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MOUNT PLEASANT OPERATION

ANNUAL REHABILITATION REPORT AND FORWARD PROGRAM

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Company:	MACH Energy Australia Pty Ltd		
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MOUNT PLEASANT OPERATION ANNUAL REHABILITATION REPORT AND FORWARD PROGRAM		
Name of Mine:	Mount Pleasant Operation	
Annual Rehabilitation Report Commencement Date:	N/a	
Annual Rehabilitation Report Revision Dates and Version Numbers:	N/a	
Forward Program Commencement Date:	1 August 2022	
Forward Program Revision Dates and Version Numbers:	Version 01	
Mining Authorisations (Lease/Licence No):	ML 1645	Expiry Date: 16 December 2031
	ML1713	Expiry Date: 2 February 2036
	ML1708	Expiry Date: 2 February 2036
	ML1709	Expiry Date: 2 February 2036
	ML 1750	Expiry Date: 3 March 2038
	ML1808	Expiry Date: 29 September 2041
Name of Mine Operator:	MACH Energy Australia Pty Ltd	
Name of Lease Holder:	MACH Energy Australia Pty Ltd and J.C.D Australia Pty Ltd	

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1 ANNUAL REHABILITATION REPORT

In accordance with Part 1 of the New South Wales (NSW) Resources Regulator Form and Way – *Annual Rehabilitation Report and Forward Program for Large Mines*, and clauses 9 and 13 of Schedule 8A of *Mining Regulations 2016*, an Annual Rehabilitation Report will be developed for the Mount Pleasant Operations (MPO).

Requirements under the *Annual Rehabilitation Report and Forward Program for Large Mines* (2021) came into effect in July 2022. This is the first Annual Rehabilitation Report and Forward Program (ARRFP) prepared under these new guidelines.

The next Annual Rehabilitation Report will be submitted once the reporting period for the MPO has been triggered and will include reporting against the activities described in this ARRFP.

2 FORWARD PROGRAM

This Forward Program for MPO has been developed in accordance with Part 2 of the NSW Resources Regulator Form and Way – *Annual Rehabilitation Report and Forward Program for Large Mines*, and clauses 9 and 13 of Schedule 8A of *Mining Regulations 2016*.

2.1 THREE-YEAR FORECAST – SURFACE DISTURBANCE ACTIVITES

2.1.1 Project Description

The MPO is located in the Upper Hunter Valley of NSW, approximately 3 kilometres (km) north-west of Muswellbrook and approximately 50 km north-west of Singleton (Figure 1).

Development is undertaken within Mining Lease (ML) 1645, ML 1713, ML 1708, ML 1808, ML 1709 and ML 1750 and is operated in accordance with the relevant Authorities and in accordance with NSW Development Consent DA 92/97 for the MPO.

Development Consent DA 92/97 (as modified) allows for the extraction of 197 million tonnes (Mt) of run-of-mine (ROM) at a rate of up to 10.5 million tonnes per annum and allows for mining operations to be carried out until 22 December 2026.

The approved mine includes a rail loop and spur, load-out facility and conveyor, connecting the mine to the Muswellbrook–Ulan Rail Line. Major components of the mine include (Figure 2):

- Open cuts (North Pit and South Pit);
- Eastern, South-West and North-West Out-of-Pit Emplacements;
- water management infrastructure;
- Coal Handling and Preparation Plant (CHPP) and coal stockpiles; and
- Fines Emplacement Areas.

2.1.2 Description of Surface Disturbance Activities

The following sections outline the proposed surface disturbance activities over the next 3 years.

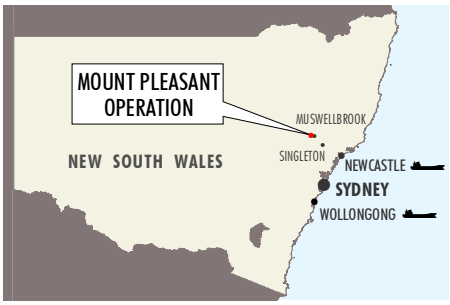
a. Exploration Activities

Annual pre-production drilling programs have been undertaken since 2017. These annual programs are undertaken within ML 1645 and ML 1709 to increase geological confidence, 3 years in advance of production. The majority of boreholes will continue to be located within the open cut/overburden emplacement area footprint areas within ML 1645 and ML 1709 and will involve open hole and core drilling. Wireline core drilling is also proposed to be undertaken within the next 3 years north of ML 1709.

Hole locations are determined based on current mining face positions and the drill hole coverage required to close spacing to 125 meters (m) centres between the current highwall crest and the planned crest three years hence. Drilling is undertaken using the water injection method, which generates minimal dust and noise emissions.

All necessary approvals (e.g. a Review of Environmental Factors, if required) will be obtained prior to commencement of the drilling programs.

Source: NSW Spatial Services (2022)



LEGEND

- Mining Operation
- Proposed Mining Operations (Application Lodged)
- Railway
- Local Government Boundary
- State Forest/Reserve
- National Parks and Wildlife Estate
- Coal - Current Titles

Date prepared: 27-07-2022

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MOUNT PLEASANT COAL MINE
FOWARD PROGRAM 2022

Regional Location

Figure 1

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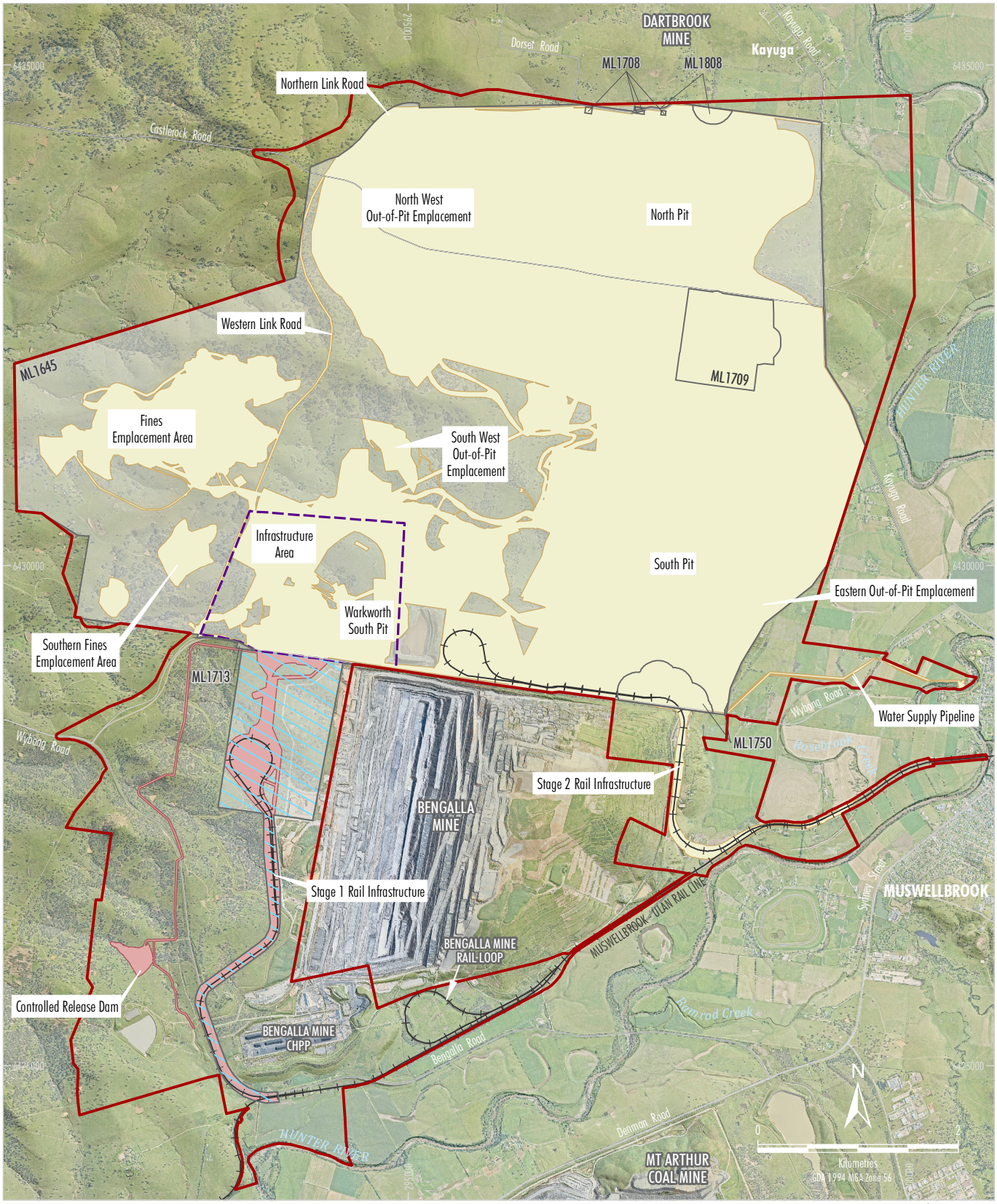

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LEGEND

- Project Approval Boundary*
- Coal - Current Titles
- Approximate Extent of Existing/Approved Surface Development (DA92/97) [1]
- Infrastructure Area Envelope
- Infrastructure to be removed under the Terms of Condition 37, Schedule 3 (DA92/97)
- Existing/Approved Mount Pleasant Operation Infrastructure within Bengalla Mine Approved Disturbance Boundary (SSD-5170)

* Appendix 1 of Development Consent DA 92/97

NOTE

1. Excludes some incidental Project components such as water management infrastructure, road diversions, access tracks, topsoil stockpiles, power supply, temporary offices, signalling, other ancillary works and construction disturbance.

Source: MACH Energy (2022); NSW Spatial Services (2022)
Orthophoto: MACH Energy (Dec 2021)

Date prepared: 27-07-2022

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MOUNT PLEASANT COAL MINE
FOWARD PROGRAM 2022

General Arrangement

Figure 2

All completed exploration drill holes will be grouted (cemented) and decommissioned and drill pad disturbance areas rehabilitated, in accordance with the requirements of AUTH 459 and MPO's ML Authorities.

b. Construction Activities

Construction activities to be undertaken at MPO throughout the next 3 years include:

- final commissioning of the new Rail Loop and Train Load-Out;
- continuation of construction and relocation of the Hunter River Pump Station;
- decommissioning and removal of the existing rail spur and loop, and associated rail infrastructure;
- ongoing installation of visual bunding and vegetation screening as required, to provide screening of the MPO from sensitive viewpoints;
- continuation and completion of the Fines Emplacement Area (FEA) Stage 1 Lift Project to increase the capacity for fines deposition;
- CHPP feed chute replacement, primary and secondary sizer replacement;
- bathhouse facilities expansion at the Infrastructure Area;
- construction and commissioning of the new High Wall Dam (HWD2) including associated 22 kilovolt electrical works due to the open cut expansion to the west;
- decommissioning and removal of the current High Wall Dam (HWD1);
- workshop facilities upgrades including new maintenance bays for the supplementary mining fleet to be mobilised;
- commencement of the civil and drainage upgrades at the CHPP Area including works at the CHPP Sediment Dam;
- continuation of mining activities and establishment of the Eastern Out-of-Pit Overburden Emplacement Area; and
- establishment of minor access tracks where necessary, within the approved disturbance boundary.

c. Mining Schedule

Mining will continue to utilise open pit surface mining methods, involving conventional truck and excavator/shovel excavation removing pre-strip and overburden sequences and coal seam interburden materials, hauling ex-pit and in-pit to overburden emplacements. Dozer push may also be utilised where practical.

Material production scheduled during the next 3 years is summarised in Table 2-1.

Table 2-1
Material Production Schedule During the Next 3 Year Term

Material	Unit	Year 1 (ending 30 June 2023)	Year 2 (ending 30 June 2024)	Year 3 (ending 30 June 2025)
Stripped Topsoil	m^3	141,100	280,195	49,264
Overburden/Rock*	m^3	40,000,000-41,000,000	40,000,000-41,000,000	40,000,000-41,000,000
ROM Coal/Ore	Mt	10.5	10.5	10.5
Fines/Reject Material**	Mt	3.2	3.2	3.2
Product Coal	Mt	7.4	7.4	7.4

* Dependent on capacity solution to be implemented.

** In accordance with Condition 6, Schedule 2 of Development Consent DA 92/97.

Mining Development and Sequencing

Coal will be extracted by either an excavator/hydraulic shovel or loader, depending on seam thickness and equipment scheduling requirements. A small percentage of coal seams may require ripping by dozers, or may be blasted. Extracted coal will be loaded onto a fleet of mine haul trucks for transport to the CHPP.

ROM coal will be trucked to a ROM dump hopper and transferred to the sizing station and stacker by conveyors. ROM coal may be temporarily stockpiled in the active mining area prior to being trucked to the ROM dump hopper.

Emplacement Sequencing, Construction and Management

Overburden and interburden material will continue to be primarily placed in the Eastern Out-of-Pit Overburden Emplacement.

The emplacement landform would be developed in 10 m lifts to enable more rapid establishment of the final surface levels, as waste rock placement progresses more rapidly than the alternative of construction in 20 m emplacement lifts that takes significantly longer to develop, and also requires longer to reshape.

The spontaneous combustion management strategy for the MPO will provide that no zones of poorly blended, potentially acid forming material are exposed in the final surface of the Overburden Emplacement and back-filled open cuts. This will be achieved by excluding the material identified as potentially being acid forming (i.e. non-economic coal and identified coal seam roof and floor rock from the Wynn Seam) from the final face of the Overburden Emplacement with a minimum cover of 10 m of inert material overlying the potentially acid forming material.

Coarse rejects will be placed on the lower levels of the mined-out void and Out-of-Pit Emplacements at a minimum of 5 m from the exposed face. As such, no additional capping of coarse reject is required. Reactive ground testing is also undertaken at the MPO to assist with identifying reactive materials. No co-disposal is undertaken at the MPO.

Processing Infrastructure Activities and Tailings Facilities

Deposition of fine rejects will continue within the Fines Emplacement Area which commenced in late 2019. MACH Energy operates the Fines Emplacement Area using sub-aerial deposition which involves an extended period of air drying that maximises in-situ tailings densities and in turn maximises the storage efficiency of the facility and it provides a more competent fines surface for future rehabilitation purposes.

Fine reject (tailings) will be thickened into a solids density of approximately 20 per cent (%) to 30% by weight and will predominantly be fine rock and clay with some coal and flocculant. The fine reject will be wet with moderate conductivity. Additional and/or alternate fine rejects processing technologies may also be undertaken during the Forward Program term, which may result in increased densities.

MACH Energy has commissioned a Fines Emplacement Area Rehabilitation Strategy to be conducted in 2022/23 which will include details of the proposed capping system for the facility. Once finalised, MACH Energy would communicate the proposed Strategy to the NSW Resources Regulator.

Waste Disposed and Material Handling

The approved MPO Waste Management Plan (WasteMP) describes the measures that will be implemented to avoid, minimise, reuse and recycle all waste streams generated during the construction and operation stages of the MPO.

Wastes generated on-site will be segregated at source and stored and transported appropriately.

There will be no landfill developed on-site, however, some inert waste material (e.g. wood, steel and wire from demolition) may be disposed of in the Overburden Emplacement. Larger quantities of waste will be stored in secure locations on-site until they can be removed. The disposal of tyres in the backfilled open cuts would be undertaken in accordance with the WasteMP and Environment Protection Licence.

There are two sewage management facilities at the MPO. The ongoing operation of these facilities will continue to comply with the conditions of DA 92/97, the requirements of Muswellbrook Shire Council and any applicable legislation.

Hazardous substances will be managed through the MPO Environmental Management System procedures for site contamination prevention and control. Additionally, the MPO will register all chemicals used on-site in a central database. The central database will contain all information in the Safety Data Sheets and an inventory of chemicals held on-site. The information will be accessible at any computer terminal within the MPO, and will provide guidance on storage, use and disposal.

2.2 THREE-YEAR REHABILITATION FORECAST

2.2.1 Rehabilitation Planning Schedule

MACH Energy prepares internal annual rehabilitation plans which provide a more detailed guide for how and where rehabilitation works are to be undertaken for the next year. The plans include (but are not limited to):

- **Detailed rehabilitation specifications** to be adhered to, including specifications for landform design; final landform surface profiling; drainage design; topsoil replacement; deep ripping on the contour, planting and seeding and habitat feature placement.
- **Key rehabilitation stages when Inspection and Test Plan (ITP) checks must be undertaken** (note, ITP checks are quality assurance checks which are undertaken to ensure the rehabilitation specifications have been met). MACH Energy implements ITPs for Landform Design, Landform Construction Profiling, Topsoil Placement, Drainage Construction and Ripping and Seeding. Each ITP is required to be signed off by relevant MACH Energy personnel.
- A **rehabilitation schedule**, including **planned rehabilitation areas** and **species lists** and densities for target Plant Community Types (PCTs).
- Inspection, maintenance and reporting requirements.

Overview of the relevant stakeholder consultation that will be carried out over the next three years

Consultation is regularly undertaken with relevant stakeholders, including regular discussions with the community consultative committee (CCC), MSC, surrounding landowners, neighbouring mines, Registered Aboriginal Parties, and the NSW Resources Regulator, and detailed consultation as part of the State Significant Development process.

Overview of rehabilitation studies, risk assessments, and/or design work associated with finalising the rehabilitation methodologies relating to establishment of the final landform, surface water management, final void management, and tailings dam decommissioning that will be carried out over the next three years.

Over the MPO life of mine, MACH Energy proposes to build on industry research results and conduct various research studies and trials to inform the most suitable practices that will enable final land use development on final mine landforms and disturbed areas of the MPO. Details of the research may include:

- Potential variables impacting on rehabilitation programs and causes of localised rehabilitation failure.
- Assessing rehabilitation strategies that have successfully reinstated woodland communities (or rehabilitation with species typical of various communities) on other mine sites, including:
  - establishing appropriate soil substrate: direct application of topsoil; stockpiled native topsoil; raw overburden and interburden material plus addition of biosolids/organic growth medium; addition of other organic material; rehabilitation trials on fines material;
  - establishment of the grassy understorey: grass species suitable for mine rehabilitation; low and high photosynthetic pathway species; establishing native herbs and forbs;
  - establishing the shrubby understorey and overstorey;
  - seed distribution methods: hand-broadcasting; brush-matting; hydro-mulching; spreading seed-bearing hay; direct seeding; air seeding; and
  - progressive rehabilitation strategy: pre-stripping requirements; sequence of rehabilitation strategies.
- Rehabilitation irrigation trials, subject to weather conditions and water availability for the trial.
- Tiger Orchid (*Cymbidium canaliculatum*) propagation trial.

2.2.2 Rehabilitation Maintenance and Corrective Actions

The Rehabilitation Monitoring Manual (RMM) guides rehabilitation monitoring at the MPO and describes the rehabilitation monitoring methodologies and monitoring parameters, MPO rehabilitation objectives, and performance indicators and completion criteria for the progressive rehabilitation phases. An Ecosystem Function Analysis (EFA) data collection form is included in the RMM to ensure accurate data collection.

The RMM will also include a Trigger Action Response Plan for actions required to be undertaken should rehabilitation monitoring results indicate that the rehabilitation area is not trending towards meeting the performance indicators and completion criteria.

A rehabilitation monitoring program has been implemented at MPO based on the performance indicators and approved completion criteria. Details of rehabilitation performance will be reported in the MPO Annual Review and updated in this report.

Where necessary, rehabilitation procedures will be amended based on the monitoring results, to continually improve rehabilitation standards.

A rehabilitation monitoring schedule is also included in the RMM, which will continually be updated to include the rehabilitation and analogue monitoring sites as they are added to the rehabilitation monitoring program.

The rehabilitation monitoring program includes:

- EFA monitoring;
- Visual Inspection Monitoring;
- low intensity agriculture monitoring programme;
- stream health monitoring; and
- ecosystem and rehabilitation assessment using drone technology.

2.2.3 Rehabilitation Schedule

Rehabilitation of the Eastern Out-of-Pit Emplacement area will continue to be undertaken progressively following mining operations over the Forward Program term.

MACH Energy targets reshaping of the Eastern Out-of-Pit Emplacement to final surface level and initial revegetation of all outer emplacement batter lifts within 6 months of each subsequent dump panel lift being completed.

The design concept, principles and construction methodology for the overburden emplacement includes reshaping the emplacement to include macro and micro relief and geomorphic features to develop a more natural looking and functional landform.

In general, the rehabilitation methodology will involve:

- Spreading topsoil that is mixed with gypsum at a standard application rate onto rehabilitation areas.
- Deep ripping the rehabilitation area along the contour. Where practicable, ripping will be undertaken immediately prior to seeding to assist root/vegetation establishment.
- Seeding the rehabilitation area with a native seed mix including native grass, shrub and tree species and temporary cover crop species.
- Installation of habitat features including habitat/stag trees, log piles and rock piles across the rehabilitation area.
- Planting of tubestock including ground, middle and upper stratum species of the relevant target PCTs.
- Installation of signage denoting rehabilitation area to restrict access and minimise potential for disturbance to the area if considered necessary.

2.2.4 Rehabilitation Research and Trials

MACH Energy is collaborating with the University of Newcastle on several rehabilitation related research projects including:

- a research project that aims to integrate treated fines material with topsoil material to create a usable soil resource for crop production or native vegetation establishment (this project is being conducted by ACARP);
- a research project that analyses MPO topsoil and subsoil characteristics for input into the SIBERIA software program that supports geomorphic landform design modelling;
- a topsoil stockpile trial to assess soil condition and microbial characteristics of emplaced soil;

- a research project utilising LiDAR to measure dust levels; and
- ongoing trial cultural heritage cool burns when conditions are suitable.

Current rehabilitation trials at the MPO are discussed further below.

ACARP Tailings to Topsoil Research Project

MACH Energy has entered into a collaboration agreement with the University of Newcastle on the ACARP Project "Tailings to topsoil" (#C29042) which commenced in January 2020 and is anticipated to be completed by December 2022. The project involves collaboration between MACH Energy (and other NSW coal mining operations), University of Newcastle, MSC, JORD International, and NSW Department of Primary Industries Soils Unit.

The project methodology involves four major processes:

1. Characterisation and pre-treatment of tailings;
2. Delivery of tailings slurry to the trial site via a high-efficiency solids separation mobile tailings handling plant;
3. De-watering of tailings via a mobile dewatering plant; and
4. Integrating the upgraded tailings with the existing soil profile at the trial site to improve soil resources for crop production or native vegetation establishment.

The project aims to optimise existing tailings processes and technologies and provide a commercially viable system for tailings utilisation. MACH Energy has committed cash contributions and in-kind support in addition to engaging a PhD student as part of the project. MACH Energy will also dedicate a trial site for the project proximal to the MPO FEA.

It is anticipated that results from the research project will inform FEA cover system material depth requirements, and vegetation species that may be suited to and successfully establish across the facility.

Rehabilitated Landform Erosion Monitoring

MACH Energy has entered into an agreement with University of Newcastle to establish a field data collection program to support landform design and rehabilitation practices at the MPO.

Rehabilitation monitoring sites have been identified in representative rehabilitation and analogue locations. Each monitoring site will consist of a flume to measure surface water runoff and soil erosion rate and a weather station that records rainfall (pluviograph), air temperature, incoming and outgoing radiation as well as soil moisture. This allows both surface and subsurface hydrology to be quantified. Deeper soil moisture and temperature probes may be added depending on the depth of the soil material.

Data from each monitoring site will be used to quantify and understand:

- Plot hydrology, water quality and sediment transport both for individual rainfall events as well as performance.
- Vegetation response.
- Calibrate and validate the SIBERIA landscape evolution model.
- Potential completion criteria for long-term erosional stability.

Data from the rehabilitation monitoring sites will be reviewed on an annual basis and used to inform future rehabilitation monitoring and adaptive management of the geomorphic landform design. Information would also be made available to the community via presentations to the CCC, conference presentations and/or periodic research papers jointly published by MACH Energy and the University of Newcastle.

Topsoil Stockpile Investigation

MACH Energy has engaged the University of Newcastle to design and conduct a topsoil stockpile investigation and trial. The investigation and trial aim to assess the effectiveness of the stockpile management and soil replacement practices undertaken at the MPO.

Previous microbial testing and agronomic soil testing undertaken at MPO topsoil stockpile trials indicate sampled stockpiles to be generally low in nutrients, however total soil nutrient parameters are within standard agricultural reference ranges and generally indicate poor soil structure within control stockpiles compared to undisturbed reference sites. Topsoil stockpile trials will continue during the Forward Program term to inform soil stockpile management practices at the MPO.

Replaced soil sourced from stockpiles greater than 3 m in height is inoculated where practicable with Mycorrhizal fungi and Rhizobia bacteria to assist with amelioration of anaerobic conditions which may have developed during storage.

Accordingly, the objectives of the ongoing investigation(s) are to:

- understand existing microbial diversity and soil condition characteristics of the 5 m topsoil stockpiles and within control sites including the existing rehabilitation area with soil sourced from 3 m high stockpiles;
- understand possible microbial losses that may occur during storage; and
- inform inoculation requirements for when soil is to be replaced on rehabilitation areas.

Soil sampling and microbial sampling and testing will be conducted, where possible, pre-inoculation, post-inoculation, every 12 months post-inoculation and at placement on rehabilitation areas.

Soil samples will be taken at 10 centimetre depths at each soil stockpile and rehabilitation area, with soil sample testing including:

- pH and Electrical Conductivity (1:5 water);
- Available Calcium, Magnesium, Potassium, Ammonium, Nitrate, Phosphate, Sulfur;
- Exchangeable Sodium, Potassium, Calcium, Magnesium, Hydrogen, Aluminium, Cation Exchange Capacity, Bray I and II Phosphorus, Colwell Phosphorus;
- Available Macronutrients Zinc, Manganese, Iron, Copper, Boron, Silicon;
- Total Carbon (TC), Total Nitrogen (TN), TC/TN ratio, Organic Matter;
- Basic Colour, Basic Texture; and
- Total Sodium, Potassium, Calcium, Magnesium, Sulfur, Phosphorus, Silicon, Cobalt, Molybdenum, Selenium, Zinc, Manganese, Iron, Copper, Boron and Aluminium.

The investigation methodology will also include:

- observation points where photographs are taken quarterly;
- microbial biomass analysis;

- quarterly collection and weighing of above ground biomass;
- germination counts post-soil emplacement; and
- recording of erosion and any other observations noted.

Results from the trial will be used to inform soil stockpile management practices at the MPO and will allow site-specific inputs to be incorporated into the SIBERIA software program that supports geomorphic landform design modelling (including erosion modelling) at the MPO. Results from the trial will be progressively reported in the MPO's Annual Review.

Agronomic soil testing and microbial testing and analysis has continued in the trial. Initial results from these control samples indicate that soils are generally low in nutrients, however total soil nutrient parameters are within standard agricultural reference ranges, and soil structure is generally poor. Results from the trial are not yet conclusive.

Investigations (including soil test work) will also be undertaken to assess the characteristics of replaced soil and assess its suitability for rehabilitation of Class 4, 5 and 6 Land Capability agricultural lands, in consultation with a Certified Professional Soil Scientist.

MACH Energy will continue to conduct geochemical characterisation of soils and overburden materials as mining progresses to inform selective handling of materials.

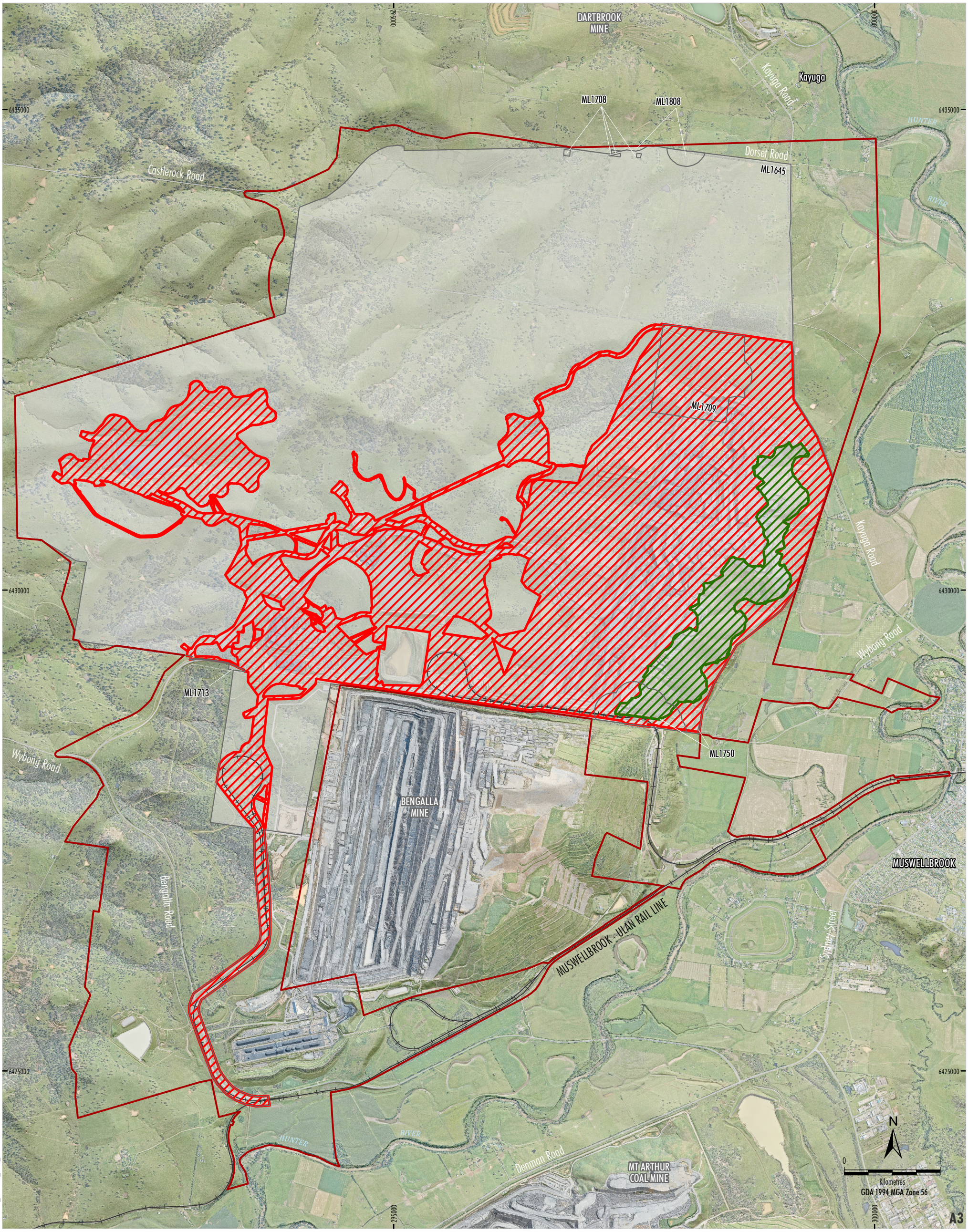
Cultural Heritage Cool Burn

MPO undertook a cultural cool burn in August 2020 in an analogue site area outside of the mining footprint. This was ineffective due to an excessive amount of moisture present in the understorey. Opportunistically, a cultural cool burn may be undertaken in Spring each year, subject to weather and fire hazard conditions.

2.3 PLAN 2 – MINING AND REHABILITATION THREE-YEAR FORECAST

2.3.1 Submission of Plan 2 Electronic Copy

In line with the spatial data submitted to the NSW Resources Regulator through the Mine Rehabilitation Portal, Plan 2 is provided in a series of subplans (i.e. Plans 2A, 2B and 2C). Plans 2A, 2B and 2C show Year 1, Year 2 and Year 3, respectively, of this Forward Program term.



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LEGEND

- Project Approval Boundary*
- Coal - Current Titles

Forcast Area

- Forecast Disturbance
- Ecosystem and Land Use Establishment

* Appendix 1 of Development Consent DA 92/97

Source: MACH Energy (2022); NSW Spatial Services (2022)
Orthophoto: MACH Energy (Dec 2021)

Date prepared: 27-07-2022

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MOUNT PLEASANT COAL MINE
FORWARD PROGRAM 2022

Mining and Rehabilitation
(Year 1)

Plan 2A

DARTBROOK MINE
Kayuga
Kayuga Road
ML1708
ML1808
Castlerock Road
Dorset Road
ML1645
HUNTER RIVER
ML1709
Kayuga Road
Wybong Road
ML1713
ML1750
Wybong Road
BENGALLA MINE
Bengalla Road
MUSWELLBROOK
MUSWELLBROOK – ULAN RAIL LINE
Sydney Street
HUNTER RIVER
Denman Road
MT ARTHUR COAL MINE
6435000
6430000
6425000
295000
300000
N
0
1
Kilometres
GDA 1994 MGA Zone 56
A3

MAC-18-03_FWP2022_Plans_2B

LEGEND

- Project Approval Boundary*
- Coal - Current Titles

Forcast Area

- Forecast Disturbance
- Ecosystem and Land Use Establishment

* Appendix 1 of Development Consent DA 92/97

Source: MACH Energy (2022); NSW Spatial Services (2022)
Orthophoto: MACH Energy (Dec 2021)

Date prepared: 27-07-2022

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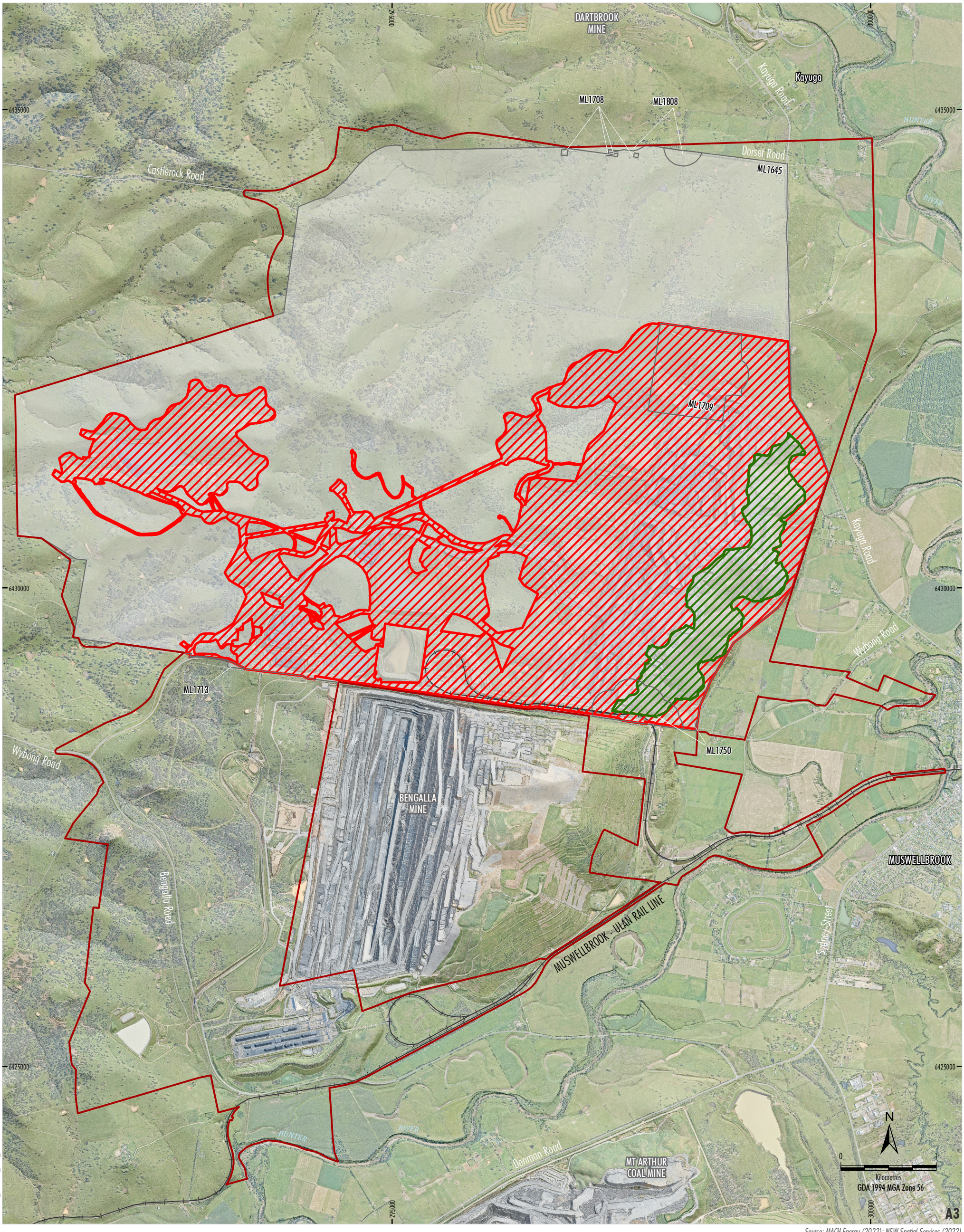
MOUNT PLEASANT COAL MINE
FORWARD PROGRAM 2022

Mining and Rehabilitation
(Year 2)

Plan 2B



MAC-18-03_FWP2022_Plans_203B

LEGEND

- Project Approval Boundary*
- Coal - Current Titles

Forcast Area

- Forecast Disturbance
- Ecosystem and Land Use Establishment

* Appendix 1 of Development Consent DA 92/97

Source: MACH Energy (2022); NSW Spatial Services (2022)
Orthophoto: MACH Energy (Dec 2021)

Date prepared: 27-07-2022

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MOUNT PLEASANT COAL MINE
FORWARD PROGRAM 2022

Mining and Rehabilitation
(Year 3)

Plan 2C

2.3.2 Submission of Plan 2 Spatial Data to the Mine Rehabilitation Portal

Plans 2A, 2B and 2C spatial data will be submitted to the NSW Resources Regulator through the mine rehabilitation portal as per the NSW Resources Regulator Form and Way – *Annual Rehabilitation Report and Forward Program for Large Mines.*

2.4 PROGRESSIVE MINING AND REHABILITATION STATISTICS

2.4.1 Three-yearly Forecast Cumulative Disturbance and Rehabilitation Progression

The summary forecasted cumulative disturbance and rehabilitation progression over the next 3 years is provided in Table 2-2.

Table 2-2
Predicted Cumulative Disturbance and Rehabilitation Progression During the Next 3 Year Term

Year	Year 1 (ending 30 June 2023)	Year 2 (ending 30 June 2024)	Year 3 (ending 30 June 2025)
Total disturbance footprint – surface disturbance (ha)	1,598.3	1,528.4	1,550.0
Total active disturbance (ha)	N/a	N/a	N/a
Rehabilitation – land preparation (ha)	1,456.7	1,374.5	1,386.1
Ecosystem and land use establishment (ha)	N/a	N/a	N/a

Note: ha = hectares.

2.4.2 Rehabilitation Key Performance Indicators (KPIs)

The forecasted progressive rehabilitation key performance indicators for the next three years are provided in Table 2-3.

Table 2-3
Progressive Rehabilitation Key Performance Indicators During the Next 3 Year Term

Year	Year 1 (ending 30 June 2023)	Year 2 (ending 30 June 2024)	Year 3 (ending 30 June 2025)
Total new active disturbance area during reporting period (ha)	16.0	0.0	21.6
Area of land proposed for active rehabilitation during reporting period (ha)	18.8	12.4	9.9
Annual rehabilitation to disturbance ratio	1 : 0.85	1 : 0	1 : 2.18

2.5 REHABILITATION COST ESTIMATE

A Rehabilitation Cost Estimate (RCE), as defined in the *Mining Regulation 2016*, has been developed for MPO in accordance with the NSW Resources Regulator's Rehabilitation Cost Estimate Tool.

The RCE has been prepared as a snapshot of disturbance for the date 30 June 2023.