating structure designed in accordance with the HEC-14 guideline will be constructed at the end of the pipeline to minimise erosion potential from the water re-entering the existing drainage line. Downstream from the release point will be an upgraded scour protection to facilitate increased flows (further description is provided in Section 4.3).	Pipeline and discharge point and scour protection observed	Compliant			
		A concrete impact basin is required to dissipate energy as water exits from the pipe. The impact basin comprises approximately a 3.0 m x 3.7 m x 2.4 m tall concrete chamber including internal concrete walls/baffles to dissipate the energy. The pipes are to be installed under the surface of both Wybong Road and the Bengalla Link Road.	Works completed	Compliant			
		The pipes will be placed under the surface of both Wybong Road and the Bengalla Link Road via a culvert. BMC will consult with Muswellbrook Shire Council (MSC) in relation to any potential short term traffic implications. In addition, BMC will seek any required approvals from MSC to ensure that the works are conducted in accordance with any local government requirements.	Works completed	Compliant			
		Power Supply Infrastructure To facilitate the required pumping rate, additional power supply to CW1 will be necessary. BMC will establish mains power via a transmission line to CW1 to facilitate the use of the pumps at maximum capacity (if required). Emergency power generation will be available to provide power to the pumps should the mains power supply source be temporarily unavailable. A generator compound will also be constructed adjacent to the pump station.	Pumps and associated infrastructure observed.	Compliant			

Reference	Commitment	Requirement	Evidence	Audit Finding	Risk		
					Consequence	Likelihood	Risk
Water Management Plan, December 2016							
	4.1.4	Clean Water Diversion Drains To minimise clean water entering the Satellite Pit, the Western Diversion Levee will be constructed west of the existing Dry Creek location and south of Wybong Road (see Figure 8). The Western Diversion Levee will ensure that clean water from a catchment area of approximately 310 ha is diverted around active mining and is directed towards Dry Creek south of the existing Mine Access Road.	Western Diversion levee is complete	Compliant			
		The Western Diversion Levee will generally be constructed in stages. When satisfied that each stage is stable (in relation to sediment and erosion control potential), BMC will offer DP&E the opportunity to attend site to inspect the levee prior to its utilisation.	Western Diversion levee is complete - verbal discussion with BMC noted recent visit and inspection by DP&E.	Compliant			
		Two additional clean water diversion levees (the Northern Diversion Levees) as described in the Mod 1 SEE are also required north of Wybong Road (see Figure 7). The Northern Diversion Levees are required to divert clean water from the upper Dry Creek catchment into CW1 to further minimise the catchment reporting to the Satellite Pit.	Norther Diversion levee is constructed	Compliant			
		Following commissioning of CW1 and prior to the commencement of mining in the Satellite Pit, the existing Dry Creek culvert located under the Southern Haul Road will be closed to facilitate mining operations (see Figure 8). Closure of this culvert will result in a closed catchment with all surface water runoff south of CW1 and east of the Western Diversion Levee directed into the active mining area where it will be captured in the mine water management system. The existing Bengalla Staged Discharge Dam will be utilised until such time as the Relocated Staged Discharge Dam (ED1) is constructed and commissioned. Once complete, the existing Staged Discharge Dam will be reconfigured to facilitate its use as a water storage. It is anticipated that this will not be required until approximately 2019.	Observed that culvert is closed. Existing Staged Discharge Dam still in use, Relocated ED1 not commenced.	Compliant			
	4.1.5	Mount Pleasant Discharge Dam Mount Pleasant (MTP) is permitted to discharge mine water from RW1 (not yet constructed) into the existing Dry Creek in accordance with an appropriate EPL and the HRSTS. In order to mitigate Bengalla's impact on MTP's currently approved discharge route, BMC has sought approval to construct a 300 ML Mount Pleasant Discharge Dam 1 (MTP DW1) and associated pipeline (located generally adjacent to CW1 pipeline) in accordance with relevant guidelines and standards. When constructed, MTP DW1 will not be utilised in Bengalla's water management system but will be available to MTP, subject to appropriate approvals to facilitate its use as the MTP discharge point. .		Not Triggered			
	4.3	Clean Water Diversion Design and Performance Objectives					
		Tables 6 and 7	Table 6 - reviewed & criteria appears appropriate. Audit assumes that design was prepared by suitably qualified engineers and that the design and construction was in accordance with Dam Safety Committee approvals. Table 7 - note possible limited safety margin where PN10 - permissible system operating head 80m. Maximum dynamic pumping head of pump is 100m. Pump control = manual operation by remote SCADA. What if not monitored or alarm is ignored? Should this include automatic operation in response to water level. Doesnt reference pump size and type.	Compliant			
	4.4	Downstream Scour Protection					
		Tables 8 and 9	Table 8 - Discusses 'design considerations' for infrastructure now constructed. Obsolete? Table 9 - May require further detail or explanation. Text indicates that criteria is for the scour protection downstream of the CW1 release point. Discharge at release point is presumably dictated by pump rate (max 1085L/s) and outlet velocity, not only design storm events and associated catchment runoff. e.g. Is pumps at 1085L/s or 1 in 100 year the worst case? Or could it be expected that as pumps at CW1 would be operating in a 1 in 100 year storm - drain and scour protection to be sized for concurrent catchment and pump flows. A review of the wording and specifications in Table 9 is recommended.	Compliant			

Reference	Commitment	Requirement	Evidence	Audit Finding	Risk		
					Consequence	Likelihood	Risk
Water Management Plan, December 2016							
Site Water Balance	5						
		Section 5 details the parameters and processes in the Site Water Balance	General review of adequacy.	Compliant			
SURFACE WATER MONITORING	6						
	6.1	Table 12 - Surface Water Monitoring Summary EC recorded during the controlled release event exceeds the measurement recorded prior to controlled releases commencing; or the salt volume discharged value reaches or exceeds the calculated allowable salt release;	A water sample from the Staged Discharge Dam (ie in the storage) is taken prior to discharging to determine if the water to be discharged meets the EPL 6538 water quality criteria and to calculate the allowable salt release, discharge volume and discharge rate. Pre-discharge samples were taken on 16 and 20 September 2016.	Compliant			
	6.2	Table 13 - Surface Water Monitoring	Annual Report for 2015 notes exceedence of trigger values in upstream/downstream monitoring for TSS. References TSS trigger as 50mg/L. Current WMP references 40mg/L as trigger value. 2015: only exceedences are reported - no summary data. 2016: exceedences are reported with Hunter River water quality sampling data presented for pH, EC and TSS. Analytes in data set provided and Table 11 appear consistent	Compliant			
	6.4	Site Water Balance Review The site water balance will be reviewed annually and updated as appropriate associated with additional and/or revised information becomes available with the progression of the mine. Results for the annual water balance will be presented in the Annual Review and will be presented in conjunction with the licences which account for the take of water	WMP includes reference to and description of recent water balance update (2016 associated with Mod1 SEE). Results for annual water balance presented in latest Annual Review report (2015). Summary water balance provided in Annual Review 2016.	Compliant			
	6.5	System Integrity Monitoring Operational monitoring involves inspecting site infrastructure, such as pumps, pipelines and dams to ensure that they are working effectively. Two dams, the Staged Discharge Dam and CW1 (not yet fully constructed), are currently listed as prescribed dams under the Dams Safety Act 2015. The requirements of DSC are managed under a separate Monitoring Plan in consultation with the DSC.	Operational monitoring system observed (SCADA system, with visual interface and automatic / manual operability by operators. Alarms etc. Separate monitoring plan for Dams not sighted.	Compliant			
	6.6	Erosion and Sediment Control Monitoring Drainage structures located around infrastructure areas, including the CHPP and maintenance areas and sediment control structures will be inspected as part of the dam inspection regime conducted monthly and following rainfall greater than 25 mm in a 24 hour period. During inspections, sediment control structures will be checked for scouring and accumulation of sediment (see Table 13).	Evidence of monitoring (i.e checklists not sighted) however all ESCP infrastructure appeared well maintained.	Not verified			
GROUNDWATER MANAGEMENT PLAN	7						
	7.3.6	Impact to Registered Privately owned Bores The Bengalla EIS predicted depressurisation may potentially affect one licensed private bore - GW-073576. The indicated drawdown at this bore is predicted to be less than 2 m. Bore GW-073576 lies within a less productive aquifer zone (weathered Permian regolith) as defined by the NOW (2014) Groundwater Productivity in NSW. The currently predicted drawdown is less than the AIP > 2 m trigger level for a Porous and Fractured Rock Water Source(s) (NOW, 2012). BMC will seek to enter into agreement with the GW-073576 bore owner for a baseline assessment and conduct regular monthly water level monitoring to ascertain whether there is any impact as a direct consequence of Bengalla mining. If confirmed, BMC shall develop appropriate mitigation measures in consultation with the landholder (Hansen Bailey, 2014). No other privately owned bores are predicted to experience drawdown greater than 2 m.	The only recorded impact to a private bore was investigated and found to result from agricultural extraction for irrigation (not by Bengalla) nearby.	Compliant			
	7.4.7	Impact on Pit Groundwater Inflow Groundwater seeps from the Permian strata and overburden areas into the pit. Groundwater studies simulated that groundwater pit inflow peaks at 0.63 ML/day when mining is closest to the alluvium and then decreases to 0.2 ML/day as the pit moves westward (away from the alluvium) during the final ten years of mining (AGE, 2013). To estimate the actual groundwater inflow component of overall pit inflow, data on rainfall, pit catchment area and the quantity of water pumped from the pit will be recorded. This will enable a water balance to be calculated and reported in Annual Reviews. The final void at end of mining is predicted to act as a sink in the local groundwater environment with a lake level predicted to develop below the regional water table. Therefore any saline water within the final void will not flow into surrounding groundwater systems (AGE, 2013).	Noted, the water balance included pit inflows that were measured by metering of pumping.	Compliant			

Reference	Commitment	Requirement	Evidence	Audit Finding	Risk		
					Consequence	Likelihood	Risk
Water Management Plan, December 2016							
	7.3.8	<p>Impact on Groundwater Dependent Ecosystems</p> <p>An assessment of the potential impacts on terrestrial groundwater dependent ecosystems (GDEs) was undertaken for the Bengalla EIS. Hunter Floodplain Red Gum Woodland was the only terrestrial GDE identified in the vicinity of Bengalla. Within BMC owned land there is a simulated drawdown of less than 1 m within the Hunter River alluvium to the south (AGE, 2013). The Hunter Floodplain Red Gum Woodland identified by Cumberland Ecology is considered unlikely to be affected by drawdown of this magnitude.</p> <p>An assessment of the potential impacts on stygofauna was also undertaken for the Project. Stygofauna were identified at multiple locations in the Hunter River alluvium, confirming that the Hunter River alluvial aquifer is a GDE. However, as the drawdown in the Hunter River alluvium is predicted to be less than 1 m, no significant impacts on this GDE are predicted to occur.</p>	Noted	Noted			
	7.4.2	<p>Groundwater Trigger Levels</p> <p>Trigger levels have been developed based on the modelling completed for the EIS. Groundwater quality and level monitoring results will be evaluated against the trigger levels presented in Appendix E as follows:</p> <ul style="list-style-type: none"> - pH values recorded outside the range of 6.0 and 8.5 for three consecutive readings (Table E1); - EC values via a two stage process (Table E1): <ul style="list-style-type: none"> o Stage 1 – measured values that are the 95th percentile level; and o Stage 2 – measured values at maximum value; - Groundwater level trigger (Table E2) in: <ul style="list-style-type: none"> o Three or more alluvial bore levels fall below the trigger levels in one round of monitoring; or water levels in any alluvial bore fall below the trigger levels for three consecutive readings; and/or o Water levels in any deeper bores fall below the trigger levels for three consecutive readings. 	Annual Groundwater Impacts Report shows that some wells have exceeded trigger values but analysis indicates the results are not depressurisation due to mining.	Compliant			
	7.4.3	<p>Monitoring Data Management and Reporting</p> <p>Data management and annual reporting will:</p> <ul style="list-style-type: none"> - Review the depressurisation of coal measures and drawdown within alluvial aquifers; - Compare the observed depressurisation with model predictions and investigation trigger limits; - Review the groundwater quality using basic statistical analysis (mean, range, standard deviation); - Review the groundwater quality data to determine if it meets basic reliability (e.g. ionic balance) checks; - Identify outliers within the groundwater quality data that may limit the accuracy of the data; - Check that groundwater quality data is representative; - Consider the statistical distribution of the groundwater quality data (i.e. normal or skewed) to determine the appropriate statistical methods; - Compare groundwater quality changes with predictions and investigation triggers; - Describe actions and responses taken if investigation trigger levels have been exceeded; and - Review the appropriateness of investigation trigger levels. 	Included in the Annual Review, though only the 2015 AR was available at the time of the audit.	Compliant			
	7.4.6	<p>Monitoring bores – Groundwater Quality</p> <p>Groundwater samples will be collected from all existing groundwater monitoring sites listed in Table 16. Sampling will continue until mine closure, and then for a period of five years post closure. Groundwater samples will be collected and analysed in the field for the following measurements:</p> <ul style="list-style-type: none"> - General parameters: water level, temperature, pH, EC, and TDS. <p>The groundwater samples will also be analysed in a NATA accredited laboratory for:</p> <ul style="list-style-type: none"> - General parameters: pH, EC, TDS, alkalinity, hardness, ionic balance, sodium adsorption ratio (SAR) and Silica (SiO₂); - Major anions: Carbonate (CO₃), Chlorine (Cl), Fluoride (F), Hydrogen Carbonate (HCO₃) and Sulphate (SO₄); - Major cations: Calcium (Ca), Magnesium (Mg), Sodium (Na) and Potassium (K); and - Total and dissolved metals: Aluminium (Al), Arsenic (As), Boron (B), Barium (Ba), Beryllium (Be), Bromine (Br), Cadmium (Cd), Cobalt (Co), Chromium (Cr), Copper (Cu), Iron (Fe), Mercury (Hg), Manganese (Mn), Molybdenum (Mo), Nickel (Ni), Lead (Pb), Selenium (Se), Strontium (Sr), Vanadium (v) and Zinc (Zn). 	Included in the Annual Review, though only the 2015 AR was available at the time of the audit. Closure was not 5 years away at the time of the audit.	Compliant			
		<p>The sampling process, sample storage, and transferal to the receiving laboratory, will conform to the following standards:</p> <ul style="list-style-type: none"> - The Australian/New Zealand Standard Water Quality 'Sampling, Part 1: Guidance on the design of sampling programs, sampling techniques and the preservation and handling of samples' (AS/NZS 5667.1:1998); - The Australian/New Zealand Standard Water quality 'Sampling, Part 11: Guidance on sampling of Groundwaters' (AS/NZS 5667.11:1998); - Geoscience Australia (2009) 'Groundwater Sampling and Analysis – A Field Guide'; and - Murray-Darling Basin Commission (1997) 'Murray Darling Basin Groundwater Quality Sampling Guidelines', Technical Report No. 3. Groundwater Working Group. 	The monthly Environmental Monitoring Reports provided by AECOM state that the sample storage, and transferal to the receiving laboratory, conform to the Australian/New Zealand Standards. However, compliance with Geoscience Australia (2009) and Murray-Darling Basin Commission (1997) requirements are not mentioned.	Not Able to be Verified			

Reference	Commitment	Requirement	Evidence	Audit Finding	Risk		
					Consequence	Likelihood	Risk
Water Management Plan, December 2016							
	7.4.8	<p>Seepage and Runoff from Emplacement Areas Seepage/leachate monitoring will be undertaken by sampling the Endwall Dam (see Table 13) which receives water pumped from the pit. To monitor the impacts of runoff from the OEA, the Endwall Sediment Dam is sampled every two months for EC, pH, TSS and sulphates. Current management methods for coal rejects and placement of overburden are deemed sufficient to minimise the risk of any significant impact to the environment (RGS Environmental, 2013). The groundwater monitoring network includes multiple sites located between the OEA and the Hunter River (see Figure 11). All groundwater bores are sampled annually for speciation analyses (i.e. measurement of sulphates and metals). In addition, monitoring of pH, EC and TDS is undertaken on a monthly or quarterly basis (see Table 13). Therefore, the groundwater monitoring program enables BMC to identify impacts associated with seepage from emplacement areas.</p>	Noted, the Endwall Dam is included in the surface water monitoring program.	Compliant			
	7.4.9	<p>Groundwater Inflow to Mining Operations Monitoring and recording of groundwater pumped from the pit will be undertaken in order to validate the BMC groundwater model. This data will also assist in accounting for "water take" from the relevant groundwater water source as per requirements under the WM Act. The groundwater inflow monitoring program will include: - Monthly measurement of all water pumped from the pit using flow meters; - Sampling and analysis of dams which contain water pumped directly or indirectly from the pit (South Loop Road Dam, Endwall Dam and Wantana West Dam); - Daily rainfall monitoring via the on-site weather station, so that the volume contribution from groundwater and surface water can be separated; and - Monitoring of coal moisture content.</p>	This occurred in the audit period through the metering of pumping rates, then assessed in the Water Balance with allowance for rainfall contribution and evaporation.	Compliant			
	7.4.12	<p>Groundwater Model Validation This review will be commissioned as a component of the Independent Environmental Audit (IEA) (Section 9.2). The audit will also consider compliance against conditions of licences required under both the WM Act and the Water Act. BMC will commission an independent consultant to complete a review of the groundwater monitoring results against the predictions made within the groundwater model at this IEA. Should the review indicate that the observed versus modelled data is diverging, the groundwater model will be progressively updated and refined to ensure that any possible impacts can be predicted more accurately and mitigated as required. Impacts on groundwater dependent ecosystems and existing users will be re-assessed should the model show impacts greater than initial predictions. Detail of the groundwater model validation will be included in the Annual Review in years in which validation occurs (see Section 9.1). The groundwater section of the Annual Review will comment as to whether BMC holds sufficient entitlement in each relevant water source for current and future operations.</p>	This review was conducted concurrently with this audit.	Compliant			
	7.4.13	<p>Final Void Management and Design Parameters Following the cessation of mining at Bengalla and should a future approval not be sought and/or granted BMC will develop a Final Void Management Plan within 7 years of mine closure.</p>	At the time of the audit, the site was not 7 years from closure. Planned closure is in 2039.	Not Triggered			
SURFACE AND GROUNDWATER RESPONSE PLAN	8						
	Table 15	Groundwater Monitoring Program	Review against that reported in Annual Returns and Annual Reviews	Compliant			
	8.1	<p>Trigger Event Response Protocol Should the monitoring program identify the occurrence of a trigger event as described in this WMP then BMC will follow the protocol outlined in Table 17. This procedure will also apply in the event of an exceedance of volumetric limits for water discharge from the site under EPL 6538 or water consumption under the site's WAL for the Hunter River (WAL001106).</p>	The AGE report identified some bores that had exceeded trigger levels in the audit period				

Reference	Commitment	Requirement	Evidence	Audit Finding	Risk																						
					Consequence	Likelihood	Risk																				
Water Management Plan, December 2016																											
		<p align="center">Table 17 Trigger Event Response Protocol</p> <table border="1"> <thead> <tr> <th>Step</th> <th>Procedure</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Confirm the timing of the exceedance(s)</td> </tr> <tr> <td>2</td> <td>Confirm the general location of the exceedance(s)</td> </tr> <tr> <td>3</td> <td>Confirm the climatic conditions at the time of the exceedance(s) (where relevant)</td> </tr> <tr> <td>4</td> <td>Identify any potential contributing factors</td> </tr> <tr> <td>5</td> <td>Assess the monitoring results for any anomalies or causes</td> </tr> <tr> <td>6</td> <td>Develop appropriate mitigation and management strategies</td> </tr> <tr> <td>7</td> <td>Implement the mitigation and management strategies</td> </tr> <tr> <td>8</td> <td>Review of follow up results</td> </tr> <tr> <td>9</td> <td>Report the exceedance in accordance with Section 9.5</td> </tr> </tbody> </table>	Step	Procedure	1	Confirm the timing of the exceedance(s)	2	Confirm the general location of the exceedance(s)	3	Confirm the climatic conditions at the time of the exceedance(s) (where relevant)	4	Identify any potential contributing factors	5	Assess the monitoring results for any anomalies or causes	6	Develop appropriate mitigation and management strategies	7	Implement the mitigation and management strategies	8	Review of follow up results	9	Report the exceedance in accordance with Section 9.5	<p>but it pointed to those wells being at or near trigger levels as a general rule implying the trigger levels require adjustment.</p> <p>There was no evidence of mining generated depressurisation of high quality ground water resources.</p> <p>As such, the Trigger Event Response Protocol was only followed until it became clear the variations in GW characteristics were not mining related.</p>	Compliant			
Step	Procedure																										
1	Confirm the timing of the exceedance(s)																										
2	Confirm the general location of the exceedance(s)																										
3	Confirm the climatic conditions at the time of the exceedance(s) (where relevant)																										
4	Identify any potential contributing factors																										
5	Assess the monitoring results for any anomalies or causes																										
6	Develop appropriate mitigation and management strategies																										
7	Implement the mitigation and management strategies																										
8	Review of follow up results																										
9	Report the exceedance in accordance with Section 9.5																										
	8.2	<p>Trigger Action Response Plan Specific actions to respond to trigger events identified in Table 13 and Section 7.4.2</p>	Not enacted in the audit period	Not Triggered																							
	8.3	<p>Loss of Bore Water As described in Section 7.3.6, the water levels at all the registered non-mine owned bores are not anticipated to be affected by Bengalla's operations. Table 19 provides a response protocol for implementation should any non-mine owned landholder enquire about dropping water levels in their groundwater bores.</p>																									
		<p align="center">Table 18 Loss of Bore Water Response Protocol</p> <table border="1"> <thead> <tr> <th>Stage</th> <th>Procedure</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Receive request from landowner in regards to depressurisation of a water supply or bore</td> </tr> <tr> <td>2</td> <td>Provide copy of landowner request to and inform DPI - Water and DP&E of intention to conduct independent review</td> </tr> <tr> <td>3</td> <td>Commission an independent review to include consideration of: <ul style="list-style-type: none"> Relevant groundwater levels and quality results; Any changes to land use that may have affected groundwater data over time; Meteorological conditions over the relevant period of record; and If the loss of bore water is attributable to Bengalla alone </td> </tr> <tr> <td>4</td> <td>Provide a copy of the report to DPI - Water and the landowner</td> </tr> <tr> <td>5</td> <td>Receive written conclusion from DPI - Water as whether or not the bores have been affected by mining at Bengalla</td> </tr> <tr> <td>6</td> <td>If DPI - Water concluded the bores have been affected by mining at Bengalla, then BMC will replace the water supply with water of equivalent quality and quantity</td> </tr> <tr> <td>7</td> <td>Develop appropriate mitigation and management strategies, where relevant</td> </tr> <tr> <td>8</td> <td>Implement the mitigation and management strategies</td> </tr> <tr> <td>9</td> <td>Review of follow up results</td> </tr> </tbody> </table>	Stage	Procedure	1	Receive request from landowner in regards to depressurisation of a water supply or bore	2	Provide copy of landowner request to and inform DPI - Water and DP&E of intention to conduct independent review	3	Commission an independent review to include consideration of: <ul style="list-style-type: none"> Relevant groundwater levels and quality results; Any changes to land use that may have affected groundwater data over time; Meteorological conditions over the relevant period of record; and If the loss of bore water is attributable to Bengalla alone 	4	Provide a copy of the report to DPI - Water and the landowner	5	Receive written conclusion from DPI - Water as whether or not the bores have been affected by mining at Bengalla	6	If DPI - Water concluded the bores have been affected by mining at Bengalla, then BMC will replace the water supply with water of equivalent quality and quantity	7	Develop appropriate mitigation and management strategies, where relevant	8	Implement the mitigation and management strategies	9	Review of follow up results	<p>No request from Landowners, the bore investigated was at Bengallas direction picked up in monitoring results.</p>	Not Triggered			
Stage	Procedure																										
1	Receive request from landowner in regards to depressurisation of a water supply or bore																										
2	Provide copy of landowner request to and inform DPI - Water and DP&E of intention to conduct independent review																										
3	Commission an independent review to include consideration of: <ul style="list-style-type: none"> Relevant groundwater levels and quality results; Any changes to land use that may have affected groundwater data over time; Meteorological conditions over the relevant period of record; and If the loss of bore water is attributable to Bengalla alone 																										
4	Provide a copy of the report to DPI - Water and the landowner																										
5	Receive written conclusion from DPI - Water as whether or not the bores have been affected by mining at Bengalla																										
6	If DPI - Water concluded the bores have been affected by mining at Bengalla, then BMC will replace the water supply with water of equivalent quality and quantity																										
7	Develop appropriate mitigation and management strategies, where relevant																										
8	Implement the mitigation and management strategies																										
9	Review of follow up results																										
	8.4	<p>Unforeseen Impacts The procedure outlined in Table 20 will be followed in the event that any unforeseen surface or groundwater impacts are detected. The procedure will be in general accordance with the criteria exceedance protocol in Section 8.1.</p>																									
		<p align="center">Table 20 Unforeseen Impacts Protocol</p> <table border="1"> <thead> <tr> <th>Stage</th> <th>Procedure</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Review the unforeseen impact, including consideration of: <ul style="list-style-type: none"> Any relevant monitoring data; and Current mine activities and land management practices in the relevant catchment. </td> </tr> <tr> <td>2</td> <td>Commission an investigation into the unforeseen impact by an appropriate specialist selected in consultation with DRE.</td> </tr> <tr> <td>3</td> <td>Develop appropriate ameliorative measures based on the results of the above investigations, in consultation with the relevant authorities.</td> </tr> <tr> <td>4</td> <td>Implement additional monitoring where relevant to measure the effectiveness of the ameliorative measures.</td> </tr> </tbody> </table>	Stage	Procedure	1	Review the unforeseen impact, including consideration of: <ul style="list-style-type: none"> Any relevant monitoring data; and Current mine activities and land management practices in the relevant catchment. 	2	Commission an investigation into the unforeseen impact by an appropriate specialist selected in consultation with DRE.	3	Develop appropriate ameliorative measures based on the results of the above investigations, in consultation with the relevant authorities.	4	Implement additional monitoring where relevant to measure the effectiveness of the ameliorative measures.	<p>No unforeseen impacts in the audit period.</p>	Not Triggered													
Stage	Procedure																										
1	Review the unforeseen impact, including consideration of: <ul style="list-style-type: none"> Any relevant monitoring data; and Current mine activities and land management practices in the relevant catchment. 																										
2	Commission an investigation into the unforeseen impact by an appropriate specialist selected in consultation with DRE.																										
3	Develop appropriate ameliorative measures based on the results of the above investigations, in consultation with the relevant authorities.																										
4	Implement additional monitoring where relevant to measure the effectiveness of the ameliorative measures.																										
REPORTING & AUDITING	9																										
	9.2	<p>Auditing Within 1 year of the commencement of development under SSD-5170 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.</p>	This audit	Compliant																							

Reference	Commitment	Requirement	Evidence	Audit Finding	Risk		
					Consequence	Likelihood	Risk
Water Management Plan, December 2016							
	9.3	<p>Water Management Plan Review Schedule 5, Condition 5 of SSD-5170 requires that within 3 months of the submission of an:</p> <ul style="list-style-type: none"> - Annual review in accordance with Schedule 5, Condition 4; - Incident report under Schedule 5, Condition 7; - Audit report under Schedule 5, Condition 9; or - Modification to the conditions of consent (unless the conditions require otherwise). <p>BMC will review, and if necessary, revise the WMP in consultation with the EPA and DPI - Water to the Satisfaction of the Secretary of DP&E. When this review leads to revision in the WMP, then within four weeks of the review, unless the Secretary agrees otherwise, the revised WMP will be submitted to the Secretary for approval.</p> <p>Should the Bengalla Mine Operations Plan (MOP) be updated to include any changes relevant to this WMP then this will also trigger the requirement to update this WMP.</p> <p>This WMP may also be reviewed and, if necessary, revised to the satisfaction of the Secretary of DP&E where there are changes to the monitoring program as a result of changes in mine development or incident investigations.</p>	The version reviewed for this audit was developed for the SSD 5170 approval and MOD2 for that approval. Approved in December 2016, there had been no triggers for review post approval.	Compliant			
	9.4	<p>Reporting an Exceedance Schedule 5, Condition 3 of SSD-5170 (as modified) requires BMC to prepare a protocol to manage and report exceedances of the impact assessment criteria and/or performance criteria listed in this WMP to the relevant regulatory agencies.</p> <p>An exceedance in criteria will trigger the response plan and reporting outlined in Section 8.0.</p>	One issue required reporting in the audit period in relation to water and that was a dam overtop. The incident documentation was reviewed for this audit.	Compliant			
	9.6	<p>Complaints BMC has an existing Complaints Management Procedure which details how to receive, respond to, record and address community complaints including water related issues. BMC Management will keep a record of all community complaints and subsequent actions. The following details will be recorded:</p> <ul style="list-style-type: none"> - The nature of the complaint; - How the complaint was made; - Actions (if appropriate); and - Consultation undertaken. 	Reviewed in the SSD conditions	Compliant			
	9.7	<p>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, this WMP will be made publicly available on the BMC website.</p>	Website reviewed, at the time of the audit the relevant information was posted on the Bengalla Mine website.	Compliant			

Reference	Condition	Requirement	Evidence	Audit Finding	Risk		
					Consequence	Likelihood	Risk
Visual Impact Mitigation Plan, March 2016							
Stakeholder Engagement	2						
	2.1.3	<p>Confirmation of Entitlement Upon receiving a written request from the owner of a visual receptor identified in this VIMP, BMC will implement additional visual impact mitigation measures proposed in the site specific visual impact assessments at the visual receptor in consultation with the landowner to the satisfaction Of the Secretary.</p>	Letters provided as evidence, timing was in accordance with this requirement.	Compliant			
ASSESSMENT METHODOLOGY	3						
	3.4.2	<p>Mitigation and Visual Treatment Recommendations Landscape treatments utilised in the site specific visual impact assessments include: - Cluster screen tree plantings; - Screen tree plantings; - Canopy plantings treatments — either complete or partial; - Wall plantings treatments — either complete or partial; and - Offset landscape treatments — including structural objects designed to refocus views.</p>	Noted, treatments have included some of these concepts.	Noted			
	3.4.3	<p>Maintenance Should any mitigation measures be implemented, SMC will ensure that any visual mitigation works will be maintained by BMC for 12 months. To effectively achieve this BMC requires access to properties. The protocol for this access is to notify the landowners by phone or letter when work is needed or scheduled. Disruptions to landowners will be minimised as much as possible. Visual mitigation landscape and offset landscape works will be maintained by BMC under the following regime pending approval from the residence: 1. Installation and completion Of works: - Month 1: Maintenance visit 1; - Month 3: Maintenance visit 2; - Month 6: Maintenance visit 3; and - Month 9: Maintenance visit 4. 2. Maintenance activities may include the following: - Weed control; - Slashing or mowing; - Mulch top up; - Plant replacement; - Staking of trees; - Pruning; and - Fertilising.</p>	<p>In signed letters dated 15 February 2016 BMC notified the relevant property owners that their properties had been identified as potentially subject to visual impacts as a result of Bengalla Mine’s operation. In that letter BMC proposed to undertake a Visual Impact Assessment (the Assessment) on the relevant properties to identify appropriate mitigation measures that may be applied to the property residence. Not all property owners responded to the BMC letter or were available for the Assessment.</p> <p>In signed letters dated 12 August 2016 BMC notified the relevant property owners that additional visual impact mitigation measures are available under SSD-5170 as modified schedule 3 condition 39.</p> <p>In a letter dated 23/08/16 resident 105 requested that additional visual impact mitigation measures (tree screen) be installed on the residents property. No other residents requested visual impact mitigation measures.</p> <p>On 17/11/16 Hunter Land Management (on behalf of BMC) planted a tree screen comprising 45 X Hannah Ray callistemon (8 inch pot) with slow release fertiliser at residence 105.</p> <p>BMC has been unable to contact resident 105 on the phone number provided to obtain approval to undertake maintenance inspections and/or works. However, a drive by inspection undertaken by the Environmental Advisor has identified that the tree screen appears to be progressing well.</p> <p>All letters and documentatin was provided as evidence.</p>	Compliant			
		A further 2 years monitoring (after the maintenance period) will occur including annual inspections.	None of the visual impact mitigation measures were in place two years ago.	Not Triggered			



This page left deliberately blank



APPENDIX D – COMPLIANCE WITH RECOMMENDATIONS FROM 2013 AECOM IEA

Reference	Commitment	Recommendation	Action - Evidence	Audit Finding	Risk		
					Consequence	Likelihood	Risk
Independent Environmental Audit, AECOM 2013							
Development Approval 211/93 (as modified)							
Schedule 3, Condition 39	The Applicant shall rehabilitate the site to the satisfaction of the Executive Director, Mineral Resources in DRE. This rehabilitation must be generally consistent with the proposed rehabilitation strategy described in the EIS and EA, and comply with the objectives in Table 14.	If the monitoring of the direct seeded area ascertains that revegetation techniques have not produced the required high density tree cover, then a review of the area should be conducted to determine the most appropriate mitigation measures to ensure the successful establishment of the dense planting. These measures should then be implemented.	The success of the rehabilitation will be assessed during the Rehabilitation Ecological Functioning Assessment scheduled annually for June/July. Appropriate mitigation measures will be identified, if appropriate, following the EFA and implemented as required. The LFA monitoring was verified in the MOP, the Rehab Monitoring and Rehab Audits also now feed into this process.	Compliant			
Mining Operations Plan (Bengalla, 2013-2015)							
3.3.14	Erosion control within rehabilitated areas is managed using the following techniques: Construction of contour banks on steep areas to direct runoff water and minimise riling; Lined drop structures to collect runoff from contour banks and direct runoff to approved sedimentation structures; Deep ripping prior to seeding to increase water infiltration and soil moisture, and provide a seed bed for rapid germination; Planting of a cover crop on both pasture and tree seeded areas to stabilise the surface; and Engagement of specialist rehabilitation consultants to assist in rehabilitation techniques.	It is recommended that, for water management areas, dam batters are vegetated, especially during the initial stages of development (e.g. prior to dam filling). Seeded areas were observed by the auditors during the site visit. Areas were observed to be shaped, with subsoil of around 400 mm and topsoil of around 500 mm which was sourced from land capability Class II. On application these soils have been ripped and rock raked. BMC continues to engage specialists to assist with rehabilitation methods.	All dams proposed within the current Mining Operations Plan have been constructed and hence there is no further opportunity to vegetate dam batters during the initial stage of the development. This requirement will be considered within the next revision of the Mining Operations Plan in 2015. DP&E requests that vegetation of dam batters be undertaken above top water level on all poorly vegetated areas at any time, as necessary. Update 11/04/2014: Bengalla confirms that dam batters will be vegetated above top water level, as necessary. Update 5/6/2014: Dam batters for Homestead and Farm Dams were vegetated may 2014. Audit Evidence, CW1 was vegetated to base of slope both inside and outside.	Compliant			
Rehabilitation Management Plan (Bengalla, 2013)							
3.3	The topsoil stockpiles will be: Located as close as practicable and readily accessible to re-spreading areas; Located where they will not interfere with present and future mining and ancillary operations; At least 10 m from trees or watercourses; and In areas that will allow free drainage and minimal soil erosion.	It is recommended that, where practical, topsoil is not to be moved during periods of extreme dry weather.	In compliance with the management plan, Section 6.1. The Rehabilitation Management Plan will be updated by 30 March 2014. Update 11/4/2014: Rehabilitation Management Plan updated 28/3/2014 This audit found the topsoil stripping to be compliant	Compliant			
5.1	The key objective of site rehabilitation is to achieve an optimum post-mining land capability suitable for supporting a combination of grazing and native habitat land use. Detailed rehabilitation objectives and completion criteria, consistent with these post mining land use objectives are listed in Table 2.	It is recommended that BMC review the seed mix used in its rehabilitation program in the context of the habitat values it offers.	The seed mix was revised in 2014 and has been further modified when the SSD 5170 approval commenced. Further modification will occur in adaptive management through the use of LFA, Rehab Monitoring and Rehab Audits through life of mine	Compliant			
5.2	It is likely that most domains will require a different rehabilitation methodology to achieve the intended post-mining land use. Rehabilitation objectives for each domain are presented in Table 3.	It is recommended that BMC include the assessment of land capability into the overall rehabilitation monitoring program at Bengalla.	The assessment of land capability shall be included into the Ecological Functioning Assessment for 2014. Section 4.1 of the Rehabilitation Management Plan will be updated by 30 March 2014 to include assessment of land capability. Update 11/4/2014: Rehabilitation Management Plan updated 28/3/2014 The Rehab MP was rejected by DRE who insisted on a MOP. A review of the MOP and Rehab Monitoring Reports indicate that Lnd Capability is now assessed.	Compliant			

Reference	Commitment	Recommendation	Action - Evidence	Audit Finding	Risk		
					Consequence	Likelihood	Risk
Independent Environmental Audit, AECOM 2013							
5.3	A combination of grazing and limited native bushland regeneration will be adopted as the preferred post-mining land use in suitable areas of the site, with a focus on linking remnant vegetation with rehabilitation.	It is recommended that BMC develop a formal plan that incorporate water structures, existing areas of native vegetation, the use of woody debris and also defines the seeding mix and areas to provide linkages. Evidence as per site inspection - need evidence of formal plan that shows the planned approach to connectivity.	This requirement is no longer in the MOP. Recommendation : Plan 4 in the MOP could show some linkages to surrounding vegetation.	Compliant			
Water Management Plan (Bengalla, September 2012)							
4.4.1	BMC operates three HRSTS monitoring points around its operations as shown in Figure 7 and Table 7 to monitor upstream and downstream water quality from the discharge point.	It is recommended that the reference to EPA03 be reviewed, as Point 3 under EPL 6538 is used for air quality monitoring.	The use of EPA03 has been reviewed and determined that there is minimal risk associated with the use of this nomenclature for the HRSTS Discharge Monitoring point. Point 3 is used in EPL6538 to identify the monitoring requirement for Total Suspended Particles, for which there are five high volume air samplers HV1, HV2, HV3, HV4 and HV5. Therefore point 3 is not referenced outside of the ELP6538 to identify a monitoring location. Noted	Compliant			
6.4	3. For the first 12 months after completion of construction, an additional site inspection will be undertaken after any significant rainfall event (> 20 mm in 24 hours) to assess any adverse impacts due to local stormwater runoff or flow through the diversion channel.	It is recommended that the Water Management Plan be updated so that it is less prescriptive on this point.	Section 6.4 relates to the drainage channel for the Southern OEA. Construction of the drainage channel was completed in December 2011. As such this monitoring has already ceased and therefore making the requirement less prescriptive would have no effect. The WMP has been updated since the previous audit, the Southern OEA drainage channel is not mentioned.	Compliant			
3	All surface drainage systems on rehabilitated areas will be designed to be consistent with Guidelines for Establishing Stable Drainage Lines on Rehabilitated Minesites (Draft) (DLWC 1999).	It is recommended that this language be reviewed during the next update of the Water Management Plan. The updated requirement could say something like "all drainage systems will be designed to be long-term stable."	The recently approved WMP has a more reasonable statement regarding design of water infrastructure.	Compliant			
Noise Management Plan (Bengalla, 2013)							
5.1	Monitoring data at each location will be collected in 15 minute periods and the Leq dB(A) result recorded. If the reading is below all criteria, then the result will be recorded as being in compliance and monitoring can move onto the next monitoring location. If mining noise levels exceed any criterion and are taken in valid meteorological conditions then the steps in condition 5.1 are to be followed. (refer section 5.1 NMP)	It is recommended that, in the next round of quarterly noise monitoring undertaken after the IEA is finalised, this methodology is clarified in the noise monitoring report to ensure it is being complied with.	The noise monitoring report for January 2014 will clarify that this methodology is complied with. Update: 5/6/2014: This methodology was fully implemented in the March monitoring period. The Noise Monitoring Report now refers back to the INP and AS1055.	Compliant			
5.2	The following data parameters, as returned from each unattended monitoring site and the site weather station, will be trended in real time and display available in the operation dispatch area as a management tool: - Omnidirectional low pass LA90 + 3 dB (estimated total mining LAeq); - Wind speed; - Wind direction; - Atmospheric stability class; - The relevant impact criterion; and - The relevant cumulative criterion.	It is recommended that this reference to cumulative criterion be removed during the next revision of the noise management plan.	The latest version of the NMP does not include the Cumulative Criterion in the section concerned with Unattended (Real Time) Noise results included in the dispatch area (Mine Monitoring and Control centre).	Compliant			

Reference	Commitment	Recommendation	Action - Evidence	Audit Finding	Risk		
					Consequence	Likelihood	Risk
Independent Environmental Audit, AECOM 2013							
Homestead Conservation Management Plan (Bengalla, September 2012)							
6.3.6	BMC is to clearly identify the individual responsible for the oversight of this CMP.	It is recommended that this be rectified in the next update of the European heritage management plans.	The European Heritage Management Plan identifies responsibilities for Management Measures required for heritage sites. The Conservation Management Plans have management measures identified and hence responsibility is identified. Agreed	Compliant			
European Heritage Management Plan (Bengalla, September 2012)							
4.2 & 4.3.1		It is recommended that these requirements are removed from the next version of the plan.	Section 4.2 and 4.3.1 have been reviewed and considered relevant and applicable to European Heritage Management at Bengalla. These sections will not be removed from the Management Plan. The auditor returned to the 2012 version of the HMP and agrees with the above, looks like a typographical error?	Not Applicable			
Environmental Management Program (Bengalla, August 2010)							
3.1.5	BMC currently calculates emissions, and convert these to a carbon dioxide equivalent tonnage to provide a Greenhouse Gas emission inventory on a monthly basis.	It is recommended that this language be updated in the next version of the Environmental Monitoring Program	No longer required at Bengalla	Not Applicable			
3.2.1	Schedule 3, Condition 22 of DA211/93 (M3) specifies "Operating Conditions" at Bengalla in order to reduce air quality impacts, ensuring: (refer section 3.2.1 EMP)	It is recommended that the reference to Condition 22 be updated to Condition 21 during the next revision of the Environmental Monitoring Program.	No longer required at Bengalla	Not Applicable			
6.1.2	Bengalla operates three HRSTS monitoring points around its operations to monitor upstream and downstream of the discharge point.	It is recommended that the reference to EPA03 be reviewed, as Point 3 under EPL 6538 is used for air quality monitoring.	No longer required at Bengalla	Not Applicable			
General							
		Bengalla will continue consultation with the dairy manager regarding the performance of the dairy.	Farm Management Plans now in place along with monitoring	Compliant			
DA 211/93 Schedule 5, Condition 4; MOP (2013-2015) Condition 10.1; EPIRMP Condition 3 and Previous IEA Condition 12		It is recommended that BMC consolidate the review and update of its management plans to ensure that this is recorded and responded to when required. This could be done in the form of an electronic table which a checklist for each triggering action and annual review dates for each Bengalla management plan.	No evidence of a lack of review in the current EMPs but a similar system is required to ensure compliance can be demonstrated.	Note.			