NSW GOVERNMENT

NSW Resources Regulator

ARR0001254

BENGALLA MINE ANNUAL REHABILITATION REPORT

Sunday 1 January 2023 to Sunday 31 December 2023

Contents

Summary table

DETAIL	
Mine	Bengalla Mine
Reference	ARR0001254
Annual report period commencement date	Sunday 1 January 2023
Annual report period end date	Sunday 31 December 2023
Forward program	FWP0001149
Mining leases	ML 1469 (1992), ML 1397 (1992), ML 1729 (1992), ML 1450 (1992), ML 1711 (1992), ML 1728 (1992), ML 1796 (1992)
Lease holder(s)	Bengalla Mining Company Pty Limited
Contact	Craig White
Date of submission	Thursday 28 March 2024

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

Bengalla Mine (Bengalla) is located approximately 4 km west of Muswellbrook and is operated by Bengalla Mining Company Pty Limited (BMC) on behalf of the Bengalla Joint Venture (New Hope Bengalla Pty Limited (80%) and Taipower Bengalla Pty Limited (20%)). Bengalla operates in accordance with development consent State Significant Development 5170 (SSD 5170) which was granted on 3 March 2015 and has been modified on five occasions at the date of this Forward Program. SSD 5170 (as modified) provides approval for open cut multi-seam coal mining operations until 28 February 2039. Mining advances towards the west, extracting up to 15 Mtpa of ROM coal utilising dragline and truck and shovel mining methods. Progressive rehabilitation of the Overburden Emplacement Area (OEA) is undertaken as the final landform is achieved. ROM coal is processed at the Bengalla CHPP to produce a thermal coal product which is then loaded onto trains at the rail loading facility for transport.

Life of mine

44 years

Current development consents, leases and licences

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

SSD5170MOD5
SSD5170MOD5
SSD5170MOD5
SSD5170MOD5
SSD5170MOD5
SSD5170MOD5
SSD5170MOD5
SSD5170MOD5
SSD5170MOD5
SSD5170MOD5
SSD5170MOD5
SSD5170MOD5
SSD5170MOD5
SSD5170MOD5

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

ML 1469 (1992), ML 1397 (1992), ML 1729 (1992), ML 1450 (1992), ML 1711 (1992), ML 1728 (1992), ML 1796 (1992)

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

EPBC Approval 2012/6378
Environment Protection Licence (EPL) 6538

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

During the Reporting Period BMC was granted a modification (Modification 5) to SSD-5170 under section 4.55(2) of the EP&A Act to facilitate additional mining related activities. Modification 5 was approved on the 24 February 2023 and includes the following activities: · Operation of a mobile rock crushing facility and ancillary equipment, and use of crushed rock onsite; ·Geotechnical investigations and prospecting operations; · Realignment of the Western Diversion Levee within the approved Disturbance Boundary; · Enlargement of the ROM coal stockpile; · Upgrade of the Southern Endwall Road adjacent to the Southern visual bund, which may require removal of part of the visual bund (to be replaced by an equivalent measure); · Disposal of tyres in pit; and · Minor administrative changes to conditions of SSD-5170. A partial transfer of 171.3 ha of ML1728 was allocated to a new authority ML1829 (expiry date 10/02/2037) under the management of MACH Energy Australia. This transfer was registered on 20 July 2023. Reporting details for ML1829 are outside of the scope of this Annual Rehabilitation Report due to the transfer of ownership to MACH Energy.

Changes to land ownership and land use

During the reporting period Lot 311 DP609634 was acquired by BMC. This landholding is referenced as Receiver No. 153 and is within the Zone of Acquisition (ZOA) as detailed in Schedule 3 Condition 1 SSD-5170.

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

Mining operations continued to progress to the west as approved by SSD-5170 (as modified). Surface disturbance occurred within the Reporting Period as shown in Plan 1A. The progressive installation of retrofitted HDWV primarily over existing rehabilitation areas across the southern and eastern OEA over a five year-period from 2020-2024 is continuing. Approximately 59ha of previous rehabilitation was retrofitted with 64,000 HDWV tubestock. The retrofit HDWV was planted in zones 3, 4 and 5 of the OEA. 20 ha of new rehabilitation was undertaken in the Reporting Period consisting of 8.7 ha of pasture and 11.3 ha of HDWV via direct seeding. An effect of the retrofit HDWV installation is that rehabilitation polygons relative to the original rehabilitation areas and the HDWV areas are overlapping resulting in the calculated area of Ecosystem and Land Use Establishment being larger than what is insitu at Bengalla. In addition, re-disturbance of rehabilitated areas results in an overestimation of the cumulative total disturbance footprint in the KPI report. The resultant discrepancies in the KPI report have been noted by the Resources Regulator in meetings as described in consultation undertaken on 16 August and 16 November 2023.

Rehabilitation planning activities that were conducted, including any specialist studies

The Rehabilitation Objectives Statement and Final Landform Rehabilitation Plan was approved by the Resources Regulator on 22 December 2023. The RMP was updated and uploaded to the Bengalla website on 19 January 2024.

Overview of subsidence repair and/or remediation works undertaken

No underground mining is undertaken at Bengalla and hence no subsidence repairs were undertaken during the reporting period

Overview of rehabilitation management and maintenance activities

Ongoing weed and feral animal inspections and control programs continued to be undertaken in accordance with the Biodiversity Management Plan. Weed and pest control at Bengalla is undertaken through targeted chemical and baiting applications. During 2023, approximately 211ha was treated for the management of weeds. Target weed species primarily included African boxthorn, African olive, St Johns Wort, Galenia and other weeds. Priority areas for treatment included the pre-clearing areas and rehabilitation areas. A pig control program was conducted throughout 2023 at various locations across Bengalla. A total of 29 pigs were

trapped utilising a penning system using grain and molasses then disposed of humanely. Two baiting programs focussing on wild dogs and foxes were undertaken in Spring and Autum. During the autumn baiting program, results indicate 32 takes were by target species being foxes and 3 wild dogs. During the spring baiting program, a total of 17 takes were by target species being foxes. No wild dog takes were recorded.

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

No regulatory actions in relation to rehabilitation have been received by BMC during the Reporting Period.

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

Whilst monitoring has demonstrated that areas of rehabilitation are trending towards the final land use objectives and completion criteria, no areas of rehabilitation have achieved Rehabilitation Completion during the Reporting Period.

Key production milestones

MATERIAL	UNIT	FWP0001149 YEAR 1	THIS REPORT
Stripped topsoil (if applicable)	(m^3)	303,407	194,181
Rock/overburden	(m^3)	59,017,062	60,365,962
Ore	(Mt)	13.7	12.01
Reject material[1]	(Mt)	3.2	3.25
Product	(Mt)	11.2	10.37

[1] 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
A	**Total surface disturbance footprint**	(ha)	1,437.6
B	**Total active disturbance**	(ha)	1,112.1
C	**Land prepared for rehabilitation**	(ha)	0
D	**Ecosystem and land use establishment**	(ha)	325.49
E	**Ecosystem and land use development**	(ha)	0
F	**Rehabilitation completion**	(ha)	0

Rehabilitation key performance indicators (KPIs)

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

The rehabilitation schedule aligns for Year 1 in the previously reported Forward Program and rehabilitation commitments were completed on schedule by 31 December 2023. Within the production schedule, less topsoil was stripped than was forecasted in the previous year's FWP

Key factors that delayed progressive rehabilitation

Less topsoil was stripped than was forecast due to two main factors. The area to the west was more weathered than other sections of the mining area. As a result, not much topsoil available to strip. The forecasted number from the FWP was based on a calculation of the average topsoil stripping ratios for the whole site and hectares planned to be disturbed. Additionally, there were some areas in the disturbance footprint for 2023 where trees were removed and mulched (hence disturbed), yet the topsoil has not been stripped as forecasted in the 2023 FWP as the area was not mined in the 2023 reporting period

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

Rehabilitation at Bengalla is undertaken progressively and as soon as practicable after the completion of surface preparation. Inert capping material and topsoil is spread over areas to be rehabilitated, to maintain topsoil quality and take advantage of native seed banks if present. This minimises the areas of disturbed land; reduces future rehabilitation liabilities; minimises visual impacts and helps suppress the potential for wind-blown dust and erosion. Seeding of a rehabilitation area commences as soon as practicable after scarification, if required, tube stock may be planted. Seeding and tube stock planting is preferably sown in Autumn and/or Spring when there is seasonal rain with cooler growing conditions. A cover

crop may be applied if meteorological or seasonal conditions are not conducive to rehabilitation species seeding or the pasture rehabilitation species seed is unavailable.

Rehabilitation monitoring and research findings

Rehabilitation monitoring

The rehabilitation monitoring carried out in the annual reporting period

Rehabilitation at Bengalla is carried out progressively and as soon as reasonably practicable following disturbance. The Rehabilitation Monitoring and Audit 2023 (Moss Environmental, 2024) concluded: · The Class III pasture rehabilitation continued to display a satisfactory performance in 2023, with high vegetative cover dominated by productive and palatable tropical pasture grasses, high biomass and feed quality, and minimal weed incidence; · Areas of historic HDWV rehabilitation are well established and have shown minimal change in condition during the Reporting Period with some infill planting still required; · Recent HDWV rehabilitation (established since 2020) was variable in condition, influenced by the different revegetation techniques and approaches implemented; · Shrub and tree diversity continue to be, on average higher in areas planted with tubestock rather than in all seeded areas (irrespective of substrate); and · 13 of 31 monitoring sites met the defined tree density benchmark from the RMP. Total stem densities recorded in 2023 averaged ~402 stems/ha in historical rehabilitation sites marginally above RMP targets. Stem densities averaged ~372 stems/ha in recent rehabilitation sites which is acceptable considering germination of seeded areas is yet to take place or reach full potential for sites rehabilitated in the last two years.

Status of performance against rehabilitation objectives and rehabilitation completion criteria

The monitoring program that has been implemented

The Annual Rehabilitation Monitoring Report includes an assessment of rehabilitation performance against the proposed rehabilitation objectives, proposed rehabilitation completion criteria and final landform design described in the RMP. The report recommended remedial actions including: · Erosion repairs required at contour banks, drainage channels and more generally across the rehabilitated landform; · Priority areas and species for any upcoming weed control programs; · Establishment of rabbit/hare monitoring within existing pest control programs; ·Continued implementation of the HDWV program including infill planting within Zone 5 of the OEA; · Increased focus on habitat augmentation and placement of features; and · Continued implementation of the Annual Monitoring Program to align with the RMP. Generally, the completed rehabilitation areas are progressing towards the achievement of the proposed rehabilitation objectives, proposed rehabilitation completion criteria and final landform design described in the RMP.

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.

Generally, the completed rehabilitation areas are progressing towards the achievement of the proposed rehabilitation objectives, proposed rehabilitation completion criteria and final landform design described in the RMP. As noted above, there are some areas which require further attention and are subject to ongoing work programs

Appraisal description

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

Rehabilitation monitoring program findings

Rehabilitation monitoring at Bengalla is undertaken annually through the implementation of the following: · A transect-based monitoring program; and · A rehabilitation walkover audit. During the Reporting Period, rehabilitation monitoring was undertaken during January 2024 to represent the 2023 monitoring period. The program focussed on new areas of retrofitted HDWV and the continued long term monitoring program in the OEA rehabilitation areas of pasture and HDWV rehabilitation. Large-scale remediation, rehabilitation and revegetation works are ongoing at Bengalla to establish HDWV across the southern and eastern OEA over a five year-period from 2020-2024. Visual inspections of rehabilitation areas are undertaken to confirm appropriate landform construction vegetative cover, incidents of weeds and feral animals, water storages and quality, evidence of erosion and any visible evidence of hazards or potential risks to successful rehabilitation.

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

Modification 5 was approved on the 24 February 2023. Schedule 3, Condition 47 of SSD-5170 (as modified) requires the preparation of a Rehabilitation Management Strategy. BMC have undertaken consultation with relevant stakeholders and it is expected that the strategy will be approved in next year's reporting period

Outcomes of rehabilitation research and trials

RRT NUMBER	PROJECT/TRIAL NAME	OBJECTIVE OF TRIAL/PROJECT	METHODOLOGY	EXPECTED DATE OF COMPLETION	STATUS	ON TRACK?
RRT0001031	Tailings to Topsoil	To investigate the potential to improve soil quality through direct tailings emplacement.	Research into the effectiveness of blending tailings and soils has commenced with germination and ex-situ glasshouse plant growth trials conducted at the University of Newcastle. To assess in-situ conditions, a plant growth trial is planned to be conducted at Bengalla. Tailings are a source of carbon and so have potential to improve soil quality by increasing carbon content.	2 Jul 2026	Ongoing	Yes
RRT0001032	Landscape Evolution Modelling	To demonstrate that the final landform is long term "safe and stable" and address any long term erosion and stability risks.	BMC is investigating Landscape Evolution Modelling (LEM) or similar methods. Unless the Resources Regulator directs or agrees otherwise: (a) LEM or similar methods will be used to evaluate the long-term erosion rates by modelling erosion and deposition over time; and (b) a monitoring program (excluding surface variations not related to erosion) will be formulated to inform modelling output.	2 Jul 2026	Ongoing	Yes

Outcomes of completed trials and research

N/A

Attachment 1 – Reporting Definitions

REPORTING CATEGORY		DEFINITION
A1	Total disturbance footprint – surface disturbance	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. 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). Underground mining operations should not include the footprint of underground mining areas/subsidence management areas in the total disturbance footprint.
A2	Underground Mining Area	Underground mining operations areas/subsidence management areas.
B	Total active disturbance	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).
C	Rehabilitation – land preparation	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. Refer to the glossary of terms in this document for the definition of these phases of rehabilitation.

REPORTING CATEGORY		DEFINITION
D	Ecosystem and land use establishment	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. 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.
E	Ecosystem and Land Use Development	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). 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).
F	Rehabilitation Completion	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 *Form: ESF2 Rehabilitation completion and/or review of rehabilitation cost estimate and/or notification of mine or petroleum site closure.*
G	New active disturbance area	The area of any new active disturbance that has been created during the annual reporting period (definition A1 in Table 5).
H	New rehabilitation commenced during annual reporting period	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 & land use establishment phase (definitions C and D in Table 5).
I	Established rehabilitation (hectares)	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 & F in Table 5).

REPORTING CATEGORY		DEFINITION
J	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.
K	% 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 x 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.
L	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.
M	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.
N	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
Active	In the context of rehabilitation, land associated with mining domains is considered 'active' for the period following disturbance until the commencement of rehabilitation.
Active mining phase of rehabilitation	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.
Analogue site	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.
Annual rehabilitation report and forward program	As described in the Mining Regulation 2016.
Annual reporting period	As defined in the Mining Regulation 2016.
Closure	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).
Decommissioning	The process of removing mining infrastructure and removing contaminants and hazardous materials.
Decommissioning Phase of Rehabilitation	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.

WORD	DEFINITION
Department	The Department of Regional NSW.
Disturbance	See Surface Disturbance.
Disturbance area	An area that has been disturbed and that requires rehabilitation. 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).
Domain	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.
Ecosystem and Land Use Development	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. 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. This phase of rehabilitation may include specific vegetation management strategies and maintenance such as tree thinning, supplementary plantings and weed management.
Ecosystem and Land Use Establishment	This phase of rehabilitation consists of the processes to establish the approved final land use following construction of the final landform. 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.
Exploration	Has the same meaning as that term under the State Environmental Planning Policy (Mining, Petroleum Production and Extractive Industries) 2007.

WORD	DEFINITION
Final landform and rehabilitation plan	As defined in the Mining Regulation 2016.
Final land use	As defined in the Mining Regulation 2016.
Form and way	Means the form and way approved by the Secretary. Approved form and way documents are available on the Department's website.
Growth Medium Development	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. 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.
Habitat	Has the same meaning as that term under the *Biodiversity Conservation Act 2016* and the *Fisheries Management Act 1994* (as relevant).
Indicator	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.
Land	As defined in the *Mining Act 1992.*
Landform Establishment	This phase of rehabilitation consists of the processes and activities required to construct the final landform. 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).
Large mine	As defined in the Mining Regulation 2016.
Lease holder	The holder of a mining lease.

WORD	DEFINITION
Life of mine	The timeframe of how long a mine is approved to mine, from commencement to closure.
Mine rehabilitation portal	Means the NSW Resources Regulator's online portal that lease holders must use (via a registered account) to: ■ upload rehabilitation geographical information system (GIS) spatial data ■ develop rehabilitation GIS spatial data (using online tracing functions) ■ generate rehabilitation plans and rehabilitation statistics using the map viewer and Rehabilitation Key Performance Indicator functionalities. 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.
Mining area	As defined in the *Mining Act 1992*.
Mining domain	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).
Mining land	As defined in the *Mining Act 1992.*
Native vegetation	Has the same meaning as that term under section 60B of the *Local Land Services Act 2013.*
Overburden	Material overlying coal or a mineral deposit.
Performance indicator	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
Phases of rehabilitation	The stages and sequences of actions required to rehabilitate disturbed land to achieve the final land use. The phases of rehabilitation are: ■ active mining ■ decommissioning ■ landform Establishment ■ growth medium development ■ ecosystem and land use establishment ■ ecosystem and land use development.
Progressive rehabilitation	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.
Rehabilitation Completion	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 *Form ESF2 Rehabilitation completion and/or review of rehabilitation cost estimate* application by the lease holder.
Rehabilitation Completion criteria	As defined in the Mining Regulation 2016.
Rehabilitation cost estimate	As defined in the Mining Regulation 2016.
Rehabilitation management plan	As defined in the Mining Regulation 2016.
Rehabilitation objectives	As defined in the Mining Regulation 2016.
Rehabilitation risk assessment	As defined in the Mining Regulation 2016.
Rehabilitation schedule	The defined timeframes for progressive rehabilitation set out in the forward program.

WORD	DEFINITION
Relevant stakeholders	Means any persons or bodies who may be affected by the mining operations, including rehabilitation, carried out on the lease land, and includes: ■ the relevant development consent authority ■ the local council ■ the relevant landholder(s) ■ community consultative committee (if required under the development consent) or equivalent consultative group ■ affected land holder(s) ■ government agencies relevant to the final land use ■ affected infrastructure authorities (electricity, telecommunications, water, pipeline, road, rail authorities) ■ local Aboriginal communities, and ■ any other person or body determined by the Minister to be a relevant stakeholder in relation to a mining lease.
Risk	The effect of uncertainty on objectives. It is measured in terms of consequences and likelihood (AS/NZS ISO 31000:2009).
Secretary	The Secretary of the Department.
Security deposit	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).
Surface disturbance	Includes activities that disturb the surface of the mining area, including mining operations, ancillary mining activities and exploration.
Tailings	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[2].
Waste	Has the same meaning as that term under the *Protection of the Environment Operations Act 1997*.

[2] 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)

Attachment 4 – Stakeholder consultation

DATE	STAKEHOLDER	CONSULTATION ACTIVITIES AND FORMS	MATTERS SUBJECT TO CONSULTATION	ACTIONS TAKEN
16 Aug 2023	NSW Resources Regulator	Microsoft teams meeting	· Meeting held 16 August 2023 to discuss the submission of spatial data in the Mine Rehabilitation Portal; · RR requested rehabilitation theme polygons are revised to remove overlaps and to reflect the latest rehabilitation campaign with the original rehabilitation included in the 'additional information' attribute; · RR acknowledges that this action with artificially inflate the KPI disturbance calculation in subsequent Annual Rehabilitation Reports	· A letter was sent by BMC to the RR (dated 4 October 2023) to document and justify the discrepancies in the subsequent Annual Rehabilitation Report (this report)
16 Nov 2023	NSW Resources Regulator	Microsoft Teams	· A meeting was held on 16 November 2023 to discuss the requested changes to the Rehabilitation Objectives and the Final Landform and Rehabilitation Plan	· Spatial data was re-submitted and approved 22 December 2023
30 Mar 2023	Various	Annual Review	Details rehabilitation activities undertaken during the Reporting Period that support progression towards the final land use and rehabilitation objectives. The Annual Review relevantly includes: · A summary of mining operations; · A summary of rehabilitation activities; · Environmental performance; · Trends in monitoring data; ·Non-compliances and actions that were or are being taken to ensure compliance; and · Proposed activities for the next Reporting Period.	Identifies any emerging issues, recommends appropriate measures to be implemented to improve the environmental performance of the development.

Attachment 5 – Plans

Plan 1A Current Status of Mining and Rehabilitation.pdf

Plan 1B Current Landform Contours.pdf