



**NSW  
Resources  
Regulator**

**ARR0001408**

# **BORAL CEMENT - BERRIMA WORKS BLUE SHALE QUARRY ANNUAL REHABILITATION REPORT**

**Monday 1 January 2024 to Tuesday 31 December 2024**

## Summary table

DETAIL	
<b>Mine</b>	Boral Cement - Berrima Works Blue Shale Quarry
<b>Reference</b>	ARR0001408
<b>Annual report period commencement date</b>	Monday 1 January 2024
<b>Annual report period end date</b>	Tuesday 31 December 2024
<b>Forward program</b>	FWP0001288
<b>Mining leases</b>	MPL 628 (1906), ML 1723 (1992), MPL 622 (1906), MPL 623 (1906), MPL 592 (1906), MPL 559 (1906), MPL 654 (1906)
<b>Lease holder(s)</b>	Boral Cement Limited, Boral Limited
<b>Contact</b>	Gregory Johnson
<b>Date of submission</b>	Friday 28 February 2025

## Important

The department may make the information in your report and any supporting information available for inspection by members of the public, including by publication on its website or by displaying the information at any of its offices. If you consider any part of your report to be confidential, please communicate this to the department via the message function on this submission within the NSW Resources Regulator Portal.

## Mine details

### Project description

Boral Cement – Berrima Works Blue Shale Quarry, commenced in 1977 and extracts Ashfield Shale for the adjacent cement works. Shale is an essential component of clinker manufacture which involves kiln firing of a premixed blend of limestone, shale, iron ore and solid fuel such as coal and solid waste derived fuel. Once fired the resulting material is known as clinker which is then finely ground with other additives such as gypsum to regulate setting time in order to produce cement. Shale is extracted by a contractor on a campaign basis using dozers for ripping and pushing, a front-end loader to load trucks which transport the material using internal roads within the cement plant property to a separate raw materials shed. From here the material is feed with other raw materials into a crusher which is then feed to the kiln. Production from the quarry is governed by clinker production and other sources of clay shale.

### Life of mine

30 years

### Current development consents, leases and licences

**Development consents granted under the *Environmental Planning and Assessment Act 1979***

DCNotApplicable

**Authorisations covering the mining area granted under the *Mining Act 1992***

MPL 628 (1906), ML 1723 (1992), MPL 622 (1906), MPL 623 (1906), MPL 592 (1906), MPL 559 (1906), MPL 654 (1906)

**Any other approvals, licences, or authorities issued by government agencies that are relevant to the progress of mining operation and rehabilitation activities**

EPL 1698

**Summary of the scope and/or purpose of the new applications or modifications to existing approvals (if applicable)**

No Changes

## Changes to land ownership and land use

No Changes

# Surface disturbance and rehabilitation activities during the reporting period

## Surface disturbance and rehabilitation activities that were conducted and an analysis of the progress against the rehabilitation schedule

Surface disturbance changes were limited to improvements to internal roads during the reporting period, there was also grass re-establishment on previous topsoil stockpiles. Rehabilitation activities centered on the maintenance of previous rehabilitation areas. Clay shale extraction is continuing in already exposed benches.

## Rehabilitation planning activities that were conducted, including any specialist studies

No new areas of rehabilitation occurred during the reporting period, however planning was undertaken on pit extraction sequence. As the shale resource extends to a depth of greater than 30 m, the lateral extent of the quarry expands at a slow rate. Each 10 m bench developed results in several years of quarry production. New areas of topsoil and overburden removal only occurs when a new bench is required to access deeper reserves.

## Overview of subsidence repair and/or remediation works undertaken

NA

## Overview of rehabilitation management and maintenance activities

Grass re-establishment on exposed topsoil stockpiles and blackberry weed spraying was completed. The main areas of environmental risk management of relevance to the Berrima Shale Quarry are:  Water - the quarry is incorporated into the overall Berrima Cement Works site Water Management Plan with a separate section of the void being used to store water for later use in the cement plant;  Noise management - the quarry activities form part of the overall cement works site Noise Management Plan;  Air quality - the quarry activities form part of the overall cement works site Air Quality Management Plan;  Rehabilitation – progress is governed by the timing of completed final batters; and  PIRMP for the entire Berrima Cement Works but which incorporates the Shale Quarry operation. The quarry operates under a RMP which sets out a 20 yr mine plan and final land use. The final land use of the quarry footprint will consist of vegetated and stable quarry benches and a final void that would continue to be used for water storage, either as part of the cement works water management system or for agricultural purposes. The area surrounding the quarry disturbed area will remain as agricultural land. The target native community for the batters and external bunding would be a Southern Highlands Shale

Woodland community however, given the steep slopes involved in the quarry excavation, it will not be possible to recreate the ecological function of a woodland community.

**Details of any rehabilitation actions taken as required by any letters, notices or directions issued by government agencies, including the NSW Resources Regulator**

In late 2020 as part of the Targeted Assessment Programs (TAPs) at mines across NSW, the Berrima Shale Quarry was inspected by the Resources Regulator who made a number of recommendations, including:

- ☐ Improve definition of soil resources and other rehabilitation materials to ensure the needs for rehabilitation to the final land use can be met.
- ☐ The mine should document and implement pre-clearance procedures to maximise the salvage of topsoil and biological resources (e.g. habitat trees, mulch).
- ☐ The mine should develop and implement measures to protect and maintain biological resources (topsoil, subsoil seed bank, plant material, logs, hollows etc.) for use in rehabilitation.
- ☐ The mine should identify and implement selective handling and management of mine materials (e.g. overburden, tailings, reject materials etc.) to address potential geochemical and geotechnical constraints for rehabilitation.
- ☐ Weed management needs to be improved.
- ☐ Identified some areas of erosion that needed to be corrected.
- ☐ Mine planning needs to identify potential risks associated with materials and soils management to facilitate sustainable rehabilitation outcomes
- ☐ A formalised weed management program should be developed.

These matters have been addressed in the current RMP.

**Details of any rehabilitation areas that have achieved the final land use**

No areas were relinquished during the 2024 reporting period and none are planned over the coming reporting period.

**Key production milestones**

<b>MATERIAL</b>	<b>UNIT</b>	<b>FWP0001288 YEAR 1</b>	<b>THIS REPORT</b>
<b>Stripped topsoil</b> <small>(if applicable)</small>	(m <sup>3</sup> )	2,200	0
<b>Rock/overburden</b>	(m <sup>3</sup> )	4,400	0
<b>Ore</b>	(Mt)	300,000	180,000
<b>Reject material<sup>1</sup></b>	(Mt)	0	0
<b>Product</b>	(Mt)	300,000	180,000

<sup>1</sup> This includes coarse rejects, tailings and any other wastes resulting from beneficiation.

## Disturbance and rehabilitation statistics

### Current disturbance and rehabilitation progression

ELEMENT	UNIT	THIS REPORT
<b>A Total surface disturbance footprint</b>	(ha)	27.59
<b>B Total active disturbance</b>	(ha)	16.31
<b>C Land prepared for rehabilitation</b>	(ha)	5.66
<b>D Ecosystem and land use establishment</b>	(ha)	5.61
<b>E Ecosystem and land use development</b>	(ha)	0
<b>F Rehabilitation completion</b>	(ha)	0

### Rehabilitation key performance indicators (KPIs)

ELEMENT	UNIT	THIS REPORT
<b>G Total new active disturbance area</b>	(ha)	NA - this value will display after 2nd year ARR submission as calculation relies on comparison between sequential yearly ARR data
<b>H New rehabilitation commenced during annual reporting period</b>	(ha)	NA - this value will display after 2nd year ARR submission as calculation relies on comparison between sequential yearly ARR data
<b>I Established rehabilitation</b>	(ha)	0
<b>J Annual rehabilitation to disturbance ratio</b>	%	NA - this value will display after 2nd year ARR submission as calculation relies on comparison between sequential yearly ARR data
<b>K Rehabilitated land to total mine footprint</b>	%	0

## Progressive achievement of established rehabilitation

ELEMENT	UNIT	THIS REPORT
L Established rehabilitation - agricultural final land uses	%	0
M Established rehabilitation - native ecosystem final land uses	%	0
N Established rehabilitation - other/non-vegetated final land uses	%	0

## Variation to the rehabilitation schedule

Identify the components of the most recent forward program that were not achieved

N/A

Key factors that delayed progressive rehabilitation

N/A

Outline actions that will be included in the forward program and carried out to minimise disturbance and undertake progressive rehabilitation as far as reasonably practical

N/A

# Rehabilitation monitoring and research findings

## Rehabilitation monitoring

### The rehabilitation monitoring carried out in the annual reporting period

There were no specialist reports prepared during the reporting period. Monitoring was limited to routine visual inspections of existing rehabilitated areas.

## Status of performance against rehabilitation objectives and rehabilitation completion criteria

### The monitoring program that has been implemented

The rehabilitation monitoring program for the site is designed to evaluate progress against the approved rehabilitation objectives, completion criteria, and the final landform and rehabilitation plan. The program includes regular inspections and audits to ensure compliance with the Rehabilitation Management Plan (RMP) and the Mining Lease conditions.

**Rehabilitation Objectives:** The primary objectives are to restore the site to a stable and sustainable landform that supports the agreed post-mining land use, which includes Southern Highlands Shale Woodland, water storage, and agricultural grazing.

**Completion Criteria:** These criteria include specific performance indicators such as soil stability, vegetation cover, and water quality. The criteria are used to measure the success of rehabilitation efforts and ensure that the site meets the regulatory requirements.

**Final Landform and Rehabilitation Plan:** The plan outlines the steps for landform establishment, including topsoil management, vegetation species selection, and habitat creation. It also details the phases of rehabilitation, from initial landform establishment to final relinquishment.

The monitoring program involves collecting data on these aspects and comparing it against the set benchmarks to assess progress. Any deviations are addressed through adaptive management strategies to ensure the rehabilitation objectives are met.

**Are all rehabilitation areas in Landform Establishment phase or higher represented in the monitoring program to assess performance against the rehabilitation objectives and approved or, if not yet approved rehabilitation completion criteria and final landform and rehabilitation plan?**

Yes

**Year rehabilitation areas will be included as part of the monitoring program**

**An appraisal of whether rehabilitation is moving towards achieving the proposed rehabilitation objectives, approved or, if not yet approved, rehabilitation completion criteria and final landform and rehabilitation plan as soon as reasonably practicable.**

Areas that are completed are working towards the approved objectives.

### **Appraisal description**

Rehabilitation is moving towards achieving the final land use as soon as reasonably practicable.

### **Rehabilitation monitoring program findings**

Following the completion of key rehabilitation steps and phases at the shale quarry, several inspections are required as part of the rehabilitation quality assurance process outlined in the Rehabilitation Management Plan (RMP). These inspections ensure that each phase meets the set standards and objectives.

**Initial Landform Establishment:** Inspections focus on verifying the stability and shape of the landform, ensuring it aligns with the design specifications. This includes checking for proper drainage and erosion control measures.

**Topsoil Management:** Inspections are conducted to ensure that topsoil is correctly placed and spread evenly. The quality and depth of the topsoil are assessed to confirm it meets the requirements for supporting vegetation.

**Vegetation Establishment:** Regular inspections monitor the progress of vegetation growth. This includes checking the survival rate of planted species, assessing weed control measures, and ensuring that the vegetation cover is developing as planned.

**Habitat Creation:** Inspections verify that habitat features, such as logs and rocks, are appropriately placed to support local wildlife. The success of these features in attracting and sustaining wildlife is also monitored.

**Water Quality and Management:** Inspections focus on water bodies within the rehabilitated area, ensuring that water quality parameters meet the set criteria. This includes monitoring for contaminants and assessing the effectiveness of water management structures.

**Final Landform and Rehabilitation Completion:** A comprehensive inspection is conducted to ensure that all rehabilitation objectives and completion criteria are met. This includes a final assessment of landform stability, vegetation cover, and overall site sustainability.

**Performance issues and their causes including identification of any knowledge gaps that must be addressed**

Nil

## Outcomes of rehabilitation research and trials

RRT NUMBER	PROJECT/TRIAL NAME	OBJECTIVE OF TRIAL/PROJECT	METHODOLOGY	EXPECTED DATE OF COMPLETION	STATUS	ON TRACK?
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A

RR0001408

**Outcomes of completed trials and research**

N/A

## Attachment 1 – Reporting Definitions

REPORTING CATEGORY	DEFINITION
<p><b>A1</b> Total disturbance footprint – surface disturbance</p>	<p>All areas within a mining lease that either have at some point in time or continue to pose a rehabilitation liability due to surface disturbance activities.</p> <p>The total disturbance footprint is the sum of the total active disturbance, decommissioning, landform establishment, growth medium development, ecosystem and land use establishment, ecosystem and land use development and rehabilitation completion (see definitions below).</p> <p>Underground mining operations should not include the footprint of underground mining areas/subsidence management areas in the total disturbance footprint.</p>
<p><b>A2</b> Underground Mining Area</p>	<p>Underground mining operations areas/subsidence management areas.</p>
<p><b>B</b> Total active disturbance</p>	<p>Includes on-lease exploration areas, stripped areas ahead of mining, infrastructure areas, water management infrastructure, sewage treatment facilities, topsoil stockpile areas, access tracks and haul roads, active mining areas, waste rock emplacements (active/unshaped/in or out-of-pit), tailings dams (active/unshaped/uncapped) and temporary stabilised areas (e.g. areas sown with temporary cover crops for dust mitigation and temporary rehabilitation).</p>
<p><b>C</b> Rehabilitation – land preparation</p>	<p>Includes the sum of all disturbed land within a mining lease that have commenced any, or all, of the following phases of rehabilitation – decommissioning, landform establishment and growth medium development.</p> <p>Refer to the glossary of terms in this document for the definition of these phases of rehabilitation.</p>

REPORTING CATEGORY	DEFINITION
D Ecosystem and land use establishment	<p>Includes the area which has been seeded/planted with the target vegetation species for the intended final land use. However, vegetation has not matured to a stage where it can be demonstrated that it will be sustainable for the long term and or require only a maintenance regime consistent with target reference/analogue sites.</p> <p>Typically, rehabilitation areas would be in this phase for at least two years (and usually more) before rehabilitation can be classified as being in the ecosystem and land use development phase. This phase does not apply to infrastructure areas that are being retained as part of final land use for the site.</p>
E Ecosystem and Land Use Development	<p>Rehabilitation has matured to a level where target revegetation outcomes are on a trajectory towards meeting the final rehabilitation objectives and rehabilitation completion criteria (as verified by monitoring).</p> <p>This phase includes infrastructure areas that are to be retained for an approved post mining land use, following completion of all necessary measures to render the infrastructure fit for this purpose (for example structural integrity).</p>
F Rehabilitation Completion	<p>The NSW Resources Regulator has determined in writing that the mining area has achieved the approved rehabilitation objectives and approved rehabilitation completion criteria and final landform and rehabilitation plan following the submission of <i>Form: ESF2 Rehabilitation completion and/or review of rehabilitation cost estimate and/or notification of mine or petroleum site closure</i>.</p>
G New active disturbance area	<p>The area of any new active disturbance that has been created during the annual reporting period (definition A1 in Table 5).</p>
H New rehabilitation commenced during annual reporting period	<p>The sum of any new rehabilitation commenced in the annual reporting period. These areas may be in the rehabilitation land preparation phase or the ecosystem &amp; land use establishment phase (definitions C and D in Table 5).</p>
I Established rehabilitation (hectares)	<p>The total area of land that is verified to be within either the ecosystem and land use development phase or the rehabilitation completion phase (definitions E &amp; F in Table 5).</p>

REPORTING CATEGORY		DEFINITION
<b>J</b>	Annual rehabilitation to disturbance ratio	The rehabilitation to disturbance ratio (H/G) indicates how many hectares of new rehabilitation are undertaken for each hectare of land disturbed during the year. A ratio of 1/1 indicates that the area of new rehabilitation and disturbance in that year are the same.
<b>K</b>	% Rehabilitated land to total mine footprint	The proportion of the total mine footprint (area of land that has been disturbed by past or present surface disturbance activities) that has established rehabilitation ( $I/A1 \times 100$ ). For open cut mining, the proportion of the total mine footprint verified to be “established rehabilitation” should substantially increase as an operation progresses towards mine closure.
<b>L</b>	Established rehabilitation for agricultural final land uses (hectares)	The percentage of total area of land that is verified to be within either the ecosystem and land use development phase or the rehabilitation completion phase (definitions E & F in Table 5) that have been returned to an agricultural final land use.
<b>M</b>	Established rehabilitation for native ecosystem final land uses (hectares)	The percentage of total area of land that is verified to be within either the ecosystem and land use development phase or rehabilitation completion phase (definitions E & F in Table 5) that have been returned to native ecosystem final land use.
<b>N</b>	Established rehabilitation for other/non-vegetated final land uses (hectares)	The percentage of total area of land that is verified to be within either the ecosystem and land use development phase or the rehabilitation completion phase (definitions E & F in Table 5) that have been returned to other/non-vegetated final land use.

## Attachment 2 – Definitions

WORD	DEFINITION
<b>Active</b>	In the context of rehabilitation, land associated with mining domains is considered ‘active’ for the period following disturbance until the commencement of rehabilitation.
<b>Active mining phase of rehabilitation</b>	In the context of rehabilitation, the active mining phase of rehabilitation constitutes the rehabilitation activities undertaken during mining operations such as salvaging and managing soil resources, salvaging habitat resources, and native seed collection. This phase also includes management actions taken during operations to manage risks to rehabilitation and enhance rehabilitation outcomes such as selective handling of waste rock and management of tailings emplacements.
<b>Analogue site</b>	In the context of rehabilitation, an analogue site is a ‘reference site’ that represents an example of the defining characteristics (such as vegetation composition and structure or agricultural productivity) of the final land use. Characteristics of analogue sites can be assessed to develop the rehabilitation objectives and completion criteria for final land use domains.
<b>Annual rehabilitation report and forward program</b>	As described in the Mining Regulation 2016.
<b>Annual reporting period</b>	As defined in the Mining Regulation 2016.
<b>Closure</b>	A whole-of-mine-life process, which typically culminates in the relinquishment of the mining lease. It includes decommissioning and rehabilitation to achieve the approved final land use(s).
<b>Decommissioning</b>	The process of removing mining infrastructure and removing contaminants and hazardous materials.
<b>Decommissioning Phase of Rehabilitation</b>	Activities associated with the removal of mining infrastructure and removal and/or remediation of contaminants and hazardous materials. In the context of the rehabilitation management plan this phase of rehabilitation may also include studies and assessments associated with decommissioning and demolition of infrastructure or works carried out to make safe or ‘fit for purpose’ built infrastructure to be retained for future use(s) following lease relinquishment.

<b>WORD</b>	<b>DEFINITION</b>
<b>Department</b>	The Department of Regional NSW.
<b>Disturbance</b>	See Surface Disturbance.
<b>Disturbance area</b>	<p>An area that has been disturbed and that requires rehabilitation.</p> <p>This may include areas such as on-licence exploration areas, stripped areas ahead of mining, infrastructure areas, water management infrastructure, sewage treatment facilities, topsoil stockpile areas, access tracks and haul roads, active mining areas, waste emplacements (active/unshaped/in or out-of-pit), tailings dams (active/unshaped/uncapped), and areas requiring rehabilitation that are temporarily stabilised (i.e. managed to minimise dust generation and/or erosion).</p>
<b>Domain</b>	<p>An area (or areas) of the land that has been disturbed by mining and has a specific operational use (mining domain) or specific final land use (final land use domain). Land within a domain typically has similar geochemical and/or geophysical characteristics and therefore requires specific rehabilitation activities to achieve the associated final land use.</p>
<b>Ecosystem and Land Use Development</b>	<p>This phase of rehabilitation consists of the activities to manage maturing rehabilitation areas on a trajectory to achieving the approved rehabilitation objectives and completion criteria.</p> <p>For vegetated land uses this phase may include processes to develop characteristics of functional self-sustaining ecosystems, such as nutrient recycling, vegetation flowering and reproduction, and increasing habitat complexity, and development of a productive, self-sustaining soil profile.</p> <p>This phase of rehabilitation may include specific vegetation management strategies and maintenance such as tree thinning, supplementary plantings and weed management.</p>
<b>Ecosystem and Land Use Establishment</b>	<p>This phase of rehabilitation consists of the processes to establish the approved final land use following construction of the final landform.</p> <p>For vegetated land uses this rehabilitation phase includes establishing the desired vegetation community and implementing land management activities such as weed control. This phase of rehabilitation may also include habitat augmentation such as installation of nest boxes.</p>
<b>Exploration</b>	Has the same meaning as that term under the State Environmental Planning Policy (Mining, Petroleum Production and Extractive Industries) 2007.

<b>WORD</b>	<b>DEFINITION</b>
<b>Final landform and rehabilitation plan</b>	As defined in the Mining Regulation 2016.
<b>Final land use</b>	As defined in the Mining Regulation 2016.
<b>Form and way</b>	Means the form and way approved by the Secretary. Approved form and way documents are available on the Department’s website.
<b>Growth Medium Development</b>	<p>This phase of rehabilitation consists of activities required to establish the physical, chemical and biological components of the substrate required to establish the desired vegetation community (including short lived pioneer species).</p> <p>This phase may include spreading the prepared landform with topsoil and/or subsoil and/or soil substitutes, applying soil ameliorants to enhance the physical, chemical and biological characteristics of the growth media, and actions to minimise loss of growth media due to erosion.</p>
<b>Habitat</b>	Has the same meaning as that term under the <i>Biodiversity Conservation Act 2016</i> and the <i>Fisheries Management Act 1994</i> (as relevant).
<b>Indicator</b>	An attribute of the biophysical environment (e.g. pH, topsoil depth, biomass) that can be used to approximate the progression of a biophysical process. It can be measured and audited to demonstrate (and track) the progress of an aspect of rehabilitation towards a desired completion criterion (i.e. defined end point). It may be aligned to an established protocol and used to evaluate changes in a system.
<b>Land</b>	As defined in the <i>Mining Act 1992</i> .
<b>Landform Establishment</b>	<p>This phase of rehabilitation consists of the processes and activities required to construct the final landform.</p> <p>In addition to profiling the surface of rehabilitation areas to the approved final landform profile this phase may include works to construct surface water drainage features, encapsulate problematic materials such as tailings, and prepare a substrate with the desired physical and chemical characteristics (e.g. rock raking or ameliorating sodic materials).</p>
<b>Large mine</b>	As defined in the Mining Regulation 2016.
<b>Lease holder</b>	The holder of a mining lease.

WORD	DEFINITION
<b>Life of mine</b>	The timeframe of how long a mine is approved to mine, from commencement to closure.
<b>Mine rehabilitation portal</b>	<p>Means the NSW Resources Regulator’s online portal that lease holders must use (via a registered account) to:</p> <ul style="list-style-type: none"> <li>■ upload rehabilitation geographical information system (GIS) spatial data</li> <li>■ develop rehabilitation GIS spatial data (using online tracing functions)</li> <li>■ generate rehabilitation plans and rehabilitation statistics using the map viewer and Rehabilitation Key Performance Indicator functionalities.</li> </ul> <p>Data submitted to the mine rehabilitation portal is collated in a centralised geodatabase for use by the NSW Resources Regulator to regulate rehabilitation performance of lease holders.</p>
<b>Mining area</b>	As defined in the <i>Mining Act 1992</i> .
<b>Mining domain</b>	A land management unit with a discrete operational function (e.g. overburden emplacement), and therefore similar geophysical characteristics, that will require specific rehabilitation treatments to achieve the final land use(s).
<b>Mining land</b>	As defined in the <i>Mining Act 1992</i> .
<b>Native vegetation</b>	Has the same meaning as that term under section 60B of the <i>Local Land Services Act 2013</i> .
<b>Overburden</b>	Material overlying coal or a mineral deposit.
<b>Performance indicator</b>	An attribute of the biophysical environment (for example pH, slope, topsoil depth, biomass) that can be used to demonstrate achievement of a rehabilitation objective. It can be measured and audited to demonstrate (and track) the progress of an aspect of rehabilitation towards a desired completion criterion, that is, a defined end point. It may be aligned to an established protocol and used to evaluate changes in a system.

WORD	DEFINITION
<b>Phases of rehabilitation</b>	<p>The stages and sequences of actions required to rehabilitate disturbed land to achieve the final land use. The phases of rehabilitation are:</p> <ul style="list-style-type: none"> <li>■ active mining</li> <li>■ decommissioning</li> <li>■ landform Establishment</li> <li>■ growth medium development</li> <li>■ ecosystem and land use establishment</li> <li>■ ecosystem and land use development.</li> </ul>
<b>Progressive rehabilitation</b>	<p>The progress of rehabilitation towards achieving the approved rehabilitation completion criteria. This may be described in terms of domains, phases, performance indicators and rehabilitation completion criteria.</p>
<b>Rehabilitation Completion</b>	<p>The final phase of rehabilitation when a rehabilitation area has achieved the approved rehabilitation objectives and rehabilitation completion criteria for the final land use. Rehabilitation areas may be classified as complete when the NSW Resources Regulator has determined in writing that the relevant rehabilitation obligations have been fulfilled following submission of <i>Form ESF2 Rehabilitation completion and/or review of rehabilitation cost estimate</i> application by the lease holder.</p>
<b>Rehabilitation Completion criteria</b>	<p>As defined in the Mining Regulation 2016.</p>
<b>Rehabilitation cost estimate</b>	<p>As defined in the Mining Regulation 2016.</p>
<b>Rehabilitation management plan</b>	<p>As defined in the Mining Regulation 2016.</p>
<b>Rehabilitation objectives</b>	<p>As defined in the Mining Regulation 2016.</p>
<b>Rehabilitation risk assessment</b>	<p>As defined in the Mining Regulation 2016.</p>
<b>Rehabilitation schedule</b>	<p>The defined timeframes for progressive rehabilitation set out in the forward program.</p>

WORD	DEFINITION
<b>Relevant stakeholders</b>	<p>Means any persons or bodies who may be affected by the mining operations, including rehabilitation, carried out on the lease land, and includes:</p> <ul style="list-style-type: none"> <li>■ the relevant development consent authority</li> <li>■ the local council</li> <li>■ the relevant landholder(s)</li> <li>■ community consultative committee (if required under the development consent) or equivalent consultative group</li> <li>■ affected land holder(s)</li> <li>■ government agencies relevant to the final land use</li> <li>■ affected infrastructure authorities (electricity, telecommunications, water, pipeline, road, rail authorities)</li> <li>■ local Aboriginal communities, and</li> <li>■ any other person or body determined by the Minister to be a relevant stakeholder in relation to a mining lease.</li> </ul>
<b>Risk</b>	The effect of uncertainty on objectives. It is measured in terms of consequences and likelihood (AS/NZS ISO 31000:2009).
<b>Secretary</b>	The Secretary of the Department.
<b>Security deposit</b>	An amount that a mining lease holder is required to provide and maintain under a mining lease condition, to secure funding for the fulfilment of obligations under the lease (including obligations that may arise in the future).
<b>Surface disturbance</b>	Includes activities that disturb the surface of the mining area, including mining operations, ancillary mining activities and exploration.
<b>Tailings</b>	A combination of the fine-grained solid material remaining after the recoverable metals and minerals have been extracted from the mined ore, and any process water <sup>2</sup> .
<b>Waste</b>	Has the same meaning as that term under the <i>Protection of the Environment Operations Act 1997</i> .

<sup>2</sup> Commonwealth of Australia (DITR), 2007. *Tailings Management*.

## Attachment 3 – Rehabilitation Complaints

DATE	COMPLAINANT	COMPLAINT DETAILS	RESPONSE DETAILS	STATUS OF RESPONSE	DATE RESPONSE COMPLETED (IF APPLICABLE)
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## Attachment 4 – Stakeholder consultation

DATE	STAKEHOLDER	CONSULTATION ACTIVITIES AND FORMS	MATTERS SUBJECT TO CONSULTATION	ACTIONS TAKEN
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## Attachment 5 – Plans

Blue Shale Quarry Plan 1a.pdf

Berrima Shale Quarry Plan 1b.pdf

Annual Report (LARGE MINE) v1.6