

### **FORWARD PLAN (Rehabilitation)**

In accordance with reforms introduced in NSW in 2022, all Mining Tenements are required to submit a forward plan for progressive rehabilitation over the next 3 years.

As noted in the Rehabilitation Management Plan, the Adelong Gold Project has been placed on care and maintenance while the company prepares its plans to re-establish mining operations. However some exploration will continue.

Also noted in the Rehabilitation Management Plan, is the fact that the primary areas of disturbance requiring rehabilitation in the future relate mainly to the Processing Plant Site. Any redevelopment of the Adelong Gold Project will require this Processing Plant Site and so would only be rehabilitated after the final mine closure. On this basis, there are no plans to undertake any major rehabilitate efforts on the current areas of disturbance during the next 3 years.

Exploration programs continue, and this exploration includes drilling which can generate surface disturbance. The vast majority of this exploration activity is expected to be carried out on the Exploration License rather than the Mining Leases, so not covered in this Forward Plan, but in all cases the company's policy is to rehabilitate drill sites shortly after drilling is completed. In some cases, the access tracks into drill sites may remain if there are plans to re-access those sites to undertake further drilling.

Adelong Gold Ltd has completed the NSW Rehabilitation Cost Estimates to estimate the costs of rehabilitating the mine site as it currently stands and has lodged in excess of \$600,000 in Environmental Bonds with the government to cover these costs.

Attached is the Forward Plan for rehabilitation for the period to September 2025 that was submitted to the government in September 2022 together with attached Site Plans. Should the Company initiate plans to recommence production at the Adelong Gold Project, then these Forward Plans will be amended.



**FWP0001113**

# **ADELONG GOLD MINE FORWARD PROGRAM**

Wednesday 28 September 2022 to Saturday  
27 September 2025

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## Summary

DETAIL	
Mine	Adelong Gold Mine
Reference	FWP0001113
Forward program commencement date	Wednesday 28 September 2022
Forward program end date	Saturday 27 September 2025
Forward program revision (if applicable)	
Contact	Peter Mitchell
Mining leases	M(C)L 286 (1992), M(C)L 311 (1992), M(C)L 280 (1992), M(C)L 281 (1992), M(C)L 313 (1992), M(C)L 282 (1992), M(C)L 289 (1992), M(C)L 284 (1992), M(C)L 291 (1992), M(C)L 290 (1992), M(C)L 287 (1992), M(C)L 288 (1992), ML 1435 (1992), M(C)L 283 (1992), M(C)L 312 (1992), M(C)L 279 (1992), M(C)L 285 (1992)
Project location	Challenger Mines Pty Limited
Date of submission	Tuesday 24 January 2023

## 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

The Adelong Gold Mine is currently on care and maintenance while the economics of redeveloping the mine are assessed. A Scoping Study was completed and announced by the company to the ASX in November 2022 and forms the basis of our ideas for the future, but at this stage not all the Development Consents are in place to implement the plan outlined in that Scoping Study. At this stage the intent is to continue with exploration (mainly on the EL5728 ) and continue care and maintenance while those Development Consents are obtained. The Future Plans would be amended at that time.

## Description of surface disturbance activities

### Exploration activities

There are on-going plans to undertake exploratory drilling but a large part of that will be on EL5728 rather than the Mining Tenements. We currently have ESF4 approvals outstanding for about 12 drillholes. The only current target within the Mining Permits we are considering drilling to expand resources is the southern extension of Caledonian on ML1435 which has development consent for drilling.

There may be some exploratory work to assist in development planning (eg drilling to prove the host rock is not acid generating, or to prove up foundations of the tailings dam

### Construction activities

No additional construction is planned until development consents are obtained for at least the first stage of the project.

### Mining schedule

Mining development method and sequencing and general mine features.

No additional mining planned under the current Forward Plan

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

No additional mining planned under the current Forward Plan and current Administration buildings used

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

No additional mining planned under the current Forward Plan

Waste disposal and materials handling operations.

No additional mining planned under the current Forward Plan

### Key production milestones

MATERIAL	UNIT	YEAR 1	YEAR 2	YEAR 3
<b>Stripped topsoil</b> (if applicable)	(m <sup>3</sup> )	0	0	0
<b>Rock/overburden</b>	(m <sup>3</sup> )	0	0	0
<b>Ore</b>	(Mt)	0	0	0
<b>Reject material<sup>1</sup></b>	(Mt)	0	0	0
<b>Product</b>	(Mt)	0	0	0

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

# Three-year rehabilitation forecast

## Rehabilitation planning schedule

### Rehabilitation planning schedule

The current mine disturbance is scheduled to be rehabilitated after the mine is decommissioned. The Scoping Study if implemented shows a mine life of +5years.

Exploratory drill holes are generally rehabilitated soon after completion of the drilling program although if access tracks are required we consider leaving rehabilitation of those until after they are no longer required.

### Stakeholder consultation

All landowners are consulted and access agreements signed. There is generally a process of notifying a landowner prior to entering the land and in advance of any drilling program. Where access may interfere with lambing etc or when wet conditions may cause excess damage to the land surface, we have deferred programs to avoid these problems.

### Rehabilitation studies, risk assessments and/or design work

The current disturbance has had various risk assessment studies over the years. Any development consent approvals sought from the council will involve some additional studies as part of the planning and approval process as those applications proceeds. However, no additional studies are planned on the current disturbance.

# Rehabilitation research and trials

RRT NUMBER	PROJECT/TRIAL NAME	OBJECTIVE OF TRIAL/PROJECT	METHODOLOGY	EXPECTED DATE OF COMPLETION	STATUS
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FWP0001113



## Rehabilitation maintenance and corrective actions

Only exploration activity planned for the next 3 years

## Rehabilitation schedule

Only exploration activity planned for the next 3 years

## Subsidence remediation for underground operations

No additional underground development planned and current underground access highly stable.

## Progressive mining and rehabilitation statistics

### Three-yearly forecast cumulative disturbance and rehabilitation progression

FORECAST	UNIT	YEAR 1	YEAR 2	YEAR 3
A Total surface disturbance footprint	(ha)	14.17	14.17	14.17
B Total active disturbance	(ha)	14.17	14.17	14.17
C Land prepared for rehabilitation	(ha)	0	0	0
D Ecosystem and land use establishment	(ha)	0	0	0

### Rehabilitation key performance indicators (KPIs)

FORECAST	UNIT	YEAR 1	YEAR 2	YEAR 3
O Total new active disturbance area	(ha)			
P Area proposed for active rehabilitation	(ha)			
Q Annual rehabilitation to disturbance ratio				

# Attachment 1 – Reporting Definitions

REPORTING CATEGORY	DEFINITION
<b>A</b> Total disturbance footprint – surface disturbance	<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>
<b>B</b> Total active disturbance	<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>
<b>C</b> Rehabilitation – land preparation	<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>
<b>D</b> Ecosystem and land use establishment	<p>Includes the area which has been seeded/planted with the target vegetation species for the intended final land use. However, vegetation has not matured to a stage where it can be demonstrated that it will be sustainable for the long term and or require only a maintenance regime consistent with target reference/analogue sites.</p> <p>Typically, rehabilitation areas would be in this phase for at least two years (and usually more) before rehabilitation can be classified as being in the ecosystem and land use development phase. This phase does not apply to infrastructure areas that are being retained as part of final land use for the site.</p>

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

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

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

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



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

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

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

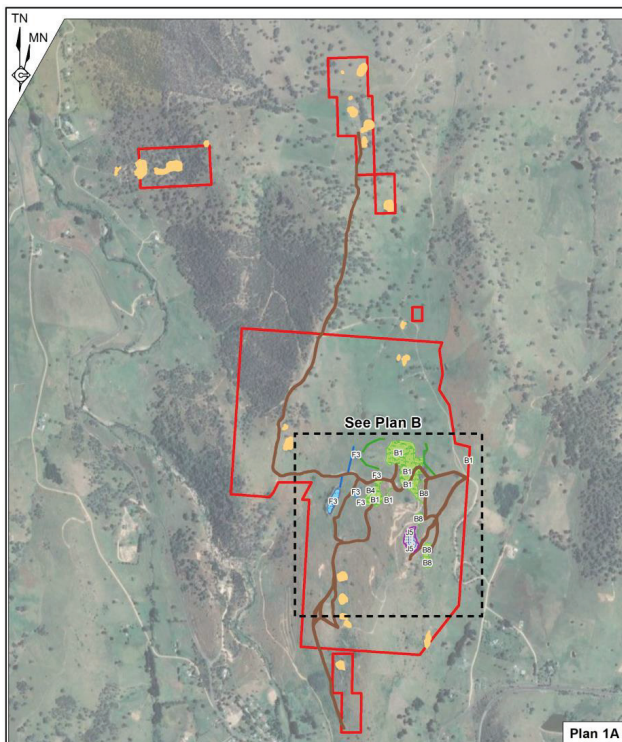
## Attachment 3 – Plans

Plan 2A .pdf

Plan 2B.pdf

Plan 2C.pdf

Forward Program (LARGE MINE) v2.1



#### REFERENCE

- Project Approval Boundary
- Final Landuse Domain**
- Agricultural – Grazing
- Final Void
- Water Management Areas

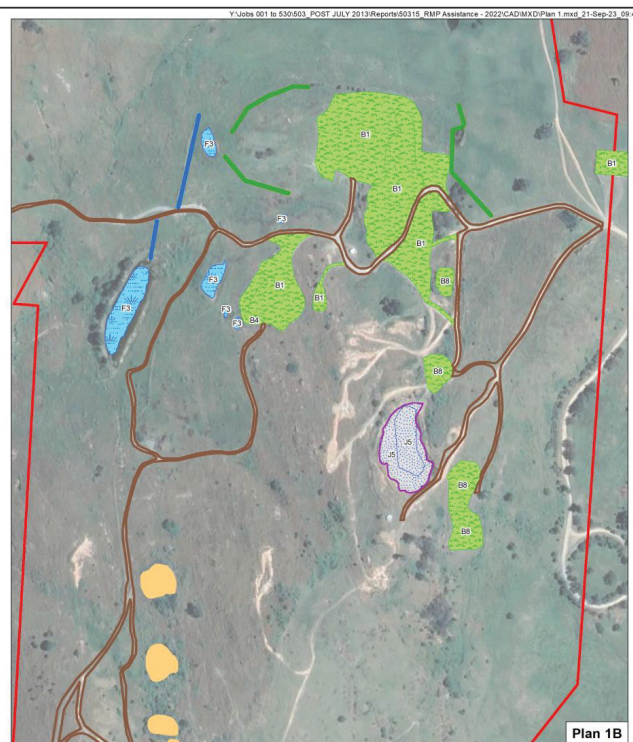
#### Final Landform Features

- Road/Track
- Historic Mullock
- Bund
- Drain
- Fence

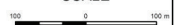
SCALE 1:18 000 (A3)



Source: Google Earth



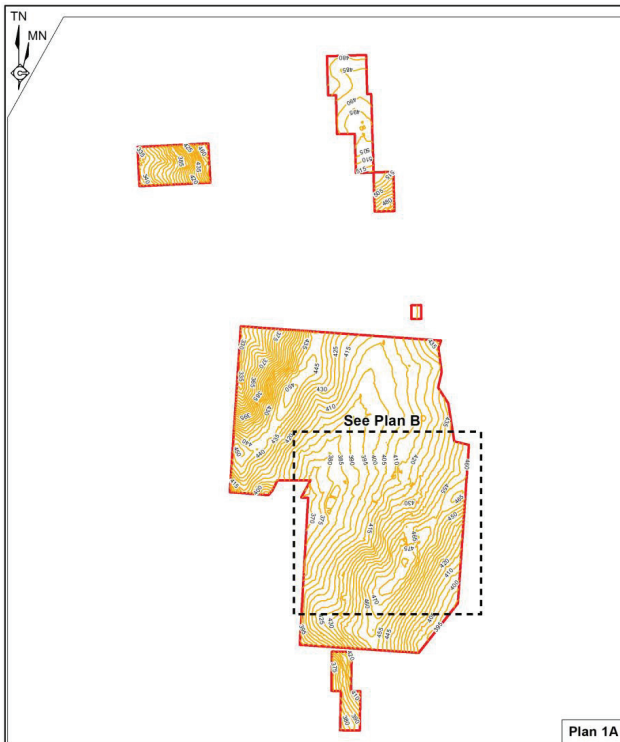
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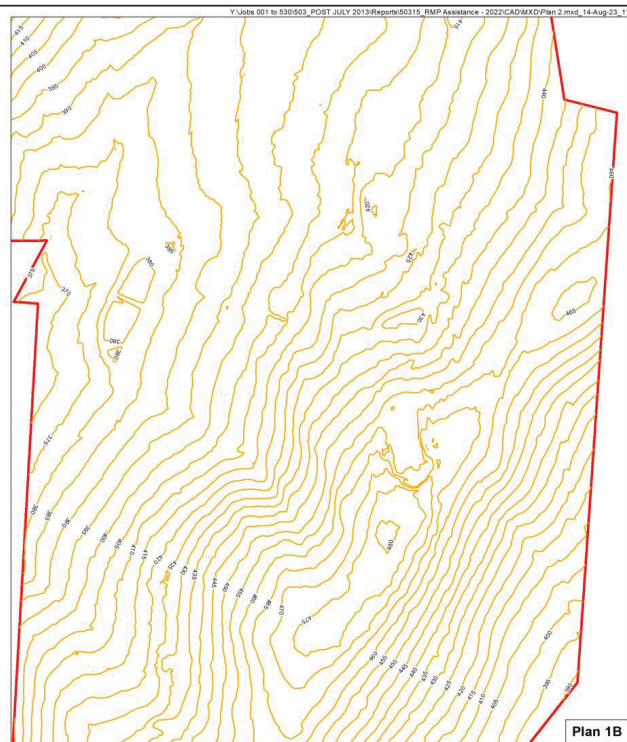
Mine Name  
Plan Name  
Anticipated Year of Relinquishment  
Date Plan Created  
Data Theme Submission ID Numbers

Adelong Gold Mine  
Plan 1 Final Landform Features  
27 September 2040  
21 September 2023  
5844, 5845

Plan 1  
FINAL LANDFORM FEATURES



Plan 1A



Plan 1B

SCALE 1:18 000 (A3)

Source: DFS - 2017

REFERENCE

- Project Approval Boundary
- Contour (mASD)(Interval =5m)

Mine Name	Adelong Gold Mine
Plan Name	Plan 2 Final Landform Contours
Anticipated Year of Relinquishment	27 September 2040
Date Plan Created	7 August 2023
Data Theme Submission ID Numbers	5847

SCALE

100 0 100 m

Plan 2  
FINAL LANDFORM CONTOURS