



# **Baal Bone Colliery**

Independent Environmental Audit 2022  
PA 09\_0178

**Prepared for:**

The Wallerawang Collieries Pty Ltd  
February 2023

## PREPARED BY:



### Integrated Environmental Management Australia Pty Ltd

ABN 32 622 237 870

PO Box 3161, MEREWETHER NSW 2291 AUSTRALIA

E: [admin@iema.com.au](mailto:admin@iema.com.au)

T: 0401 800 918 | W: [www.iema.com.au](http://www.iema.com.au)

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## DOCUMENT CONTROL

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GLN14-003_v1.0 (DRAFT)	08 February 2022	Simon Kirgis	Chris Jones
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# 1. INTRODUCTION

## 1.1. Background

Baal Bone Colliery (BBC) is an underground coal mine owned and operated by The Wallerawang Colliery Pty Ltd) in the Western Coalfields of New South Wales, located on Castlereagh Highway, Cullen Bullen, 2790. The mine is located 32km north of Lithgow, and 130km from Sydney and is situated within the Lithgow Local Government Area (LGA.) In January 2019, Baal Bone Colliery (BBC) entered full mine closure planning.

The site was approved by the then Minister for Planning under Project Approval PA 09\_0178 in January 2011. Underground mining at Baal Bone ceased on 3 September 2011, with the site entering into care and maintenance. In February 2015, the Department of Planning and Environment (DPE) approved amendment to the Project Approval to extend the life of mine for an additional three years until 31 December 2019 to allow the Remnant Areas to be mined.

In December 2015, DPE approved a second modification to the Project Approval to allow Ben Bullen Creek to remain in its current alignment.

In January 2020 demolition of infrastructure on the site commenced, which included the demolition of the Coal Handling Preparation Plant (CHPP), bathhouse and workshops, as well as all coal conveyors, reclaim tunnels, bins, shed and other associated ancillary infrastructure. The rail loop linking the site to the Main Western Railway line was also decommissioned and all rail lines, ballast and sleepers were removed from the corridor.

The civil works and rehabilitation component of the closure activities commenced in September 2020. The remediation of the CHPP and Run of Mine (ROM) areas and the former rail corridor was undertaken over the remaining period of 2020. Activities included the addition of topsoil, fertiliser, lime and gypsum followed by the areas being ripped. The CHPP ROM area was then seeded with a pasture seed mix and the rail loop was seeded with a woodland seed mix.

During this period, filling of voids including the Leachate Dam, REA 6 Tailings Dam, Central Void and the Southern Void was also undertaken. The filling of the REA 6 Tailings Dam was completed in December. The remaining voids will continue to be filled throughout the 2021 reporting period. Once filled the voids will be topsoiled and then ameliorated in a similar fashion to the rail loop prior to being seeded with a woodland seed mix.

During 2021, the filling of the Southern Void and Leachate Dam were completed. The administration and workshop buildings were demolished in October 2021. Over 42 ha of land was shaped to final landform, ameliorated and seeded – including areas of the Northern rehabilitation domain and the Southern void domain.

During 2021 rehabilitation works were completed on sections of Ben Bullen Creek where it passes through the site. Remediation works included large amounts of rock revetment along the banks of the creek (Reach 2), the installation of high and low flow channels, and highwall safety and stabilisation work. Over 10,000 tubestock plants, including the threatened Capertee Stringybark were planted along the remediated sections of Ben Bullen Creek.

Schedule 5, Condition 7 of the Project Approval requires Wallerawang Colliery Pty Ltd (BBC) to undertake Independent Audits (IAs) in accordance with the *Independent Audit Post Approval Requirements* (DPE, 2020) (the Independent Audit PAR).

## 1.2. Audit Team

The audit was undertaken by the audit team presented in **Table 1**. The lead auditor, Chris Jones, is certified as a Principal Environmental Auditor by Exemplar Global (Certification No. 120261). Chris is the Lead Auditor on this project. The audit team was endorsed by the Department of Planning and Environment (DPE) on 25 October 2022 as per the approval letter attached as **Appendix A**.

**Table 1 – Audit Team**

Name	Position	Experience
Chris Jones BSc M Env Mgt Certified Exemplar Global Lead Auditor (#120261)	IEMA Principal Consultant Principal Environmental Auditor Surface Water Specialist for this audit	Chris is a Principal Environmental Consultant with Integrated Environmental Management Australia (IEMA) and has over sixteen years' industry and environmental consulting experience.  Chris is accredited through Exemplar Global as a Principal Auditor and has undertaken a range of environmental auditing projects including EMS auditing, compliance auditing and specialist noise auditing. Chris has completed numerous environmental audits over several different fields in infrastructure, power, waste management, intensive agriculture, mining, and quarrying. Chris has been approved as an Auditor and Surface Water specialist by the DPE on numerous audits.  Chris is the Lead Environmental Auditor and was present at the site inspection.
Nerida Manley B Env Mgt Masters Env Mgt	IEMA Associate Consultant Assistant Auditor	Nerida is an Associate Consultant with IEMA and has over 14 years' environmental experience, predominately within the mining industry.  Nerida has significant experience in site management, project management, environmental inspections and reporting, water management, subsidence rehabilitation and rehabilitation.  Nerida is the Assistant Auditor. Nerida assisted with audit preparation (prior to the site inspection) but was not present at the site inspection.
Katarina David B Engineering PhD Hydrology	Groundwater Specialist	Katarina is a registered professional hydrologist with over 24 years' experience in hydrology and groundwater assessment.  Katarina has worked on a range of transport, quarry, water supply, landfill, mining, contaminated land, service station, urban and irrigation projects with skills in groundwater investigations, bore field design, water supply options and impact and risk assessment.  Katarina is the groundwater specialist and assisted with a review of desktop records.
Simon Kirgis B Env Mgt	IEMA Graduate Consultant  Assistant Auditor	Simon is a Graduate Consultant at Integrated Environmental Management Australis (IEMA) with 2 years' experience consulting.  Simon has experience with field surveys, water quality, and data collection in bushland, marine and urban environments.  Simon is the Assistant Auditor and was present at the site inspection.

Contact details for key personnel at the Site involved in the audit are provided in **Table 2**.

**Table 2 – Contact Details for Key Personnel**

Name	Role	Email
Elizabeth Fishpool	Environment and Community Coordinator	<a href="mailto:Elizabeth.Fishpool@Glencore.com.au">Elizabeth.Fishpool@Glencore.com.au</a>

### **1.3. Audit Objectives**

The objectives of the IEA are to meet the requirements of PAR 2020 and those approvals listed in Section 3.1.

### **1.4. Audit Scope**

The IEA covers the activities from the period from 19 December 2019 (last day of previous IEA) to the date of the IEA site inspection (6 December 2022). The scope of the IEA is limited to PA 09\_0178, Baal Bone SOC, EPL 765 and Mining Amendment (Standard Conditions of Mining Lease – Rehabilitation) Regulation 2021.

The physical boundaries of the audit are defined by the PA 09\_0178 area, which is outlined in **Figure 1**.

### **1.5. Audit Submission**

The IEA Report and the proponent's response to the audit findings is required to be submitted to the Department no later than 2 months after undertaking the IEA site inspection. An Extension of Time to submit the Independent Environmental Audit was approved on the 24/01/2023 by the DPE due to the IEA occurring around Christmas closures for many businesses. This extension allowed for the submission of the IEA until 28/02/2023.

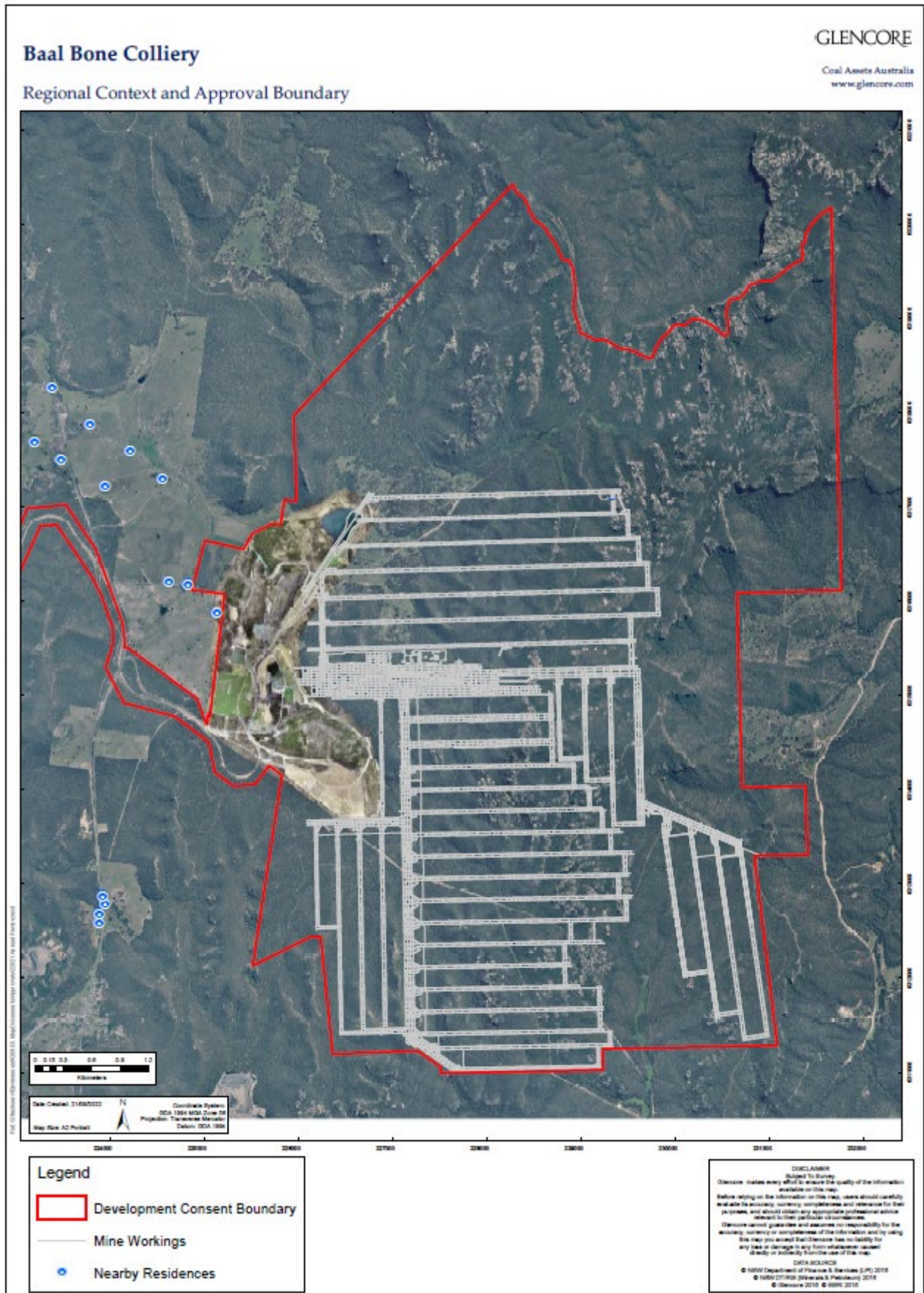


Figure 1 – Baal Bone Project Approval Boundary (BBC EMS 2021)





## 2. AUDIT METHODOLOGY

### 2.1. Selection and Endorsement of Audit Team

The audit team presented in **Section 1.2** was endorsed by DPE on 15 October 2022 as per the approval letter attached as **Appendix A**. IEMA confirm that the audit team is independent of the development as defined under Section 3.1.2 of the Independent Audit PAR (DPE 2020).

### 2.2. Audit Scope Development

The audit compliance tables presented in **Appendix C** were prepared to document all conditions to be assessed as part of this audit.

### 2.3. Audit Methodology and Compliance Evaluation

The audit was undertaken on site by Chris Jones (Lead Auditor) and Simon Kirgis (Assistant Auditor) of IEMA, with the site component completed on 5 & 6 December 2022.

The methodology for the audit consisted of the following key steps:

- Introductory and close out meetings;
- Reviewing key documents provided by Baal Bone and sourced via the website prior to the audit;
- Consultation with relevant government agencies as per the audit requirements prior to the site component;
- Preparation of draft Audit Protocols and requests for information provided to Baal Bone prior to the site audit;
- Site component of the audit on 5 & 6 December 2022 including inspections and interviews with key Baal Bone personnel;
- Review of additional relevant documentation obtained while on site during the inspection or provided by Baal Bone after the site inspection; and
- Client review and comment on the draft audit report.

#### 2.3.1. Statement of Independence

We can confirm independence based on the following:

- No one from the IEA team is related to any proponent, owner, operator, or other entity involved in the delivery of the project. Such a relationship includes that of employer/employee, a business partnership, sharing a common employer, a contractual arrangement outside an Independent Audit, or that of a spouse, partner, sibling, parent, or child;
- No one from the IEA team has any pecuniary interest in the project, proponent, or related entities. Such an interest includes where there is a reasonable likelihood or expectation of financial gain (other than being reimbursed for performing the Audit) or loss to the auditor, or their spouse, partner, sibling, parent, or child;
- No one from the IEA team have provided services (not including independent reviews or auditing) to the current project with the result that the audit work performed by themselves or their company, except as otherwise declared to the Department prior to the audit;
- No one from the IEA team is an Environmental Representative for the Project; and
- No one from the proposed IEA team can or has accepted any inducement, commission, gift or any other benefit from auditee organisations, their employees or any interested party, or knowingly allow colleagues to do so.

The audit has generally been completed as per the Independent Audit PAR (DPE 2020).

## 2.4. Site Interviews and Inspection

### 2.4.1. Introductory and Close Out Meetings

An opening meeting was undertaken on 5 December 2022 prior to the site inspection. The opening meeting provided the opportunity to outline the audit process, methodology and scope, review the schedule and introduce key personnel responsible for environmental management at the site. BBC provided an overview of the site, history, operations, and incidents during the audit period.

A close out meeting was held on 6 December 2022 following the site inspection to discuss initial observations and recommendations as well as the process for completion and submission of the audit. The attendees of the meetings are listed in **Table 3**.

**Table 3 – Meeting Attendees**

Personnel	Role
Chris Jones	Lead Auditor (IEMA)
Simon Kirgis	Assistant Auditor (IEMA)
Elizabeth Fishpool	Environment and Community Coordinator

### 2.4.2. Site Inspections and Interviews

The site component of the audit was undertaken on 5 and 6 of December 2022 including an inspection and interview with key BBC staff. The site inspection was undertaken by Chris Jones (Lead Auditor) and Simon Kirgis (Assistant Auditor) accompanied by Elizabeth Fishpool (Environment and Community Coordinator – Glencore.)

Information obtained during the interviews conducted, whilst on site, were directly recorded as evidence. The auditor also used the interviews as an opportunity to gain an appreciation of the extent to which the measures in place to manage environmental impacts from site operations were understood and implemented.

Photographs taken during the site inspections are included in **Appendix D**. The inspection included the pit top and rehabilitation areas. The site inspection did not include the surface area above the former underground workings due to the distance to get to these sites and there being no underground mining during the period. For these areas the audit team reviewed existing monitoring results.

### 2.4.3. Document Review

Information was provided by BBC prior to, during and following the audit. IEMA also sourced information from the BBC website:

<https://www.glencore.com.au/operations-and-projects/coal/past-operations/baal-bone-colliery>

A large amount of information was viewed and collected as part of the audit, including monitoring records, reports, and correspondence. While this key evidence has been referenced in Section 3, it has not been attached to this audit report.

## 2.5. Consultation

### 2.5.1. Summary of Consultation

**Table 4** outlines the stakeholder consultation completed for IEA, undertaken in accordance Independent Audit PAR (DPE 2020). The responses have been provided in Appendix B.

**Table 4 – Summary of Consultation**

Stakeholder	Contact Details	Response	Audit Team Response
DPE	<a href="mailto:katrina.oreilly@planning.nsw.gov.au">katrina.oreilly@planning.nsw.gov.au</a> <a href="mailto:Michael.Wood@environment.nsw.gov.au">Michael.Wood@environment.nsw.gov.au</a>	<p><b>Letter of Endorsement</b></p> <p>The Independent Audit must be prepared, undertaken and finalised in accordance with the Independent Audit Post Approval Requirements and Schedule 5, Condition 7(a) of PA 09_0178 and include:</p> <ol style="list-style-type: none"> <li>1. include consultation with the relevant agencies;</li> <li>2. assess the environmental performance of the project and assess whether it is complying with the relevant requirements in this approval and any relevant EPL or Mining Lease (including any assessment, plan or program required under these approvals);</li> <li>3. review the adequacy of strategies, plans or programs required under these approvals; and, if appropriate;</li> <li>4. recommend measures or actions to improve the environmental performance of the project, and/or any assessment, plan or program required under these approvals; and</li> <li>5. be completed within 2 months of the approval of the audit team.</li> </ol>	<ol style="list-style-type: none"> <li>1. This table;</li> <li>2. This document;</li> <li>3. This IEA has reviewed the management plans under the approvals;</li> <li>4. Improvement recommendations are included in this IEA; and</li> <li>5. See extension letter dated 24/01/2022</li> </ol>
DPE	<a href="mailto:katrina.oreilly@planning.nsw.gov.au">katrina.oreilly@planning.nsw.gov.au</a> <a href="mailto:Michael.Wood@environment.nsw.gov.au">Michael.Wood@environment.nsw.gov.au</a>	<p><b>Consultation from DPE</b></p> <p>Email received on 7 November 2022 noting the following,</p> <p>DPE suggests the following areas to focus on:</p> <ol style="list-style-type: none"> <li>1. Progress of any rehabilitation (monitoring and management); and</li> <li>2. Management of water on site; and on-going monitoring and erosion and sedimentation.</li> </ol>	<ol style="list-style-type: none"> <li>1. The IEA has reviewed and assessed the progress of rehabilitation on site (positive and proposed improvements); and</li> <li>2. This IEA has reviewed and assessed water on site, including usage and discharge; The IEA reviewed, and has made recommendations for improved rehabilitation, erosion and sediment control which will be packaged into one maintenance program;</li> </ol>
DPE	<a href="mailto:katrina.oreilly@planning.nsw.gov.au">katrina.oreilly@planning.nsw.gov.au</a> <a href="mailto:Michael.Wood@environment.nsw.gov.au">Michael.Wood@environment.nsw.gov.au</a>	<p><b>Letter of Extension</b></p> <p>Email received on 24 January 2023 granting an extension to submit the IEA until 28 February 2023.</p>	No comment
EPA	<a href="mailto:Andrew.Helms@epa.nsw.gov.au">Andrew.Helms@epa.nsw.gov.au</a>	<p>Email response received 10 November 2022 noting the following:</p> <ol style="list-style-type: none"> <li>1. The EPA would recommend, from our perspective, that the audit focuses on surface water management at the premises.</li> </ol>	<ol style="list-style-type: none"> <li>1. The IEA has reviewed and assessed the surface water management on site and made recommendations where applicable.</li> </ol>

Stakeholder	Contact Details	Response	Audit Team Response
NSW Resources Regulator	Jenny Ehmsen <a href="mailto:nswresourcesregulator@service-now.com">nswresourcesregulator@service-now.com</a>	<p><b>Resources Regulator Advice</b></p> <p>Email received 7 November 2022 noting the following:                      The mine comprises the following titles – CCL 749, CL 391, ML 1302, ML 1389, ML 1607 and MPL 261</p> <ol style="list-style-type: none"> <li>1. The independent audit is required to assess compliance against the relevant environmental management conditions of the mining leases up to 1 July 2022, including the mining operations plan.</li> <li>2. From 2 July 2022, the independent environmental audit should provide an assessment of compliance with the requirements of Schedule 8A Standard conditions of mining leases, Part 2 Standard conditions, as set out in the Mining Regulation 2016.</li> <li>3. The audit should note observations where rehabilitation procedures, practices and outcomes represent best industry practice.</li> </ol>	<ol style="list-style-type: none"> <li>1. Noted.</li> <li>2. See response in row below.</li> <li>3. The IEA has observed rehabilitation efforts on BBC during the audit and site inspection component and found that generally, the rehabilitation that has occurred represents best industry practice.</li> </ol>
NSW Resources Regulator	Jenny Ehmsen <a href="mailto:nswresourcesregulator@service-now.com">nswresourcesregulator@service-now.com</a>	<p><b>Resources Regulator Clarification on Mining Leases</b></p> <p>Email received on 16 November 2022 noting the Regulator will accept the following reduced scope the independent audit for the Baal Bone Colliery in relation to the mining lease</p> <ol style="list-style-type: none"> <li>1. Up to 1 July 2022 assessment of compliance with the Mine Closure MOP</li> <li>2. From 2 July 2022, assessment of compliance with the requirements of Schedule 8A Standard conditions of mining leases, Part 2 Standard conditions, as set out in the Mining Regulation 2016.</li> </ol>	Noted, the IEA has met this requirement.

Stakeholder	Contact Details	Response	Audit Team Response
DPIE (water)	tim.baker@dpie.nsw.gov.au	<p>Email received 17 November 2022 noting the following;                      The department requests that the audit address compliance with the following specific elements of the consent conditions and related legislative requirements in a manner consistent with the above audit scope.</p> <ol style="list-style-type: none"> <li>1. The requirement to prepare and implement management plans that relate to water sources and their dependent ecosystems and users, and associated impact management and mitigation. These plans may include:</li> <li>2. Water Management Plans and related sub-plans eg. Site Water Balance, Erosion and Sediment Control Plan, Stormwater Management Plan, Surface and Groundwater Management Plan.</li> <li>3. Extraction Plans and related sub-plans eg. Water Management Plan, Subsidence Management Plan.</li> <li>4. The requirement to prepare and implement trigger action response plans for water source impacts which set clearly defined limits and actions. This is to be reported on within annual and exceedance-based reporting.</li> <li>5. Water supply availability is clearly defined for the project.</li> <li>6. Water take at the site via storage, diversion, interception, or extraction is clearly documented and is authorised by a relevant Water Access Licence or exemption under the Water Management (General) Regulation 2018.</li> <li>7. Water metering at the site is in accordance with the NSW Non-Urban Metering Framework where relevant</li> <li>8. Water Access Licence/s used to account for water take by the project nominates the work where the water is being taken from.</li> <li>9. Annual reporting clearly documents; 1) water take, use and water source impacts, 2) compares results with previous year's, and 3) identifies exceedances and how these are managed/mitigated.</li> </ol>	<ol style="list-style-type: none"> <li>1. The IEA has reviewed and assessed compliance on the requirements to prepare and implement management plans;</li> <li>2. The IEA has reviewed management plans and the trigger action response plan (TARP) for the water source impacts. Details of exceedances have been reported in Annual Reviews;</li> <li>3. Annual Reviews and site communications provide details of Water Supply. Note no mining has occurred under an Extraction Plan</li> <li>4. The IEA has reviewed TARPs for water source impacts. Where appropriate, these have been reported on in Annual Reviews;</li> <li>5. Water metering to site is clearly defined. Water currently discharges via the two licenced discharge points</li> <li>6. Water Access Licence WAL27887 has been decommissioned and sealed. WAL34952 licences the Overshot Dam. Both licences nominate the water sharing plan, source, and management zone; and</li> <li>7. The IEA has assessed the annual reporting which clearly documents the water take up and comparison from previous years. Baal Bone has recorded no water pumped via groundwater extraction.</li> <li>8. This IEA has reviewed and assessed the water access licenses. Section 3.6 outlines the findings.</li> <li>9. Annual reporting outlines water uses, comparisons to previous years and any exceedances recorded throughout the reporting period.</li> </ol>

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Stakeholder	Contact Details	Response	Audit Team Response
Lithgow Council	jessica.ramsden@lithgow.nsw.gov.au	No Comment	No additional comment

## 2.6. Compliance Status Descriptors

In accordance with the Independent Audit PAR (2020), the terms used in the audit to describe compliance of the site with the relevant approval documentation are outlined in **Table 5**.

**Table 5 – Compliance Status Descriptors**

Assessment Status	Description
Compliant	The auditor has collected sufficient verifiable evidence to demonstrate that all elements of the requirements have been complied with within the scope of the audit.
Non-compliant	The auditor has determined the one or more specific elements of the conditions or requirements have not been complied with within the scope of the audit.
Not triggered	A requirement has an activation or timing trigger that has not been met during the temporal scope of the audit being undertaken (may be retrospective or future requirement), therefore an assessment of compliance is not relevant.
Note	A statement or fact, where no compliance is required.

The colours are not a requirement of the PAR but have been used to visual compliance in the Appendix C.

## 3. AUDIT FINDINGS

### 3.1. Approvals and Documentation Assessed

The following approvals and documents have been assessed as part of this IEA:

- PA 09\_0178;
- PA 09\_0178 Statement of Commitments;
- EPL 745;
- Mining Amendment (Standard Conditions of Mining Lease – Rehabilitation) Regulation 2021;
- Annual Reviews 2019, 2020,2021;
- Monitoring results for meteorological, noise, air and water;
- Consultation evidence from regulators, including approval letters and responses to exceedances/ non compliances;
- Status of previous IEA recommendations; and
- Management plans required under PA 09\_0178 including:
  - Consolidated Environmental Management Strategy (EMS)
  - Air Quality and Greenhouse Gas Management Plan (AQGHGMP);
  - Biodiversity Management Plan (BioMP);
  - Noise Management Plan (NMP);
  - Rehabilitation Management Plan (RMP);
  - Water Management Plan (WMP), including a Groundwater Management Plan (GMP), Surface Water Management Plan (SWMP) and Erosion and Sediment Control Plan (ESCP).

### 3.2. Summary of Assessment of Compliance

**Appendix C** presents the detailed Assessment of Compliance against the conditions of PA 09\_0178.

**Table 6** presents a summary of the findings of this audit in relation to the conditions of PA 09\_0178.

**Table 6 – Summary Table of Compliance with PA 09\_0178**

Compliance Status	PA 09_0178	Statement of Commitments	EPL 765	Mining Amendment (Rehabilitation 2021)
Compliant	44	12	24	19
Non-Compliant	1	0	1	0
Not Triggered	9	22	6	17
Note	1	2	12	14
Total conditions	<b>55</b>	36	46	50

Overall, 55 conditions were identified in PA 09\_0178; of these 9 (16%) were not triggered during the audit period, and 1 (2%) was a note for information. Of the 45 remaining audited conditions 44 (80%) were compliant and 1 (2%) was assessed as non-compliant. The non-compliances are summarised in **Section 3.3**.

### 3.3. Summary of Non-Compliances

**Table 7** summarises the non-compliances identified against the conditions of PA 09\_0178 and EPL 765 along with relevant comments and recommendations. It is noted that only the non-compliant aspect of each condition is listed in **Table 7**, the complete assessment of the overall condition is included in **Appendix C**.



**Table 7 – Summary of Non-Compliances**

NC#	Schedule and Condition Number	Condition	Compliance Status	Evidence	Recommendation
1	Schedule 3 Condition 14	The Proponent shall ensure that all surface water discharges from the site comply with the discharge limits (both volume and quality) set for the project in any EPL.	<b>Non-Compliant</b>	Water exceedance from LDP1 (EPL monitoring point 16) LDP1 (EPL monitoring point 16) recorded 8 instances (28/08/20, 09/06/20, 09/02/21, 16/03/21, 11/05/21, 08/02/22, 23/03/22 and 07/04/22) of dissolved iron greater than allowed limit. LDP1 also recorded 3 instances of pH levels below 6.5 (16/03/21, 08/02/22 and 07/04/22).	NC REC - Continue to monitor the spring around the Overshot dam. If exceedances continue - implement methods outlined in the Gauge report. It should be noted that the spring can only be accessed for sampling when the Overshot Dam is almost empty. As the spring is only a few metres from the Overshot Dam/LDP 1, there is little value/difference when full.
2	EPA 765 L2.4	Water and/or Land concentration limits	<b>Non-Compliant</b>	LDP1 (EPL monitoring point 16) recorded 8 instances (28/08/20, 09/06/20, 09/02/21, 16/03/21, 11/05/21, 08/02/22, 23/03/22 and 07/04/22) of dissolved iron greater than allowed limit. LDP1 also recorded 3 instances of pH levels below 6.5 (16/03/21, 08/02/22 and 07/04/22).	As Above

### 3.4. Previous Audit Recommendations

Previous audit recommendations for BBC are detailed in **Table 8**.

**Table 8 Recommendations from previous IEA**

PA 09_0178	Previous IEA Recommendation	IEMA Comment
<b>Non-Compliance Recommendations</b>		
Sch 2 Cond 11	Include reference to AS 2601-2001 Standard and summary of requirements for demolition in relevant documentation for Mine Closure phase.	Site has included reference to AS2601-2001 in relevant documentation for Mine Closure phase.
Sch 3 Cond 21	Revisit the zinc trigger levels for BBPB3 in consultation with DPIE for Mine Closure phase.	In the 2019 IEA Action Plan, BBC committed that by 30/03/2021 a consultant will be engaged to further investigate the exceedance.  In 2020, Umwelt were engaged in part to determine the potential causes of elevated zinc concentrations at BBPB3.  BBC provided a copy of the 2020 groundwater investigation report to DPIE.
<b>Environment Protection Licence 765</b>		
P1.3	Although current monitoring plan appears consistent with the current EPL text, at next EPL Variation, update 2012 figure for 2019/2020 plan.	EPL 765 was varied on 21 February 2020. The varied licence now refers to an updated monitoring plan.
<b>Consolidated Coal Lease (CCL 749)</b>		
Cond 33	District Soil Conservationist Lithgow (DSCL) is consulted six-monthly for site-wide rehabilitation or written exemption sought from (DPIE – Division of Resources and Geoscience) DRG if it can be justified.	N/A as leases have now changed. Performance under leases was covered by the MOP prior to July 2022.
<b>Continual Improvement Recommendation</b>		
Sch 2 Cond 11	Add a note in future Annual Reviews regarding demolition undertaken in the period.	Section added to Annual Reviews which details the status of demolition works to be carried out.  All demolition completed on site, with admin building demolished in mid-2021.
Sch 3 Cond 1	Create a single register for all known existing subsidence repairs and a clear process for sign-off of each occasion and actions to be documented to completion.	Single register for all known subsidence repairs now used. Clearly shows the process for sign off on each occasion and actions to be taken.
Sch 3 Cond 10	Consider reduction in the number of air quality monitoring points during Mine Closure.  Potential to relocate monitor DM2 to be representative of closest residence and remove others.	No records of incidents or complaints relating to air quality.  EMS sent to DPE on 1 December 2022 which has removed the commitment relating to air monitoring on site.
Sch 3 Cond 16	"By 31 December 2019, the licensee must cease all mine water discharge from <i>licenced discharge point 11 (LDP0011)</i> ". Update water balance in the Water.  Management Plan to reflect the change in discharge regime.	All mine water discharge ceased on 17 December 2019.  2020 GHD groundwater model validates and compares monitoring data against model predictions.  2022 GHD groundwater model reviewed predictions and found that " <i>Review of seam</i>

PA 09_0178	Previous IEA Recommendation	IEMA Comment
	<p>It is understood that the groundwater model will be updated in early 2020 to incorporate the abovementioned change in discharge. Recommend that following receipt of 2020 report and confirmation of any water take or ongoing discharge required (considered unlikely), confirmation that no security and relinquishment of a relevant groundwater licences under the <i>Water Management Act 2000</i> is required.</p> <p>Although the Water Management Plan was approved, recommend that for future updates where consultation with other regulators is required, that regulators are offered an opportunity to comment for a duration of at least 30 days prior to submission to DPIE for approval.</p>	<p><i>floor contours indicates that the southern area of the workings is likely spilling into the northern area of the workings and the northern void. This is causing the water level at the south dewatering bore to remain relatively constant while the water level at the north dewatering bore and northern void continues to rise. The hydrogeological model assumed that the water level in the workings and the goaf would rise relatively uniformly throughout the workings. The underground recovery water balance model was intended to provide a more realistic representation of water levels during the early part of the recovery, before the water level in the workings, goaf and surrounding strata equilibrated. Comparison of the observed and modelled water levels in Figure 7.16 shows that observed water levels are generally within 3 m of the predictions, although some uncertainty remains due to the partially dewatered initial conditions when dewatering ceased."</i></p> <p>LDP 2 was added to the northern void due to increased fill rate.</p> <p>Future Management Plan (Consolidated EMS) was sent to regulators and allowed for a thirty-day response.</p> <p>See recommendations in Section 4 about discharge management.</p>
Sch 3 Cond 19	<ul style="list-style-type: none"> <li>Minesoils recommends the site forms a register of water management structures with locations shown on Geographic Information Systems (GIS) and linked to original design drawings and maintenance inspections. This should include drop structures, banks, dams, diversion drains and Ben Bullen creek diversion.</li> <li>The site visited identified an area requiring bunding between Jews and Baal Bone Creek in the Northern Rehabilitation Area (Plate 10). Recommend this area be urgently reviewed and bunded as required.</li> </ul>	<ul style="list-style-type: none"> <li>Site has reviewed recommendation and to be considered during management plan reviews.</li> <li>This area that has been identified has since been bunded.</li> </ul>
Sch 3 Cond 23	<p>Include a discussion within relevant documentation on bushfire management, specifically in and/or near the Wolgan Escarpment.</p>	<p>This was to be considered at the next review of the Bushfire Preparedness System.</p>
Sch 3 Cond 24	<ul style="list-style-type: none"> <li>Surface water structures including banks, drop structures and dams need to be inspected and any failures or high-risk items should be repaired.</li> <li>It was noted on Thistle Hill, one contour drain was not repaired following a track to the top was installed to bring in and place soil material on the top section. This drain requires immediate attention so water can be transferred to the designed drop structure (Plate 4).</li> </ul>	<p>BBC has committed to continual ongoing maintenance and rehabilitation. During the recent IEA inspection, it was noted that the rehabilitation efforts on site had been undertaken in a responsible manner.</p>

PA 09_0178	Previous IEA Recommendation	IEMA Comment
	<ul style="list-style-type: none"> <li>• Weeds were evident onsite including blackberry and. It is understood weed maintenance occurs regularly onsite and should continue, an especially high risk period will be following decent rain.</li> <li>• REA5 showed two areas of complete failure. Minesoils recommends soil tests for Electrical Conductivity (EC), pH, Cation Exchange Capacity (CEC) and Exchangeable Sodium Percentage. It appears these two areas have received and pooled saline water from irrigation which has resulted in an area too salty for most vegetation. Some simple soil tests will indicate if this is true. In the event salinity is the limiting factor it is recommended to either leach the salts through the primary root zone via natural rainfall (slow) or irrigate with <b>non-saline</b> water. Alternatively, bring in additional material suitable for growth medium, subject to relevant approvals.</li> <li>• REA5: The remainder of REA5 showed no acacia species established (Plate 6). This is believed to have occurred due to the tree seed not being treated prior to sowing. Most acacia species require a mechanism to break the seedcoat such as boiling, scarifying or low heat fire. It is recommended that low depth (&lt;300mm surface ripping be strategically undertaken to avoid areas already establishing with Eucalypts. Additional seed mix (especially Acacia species) should then be treated, brought in and sown in the newly ripped areas. Recommended REA 5 repair mix includes Capertee Stringybark (as per SoC 31).</li> <li>• Overall the rehabilitation is establishing adequately in most areas (Plate 5,7), however recommend additional intervention is required to meet target species composition (especially the lower storey species) within a timeframe suitable for lease relinquishment.</li> <li>• Recommend that the stockpiles identified in the 2016 IEA (Ref 6.1b of the 2016 IEA Action Plan) be seeded as per 2016 IEA recommendation during rehabilitation / closure period if not used within three months.</li> </ul>	
Sch 3 Cond 31	Consistent with previous IEA recommendation, site inspection reviewed significant capacity for ongoing scrap steel recycling and general waste clean-up which should be continued as part of closure, as Glencore indicated is proposed (Plate 15 and Plate 16).	During 2022 IEA, site had minimal waste or scrap steel. And appeared in clean and tidy state.

PA 09_0178	Previous IEA Recommendation	IEMA Comment
Sch 5 Cond 2	<ul style="list-style-type: none"> <li>Recommend for closure, re-approve specialists where required.</li> <li>Consideration of combining all relevant management plans from this consent into single, reduced Closure Management Plan relevant to closure (Noise, Air Quality, Aboriginal Cultural Heritage, Biodiversity and Land Management, Rehabilitation, Erosion and Sediment Control, Groundwater Monitoring, Surface Water Monitoring, Waste and Water, Road Haulage) (with approval from DPIE) and/or include single document as appendix to draft Mine Closure MOP.</li> <li>In management plan update:</li> <li>Tabulate condition showing where each point is addressed;</li> <li>Ensure that all agencies are consulted with during preparation of management plan; and</li> <li>All technical specialists, where required by conditions of consent to be approved by the Secretary.</li> </ul>	<ul style="list-style-type: none"> <li>Due to the minimal changes made in the Consolidated EMS, reapproval of specialists was deemed not necessary given the closure status of BBC;</li> <li>All relevant Management Plans have since been consolidated into one management plan. This was approved 24/02/2022;and</li> <li>New Consolidated EMS now satisfies all further recommendations for Sch 5 Cond 2 recommendations from 2019 IEA.</li> </ul>
Sch 5 Cond 3	<ul style="list-style-type: none"> <li>Consider request to DPIE to reduce the content of the Annual Review commensurate with closure status.</li> <li>Replace “comprehensive” with “relevant” and not address i to iii which have not included in the EA.</li> <li>d) and e) not address as trends during operations cannot be compared to trends during closure.</li> </ul>	BBC have considered this recommendation but deemed to impractical and unnecessary given the complexity of amending Project Approval. If future changes are required to Project Approval; this action may be reconsidered.
<b>Consolidated Coal Lease (CCL 749)</b>		
Cond 5	Going forward, ensure the Domain’s listed table in Section 7.4.2 of the Annual Review correlate to Section 6 of the draft Closure MOP.	Annual reviews no longer refer to section 7.4.2 for domains, instead replaced with section 8.2. This section now outlines section 6 of the BBC Mine Closure MOP for domains.
Cond 32	Warragamba Outer Catchment Area be shown on a draft Closure MOP figure to ensure that work in relation to rehabilitation is completed before termination of the authority.	Currently listed as ongoing, but to be considered at the next review of the current MOP.

### 3.5. Adequacy of Management Plans and Programs

BBC operates under a number of different management plans, are of which are all site specific. It was noted during the audit that a number of management plans had been incorporated into one Consolidated EMS. This management plan was approved in December 2021 and has been implemented at site. Both the current EMS and the previous management plans however, were reviewed as part of this audit, and their approval status is summarised in **Table 9** below.

**Table 9 Summary of Management Plans of BBC**

Development Consent Conditions	Management Plan (MP)	Document Dates	Summary of Management Plan	Compliance Assessment and General Comment
Schedule 3 Condition 3	Extraction Plan	N/A	N/A	Underground mining operations ceased September 2011 and an Extraction Plan was never prepared the site.  Condition does not apply. See Section 3.7 for details on subsidence management.
Schedule 3 Condition 6	Noise MP	July 2019	The objectives of the Noise MP is to minimise and control noise from BBC, satisfy relevant noise conditions, to maintain an effective monitoring programs, manage impacts from site generated noise and implement effective response procedures.	Assessed as compliant. No issues identified.  Evidence of implementation through annual noise monitoring reports. Few sources of noise at site, apart from rehabilitation activities. Based on site communications and records, there has been no incidents or complaints under the Noise MP. Noise monitoring will no longer occur at BBC.
Schedule 3 Condition 12	Air Quality Monitoring Program	July 2019	The objectives of the Air Quality Monitoring program is to detail the assessment criteria applicable to the local environment, detail the monitoring equipment, outline TARP's and detail the review and reporting protocols.	Assessed as compliant. No issues identified.  Evidence of implementation through Annual Review and monitoring results. Few sources of dust at site, apart from rehabilitation activities. Based on records and discussions there have been no incidents or complaints under the AQMP.
Schedule 3 Condition 16	Water MP	July 2019	The objectives of the MP is to monitor the Environmental aspects including their associated risks and impacts form the basis for environmental management, to comply with applicable regulatory and non-regulatory environmental requirements, and to continuously improve resource efficiency, environmental performance, and to prevent incidents	Assessed as compliant. No issues identified.  The site is not using water at the moment. Water was used during rehabilitation for water trucks. The majority of dams are full as the site no longer pumps water underground. The majority of the water that is in the final void is through passive groundwater interceptions.  On 22/06/21 EPL 765 was varied to remove water monitoring from LDP 2. As part of the mine closure works at BBC, the sewage treatment plant has been removed from site, and the transpiration bed area reshaped and rehabilitated.  On 5/10/2022, EPL 765 was varied to add LDP17 and associated monitoring and limit conditions.  BBC has two discharge points: EPL Point 16 (LDP 1 ) is located near the Overshot Dam spillway, and EPL Point 17 (LDP 17) is located near the final to control overflow from the Final Void.

Development Consent Conditions	Management Plan (MP)	Document Dates	Summary of Management Plan	Compliance Assessment and General Comment
Schedule 3 Condition 19	Erosion and Soil Control Plan	July 2019	The objective of the Erosion and Sediment Control Plan is to ensure that appropriate procedures and programs of work are in place to identify activities that could cause soil erosion and generate sediment and to describe the location, function and capacity of erosion and sediment control structures required to minimise soil erosion and the potential for transport of sediment downstream.	Assessed as compliant. Improvement recommendations made.  Evidence of erosion and soil management in the field, drainage structures are well designed and appear stable. Recommendation made will become packaged into one program.
Schedule 3 Condition 20	Surface Water Monitoring Plan	July 2019	The objectives of the Surface Water Monitoring Program is to provide detailed historical baseline data on surface water quality in creeks, diversion channels and other waterbodies that could potentially be affected by Baal Bone Colliery operations, and provide methods to monitor and assess stream health and channel stability in creeks and diversion channels.	Assessed as compliant. No issues identified.  Evidence of surface water monitoring occurring throughout auditing period. IEMA checked results against requirements in Table 9.14 of the EMS, with no issues found, this also includes quality, flow and channel stability.  Surface water monitoring at BBC is undertaken in accordance with AS/NZS 5667.1:1998 Water Quality – Sampling – Guidance on the Design of Sampling Programs, Sampling Techniques and the Preservation and Handling of Samples.  Channel stability was observed during IEA, and found to be generally in good order, with some minor depositional sediment located near Reach 2 (which is included in Package 1 erosion control <b>Section 4</b> ).  Monthly water monitoring sampling occurs at LDP 1 and LDP 17. Where exceedances have been recorded at LDP 1, BBC have conducted weekly sampling. All exceedances have been reported to EPA/DPE.  There were concentration exceedances recorded during the auditing period, which are discussed in <b>Table 10</b> , however this does not affect the compliance of the Monitoring Plan.
Schedule 3 Condition 21	Groundwater Monitoring Program	June 2019	The objective of the Groundwater Monitoring Program is to provide the historical baseline data on groundwater levels and water quality for the surrounding aquifers, including regional groundwater and privately owned bores, and establish accountabilities for groundwater management at BBC.	Assessed as compliant. No issues identified.  Evidence of groundwater monitoring occurring included in the 2021 and 2022 Annual Reports. A total of six piezometers (four aquifer and two swamp/alluvial) are used on site. Piezometers BBPB1-BBPB4 monitor groundwater levels and chemistry in the deeper sandstone aquifer, while piezometers BBPB5 and BBPB6 monitor groundwater levels and chemistry in the shallower Coxs River Swamp.  BBC has a Surface and Groundwater Response Plan includes TARPs.

Development Consent Conditions	Management Plan (MP)	Document Dates	Summary of Management Plan	Compliance Assessment and General Comment
				The site called themselves non - compliant for this condition in the 2021 Annual Review. IEMA does not believe this is a non - compliance as the site investigated and responded accordingly.
Schedule 3 Condition 23	Biodiversity Landscape MP	July 2019	<p>The objectives of the Biodiversity Landscape MP is to describe the process for managing impacts from mining using scientifically-sound process for the minimisation and mitigation of environmental impacts relating to land degradation and disturbance, noxious weeds and feral animals, grazing impacts, salinity for the protection of biodiversity and remnant vegetation, and</p> <p>The management of company owned or occupied lands for the optimisation of ecological and commercial return.</p>	<p>Assessed as compliant. No issues identified.</p> <p>During IEA, it was noted that there were minimal weeds on site, but most of these were annual, with minimal blackberry, which can be a dominant species. Majority of topsoil has been reused on site during rehabilitation. The remaining 2 small areas of topsoil are to be reused in pre-identified areas on site.</p>
Schedule 3 Condition 25	Rehabilitation MP	August 2022	RMP defines the objectives and criteria that BBC will follow and the methods to minimise any ongoing environmental effects. The principal objective of the Rehabilitation MP is to return the site to a condition where its landforms, soils, hydrology, flora and fauna are self-sustaining, and compatible with the surrounding land fabric.	<p>Assessed as compliant. No significant compliance issues identified relating to final rehabilitation and closure. Some minor improvement recommendations made (<b>Section 4</b>).</p> <p>During site inspections, audit team noted that significant rehabilitation works had occurred, with many established vegetation communities present on site. Some minor erosion on steeper regions. Larger/ flat areas appeared to be safe and stable.</p> <p>The rehabilitation monitoring reports (DnA Environmental,2021) include the following findings:</p> <ul style="list-style-type: none"> <li>• Older Northern Open Cut and Southern Open Cut woodland rehabilitation areas have met almost 70% completion criteria targets. This data therefore demonstrates that robust, diverse and self-sustaining mixed eucalyptus woodland species have established themselves in these areas.</li> <li>• In the woodland rehabilitation areas, native species frequently recorded were acacias, eucalyptus and native grasses which had been sown into rehabilitation areas.</li> </ul>



Development Consent Conditions	Management Plan (MP)	Document Dates	Summary of Management Plan	Compliance Assessment and General Comment
				<ul style="list-style-type: none"> <li>The rail loop was removed in 2020 and rehabilitated by deep ripping and seeded using a mix of local woodland species and cover crops in early 2021.</li> </ul>
Schedule 3 condition 25A	Ben Bullen Creek Rehabilitation MP	July 2017	The objective of the Ben Bullen Creek MP is to design and the implementation of rehabilitation which is to occur in the disturbed areas of Ben Bullen Creek.	<p>Assessed as compliant. No issues identified.</p> <p>The sections of the Ben Bullen Creek that were inspected by the audit team inspection appeared stable, with a significant amount of work completed in the last three years.</p> <p>Umwelt are currently preparing a channel stability report which includes Ben Bullen Creek. Some actions may fall out of that report.</p>
Schedule 3 Condition 26	Aboriginal Cultural Heritage MP	Dec 2019	Describes the process of the ongoing management of Aboriginal cultural heritage sites located within the approved BBC.	<p>Assessed as compliant. No issues identified.</p> <p>There has been no material change to the rock shelter since 2011.</p>
Schedule 5 Condition 1	Environmental Management System	December 2021	The objectives of the EMS is to reduce environmental impacts, continual improvement, effective management of environmental risks, effective use of resources and implement and maintain industry best practice management systems.	<p>Assessed as compliant. No issues identified.</p> <p>There is now a consolidated document that includes many other monitoring and management plans. There were no complaints during the audit period.</p>

### 3.6. Water Access Licence

BBC holds water access licence WAL27887 which allows groundwater to be extracted for use on site if required. BBC also holds WAL34952 to allow surface water extraction if required. WAL27887 has been sealed and decommissioned, however passive intake of groundwater is occurring in the Northern Void.

**Table 10 BBC Water Access Licences**

Water Licence	Water sharing plan, source, and management zone	Entitlement (Unit Shares)	Total Taken 2020	Total Pumped 2021	Total Pumped 2022
WAL27887	NSW Murray Darling Basin Porous Rock Groundwater Sources	750 Units	Nil	Nil*	Nil*
WAL34952	Macquarie Bogan Unregulated and Alluvial Water Sources	25 Units	Nil	Nil	Nil

\*Passive take of groundwater is occurring into the Northern Void.

### 3.7. Subsidence

Underground mining operations ceased in 2011. There is historical subsidence occurring within the Project Approval area, however it appears from the information provided for LW 29-31 areas that were mined under the Project Approval have been remediated as per the Subsidence Management Plan. Areas that have been underground mined previously have now been zoned as National Park. Annual inspections of known subsidence areas are undertaken, with BBC also conducting an annual environmental rehabilitation walkover.

Note there is a recommendation relating to subsidence management with this covered in **Section 4**.

### 3.8. Comparison Against EA Predictions

The Environmental Assessment and modifications relate to the site being operational. With the site being in a rehabilitation and closure phase most of the predictions are not applicable.

The Environmental Assessment for BBC predicted that, while subsidence may occur, it is unlikely to impact currently undetected Aboriginal sites such as open sites. During underground extraction of LW30 in 2010, BBC inspected the Aboriginal rock shelter (BBC-RS1) twice weekly. Subsidence monitoring during the reporting period have confirmed the predictions made in the EA. While data showed that subsidence occurs, there was no visible damage caused to BBC-RS1 as a result of the extraction of LW30.

A review of the 2019, 2020 and 2021 also indicates that Groundwater levels is compared to the predictions of the EA (Annual Review 7.2.2 (2021)), however there is no direct explanation as to what the deviation is.

### 3.9. Summary of Agency Notices, Orders, Penalty Notices or Prosecutions

Based on site communications and documentation provided during the audit process no agency notices, orders, penalty notices or prosecutions were received during the audit period.

### 3.10. Complaints

Based on site communications and documentation provided during the audit process, no complaints were received during the audit period.

### 3.11. Incident/Non-Compliance Management

There were no environmental incidents recorded during the audit period, there was however a non-compliance relating to surface water discharges that was self-reported to the EPA with increased levels of iron and pH recorded from LDP1 (EPL monitoring point 16) see **Table 10** for detailed exceedance limits.

**Table 11 Iron and pH concentration at LDP 1**

	Iron (dissolved)	pH
Concentration limit	1.0 milligrams per litre	6.5-8.5
Date sampled		
21 Jul 20	<0.05	7.0
25 Aug 20	1.68	6.5
9 Sep 20	4.85	6.5
16 Sep 20	0.58	6.5
21 Sep 20	<0.05	6.9
22 Sep 20	<0.05	6.8
28 Sep 20	<0.05	7.0
26 Oct 20	0.09	6.8
16 Nov 20	0.06	1.2
8 Dec 20	<0.05	7.2
19 Jan 21	<0.05	6.7
9 Feb 21	1.65	6.7
16 Mar 21	3.21	6.20
13 Apr 21	0.86	7.0
11 May 21	1.32	6.6
2 Jun 21	No flow	No flow
21 Jul 21	No flow	No flow
10 Aug 21	No flow	No flow
1 Sep 21	No flow	No flow
18 Oct 21	No flow	No flow
9 Nov 21	No flow	No flow
6 Dec 21	0.08	6.7
17 Jan 22	0.05	6.8
8 Feb 22	1.21	6.46
23 Mar 22	1.87	6.9
7 Apr 22	1.97	6.3
May 22	0.05	7.3
June 22	0.15	7.2
July 22	0.11	6.6
Aug 22	0.11	6.6
Sep 22	0.05	6.6
Oct 22	0.46	6.8
Nov 22	0.43	6.9
Dec 22	0.05	7.1

During the reporting period, there was a total of eight iron exceedances and three pH exceedances, with the water sampling frequency at LDP16 increasing to weekly (when flowing) for a period of time. These exceedances were all reported to the EPA and DPE. There were also additional monitoring points added around the suspected source of the increased iron concentration.

BBC commissioned Gauge Industrial and Environmental to complete an initial investigation in 2021 with a detailed report provided which outlined possible causes and both short and long-term mitigation methods, a final report was provided in 2022.

A review of the operational data of BBC found that the water level within the discharge dam had dropped as a result of the cessation of pumping underground workings. Groundwater levels have also increased as a result of the cessation of pumping, which is likely resulting in the liberation of the iron. Dam levels in the overshot dam dropped significantly in February and March 2021, increasing the proportional contribution from the groundwater spring, compared to flow upstream Ben Bullen Creek, and hence increasing the dissolved iron concentration at the Overshot Dam spillway (Gauge Industrial land Environmental 2022).

The results of this report have concluded that the exceedances have occurred from a groundwater fed spring near the overshot dam, and that these increase iron levels have not caused any material harm.

### **3.12. Key Strengths of the Development's Environmental Management and Performance**

During the audit period, it was evident that the rehabilitation activities undertaken were performed in a responsible manner generally in accordance with PA 09\_0178 and the relevant environmental management plans where applicable. Key strengths of the Site's environmental management and performance, as relevant to the activities that were audited, are summarised as follows:

- SOC 2 is safe, stable, and non-polluting with native grass coverage and established Acacia and Eucalyptus;
- There were no noise complaints during the reporting period;
- Southern REA. has good ground coverage, minimal erosion and evidence of Acacia and Eucalyptus species emerging;
- Diverse, robust and self-sustaining mixed eucalyptus species established on older Northern open Cut and Southern Open Cut rehabilitation areas;
- In the woodland rehabilitation areas, native species frequently recorded were acacias, eucalyptus and native grasses which had been sown into rehabilitation areas;
- Dust levels were controlled during rehabilitation efforts with water carts. Site is now mostly covered in vegetation, and dust levels are expected to remain low;
- Rehabilitation of Haul Road area is safe, stable and non-polluting;
- Final landform of CHPP ROM rehabilitation area has good ground coverage with minimal erosion;
- Good rehabilitation along steep banks; and
- Re-use of railway ballast for Engineered Stormwater Drains to minimise the need for additional materials brought on site.

## 4. RECOMMENDATIONS AND OPPORTUNITIES FOR IMPROVEMENT

**Table 11** consolidates all the recommended actions of this audit as listed in **Table 7** and **Appendix C**. Where required, audit recommendations have been included to address identified non-compliances. In addition, some recommendations have been included as potential areas for systems and compliance improvement. recommendations specifically to address non-compliances are identified as Non-compliance Recommendations (NC REC); while opportunities for improvement are identified as Improvement Recommendations.

These recommendations may be used to prepare the response to recommendations and audit action plan.

**Table 12 – Audit Recommendations**

Rec #.	Aspect	Recommendation
<b>Non-compliance Recommendations</b>		
(EPL 765) L 2.4	Water and /or Land Concentration limits.	<ul style="list-style-type: none"> <li>Continue to monitor the spring around the Overshot dam. If exceedances continue - implement methods outlined in the Gauge report. It should be noted that the spring can only be accessed for sampling when the Overshot Dam is almost empty. As the spring is only a few metres from the Overshot Dam/LDP16, there is little value/difference when full.</li> </ul>
PA 09_0178 Sch 3 Cond 14	Water Discharge	(As Above)
<b>Improvement Recommendations</b>		
<b>PA 09_0175</b>		
Sch 3 Cond 1	Subsidence	<ul style="list-style-type: none"> <li>The subsidence inspections that are prepared should assess against the criteria in S3 C1 (Subsidence performance measures). This would include public safety as a key feature.</li> <li>A consolidated figure and table of subsidence impacts should be developed within the Project Approval area, noting this is likely to include historical subsidence areas. Continue the liaison with National Parks that now manage the land over the historical mining areas.</li> </ul>
Sch 3 Cond 17	Water Management Plan Site water Balance	<ul style="list-style-type: none"> <li>IEMA recommends the installation of a longer-term spillway at the Northern Void (LDP17) to control the discharge of water with this be based on an engineering design. This will need to be a long-term stable design with minimal maintenance and should be capable of measuring volumes of discharge; and</li> <li>A permanent height gauge should be installed for the northern void.</li> </ul>
Sch 3 Cond 18	Water Management Plan Erosion and Sediment Control Plan	<ul style="list-style-type: none"> <li>PACKAGE 1: Implement the rehabilitation, erosion, and sediment control maintenance program</li> </ul>
Sch 3 Cond 25	Rehabilitation Management Plan	<ul style="list-style-type: none"> <li>PACKAGE 1: Implement the rehabilitation, erosion, and sediment control maintenance program</li> </ul>
Sch 3 Cond 25A	Rehabilitation Management Plan (Ben Bullen Ck)	<ul style="list-style-type: none"> <li>Implement any recommendations from Umwelt report regarding stability of Ben Bullen Creek.</li> </ul>
Sch 3 Cond 30	Waste	<ul style="list-style-type: none"> <li>Removal of old lubricant drums and containers from behind 'Dollar Shed'</li> </ul>
<b>EPA 765</b>		
A1	Administrative Conditions	<ul style="list-style-type: none"> <li>The site should provide an update on the volume that discharges from site in the Annual Review as this is a requirement and it will cover this condition.</li> </ul>

Discussions on site during audit period mentioned that several rehabilitation and sediment control methods would be implemented into one package. Details of this package are:

**PACKAGE 1 – Implement the Rehabilitation, Erosion and Sediment Control Maintenance Program**

This will include the following:

- Areas near the 'Dollar Shed' and Reach 2 will require the placement of logs and rocks at the top of the hill in an attempt to slow down water flow after heavy rain;
- Backfill identified areas affected by gully erosion, then hydro mulch / seed to allow vegetation to become established;
- Address areas where geo fabric is exposed along engineered drains;
- Areas of coal/shale/chitter exposed near the Haul Rd require additional coverage of topsoil and resown or hydro mulched to allow vegetation to become established; and
- Hydro mulch areas on site that have not taken seed, if hydro mulch is not an option due to compacted soils, scarify and hand sow regions to allow vegetation to become established. BBC to liaise with rehabilitation contractor for best practice.

## 5. CONCLUSION

IEMA was commissioned by Glencore to undertake an Independent Environmental Audit (IEA) for BBC, to satisfy Schedule 5, condition 7 of PA 09\_0178. This IEA has been completed in accordance with the Independent Audit PAR (DPE 2020).

The IEA has assessed compliance with the key approvals and documentation, including:

- PA 09\_0178;
- Baal Bone SOC;
- EPL 765; and
- Mining Amendment (Standard Conditions of Mining Lease – Rehabilitation) Regulation 2021.

The site component of the IEA was undertaken on the 5<sup>th</sup> and 6<sup>th</sup> December 2022, with IEMA being supplied additional documentation and information as requested following the site inspection.

Overall, 55 conditions were identified; of these 9 (16%) were not triggered during the audit period, and 1 (2%) was a note for information. Of the 45 remaining audited conditions 44 (80%) were compliant and 1 (2%) was assessed as non-compliant. The non-compliances are summarised in **Section 3.3**.

IEMA has provided recommendations to address identified non-compliances and to improve environmental performance.

During the audit, it was evident that the rehabilitation activities had been undertaken in a responsible manner generally in accordance with the PA 09\_0178 and EPL 765 and the relevant environmental management plans. Key strengths of the BBC environmental management and performance were considered as follows:

- The Baal Bone environmental staff interviewed demonstrated a thorough appreciation of the environmental issues at the site and appropriate environmental management measures.
- Effective environmental management measures and practices implemented and evidenced during the site inspection and interviews including:
  - Effective water management;
  - Evidence of established vegetation and ground cover with minimal weeds;
  - There were no noise complaints during the reporting period;
  - Dust levels were controlled during rehabilitation efforts with water carts. Site is now mostly rehabilitated, and dust levels are expected to remain low;
  - Self-sustaining established mixed eucalyptus species on site;
  - Minimal evidence of feral animals on site;
  - Good rehabilitation of CHPP and tailings dam part of the site;
  - Effective use of railway ballast on site as drainage lines in rehabilitation;
  - Good housekeeping;
  - No reported incidents or complaints received during the audit period; and
  - Successful demolition and removal of infrastructure allowing for site rehabilitation.

Recommended Actions for improvements have been included in **Table 11**.



# **APPENDIX A**

## Auditor Endorsement Letters

Ms Elizabeth Fishpool  
Environment and Community Coordinator  
THE WALLERAWANG COLLIERIES LIMITED  
Castlereagh Highway  
Cullen Bullen NSW 2790

25/10/2022

Dear Ms Fishpool

**Baal Bone Coal - (MP09\_0178)  
Independent Environmental Audit 2022 – team endorsement**

I refer to your request (MP09\_0178-PA-24) submitted on 17 October 2022 for the Secretary's approval of suitably qualified persons to undertake the Independent Environmental Audit (IEA) and prepare the IEA Report for Baal Bone Coal in accordance with Schedule 5, Condition 7(a) of PA 09\_0178 (as modified).

The Department of Planning and Environment (the department) has reviewed the nominations and information you have provided and is satisfied that these experts are suitably qualified and experienced. Consequently, in accordance with Schedule 5, Condition 7(a) of PA 09\_0178 (as modified) and the Independent Audit Post Approval Requirements, the Secretary has agreed to the following audit team:

- Chris Jones – Lead Auditor – Surface Water and Rehabilitation specialist;
- Katarina David – groundwater specialist;
- Nerida Manley – assistant auditor and
- Simon Kirgis – assistance auditor.

Please ensure this correspondence is appended to the Independent Audit Report.

The Independent Audit must be prepared, undertaken and finalised in accordance with the Independent Audit Post Approval Requirements and Schedule 5, Condition 7(a) of PA 09\_0178 and include:

- include consultation with the relevant agencies;
- assess the environmental performance of the project and assess whether it is complying with the relevant requirements in this approval and any relevant EPL or Mining Lease (including any assessment, plan or program required under these approvals);
- review the adequacy of strategies, plans or programs required under these approvals; and, if appropriate;
- recommend measures or actions to improve the environmental performance of the project, and/or any assessment, plan or program required under these approvals; and
- be completed within 2 months of the approval of the audit team.

Failure to meet these requirements will require revision and resubmission.

Notwithstanding the agreement for the above listed audit team for this Project, each respective project approval or consent requires a request for the agreement to the auditor or audit team be submitted to the department, for consideration of the Secretary. Each request is reviewed and depending on the complexity of future projects, the suitability of a proposed auditor or audit team will be considered.

Department of Planning and Environment



Should you wish to discuss the matter further, please contact me on 0429400261  
[compliance@planning.nsw.gov.au](mailto:compliance@planning.nsw.gov.au)

Yours sincerely

A handwritten signature in black ink, appearing to read "K. O'Reilly", enclosed in a thin black rectangular border.

Katrina O'Reilly  
Team Leader - Compliance  
Compliance  
As nominee of the Planning Secretary

# **APPENDIX B**

## Consultation

Ms Elizabeth Fishpool  
Environment and Community Coordinator  
THE WALLERAWANG COLLIERIES LIMITED  
Castlereagh Highway  
Cullen Bullen NSW 2790

24/01/2023

Dear Ms Fishpool

**Baal Bone Coal - (MP09\_0178)**  
**Extension of Time to submit Independent Environmental Audit Report**

Reference is made to your post approval matter (MP09\_0178-PA-27) submitted to the Department of Planning and Environment (the department) on 24 January 2023 requesting an extension of time to submit the Independent Environmental Audit (IEA) report for the Baal Bone Coal Project in accordance with Schedule 5, Condition 8 of Project Approval (PA) 09\_0178.

The department has reviewed the request and notes that the site visit component of the IEA was completed by IEMA in December 2022 and that both Baal Bone Colliery and IEMA were closed for 2-3 weeks over the Christmas and New Year period.

Accordingly, the Planning Secretary grants an extension of time to submit the IEA report until 28 February 2023.

If you wish to discuss the matter further, please contact me on 0429400261 or [compliance@planning.nsw.gov.au](mailto:compliance@planning.nsw.gov.au)

Yours sincerely



Katrina O'Reilly  
Team Leader - Compliance  
Compliance  
As nominee of the Planning Secretary



AREQ0034295

Mr Mark Bulkeley  
Operations Manager – Baal Bone Colliery  
PO Box 13  
Lithgow NSW 2790

By email: mark.bulkeley@glencore.com.au

Dear Mr Bulkeley

**Subject: Baal Bone Colliery – Independent Environmental Audit**

Thank you for your letter and email dated 16 November 2022 requesting clarification of the scope for the independent audit of the Baal Bone Colliery. We acknowledge the limited IEA scope outlined in your letter, which includes the Mine Closure MOP.

The Mine Closure MOP prepared under the previous conditions of the mining leases is no longer relevant after 2 July, 2022, when the operational rehabilitation reforms became effective and the MOP conditions ceased to have effect.

Given that the mine is in closure and rehabilitation, it is important for the audit to assess compliance against the requirements of Schedule 8A Standard conditions of mining leases, Part 2 Standard conditions, as set out in the Mining Regulation 2016. These are the conditions which give effect to the operational rehabilitation reforms and are critical to ensuring successful rehabilitation outcomes can be achieved for the site.

The Regulator will accept the following reduced scope for the independent audit of the Baal Bone Colliery in relation to the mining leases.

- Up to 1 July 2022, assessment of compliance with the Mine Closure MOP
- From 2 July 2022, assessment of compliance with the requirements of Schedule 8A Standard conditions of mining leases, Part 2 Standard conditions, as set out in the Mining Regulation 2016.

Yours sincerely

**Jenny Ehmsen**  
Principal Compliance Auditor  
23 November 2022

## Simon Kirgis

---

**From:** Jessica Ramsden <jessica.ramsden@lithgow.nsw.gov.au>  
**Sent:** Monday, 7 November 2022 4:38 PM  
**To:** Simon Kirgis  
**Cc:** Chris Jones; Nerida Manley  
**Subject:** RE: Baal Bone Colliery (PA 09\_0178) Independent Environmental Audit - Request for Consultation

Hello Simon,

Thank you for your email and look forward to obtaining a copy of findings.

I trust that the specialists have most of the requirements in hand and there is not anything from Council's point of view that should be specifically addressed.

Please do not hesitate to contact Council for any additional enquiries.

Regards,



**Jessica Ramsden**

Acting Team Leader Development  
Economic Development & Environment  
t: (02) 6354 9999 w: council.lithgow.com  
PO Box 19, 180 Mort St, Lithgow, NSW, 2790



---

**From:** Simon Kirgis <Simon.Kirgis@iema.com.au>  
**Sent:** Thursday, 3 November 2022 9:25 AM  
**To:** Jessica Ramsden <jessica.ramsden@lithgow.nsw.gov.au>  
**Cc:** Chris Jones <chris.jones@iema.com.au>; Nerida Manley <nerida.manley@iema.com.au>  
**Subject:** Baal Bone Colliery (PA 09\_0178) Independent Environmental Audit - Request for Consultation

Good morning Jessica,

Integrated Environmental Management Australia (IEMA) have been engaged to conduct the 2022 Independent Environmental Audit (IEA) for Baal Bone Colliery. The IEA will be completed in accordance with Schedule 5, Condition 7 of PA 09\_0178, and will also include the Statement of Commitments and the Environment Protection Licence (EPL 765,)

The audit will cover the three-year period from December 2019 to December 2022.

The approved audit team (letter attached) was endorsed by the Department of Planning, Industry and Environment (DPIE) on the 25/10/2022, and comprises:

- Chris Jones (Principal Environmental Consultant – IEMA) – Lead Auditor; and Surface Water and Rehabilitation specialist
- Nerida Manley (Associate Environmental Consultant – IEMA) – Assistant Auditor
- Simon Kirgis (Graduate Consultant – IEMA) – Assistant Auditor
- Katrina David – Groundwater specialist

In accordance with condition (7b), the audit team is seeking feedback in relation to any specific environmental areas you require particular focus on as part of the IEA.

Elizabeth Fishpool from Glencore has kindly provided your email address to facilitate this email.

If you could respond by **18<sup>th</sup> November**, it would be appreciated.

If you would prefer to have your input kept confidential, please call on the number below and the queries will be assessed in the IEA but not attributed to you or your organisation.

**Simon Kirgis**  
**Graduate Consultant**



ABN 32 622 237 870  
PO Box 3161, MEREWETHER NSW 2291 AUSTRALIA  
e: [simon.kirgis@iema.com.au](mailto:simon.kirgis@iema.com.au)  
m: 0421 927 291 | w: [www.iema.com.au](http://www.iema.com.au)

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## Simon Kirgis

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**From:** Michael Wood <Michael.Wood@environment.nsw.gov.au>  
**Sent:** Monday, 7 November 2022 9:25 AM  
**To:** Simon Kirgis  
**Cc:** Katrina O'Reilly  
**Subject:** Baal Bone Colliery (PA 09\_0178) Independent Environmental Audit - Request for Consultation

Hi Simon,

Thank you for your email requesting feedback for the upcoming Baal Bone Colliery (PA 09\_0178) IEA.

The department suggests the following areas to focus on:

- Progress of any rehabilitation (monitoring and management),
- Management of water on site, and
- On-going monitoring and erosion and sedimentation.

regards

Michael Wood  
Senior Compliance Officer  
Planning Compliance  
Phone: 0459890661

Department of Planning and Environment



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## Simon Kirgis

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**From:** Timothy Baker <tim.baker@dpie.nsw.gov.au>  
**Sent:** Friday, 4 November 2022 10:10 AM  
**To:** Simon Kirgis  
**Subject:** re: Baal Bone Colliery (PA 09\_0178) Independent Environmental Audit - Request for Consultation  
**Attachments:** Appointment of Experts\_25102022\_075336.pdf

Hi Simon,

Thanks for your email. Are you able to request this consultation to DPE Water in the major projects portal? If not I'll forward your request to our generic email address which is [water.assessments@dpie.nsw.gov.au](mailto:water.assessments@dpie.nsw.gov.au)

Regards  
Tim

Tim Baker  
Senior Project Officer  
Water Assessments  
**Department of Planning and Environment—Water**  
T 0428162097 | E [tim.baker@dpie.nsw.gov.au](mailto:tim.baker@dpie.nsw.gov.au)

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**From:** Simon Kirgis <Simon.Kirgis@iema.com.au>  
**Sent:** Thursday, 3 November 2022 9:10 AM  
**To:** Timothy Baker <tim.baker@dpie.nsw.gov.au>  
**Cc:** Chris Jones <chris.jones@iema.com.au>; Nerida Manley <nerida.manley@iema.com.au>  
**Subject:** Baal Bone Colliery (PA 09\_0178) Independent Environmental Audit - Request for Consultation

Good morning Tim,

IEMA have been engaged to conduct the 2022 Independent Environmental Audit (IEA) for Baal Bone Colliery. The IEA will be completed in accordance with Schedule 5, Condition 7 of PA 09\_0178, and will also include the Statement of Commitments and the Environment Protection Licence (EPL 765,)

The audit will cover the three-year period from December 2019 to December 2022.

The approved audit team (letter attached) was endorsed by the Department of Planning, Industry and Environment (DPIE) on the 25/10/2022, and comprises:

- Chris Jones (Principal Environmental Consultant – IEMA) – Lead Auditor; and Surface Water and Rehabilitation specialist
- Nerida Manley (Associate Environmental Consultant – IEMA) – Assistant Auditor
- Simon Kirgis (Graduate Consultant – IEMA) – Assistant Auditor
- Katrina David – Groundwater specialist

In accordance with condition (7b), the audit team is seeking feedback in relation to any specific environmental areas you require particular focus on as part of the IEA.

Elizabeth Fishpool from Glencore has kindly provided your email address to facilitate this email.

If you could respond by **18<sup>th</sup> November**, it would be appreciated.

If you would prefer to have your input kept confidential, please call on the number below and the queries will be assessed in the IEA but not attributed to you or your organisation.

**Simon Kirgis**  
**Graduate Consultant**



ABN 32 622 237 870  
PO Box 3161, MEREWETHER NSW 2291 AUSTRALIA  
e: [simon.kirgis@iema.com.au](mailto:simon.kirgis@iema.com.au)  
m: 0421 927 291 | w: [www.iema.com.au](http://www.iema.com.au)

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## Simon Kirgis

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**From:** Andrew Helms <Andrew.Helms@epa.nsw.gov.au >  
**Sent:** Thursday, 10 November 2022 12:19 PM  
**To:** Simon Kirgis  
**Cc:** Chris Jones; Nerida Manley  
**Subject:** RE: Baal Bone Colliery (PA 09\_0178) Independent Environmental Audit - Request for Consultation

Hi Simon,

As you will be aware, the Baal Bone Colliery is nearing the final stages of its life as a coal mine with the rehabilitation works significantly progressed. Wallerawang Collieries has held an Environment Protection Licence for the audit period in question, for 'Mining for coal' and 'Coal works' at the premises. The licence was varied on 10 August 2022 to remove these scheduled activities and replace them with the fee based activity of 'Miscellaneous licenced discharge to waters (at any time)' to reflect the current status at the premises.

More recently, Wallerawang Collieries has reported some issues associated with the increased rainfall in the area over the past few years which has led to increasing water levels in the norther void. An additional discharge point was included on the licence to allow for the discharge of waters from this void if the occasion arises. The licence was varied accordingly on 5 October 2022 to enable this change. The EPA has not heard from The Wallerawang Collieries to date as to whether this discharge point has been used.

The EPA has had no other significant issues with the mine site over the audit period. There have been some monitoring results at the original discharge point ('Overshot Dam' or licence point 16 – formerly point 11) which have the occasional elevated iron concentrations. The EPA has written to the mine and stated that more information (a greater sampling regime of receiving waters, etc) would be required to contextualise these concentrations prior to the EPA considering an application for the surrender of the licence. Dissolve zinc has also been detected at concentrations exceeding trigger levels in some groundwater bores monitored by the mine although this has not been an issued pursued by the EPA.

The EPA would recommend, from our perspective, that the audit focuses on surface water management at the premises.

I trust that this is of some use to you.

Regards,

**Andrew Helms**  
Regional Operations Officer  
Regulatory Operations  
NSW Environment Protection Authority  
D 02 6333 3805



[www.epa.nsw.gov.au](http://www.epa.nsw.gov.au) @NSW\_EPA

*The EPA acknowledges the traditional custodians of the land and waters where we work. As part of the world's oldest surviving culture, we pay our respect to*

*Aboriginal elders past and present.*

Report pollution and environmental incidents  
131 555 or +61 2 9995 5555

---

**From:** Simon Kirgis <Simon.Kirgis@iema.com.au>  
**Sent:** Thursday, 3 November 2022 9:21 AM  
**To:** Andrew Helms <Andrew.Helms@epa.nsw.gov.au>  
**Cc:** Chris Jones <chris.jones@iema.com.au>; Nerida Manley <nerida.manley@iema.com.au>  
**Subject:** Baal Bone Colliery (PA 09\_0178) Independent Environmental Audit - Request for Consultation

Good morning Andrew,

Integrated Environmental Management Australia (IEMA) have been engaged to conduct the 2022 Independent Environmental Audit (IEA) for Baal Bone Colliery. The IEA will be completed in accordance with Schedule 5, Condition 7 of PA 09\_0178, and will also include the Statement of Commitments and the Environment Protection Licence (EPL 765,)

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- Nerida Manley (Associate Environmental Consultant – IEMA) – Assistant Auditor
- Simon Kirgis (Graduate Consultant – IEMA) – Assistant Auditor
- Katrina David – Groundwater specialist

In accordance with condition (7b), the audit team is seeking feedback in relation to any specific environmental areas you require particular focus on as part of the IEA.

Elizabeth Fishpool from Glencore has kindly provided your email address to facilitate this email.

If you could respond by **18<sup>th</sup> November**, it would be appreciated.

If you would prefer to have your input kept confidential, please call on the number below and the queries will be assessed in the IEA but not attributed to you or your organisation.

**Simon Kirgis**  
**Graduate Consultant**



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## Simon Kirgis

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**From:** DPIE Water Assessments Mailbox <water.assessments@dpi.e.nsw.gov.au>  
**Sent:** Thursday, 17 November 2022 3:33 PM  
**To:** Simon Kirgis  
**Subject:** DPE Water response - Baal Bone Colliery (PA 09\_0178) Independent Environmental Audit - Request for Consultation  
**Attachments:** DPE Water response - Baal Bone Colliery - IEA input request.pdf

Dear Simon,

Please see attached response from DPE Water to address your request below.

Regards  
Tim

Tim Baker  
Senior Project Officer  
Water Assessments  
**Department of Planning and Environment—Water**  
T 0428162097 | E [tim.baker@dpi.e.nsw.gov.au](mailto:tim.baker@dpi.e.nsw.gov.au)

---

**From:** Simon Kirgis <[Simon.Kirgis@iema.com.au](mailto:Simon.Kirgis@iema.com.au)>  
**Sent:** Friday, 4 November 2022 2:34 PM  
**To:** DPIE Water Assessments Mailbox <[water.assessments@dpi.e.nsw.gov.au](mailto:water.assessments@dpi.e.nsw.gov.au)>  
**Cc:** Chris Jones <[chris.jones@iema.com.au](mailto:chris.jones@iema.com.au)>; Nerida Manley <[nerida.manley@iema.com.au](mailto:nerida.manley@iema.com.au)>  
**Subject:** Baal Bone Colliery (PA 09\_0178) Independent Environmental Audit - Request for Consultation

Good afternoon,

Integrated Environmental Management Australia (IEMA) have been engaged to conduct the 2022 Independent Environmental Audit (IEA) for Baal Bone Colliery. The IEA will be completed in accordance with Schedule 5, Condition 7 of PA 09\_0178, and will also include the Statement of Commitments and the Environment Protection Licence (EPL 765,)

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- Chris Jones (Principal Environmental Consultant – IEMA) – Lead Auditor; and Surface Water and Rehabilitation specialist
- Nerida Manley (Associate Environmental Consultant – IEMA) – Assistant Auditor
- Simon Kirgis (Graduate Consultant – IEMA) – Assistant Auditor
- Katrina David – Groundwater specialist

In accordance with condition (7b), the audit team is seeking feedback in relation to any specific environmental areas you require particular focus on as part of the IEA.

If you could respond by **18<sup>th</sup> November**, it would be appreciated.

If you would prefer to have your input kept confidential, please call on the number below and the queries will be assessed in the IEA but not attributed to you or your organisation.

**Simon Kirgis**  
**Graduate Consultant**



ABN 32 622 237 870  
PO Box 3161, MEREWETHER NSW 2291 AUSTRALIA  
e: [simon.kirgis@iema.com.au](mailto:simon.kirgis@iema.com.au)  
m: 0421 927 291 | w: [www.iema.com.au](http://www.iema.com.au)

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## Simon Kirgis

---

**From:** Resources Regulator <nswresourcesregulator@service-now.com>  
**Sent:** Tuesday, 8 November 2022 8:59 AM  
**To:** Simon Kirgis  
**Subject:** AREQ0033915 | Baal Bone Colliery | Enquiry (external) | Other Enquiry | 03 Nov 2022 09:13:26  
**Attachments:** IEMA\_Baal Bone\_2022.pdf

Dear Mr Kirgis,

Please find attached the Regulator's response to your request for consultation for the independent environmental audit of the Baal Bone Colliery.

Regards,

**Jenny Ehmsen**  
Principal Compliance Auditor  
MAI - Enforcement | Resources Regulator  
T 4063 6443 M 0438 735 010



**Regional  
NSW**

*The Department of Regional New South Wales acknowledges that it stands on Country which always was and always will be Aboriginal land. We acknowledge the Traditional Custodians of the land and waters, and we show our respect for Elders past, present and emerging. We are committed to providing places in which Aboriginal people are included socially, culturally and economically through thoughtful and collaborative approaches to our work.*



Ref:MSG0808433\_9rVstO4Dwi40SaTLoFxr

# **APPENDIX C**

## Compliance Spreadsheets

PA 09\_0178 Baal Bone Coal (The Wallerawang Collieries Ltd)



Condition Number	Condition	Compliance Status	Source of Evidence	Finding	Recommended Action
<b>SCHEDULE 2 ADMINISTRATIVE CONDITIONS</b>					
<b>OBLIGATION TO MINIMISE HARM TO THE ENVIRONMENT</b>					
1	The Proponent shall implement all reasonable and feasible measures to prevent and/or minimise any harm to the environment that may result from the construction, operation, or rehabilitation of the project.	Compliant	Gauge Report Incident Reports	Incident reports have been provided to the IEA Team. See Section 3.9 of the Audit report for more details.  No prosecutions or evidence that incidents have caused harm.  Gauge Report 2021 states "An external consultant (Gauge Scientific) was engaged to investigate exceedances in 2021, and advised that the iron levels have not caused material harm to the environment"	
<b>TERMS OF APPROVAL</b>					
2	The Proponent shall carry out the project: (a) generally in accordance with the EA; (b) generally in accordance with the general layout of the project and the Statement of Commitments; and (c) in accordance with the conditions of this approval. Notes: · The general layout of the project is shown in Appendix 2; · The statement of commitments is reproduced in Appendix 3.	Compliant	EAs and Project Approvals.  Approved Management Plans	The site has generally been managed as per approvals. The Project Approval MOD 2 outlines the approvals.  Environmental Assessment titled Baal Bone Colliery Environmental Assessment (Volumes 1 to 3), dated March 2010, including the Proponent's Response to Submissions document, dated July 2010, as modified by: * Modification Application MOD 1, and accompanying Environmental Assessment titled Section 75W Modification to Project Approval 09-0178 – Baal Bone Coal Project, prepared by Umwelt (Australia) Pty Ltd, and dated 17 October 2014, and supplementary information Baal Bone Project: Modification 1 – Extension of Time dated 21 November 2014; and * Modification Application MOD 2 and accompanying Environmental Assessment titled Ben Bullen Creek Rehabilitation, prepared by Umwelt (Australia) Pty Ltd, and dated August 2015.  A consolidated Environmental Management strategy document is dated December 2021 and was approved by DPE on 24 February 2022.	
3	If there is any inconsistency between the above documents, the most recent document shall prevail to the extent of the inconsistency. However, the conditions of this approval shall prevail to the extent of any inconsistency.	Note		There were specific site management plans for the site for the part of the audit period from December 2019 - February 2022.  A consolidated Environmental Management strategy document is dated December 2021 and was approved by DPE on 24 February 2022. This covers the period of the audit from 24 February 2022 to 6 December 2022.	
4	The Proponent shall comply with any reasonable requirement/s of the Secretary arising from the Department's assessment of: (a) any reports, strategies, plans, programs, reviews, audits or correspondence that are submitted in accordance with this approval; and (b) the implementation of any actions or measures contained in these documents.	Compliant	Correspondence	Key correspondence with the DPE has included: *9/06/2020 DPIE requested further info re: revised Ben Bullen Creek Rehabilitation Plan and RMP. *10/06/2020 Baal Bone responded.  *5/02/2022 DPIE RFI request for Gauge Report *1/3/2022 Bone Bone response  *24/02/2022 DPIE approved consolidated Management Plan  *04/05/2022 Annual review accepted with requirements - 2021 AEMR aerial photos updated and uploaded to website.  *20/5/2022 DPIE requested Gauge Report uploaded to Major Projects Portal *1/6/2022 Gauge Report Uploaded.  *20/10/2022 DPIE approved cessation of noise, dust and meteorological monitoring.  No issues determined by the Audit team.	
<b>LIMITS ON APPROVAL</b>					
5	The Proponent may undertake mining operations on the site until 31 December 2019.  Note: Under this approval, the Proponent is required to rehabilitate the site and perform additional undertakings to the satisfaction of the Secretary and DRE. Consequently this approval will continue to apply in all other respects other than the right to conduct mining operations until the site has been properly rehabilitated.	Compliant		Underground mining at Baal Bone ceased on 3 September 2011, with the site entering into care and maintenance. During the audit period rehabilitation activities continued (not classified as mining operations).	
6	The Proponent shall not extract more than 2.8 million tonnes of ROM coal from the site per calendar year.	Compliant		There was no coal extracted during the audit period. Condition does not apply after December 2019.	
7	The Proponent shall not transport more than 900,000 tonnes of coal per calendar year by road.	Compliant		There was no coal extracted during the audit period. Condition does not apply after December 2019.	
8	The Proponent shall not transport any coal reject from the site.	Compliant		No mining or mineral waste was produced during the reporting period.	
<b>SURRENDER OF CONSENTS</b>					
9	Within 12 months of the date of this approval, or as otherwise agreed by the Secretary, the Proponent shall surrender all existing development consents for the operation of the Baal Bone Colliery, in accordance with sections 75YA and 104A of the EP&A Act, to the satisfaction of the Secretary.	Not triggered	Prior Audits and Annual Reviews	As discussed in previous audits, this condition was satisfied in the 2013 audit period.	
<b>STRUCTURAL ADEQUACY</b>					
10	The Proponent shall ensure that any alterations or additions to existing buildings and structures, are constructed in accordance with the relevant requirements of the BCA. Notes: · Under Part 4A of the EP&A Act, the Proponent is required to obtain construction and occupation certificates for the proposed building works; and · Part 8 of the EP&A Regulation sets out the requirements for the certification of the project.	Compliant	Site communications	Based on site communications there has been no construction during the audit period.	
<b>DEMOLITION</b>					

PA 09\_0178 Baal Bone Coal (The Wallerawang Collieries Ltd)



Condition Number	Condition	Compliance Status	Source of Evidence	Finding	Recommended Action																												
11	The Proponent shall ensure that all demolition work is carried out in accordance with AS 2601-2001: The Demolition of Structures, or its latest version.	Compliant	Demolition records and contracts	CMA Demolition Contract (dated 16 December 2019), and ITPs (dated 6/4/2020) etc reference AS 2601-2001. CMA is an experienced company with this evidence meeting the requirement of AS2601-2001. The ITP includes mitigation measures for safety and environmental impacts.  No demolition to remain, except the shed on the slab may be demolished. But this depends on future decisions regarding closing the site.																													
<b>OPERATION OF PLANT AND EQUIPMENT</b>																																	
12	The Proponent shall ensure that all plant and equipment used at the site is: (a) maintained in a proper and efficient condition; and (b) operated in a proper and efficient manner.	Compliant	Terms of the contract, Work method statements, JSAs and ITPs	Equipment used in rehabilitation was supplied and maintained by Contractor (CMA). Baal Bone have terms of the contract, work method statements, JSAs and ITPs for each work component.  Based on site discussions there have been no incidents related to unfit for purpose equipment.  No equipment for rehabilitation was being used at site during the site visit.																													
<b>STAGED SUBMISSION OF STRATEGIES, PLANS OR PROGRAMS</b>																																	
13	With the approval of the Secretary, the Proponent may submit any strategies, plans or programs required by this approval on a progressive basis. Existing strategies, plans or programs at the date of this approval may continue to be implemented for mining operations, until the strategies, plans or programs required under this approval are approved by the Secretary, in accordance with the EA, Statement of Commitments and the conditions of this approval.  Note: The conditions of this approval require certain strategies, plans, and programs to be prepared for the project. They also require these documents to be reviewed and audited on a regular basis to ensure they remain effective. However, in some instances, it will not be necessary or practicable to prepare these documents for the whole project at any one time; particularly as these documents are intended to be dynamic and improved over time. Consequently, the documents may be prepared and implemented on a progressive basis. In doing this however, the Proponent will need to demonstrate that it has suitable documents in place to manage the existing operations of the project.	Compliant	Approved Management Plans	There were specific site management plans for the site for the part of the audit period from December 2019 - February 2022.  A consolidated Environmental Management Strategy document is dated December 2021 and was approved by DPE on 24 February 2022. This covers the period of the audit from 24 February 2022 to 6 December 2022.  There appears to be minimal changes to the content within the consolidated EMS. The document reduces the repetition between the previous individual management plans. IEMA did sight current and past plans, however it is noted that the Environmental Management Strategy and the Rehabilitation Management Plan are the two documents moving forward.																													
<b>SCHEDULE 3 SPECIFIC ENVIRONMENTAL CONDITIONS</b>																																	
<b>SUBSIDENCE</b>																																	
<b>Performance Measures</b>																																	
1	The Proponent shall ensure that the project does not cause any exceedances of the performance measures in Table 1.  <b>Table 1: Subsidence Impact Performance Measures</b> <table border="1"> <tr> <td colspan="2"><b>Water</b></td> </tr> <tr> <td>Coxs River, Coks River Swamp, Wolgan River, Jews Creek, Baal Bone Creek and Ben Bullen Creek</td> <td>No greater subsidence impact or environmental consequences than predicted in the EA.</td> </tr> <tr> <td colspan="2"><b>Biodiversity</b></td> </tr> <tr> <td>Threatened species or populations, endangered ecological communities</td> <td>Negligible impact.</td> </tr> <tr> <td colspan="2"><b>Land</b></td> </tr> <tr> <td>Cliffs</td> <td>No cliff falls from the Wolgan Escarpment</td> </tr> <tr> <td>Rock pagodas</td> <td>Negligible impact</td> </tr> <tr> <td>Other rock formations</td> <td>No greater subsidence impact or environmental consequences than predicted in the EA.</td> </tr> <tr> <td colspan="2"><b>Heritage</b></td> </tr> <tr> <td>Aboriginal cultural heritage sites</td> <td>No greater subsidence impact or environmental consequences than predicted in the EA.</td> </tr> <tr> <td colspan="2"><b>Built Features</b></td> </tr> <tr> <td>Wolgan Gap Trig Station</td> <td>Safe, serviceable and repairable.</td> </tr> <tr> <td colspan="2"><b>Public Safety</b></td> </tr> <tr> <td>Public Safety</td> <td>No additional risk due to mining.</td> </tr> </table>	<b>Water</b>		Coxs River, Coks River Swamp, Wolgan River, Jews Creek, Baal Bone Creek and Ben Bullen Creek	No greater subsidence impact or environmental consequences than predicted in the EA.	<b>Biodiversity</b>		Threatened species or populations, endangered ecological communities	Negligible impact.	<b>Land</b>		Cliffs	No cliff falls from the Wolgan Escarpment	Rock pagodas	Negligible impact	Other rock formations	No greater subsidence impact or environmental consequences than predicted in the EA.	<b>Heritage</b>		Aboriginal cultural heritage sites	No greater subsidence impact or environmental consequences than predicted in the EA.	<b>Built Features</b>		Wolgan Gap Trig Station	Safe, serviceable and repairable.	<b>Public Safety</b>		Public Safety	No additional risk due to mining.	Compliant	Subsidence Reports	The SMP for development and extraction of LW 29-31 expired on 1 December 2014 with mining operations in the LW 29-31 area completed on 3 September 2011. Historic subsidence results can be found in Subsidence Status Reports published on the Baal Bone website.  The 2021 Annual Review states: <i>In March 2021 subsidence repairs were carried out on a number of cracks above LW29-31. During 2021 subsidence inspections were carried out in March and July 2021. The assessment and remediation criteria set out the Mine Closure MOP 2019-2025. Remediation activities will be undertaken in response to regular monitoring until rehabilitation has been achieved.</i>  <i>Each site once rehabilitated will have an inspection and photograph taken to provide evidence that the work has been completed to the required scope of work determined for the closure criteria stage. This information will be recorded and maintained within the subsidence database until tenure relinquishment.</i>  As there is no mining, IEMA believes it is unlikely the site would be contributing additional subsidence. IEMA have called the site compliant for not causing additional subsidence during the audit period.  <b>Historical Subsidence</b> There are areas of historical subsidence still within the Project Approval area. However it appears from the information provided that the LW29-31 areas that were mined under this Project Approval have been remediated as per the SMP. It is noted that the area of previously underground mining has recently been rezoned to be National Parks. There has been some recent discussions between National Parks and Glencore regarding historical subsidence.  No material changes to rock shelter since 2011.  Annual inspections of known subsidence areas undertaken. Site also conducts annual environmental rehabilitation walkover.	IMP REC: The subsidence inspections that are prepared should assess against the criteria in S3 C1 (Subsidence Performance Measures). This would include public safety as it's a key feature.  IMP REC: A Consolidated figure and table of subsidence impacts should be developed within the Project Approval area, noting this is likely to include historical subsidence areas. Continue the liaison with National Parks that now manage the land over the historical mining areas.
<b>Water</b>																																	
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<b>First Workings</b>																																	
2	The Proponent may carry out first workings on site provided that DRE is satisfied that the first workings are designed to remain long-term stable and non-subsiding, except insofar as they may be impacted by approved second workings.  Notes: · The intent of this condition is not to require an additional approval for first workings, but to ensure that first workings are built to geotechnical and engineering standards sufficient to ensure long-term stability, in accordance with the subsidence criteria in Table 1 above. · First workings are defined as comprising the development of main headings, bord and pillar workings, roads, cut throughs and the like. · Second workings are	Not triggered	Annual Reviews	There was no mining during the audit period.																													
<b>Extraction Plan</b>																																	

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Condition Number	Condition	Compliance Status	Source of Evidence	Finding	Recommended Action																	
3	<p>The Proponent shall prepare and implement an Extraction Plan for second workings on site to the satisfaction of the Secretary. Each Extraction Plan must:</p> <p>(a) be prepared by suitably qualified and experienced persons whose appointment has been endorsed by the Secretary;</p> <p>(b) be approved by the Secretary before the Applicant carries out any of the second workings covered by the plan;</p> <p>(c) integrate ongoing management of previously mined areas;</p> <p>(d) include detailed plans of existing and proposed first and second workings and overlying surface features;</p> <p>(e) include adequate consideration of mine roof and floor conditions, pillar width to height ratios, final pillar dimensions and long-term stability of pillars, which has been prepared in consultation with DRE;</p> <p>(f) include detailed performance indicators for each of the performance criteria in Table 1;</p> <p>(g) describe the measures that would be implemented to ensure compliance with the performance criteria in Table 1, and manage or remediate any impacts and/or environmental consequences;</p> <p>(h) include a Public Safety Management Plan, which has been prepared in consultation with DRE, to ensure public safety in the mining area;</p> <p>(i) incorporate measures to conserve and protect:</p> <ul style="list-style-type: none"> <li>· cliff lines, rock pagodas and other rock formations</li> <li>· watercourses;</li> <li>· groundwater;</li> <li>· terrestrial flora and fauna and ecology (including any threatened species and their habitats); and</li> <li>· Aboriginal cultural heritage.</li> </ul> <p>(j) include a subsidence monitoring program, which has been prepared in consultation with DRE; and</p> <p>(k) include a program to collect sufficient baseline data for future Extraction Plans.</p>	Not triggered	Annual Reviews	<p>Underground mining operations ceased September 2011 and an Extraction Plan was never prepared the site. Condition does not apply.</p> <p>The 2021 Annual Review states:  <i>The SMP for development and extraction of LW 29-31 expired on 1 December 2014 with mining operations in the LW 29-31 area completed on 3 September 2011.</i></p>																		
<b>NOISE</b>																						
<b>Noise Impact Assessment Criteria</b>																						
4	<p>By 31 December 2011, the Proponent shall ensure that the noise generated by the project does not exceed the long term noise impact assessment criteria in Table 2 at any residence on privately-owned land or on more than 25 percent of any privately-owned land.</p> <p><i>Table 2: Long Term Noise Impact Assessment Criteria</i></p> <table border="1"> <thead> <tr> <th rowspan="2">Location</th> <th>All periods</th> <th>Night</th> </tr> <tr> <th>dB(A) LAeq (15 min)</th> <th>dB(A) LA1 (1 min)</th> </tr> </thead> <tbody> <tr> <td>R1</td> <td>46</td> <td>47</td> </tr> <tr> <td>R2</td> <td>41</td> <td>48</td> </tr> <tr> <td>R3</td> <td>41</td> <td>48</td> </tr> <tr> <td>All other privately-owned land</td> <td>35</td> <td>45</td> </tr> </tbody> </table>	Location	All periods	Night	dB(A) LAeq (15 min)	dB(A) LA1 (1 min)	R1	46	47	R2	41	48	R3	41	48	All other privately-owned land	35	45	Compliant	Noise Compliance Audits 2019 - 2021	<p><u>Past Performance:</u>                      Evidence of noise monitoring by Global acoustics through an Annual Noise Monitoring Report. This was prepared to cover the previous Noise Management Plan commitment. There were no exceedances, complaints or noise related incidents recorded by Baal Bone Colliery.</p> <p><u>Future Noise Monitoring:</u>                      The letter from DPE dated 19 October 2022 states:  <i>The Secretary approve the cessation of the attended noise monitoring and depositional dust and meteorological monitoring at the EPL Monitoring Points No. 7, 13, 14 and 15, currently approved under the EMS.</i></p> <p>No further recommendation as Baal Bone have just updated the EMS document to remove these monitoring requirements.</p>	
Location	All periods		Night																			
	dB(A) LAeq (15 min)	dB(A) LA1 (1 min)																				
R1	46	47																				
R2	41	48																				
R3	41	48																				
All other privately-owned land	35	45																				
5	<p>Until 31 December 2011, the Proponent shall ensure that the noise generated by the project does not exceed the interim noise impact assessment criteria in Table 3 at any residence on privately-owned land or on more than 25 per cent of any privately-owned land.</p> <p><i>Table 3: Interim Noise Impact Assessment Criteria</i></p> <table border="1"> <thead> <tr> <th rowspan="2">Location</th> <th>All periods</th> <th>Night</th> </tr> <tr> <th>dB(A) LAeq (15 min)</th> <th>dB(A) LA1 (1 min)</th> </tr> </thead> <tbody> <tr> <td>R1</td> <td>48</td> <td>47</td> </tr> <tr> <td>R2</td> <td>43</td> <td>48</td> </tr> <tr> <td>R3</td> <td>43</td> <td>48</td> </tr> <tr> <td>All other privately-owned land</td> <td>35</td> <td>45</td> </tr> </tbody> </table>	Location	All periods	Night	dB(A) LAeq (15 min)	dB(A) LA1 (1 min)	R1	48	47	R2	43	48	R3	43	48	All other privately-owned land	35	45	Not triggered		Prior to this audit period. N/A.	
Location	All periods		Night																			
	dB(A) LAeq (15 min)	dB(A) LA1 (1 min)																				
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R3	43	48																				
All other privately-owned land	35	45																				
<b>Noise Management Plan</b>																						
6	<p>The Proponent shall prepare a Noise Management Plan for the project, to the satisfaction of the Secretary. The plan must:</p> <p>(a) be prepared in consultation with EPA, and submitted to the Secretary for approval within 6 months of the date of this approval; and</p> <p>(b) include a Noise Monitoring Program, that uses a combination of real-time and supplementary attended monitoring measures, and includes a protocol for determining exceedances with the relevant conditions of this approval.</p>	Compliant	Noise MP EMS Annual Reviews Monitoring Results	<p><u>Original Noise MP</u> dated July 2019. This was in place until the consolidated EMS was approved.                      a) Section 3.2 and App 1.                      b) Section 5.1</p> <p><u>EMS Consolidated Document (in place since 24 February 2021)</u>                      * See Consolidated EMS Document which was dated December 2021 and was approved by DPE on 24 February 2022.                      * This document has very similar commitments to the previous Noise MP. No issues determined with implementation.                      * Evidence was provided at the audit that the EMS had been updated in regard to removing noise monitoring requirements. No further recommendation, as the management plan is with DPE.</p> <p><u>Implementation:</u>                      * Evidence of implementation through annual noise monitoring reports. Few sources of noise at site, apart from rehabilitation activities.                      * Evidence of weather monitoring.                      * Based on records and discussions there have been no incidents or complaints under the Noise MP.</p> <p>Going forward noise monitoring will not occur.</p>																		
<b>Operating Conditions</b>																						

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Condition Number	Condition	Compliance Status	Source of Evidence	Finding	Recommended Action																							
7	The Proponent shall: (a) implement best practice noise management, including all reasonable and feasible noise mitigation measures to minimise the operational, low frequency, rail, and road traffic noise generated by the project; (b) regularly assess the real-time noise monitoring and meteorological forecasting data and relocate, modify, and/or stop operations on site to ensure compliance with the relevant conditions of this approval, to the satisfaction of the Secretary.	Compliant	Annual Reviews Monitoring Results	No issues determined through monitoring or site records. Rehabilitation activities are mostly completed.																								
<b>Road Haulage Management Plan</b>																												
8	The Proponent shall prepare and implement a Road Haulage Management Plan for the project to the satisfaction of the Secretary. This plan must: (a) be submitted to the Secretary for approval 3 months prior to any proposal to truck more than 5,000 tonnes of coal per month from the mine; (b) detail the procedures for the ongoing assessment of noise impacts on residences as a result of road haulage of coal from the project; and (c) detail the procedures for the ongoing identification and implementation of reasonable and feasible noise mitigation works at residences adversely impacted by road haulage noise directly attributable to the project.	Not triggered		<u>Preparation:</u> Approved previously by DPE. Noting no work completed under the plan.  <u>Implementation:</u> There was no transportation of coal product at Baal Bone during the audit period. Coal mining ceased in 2011 and washing of coal was completed in 2012.																								
<b>AIR QUALITY &amp; GREENHOUSE GAS</b>																												
<b>Greenhouse Gas Emissions</b>																												
9	The Proponent shall implement all reasonable and feasible measures to minimise the release of greenhouse gas emissions from the site to the satisfaction of the Secretary.	Compliant	EMS	Baal Bone manages greenhouse gases in accordance with GCAA Protocol - 11.13.  The EMS states that the primary source of greenhouse gas emissions during the closure phase was from the fuel combustion during rehabilitation activities and electricity consumption at remaining buildings.  The fans have been removed and the underground has been sealed. Equipment has been removed from site.																								
<b>Air Quality Impact Assessment Criteria</b>																												
10	The Proponent shall ensure that the dust emissions generated by the project do not cause additional exceedances of the criteria listed in Tables 3, 4 and 5 at any residence on privately-owned land, or on more than 25 percent of any privately-owned land.  <i>Table 3: Long term criteria for particulate matter</i> <table border="1"> <thead> <tr> <th>Pollutant</th> <th>Averaging period</th> <th><sup>d</sup>Criterion</th> </tr> </thead> <tbody> <tr> <td>Total suspended particulate (TSP) matter</td> <td>Annual</td> <td><sup>a</sup>90 µg/m<sup>3</sup></td> </tr> <tr> <td>Particulate matter &lt; 10 µm (PM<sub>10</sub>)</td> <td>Annual</td> <td><sup>a</sup>30 µg/m<sup>3</sup></td> </tr> </tbody> </table> <i>Table 4: Short term criterion for particulate matter</i> <table border="1"> <thead> <tr> <th>Pollutant</th> <th>Averaging period</th> <th><sup>d</sup>Criterion</th> </tr> </thead> <tbody> <tr> <td>Particulate matter &lt; 10 µm (PM<sub>10</sub>)</td> <td>24 hour</td> <td><sup>a</sup>50 µg/m<sup>3</sup></td> </tr> </tbody> </table> <i>Table 5: Long term criteria for deposited dust</i> <table border="1"> <thead> <tr> <th>Pollutant</th> <th>Averaging period</th> <th>Maximum increase<sup>d</sup> in deposited dust level</th> <th>Maximum total deposited dust level</th> </tr> </thead> <tbody> <tr> <td><sup>c</sup>Deposited dust</td> <td>Annual</td> <td><sup>b</sup>2 g/m<sup>2</sup>/month</td> <td><sup>a</sup>4 g/m<sup>2</sup>/month</td> </tr> </tbody> </table>	Pollutant	Averaging period	<sup>d</sup> Criterion	Total suspended particulate (TSP) matter	Annual	<sup>a</sup> 90 µg/m <sup>3</sup>	Particulate matter < 10 µm (PM <sub>10</sub> )	Annual	<sup>a</sup> 30 µg/m <sup>3</sup>	Pollutant	Averaging period	<sup>d</sup> Criterion	Particulate matter < 10 µm (PM <sub>10</sub> )	24 hour	<sup>a</sup> 50 µg/m <sup>3</sup>	Pollutant	Averaging period	Maximum increase <sup>d</sup> in deposited dust level	Maximum total deposited dust level	<sup>c</sup> Deposited dust	Annual	<sup>b</sup> 2 g/m <sup>2</sup> /month	<sup>a</sup> 4 g/m <sup>2</sup> /month	Compliant	Annual Reviews Monitoring Results	Based on data and provided and the 2019-21 Annual Review the site has been below criteria. See Figure 6.4 of Annual Review which outlines the low results for depositional dust since 2011. No issues determined in 2021 and 2022 data during rehabilitation.	
Pollutant	Averaging period	<sup>d</sup> Criterion																										
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<b>Operating Conditions</b>																												
11	The Proponent shall: (a) ensure any that any air pollution generated by the project which is visible from privately owned land or public roads is assessed regularly, and that operations are modified and/or stopped as far as is reasonable and feasible to minimise air quality impacts on privately-owned land; (b) ensure that the real-time air quality monitoring and meteorological forecasting data are assessed regularly, and that operations are modified and/or stopped as required to ensure compliance with the relevant air quality criteria; and (c) implement all reasonable and feasible measures to minimise off-site odour, fume and dust emissions generated by the project, to the satisfaction of the Secretary.	Compliant	Annual Reviews Monitoring Results  Inspections and photos	a) Rehabilitation is mostly complete. There is currently no heavy equipment or machinery on site, and the site is not visible from the road.  b) Evidence of low levels of dust through monitoring. No requirement for real time monitoring at the site (removed by DPE).  c) Evidence of water truck usage through photos. Evidence of inspections which outlines the use of watercarts.  The Annual Review indicates dust levels have been low during the 2021/2022 rehabilitation campaign. These were lower than long-term averages.																								
<b>Air Quality Monitoring Program</b>																												



Condition Number	Condition	Compliance Status	Source of Evidence	Finding	Recommended Action																																																																																																									
12	The Proponent shall prepare and implement a Air Quality Monitoring Program for the project to the satisfaction of the Secretary. This program must: (a) be prepared in consultation with EPA, by a suitably qualified expert whose appointment has been approved by the Secretary; (b) be submitted to the Secretary for approval within 3 months of the date of this approval, or as; otherwise agreed by the Secretary; (c) describe the measures that would be implemented to ensure compliance with the relevant conditions of this approval, including the proposed real-time air quality management system; and (d) include an air quality monitoring program, using a combination of real-time monitors, high volume samplers and dust deposition gauges to monitor the performance of the project, and a protocol for determining exceedances with the relevant conditions of this approval.	Compliant	Annual Reviews Monitoring Results AQMP EMS	<p><u>Preparation:</u> a) Appendix A.2 (EMS) b) Appendix A.2 (EMS) c) Sections 6.3 &amp; 6.4 (EMS) d) Section 6.4</p> <p>Original AQMP dated July 2019. This was in place until the consolidated EMS was approved. Covers the monitoring, mitigation and reporting requirements of this condition.</p> <p>EMS Consolidated Document (in place since 24 February 2021) See Consolidated EMS Document which was dated December 2021 and was approved by DPE on 24 February 2022. This document has very similar commitments to the previous AQMP.</p> <p><u>Implementation:</u> Evidence of implementation through Annual Review and monitoring results. Few sources of dust at site, apart from rehabilitation activities. Based on records and discussions there have been no incidents or complaints under the AQMP. The EMS was sent to DPE again on 1 December 2022 which removed the commitments relating to air quality monitoring. This was based on the letter from DPE dated 20/10/2022 which approved cessation of noise, dust and meteorological monitoring.</p> <p>12 month report of dust monitoring in 2021 Annual Review over four sites, with all four sites below the average annual limit of 4g/m2/month. No dust increases with rehabilitation activities.</p>																																																																																																										
<b>METEOROLOGICAL MONITORING</b>																																																																																																														
13	The Proponent shall ensure that there is a suitable meteorological station in the vicinity of the site that complies with the requirements in the Approved Methods for Sampling of Air Pollutants in New South Wales guideline.	Compliant	Meteorological station calibration reports dated 24/1/2020, 25/22/2020, 23/6/2021, 25/1/2022, 30/6/2022.	<p>Evidence of meteorological station calibration. Note, going forward the letter from DPE dated 19 October 2022 states: <i>The Secretary approve the cessation of the attended noise monitoring and depositional dust and meteorological monitoring at the EPL Monitoring Points No. 7, 13, 14 and 15, currently approved under the EMS.</i></p> <p>The meteorological station is still in place.</p> <p>The EMS was sent to DPE again on 1 December 2022 which removed the commitments relating to meteorological monitoring. This was based on the letter from DPE dated 20/10/2022 which approved cessation of noise, dust and meteorological monitoring.</p>																																																																																																										
<b>SOIL &amp; WATER</b>																																																																																																														
<b>Water Discharges</b>																																																																																																														
14	The Proponent shall ensure that all surface water discharges from the site comply with the discharge limits (both volume and quality) set for the project in any EPL.	Non-compliant	Letter from Glencore to DPE dated 1 March 2022 Gauge Report 2021 Annual Reviews	<p>All mine water is discharged via LDP1 (EPL monitoring point 16).</p> <p>Letter from Glencore to DPE dated 1 March 2022 outlines the dissolved iron exceedance at Baal Bone. Monitoring is required monthly during discharge as per EPL Condition M2.2. The table below outlines the exceedances of Iron (dissolved) and pH in red. Monitoring data also shows exceedances through reporting period.</p> <table border="1"> <thead> <tr> <th>Concentration limit</th> <th>Iron (dissolved) 1.0 milligrams per litre</th> <th>pH 6.5-8.5</th> </tr> </thead> <tbody> <tr><td>21 Jul 20</td><td>&lt;0.05</td><td>7.0</td></tr> <tr><td>25 Aug 20</td><td>1.60</td><td>6.5</td></tr> <tr><td>9 Sep 20</td><td>0.05</td><td>6.5</td></tr> <tr><td>16 Sep 20</td><td>0.50</td><td>6.5</td></tr> <tr><td>21 Sep 20</td><td>&lt;0.05</td><td>6.9</td></tr> <tr><td>22 Sep 20</td><td>&lt;0.05</td><td>6.8</td></tr> <tr><td>26 Sep 20</td><td>&lt;0.05</td><td>7.0</td></tr> <tr><td>26 Oct 20</td><td>0.09</td><td>6.8</td></tr> <tr><td>16 Nov 20</td><td>0.06</td><td>7.2</td></tr> <tr><td>8 Dec 20</td><td>&lt;0.05</td><td>7.2</td></tr> <tr><td>19 Jan 21</td><td>&lt;0.05</td><td>6.7</td></tr> <tr><td>9 Feb 21</td><td>1.05</td><td>6.7</td></tr> <tr><td>16 Mar 21</td><td>0.21</td><td>6.7</td></tr> <tr><td>15 Apr 21</td><td>0.68</td><td>6.9</td></tr> <tr><td>11 May 21</td><td>1.32</td><td>6.6</td></tr> <tr><td>2 Jun 21</td><td>No Row</td><td>No Row</td></tr> <tr><td>21 Jul 21</td><td>No Row</td><td>No Row</td></tr> <tr><td>19 Aug 21</td><td>No Row</td><td>No Row</td></tr> <tr><td>1 Sep 21</td><td>No Row</td><td>No Row</td></tr> <tr><td>18 Oct 21</td><td>No Row</td><td>No Row</td></tr> <tr><td>9 Nov 21</td><td>No Row</td><td>No Row</td></tr> <tr><td>8 Dec 21</td><td>0.08</td><td>6.7</td></tr> <tr><td>17 Jan 22</td><td>0.05</td><td>6.8</td></tr> <tr><td>01 Feb 22</td><td>1.21</td><td>6.6</td></tr> <tr><td>23 Mar 22</td><td>1.09</td><td>6.9</td></tr> <tr><td>Apr 22</td><td>1.97</td><td>7.3</td></tr> <tr><td>May 22</td><td>0.06</td><td>7.3</td></tr> <tr><td>June 22</td><td>0.15</td><td>7.2</td></tr> <tr><td>July 22</td><td>0.11</td><td>6.6</td></tr> <tr><td>Aug 22</td><td>0.11</td><td>6.6</td></tr> <tr><td>Sept 22</td><td>0.05</td><td>6.6</td></tr> <tr><td>Oct 22</td><td>0.46</td><td>6.8</td></tr> <tr><td>Nov 22</td><td>0.43</td><td>6.9</td></tr> <tr><td>Dec 22</td><td>0.05</td><td>7.1</td></tr> </tbody> </table> <p>There was a report by Gauge (2021) suggested that elevated iron levels could be the result of groundwater expressing to the surface due to hydrogeology changes following the cessation of pumping the underground at end 2019 and increased rainfall following a period of drought. Gauge (2021) suggests that it is possible that the hydrogeology of the area will settle, and the iron rich shallow groundwater becomes diluted with fresher recharge, thereby self-correcting the iron concentration with time.</p> <p>We understand that the water exceedances will be discussed in the 2022 Annual Review.</p> <p>IEMA do not pose any further actions, other than what Baal Bone has already committed to the in letter to DPE dated 1 March 2022 - 'Baal Bone Colliery will continue monitoring groundwater levels and surface water quality over the coming 12 months and provide an update to DPIE in 2023'.</p> <p>To confirm that groundwater is the source of Iron - Gauge report suggests to sample expressed groundwater at the source of the spring, near the Overshot Dam. It is expected that this sample would have the highest dissolved iron content.</p> <p>Report also mentions to review groundwater data for any bores in the area</p> <p>Gauge report also states that pH in Ben Bullen creek has become slightly acidic - reducing from circa pH 7.6 in 2018 to 6.5 in 2021.</p> <p>Mitigation - Dissolved iron in ferrous form can be eliminated by raising redox potential by exposure to oxygen in air or water (aeration) and by raising the pH above 6.5 (lime added). It is also preferable to contain iron to the current stream reach.</p> <p>Section 7.1.1 of the 2021 Annual report addresses this in detail.</p>	Concentration limit	Iron (dissolved) 1.0 milligrams per litre	pH 6.5-8.5	21 Jul 20	<0.05	7.0	25 Aug 20	1.60	6.5	9 Sep 20	0.05	6.5	16 Sep 20	0.50	6.5	21 Sep 20	<0.05	6.9	22 Sep 20	<0.05	6.8	26 Sep 20	<0.05	7.0	26 Oct 20	0.09	6.8	16 Nov 20	0.06	7.2	8 Dec 20	<0.05	7.2	19 Jan 21	<0.05	6.7	9 Feb 21	1.05	6.7	16 Mar 21	0.21	6.7	15 Apr 21	0.68	6.9	11 May 21	1.32	6.6	2 Jun 21	No Row	No Row	21 Jul 21	No Row	No Row	19 Aug 21	No Row	No Row	1 Sep 21	No Row	No Row	18 Oct 21	No Row	No Row	9 Nov 21	No Row	No Row	8 Dec 21	0.08	6.7	17 Jan 22	0.05	6.8	01 Feb 22	1.21	6.6	23 Mar 22	1.09	6.9	Apr 22	1.97	7.3	May 22	0.06	7.3	June 22	0.15	7.2	July 22	0.11	6.6	Aug 22	0.11	6.6	Sept 22	0.05	6.6	Oct 22	0.46	6.8	Nov 22	0.43	6.9	Dec 22	0.05	7.1	NC REC- Refer to Recommendations in L2.4 EPL765
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Condition Number	Condition	Compliance Status	Source of Evidence	Finding	Recommended Action
16	The Proponent shall prepare and implement a Water Management Plan for the project to the satisfaction of the Secretary. This plan must: (a) be prepared in consultation with EPA, DRE, NSW Fisheries, and DPI Water by suitably qualified expert/s whose appointment/s have been approved by the Secretary; (b) be submitted to the Secretary for approval prior to carrying out any construction on site; and (c) include: - a detailed Site Water Balance; - an Erosion and Sediment Control Plan; - a Surface Water Monitoring Plan; - a Groundwater Monitoring Plan; and - a Surface and Ground Water Response Plan.	Compliant	Original Water MP (dated 1 July 2019) EMS (dated December 2021)	<u>Original Water MP (dated 1 July 2019)</u> The WMP has been prepared to fulfill the requirements of PA 09_0178 conditions and EPL 765. a) Appendix A.2 b) Appendix A.2 c) Includes required conditions under Sections 9.2, 9.3, 9.5, 9.4, 9.6  <u>Consolidated EMS:</u> See Section 9 of the EMS Consolidated Document (in place since 24 February 2021). See Consolidated EMS Document which was dated December 2021 and was approved by DPE on 24 February 2022. This document has very similar commitments to the previous WMP and appendices. IEMA does not believe there is a requirement to get someone re-endorsed to be suitably qualified as the EMS was a document prepared by experienced Glencore staff.  a) Section 2.4 b) Section 2.4 c) Section 4.1 Appendix 3 Appendix 4 Appendix 5 Appendix 6	
17	17. The Site Water Balance must include details of: (a) sources of water supply; (b) water use on site; (c) water management on site; (d) off-site water transfers; and (e) reporting procedures.	Compliant	Original Water Balance consolidated EMS	<u>Original Water Balance</u> (dated July 2019) - covers requirements.  <u>Consolidated EMS</u> - Section 9.2 covers requirements.  <u>Implementation:</u> The site is not using water at the moment. Water was used during rehabilitation for water trucks. The majority of dams are full as the site no longer pumps water underground. The water management system has changed in the last 2 years and there is no water pumps and pipelines (except potable pipeline). The water that leaves the site via the LDP is surface water.  The majority of water that is within the final void is due to groundwater interception. Based on site communications the void has filled up faster than anticipated. In 2021 and 2022 there have been validation reports relating to the void water levels. The void water currently travels through two small pipes and eventually drains to the discharge point at Ben Bullen Creek. We understand Glencore have engaged a specialist to review the water balance due to the increased void fill rate. As this is being completed there is no further recommendation regarding the water balance.  Based on site communications there are plans for a longer term spillway. See recommendation.	IMP REC: IEMA recommends the installation of a longer term spillway at the northern void (LDP17) with this to be based on an engineering design. This will need to be designed to be long-term stable with minimal maintenance and should be capable of measuring volumes of discharge.  IMP REC - A permanent height gauge should installed for the Northern Void.
18	Deleted				
19	The Erosion and Sediment Control Plan must: (a) be consistent with the requirements of the Managing Urban Stormwater, Soils and Construction Volume 2E Mines and Quarries (DECCW, 2008), or its latest version; (b) identify activities that could cause soil erosion and generate sediment; (c) describe measures to minimise soil erosion and the potential for the transport of sediment to downstream waters; (d) describe the location, function, and capacity of erosion and sediment control structures; and (e) describe what measures would be implemented to maintain the structures over time.	Compliant	Site Inspections, Annual Reviews, DNA Environmental Report.	<u>Original ESCP</u> (dated July 2019) - covers requirements. Section 4 -6.  <u>Consolidated EMS</u> - Section 9.5 covers requirements. a) - overall document b) Section 9.5.4 c) Section 9.5.4 d) Section 9.5.5 e) Section 9.5.6  <u>Implementation:</u> Evidence of erosion and sediment control management in the field. The majority of the site drains in rock lined contour drains as well as Ben Bullen Creek. TSS sampling is completed at the discharge point of Ben Bullen (LDP16).  The process water dam was flocculated during mine closure works.	IMP REC PACKAGE 1.: Implement the rehabilitation/erosion and sediment control maintenance program. This will include: + Areas near dollar Shed and Reach 2. Place logs and rocks at the top of the hill in an attempt to slow down the water flow and minimise erosion. Some areas of erosion upto 90cm wide (hard hat for scale).  + Gully erosions. Fill then hydro mulch in an attempt to get ground cover over areas to help stabilise soils.  + Address areas where geo fabric is exposed along engineered drains.
20	The Surface Water Monitoring Plan must include: (a) detailed baseline data on surface water flows and quality in creeks and other waterbodies that could be impacted by the project (including the Coxs River, Ben Bullen Creek, Baal Bone Creek and Jews Creek); (b) surface water quality and stream health assessment criteria, including trigger levels for investigating any potentially adverse surface water impacts; and (c) a program to monitor: i. surface water flows, quality, and impacts on water users; ii. stream health; and iii. channel stability in the Coxs River, Ben Bullen Creek, Baal Bone Creek and Jews Creek.	Compliant	Annual Reviews, Gauge Report, EMS, Quarterly Environmental Summaries	<u>Original Surface Water Monitoring Program</u> (dated July 2019) - covers requirements. Section 3-5 and approved by DPE.  <u>Consolidated EMS</u> - Section 9.5 covers requirements.  a) Section 9.3.3 b) Section 9.3.4 c) Section 9.3.5  <u>Implementation:</u> Evidence of surface water monitoring. IEMA checked results against requirements in Table 9.14 of the EMS, and no issues found. Includes quality, flow and channel stability.  BBLD2- Used monthly sampling of Oil&Grease, TSS,pH,BOD, Faecal coliforms, nitrogen and phosphorus, it was removed from EPL in June 2021. This discharge point had no EPL Limits. No issues determined.  BBLDP1 uses monthly sampling (Grab) and tests for EC, Oil & Grease, Iron, Sulphates, TSS, pH, flow rates, hardness, MBAS nitrogen and phosphorus. EPL Limits on Oil and Grease, pH, dissolved iron and TSS. No issues determined.  During June-Nov 2021 LDP1 had no samples taken due to lack of flow.	



Condition Number	Condition	Compliance Status	Source of Evidence	Finding	Recommended Action
21	<p>The Groundwater Monitoring Plan must include:</p> <ul style="list-style-type: none"> <li>(a) baseline data of groundwater levels, yield and quality in the region that may be affected by mining operations on site;</li> <li>(b) a program to augment the baseline data over the life of the project;</li> <li>(c) groundwater assessment criteria, including trigger levels for investigating any potentially adverse groundwater impacts;</li> <li>(d) a program to monitor:                             <ul style="list-style-type: none"> <li>- groundwater inflows to the underground mining operations;</li> <li>- the impacts of the project on:                                     <ul style="list-style-type: none"> <li>- the alluvial, Triassic, and coal seam aquifers;</li> <li>- base flows to the Cocks River Swamp;</li> <li>- any groundwater bores on privately-owned land;</li> <li>- riparian vegetation; and</li> <li>- seepage/leachate from any tailings dams, water storages or backfilled voids on site; and</li> </ul> </li> </ul> </li> <li>(e) a program to validate the groundwater model for the project, and calibrate it to site specific conditions.</li> </ul>	Compliant	Annual Review/ EMS/Monitoring reports	<p><u>Original Groundwater Monitoring Program</u> (dated June 2019) - covers requirements. See Section 3-4 and approved by DPE.</p> <p><u>Consolidated EMS</u> - Section 9.4 covers requirements.</p> <ul style="list-style-type: none"> <li>a) Section 9.4.5</li> <li>b) Section 9.4.8</li> <li>c) Section 9.4.4</li> <li>d) Section 9.4</li> <li>e) Section 9.4.7</li> </ul> <p><u>Implementation:</u> Evidence of groundwater monitoring - BB1,2,5,6 Quarterly Inspections BB 3,4 Monthly Inspections frequency and results. See Table 9.17 of the EMS and compare against results. Includes groundwater quality and water level.</p> <p>See Schedule3, Condition 14 for compliance and trigger levels.</p> <p><b>Discussion on trigger levels.</b></p> <ul style="list-style-type: none"> <li>*A program to monitor groundwater levels is in place however since 2019 no inflows are recorded due to operation being closed.</li> <li>*The program to monitor impacts on alluvium, baseflows and private bores is in place but no inflow is occurring as the groundwater has recovered following the end of operation.</li> <li>*A program to validate the groundwater model is in place. A model was validated in 2020 as part of the previous independent audit.</li> <li>*The modelling report did not provide any information on the material properties or model class ( this was part of scope of the model ie summary of model construction) or the information wheather the model was constructed and validated in accordance with the modelling guidelines (Barnett, 2012).</li> </ul> <p><b>Implementation:</b></p> <ul style="list-style-type: none"> <li>*Evidence of groundwater monitoring -</li> <li>*Annual reports 2020, 2021 and 3 quarterly monitoring reports for Q1, Q2 and Q3 for 2022.</li> <li>*Annual reports for 2020 and 2021 indicate that all monitoring is undertaken as per requirements of the consolidated management plan(groundwater monitoring).</li> <li>*For 2022 the annual report was not available at the time of audit, however the quarterly reports were reviewed.</li> <li>*Quarterly reports do not include groundwater monitoring ,although monthly and quarterly groundwater monitoring is required for different parameters and at different locations. Quarterly report for Q4 2022 was also not available.</li> </ul> <p>*Groundwater model was updated in 2022 and 2020 and the observed data compared to the modelled outcomes. There is general agreement between observed and modelled data.</p> <p>The site called themselves non - compliant for this condition in the 2021 Annual Review. IEMA does not believe this is a non - compliance as the site investigated and responded accordingly.</p>	
22	<p>The Surface and Ground Water Response Plan must describe what measures and/or procedures would be implemented to:</p> <ul style="list-style-type: none"> <li>(a) respond to any exceedances of the surface water, stream health, and groundwater assessment criteria;</li> <li>(b) mitigate the loss of any base flows to Jews Creek following the completion of mining; and</li> <li>(c) mitigate and/or offset any adverse impacts on riparian vegetation.</li> </ul>	Compliant	EMS Annual Reviews	<p><u>Original Surface Water and Groundwater Response Plan (dated July 2019)</u> - covers requirements in Section 2.</p> <p><u>Consolidated EMS</u> -</p> <ul style="list-style-type: none"> <li>a) Section 9.6.3 - 9.6.6</li> <li>b) Section 9.6.10</li> <li>c) Section 9.6.11</li> </ul> <p><u>Implementation:</u> Evidence of surface water sampling. Iron and pH exceedances mentioned in annual reviews. Baal Bone used Gauge (water specialist) to understand where these exceedances came from.</p> <p>Groundwater plan describes the measures to respond to groundwater level and quality exceedance.</p> <p>Annual reports 2020 and 2021 indicate that all groundwater monitoring data was compared to previous monitoring and the EA and that exceedance of trigger levels, where it occurred, has been reported. A number of trigger levels were reported and actions were undertaken in accordance with the consolidated environmental management strategy (2022). Where required further investigation was undertaken and DPIE notified.</p> <p>Where monitoring could not be undertaken as a result of fire conditions in 2019/2020, this was reported and explanation provided.</p>	
<b>LANDSCAPE MANAGEMENT</b>					
<b>Biodiversity Management Plan</b>					

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Condition Number	Condition	Compliance Status	Source of Evidence	Finding	Recommended Action																
23	<p>The Proponent shall prepare and implement a Biodiversity Management Plan for the project to the satisfaction of the Secretary. This plan must:</p> <p>(a) be prepared in consultation with OEH, and submitted to the Secretary for approval within 6 months of the date of this approval, or as otherwise agreed by the Secretary;</p> <p>(b) include:</p> <p>i. a description of the short, medium, and long term measures that would be implemented to manage the remnant vegetation and habitat on site;</p> <p>ii. a detailed description of the measures that would be implemented over the next 2 years, including the procedures to be implemented for:</p> <ul style="list-style-type: none"> <li>- managing salinity;</li> <li>- conserving and reusing topsoil;</li> <li>- managing impacts on fauna;</li> <li>- landscaping the site to minimise visual impacts;</li> <li>- collecting and propagating seed;</li> <li>- salvaging and reusing material from the site for habitat enhancement;</li> <li>- controlling weeds and feral pests, including terrestrial and aquatic species;</li> <li>- managing grazing and agriculture on site and in the biodiversity offset areas;</li> <li>- controlling access;</li> <li>- bushfire management; and</li> <li>- managing potential conflicts between the offset areas and Aboriginal cultural heritage values;</li> </ul> <p>iii. a program to monitor the effectiveness of these measures, and progress against the performance and completion criteria; and</p> <p>iv. details of who would be responsible for monitoring, reviewing, and implementing the plan.</p>	Compliant	BMP EMS Annual Reviews DNA Environmental Report	<p><u>Original BMP -</u> Original BMP dated July 2019 until the consolidated EMS was approved. This covers the requirements of this section and includes programs to monitor the effectiveness, as well as reviewing and implementation of this plan.</p> <p><u>Consolidated EMS</u> which was dated December 2021, and dated from DPE on 07 March, 2022. This EMS document has very similar commitments to the previous BMP</p> <p>B)</p> <p>i) Section 10.4 ii) -Section 10.3.1 -Section 10.3.2 -Section 10.3.3 -Section 10.3.4 -Section 10.3.5 -Section 10.3.3 -Section 10.3.6 -Section 10.3.7 -Section 10.3.8 -Section 10.3.9 -Section 10.3.10</p> <p>iii) Section 10.5 iv) Section 14</p> <p><u>Implementation:</u> There were weeds at site, but most of these are annual weeds There was minimal blackberry which can be dominant in the area.</p> <p>Majority of topsoil has been reused on site during rehabilitation. The remaining 2 small areas of topsoil are to be reused in pre-identified areas on site.</p> <p>The site has been managing feral animals through 1080 baiting.</p> <p>Site has not historically collected seed. For rehabilitation areas, seed have been collected/sourced based on species which occur in surrounding woodland vegetation communities</p> <p>The Annual Review outlines the bushfire management. Roads are around the site and there are numerous water sources.</p> <p>Grazing and agriculture does not occur within the site.</p> <p>There is no offset areas associated with the site.</p>																	
<b>Rehabilitation Objectives</b>																					
24	<p>The Proponent shall rehabilitate the site to the satisfaction of the DRE. This rehabilitation must be generally consistent with the proposed rehabilitation strategy described in the EA (and depicted conceptually in Figure 1 in Appendix 4), and achieve the objectives in Table 6.</p> <table border="1"> <thead> <tr> <th>Feature</th> <th>Objective</th> </tr> </thead> <tbody> <tr> <td>Mine Site (as a whole)</td> <td>Safe, stable and non-polluting</td> </tr> <tr> <td>Surface infrastructure</td> <td>To be decommissioned and removed.</td> </tr> <tr> <td>Ben Bullen Creek</td> <td>· Hydraulically and geomorphologically stable, with established native riparian and aquatic vegetation which complements local and regional biodiversity. · Rehabilitated areas contribute to achieving self-sustaining biodiversity habitats.</td> </tr> <tr> <td>Other watercourses</td> <td>Hydraulically and geomorphologically stable.</td> </tr> <tr> <td>Cliffs</td> <td>No additional risk to public safety compared to pre-mining conditions.</td> </tr> <tr> <td>Other land affect by the project</td> <td>Restored ecosystem function, including maintaining or establishing self-sustaining eco-systems: · comprised of local native plant species; with · a landform consistent with the surrounding environment.</td> </tr> <tr> <td>Community</td> <td>Minimise the adverse socio-economic effects associated with mine closure.</td> </tr> </tbody> </table>	Feature	Objective	Mine Site (as a whole)	Safe, stable and non-polluting	Surface infrastructure	To be decommissioned and removed.	Ben Bullen Creek	· Hydraulically and geomorphologically stable, with established native riparian and aquatic vegetation which complements local and regional biodiversity. · Rehabilitated areas contribute to achieving self-sustaining biodiversity habitats.	Other watercourses	Hydraulically and geomorphologically stable.	Cliffs	No additional risk to public safety compared to pre-mining conditions.	Other land affect by the project	Restored ecosystem function, including maintaining or establishing self-sustaining eco-systems: · comprised of local native plant species; with · a landform consistent with the surrounding environment.	Community	Minimise the adverse socio-economic effects associated with mine closure.	Not triggered	DNA Rehabilitation Monitoring Reports Rehabilitation Walkover Report	<p>The site previously operated under a MOP, with it now being managed under a RMP. Note, the rehabilitation occurred in the last three years was completed under the MOP. These objectives are 'final rehabilitation objectives' and the site is still progressing in this space.</p> <p>In terms of rehabilitation the IEMA inspection noted:</p> <ul style="list-style-type: none"> <li>* in SOC4 rehabilitation area - safe stable and non polluting with established acacia and eucalyptus species.</li> <li>* in Rehabilitation area near southern boundary (Tailings regions) good ground cover with small emerging acacia and eucalyptus sited during walkover.</li> <li>* Rehabilitation maintenance is being undertaken. There are no noted changes required to rehabilitation practices at the site.</li> </ul> <p>Also the DNA Rehabilitation Monitoring Reports (2020/2021) and Rehabilitation Walkover noted</p> <ul style="list-style-type: none"> <li>- The older Box Cut, NOC and SOC woodland rehabilitations areas have continued to meet almost all of the 70% completion criteria</li> <li>- Eastern Side - near SOC5 did not meet completion criteria targets, and this area has not been nominated for relinquishment and requires weed control and tube stock planting of eucalyptus</li> </ul>	
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Condition Number	Condition	Compliance Status	Source of Evidence	Finding	Recommended Action
25	The Proponent shall prepare and implement a Rehabilitation Management Plan for the project to the satisfaction of the DRE and the Secretary. The Rehabilitation Management Plan must: (a) be prepared in consultation with DRE, OEH, DPI Water and Council, and submitted for approval within 6 months of the date of this approval; (b) be prepared in accordance with the relevant DRE guideline; (c) define the objectives and criteria for site rehabilitation; (d) investigate options for the future use of the site in a manner consistent with any regional planning strategies; (e) describe the measures that would be implemented to minimise or manage the ongoing environmental effects of the project; and (f) describe how the performance of these measures would be monitored over time.	Compliant	RMP EMS	<u>Preparation</u> Previously covered by the MOP. Now covered by an RMP. <b>Separate Mine Closure MOP was prepared and effective from 2019 till 2025,</b> RMP was prepared and effective August 2022  a) Consultation completed for RMP.  a) Section 4.2 b) Section 1 c) Section 4 d) Section 3 e) Section 6 f) Section 7,8 and 11  <u>Implementation</u> - During site inspections, audit team noted that significant rehabilitation works had occurred, with many established vegetation communities present on site. Some minor erosion on steeper regions. Larger/ flat areas appeared to be safe and stable.  Site using progressive rehabilitation methods	PACKAGE 1 - Rehabilitation, Erosion and Sediment Plan  IMP REC - Areas of shale/coal/ chitter near Haul Road need coverage of topsoil and resown or hydro mulched to allow vegetation to become established.  IMP REC -In consultation with Rehabilitation contractor - Hydromulch the small pockets of disturbed areas at site that are not required for longterm access
25A	The Proponent shall prepare and implement a Ben Bullen Creek Rehabilitation Plan to the satisfaction of the DRE. The plan must: (a) be prepared in consultation with the Department, OEH, DPI Water, DRE and NSW Fisheries, and in accordance with the relevant DRE guideline; (b) be submitted for approval by 31 May 2016, unless otherwise agreed with the Secretary; (c) include hydrologic, hydraulic, geomorphic and geotechnical assessments of Ben Bullen Creek and the effect of any proposed bank slope regrading and highwall stabilisation works; (d) include a flood hydraulic assessment, including how the design of final landforms would manage high flow events; (e) describe the staging and timing of rehabilitation works, and how these works would be integrated into the overall rehabilitation of the site; (f) detail the proposed native riparian and aquatic species to be used in rehabilitation works, and how these species would complement local and regional biodiversity and contribute to self-sustaining biodiversity habitats; and (g) include completion criteria and a monitoring program to assess and report on the efficacy of the rehabilitation works.	Compliant	Annual Review Inspections RMP	<u>Preparation: Ben Bullen Creek RMP - approved in July 2017.</u> Within the Baal Bone Domains, Ben Bullen Creek is listed as Domain 8. It was listed as its own domain due to the significance of the rehabilitation work required to establish a long-term stable and non-polluting system.  a) Section 4 b) Not Applicable to this RMP c) Section 6 d) Section 8 e) Section 6 f) Section 6 g) Section 4,8 and 10  <u>Implementation:</u> The sections of the Ben Bullen Creek that were inspected by the audit team inspection appeared stable, with a significant amount of work completed in the last three years.  Umwelt are currently preparing a channel stability report which includes Ben Bullen Creek. Some actions may fall out of that report.	IMP REC: Implement any recommendations from the Umwelt report regarding stability of Ben Bullen Creek.
<b>HERITAGE</b>					
<b>Aboriginal Cultural Heritage Management Plan</b>					
26	The Proponent shall prepare and implement an Aboriginal Cultural Heritage Management Plan for the project to the satisfaction of the Secretary. This plan must: (a) incorporate the existing Aboriginal Cultural Heritage Management Plan for Longwalls 29-31; (b) be prepared in consultation with OEH, relevant Aboriginal community groups and Council; (c) be submitted to the Secretary for approval within 6 months of the date of this approval; (d) include programs and/or procedures for: i. salvage, excavation and/or management of Aboriginal sites and potential archaeological deposits which are at risk of significant impact within the project disturbance area; ii. managing the discovery of any new Aboriginal objects or skeletal remains found during the project; iii. maintaining and managing access to archaeological sites by the Aboriginal community; and iv. ongoing consultation with, and involvement of, relevant Aboriginal community groups in the conservation and management of Aboriginal cultural heritage at the project site.	Compliant	Aboriginal Cultural Heritage 2019 Annual Reviews	<u>Preparation:</u> a) revised ACHMP now incorporates Longwalls 29-31 b) Check MP to see if any discoveries c) Appendix 3 d) Section 7  <u>Implementation:</u> There has been no material changes to the rock shelter since 2011.  No further clearing of undisturbed areas in the last years, noting Pre clearance permits were still completed and included heritage.  No known heritage locations on pit top areas, with there being some found previously in the underground mining area. Covered under ACHPMP.	
<b>TRANSPORT</b>					
<b>Hours of Operation</b>					
27	The Proponent shall undertake road transport of coal only between 7.00am and 7.00pm, Mondays to Saturdays (excepting Public Holidays). No road transport of coal shall take place on Sundays or Public Holidays.	Compliant	Annual Reviews	No transportation of coal product in the audit period.	
<b>Monitoring of Coal Transport</b>					
28	The Proponent shall keep records of the: (a) amount of coal transported by both rail and road from the site (on a daily basis); and (b) number of coal haulage train movements generated by the project (on a daily basis); and (c) make these records publicly available on its website in accordance with condition 6 of schedule 5.	Compliant	Annual Review	No transportation of coal product in the audit period.	
<b>VISUAL</b>					
<b>Visual Amenity and Lighting</b>					
29	The Proponent shall: (a) minimise the visual impacts, and particularly the off-site lighting impacts, of the surface infrastructure area and the Southern ventilation shaft site; (b) take all reasonable and feasible measures to further mitigate off-site lighting impacts from the project; and (c) ensure that all external lighting associated with the project complies with Australian Standard AS4282 (INT) 1995 - Control of Obtrusive Effects of Outdoor Lighting, to the satisfaction of the Secretary.	Compliant	Inspection Complaints records	Very minimal lighting onsite.  The site inspection indicated no visual complaints and site cannot be seen from the highway.  No complaints for visual or lighting. The majority of the site has been rehabilitated.	
<b>WASTE</b>					

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Condition Number	Condition	Compliance Status	Source of Evidence	Finding	Recommended Action
30	The Proponent shall: (a) minimise the waste (including coal reject) generated by the project; (b) ensure that the waste generated by the project is appropriately stored, handled and disposed of, to the satisfaction of the Secretary.	Compliant	Annual Reviews, Site Inspections, Site Communications	Minimal waste onsite at the moment and use a local waste contractor.  Waste register provided which showed demolition waste. This was managed by the demolition and bulk earthworks contractor (CMA Delta).  The field inspection noted: * Small amount of old lubricant containers and drums behind remaining shed which should be removed. Very minor issue and not a non-compliance due to the amount of material. * The site was found to be kept in tidy state * 2 X 1000L Flocculant drums not banded.	IMP REC: Removal of old lubricant drums and containers from behind 'Dollar Shed'
31	The Proponent shall prepare and implement a Waste Management Plan for the project to the satisfaction of the Secretary. This plan must be submitted to the Secretary within 3 months of the date of this approval.	Compliant	Waste Management Plan EMS	<u>Preparation:</u> Waste Management Plan was prepared and approved in July 2019 until 2021. in December 2021, a new consolidated EMS was prepared, and approved in March 2022.  <u>Implementation:</u> As above	
<b>SCHEDULE 4 ADDITIONAL PROCEDURES</b>					
<b>NOTIFICATION OF LANDOWNERS</b>					
1	If the results of monitoring required in schedule 3 identify that impacts generated by the project are greater than the relevant impact assessment criteria, except where a negotiated agreement has been entered into in relation to that impact, then the Proponent shall, within 2 weeks of obtaining the monitoring results, notify the Secretary, the affected landowners and tenants accordingly, and provide quarterly monitoring results to each of these parties until the results show that the project is complying with the criteria in schedule 3.	Not triggered	Site communications	Not triggered based on site communications.	
<b>INDEPENDENT REVIEW</b>					
2	If a landowner of privately-owned land considers the project to be exceeding the impact assessment criteria in schedule 3, then he/she may ask the Secretary in writing for an independent review of the impacts of the project on his/her land. If the Secretary is satisfied that an independent review is warranted, the Proponent shall within 3 months of the Secretary's decision: (a) consult with the landowner to determine his/her concerns; (b) commission a suitably qualified, experienced and independent person, whose appointment has been approved by the Secretary, to conduct monitoring on the land, to: i. determine whether the project is complying with the relevant impact assessment criteria in schedule 3; and ii. identify the source(s) and scale of any impact on the land, and the project's contribution to this impact; and (c) give the Secretary and landowner a copy of the independent review.	Not triggered	Site communications	Not Triggered based on site communications.	
3	If the independent review determines that the project is complying with the relevant impact assessment criteria in schedule 3, then the Proponent may discontinue the independent review with the approval of the Secretary. If the independent review determines that the project is not complying with the relevant impact assessment criteria in schedule 3, then the Proponent shall: (a) implement all reasonable and feasible measures, in consultation with the landowner, to ensure that the project complies with the relevant criteria, and conduct further monitoring to determine whether these measures ensure compliance; or (b) secure a written agreement with the landowner to allow exceedances of the relevant impact assessment criteria, to the satisfaction of the Secretary. If the further monitoring referred to under paragraph (a) above determines that the project is complying with the relevant impact assessment criteria, then the Proponent may discontinue the independent review with the approval of the Secretary.	Not triggered	Site communications	Not triggered based on site communications.	
<b>SCHEDULE 5</b>					
<b>ENVIRONMENTAL MANAGEMENT</b>					
<b>Environmental Management Strategy</b>					
1	The Proponent shall prepare and implement an Environmental Management Strategy for the project to the satisfaction of the Secretary. The strategy must: (a) be submitted to the Secretary for approval within 6 months of the date of this approval; (b) provide the strategic framework for environmental management of the project; (c) identify the statutory approvals that apply to the project; (d) describe the role, responsibility, authority and accountability of all key personnel involved in the environmental management of the project; (e) describe the procedures that would be implemented to: i. keep the local community and relevant agencies informed about the operation and environmental performance of the project; ii. receive, handle, respond to, and record complaints; iii. resolve any disputes that may arise during the course of the project; iv. respond to any non-compliance; and v. respond to emergencies; and (f) include: i. copies of the various strategies, plans and programs that are required under the conditions of this approval once they have been approved, and/or demonstrate that suitable strategies, plans and programs are in place to manage operations ; and ii. a clear plan depicting all the monitoring currently being carried out within the project area.	Compliant	EMS document	<u>Preparation:</u> EMS prepared in December 2021, and approved on 07 March 2022. New EMS is currently in draft stage for submission to DPE  a) Appendix A.2 b) Section 1&2 c) Appendix A.1 d) Section 14 e) Section 4.3 f) EMS Document  <u>Implementation:</u> * This is now a consolidated document that includes other management plans/monitoring. * No complaints during the audit period. * Records of water quality incident management including government reporting.	

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Condition Number	Condition	Compliance Status	Source of Evidence	Finding	Recommended Action
2	The Proponent shall ensure that the Management Plans required under this approval are prepared in accordance with any relevant guidelines, and prepared by a suitably qualified expert/s whose appointment has been approved by the Secretary. The Plans must include: (a) detailed baseline data; (b) a description of: i. the relevant statutory requirements (including any relevant approval, licence or lease conditions); ii. any relevant limits or performance measures/criteria; and iii. the specific performance indicators that are proposed to be used to judge the performance of, or guide the implementation of, the project or any management measures; (c) a description of the measures that would be implemented to comply with the relevant statutory requirements, limits, or performance measures/criteria; (d) a program to monitor and report on the: i. impacts and environmental performance of the project; and ii. effectiveness of any management measures (see (c) above); (e) a contingency plan to manage any unpredicted impacts and their consequences; (f) a program to investigate and implement ways to improve the environmental performance of the project over time; (g) a protocol for managing and reporting any: i. incidents; ii. complaints; iii. non-compliances with statutory requirements; and iv. exceedances of the impact assessment criteria and/or performance criteria; and (h) a protocol for periodic review of the plan.	Compliant	EMS document	The overall EMS covers these requirements. Covered by Sections by multiple sections. See App A.2 for details of all the specific sections.	
<b>Annual Review</b>					
3	By 31 March 2012, and annually thereafter, the Proponent shall submit a report to the Secretary reviewing the annual environmental performance of the project to the satisfaction of the Secretary. This review must: (a) describe the works that were carried out in the previous calendar year, and the works that are proposed to be carried out over the current calendar year; (b) include a comprehensive review of the monitoring results and complaints records of the project over the previous calendar year, which includes a comparison of these results against: i. the relevant statutory requirements, limits or performance measures/criteria; ii. the monitoring results of previous years; and iii. the relevant predictions in the EA; (c) identify any non-compliance over the previous calendar year, and describe what actions were (or are being) taken to ensure compliance; (d) identify any trends in the monitoring data over the life of the project; (e) identify any discrepancies between the predicted and actual impacts of the project, and analyse the potential cause of any significant discrepancies; and (f) describe what measure will be implemented over the current calendar year to improve the environmental performance of the project.	Compliant	Annual Review 2019,2020,2021	See 2019, 2020, 2021 Annual Review. a) Section 4 and Section 12. b) Sections 6,7,8 and 9. c) Sections 1 & 11. d) Sections 6,7 and 8. e) Sections 6,7 and 8. f) Section 12.  Noting the EA was prepared for an operating site, hence there cannot be predictions against the EA.	
<b>Revision of Strategies, Plans &amp; Programs</b>					
4	Within 3 months of: (a) the submission of an audit report under condition 7 of Schedule 5; (b) the submission of an incident report under condition 5 of Schedule 5; and (c) the submission of an annual review under condition 3 of Schedule 5, (d) the approval of any modification to the conditions of this approval; or (e) a direction of the Secretary under condition 4 of Schedule 2; the Proponent shall review and, if necessary, revise the strategies, plans, and programs required under this approval. Where this review leads to revisions in any such document, then within 4 weeks of the review the revised document must be submitted to the Secretary for approval, unless otherwise agreed with the Secretary. Note: This is to ensure the strategies, plans and programs are updated on a regular basis, and incorporate any recommended measures to improve the environmental performance of the development.	Compliant	EMS document Site communications Incident reports	EMS document was updated after the last audit and based on consolidating information. Evidence of December 2022 EMS update to remove some monitoring requirements (still with DPE for approval). IEMA don't believe the surface water incidents required updating of the EMS document.	
<b>REPORTING</b>					
<b>Incident Reporting</b>					
5	The Proponent shall notify the Secretary and any other relevant agencies of any incident associated with the project as soon as practicable after the Proponent becomes aware of the incident. Within 7 days of the date of the incident, the Proponent shall provide the Secretary and any relevant agencies with a detailed report on the incident.	Compliant	Site communications Incident reports	PA 09_0178 Defines Incident as a set of circumstances that causes or threatens to cause material harm to the environment, and/or breaches or exceeds the limits or performance measures/criteria in this approval.  Also see POEO Act definition: <a href="http://classic.austlii.edu.au/au/legis/nsw/consol_act/poteoa1997455/s147.html">http://classic.austlii.edu.au/au/legis/nsw/consol_act/poteoa1997455/s147.html</a>  <i>Meaning of material harm to the environment</i> (1) For the purposes of this Part-- (a) harm to the environment is material if-- (i) it involves actual or potential harm to the health or safety of human beings or to ecosystems that is not trivial, or (ii) it results in actual or potential loss or property damage of an amount, or amounts in aggregate, exceeding \$10,000 (or such other amount as is prescribed by the regulations), and (b) loss includes the reasonable costs and expenses that would be incurred in taking all reasonable and practicable measures to prevent, mitigate or make good harm to the environment. (2) For the purposes of this Part, it does not matter that harm to the environment is caused only in the premises where the pollution incident occurs.  Based on site records no incidents met these trigger requirements in the reporting period. No prosecution under material harm.  Also note control for water testing, and rehabilitation have been completed.	
<b>Regular Reporting</b>					

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Condition Number	Condition	Compliance Status	Source of Evidence	Finding	Recommended Action
6	The Proponent shall provide regular reporting on the environmental performance of the project on its website, in accordance with the reporting arrangements in any plans or programs under this approval, and to the satisfaction of the Secretary.	Compliant		Website sited with monthly EPL reporting, management plans and programs, Annual Reviews, quarterly environmental summaries, community documents and previous reports.	
<b>INDEPENDENT ENVIRONMENTAL AUDIT</b>					
7	By 31 December 2016, and every 3 years thereafter, unless the Secretary directs otherwise, the Proponent shall commission at its own cost an Independent Environmental Audit of the project. This audit must: (a) be conducted by 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 project and assess whether it is complying with the relevant requirements in this approval 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 these approvals; and, if appropriate; (e) recommend measures or actions to improve the environmental performance of the project, and/or any assessment, plan or program required under these approvals; and (f) be completed within 2 months of the approval of the audit team. Note: This audit team must be led by a suitably qualified auditor and include experts in any fields specified by the Secretary.	Compliant		2019 IEA site component completed 17 and 18 December 2019. a) approved b) consulted 3/11/2022 c) The audit covered the requirements in the endorsement letter in the 2019 audit. d) Audit reviewed strategies/plans. e) The 2019 audit has recommendations. f) Extension to submit IEA was approved - with the new due date 6 March 2020. IEA document is dated 27 February 2020.  In terms of the 2022 audit, IEMA was endorsed on 25 October 2022 and was at site on 5 and 6 December 2022.	
8	Within 6 weeks of the completing of this audit, or as otherwise agreed by the Secretary, the Proponent shall submit a copy of the audit report to the Secretary, together with its response to any recommendations contained in the audit report.	Compliant		Previous audit - Due to Christmas closures with Audit team and site - Site applied for an extension on the submission of the IEA. This was approved by planning, with the new submission date being 06/03/2020.	
<b>ACCESS TO INFORMATION</b>					
9	From 31 March 2011, the Proponent shall: (a) make the following information publicly available on its website to the satisfaction of the Secretary: i. a copy of all approved strategies, plans and programs; ii. a comprehensive summary of all monitoring results of the project, which have been reported in accordance with the various plans and program under this approval; iii. a complaints register, updated on a quarterly basis; iv. copies of any Annual Reviews (over the last 5 years); v. copies of any Independent Environmental Audit, and the Proponent's response to the recommendations in any audit; vi. any other matter required by the Secretary; and (b) keep this information up-to-date, to the satisfaction of the Secretary.	Compliant	Website	see 2019, 2020, 2021 Annual Review. a) Section 4 and Section 12. b) Sections 6,7,8 and 9. c) Sections 1 & 11. d) Sections 6,7 and 8. e) Sections 6,7 and 8. f) Section 12.  Noting the EA was prepared for an operating site, hence there cannot be predictions	

**Audit Period:**  
The Audit period is 19 December 2019 (Day after last audit) to 29 November 2022 (Day 2 of the Audit)

Summaries:	
44	Compliant
1	Non-compliant
9	Not triggered
1	Note
<b>55</b>	<b>Total</b>

# Statement of Commitments Baal Bone Independent Environmental Audit



Condition Number	Condition	Compliance Status	Source of Evidence	Finding	Recommended Action
<b>Issue</b>					
<b>General</b>					
1	The Proponent shall carry out the project generally in accordance with the EA and the Statement of Commitments.	Compliant	Annual Reviews EA's	See Schedule 2, Condition 2 PA 09_0178.	
2	Within 12 months of Project Approval, subject to confirmation that Project Approval conditions provide for feasible implementation of the project and ongoing operations at the Colliery, the Proponent shall surrender all redundant development consents that relate to activities in the Project Area, other than Project approval MP 07_0035 granted by the Minister for Planning on 24 October 2007 relating to the construction and operation of the ventilation shaft and power line corridor associated with Longwalls 29 to 31	Not triggered	Annual Reviews	Outside audit period. Annual reviews outline when mining last occurred.	
3	Within 12 months of Project Approval, subject to confirmation that Project Approval conditions provide for feasible implementation of the project and ongoing operations at the Colliery, the Proponent shall surrender all redundant development consents that relate to activities in the Project Area, other than Project approval MP 07_0035 granted by the Minister for Planning on 24 October 2007 relating to the construction and operation of the ventilation shaft and power line corridor associated with Longwalls 29 to 31	Not triggered		Outside of audit period.	
4	The Proponent shall not: (a) extract more than 2.8 million tonnes of ROM coal from the Project area in a calendar year; or (b) transport more than 2.0 million tonnes of product coal from the Project area in a calendar year.	Not triggered	Annual Reviews	Coal mining ceased on site in 2011.	
<b>Environmental Management and Monitoring</b>					
5	The Proponent shall adhere to the environmental management, monitoring and reporting requirements contained in Baal Bone's existing and revised monitoring programs contained within the EMS and in the SMP approval for Longwalls 29 to 31 dated 7 December 2007 which includes the following plans: · Subsidence Management Plan; · Public Safety Management Plan · Community Consultation Process; · Environmental Monitoring Program · Land Management Plan; · Underground Water Make Monitoring Program; · Subsidence Monitoring Program; · Wolgan Escarpment Management Plan; and · Aboriginal Heritage Management Plan (BBC-RS1).	Not triggered	EMS and Annual Reviews	Applied to previous audit periods. Annual Reviews and EMS Report detail the requirements.	
6	Within 12 months of project approval, the Proponent will review and update Baal Bone's Environmental Management System to incorporate relevant aspects of the environmental management of the Project including a review of the following environmental management plans: · Biodiversity and Land Management Plan; · Cultural Heritage Management Procedure; · Social Involvements Plan; · Community Complaints Management Procedure; · Conflict Resolution Procedure; · Hydrocarbon Management; · Mine Closure Plan; · Product Stewardship Management Plan; · Subsidence Management Plan; · Public Safety Management Plan; · Land Management Plan; · Aboriginal Heritage Management Plan; · Truck Management Plan; · Waste Management Plan; · Water Quality Management Plan; and · Training and Competency Management Plan Following a review of these plans, the Proponent will implement the revised plans in carrying out the Project.	Compliant	EMS	New Consolidated EMS (approved in 2021) satisfies this requirement. Several MP's have been surrendered due to site entering into rehabilitation stage.	

# Statement of Commitments Baal Bone Independent Environmental Audit



Condition Number	Condition	Compliance Status	Source of Evidence	Finding	Recommended Action
7	The Proponent shall prepare and lodge with the Director-General an Annual Environmental Management Report (AEMR) for the Project containing all Report monitoring data including an analysis of that data, and providing an assessment of the effectiveness or otherwise of all environmental control measures. The first of such reports for the Project shall be completed within 12 months of the date of the Project approval	Note	Annual Reviews Website	Last AEMR 2014 on website. Annual Reviews outline assessments and control measures.	
<b>Subsidence – Performance Measures</b>					
8	In carrying out its mining operations within the Project area, the Proponent shall implement appropriate mining methods that seek to achieve the objectives contained in Table 8-2 of the Environmental Assessment for the Project.	Not triggered		Mining at Baal Bone ceased in 2011.	
<b>Subsidence - Remnant Area</b>					
9	Prior to commencing second workings in the Remnant Areas, the Proponent shall prepare and implement an Extraction Plan for all second workings in the Remnant Areas to the satisfaction of the Director-General. This plan must: (a) be prepared by a team of suitably qualified and experienced experts whose appointment has been endorsed by the Director-General; (b) include a detailed plan for the second workings, which has been prepared to the satisfaction of DII, and provides for adaptive management (for the identified Remnant Areas); (c) include detailed plans of associated surface construction works; (d) include the following to the satisfaction of DII: · a coal resource recovery plan that demonstrates effective recovery of the available resource; · revised predictions of the conventional and non-conventional subsidence effects and subsidence impacts of the extraction plan, incorporating relevant information that has been obtained since this approval; and · a Subsidence Monitoring Program to: - validate the subsidence predictions; and - analyse the relationship between the subsidence effects and subsidence impacts of the Extraction Plan and ensuing environmental consequences.	Not triggered		Mining at Baal Bone ceased in 2011, and an extraction plan was never prepared.	
10	The Proponent must: · protect the three cliff formations and Ben Bullen Creek from being directly mined under by an angle of draw of 26.5 degrees of greater as shown in Figure 8.2; and · develop a management strategy in consultation with independent archaeologists to manage the subsidence impacts of the archaeological site (Site ID 45-1-0125).	Compliant	Subsidence reports Communications with site	As there is no mining during audit period, IEMA believes it is unlikely the site would be contributing additional subsidence. Mining of LW 29-31 ceased in 2011.	
<b>Subsidence –Longwalls 29 to 31</b>					
11	The Proponent shall implement the Subsidence Management Plan and associated monitoring programs for Longwalls 29 to 31. The monitoring program will include detailed survey and scientific monitoring which must be undertaken prior to, during and following the mining of Longwalls 29 to 31. Survey and monitoring will include the following: · Three-dimensional subsidence monitoring; · Horizontal stress changes in the cliff forming sandstones of the Wolgan Escarpment using stress change monitoring instruments; · Temperature changes in the rock formation at the northern pinch point as a basis for understanding thermal stress changes experienced on the Wolgan Escarpment; and · Implementation of the Land Management Plan which addresses management of surface impacts in the vicinity of the Wolgan Escarpment and pagoda formations and surface cracking in other general surface areas. Visual inspections, plus photographic and video monitoring would be conducted over the surface area at regular intervals during mining of the longwall panels.	Not triggered	Subsidence MP	There was no mining during audit period. Site ceased mining in 2011.	
<b>Noise</b>					



# Statement of Commitments Baal Bone Independent Environmental Audit



Condition Number	Condition	Compliance Status	Source of Evidence	Finding	Recommended Action
12	<p>Within twelve months of receiving Project Approval, the Proponent shall prepare a Site Noise Reduction Program (SNRP), which would include a Strategy for the reduction of noise generated from the Project area. The SNRP will include investigation of the following items to seek to reduce noise generated from the Project area where feasible:</p> <ul style="list-style-type: none"> <li>· Replacement of damaged insulation installed in Washery Building;</li> <li>· Closure of façade openings in the Washery to Stockpile Transfer and/or Washery buildings;</li> <li>· Options to assess the feasibility and possibility of reducing noise emissions from the Bradford breaker;</li> <li>· Options to reduce noise emissions from the tracked dozer during night hours; and</li> <li>· A program for regular inspections of site plant including the dozer to ensure that the installed noise suppression controls are functioning and require no maintenance. The SNRP will review and/or develop procedures to manage noise complaints from residents:</li> <li>· Procedures for residents to contact the site environmental manager in regard to noise complaints or requests for information;</li> <li>· Procedures to inform residents of actions implemented following receipt of noise complaints; and</li> <li>· Procedures for the recording, investigation and follow up of noise complaints, and if required, site attended noise audits to identify additional procedures to minimise noise emissions from the Project area.</li> </ul>	Not triggered		Outside of the period. Noise is now covered under the approved EMS.	
<b>Groundwater</b>					
13	The Proponent shall monitor groundwater in the vicinity of Longwalls 29 to 31 in accordance with the Surface and Groundwater Response Strategy and Underground Mine Water Make Monitoring Program to provide an ongoing assessment of the impact of mining works on the groundwater regime, enable early detection of potential adverse impacts, and to monitor the recovery of the groundwater system following completion of mining.	Compliant	Annual Reviews EMS Monitoring reports	Ongoing assessment of the impact of mining on groundwater has been covered in Mine operation plan (2022) and groundwater management plan. Six piezometers installed for subsidence management for LW29-31 are being monitored manually as per GWMP. The evidence of monitoring is provided in annual reports 2020 and 2021. No monitoring data was available during this audit for 2022.	
14	In the event that the monitoring of ground or surface water indicates an exceedance of trigger levels, procedures contained within the Surface and Groundwater Response Strategy would be implemented.	Compliant		Groundwater exceedances are reported in 2020 and 2021 annual report and where required investigated and relevant agency notified, No reports of exceedance was available for 2022.	
15	Prior to mining of the Remnant Areas, the Proponent shall review and update the Surface and Groundwater Response Strategy and Underground Mine Water Make Monitoring Program for implementation upon commencement of mining in these areas.	Not triggered		At this stage (during this audit) it is not likely that Remnant Areas will be mined as the operation is fully closed and under rehabilitation.	
<b>Mine Closure and Rehabilitation</b>					
16	The Proponent shall progressively rehabilitate the site over the life of the mine, rehabilitate all disturbed lands within the Project Area in accordance with the reasonable requirements of DII prior to relinquishment of mining leases.	Compliant	Annual Reviews and EMS	Evidence of progressive rehabilitation, with annual rehabilitation and ecological monitoring.	
17	The Proponent shall prepare and implement a Rehabilitation Monitoring Methodology and Program for the Project within 12 months of project approval.	Not triggered		Out of the audit. Covered by the MOP and now the RMP.	
<b>Tailing and Reject Management</b>					
18	<p>The Proponent will implement the following operational controls to mitigate potential impacts associated with the Reject Emplacement Area:</p> <ul style="list-style-type: none"> <li>· Regular visual inspections of the emplacement area including specific attention to the structural integrity of the embankment and the flow of leachate;</li> <li>· All dams and associated pipelines at Baal Bone will be inspected on a daily, weekly and monthly basis as required; and</li> <li>· Operation of transport in the vicinity according to regulations.</li> </ul>	Compliant	Site Communications, Annual Reviews, EMS	Communications with site have concluded that there are regular inspections.	
19	<p>Prior to constructing any future dams with a catastrophic or high risk ranking, the Proponent will ensure that the following actions have been undertaken in relation to the dam:</p> <ul style="list-style-type: none"> <li>· the dam has undergone an appropriate engineering design (e.g. relevant dam safety committee concurrence); or</li> <li>· the dam has a specific management plan including operational requirements and monitoring program. The monitoring program may be incorporated into the regular inspection checklists, however, the person who is to inspect the catastrophic or high risk dams must be competent to do so.</li> </ul>	Compliant		There are no dams on site, there is however a void which is filled with water.	

# Statement of Commitments Baal Bone Independent Environmental Audit



Condition Number	Condition	Compliance Status	Source of Evidence	Finding	Recommended Action
<b>Traffic - Coal Road Haulage</b>					
20	Haulage of coal from Baal Bone by public road will not exceed 900,000 tonnes per annum (tpa) with a maximum daily rate of 6,000 tonnes.	Compliant	Annual Reviews	Coal mining ceased in 2011	
21	Prior to resumption of haulage of coal by road to the power stations from the Colliery, the Proponent shall undertake a review of the existing Road Haulage Management Plan and update the plan as required, for implementation. Once implemented the Road Haulage Management Plan is to be reviewed annually and updated as required.	Not triggered	Annual Reviews	No coal was transported during audit period. No mining or mineral waste was produced during audit period	
22	Prior to resumption of haulage of coal by road to the power stations from the Colliery, the Proponent shall undertake a review of the existing Truck Management Plan, and update the plan as required, for implementation. Once implemented, the Truck Management Plan is to be reviewed annually and updated as required.	Not triggered	Annual Reviews	No coal was transported during audit period. No mining or mineral waste was produced during audit period	
22a	Following the installation of road signage, the Proponent shall undertake an annual review of road accident statistics along the Castlereagh Highway between Baal Bone Colliery and Mount Piper and Wallerawang Power Stations to monitor the effectiveness of road signage and review the implementation of other mitigation measures as appropriate.	Not triggered		No longer applicable, as site has entered rehabilitation phase.	
23	The Proponent shall finalise all outstanding noise insulation works to the remaining four residences in Cullen Bullen identified in the Road Haulage Management Plan, being 2541 Castlereagh Highway, 42 Castlereagh Highway, 46 Castlereagh Highway, 2508 Castlereagh Highway, prior to resuming road haulage of coal to the power stations. The Proponent shall meet all reasonable costs required to implement these works.	Not triggered	Annual Reviews	There was no transportation of coal product at Baal Bone during the audit period. Coal mining ceased in 2011 and washing of coal was completed in 2012.	
<b>Air Quality</b>					
24	The Proponent shall implement the following existing operational practices in the Surface Infrastructure Area to minimise air quality impacts to the surrounding environment as contained in the Mine Operations Plan: · Conveyors and transfer points are either fully or partially enclosed on the side of the prevailing winds; · Spraying of stockpiles to minimise dust; · Watering of haul road to minimise dust; · Regular cleaning of areas that may generate dust; and · Appropriate ventilation of operational mine shafts.	Not triggered		Rehabilitation is mostly complete. There is currently no heavy equipment on site.  Evidence of low levels of dust through monitoring. No requirement for real time monitoring at the site (removed by DPE). During rehabilitation works, evidence of water trucks used to minimise dust.	
25	The Proponent will monitor potential impacts to air quality resulting from dust in accordance with the Environment Protection Licence (EPL) applying to the Project area and report any potential impacts according to the requirements of the EPL.	Not triggered	Annual reviews and EMS	Rehabilitation of site is mostly complete. Dust levels expected to remain low.	
26	The Proponent shall operate the premises to seek to avoid exceedances of air quality impact assessment criteria identified in Section 15.3 the EA.	Note			
<b>Greenhouse Gas</b>					
27	The Proponent will continue to seek to provide maximum resource extraction with maximum efficiency and will assess and consider implementation, where feasible, of GHG and energy management and mitigation initiatives during the design, operation and decommissioning of the mine.	Compliant	EMS	Baal Bone Manages Greenhouse gases in accordance with GCAA Protocol - 11.13.  The EMS states that the primary source of greenhouse gas emissions during the closure phase was from the fuel combustion during rehabilitation activities and electricity consumption at remaining buildings.	
<b>Geology and Soils</b>					
28	The Proponent shall continue to undertake regular inspections of the surface features in accordance with the Land Management Plan for Longwalls 29 to 31 to address potential impacts on soils and geology.	Not triggered		No longer required. This is covered in previous audit reports.	
<b>Flora and Fauna</b>					
29	The Proponent shall continue to implement ongoing monitoring and management of quadrats in the vicinity of Longwalls 29 and 31 and Cocks River Swamp in accordance with the Environmental Monitoring Program contained within the SMP.	Not triggered		Site now operates under a EMS. This ceased in 2016. Outside of reporting period.	
30	Prior to and during mining of the Remnant Areas, the Proponent shall implement ongoing monitoring of fauna populations and wildlife habitats within and in the vicinity of the Remnant Areas. The details of the monitoring requirements are to be developed in accordance with the SMP for the Remnant Areas.	Not triggered		No mining occurred during audit period. This condition is for any future mining activities.	
31	The Proponent shall use best endeavours to incorporate Capertee Stringybark in its future rehabilitation works.	Compliant	Annual reviews	2021 Rehabilitation works used over 10,000 tube stock plants, including the Capertee Stringybark	
<b>Indigenous Heritage</b>					

# Statement of Commitments Baal Bone Independent Environmental Audit



Condition Number	Condition	Compliance Status	Source of Evidence	Finding	Recommended Action
32	The Proponent shall continue to manage the Aboriginal rock shelter (45-1-2665) in the vicinity of Longwalls 29 to 31 in accordance with the current Aboriginal Heritage Management Plan. If further sites are identified during the heritage surveys of the Remnant Areas, the Proponent will update the Aboriginal Heritage Management Plan to include any additional Indigenous sites requiring management.	Compliant	Site communications, Annual Reviews	Based on site communications, staff visit BCC-RS1 yearly to inspect for subsidence.	
33	Prior to the mining of the Remnant Areas, the Proponent shall undertake a further full heritage survey to: <ul style="list-style-type: none"> <li>ascertain the present condition of the site known as Ben Bullen Creek 1 (Site ID 45-1-0240);</li> <li>properly assess this region for its heritage significance; and</li> <li>develop a management strategy in consultation with the stakeholders to manage the subsidence impacts of the mining of the Remnant Areas on any cultural heritage items identified in the heritage survey.</li> </ul>	Not triggered	Annual Reviews	No mining occurred during audit period.	
34	During the course of mining, if any 'relics' or other Aboriginal sites are identified, work in that area will cease and the DECC and respective Aboriginal community organisations or Local Aboriginal Land Council will be contacted to discuss how to proceed.	Not triggered	Annual Reviews	No mining occurred during audit period.	
<b>Land Use</b>					
35	The Proponent shall continue to implement the current Land Management Plan and Public Safety Management Plan which form part of the SMP for Longwalls 29 to 31.	Not triggered	Annual Reviews	The SMP for development and extraction of LW 29-31 expired on 1 December 2014 with mining operations in the LW 29-31 area completed on 3 September 2011.	

# EPL 765 (Baal Bone Colliery)



Condition Number	Condition	Compliance Status	Evidence Provided	Finding	Recommended Action						
<b>Administrative Conditions</b>											
<b>What the licence authorises and regulates</b>											
A1	<p>This licence regulates water pollution resulting from the activity/is specified below carried out at the premises specified in A2.</p> <table border="1"> <thead> <tr> <th>Fee Based Activity</th> <th>Scale</th> </tr> </thead> <tbody> <tr> <td>Miscellaneous licensed discharge to waters (at any time)</td> <td>&gt; 100.00-1000.00 ML maximum annual volume of discharge authorised</td> </tr> </tbody> </table>	Fee Based Activity	Scale	Miscellaneous licensed discharge to waters (at any time)	> 100.00-1000.00 ML maximum annual volume of discharge authorised	Compliant		<p>There are two areas where discharge occurs. This are:</p> <ul style="list-style-type: none"> <li>* the LDP 16 point (Ben Bullen Creek downstream of former (surface) mining area.</li> <li>* the pipelines at the LDP17 (overflow from the void).</li> </ul> <p>The site can provide an estimate of flows from LDP17, however there is no recording of discharge volumes from LDP16. There is no current way of determining the volume from LDP16, however we do not believe the site is above 1000ML per day.</p>	IMP REC: The site should provide an update on the volume that discharges from site in the Annual Review as this is a requirement and it will cover this condition.		
Fee Based Activity	Scale										
Miscellaneous licensed discharge to waters (at any time)	> 100.00-1000.00 ML maximum annual volume of discharge authorised										
<b>Premises or plant to which this licence applies</b>											
A2	<p>The licence applies to the following premises:</p> <table border="1"> <thead> <tr> <th>Premises Details</th> </tr> </thead> <tbody> <tr> <td>BAAL BONE COLLIERY</td> </tr> <tr> <td>CASTLEREAGH HIGHWAY</td> </tr> <tr> <td>CULLEN BULLEN</td> </tr> <tr> <td>NSW 2790</td> </tr> <tr> <td>BAAL BONE COLLIERY HOLDING. MINING LEASES IDENTIFIED AS CCL 749, CL 391, ML 1302, ML 1389, ML1607 AND MPL 261</td> </tr> </tbody> </table>	Premises Details	BAAL BONE COLLIERY	CASTLEREAGH HIGHWAY	CULLEN BULLEN	NSW 2790	BAAL BONE COLLIERY HOLDING. MINING LEASES IDENTIFIED AS CCL 749, CL 391, ML 1302, ML 1389, ML1607 AND MPL 261	Note			
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<b>Information supplied to the EPA</b>											
A3	<p>Works and activities must be carried out in accordance with the proposal contained in the licence application, except as expressly provided by a condition of this licence.</p> <p>In this condition the reference to "the licence application" includes a reference to:</p> <ol style="list-style-type: none"> <li>the applications for any licences (including former pollution control approvals) which this licence replaces</li> <li>under the Protection of the Environment Operations (Savings and Transitional) Regulation 1998; and</li> <li>the licence information form provided by the licensee to the EPA to assist the EPA in connection</li> </ol>	Note									
<b>Discharges to Air and Water and Applications to Land</b>											
<b>Location of monitoring/discharge points and areas</b>											
P1.1	<p>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.</p>	Note		See condition below.							

# EPL 765 (Baal Bone Colliery)



Condition Number	Condition	Compliance Status	Evidence Provided	Finding	Recommended Action												
P1.2	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 <i>Water and land</i>	Compliant		We note these discharge points as seen in the field. No other discharge or incident records provided.													
	<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>16</td> <td>Discharge to waters</td> <td>Discharge to waters</td> <td>(Formerly referred to as EPA Identification no. 11) Ben Bullen Creek downstream of former (surface) mining area. As shown on figure titled '2022 EPL Monitoring Location' dated 4/08/2022. (DOC22/619522-3).</td> </tr> <tr> <td>17</td> <td>Discharge to waters</td> <td>Discharge to waters</td> <td>Discharge, via culvert, from Northern Void Lake to Jews Creek as shown in Figure 2 of 'Northern Void LDP Application' (supporting document to application to vary licence. eConnect, 29/09/22).</td> </tr> </tbody> </table>					EPA Identification no.	Type of Monitoring Point	Type of Discharge Point	Location Description	16	Discharge to waters	Discharge to waters	(Formerly referred to as EPA Identification no. 11) Ben Bullen Creek downstream of former (surface) mining area. As shown on figure titled '2022 EPL Monitoring Location' dated 4/08/2022. (DOC22/619522-3).	17	Discharge to waters	Discharge to waters	Discharge, via culvert, from Northern Void Lake to Jews Creek as shown in Figure 2 of 'Northern Void LDP Application' (supporting document to application to vary licence. eConnect, 29/09/22).
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17	Discharge to waters	Discharge to waters	Discharge, via culvert, from Northern Void Lake to Jews Creek as shown in Figure 2 of 'Northern Void LDP Application' (supporting document to application to vary licence. eConnect, 29/09/22).														
<b>Limit Conditions</b>																	
<b>Pollution of Waters</b>																	
L1	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.	Compliant	Annual Reviews EMS	No pollution of waters recorded during reporting period. See L2.4 for details of the non-compliance.													
<b>Concentration Limits</b>																	
L2.1	For each monitoring/discharge point or utilisation area specified in the table 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.	Note	Annual Reviews EMS	See Condition 2.4 for concentration limits													
L2.2	Where a pH quality limit is specified in the table, the specified percentage of samples must be within the specified ranges.	Note	Annual Reviews Gauge Report	See Condition 2.4 for compliance status.													
L2.3	To avoid any doubt, this condition does not authorise the pollution of waters by any pollutant other than those specified in the table.	Note	Annual Reviews Gauge Report	See Condition 2.4 for compliance status.													

# EPL 765 (Baal Bone Colliery)



Condition Number	Condition	Compliance Status	Evidence Provided	Finding	Recommended Action																														
L2.4	<p>Water and/or Land Concentration Limits</p> <p>POINT 16,17</p> <table border="1"> <thead> <tr> <th>Pollutant</th> <th>Units of Measure</th> <th>50 percentile concentration limit</th> <th>90 percentile concentration limit</th> <th>30GM concentration limit</th> <th>100 percentile concentration limit</th> </tr> </thead> <tbody> <tr> <td>Iron (dissolved)</td> <td>milligrams per litre</td> <td></td> <td></td> <td></td> <td>1.0</td> </tr> <tr> <td>Oil and Grease</td> <td>milligrams per litre</td> <td></td> <td></td> <td></td> <td>10</td> </tr> <tr> <td>pH</td> <td>pH</td> <td></td> <td></td> <td></td> <td>6.5-8.5</td> </tr> <tr> <td>Total suspended solids</td> <td>milligrams per litre</td> <td></td> <td></td> <td></td> <td>50</td> </tr> </tbody> </table>	Pollutant	Units of Measure	50 percentile concentration limit	90 percentile concentration limit	30GM concentration limit	100 percentile concentration limit	Iron (dissolved)	milligrams per litre				1.0	Oil and Grease	milligrams per litre				10	pH	pH				6.5-8.5	Total suspended solids	milligrams per litre				50	Non-Compliance	Annual Review Gauge Report (2021/2022)	<p>LDP1 (EPL monitoring point 16) recorded 8 instances (25/08/20, 09/09/20, 09/02/21, 16/03/21, 11/05/21, 08/02/22, 23/03/22, and Apr 22) of dissolved iron greater than allowed limit.</p> <p>LDP1 also recorded 3 instances of pH levels below 6.5 (16/03/21, 08/02/22, and April 2022).</p> <p>See Sch 3 Condition 14 for detailed findings.</p> <p>Gauge report (dated May 2021 and updated May 2022) believe that natural spring leading into LDP1 has higher levels of iron and pH.</p>	NC REC - Continue to monitor the spring around the Overshot dam. If exceedances continue - implement methods outlined in the Gauge report. It should be noted that the spring can only be accessed for sampling when the Overshot Dam is almost empty. As the spring is only a few metres from the Overshot Dam/LDP16, there is little value/difference when full.
Pollutant	Units of Measure	50 percentile concentration limit	90 percentile concentration limit	30GM concentration limit	100 percentile concentration limit																														
Iron (dissolved)	milligrams per litre				1.0																														
Oil and Grease	milligrams per litre				10																														
pH	pH				6.5-8.5																														
Total suspended solids	milligrams per litre				50																														
<b>Waste</b>																																			
L3.	<p>The licensee must not cause, permit or allow any waste to be received at the premises, except the wastes expressly referred to in the column titled "Waste" and meeting the definition, if any, in the column titled "Description" in the table below.</p> <p>Any waste received at the premises must only be used for the activities referred to in relation to that waste in the column titled "Activity" in the table below</p> <table border="1"> <thead> <tr> <th>Code</th> <th>Waste</th> <th>Description</th> <th>Activity</th> <th>Other Limits</th> </tr> </thead> <tbody> <tr> <td>NA</td> <td>General or Specific exempted waste</td> <td></td> <td></td> <td>NA</td> </tr> </tbody> </table> <p>This condition does not limit any other conditions in the licence.</p>	Code	Waste	Description	Activity	Other Limits	NA	General or Specific exempted waste			NA	Compliant	Site inspection Waste records	<p>Based on site communications there has been no waste received.</p> <p>See waste condition Schedule 3 condition 30 for detailed finding.</p>																					
Code	Waste	Description	Activity	Other Limits																															
NA	General or Specific exempted waste			NA																															
<b>Operating Conditions</b>																																			
O1	<p>Licensed activities must be carried out in a competent manner. This includes:</p> <p>a) the processing, handling, movement and storage of materials and substances used to carry out the activity;</p> <p>and</p> <p>b) the treatment, storage, processing,</p>	Compliant	Site inspection Waste records Site Communications	<p>Minimal waste onsite, with waste removed to licenced contractors for demolition.</p> <p>See Schedule 3 Condition 30 for minor waste improvements.</p>																															
<b>Maintenance of plant and equipment</b>																																			

# EPL 765 (Baal Bone Colliery)



Condition Number	Condition	Compliance Status	Evidence Provided	Finding	Recommended Action
O2	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 b) must be operated in a proper and efficient	Compliant	Site Inspections, Maintenance reports, Site Communications	a) Records of environmental monitoring data calibration/maintenance b) All staff have training on plant and equipment	
<b>Dust</b>					
O3	The premises must be maintained in a condition which minimises or prevents the emission of dust from the premises.	Compliant	Site Inspections, Evidence of water trucks used, Site Communications	Water trucks used during rehabilitation. Very few exposed surfaces at site due to rehabilitation.  Long-term dust levels have been low.	
<b>Monitoring and Recording Conditions</b>					
<b>Monitoring records</b>					
M1.1	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.	Compliant	Annual Reviews and Website	Monitoring results in Annual Reviews, and also listed on website.	
M1.2	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; b) kept for at least 4 years after the monitoring or event to which they relate took place; and c) produced in a legible form to any authorised	Compliant	Website and Annual Reviews	All records kept on website and mentioned in Annual Reviews.	
M1.3	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; b) the time(s) at which the sample was collected; c) the point at which the sample was taken; and d) the name of the person who collected the sample.	Compliant	Annual Reviews Quarterly Environmental Monitoring Summary Reports	Environmental Monitoring Summary and Reports outlines. a) Date of Sample b) Time at which the sample was taken (including temp) c) Sample ID (Location) d) Staff member that took sample  These reports also make note regarding field observations. Evidence of spreadsheets.	
<b>Requirement to monitor concentration of pollutants discharge</b>					
M2.1	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	Compliant		See below	

# EPL 765 (Baal Bone Colliery)



Condition Number	Condition	Compliance Status	Evidence Provided	Finding	Recommended Action																			
M2.2	Water and/ or Land Monitoring Requirements	Compliant	Annual Reviews Gauge Report EMS	All water samples have been tested by ALS Labs  Prior to the LDP2 being removed from the EPL 765 in June 2021, monthly samples were recorded LDP16 (Overshot Dam) has monthly samples with Gauge Reports undertaken during exceedances.  During reporting period, LDP16 had no samples recorded between June 2021 and November 2021 due to lack of flow. Monthly samples recorded for the balance of period.																				
	<p>POINT 16,17</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>Monthly during discharge</td> <td>Grab sample</td> </tr> <tr> <td>Iron (dissolved)</td> <td>milligrams per litre</td> <td>Monthly during discharge</td> <td>Grab sample</td> </tr> <tr> <td>Oil and Grease</td> <td>milligrams per litre</td> <td>Monthly during discharge</td> <td>Grab sample</td> </tr> <tr> <td>pH</td> <td>pH</td> <td>Monthly during discharge</td> <td>Grab sample</td> </tr> <tr> <td>Total suspended solids</td> <td>milligrams per litre</td> <td>Monthly during discharge</td> <td>Grab sample</td> </tr> </tbody> </table>					Pollutant	Units of measure	Frequency	Sampling Method	Conductivity	microsiemens per centimetre	Monthly during discharge	Grab sample	Iron (dissolved)	milligrams per litre	Monthly during discharge	Grab sample	Oil and Grease	milligrams per litre	Monthly during discharge	Grab sample	pH	pH	Monthly during discharge
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pH	pH	Monthly during discharge	Grab sample																					
Total suspended solids	milligrams per litre	Monthly during discharge	Grab sample																					
<b>Testing methods - concentration limits</b>																								
M3	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	Compliant	Gauge Report ALS reports	Gauge Industrial and Environmental Pty Ltd contracted. ALS Labs																				
<b>Recording of pollution complaints</b>																								
M4.1	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	Compliant	Site discussions	No complaints recorded during audit period.																				
M4.2	The record must include details of the following: a) the date and time of the complaint; b) the method by which the complaint was made; 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; d) the nature of the complaint; e) the action taken by the licensee in relation to the complaint, including any follow-up contact with the complainant; and f) if no action was taken by the licensee, the	Compliant	Complaints Register	No complaints.																				
M4.3	The record of a complaint must be kept for at least 4 years after the complaint was made.	Compliant	Website	Complaints register on website detailing previous complaints																				
M4.4	The record must be produced to any authorised officer of the EPA who asks to see them.	Note		Note - On website																				
<b>Telephone complaints line</b>																								



# EPL 765 (Baal Bone Colliery)



Condition Number	Condition	Compliance Status	Evidence Provided	Finding	Recommended Action
M5.1	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	Compliant	Website	Advertised on the website.	
M5.2	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.	Compliant	Website	Advertised on website	
M5.3	The preceding two conditions do not apply until 3 months after: the date of the issue of this licence.	Note		After this period.	
<b>Reporting Conditions</b>					
R1.1	The licensee must complete and supply to the EPA an Annual Return in the approved form comprising: 1. a Statement of Compliance, 2. a Monitoring and Complaints Summary, 3. a Statement of Compliance - Licence Conditions, 4. a Statement of Compliance - Load based Fee, 5. a Statement of Compliance - Requirement to Prepare Pollution Incident Response Management Plan, 6. a Statement of Compliance - Requirement to Publish Pollution Monitoring Data; and 7. a Statement of Compliance - Environmental Management Systems and Practices.  At the end of each reporting period, the EPA will provide to the licensee notification that the Annual	Compliant	Annual Return	1 - Section A 2 - Section B 3 - Section C 4 - Section D 5 - Section E 6 - Section F 7 - Section G	
R1.2	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	Compliant	Annual Return	Annual returns supplied for reporting periods.	
R1.3	Where this licence is transferred from the licensee to a new licensee: 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 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	Compliant	Annual Return	Did not occur during audit period.	

# EPL 765 (Baal Bone Colliery)



Condition Number	Condition	Compliance Status	Evidence Provided	Finding	Recommended Action
R1.4	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: a) in relation to the surrender of a licence - the date when notice in writing of approval of the surrender is given; or b) in relation to the revocation of the licence - the	Compliant	Annual Return	Did not occur during audit period.	
R1.5	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	Compliant	eConnect Submissions	Annual Returns submitted via eConnect within timeframe	
R1.6	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	Compliant	Annual Returns	2017-2022 copies of Annual Returns	
R1.7	Within the Annual Return, the Statements of Compliance must be certified and the Monitoring and Complaints Summary must be signed by: a) the licence holder; or b) by a person approved in writing by the EPA to sign on behalf of the licence holder.	Compliant	Annual Return Site Communications	BBC could not provide physically signed copies of Annual Returns as the returns are submitted via an online portal. BBC has provided evidence of copies and submissions via the Econnect portal, after these are submitted via the portal, an electronic receipt is provided to the site. This eConnect submission receipt serves as a certified signature.	
<b>Notification of environmental harm</b>					
	<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</i>				
R2.1	Notifications must be made by telephoning the Environment Line service on 131 555.	Not triggered	Site discussions Incident Reports Annual Reviews	Incidents did not trigger this requirement	
R2.2	The licensee must provide written details of the notification to the EPA within 7 days of the date on which they became aware of the incident.	Not triggered	Incident Reports	Based on the information provided, no incidents triggered material harm.	
<b>Written report</b>					
R3.1	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 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	Not triggered	Site discussions	Not in the audit period.	

# EPL 765 (Baal Bone Colliery)



Condition Number	Condition	Compliance Status	Evidence Provided	Finding	Recommended Action
R3.2	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.	Not triggered	Site discussions	Not in the audit period.	
R3.3	The request may require a report which includes any or all of the following information: a) the cause, time and duration of the event; b) the type, volume and concentration of every pollutant discharged as a result of the event; 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; 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; e) action taken by the licensee in relation to the event, including any follow-up contact with any	Not triggered	Site discussions	Not in the audit period.	
R3.4	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	Not triggered	Site discussions	Not in the audit period.	
<b>General Conditions</b>					
<b>Copy of the licence kept at the premises or plant</b>					
G1.1	A copy of this licence must be kept at the premises to which the licence applies.	Compliant	Site communications	Copy at site.	
G1.2	The licence must be produced to any authorised officer of the EPA who asks to see it.	Note	Site communications	Copy at site.	
G1.3	The licence must be available for inspection by any employee or agent of the licensee working at the premises.	Note	Site communications	Copy at site.	

**Mining Amendment (Standard Conditions of Mining Leases—Rehabilitation) Regulation 2021**



Condition Number	Condition	Evidence Provided	Finding	Recommendations
<b>Part 2 Standard conditions</b>				
	Note— The conditions in this Part prevail over conditions imposed under the Act by the relevant decision-maker to the extent of any inconsistency between them—see the Act, Schedule 1B, clause 7(4).	Compliant		
<b>Division 1 Protection of the environment and rehabilitation</b>				
<b>4. Must prevent or minimise harm to environment</b>				
1	The holder of a mining lease must take all reasonable measures to prevent, or if that is not reasonably practicable, to minimise, harm to the environment caused by activities under the mining lease.	Compliant	Annual Reviews Site Inspections Site Communications	Based on site records no incidents met these trigger requirements in the reporting period. No prosecution under material harm.
2	In this clause— harm to the environment has the same meaning as in the Protection of the Environment Operations Act 1997.	Note		
<b>5. Rehabilitation to occur as soon as reasonably practicable after disturbance</b>				
	The holder of a mining lease must rehabilitate land and water in the mining area that is disturbed by activities under the mining lease as soon as reasonably practicable after the disturbance occurs.	Compliant		Site ceased mining operations in 2011, and has entered rehabilitation stage. Evident that site has been doing progressive rehabilitation.
<b>6. Rehabilitation must achieve final land use</b>				
1	The holder of a mining lease must ensure that rehabilitation of the mining area achieves the final land use for the mining area.	Not Triggered		The site is still in a rehabilitation stage. The Northern Void rehabilitation area zoned for agricultural grazing (RMP Final Landform Plan) currently consists of mixed native vegetation. See recommendation. We have called this not triggered yet as the site has not if currently does not match the RMP Final Landform Plan
2	The holder of the mining lease must ensure any planning approval has been obtained that is necessary to enable the holder to comply with subclause (1).	Not Triggered		See Project Approval and RMP. See condition above relating to the final landform plan.
3	The holder of the mining lease must identify and record any reasonably foreseeable hazard that presents a risk to the holder's ability to comply with subclause (1). Note— Clause 7 requires a rehabilitation risk assessment to be conducted whenever a hazard is identified under this subclause.	Compliant	RMP - Risk Assessment	Risk assessment (Section 3) outlines foreseeable hazards that site may encounter.
4	In this clause— final land use for the mining area means the final landform and land uses to be achieved for the mining area— (a) as set out in the rehabilitation objectives statement and rehabilitation completion criteria statement, and (b) for a large mine—as spatially depicted in the final landform and rehabilitation plan, and (c) if the final land use for the mining area is required by a condition of development consent for activities under the mining lease—as stated in the condition. planning approval means— (a) a development consent within the meaning of the Environmental Planning and Assessment Act 1979, or (b) an approval under that Act, Division 5.1.	Compliant	Annual Reviews RMP Consolidated Consent Site Visit	Rehabilitation objectives and criteria outlined in RMP, Consolidated Consents and Annual Reviews. These objectives and criteria were also noted during field visit. Site has undergone progressive rehabilitation with good ground cover over the majority of site. Site is still undergoing rehabilitation and final landform still progressing. Rehabilitation monitoring and maintenance continue.
<b>Division 2 Risk assessment</b>				
<b>7. Rehabilitation risk assessment</b>				
1	The holder of a mining lease must conduct a risk assessment (a rehabilitation risk assessment) that— (a) identifies, assesses and evaluates the risks that need to be addressed to achieve the following in relation to the mining lease— (i) the rehabilitation objectives, (ii) the rehabilitation completion criteria, (iii) for large mines—the final land use as spatially depicted in the final landform and rehabilitation plan, and (b) identifies the measures that need to be implemented to eliminate, minimise or mitigate the risks.	Compliant	Risk Assessment within RMP	Rehabilitation focused risk assessment was conducted in June 2022 which identifies risks, controls and mitigation methods. i) Covered in RMP ii) Part 4 iii) Part 4 iv) Part 5 v) RMP Part 3
2	The holder of the mining lease must implement the measures identified.	Note		Noted. Rehabilitation monitoring and maintenance continue.
3	The holder of a mining lease must conduct a rehabilitation risk assessment— (a) for a large mine—before preparing a rehabilitation management plan, and (b) for a small mine—before preparing the rehabilitation outcome documents for the mine, and (c) whenever a hazard is identified under clause 6(3)—as soon as reasonably practicable after it is identified, and (d) whenever given a written direction to do so by the Secretary.	Compliant		See Above
<b>Division 3 Rehabilitation documents</b>				
<b>8. Application of Division</b>				
	This Division does not apply to a mining lease unless— (a) the security deposit required under the mining lease is greater than the minimum deposit prescribed under the Act, section 261BF in relation to that type of mining lease, or (b) the Secretary gives a written direction to the holder of the mining lease that this Division, or a provision of this Division, applies to the mining lease.	Compliant	Evidence of rehabilitation bond guarantee dated 27 July 2016 and 4 March 2020.	Evidence of rehabilitation bond supplied. The current RCE is \$23,050,000.
<b>9. General requirements for documents</b>				
	A document required to be prepared under this Division must— (a) be in a form approved by the Secretary, and Note— The approved forms are available on the Department's website. (b) include any matter required to be included by the form, and (c) if required to be given to the Secretary—be given in a way approved by the Secretary.	Note		RMP and Rehabilitation bond completed as per the Resources Regulator guidelines.
<b>10. Rehabilitation management plans for large mines</b>				
1	The holder of a mining lease relating to a large mine must prepare a plan (a rehabilitation management plan) for the mining lease that includes the following— (a) a description of how the holder proposes to manage all aspects of the rehabilitation of the mining area, (b) a description of the steps and actions the holder proposes to take to comply with the conditions of the mining lease that relate to rehabilitation, (c) a summary of rehabilitation risk assessments conducted by the holder, (d) the risk control measures identified in the rehabilitation risk assessments, (e) the rehabilitation outcome documents for the mining lease, (f) a statement of the performance outcomes for the matters addressed by the rehabilitation outcome documents and the ways in which those outcomes are to be measured and monitored.	Compliant	Rehabilitation MP Consolidated Consent	See Schedule 3, Condition 24 and 25 for compliance status. Evidence of document.
2	If a rehabilitation outcome document has not been approved by the Secretary, the holder of the mining lease must include a proposed version of the document.	Not Triggered		Not triggered yet as outcome document has not been approved.
3	A rehabilitation management plan is not required to be given to the Secretary for approval.	Note		

4	The holder of the mining lease— (a) must implement the matters set out in the rehabilitation management plan, and (b) if the forward program specifies timeframes for the implementation of the matters—must implement the matters within those timeframes.	Compliant	RMP, Consolidated Consent	See Schedule 3, Condition 24 and 25 for compliance status.	
<b>11. Amendment of rehabilitation management plans</b>					
	The holder of a mining lease must amend the rehabilitation management plan for the mining lease as follows— (a) to substitute the proposed version of a rehabilitation outcome document with the version approved by the Secretary—within 30 days after the document is approved, (b) as a consequence of an amendment made under clause 14 to a rehabilitation outcome document—within 30 days after the amendment is made, (c) to reflect any changes to the risk control measures in the prepared plan that are identified in a rehabilitation risk assessment—as soon as practicable after the rehabilitation risk assessment is conducted, (d) whenever given a written direction to do so by the Secretary—in accordance with the direction.	Not Triggered	Site discussions	Based on site discussions this has not been triggered.	
<b>12. Rehabilitation outcome documents</b>					
1	The holder of a mining lease must prepare the following documents (the <b>rehabilitation outcome documents</b> ) for the mining lease and give them to the Secretary for approval— (a) the <b>rehabilitation objectives statement</b> , which sets out the rehabilitation objectives required to achieve the final land use for the mining area, (b) the <b>rehabilitation completion criteria statement</b> , which sets out criteria, the completion of which will demonstrate the achievement of the rehabilitation objectives, (c) for a large mine, the <b>final landform and rehabilitation plan</b> , showing a spatial depiction of the final land use.	Compliant	RMP	These are components of the Ball Bone RMP.	
2	If the final land use for the mining area is required by a condition of development consent for activities under the mining lease, the holder of the mining lease must ensure the rehabilitation outcome documents are consistent with that condition.	Not Triggered		As per wording under Part 6. The site is still in a rehabilitation stage. The Northern Void rehabilitation area zoned for agricultural grazing (RMP Final Landform Plan) currently consists of mixed native vegetation. See recommendation. We have called this not triggered yet as the site has not yet to surrender the northern void rehabilitation area (ESP).	
<b>13. Forward program and annual rehabilitation report</b>					
1	The holder of a mining lease must prepare a program (a forward program) for the mining lease that includes the following— (a) a schedule of mining activities for the mining area for the next 3 years, (b) a summary of the spatial progression of rehabilitation through its various phases for the next 3 years, (c) a requirement that the rehabilitation of land and water disturbed by mining activities under the mining lease must occur as soon as reasonably practicable after the disturbance occurs.	Compliant	ARRFP	Copy of Annual Rehabilitation Report Forward Program dated 09/08/22	
2	The holder of a mining lease must prepare a report (an <b>annual rehabilitation report</b> ) for the mining lease that includes— (a) a description of the rehabilitation undertaken over the annual reporting period, (b) a report demonstrating the progress made through the phases of rehabilitation provided for in the forward program applying to the reporting period, (c) a report demonstrating progress made towards the achievement of the following— (i) the objectives set out in the rehabilitation objectives statement, (ii) the criteria set out in the rehabilitation completion criteria statement, (iii) for large mines—the final land use as spatially depicted in the final landform and rehabilitation plan.	Not triggered	ARRFP	As per Clause 15(2)(a), the first Annual Rehabilitation Report is to be submitted to the Secretary before 60 days after the last day of the annual reporting period (as defined by clause 13(5) of the regulation). The current document covers the period 01 August 2022 - 31 July 2022. Therefore the first Annual Rehabilitation Report would be due 60 days after that (unless date is amended with the Resources Regulator).	
3	If a rehabilitation outcome document has not been approved by the Secretary, the holder of the mining lease must rely on a proposed version of the document.	Note			
4	The holder of the mining lease must give the forward program and annual rehabilitation report to the Secretary.	Note			
5	In this clause— <b>annual reporting period</b> means each period of 12 months commencing on— (a) the date on which the mining lease is granted, or (b) if the Secretary approves another date in relation to the mining lease—the other date.	Not Triggered	ARRFP	The current document covers the period 01 August 2022 - 31 July 2022. Therefore the first Annual Rehabilitation Report would be due 60 days after that (unless date is amended with the Resources Regulator).	
<b>14. Amendment of rehabilitation outcome documents and forward program</b>					
1	This clause applies to— (a) a rehabilitation outcome document if it has been approved by the Secretary, and (b) a forward program if it has been given to the Secretary.	Not Triggered	ARRFP Site discussions - extended site	Based on site discussions the rehabilitation outcome document has not been approved. Also no variation yet to the Forward Program.	
2	The holder of a mining lease must not amend a document to which this clause applies that relates to the mining lease unless— (a) the Secretary gives the holder a written direction to do so, or (b) the Secretary, on written application by the holder, gives a written approval of the amendment.	Note			
3	The holder of the mining lease must amend the document in accordance with the Secretary's direction or approval.	Not Triggered		Not triggered.	
4	Nothing in this clause prevents the holder of a mining lease preparing a draft amendment for submission to the Secretary for approval.	Note			
<b>15. Times at which documents must be prepared and given</b>					
1	The holder of a mining lease must do the following before the end of the initial period— (a) prepare a rehabilitation management plan, and (b) prepare rehabilitation outcome documents and give them, other than the rehabilitation completion criteria statement, to the Secretary for approval, and (c) prepare a forward program and give it to the Secretary.	Compliant	Rehab management plan	Site has prepared and implements RMP.	
2	The holder of the mining lease must prepare a forward program and annual rehabilitation report and give them to the Secretary before— (a) 60 days after the last day of each annual reporting period, commencing with the annual reporting period in which the forward program was given to Secretary under subclause (1)(c), or (b) a later date approved by the Secretary.	Not Triggered	Rehabilitation reports	Site has annual rehabilitation reports. check compliance for Forward Programs.	
3	A rehabilitation completion criteria statement relating to completion of rehabilitation during a period covered by a forward program must be given to the Secretary for approval when the forward program is required to be given to the Secretary.	Not Triggered		Not triggered until rehab objectives approved.	

4	The holder of the mining lease must prepare updated rehabilitation outcome documents for the mining lease and give them to the Secretary for approval before— (a) 60 days after a development consent is modified following an application referred to in clause 20(1)(a), or (b) a later date approved by the Secretary.	Not Triggered		
5	A rehabilitation completion criteria statement is not required to be given to the Secretary under subclause (4) unless a rehabilitation completion criteria statement has already been given to the Secretary under subclause (3).	Not Triggered		
6	The Secretary may, by written notice, direct the holder of a mining lease to prepare, or give to the Secretary, a document required to be prepared under this Division at a time other than that specified in this clause.	note		
7	The holder of the mining lease must comply with the direction.	Note		
8	In this clause— initial period means the period commencing when the mining lease is granted and ending— (a) 30 days, or other period approved by the Secretary, after this Division first applies to the mining lease, or (b) if this Division applies to the mining lease because of an increase in the required security deposit— (i) when the surface of the mining area is disturbed by activities under the mining lease, or (ii) at a later date approved by the Secretary.	not triggered		outside reporting period. Mining ceased at site in 2011.
<b>16. Certain documents to be publicly available</b>				
1	This clause applies to the following documents— (a) a rehabilitation management plan, (b) a forward program, (c) an annual rehabilitation report.	Compliant	RMP Forward Programs Rehabilitation reports	All documents available on publicly accessible website
2	The holder of a mining lease must make a document to which this clause applies publicly available by— (a) publishing it on its website in a prominent position, or (b) if the holder does not have a website—providing a copy of it to a person— (i) on the written request of a person, and (ii) without charge, and (iii) within 14 days after the request is received.	Compliant	website	Company has extensive volume of documents and reports available publicly on website.
3	If a document is published on the website of the holder of the mining lease, the holder must ensure that it is published— (a) for a rehabilitation management plan—within 14 days after it is prepared or amended, or (b) for a forward program or an annual rehabilitation report—within 14 days after it is given to the Secretary or amended.	Compliant	Website	RMP available on website. There is no forward program available.
4	Personal information within the meaning of the Privacy and Personal Information Protection Act 1988 is not required to be included in a document made available to a person under this clause.	note		
<b>Division 4 Records, reporting and notification</b>				
<b>17. Records demonstrating compliance</b>				
1	The holder of a mining lease must create and maintain records of all actions taken that demonstrate compliance with each of the conditions set out in this Part. <b>Note—</b> The Act, sections 162D and 163E provide for the form in which records must be kept and the period for which they must be retained.	Compliant		Record on rehabilitation on site
<b>18. Report on non-compliance</b>				
1	The holder of a mining lease must provide the Minister with a written report detailing any non-compliance with— (a) a condition of the mining lease, or <b>Note—</b> The Act, section 364A contains provisions relating to the use and disclosure of information provided under this condition, (b) a requirement of the Act or this Regulation relating to activities under the mining lease.	Not Triggered		
2	The holder of the mining lease must provide the report within 7 days after becoming aware of the non-compliance.	note		
3	The holder of the mining lease must ensure the report— (a) identifies the condition of the mining lease, or the requirement of the Act or this Regulation, to which the non-compliance relates, and (b) describes the non-compliance and specifies the date or dates on which, or the period during which, the non-compliance occurred, and (c) describes the causes or likely causes of the non-compliance, and (d) describes the action that has been taken, or will be taken, to mitigate the effects, and to prevent any recurrence, of the non-compliance.	Not Triggered		
<b>19 Nominated contact person</b>				
1	The holder of a mining lease must nominate a natural person to be the contact person with whom the Secretary can communicate in relation to the mining lease for the purposes of the Act. <b>Note—</b> The Act, section 363 sets out the ways in which notices or other documents may be issued or given to, or served on, a person for the purposes of the Act.	Compliant	Confirmation email from Resource Reguarir stating Contact Person	Email dated 13/12/22 stating nominated contact person
2	The holder of the mining lease must give written notice to the Secretary of— (a) the full name and contact details of the nominated person—within 28 days after the date on which the standard conditions apply to the mining lease under clause 31A of this Regulation, and (b) any change in nomination or in the nominated person's contact details—within 28 days after the change occurs.	Compliant	Written Notice	Written notice 13/12/22 to Resource Regulator detailing contact details
3	The holder of the mining lease must ensure that the contact details for the nominated person include the person's phone number and postal and email addresses.	Note		
<b>Applications</b>				
<b>20. Additional requirements—application for or to modify development consent</b>				
1	The holder of a mining lease must give written notice to the Secretary within 10 days after— (a) making an application for development consent that relates to the mining area, or (b) making an application for modification of a development consent— (i) under the Environmental Planning and Assessment Act 1979, section 4.65(2), and (ii) that proposes to modify a condition of the consent that relates to rehabilitation of the mining area in a way that may affect an obligation under the mining lease relating to rehabilitation of the mining area.	Not triggered		
2	This clause does not apply if the development is State significant development.	Note		

# **APPENDIX D**

## Photographs



**Photo 1 – Rehabilitated area near SOC 2 with established species**



**Photo 2 – Emerging Eucalyptus species in new rehabilitated areas.**





**Photo 3 – Good use of recycled railway ballast used in engineered drains.**



**Photo 4 – Areas of erosion that require remediation works. Note the site had approval under the Detailed MOP for a low capping cover.**



**Photo 5 – Minor erosion along drains exposing geo-fabrics.**



**Photo 6 – Final void filled with water.**



**Photo 7 – Drainage pipes from final void to control water height.**



**Photo 8 – Old drums behind dollar shed should be stored within a bund.**



**Photo 9 – Minor rehabilitation still required in small areas of the site.**



**Photo 10 – Good rehabilitation along steeper sections of site.**




**Photo 11 – Overshot dam spillway.**



**Photo 12 – Further rehabilitation required on steeper sections where shale is exposed.**

# APPENDIX E

## Independent Audit Report Declaration Form

Independent Audit Report Declaration Form	
Project Name	Baal Bone Colliery Independent Environmental Audit
Consent No.	PA 09_0178
Description of Project	Underground Coal Mine in Closure Phase
Project Address	Castlereagh Highway, Cullen Bullen, New South Wales 2790
Proponent	Wallerawang Colliery
Operator Address	Castlereagh Highway, Cullen Bullen, New South Wales 2790
Title of Audit	Baal Bone Colliery Independent Environmental Audit 2022 PA 09_0178
Date	21/02/2023
<p><i>I declare that I have undertaken the Independent Audit and prepared the contents of the attached Independent Audit Report and to the best of my knowledge:</i></p> <ul style="list-style-type: none"> <li><i>i) The audit has been undertaken in accordance with relevant condition(s) of consent and the Independent Audit Compliance Requirements (Department 2019);</i></li> <li><i>ii) The findings of the audit are reported truthfully, accurately and completely;</i></li> <li><i>iii) I have exercised due diligence and professional judgement in conducting the audit;</i></li> <li><i>iv) I have acted professionally, objectively and in an unbiased manner;</i></li> <li><i>v) I am not related to any proponent, owner or operator of the project, neither as an employer, business partner, employee, or by sharing a common employer, having a contractual arrangement outside the audit, or by relationship as spouse, partner, sibling, parent, or child;</i></li> <li><i>vi) I do not have any pecuniary interest in the audited project, including where there is a reasonable likelihood or expectation of financial gain or loss to me or spouse, partner, sibling, parent, or child;</i></li> <li><i>vii) Neither I nor my employer have provided consultancy services for the audited project that were subject to this audit except as otherwise declared to the Department prior to the audit; and</i></li> <li><i>viii) I have not accepted, nor intend to accept any inducement, commission, gift or any other benefit (apart from payment for auditing services) from any proponent, owner or operator of the project, their employees or any interested party. I have not knowingly allowed, nor intend to allow my colleagues to do so.</i></li> </ul> <p>Notes:</p> <ul style="list-style-type: none"> <li><i>a) Under section 10.6 of the Environmental Planning and Assessment Act 1979 a person must not include false or misleading information (or provide information for inclusion in) in a report of monitoring data or an audit report produced to the Minister in connection with an audit if the person knows that the information is false or misleading in a material respect. The proponent of an approved project must not fail to include information in (or provide information for inclusion in) a report of monitoring data or an audit report produced to the Minister in connection with an audit if the person knows that the information is materially relevant to the monitoring or audit. The maximum penalty is, in the case of a corporation, \$1 million and for an individual, \$250,000; and</i></li> <li><i>b) The Crimes Act 1990 contains other offences relating to false and misleading information: section 307B (giving false or misleading information – maximum penalty 2 years imprisonment or 200 penalty units, or both)</i></li> </ul>	
Name of Auditor	Chris Jones
Signature	
Qualifications	<b>Bachelor of Environmental Science. Principal Environmental Auditor (Exemplar Global)</b>
Company	IEMA
Company Address	41 Llewellyn Street Merewether NSW 2291