

Permit

Environmental Protection Act 1994

Environmental authority EPML00553013

This environmental authority is issued by the administering authority under Chapter 5 of the Environmental Protection Act 1994.

Environmental authority number: EPML00553013

Environmental authority takes effect on 8 February 2023

Environmental authority holder(s)

Name(s)	Registered address
TA Australia Security Agent Pty Ltd	111 Melvista Avenue, NEDLANDS WA 6009

Environmentally relevant activity and location details

Environmentally relevant activity/activities	Location(s)
Mining - ML gold ore - 16, Site Specific Ancillary 8 Chemical Storage: Storing more than 50t or more of dangerous goods class 1 or class 2, division 2.3 under subsection 1(a) Ancillary 16 Extractive and screening activities: 3(a) screening, in a year the following quantity of material – 5,000t to 100,000t Ancillary 31 Mineral processing 2: Processing, in a year, the following quantities of mineral products, other than coke (a) 1,000 to 100,000t Ancillary 60 Waste disposal: operating a facility for disposing of, in a year, the following quantity of waste mentioned in subsection (1)(a) – more than 200,000t	ML3772 ML50160

Additional information for applicants

Environmentally relevant activities

The description of any environmentally relevant activity (ERA) for which an environmental authority (EA) is issued is a restatement of the ERA as defined by legislation at the time the EA is issued. Where there is any inconsistency between that description of an ERA and the conditions stated by an EA as to the scale, intensity or manner of carrying out an ERA, the conditions prevail to the extent of the inconsistency.

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An EA authorises the carrying out of an ERA and does not authorise any environmental harm unless a condition stated by the EA specifically authorises environmental harm.

A person carrying out an ERA must also be a registered suitable operator under the *Environmental Protection Act 1994* (EP Act).

Contaminated land

It is a requirement of the EP Act that an owner or occupier of contaminated land give written notice to the administering authority if they become aware of the following:

- the happening of an event involving a hazardous contaminant on the contaminated land (notice must be given within 24 hours); or
- a change in the condition of the contaminated land (notice must be given within 24 hours); or
- a notifiable activity (as defined in Schedule 3) having been carried out, or is being carried out, on the contaminated land (notice must be given within 20 business days);

that is causing, or is reasonably likely to cause, serious or material environmental harm.

For further information, including the form for giving written notice, refer to the Queensland Government website www.qld.gov.au, using the search term 'duty to notify'.

Take effect

Please note that, in accordance with section 200 of the EP Act, an EA has effect:

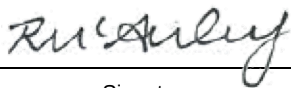
- a) if the authority is for a prescribed ERA and it states that it takes effect on the day nominated by the holder of the authority in a written notice given to the administering authority-on the nominated day; or
- b) if the authority states a day or an event for it to take effect-on the stated day or when the stated event happens; or
- c) otherwise-on the day the authority is issued.

However, if the EA is authorising an activity that requires an additional authorisation (a relevant tenure for a resource activity, a development permit under the *Sustainable Planning Act 2009* or an SDA Approval under the *State Development and Public Works Organisation Act 1971*), this EA will not take effect until the additional authorisation has taken effect.

If this EA takes effect when the additional authorisation takes effect, you must provide the administering authority written notice within 5 business days of receiving notification of the related additional authorisation taking effect.

If you have incorrectly claimed that an additional authorisation is not required, carrying out the ERA without the additional authorisation is not legal and could result in your prosecution for providing false or misleading information or operating without a valid environmental authority.

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Signature

10 February 2023

Date

Rebecca McAuley

Department of Environment and Science
Delegate of the administering authority
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Enquiries:

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Obligations under the *Environmental Protection Act 1994*

In addition to the requirements found in the conditions of this environmental authority, the holder must also meet their obligations under the EP Act, and the regulations made under the EP Act. For example, the holder must comply with the following provisions of the Act:

- general environmental duty (section 319)
- duty to notify environmental harm (section 320-320G)
- offence of causing serious or material environmental harm (sections 437-439)
- offence of causing environmental nuisance (section 440)
- offence of depositing prescribed water contaminants in waters and related matters (section 440ZG)
- offence to place contaminant where environmental harm or nuisance may be caused (section 443)

Conditions of environmental authority

The environmentally relevant activity(ies) conducted at the location as described above must be conducted in accordance with the following site specific conditions of approval.

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Agency Interest – General

General

- A1-1 This environmental authority authorises environmental harm referred to in the conditions. Where there is no condition or this environmental authority is silent on a matter, the lack of a condition or silence does not authorise environmental harm.
- A1-2 Contaminants with the potential to cause environmental harm must not be released directly or indirectly to the receiving environment, except as permitted under the conditions of this environmental authority.
- A1-3 The environmental authority holder must ensure that the activity is carried out in accordance with **Table 1 – Authorised disturbance** and **Map 1 - Location of authorised disturbance**.

Table 1 – Authorised disturbance ¹

Name of disturbance site	Maximum area of disturbance (ha)	Latitude	Longitude	Purpose
TBA - description of each area of disturbance must be provided to the administering authority by 1 March 2023.	TBA - description of each area of disturbance must be provided to the administering authority by 1 March 2023.	TBA - description of each area of disturbance must be provided to the administering authority by 1 March 2023.	TBA - description of each area of disturbance must be provided to the administering authority by 1 March 2023.	TBA - description of each area of disturbance must be provided to the administering authority by 1 March 2023.

Note 1: Detailed description of areas of disturbance must be provided to the administering authority by 1 March 2023.

Maintenance of measures, plant and equipment

- A2-1 The environmental authority holder must ensure:
- (a) that all measures, plant and equipment necessary to ensure compliance with the conditions of this environmental authority are installed;
 - (b) and that such measures, plant and equipment are maintained in a proper condition;
 - (c) and that such measures, plant and equipment are operated in a proper manner

Staff training

- A3-1 All staff must be trained in, and made aware of, their obligations under this environmental authority (including any procedures required by the environmental authority) and the *Environmental Protection Act 1994* at induction and at least annually thereafter.
- A3-2 Records must be kept of all persons trained under condition **A3-1** and the date they received the training.

Monitoring and sampling

- A4-1 Any documentation, monitoring data, records and reports required by this environmental authority must be:
- (a) kept until surrender of the environmental authority;
 - (b) provided to a new holder of the environmental authority on transfer of the environmental authority;
- and

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(c) provided to the administering authority within a timeframe nominated by the administering authority.

A4-2 All monitoring and sampling required by the conditions of this environmental authority must be carried out, interpreted, and recorded by an appropriately qualified person.

A4-3 Unless otherwise authorised in writing by the administering authority, all analyses required under this environmental authority must be carried out by a laboratory that has National Association of Testing Authorities (NATA) accreditation for such analyses.

The only exception to this condition is for in situ monitoring of pH and electrical conductivity.

Storage and handling of flammable and combustible liquids

A5-1 Spillage of all flammable and combustible liquids must be contained within an on-site containment system and controlled in a manner that prevents environmental harm (other than trivial harm) and maintained in accordance with the most recent edition of AS 1940 - Storage and Handling of Flammable and Combustible Liquids.

Risk Management

A6-1 By 30 June 2023, the holder of this environmental authority must develop and implement a risk management system for mining activities which complies with the content requirement of the Standard Risk Management (ISO31000:2018), or the latest edition of an Australian Standard for risk management.

Third-Party Reporting

A7-1 The holder of this environmental authority must:

- (a) By 1 December 2023, obtain from an appropriately qualified person(s) a report on compliance with the conditions of this environmental authority; and
- (b) obtain further such reports at regular intervals, not exceeding three-yearly intervals, from the completion of the report referred to above; and
- (c) provide each report to the administering authority within 90 days of its completion.

Notification of emergencies, incidents and exceptions

A8-1 The holder of this environmental authority must notify the administering authority by written notification within 24 hours, after becoming aware of any emergency or incident which results in the release of contaminants not in accordance, or reasonably expected to be not in accordance with, the conditions of this environmental authority.

A8-2 Within 10 business days following the initial notification of an emergency or incident, or receipt of monitoring results, whichever is the latter, further written advice must be provided to the administering authority, including the following:

- (a) Results and interpretation of any samples taken and analysed;
- (b) Outcomes of actions taken at the time to prevent or minimise unlawful environmental harm; and
- (c) Proposed actions to prevent a recurrence of the emergency or incident.

Contravention of conditions

- A9-1 Notwithstanding the requirements of condition **A8-1**, any contravention of a condition of this environmental authority must be reported to the administering authority within 24 hours of becoming aware of the contravention.
- A9-2 Within 20 business days (or a longer period agreed to in writing by the administering authority) of a report made under condition **A9-1**, an investigation must be undertaken, completed and recorded to determine:
- (a) the potential circumstances and actions that may have contributed to the contravention; and
 - (b) reasonable measures that will be implemented to address the cause of the contravention to prevent future contraventions of this nature.
- A9-3 Measures identified under condition **A9-2** must be implemented within:
- (a) 20 business days of completion of the investigation required by condition **A9-2** being finalised; or
 - (b) a longer period agreed to in writing by the administering authority.
- A9-4 The following details must be recorded for all contraventions of the environmental authority:
- (a) date and time the contravention occurred (if known);
 - (b) nature and details of the contravention;
 - (c) investigations carried out in response to the contravention as required by condition **A9-2**;
 - (d) the results of investigations; and
 - (e) measures taken under condition **A9-3**.

Complaints

- A10-1 The holder of this environmental authority must record all environmental complaints received about the activities including:
- (a) name, address and contact number of the complainant;
 - (b) time and date of complaint;
 - (c) reasons for the complaint;
 - (d) investigations undertaken;
 - (e) conclusions formed;
 - (f) actions taken to resolve the complaint;
 - (g) any abatement measures implemented; and
 - (h) person responsible for resolving the complaint.
- A10-2 The holder of this environmental authority must, when requested by the administering authority, undertake relevant specified monitoring within a reasonable timeframe nominated or agreed to by the administering authority to investigate any complaint of environmental harm. The results of the investigation (including an analysis and interpretation of the monitoring results) and abatement measures, where implemented, must be provided to the administering authority within 10 business days of completion of the investigation, or no later than 10 business days after the end of the timeframe nominated by the administering authority to undertake the investigation.

Exploration

- A11-1 All exploration activities carried out on the mining leases must comply with each of the Standard Environmental Conditions contained in the most recent version of the *Eligibility criteria and standard conditions for exploration and mineral development projects*.
- A11-2 Notwithstanding condition **A11-1**, exploration activities involving machinery may be carried out within the 500m buffer zone, but not within 200m, of a Place of Cultural Heritage Significance, Protected

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Areas, Registered Places and Restricted Zones protected under the *Queensland Heritage Act 1992*, providing the cultural values of the sites are not adversely affected by exploration activities.

Definitions

A12-1 Words and phrases used throughout this environmental authority are defined in the definitions. Where a definition for a term used in this environmental authority is sought and the term is not defined within this environmental authority, the definitions in the *Environmental Protection Act 1994*, its Regulations and Environmental Protection Policies must be used.

Agency Interest – Air

General

B1-1 Unless authorised by this environmental authority, the release of contaminants to air must not cause environmental harm.

Air Quality – Particulate Matter

B2-1 The activities must not cause an exceedance of the air quality limits specified in **Table 2 – Ambient air quality limits** beyond the boundaries of any mining lease/s listed on this environmental authority.

Table 2 – Ambient air quality limits

Contaminant	Limit type	Air quality limit (µg/m ³) ¹
Total suspended particulates ²	Annual mean	90
Particulate matter with an aerodynamic diameter of less than 10 microns (PM ₁₀) ³	24 hour average (5 days exceedance allowed each year including natural causes)	50
Arsenic and its compounds as arsenic ⁴ (measured as the total metal content in PM ₁₀)	Annual mean	0.006
Cadmium and its compounds as cadmium ⁴ (measured as the total metal content in PM ₁₀)	Annual mean	0.005
Lead and its compounds as lead ⁴ (measured as the total metal content in PM ₁₀)	Annual mean	0.50
Manganese and its compounds as manganese ⁴ (measured as the total metal content in PM ₁₀)	Annual mean	0.16
Nickel and its compounds as nickel ⁴ (measured as the total metal content in PM ₁₀)	Annual mean	0.022

Note 1. Air quality limits are from Schedule 1 of the *Environmental Protection (Air) Policy 2019*.

Note 2. Monitored in accordance with the most recent version of Australian Standard AS/NZS3580.9.3 Determination of suspended particulate matter – Total suspended particulate matter (TSP) – High volume sampler gravimetric method.

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Note 3. Monitored in accordance with the most recent version of Australian Standard AS/NZS3580.9.6 Determination of suspended particulate matter – PM10 high volume sampler with size-selective inlet – Gravimetric method.

Note 4. Metal analysis is to be carried out with a methodology, sufficient to produce representative results capable of comparison against the respective limits.

Air quality - Dust deposition

B3-1 The holder of this environmental authority must conduct the mining activity in such a manner so as not to cause any exceedance of the limits identified in **Table 3 - Dust deposition trigger levels and limits** at or beyond the boundaries of the licensed place.

Table 3 - Dust deposition trigger levels and limits

Air Quality Indicator	Measurement Period	Trigger Level ¹	Limits
Arsenic and its compounds as arsenic ⁴	Annual average	4 µg/m ² /day	-
Cadmium and its compounds as cadmium ⁴	Annual average	2 µg/m ² /day	-
Copper and its compounds as copper ⁴	Annual average	330 µg/m ² /day ⁶	-
Lead and its compounds as lead ⁴	Annual average	100 µg/m ² /day ⁶	250 ⁵ µg/m ² /day
Nickel as its compounds as nickel ⁴	Annual average	15µg/m ² /day	
Total insoluble matter (insoluble analysis and particulate matter deposition rate) ³	Monthly average	-	120 ⁶ mg/m ² /day ⁷

Note 1. Trigger levels based on First General Administrative Regulation Pertaining to the Federal Emission Control Act (Technical Instructions on Air Quality Control – TA Luft) (Table 6 page 29).

Note 2. Monitored in accordance with the most recent version of Australian Standard AS3580.10.1 *Methods for sampling and analysis of ambient air – Determination of particulate matter – Deposited matter – Gravimetric method*.

Note 3. Metals analysis is to be carried out in accordance with a methodology, sufficient to produce representative results capable of comparison against the respective limits and trigger levels.

Note 4. World Health Organisation – Air Quality Guidelines for Europe Second Edition, 2000 (Chapter 6 page 152)

Note 5. Determined based on TA Luft lead deposition guidelines and the HIL A soil investigation levels from NEPC (1999) Table 5-A.

Note 6. Based on the New Zealand Ministry for Environment Good Practice Guide for Assessing and Managing for Environmental Effects of Dust Emissions (Table 7.1).

Note 7. The dust deposition limit is calculated over a nominal month as per AS/NZS3580.10.1 of 2003 (or more recent editions).

B3-2 In the event of monitoring results showing an exceedance of any of the trigger levels specified in condition **B3-1** and **Table 3 - Dust deposition trigger levels and limits** at or beyond the boundaries of the licensed place, the holder of this environmental authority must:

- (a) complete an investigation to identify the cause of the exceedance;
- (b) if the investigation shows that the exceedance is not attributable to the mining activity then no further action is required and this must be advised to the administering authority; or
- (c) if the investigation shows that the exceedance is attributable to the mining activity provide a written report to the administering authority within one (1) month of the date of the monitoring results showing an exceedance, outlining:
 - (i) details of the investigations carried out;
 - (ii) details of the environmental impacts observed; and
 - (iii) actions taken to prevent environmental harm.

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- B3-3 If monitoring indicates the limits in condition **B3-1** and **Table 3 - Dust deposition trigger levels and limits** have been exceeded at a sensitive place or commercial place as a result of a mining activity, then the holder of this environmental authority must immediately implement dust abatement measures to ensure that dust emissions generated by the mining activity no longer exceed the levels specified condition **B3-1** and **Table 3 - Dust deposition trigger levels and limits**.

Air quality monitoring requirements

- B4-1 Samples taken for air quality monitoring specified in this environmental authority must be collected and analysed in accordance with the requirements of the administering authority's latest edition of the *Air Quality Sampling Manual*, or more recent editions or supplements to that document as are published by the administering authority.

Odour nuisance

- B5-1 The release of noxious or offensive odour(s) or any other noxious or offensive airborne contaminant(s) resulting from the mining activity must not cause an environmental nuisance at any sensitive or commercial place.
- B5-2 When requested by the administering authority, odour monitoring must be undertaken within a reasonable and practicable timeframe nominated by the administering authority to investigate any complaint (which is neither frivolous nor vexatious nor based on mistaken belief in the opinion of the authorised officer) of environmental nuisance at any sensitive or commercial place, and the results must be notified within 14 days to the administering authority following completion of monitoring.
- B5-3 If monitoring, or assessment by an authorised officer, indicates Condition **B5-1** is not being met then the environmental authority holder must:
- (a) address the complaint including the use of appropriate dispute resolution if required ; or
 - (b) immediately implement odour abatement measures so that emissions of odour from the activity do not result in further environmental nuisance.

Agency Interest – Water**General**

- C1-1 Samples taken for water quality monitoring specified in this environmental authority must be collected and analysed in accordance with the requirements of the administering authority's latest edition of the *Monitoring and Sampling Manual 2018 – Environmental Protection (Water) Policy 2009*, or more recent editions or supplements to that document as are published by the administering authority.,
- C1-2 Contaminants must not be released from the boundary of the mining leases to any waters or the bed and banks of any waters.

Erosion and Sediment Control Plan

- C1-3 By 30 June 2023 or before commencement of mineral processing, whichever happens first, an Erosion and Sediment Control Plan must be developed by an appropriately qualified person and implemented for all stages of the mining activity.

- C1-4 The Erosion and Sediment Control Plan must demonstrate how erosion and sediment control measures detailed in the plan adequately minimise the release of sediment to receiving waters and must include at least the following:
- (a) an assessment of the size and characteristics of all catchment areas; and
 - (b) an assessment of relevant properties of soils and waste materials; and
 - (c) identification of receiving waters environmental values, water quality objectives and management intent; and
 - (d) specification of minimum design criteria for erosion and sediment control structures to achieve the management intent of receiving waters; and
 - (e) locations and descriptions of all erosion and sediment control measures; and
 - (f) an audit schedule to ensure erosion and sediment control measures are maintained.
- C1-5 The Erosion and Sediment Control Plan must be reviewed by an appropriately qualified person by 1 August each year. The review must be documented and must:
- (a) include a statement that the Erosion and Sediment Control Plan has been reviewed by an appropriately qualified person; and
 - (b) assess the plan against the requirements of condition **C1-4**; and
 - (c) include recommended actions to ensure actual and potential environmental impacts are effectively managed; and
 - (d) provide details and timelines of the actions to be taken; and
 - (e) identify any amendments made to the Erosion and Sediment Control Plan.

Receiving environment monitoring

- C2-1 Surface waters must be monitored at the locations specified in **Table 4 – Receiving water monitoring points** for each quality characteristic and at the monitoring frequency in **Table 5 – Receiving water contaminants trigger levels**.

Table 4 - Receiving water monitoring points ¹

Monitoring point	Receiving waters location description	Latitude	Longitude
Upstream background monitoring points			
W1	Mary River near Fisherman's Pocket	TBC	TBC
W2	Langton Gully	TBC	TBC
Downstream monitoring points			
W3	Widgee Gully	TBC	TBC
W4	Mary River	TBC	TBC

Note 1: Location details must be provided to the administering authority by 1 March 2023.

Table 5 – Receiving waters contaminant trigger levels

Quality Characteristic	Trigger Level	Monitoring Frequency
pH (pH units)	6.5 – 9.0	Daily when there is a release
Suspended Solids (mg/L)	50	
Total Dissolved Solids (mg/L) ¹	341	
Sulphate (SO ₄ ²⁻)(mg/L) ¹	19	
Arsenic (V) (mg/L) ¹	0.013	

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Cyanide (mg/L) ¹	0	
Fluoride (mg/L) ¹	0.3	
Potassium (mg/L) ¹	3	
Lead (mg/L) ²	0.0034	
Nickel (mg/L) ²	0.011	

Note 1 Site specific trigger levels from Fisherman's Pocket, Gympie Gold Mine Tailings Water Dispersion Study, DHI Water & Environment Pty Ltd, 2 May 2016.

Note 2 ANZECC trigger value for toxicants applicable to typical slightly-moderately disturbed ecosystems.

C2-2 If quality characteristics of the receiving water at the downstream monitoring points specified in **Table 4 – Receiving water monitoring points** exceed any of the trigger levels specified in **Table 5 - Receiving waters contaminant trigger levels** the environmental authority holder must compare the downstream results to the upstream results in the receiving waters and:

- (a) where the downstream result is the same or a lower value than the upstream value for the quality characteristic, then no action is to be taken, or
- (b) where the downstream results exceed the upstream results, complete an investigation into the cause of the exceedance and potential for environmental harm and provide a written report to the administering authority within 20 business days, outlining:
 - (i) details of the investigations carried out including any assumptions and limitations of the investigation
 - (ii) findings of the investigation including an explanation of the cause identified
 - (iii) recommendations of the investigation
 - (iv) actions taken to comply with the conditions of the environmental authority and to prevent environmental harm.

Note: Where an exceedance of a trigger level has occurred and is being investigated, in accordance with condition A8-2 of this environmental authority, no further reporting is required for subsequent trigger events for that quality characteristic.

Receiving Environment Monitoring Program

C2-3 By 1 August 2023, the environmental authority holder must develop and implement a Receiving Environment Monitoring Program (REMP) to monitor, identify and describe any adverse impacts to surface water environmental values, quality and flows due to the authorised mining activity. This must include monitoring the effects of the mine on the receiving environment periodically (under natural flow conditions). For the purposes of the REMP, the receiving environment is the waters of the Tannery Creek and the Randwick Road crossing and connected or surrounding waterways within 10km downstream of the release. The REMP should encompass any sensitive receiving waters or environmental values downstream of the authorised mining activity that will potentially be directly affected by an authorised release of mine affected water.

C2-4 A REMP Design Document that addresses the requirements of the REMP must be prepared and made available to the administering authority upon request.

C2-5 Any comments made by the administering authority on the REMP Design Document required by condition **C2-4** must be addressed to the reasonable satisfaction and within a timeframe (which must be at least 5 business days) specified by the administering authority.

C2-6 The REMP must at a minimum

- (a) address and comply with the latest version of the administering authority's guideline *Receiving environment monitoring program guideline (ESR/2016/2399)*; and
- (b) identify, describe and monitor any adverse impacts to surface water environmental values, quality, and flows; and

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- (c) assess the long-term condition or state of surface waters, sediment, and aquatic ecosystem health; and
- (d) include the locations listed in **Table 3 – Receiving waters monitoring points**; and
- (e) identify and describe all environmental values of the receiving environment; and
- (f) assess the receiving environment monitoring results against water quality objectives and trigger levels in **Table 4 – Receiving waters contaminant trigger levels**; and
- (g) include an assessment of the potential impacts of the activity and propose appropriate mitigation measures; and
- (h) apply procedures and/or guidelines from the *Water Quality Guidelines, ANZG 2018* and other relevant standards and guideline documents; and
- (i) describe sampling and analysis methods and quality assurance and control; and
- (j) incorporate stream flow and hydrological information in the interpretations of water quality and biological data.

C2-7 A report outlining the findings of the REMP, including all monitoring results and interpretations must be prepared annually and submitted to the administering authority upon request.

C2-8 The REMP Annual Report required by condition **C2-7** must:

- (a) be prepared by an appropriately qualified person; and
- (b) outline the findings of the REMP, including but not limited to:
 - (i) an assessment of long-term upstream water quality; and
 - (ii) an assessment of the long-term condition or state of surface waters, sediment and aquatic ecosystem health; and
 - (iii) recommendations for further investigation or actions; and
 - (iv) recommendations for changes or improvements to the monitoring program; and
 - (v) potential changes to management of the authorised activity to minimise impacts; and
 - (vi) all monitoring results; and
 - (vii) a description of all conclusions formed.

Tailings and seepage dam water quality

C3-1 Water quality within any tailings dam and seepage dams must comply with the contaminant limits defined in **Table 6 - Water quality limits for tailings and seepage dams**.

Table 6 - Water quality limits for tailings and seepage dams

Monitoring point	Quality characteristic	Units	80 Percentile	Contaminant limit (as Total)	Monitoring frequency
Within the control points of the sites listed in Schedule F Table 11	Total suspended solids	mg/L		50	Quarterly
	pH	range		6.5-9.0	
	TDS	mg/L	5,100		
	Sulphate	mg/L	2,500		
	Aluminium	mg/L		5	
	Arsenic	mg/L		0.5	
	Cadmium	mg/L		0.01	
	Cobalt	mg/L		1.0	
	Chromium	mg/L		1.0	
	Copper	mg/L		0.5	
	Mercury	mg/L		0.002	
	Lead	mg/L		0.1	

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Fluoride	mg/L		2.0
Selenium	mg/L		0.02
WAD Cyanide	mg/L		1.0

C3-2 The holder of this environmental authority must conduct regular visual monitoring of the tailings and seepage dams to identify any adverse impacts on wildlife. The holder of this authority must report any instance where wildlife has been adversely affected by the tailings and seepage dams to the administering authority, and take action to minimise fauna access to the tails and seepage dams.

C3-3 The design storage allowance on 1st November of each year for any tailings dam constructed or operated within the operational land must comply with **Table 7 - Storage design for tailings dams**.

Table 7 - Storage design for tailings dams

Storage type	Design Storage Allowance ¹	Spillway Critical Design Storm ²	Mandatory Reporting Level ³
Tailings Dam 1	1: 10 Year ARI 4 month wet season plus process inputs for the 4 month wet season	1: 1,000 Year ARI ⁴	1: 100 year ARI
Tailings Dam 2	1: 10 Year ARI 4 month wet season plus process inputs for the 4 month wet season	1: 1,000 Year ARI	1: 100 year ARI
Tailings Dam 3	1: 10 Year ARI 4 month wet season plus process inputs for the 4 month wet season	1: 1,000 Year ARI	1: 100 year ARI

Note 1: The design storage allowance on 1st November of each year for any tailings dam constructed within the operational land must be equivalent to the run-off from the frequency stated in Table 6 plus process inputs for the equivalent wet season. Process inputs refers to hazardous mineral process waste and water, which is being disposed of in the storage facility.

Note 2: The critical design storm has a duration that produces the peak discharge for the catchments.

Note 3: The mandatory reporting level refers to the volume below the spillway crest, of a 1 in 100 ARI 72 hour storm event.

Note 4: Annual Recurrence Interval.

C3-4 The spillway for any tailings dam, constructed or operated within the operational land must be designed and maintained to withstand the peak flow from the spillway critical design storm defined in **Table 6 - Water quality limits for tailings and seepage dams**.

C3-5 The holder of the environmental authority must mark the mandatory reporting level defined in Table 6 on the spillway of all tailings dams within the operational land.

C3-6 The holder of the environmental authority must notify the administering authority when the pondage level of any tailings dam, reaches the mandatory reporting level defined in **Table 6 - Water quality limits for tailings and seepage dams**.

C3-7 All seepage dams in place to collect seepage from tailings dams must be maintained and operated so that release of seepage is prevented.

Groundwater Monitoring Network

C4-1 The environmental authority holder must develop and implement a groundwater monitoring network and a groundwater monitoring program which includes current monitoring bores as listed in **Table 8 -**

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Groundwater monitoring locations and frequency, and a monitoring program which must be implemented prior to tailings reprocessing activities occurring on ML3772.

- C4-2 The groundwater monitoring network referred to in condition **C4-1** must:
- be installed and maintained by a person possessing appropriate qualifications and experience in the fields of hydrogeology and groundwater monitoring program design to be able to competently make recommendations about these matters;
 - be constructed in accordance with methods prescribed in the latest edition of the Agriculture and Resource Management Council of Australia and New Zealand manual titled 'Minimum Construction Requirements For Water Bores In Australia';
 - include a bore to verify hydraulic properties of the fresh Kin Kin Beds and to confirm the potential seepage pathway;
 - include sufficient number of "bore(s) of compliance" that are located at an appropriate distance from potential sources of impact from mining activities and provide the following:
 - representative groundwater samples from the uppermost aquifer;
 - background groundwater quality in hydraulically up-gradient or background bore(s) that have not been affected by any mining activities;
 - the quality of groundwater down-gradient of any potential source of contamination including groundwater passing the relevant bore(s) of compliance.
 - include the embankment monitoring bores (EMBs) at Tailings Dam 3 by reinstating the existing ones (EMB 1 -10) as the minimum for monitoring potential leachate breakout.
- C4-3 The environmental authority holder must make a copy of the groundwater monitoring program required under condition **C4-1** available to the administering authority upon request.
- C4-4 In conjunction with condition **C4-1**, groundwater levels must be monitored quarterly and groundwater draw down fluctuations in excess of 2m per year in any 'bores of compliance', not resulting from the pumping of licensed bores, must be notified within 14 days to the administering authority following completion of monitoring.
- C4-5 The extraction of groundwater for use in the mining activity from underground aquifers must not directly or indirectly cause material or serious environmental harm.
- C4-6 The holder of the environmental authority must monitor and record the volume of water extracted from the underground dewatering process not less frequently than monthly.

Groundwater Monitoring

- C5-1 Conduct monitoring and keep records of groundwater quality for the bores listed in **Table 8 - Groundwater monitoring locations and frequency**. All determinations of groundwater quality must be:
- conducted for the water quality characteristics and at the minimum frequency stated in **Table 8 - Groundwater monitoring locations and frequency**;
 - taken from sufficient monitoring points and/or wells to obtain representative samples of groundwater both up gradient and down-gradient of the potential influence;
 - carried out with spatial and temporal replication to make statistically valid conclusions about the presence or absence of contamination or other impact.
- C5-2 Groundwater quality in monitoring bores listed in **Table 8 - Groundwater monitoring locations and frequency** must not exceed the contaminant limits defined in **Table 9 - Groundwater contaminant limits**.

Table 8 - Groundwater monitoring locations and frequency

Monitoring point	Latitude	Longitude	Monitoring frequency
Monitoring Bore 4	470026	7101910	Quarterly
Monitoring Bore 5	470102	7101911	Quarterly
Monitoring Bore 6	470024	7101992	Quarterly
Monitoring Bore 1	470638	7100698	Quarterly
Proposed 1 ¹	TBA - Location details must be provided to the administering authority by 1 March 2023.	TBA - Location details must be provided to the administering authority by 1 March 2023.	Quarterly
Proposed 2 ²	TBA - Location details must be provided to the administering authority by 1 March 2023.	TBA - Location details must be provided to the administering authority by 1 March 2023.	Quarterly
Proposed 3 ³	TBA - Location details must be provided to the administering authority by 1 March 2023.	TBA - Location details must be provided to the administering authority by 1 March 2023.	Quarterly
Proposed 4 ⁴	TBA - Location details must be provided to the administering authority by 1 March 2023.	TBA - Location details must be provided to the administering authority by 1 March 2023.	Quarterly

Notes: 1 Detect potential seepage from collector sump towards Tannery Creek alluvium

2 Confirm hydraulic properties of fresh Kin Kin Beds and provide baseline data on groundwater conditions

3 Detect potential seepage from process water pond

4 Detect potential seepage from the CIL plant.

Table 9 - Groundwater contaminant limits

Quality characteristic	Units	Minimum	Maximum
pH	N/A	6.5	9.0
Sulphate	mg/L	N/A	1000
Aluminium	mg/L	N/A	5.0
Arsenic	mg/L	N/A	0.1
Boron	mg/L	N/A	5
Cadmium	mg/L	N/A	0.01
Cobalt	mg/L	N/A	0.05

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Chromium	mg/L	N/A	1.0
Copper	mg/L	N/A	0.2
Mercury	mg/L	N/A	0.002
Molybdenum	mg/L	N/A	0.01
Nickel	mg/L	N/A	0.2
Lead	mg/L	N/A	0.2
Selenium	mg/L	N/A	0.02
Zinc	mg/L	N/A	2.0
WAD Cyanide	mg/L	N/A	0.1

Acid rock drainage and leachate management

- C6-1 Subject to the trigger values defined in Table 5, Table 6 and Table 9, measures must be implemented to minimise the potential for hazardous leachate to be generated, and/or measures implemented to prevent hazardous leachate being directly or indirectly released or likely to be released as a result of the activity to any groundwater or watercourse.

Agency Interest – Noise and vibration

- D1-1 Subject to conditions **D1-2** and **D1-3** noise from the mining activity must not cause an environmental nuisance, at any sensitive or commercial place.
- D1-2 When requested by the administering authority, noise monitoring must be undertaken within a reasonable and practicable timeframe nominated by the administering authority to investigate any complaint (which is neither frivolous nor vexatious nor based on mistaken belief in the opinion of the authorised officer) of environmental nuisance at any sensitive or commercial place, and the results must be notified within 14 days to the administering authority following completion of monitoring.
- D1-3 If the environmental authority holder can provide evidence through monitoring that the limits defined in **Table 10 – Noise limits** inclusive, are not being exceeded then the holder is not in breach of condition **D1-1** Monitoring must include:
- LA 10, adj. 10 mins and
 - LA 1, adj. 10 mins and
 - background noise level; and
 - the level and frequency of occurrence of impulsive or tonal noise; and
 - atmospheric conditions including wind speed and direction; and
 - location, date and time of recording
- D1-4 If monitoring indicates exceedance of the limits in **Table 10 – Noise limits**, then the environmental authority holder must:
- address the complaint including the use of appropriate dispute resolution if required; or
 - immediately implement noise abatement measures so that emissions of noise from the activity do not result in further environmental nuisance.
- D1-5 The method of measurement and reporting of noise levels must comply with the latest edition of the Department of Environment and Science's Noise Measurement Manual.

Table 10 - Noise limits

Noise level dB(A) measured as	Noise measured at a 'sensitive place'			Noise measured at a 'commercial place'		
	7am - 6pm	6pm – 10pm	10pm – 7am	7am - 6pm	6pm – 10pm	10pm – 7am
LA10, adj 10 min	b/g+5	b/g+5	b/g+3	b/g+10	b/g+10	b/g+5
LA11, adj 10 min	b/g+10	b/g+10	b/g+5	b/g+15	b/g+15	b/g+10

Vibration nuisance

- D2-1 Blasting operations are not to be conducted within the mining leases to which this environmental authority relates.

Agency Interest – Waste**Storage of tyres**

- E1-1 Tyres stored awaiting disposal or transport for take-back and, recycling, or waste-to-energy options - should be stockpiled in volumes less than 3m in height and 200m² in area and at least 10m from any other tyre storage area.
- E1-2 All reasonable and practicable fire prevention measures must be implemented, including removal of grass and other materials within a 10m radius of the scrap tyre storage area.

Waste handling and management

- E2-1 All regulated waste removed from site must be removed by a licensed waste removal and transport contractor for recycling or disposal in a licensed regulated waste disposal facility.
- E2-2 The holder of this environmental authority must not:
- allow waste to burn or be burned at or on the licensed place; or
 - remove waste from the licensed place and burn such waste elsewhere.
- (This condition does not apply to the material that is required to be burnt under quarantine regulations and, burning of such materials is to be carried out in a way that does not cause environmental harm and this condition does not refer to activities carried out under the provisions of the *Fire and Emergency Services Act 1990*.)

Agency Interest – Land**Land disposal**

- F1-1 The only contaminants permitted to be released to land are tailings to the tailings dams in accordance with the conditions of this Environmental Authority.

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Rehabilitation landform criteria

F2-1 All areas disturbed by mining activities must be rehabilitated to a stable landform with a self sustaining vegetation cover in accordance with **Table 11 - Final Land Use and rehabilitation Approval Schedule**.

Table 11 - Final Land Use and rehabilitation Approval Schedule

	Disturbance type					
	Tailings dam(s)	Waste rock dumps	Infrastructure	ROM area(s)	Road(s) and Track(s)	General Exploration
Tenure ID	ML3772	ML50160	ML3772 ML50160	ML50160	ML3772	All project exploration tenements
Projective surface area (ha)	42.4	1.3	1.2	1.562	2.9	<500m ² Max
Reference site (optional)	470567E 7101450N	N/A	N/A	N/A	N/A	
Post mine land description	Industrial / timber production	Industrial / timber production	Industrial / timber production	Industrial / timber production	Industrial / timber production	No Material Change
Post mine land <capability / suitability> classification	III / IV	III / IV	III / IV	III / IV	III / IV	N/A
Projective cover range	60% - 70%	80% - 90%	70% - 80%	80% - 90%	70% - 80%	
Species mix	M. braceata E. maculata E. moluccana E. drepanophylla E. tessellaris	A. lelcalyx E. maculata Melia azderach E. cloeziana	A. lelcalyx E. maculata E. cloeziana E. saligna	A. lelcalyx E. maculata E. cloeziana E. saligna E. tessellaris	M. braceata E. moluccana Melia azderach E. maculata A. lelcalyx	

F2-2 Progressive rehabilitation must commence when areas become available within the operational land.

F2-3 Complete an investigation into rehabilitation of disturbed areas and submit a report to the administering authority proposing acceptance criteria to meet the outcomes in **Final Land Use and rehabilitation Approval Schedule** by 31 June 2006.

Infrastructure

- F3-1 All infrastructure, constructed by or for the environmental authority holder during the mining activities including water storage structures, must be removed from the site prior to mining lease surrender, except where agreed in writing by the post mining land owner / holder.

NOTE: This is not applicable where the landowner / holder is also the environmental authority holder.

Agency Interest – Regulated structures**Assessment of Consequence Category**

- G1-1 The consequence category of any structure must be assessed by a suitably qualified and experienced person in accordance with the *Manual for Assessing Consequence Categories and Hydraulic Performance of Structures (ESR/2016/1933)* at the following times:
- a) prior to the design and construction of the structure, if it is not an existing structure; or
 - b) prior to any change in its purpose or the nature of its stored contents.
- G1-2 A consequence assessment report and certification must be prepared for each structure assessed and the report may include a consequence assessment for more than one structure.
- G1-3 Certification must be provided by the suitably qualified and experienced person who undertook the assessment, in the form set out in the *Manual for Assessing Consequence Categories and Hydraulic Performance of Structures (ESR/2016/1933)*.

Design and Construction of a Regulated Structure

- G2-1 All regulated structures must be designed by, and constructed under the supervision of, a suitably qualified and experienced person in accordance with the requirements of the *Manual for Assessing Consequence Categories and Hydraulic Performance of Structures (ESR/2016/1933)*.
- G2-2 Construction of a regulated structure is prohibited unless the holder of this Environmental Authority has:
- (a) submitted a consequence category assessment report and certification to the administering authority;
 - (b) received the certification from a suitably qualified and experienced person for the design plan and the associated operating procedures in compliance with the relevant conditions of this Environmental Authority.
- G2-3 Certification for the design plan must be provided by the suitably qualified and experienced person who oversees the preparation of the design plan, in the form set out in the *Manual for Assessing Consequence Categories and Hydraulic Performance of Structures (ESR/2016/1933)*.
- G2-4 Regulated structures must:
- (a) be designed and constructed in accordance with and conform to the requirements of the *Manual for Assessing Consequence Categories and Hydraulic Performance of Structures (ESR/2016/1933)*; and

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- (b) be designed and constructed to minimise the risk of flooding and erosion.

Operation of a regulated structure

- G3-1 Tailings water must not be in contact with the dam wall of a tailings dam unless the regulated dam has been specifically designed to allow this and this is detailed in the design plan and operational plan for the regulated dam.
- G3-2 Operation of any regulated structure, is prohibited unless:
- (a) the details of the structure are listed in **Table 7 - Storage design for tailings dams**, **Table 12 - Location, size and purpose of high hazard dams containing hazardous waste**, and **Table 13 - Regulated structures hydraulic performance criteria**; and
 - (b) there is a current operational plan for the regulated structure.
- G3-3 Each regulated structure as listed in **Table 12 - Location, size and purpose of high hazard dams containing hazardous waste** must be maintained and operated, for the duration of its operational life until decommissioned and rehabilitated, in a manner that is consistent with the current operational plan and, if applicable, the current design plan and associated certified 'as constructed' drawings.

Table 12 - Location, size and purpose of high hazard dams containing hazardous waste

Name of dam containing hazardous waste	Location		Maximum surface area of dam (ha)	Maximum volume of dam (m ³)	Maximum depth of dam (m)	Purpose of dam
	Latitude (GDA 94)	Longitude (GDA 94)				
Tailings dam 1	26012'46"N 26012'47"N 2601252"N 26012'48"N	15204221"E 15204219"E 15204226"E 15204227"E	2.7 Hectares	130,000 m ³	9 Metres	Permanent tailings storage resulting from Gold Extraction process at Gympie
Tailings dam 2	2601237"N 26012'40"N 2601245"N	152042'6"E 152 °423" E 152042'16"E	3.304 Hectares	135,000 m ³	8 Metres	
Tailings dam 3	2601216"N 2601215"N 2601238"N	152041'54"E 1520422E 152042'3"E	21 Hectares	1,500,000 m ³	12 Metres	

Mandatory reporting level

- G4-1 The Mandatory Reporting Level (the MRL) must be marked on a regulated dam in such a way that during routine inspections of that dam, it is clearly observable.
- G4-2 The holder of this environmental authority must, as soon as practical and within forty-eight (48) hours of becoming aware, notify the administering authority when the level of the contents of a regulated dam reaches the Mandatory Reporting Level.
- G4-3 The holder of this environmental authority must, immediately on becoming aware that the Mandatory Reporting Level has been reached, act to prevent the occurrence of any unauthorised discharge from the regulated structure.
- G4-4 The holder of this environmental authority must record any changes to the Mandatory Reporting Level in the Register of Regulated Structures.

Design storage allowance

- G5-1 The holder of this environmental authority must assess the performance of each regulated structure or linked containment system over the preceding November to May period based on actual observations of the available storage in each regulated structure taken prior to 1 July of each year.
- G5-2 By 1 November of each year, storage capacity must be available in each regulated structure, to meet the Design Storage Allowance (DSA) volume for the dam as listed in **Table 13 - Regulated structures hydraulic performance criteria**.
- G5-3 The holder of this environmental authority must notify the administering authority, within forty-eight (48) hours of becoming aware that a dam will not meet the Design Storage Allowance by 1 November of any year.
- G5-4 If the holder of this environmental authority becomes aware that insufficient Design Storage Allowance is available in accordance with condition **G5-3** you must take action to prevent any unauthorised discharge from the dam.

Hydraulic Performance of Regulated Structures

- G6-1 The holder of this environmental authority must comply with the hydraulic performance criteria specified in **Table 13 - Regulated structures hydraulic performance criteria**.
- G6-2 Each regulated structure listed in **Table 13 - Regulated structures hydraulic performance criteria** must:
- (a) meet the applicable hydraulic performance criteria listed in **Table 13 - Regulated structures hydraulic performance criteria** for that structure; and
 - (b) have the Design Storage Allowance and Mandatory Reporting Level calculated in accordance with the *Manual for assessing consequence categories and hydraulic performance of structures (ESR/2016/1933)*.
- G6-3 The hydraulic performance criteria specified in this environmental authority are the minimum mandatory performance requirements, regulated structures must be managed in a manner that ensures compliance with all conditions of this environmental authority.

Table 13 - Regulated structures hydraulic performance criteria

Regulated structure	Consequence category	Hydraulic performance criteria		
		Spillway Capacity	Design Storage Allowance (DSA) ¹	Mandatory Reporting Level (MRL)
Tailings Dam 1	TBA - must be provided to the administering authority by 1 March 2023.	TBA - must be provided to the administering authority by 1 March 2023.	TBA - must be provided to the administering authority by 1 March 2023.	TBA - must be provided to the administering authority by 1 March 2023.
Tailings Dam 2	TBA - must be provided to the	TBA - must be provided to the administering	TBA - must be provided to the	TBA - must be provided to the

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	administering authority by 1 March 2023.	authority by 1 March 2023.	administering authority by 1 March 2023.	administering authority by 1 March 2023.
Tailings Dam 3	TBA - must be provided to the administering authority by 1 March 2023.	TBA - must be provided to the administering authority by 1 March 2023.	TBA - must be provided to the administering authority by 1 March 2023.	TBA - must be provided to the administering authority by 1 March 2023.

Note 1: Must be achieved on 1 November each year

Annual inspection report

- G7-1 Each regulated structure must be inspected by 1 November each calendar year by a suitably qualified and experienced person.
- G7-2 At each annual inspection required under condition **G7-1**, the condition and adequacy of all components of the regulated structure must be assessed and a suitably qualified and experienced person must prepare an annual inspection report containing details of the assessment and include recommended actions to ensure the integrity of the regulated structure.
- G7-3 The suitably qualified and experienced person who prepared the annual inspection report must certify the report in accordance with the *Manual for Assessing Consequence Categories and Hydraulic Performance of Structures (ESR/2016/1933)*.
- G7-4 The holder of this environmental authority must:
- (a) Within twenty (20) business days of receipt of the annual inspection report, provide to the administering authority:
 - (i) The recommendations section of the annual inspection report; and
 - (ii) If applicable, any actions being taken in response to those recommendations; and
 - (b) If, following receipt of the recommendations and (if applicable) actions, the administering authority requests a full copy of the annual inspection report from the holder, provide this to the administering authority within 10 business days of receipt of the request.

Transfer arrangements

- G8-1 The holder of this environmental authority must provide a copy of any reports, documentation and certifications prepared under this environmental authority, including but not limited to any Register of Regulated Structures, consequence category assessment, design plan and other documentation relating to regulated structures, to any future holder of this environmental authority

Decommissioning

- G9-1 Dams containing tailings waste must not be abandoned, must be decommissioned to a situation where water can no longer be stored in the dams and the dams and their contained waste(s) are stable, whereafter the dams are no longer dams and they become landforms on the operational land and must comply with the rehabilitation requirements of this Environmental Authority.
- G9-2 The holder of this environmental authority must submit a decommissioning plan to the administering authority prior to decommissioning any regulated structure that has been certified by a suitably qualified and experienced person

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Dam stability

- G10-1 The environmental authority holder must ensure that the tailings dams are compliant with the recommended Factor of Safety (FOS) in accordance with the Australian National Committee on Large Dams (ANCOLD) guidelines at all times.

Definitions

Key terms and/or phrases used in this document are defined in this section. Applicants should note that where a term is not defined, the definition in the Environmental Protection Act 1994, its regulations or environmental protection policies must be used. If a word remains undefined it has its ordinary meaning.

Term	Definition
Acceptance criteria	means the measures by which the actions implemented to rehabilitate the land are deemed to be complete. The acceptance criteria indicate the success of the rehabilitation outcome or remediation of areas which have significantly been disturbed by the mining activities. Acceptance criteria may include information regarding: - vegetation establishment, survival and succession; - vegetation productivity, sustained growth and structure development; - fauna colonisation and habitat development; - ecosystem processes such as soil development and nutrient cycling, and the recolonisation of specific fauna groups such as collembola, mites and termites which are involved in these processes; - microbiological studies including recolonisation by mycorrhizal fungi, microbial biomass and respiration; - effects of various establishment treatments such as deep ripping, topsoil handling, seeding and fertiliser application on vegetation growth and development; - resilience of vegetation to disease, insect attack, drought and fire; - vegetation water use and effects on ground water levels and catchment yields.
Acid rock drainage	means any contaminated discharge emanating from a mining activity formed through a series of chemical and biological reactions, when geological strata is disturbed and exposed to oxygen and moisture.
ambient (or total) noise	at a place, means the level of noise at the place from all sources (near and far), measured as the Leq for an appropriate time interval.
Annual exceedance probability or AEP	means the probability that at least one event in excess of a particular magnitude will occur in any given year.

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Annual inspection report	means an assessment prepared by a suitably qualified and experienced person containing details of the assessment against the most recent consequence assessment report and design plan (or system design plan); a) against recommendations contained in previous annual inspections reports; b) against recognised dam safety deficiency indicators; c) for changes in circumstances potentially leading to a change in consequence category; d) for conformance with the conditions of this authority; e) for conformance with the 'as constructed' drawings; f) for the adequacy of the available storage in each regulated dam, based on an actual observation or observations taken after 31 May each year but prior to 1 November of that year, of accumulated sediment, state of the containment barrier and the level of liquids in the dam (or network of linked containment systems); g) for evidence of conformance with the current operational plan.
competent person	means a person with the demonstrated skill and knowledge required to carry out the task to a standard necessary for the reliance upon collected data or protection of the environment.
authority	means environmental authority (mining activities) under the <i>Environmental Protection Act 1994</i> .
blasting	means the use of explosive materials to fracture – (a) rock, coal and other minerals for later recovery; or (b) structural components or other items to facilitate removal from a site or for reuse.
commercial place	means a work place used as an office or for business or commercial purposes, which is not part of the mining activity and does not include employees accommodation or public roads.
Commissioning	means all components of the construction of a structure, such as a tailings storage facility or mine infrastructure area, have been completed.
Construction or constructed	in relation to a regulated structure includes building a new regulated structure and lifting or otherwise modifying an existing regulated structure, but does not include investigations and testing necessary for the purpose of preparing a design plan.
Consequence	in relation to a structure as defined, means the potential for environmental harm resulting from the collapse or failure of the structure to perform its primary purpose of containing, diverting or controlling flowable substances.
Consequence category	means a category, either low, significant or high, into which a dam is assessed as a result of the application of tables and other criteria in the <i>Manual for Assessing Consequence Categories and Hydraulic Performance of Structures (EM635)</i> .

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dam	means a containment or proposed containment whether permanent or temporary, which is designed to contain, divert or control flowable substances. However this does not include a fabricated or manufactured tank or container designed to a recognised standard.
Design storage allowance or DSA	means an available volume, estimated in accordance with the <i>Manual for Assessing Consequence Categories and Hydraulic Performance of Structures (EM635)</i> published by the administering authority, that must be provided in a dam as at 1 November each year in order to prevent a discharge from that dam to an annual exceedance probability (AEP) specified in that Manual.
environmental authority holder	means the holder of this environmental authority.
Hazard category	means a category, either low significant or high, into which a dam is assessed as a result of the application of tables and other criteria in <i>Manual for Assessing Hazard Categories and Hydraulic Performance of Dams</i> .
hazardous waste	means any substance, whether liquid, solid or gaseous, derived by or resulting from , the processing of minerals that tends to destroy life or impair or endanger health.
Hydraulic performance	means the capacity of a regulated dam to contain or safely pass flowable substances based on the design criteria specified for the relevant consequence category in the <i>Manual for Assessing Consequence Categories and Hydraulic Performance of Structures (EM635)</i> .
LA 10. adj, 10 mins	means the A-weighted sound pressure level, (adjusted for tonal character and impulsiveness of the sound) exceeded for 10% of any 10 minute measurement period, using Fast response.
LA 1, adj, •10 mins	means the A-weighted sound pressure level, (adjusted for tonal character and impulsiveness of the sound) exceeded for 1% of any 10-minute measurement period, using Fast res onset
LA, max adj, T	means the average maximum A-weighted sound pressure level, adjusted for noise character and measured over any 10 minute period, using Fast res onset.
land	in the 'land schedule" of this document means land excluding waters and the atmosphere.
land capability	as defined in the DME 1995 Technical Guidelines for the Environmental Management of Exploration and Minin in Queensland.
land suitability	as defined in the DME 1995 Technical Guidelines for the Environmental Management of Exploration and Minin in Queensland.
land use	term to describe the selected post mining use of the land, which is planned to occur after the cessation of mining operations.

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mandatory reporting level or MRL	means a warning and reporting level determined in accordance with the criteria in the <i>Manual for Assessing Consequence Categories and Hydraulic Performance of Structures (EM635)</i> published by the administering authority.
mineral	means a substance which normally occurs naturally as part of the earth's crust or is dissolved or suspended in wafer with in or upon the earth's crust and includes a substance which may be extracted from such a substance, and includes- a) clay if mined for use for its ceramic properties, kaolin and bentonite; b) foundry sand; c) hydrocarbons and other substances or matter occurring in association with shale or coal and necessarily mined, extracted, produced or released by or in connection with mining for shale or coal or for the purpose of enhancing the safety of current or future mining operations for coal or the extraction or production of mineral oil therefrom; d) limestone if mined for use for its chemical properties; e) marble; f) mineral oil or gas extracted or produced from shale or coal by in situ processes; g) peat; h) salt including brine; i) shale from which mineral oil may be extracted or produced; j) silica , including silica sand, if mined for use for its chemical properties; k) rock mined in block or slab form for building or monumental purposes; but does not include- l) living matter; m) petroleum within the meaning of the Petroleum Act 1923; n) soil, sand, gravel or rock (other than rock mined in block or slab form for building or monumental purposes) to be used or to be supplied for use as such , whether intact or in broken form; o) water.
noxious	means harmful or injurious to health or physical well-being, other than trivial harm
non-standard	means a mining operation that if in the opinion of the administering authority does not have a low risk of serious environmental harm and the activities can not comply with the criteria for standard mining activities prescribed in Schedule IA of the Environmental Protection Regulation 1998. The standard mining activity trigger criteria are as follows; the mining activities do not or will not cause more than 10 ha of land to be significantly disturbed at any one time; the mining activities do not or will not cause more than 5 ha of land to be significantly disturbed at any one time;

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	(a) in a riverine area; (b) because of mine workings; the mining activities are not or will not be carried out in, or within 2 km of a category A Environmentally Sensitive Area; the mining activities are not or will not be carried out in, or within 1 km of a category B environmentally sensitive area; the mining activities do not include a level 1 environmentally relevant activity no more than 20 persons are carrying out or will, at any one time, carry out the mining activities; "offensive" means causing reasonable offence or displeasure; is disagreeable to the sense; disgusting, nauseous or repulsive, other than trivial harm.
protected area	means a - protected area under the Nature Conservation Act 1992; or - marine park under the Marine Parks Act 2004; or - World Heritage Area.
progressive rehabilitation	means rehabilitation (defined below) undertaken progressively or a staged approach to rehabilitation as mining operations are ongoing.
reference site	(or analogue site) may reflect the original location, adjacent area or another area where rehabilitation success has been completed for a similar biodiversity. Details of the reference site may be as photographs, computer generated images and vegetation models etc.
Regulated dam	means any dam in the significant or high consequence category as assessed using the <i>Manual for Assessing Consequence Categories and Hydraulic Performance of Structures (EM635)</i> published by the administering authority.
Regulated structure	includes land-based containment structures, levees, bunds and voids, but not a tank or container designed and constructed to an Australian Standard that deals with strength and structural integrity.
rehabilitation	the process of reshaping and revegetating land to restore it to a stable landform and in accordance with the acceptance criteria set out in this environmental authority and, where relevant, includes remediation of contaminated land .
representative	means a sample set which covers the variance in monitoring or other data either due to natural chances or operational phases of the mining activities.
self-sustaining	means an area of land which has been rehabilitated and has maintained the required acceptance criteria without human intervention for a period nominated by the administering authority
sensitive place	means; - a dwelling, residential allotment, mobile home or caravan park, residential marina or other residential premises; or - a motel, hotel or hostel; or - an educational institution; or a medical centre or hospital; or

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	- a protected area under the <i>Nature Conservation Act 1992</i>, the <i>Marine Parks Act 2004</i> or a World Heritage Area; or - a public park or gardens.
significant disturbance	includes land (a) if it is contaminated land; or (b) if it has been disturbed and human intervention is needed to rehabilitate it. (i) to a state required under the relevant environmental authority; or (ii) if the environmental authority does not require the land to be rehabilitated to a particular state - to its state immediately before the disturbance. Some examples of disturbed land include: - areas where soil has been compacted, removed, covered, exposed or stockpiled; - areas where vegetation has been removed or destroyed to an extent where the land has been made susceptible to erosion; (vegetation & topsoil) - areas where land use suitability or capability has been diminished; areas within a watercourse, waterway, wetland or lake where mining activities occur; - areas submerged by tailings or hazardous contaminant storage and dam walls in all cases; areas under temporary infrastructure. Temporary infrastructure includes any infrastructure (roads, tracks, bridges, culverts, dams, bores, buildings, fixed machinery, hardstand areas, airstrips, helipads etc) which is to be removed after mining activities have ceased; or areas where land has been contaminated and a suitability statement has not been issued. However, the following areas are not included: - areas off lease (e.g. roads or tracks which provide access to the mining lease); - areas previously significantly disturbed which have achieved the rehabilitation outcomes; by agreement with the EPHP, - areas previously significantly disturbed which have not achieved the rehabilitation objective(s) due to circumstances beyond the control of the mine operator (such as climatic conditions); - areas under permanent infrastructure. Permanent infrastructure includes any infrastructure (roads, tracks, bridges, culverts, dams, bores, buildings, fixed machinery, hardstand areas, airstrips, helipads etc) which is to be left by agreement with the landowner. The agreement to leave permanent infrastructure must be recorded in the Landowner Agreement and lodged with the EHP; disturbances that pre-existed the grant of the tenure unless those areas are disturbed during the term of the tenure.
spillway	means passage or outlet from the dam through which surplus water flows.
stable	means geotechnical stability of the rehabilitated landform where instability related to the excessive settlement and subsidence caused by consolidation I settlement of the wastes deposited, and sliding / slumping instability has ceased.

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trivial harm	means environmental harm which is not material or serious environmental harm and will not cause actual or potential loss or damage to property of an amount of, or amounts totalling more than \$5,000.
waters	includes river, stream, lake, lagoon, pond, swamp, wetland, unconfined surface water, bed and bank of any waters, dams, non-tidal or tidal waters (including the sea) or any part thereof.

Map 1: Location of disturbance areas

A map showing the location of the disturbance areas must be provided to the administering authority by 1 March 2023.

END OF PERMIT