



**NSW
Resources
Regulator**

FWP0001610

MANGOOKLA COAL MINE FORWARD PROGRAM

Wednesday 1 January 2025 to Friday 31 December 2027

Summary

DETAIL

Mine	Mangoola Coal Mine
Reference	FWP0001610
Forward program commencement date	Wednesday 1 January 2025
Forward program end date	Friday 31 December 2027
Forward program revision (if applicable)	
Contact	Brooke York
Mining leases	ML 1747 (1992), ML 1817 (1992), ML 1626 (1992)
Project location	Mangoola Coal Operations Pty Limited
Date of submission	Tuesday 15 April 2025

Important

The department may make the information in your program 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 program to be confidential, please communicate this to the department via the message function on this submission within the NSW Resources Regulator Portal.

Three-year forecast – surface disturbance activities

Project description

Mangoola Coal Mine (Mangoola) is a truck and shovel, open cut coal mine operated by Mangoola Coal Operations Pty Ltd which is owned by Glencore Coal Pty Ltd (Glencore). Project Approval (PA) 06_0014 was granted on 7 June 2007 and authorised the extraction of up to 13.5 million tonnes per annum (Mtpa) Run of Mine (ROM) coal, as well as operation of a Coal Handling and Preparation Plant (CHPP) and train loading facility. In April 2021 the NSW Independent Planning Commission (IPC) approved the Mangoola Coal Continued Operations (MCCO) Project (SSD 8642) which allows for continued mining in the southern mining area (Main Pit and South Pit), as well as a new mining area to the north of Wybong Road referred to as Wybong Pit. The site holds Mining Lease (ML) 1626, ML1747, ML1815 and ML1817. The 2025-2027 Forward Program dates align with calendar years (Year 1 -2025, Year 2 – 2026 and Year 3 – 2027).

Description of surface disturbance activities

Exploration activities

Mangoola Coal will continue to undertake exploration activities within the mining leases, assessment leases and exploration licences to increase the accuracy of the site geological model. Works will include continued structural, coal quality and crop line drilling. Reporting for these drilling programs will be conducted as per licence requirements. Reserve delineation drilling will be conducted as required within the approved disturbance boundary at Mangoola to determine structure, coal quality and geotechnical features. Mangoola Coal intends to use existing tracks and open paddocks for drill site exploration where practicable. Exploration activities will be conducted on a campaign basis. An ESF4 or equivalent application will be submitted to MEG prior to the commencement of any exploration drilling works outside the Approved Disturbance Boundary (within AL9 and EL5552) where required. Construction, sealing and decommissioning of boreholes will be undertaken in accordance with relevant standards and guidelines published by RR. Additional drill holes to install groundwater monitoring bores may also be required and appropriate approvals sought.

Construction activities

No significant construction activities are planned during this Forward Program period. General construction activities to be undertaken over the next three year period include:

- Demolition and removal of redundant infrastructure
- Establishment of minor access tracks and laydown areas, where necessary, associated with construction work areas located within

the Approved Disturbance Boundary. Existing access tracks will be utilised where possible however additional access tracks and associated clearing may be required.

Mining schedule

Mining development method and sequencing and general mine features.

During the Forward Program period, forecast disturbance will involve 54.0 ha in 2025, 58.3 ha in 2026 and no new disturbance forecast for 2027. Prior to the commencement of mining, pre strip operations will be conducted to remove vegetation and topsoil. Prior to the commencement of any soil disturbance works, appropriate surface water management controls will be implemented as per the Mangoola Water Management Plan. Mining will be generally carried out utilising hydraulic excavators, haul trucks and dozers following the blasting of competent material. Coal extraction will continue in the existing Southern Mining Area (Main and South Pits which have now merged) and the Northern Extension Area (Wybong Pit) during the Forward Program term.

Areas identified for emplacements, the sequencing of emplacements, construction, and management.

Overburden emplacement will continue in the southern mining area (Main Pit/South Pit) and the Northern Extension Area (Wybong Pit) with emplacement following the progression of each pit. Blasted overburden material is loaded by hydraulic excavators into dump trucks for transportation to the overburden emplacement areas. Final exterior dump faces are designed at a general slope of 10 degrees or to match in with existing topographic landscape. The dump is slightly undulating for drainage based on a natural landform design. The out of pit OEA's will have a maximum height of 240 m Australian Height Datum (AHD) for the term of this Forward Program and as approved in SSD 8642. Establishment of the final landform will be in line with the current design standards at Mangoola, including use of natural landform design principles incorporating micro-relief, as approved in SSD 8642.

Processing infrastructure activities and the location of tailings facilities and schedule for emplacement.

The Mangoola CHPP simultaneously produces a low ash export coal and a high ash thermal coal. The coal is washed in two stages of dense medium cyclones while the de-slimmed fines are treated in spirals. The CHPP is designed to take a wide range of feed types from the four seams at Mangoola, without blending of the raw coal. Coarse rejects are trucked to the pit for disposal using the mine haul trucks and thickener underflow is pumped directly to the tailings dam. Mangoola currently has 3 tailings dams onsite. Capping of Tailings Dam (TD) 1 has commenced, TD2 is decommissioned and TD4 is operational and will be active for the life of the mine. Mangoola has provisioned a surcharge stockpile adjacent to the TD4 tailings dam as a source of capping material for use at final closure. Capping material for TD1 and TD2 is to be delivered from the current mining waste horizons. Further cone penetration testing (CPT) and shear vane testing (SVT) for TD1 and TD2, including revisiting areas within Zone A and B where testing has already been completed will continue to be undertaken. Tailings strength testing

will continue to be routinely monitored in TD2, until tailings strengths develop similar to those in TD1. Throughout this process any surface water will be kept off TD1 and TD2 as far as practicable to maximise the effect of solar desiccation.

Waste disposal and materials handling operations.

All waste management at Mangoola is undertaken in accordance with the Mangoola Open Cut Waste Management Plan. All waste management is undertaken by a waste management contractor who is responsible for implementing the Waste Management Plan. Operational waste managed by the waste management contractor includes; office wastes, domestic wastes such as food scraps and household recyclables, hazardous wastes such as workshop and equipment wastes (oily rags, machinery components, waste oils, lubricants and metals), ablution wastes, special wastes such as tyres and asbestos and exploration drill cuttings, chips and fluids. Inert waste materials generated by these activities will be recycled where practicable or disposed of at an appropriate facility, with some clean inert wastes to be disposed of at appropriate locations within mining areas. Any excavated material generated during construction will be reused onsite. Contaminated soil from unplanned spills is contained, cleaned up and is removed from site as required by a licensed contractor to an appropriate waste management facility or transported to the Mangoola bioremediation cell.

Key production milestones

MATERIAL	UNIT	YEAR 1	YEAR 2	YEAR 3
Stripped topsoil <small>(if applicable)</small>	(m ³)	30,055	16,753	44,472
Rock/overburden	(m ³)	37,420,117	30,469,352	26,357,980
Ore	(Mt)	11.94	12.4	8.31
Reject material¹	(Mt)	2.94	3.1	1.98
Product	(Mt)	9	9.3	6.34

¹ This includes coarse rejects, tailings and any other wastes resulting from beneficiation.

Three-year rehabilitation forecast

Rehabilitation planning schedule

Rehabilitation planning schedule

Mangoola prepares an Annual Rehabilitation and Closure Plan (ARCP) on a calendar year basis, which provides direction and guidance for the rehabilitation and land management activities at site. The plan details responsibilities for land management and rehabilitation activities, as well as nominated timeframes for completion. The plan also documents key performance indicators and associated deliverables for Mangoola's rehabilitation performance on an annual basis in line with this Forward Program. Rehabilitation for the site includes the re-establishment of a range of native vegetation communities and provides a suitable degree of diversity within the vegetation of the post mining landscape. Rehabilitation activities at Mangoola include:

- stockpiling and utilisation of materials from clearing operations
- removal and stockpiling of topsoil for use in rehabilitation
- management of overburden material including selective placement based on material characterisations
- landform establishment
- growth medium preparation
- vegetation establishment
- habitat establishment
- maintenance and monitoring

Stakeholder consultation

Consultation was undertaken with various stakeholders, in the development of the rehabilitation and closure objectives for Mangoola, during the EIS. Ongoing consultation on rehabilitation activities will be undertaken with the relevant regulatory stakeholders. Continued quarterly community consultation through the CCC, Registered Aboriginal Parties, continued distribution of the Mangoola Coal Community Newsletter.

Rehabilitation studies, risk assessments and/or design work

Risks associated with rehabilitation progression are identified during an annual Broad Brish Risk Assessment (BBRA), as well as a three-yearly RMP Risk Assessment. Details of these risks and how they are managed are provided in the RMP. Further CPT and SVT for TD1 and TD2, will continue to be routinely monitored, until tailings strengths develop similar to those in TD1. Throughout this process any surface water will be kept off TD1 and TD2 as far as practicable to maximise the effect of solar desiccation. Learnings from capping of TD1 and TD2 will be integrated into the future planning for capping of TD4. Rehabilitation trials/studies will continue during the forward program term.

Rehabilitation research and trials

MANGOOLA COAL MINE FORWARD PROGRAM

FWP0001610 | Wednesday 1 January 2025 to Friday 31 December 2027

RRT NUMBER	PROJECT/TRIAL NAME	OBJECTIVE OF TRIAL/PROJECT	METHODOLOGY	EXPECTED DATE OF COMPLETION	STATUS
RRT0001074	Threatened Terrestrial and Epiphytic Orchids	A major study is being undertaken on site relating to the translocation of terrestrial orchid species. Assess the viability of different translocation methods in achieving conservation outcomes.	Translocation plots have been established in offset and rehabilitation areas, with reference sites based in nearby buffer lands. Undertaken since 2010, comprising the salvage and relocation of over 2700 orchid cores. Annual monitoring is undertaken to assess the viability of different translocation methods in achieving conservation outcomes. Another trial undertaken includes divide and grow <i>Cymbidium canaliculatum</i> that have been damaged and collected during tree felling operations	31 Dec 2030	Ongoing
RRT0001075	Tailings Dam Desiccation Enhancement Using Tubestock Planting	Experiments have been set up to test the dewatering capacity of tailings by vegetation	TD1 was planted with 6 trial species in 2018 with evaluation of tailings water content and plant growth evaluated	31 Dec 2028	Ongoing
RRT0001076	Flora Species Translocations	To enhance landscape function and plant species diversity/ages. Viability of different translocation methods in achieving conservation outcomes.	Certain species have been identified during ecological pre-clearing surveys that are suitable for translocation in the rehabilitation areas. Excavation with soil matter and transported to pre excavated hole in existing rehabilitation area, where plant is planted and watered for establishment	31 Dec 2030	Complete

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RRT NUMBER	PROJECT/TRIAL NAME	OBJECTIVE OF TRIAL/PROJECT	METHODOLOGY	EXPECTED DATE OF COMPLETION	STATUS
RRT0001077	Flora Species Translocations	To enhance landscape function and plant species diversity/ages. Viability of different translocation methods in achieving conservation outcomes	Certain species have been identified during ecological pre-clearing surveys that are suitable for translocation in the rehabilitation areas. Excavation with soil matter and transported to pre excavated hole in existing rehabilitation area, where plant is planted and watered for establishment	31 Dec 2030	Ongoing
RRT0001078	Pomaderris reperta translocation	Conservation & translocation of Pomaderris reperta with the aim to evaluate the effectiveness of propagation and translocation & extend on distribution within the natural range of the species	Two 12m x 12m translocation plots have been established within establishing Mangoola rehabilitation and two identical sized plots located in Mangoola offset land. Ongoing monitoring and research will be conducted to evaluate the effectiveness of the translocation project. Excavation of identified plots and transplanting into trial plots.	31 Dec 2030	Ongoing

Rehabilitation maintenance and corrective actions

Mangoola Coal undertakes an annual rehabilitation monitoring program to assess the progression of rehabilitation and as a method to identify maintenance and corrective actions. The following actions may need to be taken as per the recommendations from the annual rehabilitation monitoring program:

- weed control
- feral animal control
- erosion control
- re-seeding/planting
- addition of soil ameliorants to overcome potential constraints
- repair of fences, access tracks and other general related land management activities.

It is envisaged that this monitoring / inspection program will be continued as required until it can be demonstrated that the rehabilitation has satisfied the closure criteria. Specific maintenance and corrective actions to be progressed in the next three years and progress of current actions will be included in future Forward Programs, in line with the Annual Rehabilitation Reports.

Rehabilitation schedule

During the Forward Program period, forecast rehabilitation is as follows: 100.3ha (2025), 100.2 ha (2026) and 120.0ha (2027). Two final voids will remain as part of the final landform. It is predicted that both final voids will partially fill with water and act as long-term hydraulic sinks. The capping of Tailings Dam 1 commenced in 2024 and will continue over the forward program period. The capping of Tailings Dam 2 will commence in 2025 and continue over the forward program period. The reestablishment of Anvil Creek will enable rainfall runoff from the rehabilitated Mangoola site to drain freely back into Big Flat Creek. All rehabilitation works will be scheduled to occur as soon as practicable after mining or following decommissioning of infrastructure. This approach will minimise disturbed area. The final landform incorporates:

- The haulage of approximately 50 Mbcm of overburden from the Northern Extension Area to the Southern Mining Area.
- Adequate topsoil is available on site for the completion of rehabilitation.
- Rehandling of approximately 5 Mbcm of overburden into the Northern Extension Area final void for shaping and reduction of the void size.
- Void low walls in both the Northern and Southern Areas will be shaped at the completion of mining.
- Remaining high walls may be selectively blasted and shaped for visual amenity and geotechnical stability.
- TD4 is a LOM tailings storage facility with adequate capping material available at closure.

Completion of rehabilitation

Mangoola intends to submit an application for rehabilitation completion with the Resources Regulator within the next three years. The target area includes North Pit rehab greater than 10 years old. Rehabilitation is shown on the current Plan 1A the ecosystem and land use development phase. Mangoola is gathering evidence to support an application, and the year of submission is currently unknown.

Subsidence remediation for underground operations

Mangoola is an open cut mine and no subsidence repair or remediation is required at the site.

Progressive mining and rehabilitation statistics

Three-yearly forecast cumulative disturbance and rehabilitation progression

	FORECAST	UNIT	YEAR 1	YEAR 2	YEAR 3
A1	Total disturbance footprint - surface disturbance	(ha)	2,637.52	2,695.76	2,695.76
B	Total active disturbance	(ha)	1,485.87	1,443.93	1,323.95
P	Total new area of land proposed for active rehabilitation	(ha)	100.29	200.45	320.43

Rehabilitation key performance indicators (KPIs)

	FORECAST	UNIT	YEAR 1	YEAR 2	YEAR 3
O	Total new disturbance area during reporting period	(ha)	53.95	58.23	
P	Total new area of land proposed for rehabilitation during the reporting period	(ha)	100.29	100.17	119.98
Q	Annual rehabilitation to disturbance ratio		1.86	1.72	

Attachment 1 – Reporting Definitions

REPORTING CATEGORY	DEFINITION
<p>A 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 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>C 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>
<p>D Ecosystem and land use establishment</p>	<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>

REPORTING CATEGORY	DEFINITION
O	The area of any new active disturbance that will be created during the next three years, as defined under definition A1 (definition A1 Table 5).
P	The sum of any new rehabilitation to be commenced in the next three years. These areas may be in the phases “Rehabilitation - Land Preparation” or the “Ecosystem & Land Use Establishment” (definitions C & D in Table 5).
Q	The rehabilitation to disturbance ratio (S / R) indicates how many hectares of new rehabilitation are undertaken for each hectare of land disturbed during the three years. A ratio of 1/1 indicates that the area of new rehabilitation and disturbance in that period are the same.

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	<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>
Domain	<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>
Ecosystem and Land Use Development	<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>
Ecosystem and Land Use Establishment	<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>
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	<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>
Habitat	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).
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 <i>Mining Act 1992</i> .
Landform Establishment	<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>
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	<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"> ■ 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. <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>
Mining area	As defined in the <i>Mining Act 1992</i> .
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 <i>Mining Act 1992</i> .
Native vegetation	Has the same meaning as that term under section 60B of the <i>Local Land Services Act 2013</i> .
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: <ul style="list-style-type: none"> ■ 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 <i>Form ESF2 Rehabilitation completion and/or review of rehabilitation cost estimate</i> 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	<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"> ■ 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 <i>Protection of the Environment Operations Act 1997</i> .

² Commonwealth of Australia (DITR), 2007. *Tailings Management*.

Attachment 3 – Plans

GLN12_013_ARRFP_Plan2A_Year1_V5.pdf

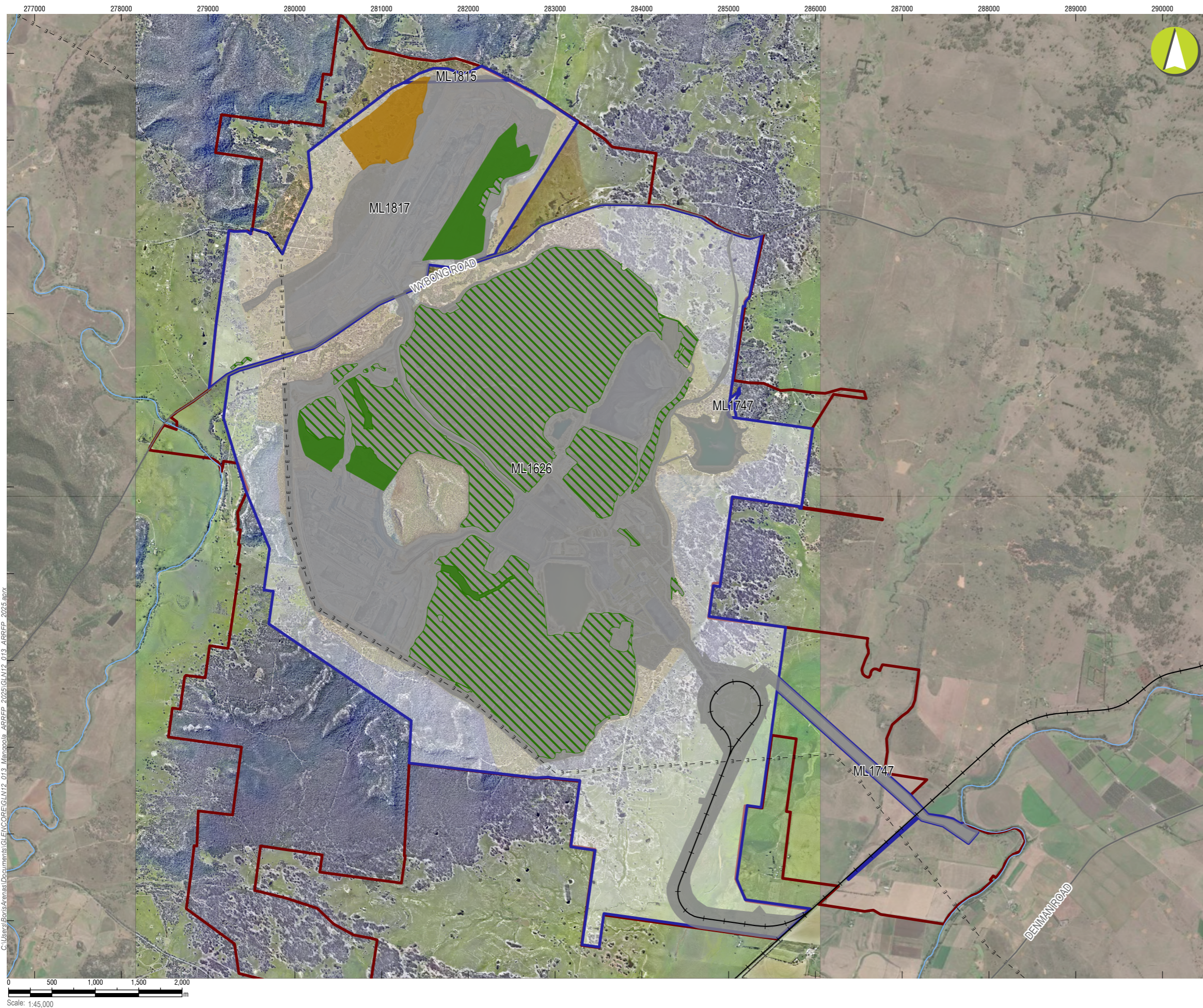
GLN12_013_ARRFP_Plan2B_Year2_V5.pdf

GLN12_013_ARRFP_Plan2C_Year3_V5.pdf

Listed plans attached below for web publication with permission of Resources Regulator
(email 7/4/2025)

RCE summary report attached below for web publication in accordance with -
Guideline Form and way for annual rehabilitation report and forward program for large
mines (March 2025)

Forward Program (LARGE MINE) v2.5



LEGEND

- ▭ Mine Lease Boundary
 - ▭ Project Approval Boundary
 - Road
 - +— Railway
 - E- Electricity Transmission Line
 - ~ Watercourse
- Forecast Area Type - Year 1 (2025)**
- ▭ Forecast Land Proposed for Active Rehabilitation (2025)
 - ▭ Forecast Disturbance (2025)
 - ▨ Previous Rehabilitation
 - ▭ Disturbance

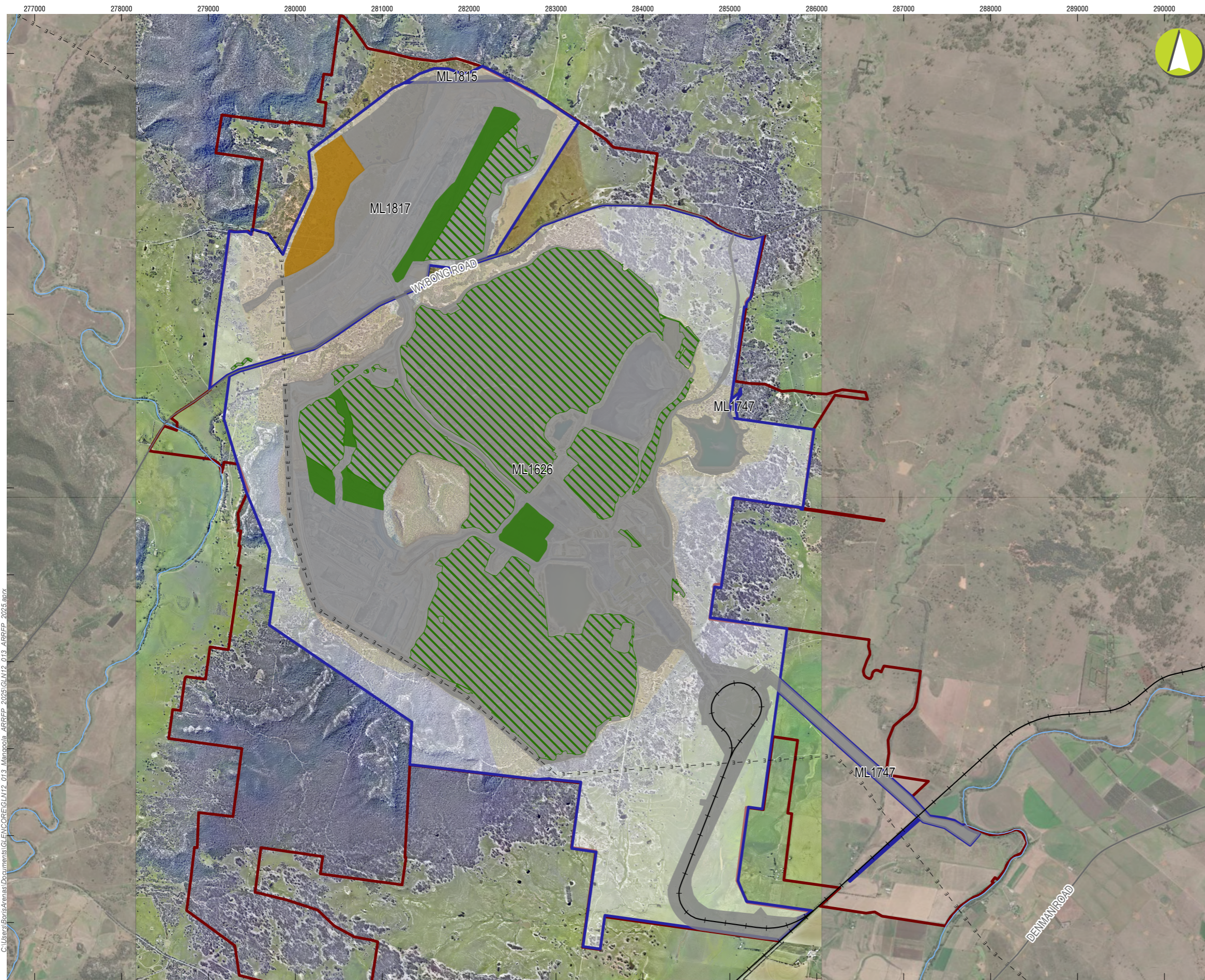
Glencore Mangoola Mine Complex

**Mining and Rehabilitation
Year 1 - 2025**

PLAN 2A

Mine name	Mangoola Coal Mine
Plan name	Mangoola Coal Mine ARRFP
Year of anticipated relinquishment	TBA
Data theme submission ID No.	7454
Spatial Reference	GDA2020 MGA Zone 56
Plan date (date created)	28/03/2025

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LEGEND

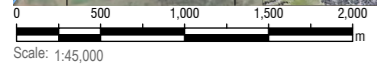
- ▭ Mine Lease Boundary
 - ▭ Project Approval Boundary
 - Road
 - +— Railway
 - E- Electricity Transmission Line
 - ~ Watercourse
- Forecast Area Type - Year 2 (2026)**
- ▨ Forecast Land Proposed for Active Rehabilitation (2026)
 - ▭ Forecast Disturbance (2026)
 - ▭ Disturbance

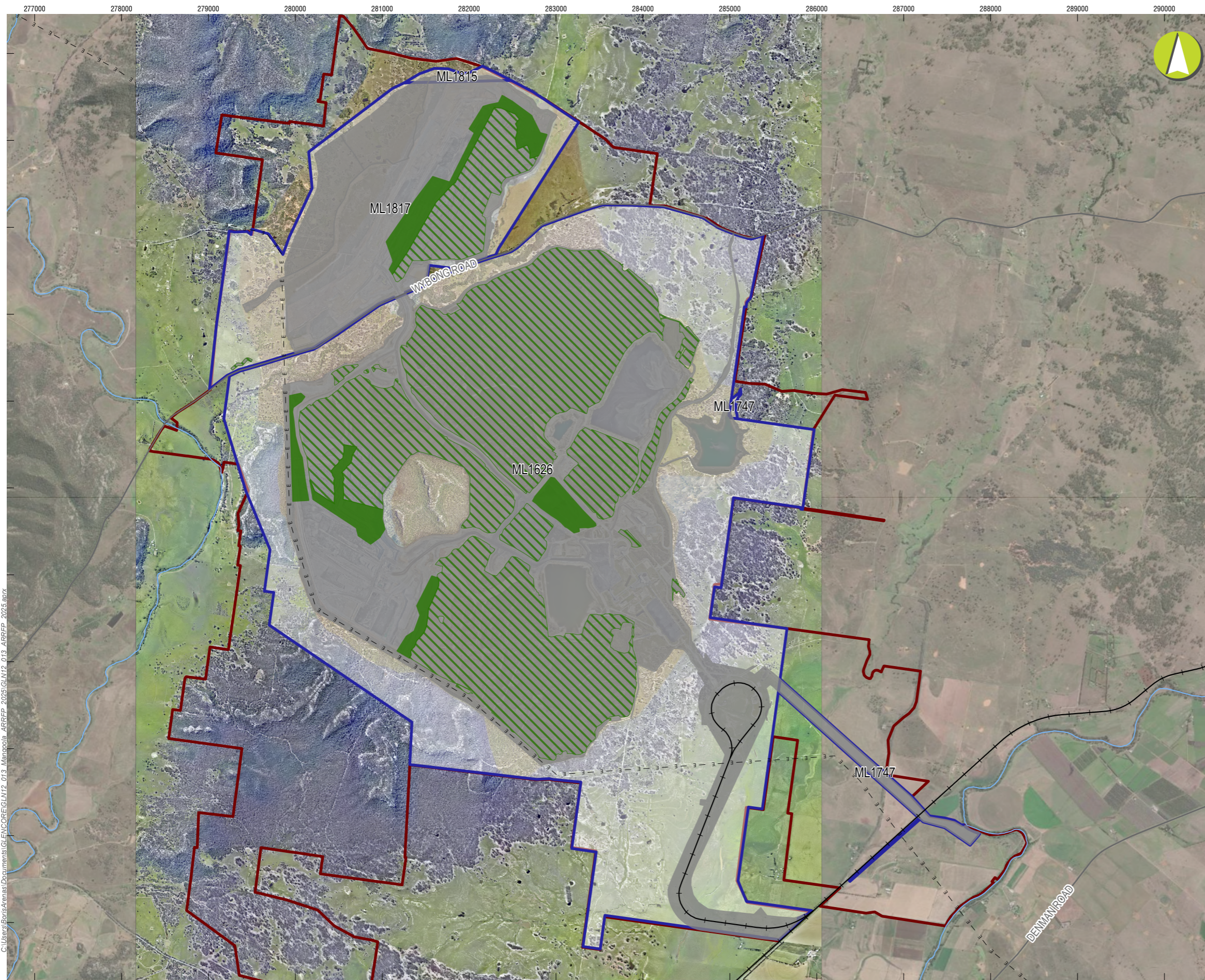
Glencore Mangoola Mine Complex

**Mining and Rehabilitation
Year 2 - 2026**

PLAN 2B

Mine name	Mangoola Coal Mine
Plan name	Mangoola Coal Mine ARRFP
Year of anticipated relinquishment	TBA
Data theme submission ID No.	7455
Spatial Reference	GDA2020 MGA Zone 56
Plan date (date created)	28/03/2025





LEGEND

- Mine Lease Boundary
 - Project Approval Boundary
 - Road
 - Railway
 - Electricity Transmission Line
 - Watercourse
- Forecast Area Type - Year 3 (2027)**
- Forecast Land Proposed for Active Rehabilitation (2027)
 - Previous Rehabilitation
 - Disturbance

Glencore Mangoola Mine Complex

**Mining and Rehabilitation
Year 3 - 2027**

PLAN 2C

Mine name	Mangoola Coal Mine
Plan name	Mangoola Coal Mine ARRFP
Year of anticipated relinquishment	TBA
Data theme submission ID No.	7456
Spatial Reference	GDA2020 MGA Zone 56
Plan date (date created)	28/03/2025

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Open Cut Summary Rehabilitation Cost Estimation

Note: Sections of this page are automatically filled in from the registration page

Mine Name:	Mangoola Coal		
Lease(s):	ML1626, ML1747, ML1815, ML1817		
Authorisation Owner:	Mangoola Coal Operations Pty Limited		
Term of RCE:	Close Now End 2024 Scenario		
Current Security:	\$81,251,200	Date of Last Security Deposit Review:	11/02/2025
Mine Contact:	Brooke York (Environment and Community Coordinator)		

Domain		Security Deposit
Domain 1: Infrastructure		\$30,752,138
Domain 2: Tailings & Rejects		\$18,168,930
Domain 3: Overburden & Waste		\$5,643,144
Domain 4: Active Mine & Voids		\$8,706,340
Domain 5: Management Activities		\$1,396,410
Subtotal (Domains and Sundry Items)		\$64,666,962
Contingency	10%	\$6,466,696
Post Closure Environmental Monitoring	10%	\$6,466,696
Project Management and Surveying	10%	\$6,466,696
Total Security Deposit for the Mining Project (excl. of GST)		\$84,067,050

Note: GST is not included in the above calculation or as part of rehabilitation security deposits required by the Department.

- Alterations have been made to unit prices within this spreadsheet. (Attach a separate sheet providing details of changes).
- The proposed rehabilitation design is generally consistent with the development consent for the project.

This mine security calculation has been estimated using the best available information at the time.
It is a true and accurate reflection of the total rehabilitation liability held by this mine.

Ben Campbell

28/3/2025

Company Representative's Name

Date

Financial Controller / Director

Company Representative's Role / Responsibility

Ben Campbell

Signature