# Permit

***Environmental Protection Act 1994***

## Environmental Authority EPML00826713 Jeebropilly Mine

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

### Environmental authority number: EPML00826713

**Environmental authority takes effect on 11 February 2026**.

The anniversary date of this environmental authority is 31 March each year.

An annual return will be due each year on 1 April.

### Environmental authority holder(s)

| Name(s) | Registered address |
|---|---|
| JEEBROPILLY COLLIERIES PTY. LTD. | Level 16 175 Eagle Street BRISBANE CITY QLD 4000 Australia |

### Environmentally relevant activity and location details

| Environmentally relevant activity/activities | Location(s) |
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| Schedule 3 20(a): Clay Pit mining, dimension stone mining or mining gemstones (including the material from which gemstones are extracted where the activity involves mining a quantity of material of at least 5,000t but not more than 100,000t in a year | ML4577; ML4677; ML4689; ML4690; ML4705; ML4710; ML4711; ML7186; ML50082; ML50093; ML50132; ML50133. |

### 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.

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).



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## Mobile and temporary activities

If you operate a mobile and temporary ERA, other than regulated waste transport, you are required to maintain a work diary. You must:

- use the approved form for a work diary (ESR/2015/1696);
- keep the work diary records for 2 years after the last entry;
- inform the administering authority within 7 days of the work diary being lost or stolen;
- record the information required in the work diary for each location within 1 day of leaving the location.

## Contaminated land

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

- the presence of, or happening of an event involving, a hazardous contaminant on the land that is causing, or is reasonably likely to cause, serious or material environmental harm (notice must be given within 24 hours); or
- if the land is contaminated land – a change in the condition of the land that is causing, or is reasonably likely to cause, serious or material environmental harm (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 land (notice must be given within 20 business days).

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(1) 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, in accordance with section 200(2) of the EP Act, the day that the EA takes effect may not be before:

(a) if the authority is for a resource activity—the day the relevant tenure is granted to the applicant; or

(b) if a development permit for a material change of use of premises under the *Planning Act 2016* is necessary for carrying out an activity that related to the authority—the day the development permit takes effect; or

(c) if an SDA Approval under the *State Development and Public Works Organisation Act 1971* is necessary for carrying out an activity that relates to the authority—the day the approval takes 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.

The anniversary day of this EA is the same day each year as the effective date. The payment of the annual fee will be due each year on this day.

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 EA.

| | 11 February 2026 |
|---|---|
| Signature | Date |

**Ben Byrd**

**Department of the Environment, Tourism, Science and Innovation**
Delegate of the administering authority
*Environmental Protection Act 1994*
**Date issued**: 11 February 2026

**Enquiries:**

Business Centre Coal
PO Box 3028, Emerald QLD 4720
Phone: 07 4987 9320
Email: CRMining@detsi.qld.gov.au

## Obligations under the *Environmental Protection Act 1994*

In addition to the requirements found in the conditions of this EA, 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 restore the environment (section 319C)
- 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).

### Other permits required

This permit only provides an approval under the EP Act. In order to lawfully operate you may also require permits / approvals from your local government authority, other business units within the department, and other State and Federal Government agencies prior to commencing any activity at the site. For example, this may include permits or approvals with your local Council (for planning approval), the Department of Transport and Main Roads (to access State controlled roads), the Department of Natural Resources and Mines, Manufacturing, and Regional and Rural Development (to clear vegetation), and the Department of Primary Industries (to clear marine plants or to obtain a quarry material allocation).

**Conditions of environmental authority**

The environmental relevant activity(ies) conducted at the location as described above must be conducted in accordance with the following site-specific conditions of approval. This environmental authority consists of the following Schedules and Appendices:

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| Schedule A | General |
| Schedule B | Air |
| Schedule C | Land |
| Schedule D | Noise |
| Schedule E | Water |
| Schedule F | Waste |
| Schedule G | Light |
| Appendix 1 | Surface Water Monitoring Sites |
| Appendix 2 | Mining Lease tenure boundaries |

| Schedule A: General | |
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| **Condition number** | **Condition** |
| **A1** | **Approved Place**<br>This environmental authority (mining lease) permits the holder to undertake a mining activity being the mining of clay at the relevant mining tenements above. |
| **A2** | **Maintenance of measures, plant and equipment**<br>The person undertaking the activity to which this environmental authority relates must do all of the following —<br>(a) install all measures, plant and equipment necessary to ensure compliance with the conditions of this approval;<br>(b) maintain such measures, plant and equipment in a proper and efficient condition; and<br>(c) operate such measures, plant and equipment in a proper and efficient manner. |
| **A3** | **Records**<br>If a condition of this environmental authority requires the person undertaking the activity to which this approval relates to make or keep a record (however described), or prepare a document[1], the person must do all of the following —<br>(a) keep the record or document at the approved place (or another place approved, in writing, by the administering authority);<br>(b) keep the record or document in a place that is accessible by all persons engaged in the activity;<br>(c) produce the record or document for inspection by an authorised person or the administering authority if requested;<br>(d) for each document or record made or created in response to a monitoring requirement, reporting requirement, investigation or incident — keep the record for a minimum of **5 years** from the date the document is made or created; and<br>(e) if the record of document is sent (in any form) to the administering authority — keep a copy of the document in accordance with paragraphs (a) to (d).<br>[1] Note: Unless a condition of this approval requires a document to be made or kept in a specific format (e.g. in hardcopy format), the Electronic Transactions (Queensland) Act 2001 applies to the document. |

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| **A4** | **Site Based Management Plan**<br><br>The person undertaking the activity to which this environmental authority relates must keep and implement a site-based management plan (SBMP) that provides for the management of the actual and potential environmental impacts resulting from the carrying out of the activity to which this environmental authority relates, and includes the following:<br><br>(a) the functions and responsibilities of person's engaged in the activity (either by name or position) at the approved place;<br><br>(b) day-to-day procedures for the management of the activity specifically with respect to the management of aspects of the activity that cause, or may cause, a release of contaminants to the environment;<br><br>(c) the processes and procedures involved with the various operational aspects involved with the various processes involved with this activity;<br><br>(d) the processes and procedures involved with the stockpiling and loading of any materials kept on site;<br><br>(e) obligations for monitoring the operation and performance of all phases of the activity, and reporting particular non-compliance to the administering authority under a condition of this approval or otherwise in accordance with any legally imposed duty to notify (however described) under the *Environmental Protection Act 1994*;<br><br>(f) describes training requirements for all persons engaged in the activity, including general environmental awareness, incident response, reporting and emergency procedures;<br><br>(g) the location and instruction for the operation and maintenance of all equipment used for clean-up of any spillages;<br><br>(h) investigation and response protocols to be utilised by persons engaged in the activity in response to any emergency, incident or event (including non-compliance events), the circumstances in which those protocols are to be applied, and describing escalation criteria for such events;<br><br>(i) the sampling and analysis regimes under the conditions of this approval, identifying the person(s) responsible for taking monitoring samples;<br><br>(j) procedures for dealing with any abnormal situation or operation of the infrastructure used in the activity to which this approval relates (including any uncontrolled release of contaminants to the environment, accident, incident or emergency or any situation or event that indicates non-compliance with the development conditions of this approval has occurred or may occur); and<br><br>(k) response procedures for employees undertaking the activity arising from any emergency, incident or event (including any abnormal operating condition or circumstance observed or recorded in connection with the activity), including any protocols for the investigating any potential environmental harm arising from such emergencies, incidents or events. |

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| **A5** | The person undertaking the activity to which this environmental authority relates must:<br>(a) review and update the SBMP annually to ensure that it remains current, is consistent with the conditions of this environmental authority, and reflects contemporary practice at the approved place; and<br>(b) ensure a record of the review containing at least the following information is kept —<br>(i) the name of the person who undertook the review;<br>(ii) the position the person who undertook the review holds in the organisation's hierarchy, or if the person is an external consultant, the person's position in that consultancy;<br>(iii) the date on which the review was undertaken;<br>(iv) any findings of the review; and<br>(v) any actions implemented as a result of such findings, including timelines by when such actions will be implemented. |
| **A6** | The person undertaking the activity to which this environmental authority relates must give the administering authority a copy of the SBMP:<br>(a) within **6 months** from the day this approval takes effect; and<br>(b) if the plan in paragraph (a) is amended or replaced[1] — within **14 days** of the plan being amended or replaced.<br>[1] Note: This requirement may be satisfied by giving the administering authority a copy of the SBMP in electronic format. |
| **A7** | The person undertaking the activity to which this environmental authority relates must ensure the SBMP is kept in hardcopy form at the approved place. |
| **A8** | **Notification of certain releases or events to be supplied to the administering authority**<br>The person undertaking the activity to which this environmental authority relates must notify the administering authority as soon as practicable after becoming aware of any release of contaminants to land or waters, unless one or more of the following applies —<br>(a) the administering authority has been given notice of the release or event under any statutorily imposed duty to notify under the *Environmental Protection Act 1994*; or<br>(b) the release or event is done in compliance with an emergency direction or a statutory notice or obligation under the *Environmental Protection Act 1994* given or issued to the person. |

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| **A9** | If the person undertaking the activity to which this environmental authority relates is required to give notification to the administering authority of an event or release under **Condition A8**, the notification must include the following information[1] —<br>(a) the name and telephone number of a designated contact person who is able to talk with the administering authority on behalf of the operator in relation to the event or release;<br>(b) the location of the event or release, including a physical address and lot on plan description (if available) and any other information necessary to identify the specific location of the event or release;<br>(c) the time of the event or release (if known);<br>(d) the time the person became aware of the event or release; and<br>(e) if the event or release has impacted, or may impact on, a person's land — whether the person whose land has been, or may be, impacted by the event or release has been notified[2].<br>Note: The Pollution Hotline (1300 130 372) is the most appropriate contact for pollution incidents.<br>[1] Note: This condition can be satisfied by supplying the information either verbally or in writing.<br>[2] Note: In certain circumstances, the duty to notify of unlawful serious or material environmental harm under the *Environmental Protection Act 1994* obliges the person undertaking the activity that caused, or threatens, the harm to notify affected landholders. |
| **A10** | If the person undertaking the activity to which this environmental authority relates is required under **Condition A8** to notify the administering authority of an event or release, the person must, within **14 days** from the date of the event or release, give the administering authority a written notice that includes the following information —<br>(a) the name of the holder of the environmental authority and the number of the environmental authority;<br>(b) the information included in the notification supplied under **Condition A9**, including any updates or changes to that information of which the person has become aware as a result of any incident response or investigation;<br>(c) if the event or release involved a chemical, a material safety data sheet (MSDS) for the chemical;<br>(d) a description of any observed effects on the environment of the release or event, and any anticipated long-term impacts;<br>(e) the suspected cause of the release or event;<br>(f) the results of any environmental sampling performed in relation to the release or event;<br>(g) actions taken to mitigate any environmental harm (including environmental nuisance) caused by the release or event;<br>(h) proposed actions to prevent a recurrence of the release or event; and<br>(i) that the written advice is submitted under a condition of this environmental authority[1].<br>[1] Note. This statement differentiates a notification made under a condition of this approval and a notification made under a statutorily imposed duty under the *Environmental Protection Act 1994*. |

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| **A11** | **Record certain releases and events**<br>The person undertaking the activity to which this environmental authority relates must make a record of the following events —<br>(a) the time, date, duration and description of equipment malfunctions or failure where the malfunction results in the release of any contaminants (including noise and emissions to air) to the environment; or<br>(b) a description of any uncontrolled release of contaminants, including an estimation of the volume of contaminants released in the event. |
| **A12** | **Complaint Response**<br>The person undertaking the activity to which this environmental authority relates must record the following details for all complaints received —<br>(a) time and date the complaint was received;<br>(b) method of communication used for complaint received (i.e. telephone, email, letter, or in person);<br>(c) name and contact details (i.e. address, telephone number(s), and email address) of the complainant, if these details were disclosed as part of the complaint;<br>(d) time and date of the complaint;<br>(e) nature and source of the complaint;<br>(f) reasons for the complaint;<br>(g) any investigations undertaken, date investigations were undertaken and name of the responsible person;<br>(h) any conclusions formed; and<br>(i) any actions taken or proposed to be taken, date actions taken or proposed to be taken and name of the responsible person. |
| **A13** | **Monitoring**<br>The person undertaking the activity to which this environmental authority relates must ensure that all monitoring required under a condition of this development approval is performed by a person(s) with appropriate experience or qualifications. |
| **A14** | **Spill Kit**<br>The person undertaking the activity to which this environmental authority relates must ensure an appropriate spill kit, protective equipment and relevant instructions and emergency procedures or guidelines for the management of wastes, regulated wastes and chemicals associated with the activity to which this environmental authority relates are kept at the approved place and are accessible at all times to any person undertaking the activity. |

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| **A15** | **Spill Kit Training**<br>The person undertaking the activity to which this environmental authority relates must —<br>(a) ensure that any person engaged in the activity is trained in the use of the spill kit and the emergency procedures or guidelines;<br>(b) keep a record of the names of person's that have received such training, the date the training was provided, and the details of the training provided. |
| **A16** | **Supervision of Activity**<br>The person undertaking the activity to which this environmental authority relates must ensure that at all times while the activity is operating —<br>(a) at least one person is present and whose duties include —<br>(i) supervising any persons entering the facility;<br>(ii) supervising the extraction, storage, loading and removal of extracted material; and<br>(b) at least one person is responsible and contactable concerning the management of the facility and whose duties include —<br>(i) managing any persons working in the facility;<br>(ii) managing the carrying out of the activity; and<br>(iii) managing any events, emergencies or incidents that may occur. |

| **Schedule B: Air** | |
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| **Condition number** | **Condition** |
| **B1** | **Dust Nuisance**<br>The release of dust or particulate matter resulting from the activity to which this environmental authority relates must not cause, or be likely to cause, an environmental nuisance at or beyond the boundary of the approved place. |
| **B2** | The dust deposition rate and concentration of $PM_{10}$ and PMTSP must not exceed the limits specified in **Table 1.0 - Dust and Particulate Matter** for the contaminant when measured from a nuisance sensitive or commercial place in accordance with the measurement method specified. |

**Table 1.0 - Dust and Particulate Matter**

| Contaminant | Measure | Limit | Measurement method |
|---|---|---|---|
| Dust | Deposition rate | 120 mg/m$^2$/day | Australian Standard AS3580.10.1 of 2003 (or more recent editions) |
| $PM_{10}$ | Concentration | 50µg/m$^3$ averaged over 24 hours<br><br>Note – This limit is not to be exceeded on more than 5 days per year | Either of the following:<br>(a) AS3580.9.6 of 2003 (or more recent editions); or<br>(b) AS3580.9.8 of 2008 (or more recent editions) |
| Total Suspended Particulates ($PM_{TSP}$) | Concentration | 90 µg/m$^3$ as an annual average | Australian Standard AS/NZ3580.9.3.2003 (or more recent editions) |

Note:
- Australian Standard AS3580.9.6 of 2003 (or more recent editions) Ambient Air – Particulate matter – Determination of suspended particulate matter $PM_{10}$ high volume sampler with size selective inlet – Gravimetric method
- Australian Standard AS3580.9.8:2008 (or more recent editions) Methods for sampling and analysis of ambient air – Determination of suspended particulate matter – $PM_{10}$ continuous direct mass method using tapered element oscillating microbalance (TEOM) analyser.
- Australian Standard AS/NZ3580.9.3.2003 (or more recent editions) Methods for sampling and analysis of ambient air method 9.3: Determination of suspended particulate matter – Total suspended particulate matter (TSP) – High volume sampler gravimetric method.
- Any alternative method of monitoring which may be permitted by the 'Air Quality Sampling Manual' as published from time to time by the administering authority.

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| **B3** | Despite **Condition A2**, the person undertaking the activity to which this environmental authority relates is required to install equipment to measure the dust deposition rate or the concentration of particulate matter ($PM_{10}$ and PMTSP) for **Condition B2** only if directed to in writing by the administering authority or an authorised person to undertake monitoring for those contaminants. The person undertaking the activity relates must also ensure that an additional sample is taken at a location upwind of the alleged source to assist in the determination of the impact the alleged source on the sensitive receptor. |

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| **B4** | **Dust and Particulate Matter Control – Trafficable Areas**<br><br>The person undertaking the activity to which this approval relates must ensure that areas subject to frequent vehicle movement are sealed or otherwise consolidated in such a way that dust emitted from the ordinary use of vehicles is minimised. |
| **B5** | **Minimising windborne emissions from vehicles**<br><br>To reduce the frequency and severity of windborne emissions arising from the transportation of any material resulting from any activities conducted at the approved place, the person undertaking the activity to which this approval relates must do all of the following —<br><br>(a) for materials that are transported in a solid state —<br><br>(i) if the load is dry at the time of loading, or otherwise emitting dust during manual handling or loading — ensure loads of material are wet down prior to transportation;<br><br>(ii) ensure any material that may have accumulated on vehicle side rails, tail gates or draw bars is removed prior to the vehicle leaving the loading place;<br><br>(iii) ensure the vehicle is of a type that is suitable to fully contain the material in transit;<br><br>(iv) ensure the material is not tracked by vehicles outside the approved place;<br><br>(v) ensure vehicles carrying any products from this site are covered by a tarpaulin or solid cover before leaving the approved place; and<br><br>(b) for materials transported in a liquid or semi-liquid state — ensure the material is transported in fully enclosed vessels or tankers of a type and design that is suitable to contain the material whilst in transit. |
| **B6** | **Dust and Particulate Matter Control – mineral processing**<br><br>To reduce the frequency and severity of windborne releases of dust or particulate matter from activities associated with any mineral processing[1] that is conducted onsite, the person undertaking the activity to which this approval relates must do all of the following —<br><br>(a) ensure that any screening or crushing activity is ceased during periods where dry or gusty winds are present;<br><br>(b) prior to transferring any materials that have the potential to cause dust emissions, ensure that these materials are maintained in a damp state via sprays at transfer or manual handling points;<br><br>(c) keep surfaces, other than those upon which raw material and finished product are stockpiled, clean of any loose material; and<br><br>(d) where there is evidence of off-site release of dust or particulate matter — install windbreaks or another form of shielding that will effectively reduce the horizontal wind velocity at the source areas of those emissions.<br><br>[1] Note. Mineral processing includes processes such as crushing, milling, grinding or washing of any extracted materials. |

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| **B7** | **Dust and Particulate Matter Control – stockpiling materials**<br>To reduce the frequency or severity of releases of dust or particulate matter from the stockpiling of any materials, the person undertaking the activity to which this approval relates must do all of the following —<br>(a) when any stockpiled materials are observed to be visibly releasing dust — wet down the stockpile or apply any other material that may effectively bind the surface of the stockpile;<br>(b) keep all areas, other than those used to stockpile material, free of any loose material with notable dust generation potential; and<br>(c) large scale – long term stockpiles (i.e. overburden or spoil) or other landforms must be managed in such a way as to minimise the potential for windblown dust to occur, such methods may include establishing temporary vegetative covers. |
| **B8** | **Dust Suppression**<br>The person undertaking the activity to which this environmental authority relates must ensure that a means of applying water for the purpose of dust suppression, (for example a water truck fitted with an appropriate means of broadcasting water), is kept at the place to which this approval relates at all times. |
| **B9** | The person undertaking the activity to which this environmental authority relates must ensure that the rate of application of water for dust suppression is appropriate for the existing conditions and does not result in ponding or pooling of water on any surface, or contribute to the erosion of these surfaces. |
| **B10** | **Noxious or Offensive Odours**<br>The release of noxious or offensive odours or any other noxious or offensive airborne contaminants resulting from the activity to which this environmental authority relates must not cause, or be likely to cause, a nuisance at or beyond the boundary of the approved place. |
| **B11** | **Monitoring Obligations in Respect to Air Quality – Odour**<br>The person undertaking the activity to which this environmental authority relates must, if directed in writing by the administering authority or an authorised person, undertake or commission the undertaking of odour monitoring for contaminants released from the approved place at the site and other locations relevant to ascertaining the odour at affected premises. |
| **B12** | Odour monitoring must be performed by an independent person or body possessing appropriate experience and qualifications to perform the required measurements. Odour monitoring must be conducted in accordance with Australian and New Zealand Standard AS/NZS 4323.3:2001, Stationary source emissions – Determination of odour concentration by dynamic olfactometry; and a method as approved by Queensland, New South Wales of Victorian regulatory agencies. |
| **B13** | **Reasonable adjustment of practices, procedures or infrastructure for resolving nuisance complaints**<br>The person undertaking the activity to which this environmental authority relates must investigate, or commission the investigation of any complaints of nuisance caused by noxious or offensive odours or dust or particulates and, if the complaints are validated, make reasonable adjustments to processes or equipment to prevent a recurrence. |

| **Schedule C: Land** | |
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| **Condition number** | **Condition** |
| **C1** | **Release of Contaminants to Land**<br>A person must not cause or permit contaminants to be released to land. |
| **C2** | **Erosion and Sediment Control**<br>The person undertaking the activity to which this environmental authority relates must ensure that erosion protection and sediment control measures are implemented and maintained to prevent and minimise erosion and the release of sediment during all phases associated with any activities conducted at this site. |
| **C3** | **Chemical storage**<br>The person undertaking the activity to which this environmental authority relates must ensure all chemicals and fuels stored at the approved place in containers of 200L or more (other than chemicals stored in intermediate bulk containers) are stored within a bunded area(s). |
| **C4** | The person undertaking the activity to which this environmental authority relates must ensure that chemicals, other than those to which **Condition C3** apply, are stored in one or more of the following ways —<br>(a) in a bunded area;<br>(b) in purpose-built containers (e.g. intermediate bulk containers) that conform to the relevant Australian standard for the storage of such materials; or<br>(c) for containers of 20L or less — in a designated storage area. |
| **C5** | The person undertaking the activity to which this environmental authority relates must ensure that all bunded areas are:<br>(a) of a type and design sufficient to contain at least 110% of the volume of the largest container within the bund;<br>(b) impervious to the material to the chemical to be stored in the bund;<br>(c) maintained and managed in a way that ensures all the following apply:<br>(i) the capacity of the bund is not compromised by the entrapment of water;<br>(ii) materials or equipment are not stored within the bund;<br>(iii) all drains or valves servicing the bund are protected from accidental damage;<br>(iv) all drains or valves are closed and locked off at all times when not being used to empty the bund; or<br>(v) the bund is maintained in a serviceable condition and is not compromised by any gap, crack or other damage. |
| **C6** | The person undertaking the activity to which this environmental authority relates must not cause or permit chemicals that are incompatible to be stored within the same bund or containment area. |

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| **C7** | The person undertaking the activity to which this environmental authority relates must ensure that all fuel deliveries to the onsite storage tanks are monitored for the entire duration of the fuel delivery. Equipment must be installed that will allow the flow of fuel to stopped immediately upon the detection of any release of fuel. |
| **C8** | The person undertaking the activity to which this environmental authority relates must not cause or permit the release of any stormwater from a bund unless it is free of contaminants prior to being discharged to a stormwater detention pond or irrigated to land. |
| **C9** | The person undertaking the activity to which this approval relates must ensure that all empty drums are stored with their closures in place. |
| **C10** | **Vehicle maintenance**<br>The maintenance and cleaning of vehicles, equipment or other plant equipment must be carried out in areas where any contaminants are captured and contained such as an on-site containment system to prevent any release of contaminants to land. |
| **C11** | **Closure Plan**<br>The person undertaking the activity to which this environmental authority relates must keep and implement a Closure Plan (CP) at all times while this environmental authority is in effect that provides for progressive rehabilitation activities at the approved place that includes the following[1] –<br>(a) identification of soil characteristics, soil analysis, and soil separation for rehabilitation of areas subject to extraction over the plan period;<br>(b) an erosion and sediment control plan that —<br>(i) takes into consideration the erosion potential of the soil taking into consideration, climate, infiltration capacity of the soil, soil cohesion and structural stability of the soil;<br>(ii) the erodibility of the surface materials , including waste rock, spoil and growth media;<br>(iii) the height and gradient of slopes are planned designed and constructed in such a way as to minimise the potential for any erosion to occur.<br>(iv) design appropriate stormwater control measures to reduce the potential for erosion to occur and where possible minimise the surface flow of stormwater across disturbed areas.<br>(v) the design of appropriate outer batter profiles (linear, concave or convex) given the type of soil and location of the batter relative to the site;<br>(c) design objectives for rehabilitation of disturbed areas taking into consideration surrounding undisturbed areas and future land use(s) for the site;<br>(d) details of rehabilitation methods to be applied to disturbed areas over the plan period;<br>(e) demonstrating ongoing suitability landform design criteria and design plan including end of mining design and is consistent with the proposed future land use(s);<br>(f) identify success criteria for the disturbed areas including revegetation success rate and final landform;<br>(g) plans to revegetate areas and establish corridors over the plan period; and<br>(h) describe rehabilitation indicators and the monitoring program to be used.<br>[1] Note: This requirement may be satisfied by inclusion of this information within the required Plan of Operations. |

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| **C12** | The person undertaking the activity to which this environmental authority relates must give the administering authority a copy of the CP —<br>(a) within **12 months** after this development approval takes effect; and<br>(b) if the CP in paragraph (a) is amended or replaced — within **14 days** of the CP being amended or replaced[1].<br>[1] Note: This requirement may be satisfied by giving the administering authority a copy of the ERP in electronic format |
| **C13** | The person undertaking the activity to which this environmental authority relates must ensure the CP is kept in hardcopy format. |
| **C14** | **Progressive Rehabilitation**<br>The person undertaking the activity to which this environmental authority relates must ensure that rehabilitation of disturbed occurs progressively and new works are staged to minimise areas of exposed soil. |
| **C15** | For applying **Condition C14**, rehabilitation must commence on those areas previously disturbed by mining activities, apart from those areas currently being actively utilised for extraction of any borrow material, within **3 months** after the completion of any mining activities in those areas. Rehabilitation of disturbed areas includes slopes, borrow pits, stockpile storage areas, and sedimentation basins in a manner such that:<br>(a) all disturbed land is reshaped to a stable landform and is not subject to slumping;<br>(b) the potential for erosion is minimised;<br>(c) the surface drainage lines are re-established;<br>(d) suitable topsoil is reinstated on areas where revegetation is possible;<br>(e) suitable vegetation species and density of cover are established which is consistent with the surrounding undisturbed areas or the site's proposed future land use;<br>(f) the likelihood of environmental nuisance being caused by release of dust is minimised; and<br>(g) infrastructure is removed from the site. |
| **C16** | **Maintenance of rehabilitated areas**<br>Maintenance of any rehabilitated areas must take place to ensure —<br>(a) erosion control measures remain effective;<br>(b) plants show growth;<br>(c) any weed infestations are removed and prevented from recurring;<br>(d) plants that have not taken, died or have become diseased are removed and disposed of appropriately and replaced as soon as practical;<br>(e) significant plant losses are examined for possible causes; and<br>(f) the rehabilitated land should be capable of withstanding normal disturbances such as fire or any seasonal flooding the area may experience. |

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| **C17** | Maintenance of these rehabilitated areas must continue until such time as the operator can demonstrate that the area has been successfully rehabilitated to a condition that will comply with **Condition C16** and that rehabilitation works in the area are self-sustaining and no longer relies on the intervention of the person undertaking the activity. |
| **C18** | **Rehabilitation landform criteria**<br>All areas significantly disturbed by mining activities must be rehabilitated to the final land use description as defined in **Table 2.0 – Final land use and rehabilitation approval schedule.** |

**Table 2.0 – Final land use and rehabilitation approval schedule**

| Disturbance Type | Disturbance Area (ha) | Pre-mine Land Description | Post-mine Land Description | Pre-mine Land Classification | Post-mine Land Classification | Analogue Site Identification |
|---|---|---|---|---|---|---|
| **Mining Pit / Voids** | 97 | Grazing | Water Storage | 3 - 8 | 8 | - |
| **Re-contoured spoil area** | 950 | Grazing | Grazing | 3 – 8 | 6 – 8 | Lot 566 on CH31740 |
| **Water Supply Dams** | 31 | Grazing | Water Storage | 3 – 8 | 8 | - |

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| **C19** | **Grazing pasture outcome**<br>Areas which are subject to progressive rehabilitation to a grazing pasture post-mine land description must comply with the following rehabilitation outcomes —<br>(a) self-sustaining vegetation with projective cover, species composition and species distribution similar to the analogue site identified in **Table 2.0 – Final land use and rehabilitation approval schedule**; and<br>(b) a given measure of productivity (e.g. sustainable dry matter production, stock live weight gain) is similar to the analogue site identified in **Table 2.0 – Final land use and rehabilitation approval schedule.** |
| **C20** | **Residual void outcome**<br>Residual voids must comply with the following rehabilitation outcomes —<br>(a) residual voids must not cause any serious environmental harm to land, surface waters or any recognised groundwater aquifer, other than environmental harm caused by the existence of the residual void per se, and subject to any other condition of this authority; and<br>(b) residual void design must comply with **Table 2.2 – Residual Void Design.** |

**Table 2.2 - Residual Void Design**

| Void Identification | Void High Wall – maximum competent rock slope | Void Low Wall – maximum incompetent rock slope | Maximum Void Surface Area (ha) |
|---|---|---|---|
| **ML7186** | 47–65˚ | 17–21˚ | 28 |
| **Jeebropilly North** | | | 20 |

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| **C21** | **Infrastructure**<br>All infrastructure for the mining activities, including water storage structures must be removed from the subject land prior to mining lease surrender, except where otherwise agreed to in writing by the post mining landowner. |
| **C22** | The person undertaking the activity to which this environmental authority relates must, within **twelve (12) months** of the date this authority takes effect —<br>(a) undertake an assessment and review of the rehabilitation landform criteria, rehabilitated mine outcomes and void management outcomes taking account of the current stage of mining and any planning designations over the land under any law of the State (e.g. the *Sustainable Planning Act 2009*); and<br>(b) submit a complete and final report to the administering authority describing any rehabilitation outcomes and objectives that have changed as a result of that assessment, including sufficient details that enable the administering authority to assess any potential environmental impacts of the proposed rehabilitation objectives and demonstrating how the proposed rehabilitation objectives are suitable for the proposed use. |

| **Schedule D: Noise** | |
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| **Condition number** | **Condition** |
| **D1** | **Noise Nuisance**<br>The person undertaking the activity to which this approval relates must not cause or permit the release of noise from the activity to which this environmental authority relates if the noise causes, or is likely to cause, an environmental nuisance at or beyond the boundary of the approved place. |
| **D2** | Subject to **Condition D3**, the sound pressure level dB(A) from the activity to which this environmental authority relates, but excluding blasting[1] associated with the activity, must not exceed the maximum compliance limit specified in the following table when measured using the acoustic descriptor, and at the location and at the times, specified in the **Table 3.0 - Noise Limits**.<br>[1] Note: Section 440R of the Environmental Protection Act 1994 limits the hours at which building work causing an audible noise may be undertaken, and applies to building work undertaken as part of the activity to which this approval relates. |

**Table 3.0 - Noise Limits**

| **Location** | **Noise Level (dB(A) measured as** | **Monday to Saturday** | | | **Sundays and public holidays** | | |
|---|---|---|---|---|---|---|---|
| | | **7:00 am to 6:00 pm** | **6:00 pm to 10:00 pm** | **10:00 pm to 7:00am** | **9:00 am to 6:00 pm** | **6:00 pm to 10:00 pm** | **10:00 pm to 9:00 am** |
| At any place at or beyond the boundaries of the mining project | $L_{Aeq, adj\ 15min}$ | 50 | 45 | 40 | 50 | 45 | 40 |

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| **D3** | The maximum compliance limits in **Condition D2** relating to noise measured at a nuisance sensitive place apply only to a nuisance sensitive place that is outside the approved place and is one of the following —<br>(a) a nuisance sensitive place that is established on the date this approval takes effect; or<br>(b) to a nuisance sensitive place to which paragraph (a) does not apply — only if the nuisance sensitive place is at least the same distance from the approved place as a nuisance sensitive place to which paragraph (a) applies. |

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| **D4** | **Administering authority may require noise monitoring to be undertaken**<br>If directed by the administering authority or an authorised person, noise monitoring, which addresses the following issues, must be undertaken to investigate any complaint of noise nuisance, and the results of the monitoring are given or sent to the administering authority or authorised person within **fourteen (14) days** of the completion of the monitoring —<br>(a) background noise;<br>(b) $L_{A10, adj, 15}$;<br>(c) $L_{A1, adj, 15}$;<br>(d) $L_{Aeq, adj, 15}$;<br>(e) the level and frequency or occurrence of impulsive or tonal noise;<br>(f) atmospheric conditions including wind speed and direction;<br>(g) effects due to extraneous factors such as traffic noise; and<br>(h) location, date and time of recording. |
| **D5** | The method of measurement and reporting of noise levels must comply with the latest edition of the administering authority's Noise Measurement Manual. |
| **D6** | **Blasting - Vibration**<br>Blasting must not be carried out other than during the times specified in **Table 4.0 – Vibration Limits.** |
| **D7** | Vibration emitted from activities associated with the approved place must not exceed the levels specified in **Table 4.0 – Vibration Limits.** |

**Table 4.0 – Vibration Limits**

| **Monday to Friday 9:00am to 3:00pm** | **Saturday 9:00am to 1:00pm** | **Sundays, public holidays and times outside of those specified** |
|---|---|---|
| Ground-borne vibration must not exceed a peak particle velocity of 5mm per second for nine out of ten consecutive blasts initiated, regardless of the interval between blasts; and | | No blasting to occur |
| Ground-borne vibration must not exceed a peak particle velocity of 10mm per second for any blast | | |

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| **D8** | The limits imposed by **Condition D7** relating to vibration measured at a nuisance sensitive place apply only to a nuisance sensitive place that is outside of the approved place. |
| **D9** | **Vibration monitoring**<br>For **Condition D14** vibration monitoring the ground-borne vibration transducer (or array) must be attached to a mass of at least **thirty (30) kilograms** to ensure good coupling with the ground where the blast site and the measurement site cannot be shown to be on the same underlying strata. The mass must be buried so that its uppermost surface is at the same level as the ground surface. |
| **D10** | The ground borne vibration transducer (or array) must be placed at a distance of at least the longest dimension of the foundations of a noise-affected building or structure away from such building or structure and between that building or structure and the site of the blasting. |
| **D11** | **Airblast Overpressure Limits**<br>The airblast overpressure emitted during any explosion must not exceed the limits imposed **Table 5.0 – Airblast Overpressure Limits.** |

**Table 5.0 – Airblast Overpressure Limits**

| Monday to Friday 9:00am to 3:00pm | Saturday 9:00am to 1:00pm | Sundays, public holidays and times outside of those specified |
|---|---|---|
| 115 dB (linear) peak for nine out of any ten consecutive blasts initiated, regardless of the interval between blasts; and | | No blasting to occur |
| 120 dB (linear) peak for any blast. | | |

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| **D12** | **Outdoor measurement of air-blast overpressure**<br>For **Condition D14** measurement of airblast overpressure must be taken at a location that is exposed to the direction of blasting and at least **4m** from any affected building or structure or within the boundary of a noise sensitive place, at a position of between 1.2 and 1.5 metres above the ground. |
| **D13** | The method of measurement of the noise from blasting must be measured using noise measurement equipment with a lower limiting frequency of 2Hz (-3dB response point of the measurement system) and a detector onset time of not greater than 100 microseconds as assessed in accordance with the standards AS IEC61672.1-2004 and AS IEC61672.2-2004. |

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| **D14** | **Airblast overpressure and ground vibration monitoring**<br>If requested by the administering authority, or an authorised person, airblast overpressure and ground vibration monitoring must be undertaken to investigate any complaint of vibration or nuisance noise associated with blasting, and the results notified within **14 days** to the administering authority. Monitoring must include —<br>(a) maximum instantaneous charge (MIC) in kg;<br>(b) location of the blast within the site (including which bench level);<br>(c) airblast overpressure level, dB (linear) peak;<br>(d) peak particle velocity (mm/s);<br>(e) location, date and time of recording;<br>(f) the level and frequency of occurrence of impulsive or tonal noise;<br>(g) meteorological conditions (including temperature, relative humidity, temperature gradient, cloud cover, wind speed and direction);<br>(h) distance from the blast site to the noise-affected building/s, structures or the boundary of any noise-sensitive place; and<br>(i) effects due to other extraneous factors. |
| **D15** | **Obligation to investigate complaints**<br>Subject to **Condition D16,** the person undertaking the activity to which this environmental authority relates must investigate, or commission the investigation of, all complaints alleging airblast overpressure, vibration or noise nuisance[1] from the activity to which this approval relates.<br>[1] Note: The form of any investigations made under Condition D15 should be sufficient to enable a conclusion about the validity of the complaint to be made, but do not necessarily require formal noise monitoring in the form required under Condition D4. |
| **D16** | The obligation for the person undertaking the activity to which this environmental authority relates to investigate a nuisance complaint is negated if all the following apply —<br>(a) the facts and circumstances forming the basis for the complaint are substantially the same as those alleged in a former complaint by the same complainant;<br>(b) the results of an investigation into the former complaint was that the complaint cannot be substantiated; and<br>(c) the administering authority or an authorised person has not, by written notice, otherwise revived the obligation to investigate the complaint. |

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| **D17** | **Reasonable adjustment for validated nuisance complaints**<br>The person undertaking the activity to which this environmental authority relates must make reasonable adjustment[1] of practices, procedures or equipment to resolve any validated complaint investigated under **Condition D15.**<br>Examples of a reasonable adjustment include:<br>(a) changing the times of the day at which particular actions giving rise to the complaint happen;<br>(b) installing or replacing acoustic housing of equipment; or<br>(c) enclosing, covering or closing open or exposed infrastructure if enclosing, covering or closing the infrastructure would not compromise or reduce its effectiveness.<br>[1] Note; See section 319 of the *Environmental Protection Act 1994* (General environmental duty) for things that must be considered in determining whether a change is a reasonable adjustment. |

| **Schedule E: Water** | |
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| **Condition number** | **Condition** |
| **E1** | **Release to Waters**<br>A person must not cause or permit the release of contaminants arising from any act connected with a mining activity to waters (including ground water, or the beds or banks of any waterway) unless —<br>(a) the person expressly authorised under **Conditions E2** to **E5** of this authority to release contaminants; and<br>(b) the release is undertaken in compliance with any restriction, exemption or proviso stated in the relevant condition pertaining to the release of such contaminants. |
| **E2** | **Holder may release mine waters to internal water management infrastructure**<br>The person undertaking the activity to which this environmental authority relates —<br>(a) must ensure that infrastructure is in place to direct any contaminated waters (including any incidental stormwater that has come into contact with contaminants arising from the mining activity) into one or more impoundments that are located within the boundaries of the relevant mining tenements forming part of the mining project;<br>(b) must ensure the impoundment is of a type and design suitable to prevent infiltration of contaminants to groundwater; and<br>(c) may release void waters to that impoundment or transfer such water between impoundments within the boundaries of the relevant mining leases forming part of the mining project. |
| **E3** | **Release of contaminants off-site may only be considered in certain situations**<br>A person must not cause or permit the release of water arising from any act connected with the mining activity off-site unless all of the following apply —<br>(a) a water balance cannot otherwise be achieved by implementation of appropriate water management practices and strategies within the relevant mining tenement;<br>(b) all reasonable and practicable measures[1] have been examined by the holder that might negate the need to release wastewater off-site; and<br>(c) the retention of the water compromises the holder's wet season resilience, in that the retention of the water compromises the holder's ability to undertake the mining of minerals or, taking account of the remaining freeboard in any impoundment and the predicted severity of the subsequent wet season, is likely to result in an uncontrolled release of water in the subsequent wet season.<br>[1] Note: See the Environmental Protection Act 1994, section 319 (General environmental duty) for things that must be considered when examining alternatives to releasing contaminants to waters. |

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| **E4** | **Release of contaminants off-site – release points, limits and stream flow specifications**<br>Subject to compliance with **Condition E3**, the person undertaking the activity to which this environmental authority relates may release mine void waters to waters outside the relevant mining tenement comprising the mining project only while all of the following apply —<br>(a) the wastewaters are released only from the release points described in **Table 6.0 – Discharge release points**, and depicted in **Attachment 1** to this approval;<br>(b) the physio-chemical properties of the wastewater comply with the quality characteristics stated in **Table 6.1 – Release quality characteristics**, when measured at the monitoring point corresponding to the release point from which the release is occurring or is proposed to occur; and<br>(c) for any release of wastewater from release point RP1 (North Pit) — the flow rate of the wastewater does not exceed the maximum flow rate stated in **Table 7.0 – North Pit water release during flow events**, measured at the monitoring point, for the corresponding flow rate at the discharge point. |
| **E5** | Notwithstanding **Condition E4**, a person must not cause or permit the release of any contaminants to waters outside the relevant mining tenements forming part of the mining project, directly or indirectly if either or both of the following apply —<br>(a) the release produces any visible discolouration of receiving waters; and<br>(b) the release produce any slick or other visible or odorous evidence of oil, grease or petrochemicals nor contain visible floating oil, grease, scum, litter or other objectionable matter. |

**Table 6.0 – Discharge release points**

| Release Point | Latitude | Longitude | Monitoring point | Receiving waters description |
|---|---|---|---|---|
| JW02R | -27.648285 | 152.647949 | Dam behind bund on ML4710 adjacent to Ipswich Rosewood Rd.(borders Mt. Elliot road) | Bremer River |
| JW04R | -27.648920 | 152.638934 | Ipswich Rosewood Rd: 75m east of Bremer Rd & Ipswich Rosewood Rd intersection | Bremer River |
| JW05R | -27.653716 | 152.632785 | Bremer Road: Culvert under Bremer Rd approx 50 m before rail crossing | Bremer River |
| JW24 | -27.657856 | 152.627975 | Jeeb West: Water filled void on ML50133 | Bremer River |
| JW47 | -27.650106 | 152.636740 | Flow path for river flowing into and out of site JW45: Culvert under Bremer Rd approximately 150m south of intersection with Ipswich Rosewood Rd | Bremer River |
| RP1 | -27.630211 | 152.661972 | Either pump inlet in mine void or discharge pipe outlet | Bremer River |

**Table 6.1 – Release quality characteristics**

| Quality characteristic | Release limit | Release points | Monitoring frequency |
|---|---|---|---|
| **Electrical conductivity (µS/cm)** | 1,500 | JW02R, JW04R, JW05R, JW24 and JW47 | Weekly during release (the first sample must be taken within two hours of commencement of release) |
| **pH (pH unit)** | 6.5 minimum<br>9.0 maximum | JW02R, JW04R, JW05R, JW24 and JW47 | Weekly during release (the first sample must be taken within two hours of commencement of release) |
| **Suspended solids (mg/L)** | 100 | JW02R, JW04R, JW05R, JW24 and JW47 | Weekly during release* (the first sample must be taken within two hours of commencement of release) |

*Note: * Samples to be taken within two hours of commencement of release only if does not pose a threat to the health and safety of the person obtaining the sample.*

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| **E6** | **Monitoring wastewater releases**<br>The person undertaking the activity to which this environmental authority relates must do all of the following —<br>(a) ensure that samples of wastewater are collected from the monitoring point, corresponding to the release point from which this release has or is occurring, at the frequency specified in **Table 6.1 – Release quality characteristics**; and<br>(b) for each parameter stated in **Table 6.1 – Release quality characteristics**, ensure that samples of wastewater are collected and —<br>(i) for each parameter that the administering authority has given written approval to the holder of the environmental authority to monitor *in-situ* — ensure the analysis of the wastewater for the parameter is undertaken using the approved method for each relevant parameter;<br>(ii) for any parameter not monitored in accordance with paragraph (a) — ensure the samples are given or sent to a laboratory that holds NATA certification for each method for the relevant analyses that must be performed and cause such samples to be analysed for the parameter; and<br>(c) keep a record of the results of analysis made under paragraph (b). |

**Table 6.2 – Contaminant release trigger levels**

| Quality characteristic | Trigger levels (µg/L) | Comment on trigger level | Monitoring frequency |
|---|---|---|---|
| Aluminium | 55 | For aquatic ecosystem protection, based on SMD guideline | Upon commencement of release and weekly thereafter for the duration of the release |
| Arsenic | 13 | For aquatic ecosystem protection based on SMD guideline | |
| Cadmium | 0.2 | For aquatic ecosystem protection based on SMD guideline | |
| Chromium | 1 | For aquatic ecosystem protection based on SMD guideline | |
| Copper | 2 | For aquatic ecosystem protection, based on LOR for ICPMS | |
| Iron | 300 | For aquatic ecosystem protection, based on low reliability guideline | |
| Lead | 3.4 | For aquatic ecosystem protection based on SMD guideline | |
| Mercury | 0.2 | For aquatic ecosystem protection, based on LOR for CV FIMS | |
| Nickel | 11 | For aquatic ecosystem protection based on SMD guideline | |
| Zinc | 8 | For aquatic ecosystem protection based on SMD guideline | |
| Boron | 370 | For aquatic ecosystem protection based on SMD guideline | |
| Cobalt | 1.4 | For aquatic ecosystem protection, based on low reliability guideline | |
| Manganese | 1900 | For aquatic ecosystem protection based on SMD guideline | |
| Molybdenum | 34 | For aquatic ecosystem protection, based on low reliability guideline | |
| Selenium | 10 | For aquatic ecosystem protection, based on LOR for ICPMS | |
| Silver | 1 | For aquatic ecosystem protection, based on LOR for ICPMS | |
| Uranium | 1 | For aquatic ecosystem protection, based on LOR for ICPMS | |
| Vanadium | 10 | For aquatic ecosystem protection, based on LOR for ICPMS | |
| Ammonia | 900 | For aquatic ecosystem protection based on SMD guideline | |
| Nitrate as $NO_3$ | 1100 | For aquatic ecosystem protection, based on ambient Qld WQ Guidelines (2006) for TN | |
| Petroleum Hydrocarbons (C6 –C9) | 20 | | |
| Petroleum Hydrocarbons (C10- C36) | 100 | | |
| Fluoride (total) | 2000 | Protection of livestock and short term irrigation guideline | |

Note:

- All metals and metalloids must be measured as total (unfiltered) and dissolved (filtered). Trigger levels for metal/metalloids apply if dissolved results exceed trigger.
- The quality characteristics required to be monitored as per Table 6.2 can be reviewed once the results of two years monitoring data is available, or if sufficient data is available to adequately demonstrate negligible environmental risk. It may be determined that a reduced monitoring frequency is appropriate or certain quality characteristics can be removed from Table 6.2 by amendment.
- SMD—slightly moderately disturbed level of protection, guideline refers ANZECC & ARMCANZ (2000).
- LOR—typical reporting for method stated. ICPMS/CV FIMS—analytical method required to achieve LOR.

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| **E7** | The person undertaking the activity to which this environmental authority relates must do all of the following —<br>(a) ensure that any instrument or device used for the purpose of measuring or monitoring any physicochemical property in situ is appropriately maintained and calibrated according to the manufacturer's specifications; and<br>(b) keep a copy of any certificate of calibration and any other document, however described, that demonstrates such maintenance or calibration has taken place. |
| **E8** | **Management of on-site impoundments**<br>The person undertaking the activity to which this authority relates must ensure that infrastructure associated with the impoundment and management of internal waters within the boundaries of the relevant mining tenements is undertaken in accordance with a water management plan that complies with **Conditions E25** and **E26.** |
| **E9** | **Receiving waters monitoring**<br>The person undertaking the activity to which this environmental authority relates must —<br>(a) take samples of water from the Bremer River from the monitoring points, and at the frequency, stated in **Tables 6.2 – Release quality characteristics and 6.3 – Receiving waters monitoring locations and frequency**; and<br>(b) analyse each sample of water for each parameter stated in **Table 6.4 – Receiving waters contamination limits**, or cause such an analysis to be undertaken. |

**Table 6.3 – Receiving waters monitoring locations and frequency**

| Monitoring point | Receiving Waters Location Description | Latitude | Longitude | Monitoring frequency |
|---|---|---|---|---|
| JW28 – Upstream location: Small Bridge | Small wooden bridge over Bremer River on Keanes Rd | 27.658310 | 152.602840 | Upon commencement of release and weekly thereafter for the duration of the release |
| JW21 – Downstream location: 5 Mile bridge | Bremer River immediately downstream of 5 Mile Bridge on Haiglsea Amberley Rd | -27.626814 | 152.668856 | |

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| **E10** | If the results of analysis of water samples taken concurrently from monitoring point JW21 do not comply with the trigger levels stated in **Table 6.4 – Receiving waters contamination limits**, the person undertaking the activity to which this approval relates must do all of the following—<br>(a) undertake further investigation (including taking relevant samples for analysis for relevant water parameters) necessary to establish whether the source of variance between the results of analysis is caused as a result of the release of wastewater from the mining activity;<br>(b) keep a document describing the findings of that investigation; and<br>(c) if the results of the investigation determine that the release of wastewater from the mining tenement is, or is likely, causing the variance in water quality — notify the administering authority in writing of the results of that investigation and any actions that will be taken to reduce or prevent such variance in future releases.<br>However, should the results from monitoring station JW28 indicate that the exceedance may originate from an unrelated upstream source, the operator of this activity will not be required to undertake any further investigation. |

**Table 6.4 – Receiving waters contamination limits**

| Quality Characteristic | Units | Trigger Level | Monitoring Frequency |
|---|---|---|---|
| pH | pH units | 6.5 – 9.0 | Daily during releases |
| Electrical Conductivity | µS/cm | 1500 | |
| Suspended solids | mg/L | 100 | |

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| **E11** | **Trigger value investigations**<br>If the results of monitoring undertaken under **Condition E6** reveal that the quality characteristics of the release exceed any of the trigger levels specified in **Table 6.2 – Release contaminant trigger levels**, the person undertaking the activity to which this environmental authority relates must conduct a comparison of the downstream results in the receiving waters to the trigger values specified and —<br>(a) where the trigger values are not exceeded then no further action is required to be taken; or<br>(b) if the result is greater than the background monitoring site data, the person undertaking the activity to which this authority relates must complete an investigation into the potential for the release to cause environmental harm and provide a written report to the administering authority that addresses —<br>(i) details of the investigations that were carried out;<br>(ii) any actions taken to prevent further exceedances of these limits; and<br>(iii) any actions taken to prevent environmental harm. |

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| **E12** | **North Pit Release – Flow Gauge**<br>The person undertaking the activity to which this environmental authority relates must install a stream flow gauging station to determine and record the stream flows within the receiving waters, as well as an in-situ electrical conductivity meter that is capable of determining and recording the conductivity of the waters discharged past the location specified in **Table 7.0 – North Pit water release during flow events.** |

**Table 7.0 – North Pit water release during flow events**

| Receiving waters/ stream | Release Point (RP) | Gauging station | Gauging Station Latitude | Gauging Station Longitude | Receiving Water Flow Recording Frequency | Receiving Water Flow Criteria for discharge ($m^3/s$) | Maximum release rate (for all combined RP flows) | Electrical Conductivity |
|---|---|---|---|---|---|---|---|---|
| Bremer River | RP1 | GS 143107A, Bremer River at Walloon | -27.630211 | 152.661972 | Continuous (minimum daily) | **Low Flow**<br><0.7$m^3/s$ for a period of 6 weeks after natural flow events that exceed 0.7$m^3/s$ | < 0.4$m^3/s$ | Electrical conductivity: 1500µS/cm |
| | | | | | | **Lower medium flow trigger**<br>>0.7$m^3/s$ | < 0.8$m^3/s$ | Electrical conductivity: 2500µS/cm |
| | | | | | | | < 0.4$m^3/s$ | Electrical conductivity: 3500µS/cm |
| | | | | | | **Higher medium flow trigger**<br>>5.8$m^3/s$ | < 6.7$m^3/s$ | Electrical conductivity: 2500µS/cm |
| | | | | | | | < 3.3$m^3/s$ | Electrical conductivity: 3500µS/cm |
| | | | | | | **High flow trigger**<br>>9.4$m^3/s$ | < 5.4$m^3/s$ | Electrical conductivity: 3500µS/cm, |
| | | | | | | | < 3.1$m^3/s$ | Electrical conductivity: 5000µS/cm |

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| **E13** | **North Pit Discharge Reporting**<br>The person undertaking the activity to which this environmental authority relates must give or send a report to the administering authority once each period of **3 months** that provides the following information pertaining to any releases from RP1 —<br>(a) release commencement date & time;<br>(b) release cessation date & time;<br>(c) rate of release;<br>(d) volume of release;<br>(e) details regarding the compliance of the release with the conditions of this environmental authority;<br>(f) all in-situ monitoring results; and<br>(g) any other matters that may be pertinent to the water release. |
| **E14** | **Water storage – wet season water storage management**<br>The person undertaking the activity to which this environmental authority relates must develop, implement and review at least once in each period of **12 months**, a wet season water management program that —<br>(a) describes how water will be managed on the site with a view to ensuring that adequate capacity exists to capture or treat the water expected each year taking account of the pending wet season;<br>(b) identifies, by way of a map or plan, all designated water impoundments on the relevant mining lease forming part of the mining project and an approximate storage capacity of each impoundment; and<br>(c) includes an inspection regime for wet weather impoundments to ensure their stability and that adequate freeboard exist to manage projected inflows from a reasonably foreseeable storm event given the intensity of the forecast wet weather season. |
| **E15** | Prior to the commencement of the wet season, the person undertaking the activity to which the environmental authority relates must —<br>(a) undertake water quality monitoring of the onsite water impoundments, for the contaminant limits identified in **Table 8.0 – Onsite water storage contaminant limits**; and<br>(b) keep a copy of the results and any report generated as part of the investigation made under paragraph (a). |

**Table 8.0 – Onsite water storage contaminant limits**

| Quality characteristic | Test value | Contaminant limit |
|---|---|---|
| pH (pH unit) | Range | Greater than 4, less than 9[2] |
| Electrical conductivity (µS/cm) | Maximum | 5970[1] |
| Sulphate (mg/L)[3] | Maximum | 1000[1] |
| Fluoride (mg/L)[3] | Maximum | 2[1] |
| Aluminium (mg/L)[3] | Maximum | 5[1] |
| Arsenic (mg/L)[3] | Maximum | 0.5[1] |
| Cadmium (mg/L)[3] | Maximum | 0.01[1] |
| Cobalt (mg/L)[3] | Maximum | 1[1] |
| Copper (mg/L)[3] | Maximum | 1[1] |
| Lead (mg/L)[3] | Maximum | 0.1[1] |
| Nickel (mg/L)[3] | Maximum | 1[1] |
| Zinc (mg/L)[3] | Maximum | 20[1] |

Note

[1] Contaminant limit based on ANZECC & ARMCANZ (2000) stock water quality guidelines.

[2] Page 4.2–15 of ANZECC & ARMCANZ (2000) 'Soil and animal health will not generally be affected by water with pH in the range of 4–9'

[3] Total measurements (unfiltered) must be taken and analysed

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| **E16** | **Sedimentation Basins**<br>Any pond, basin or dam installed onsite for the purpose of sediment control must be designed and constructed to comply with the following —<br>(a) the minimum size of any sediment basin must be sufficient to contain the contaminated runoff expected from a **24-hour** storm with an average recurrence interval of at least 1 in 5 years;<br>(b) water retaining structures must be designed to prevent an influx of surface water from adjacent water courses from a **24-hour** storm event with an average recurrence interval of at least 1 in 5 years;<br>(c) drainage structures must be sufficient to convey the runoff from a **24-hour** storm with an average recurrence interval of at least 1 in 5 years;<br>(d) in the event of site flooding, flow paths must be designed to minimise re-suspension of fines or slimes; and<br>(e) any release point must be constructed in such a way as to prevent erosion and scouring of the area to which it discharges. |

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| **E17** | All sedimentation basins used for the storage or treatment of waters at or on the relevant mining tenement forming part of the mining project must be constructed, installed and maintained —<br>(a) so as to minimise the likelihood of any release of effluent through the bed or banks of the basin to any waters (including ground water);<br>(b) so that a freeboard of not less than 0.5m is maintained and recorded at all times; and<br>(c) in such a way as to ensure the stability of the basin's construction. |
| **E18** | **Receiving Environment Monitoring Program**<br>The person undertaking the activity to which this environmental authority relates 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) and while potentially contaminated waters are being discharged from the site.<br>For the purposes of the REMP, the receiving environment is the waters of the Bremer River and connected or surrounding waterways within 5km 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. |
| **E19** | The REMP must:<br>(a) assess the condition or state of receiving waters including upstream conditions, spatially within the REMP area, considering background water quality characteristics based on accurate and reliable monitoring data that takes into consideration temporal variation (e.g. seasonally);<br>(b) be designed to facilitate assessment against water quality objectives for the relevant environmental values that must be protected;<br>(c) include monitoring from background reference sites (e.g. upstream or background) and downstream sites from the release (as a minimum, the locations specified in Table 6.3 - Receiving waters monitoring locations and frequency);<br>(d) specify the frequency and timing of sampling required in order to reliably assess ambient conditions and to provide sufficient data to derive site specific background reference values in accordance with the Queensland Water Quality Guidelines 2009, or any subsequent versions. This should include monitoring during periods of natural flow irrespective of mine or other discharges;<br>(e) include monitoring and assessment of dissolved oxygen saturation, temperature and all water quality parameters listed in this schedule;<br>(f) include, where appropriate, monitoring of metals/metalloids in sediments (in accordance with ANZECC/ARMCANZ 2000, BATLEY and/or the most recent version of AS5667.1 – Guidance on sampling of bottom sediments);<br>(g) include, where appropriate, monitoring of macro-invertebrates in accordance with the AusRivas methodology;<br>(h) apply procedures and/or guidelines from ANZECC/ARMCANZ 2000 and other relevant guideline documents;<br>(i) describe sampling and analysis methods and quality assurance and control; and<br>(j) incorporate stream flow and hydrological information in the interpretations of water quality and biological data. |

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| **E20** | A REMP Design Document that addresses each criterion presented in **Conditions E18** and **E19** must be prepared and submitted to the administering authority no later than **3 months** after the date of issue of this environmental authority. Due consideration must be given to any comments made by the administering authority on the REMP Design Document and subsequent implementation of the program. |
| **E21** | A report outlining the finding of the REMP, including all monitoring results and interpretations in accordance with **Conditions E18** and **E19** must be prepared annually and made available on request to the administering authority. This must include an assessment of background reference water quality, the condition of the downstream water quality compared against water quality objectives, and the suitability of current discharge limits to protect downstream environmental values. |
| **E22** | **Water Sampling - General**<br>All determinations of water quality and biological monitoring must be —<br>(a) performed by a person or body possessing appropriate experience and qualifications to perform the required measurements;<br>(b) made in accordance with methods prescribed in the latest edition of the administering authority's Monitoring and Sampling Manual[1];<br>(c) where a condition of this environmental authority requires samples to be taken for comparative purposes (e.g. upstream and downstream receiving environment monitoring) — each sample must be collected from the relevant monitoring locations identified within this environmental authority as soon as can practicably be achieved;<br>(d) carried out on representative samples; and<br>(e) analysed at a laboratory accredited (e.g. NATA) for the method of analysis being used.<br>[1] Note: This condition requires the Monitoring and Sampling Manual to be followed and where it is not followed because of exceptional circumstances this should be explained and reported with the results |
| **E23** | **Annual Water Monitoring Reporting**<br>The following information must be recorded in relation to all water monitoring required under the conditions of this environmental authority and submitted to the administering authority in the specified format with each annual return —<br>(a) the date on which the sample was taken;<br>(b) the time at which the sample was taken;<br>(c) the monitoring point at which the sample was taken;<br>(d) the measured or estimated daily quantity of mine affected water released from all release points;<br>(e) the release flow rate at the time of sampling for each release point;<br>(f) the results of all monitoring and details of any exceedances of the conditions of this environmental authority; and<br>(g) water quality monitoring data must be provided to the administering authority in the specified electronic format upon request. |

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| **E24** | **Temporary interference with waterways**<br><br>Temporarily destroying native vegetation, excavating, or placing fill in a watercourse, lake or spring necessary for and associated with mining operations must be undertaken in accordance with administering authority's *Guideline—Activities in a Watercourse, Lake or Spring associated with Mining Activities*[1].<br><br>[1] Note: This approval does not usurp requirements under other legislation that may prohibit or restrict the clearing of native vegetation (e.g. Nature Conservation Act 1992, Fisheries Act 1994). |
| **E25** | **Water management plan**<br><br>The person undertaking the activity to which this environmental authority relates must prepare and provide the administering authority a copy of the water management plan (WMP) —<br><br>(a) within **3 months** from the day this approval takes effect; and<br><br>(b) if the plan in paragraph (a) is amended or replaced[1] — within **14 days** of the plan being amended or replaced.<br><br>[1] Note: This requirement may be satisfied by giving the administering authority a copy of the SBMP in electronic format. |
| **E26** | The WMP must —<br><br>(a) provide for effective management of actual and potential environmental impacts resulting from water management associated with the mining activity carried out under this environmental authority; and<br><br>(b) be developed in accordance with administering authority's Guideline—Preparation of water management plans for mining activities and include all of the following —<br><br>(i) a study of the source of contaminants;<br><br>(ii) a water balance model for the site;<br><br>(iii) a water management system for the site;<br><br>(iv) measures to manage and prevent saline drainage;<br><br>(v) measures to manage and prevent acid rock drainage;<br><br>(vi) contingency procedures for emergencies; and<br><br>(vii) a program for monitoring and review of the effectiveness of the water management plan. |
| **E27** | The water management plan must be reviewed each calendar year and a report prepared by an appropriately qualified person, in the following ways —<br><br>(a) assess the plan against the requirements under **Condition E26**;<br><br>(b) include recommended actions to ensure actual and potential environmental impacts are effectively managed for the coming year; and<br><br>(c) identify any amendments made to the water management plan following the review. |

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| **E28** | The person undertaking the activity to which this environmental authority relates must attach to the review report required by **Condition E27**, a written response to the report and recommended actions, detailing the actions taken or to be taken by the person undertaking the activity to which this environmental authority relates on stated dates —<br>(a) to ensure compliance with this environmental authority; and<br>(b) to prevent a recurrence of any non-compliance issues identified. |
| **E29** | The review report required by **Condition E27** and the written response to the review report required by **Condition E28** must be submitted to the administering authority with the subsequent annual return under the signature of the appointed signatory for the annual return. |
| **E30** | **Saline drainage**<br>The holder of this environmental authority must ensure proper and effective measures are taken to avoid or otherwise minimise the generation or release of saline drainage. |
| **E31** | **Acid rock drainage**<br>The holder of this environmental authority must ensure proper and effective measures are taken to avoid or otherwise minimise the generation or release of acid rock drainage. |
| **E32** | **Stormwater and water sediment controls**<br>An Erosion and Sediment Control Plan must be developed by an appropriately qualified person and implemented for all stages of the mining activities on the site to minimise erosion and the release of sediment to receiving waters and contamination of stormwater. |

| **Schedule F: Waste** | |
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| **Condition number** | **Condition** |
| **F1** | **Waste Management Plan**<br>From the commencement of the activity to which this approval relates, a waste management program must be implemented that includes —<br>(a) a determination of the types and amounts of waste normally generated by this activity;<br>(b) procedures for identifying and implementing opportunities to improve the waste management practices for dealing with accidents, spills and other incidents that may impact on the waste management practices employed (e.g. opportunities for beneficial reuse);<br>(c) procedures for dealing with accidents, spills or other incidents that may impact on waste management;<br>(d) details of any accredited management system employed, or planned to be employed, to deal with waste generated onsite; and<br>(e) the indicators or other criteria. |
| **F2** | **Waste disposal**<br>Waste, other than any spoil or overburden removed as part of the original mining activity or permitted by another condition of the environmental authority, must not be disposed of to any of the voids created by this activity. |
| **F3** | **Storage of tyres**<br>Tyres stored awaiting disposal or for transport off site for the purposes of recycling must be stored in stockpiles no greater than 3m in height and 200m$^2$ in area. These stockpiles must be maintained at least 10m from other tyre storage stockpiles. |
| **F4** | Tyres must also be stored in such a manner so as to prevent the collection of water within the tyres being stored. |
| **F5** | **Disposal of tyres**<br>The person undertaking the activity to which this approval relates must not cause or permit the deposition or disposal of waste tyres arising from those vehicles directly involved in the operation of the mining activity to which the environmental authority relates within the mining tenement. |
| **F6** | Tyres may be disposed of within spoil areas, provided that the tyres are placed as deep as possible within the spoil but not directly on the pit floor. |
| **F7** | The disposal of scrap tyres must not impede saturated aquifers nor compromise the stability of the consolidated landform. |

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| **F8** | **Burning of waste**<br>The person undertaking the activity to which this environmental authority relates must not do any of the following —<br>(a) allow any waste material to burn or to be burnt at this location; or<br>(b) remove waste from the licensed place. |

| **Schedule G: Light** | |
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| **Condition number** | **Condition** |
| **G1** | **Nuisance light**<br>The person undertaking the activity to which this approval relates must ensure that the release of light resulting from the activity to which this environmental authority relates does not cause, or is not likely to cause, an environmental nuisance at or beyond the boundary of the relevant mining tenements forming part of the mining project. |
| **G2** | **Obligation to investigate complaints**<br>Subject to **Condition G3**, the person undertaking the activity to which this environmental authority relates must investigate, or commission the investigation of, all complaints alleging light nuisance from the activity to which this approval relates. |
| **G3** | The obligation for the person undertaking the activity to which this environmental authority relates to investigate a nuisance complaint is negated if all the following apply —<br>(a) the facts and circumstances forming the basis for the complaint are substantially the same as those alleged in a former complaint by the same complainant;<br>(b) the results of an investigation into the former complaint was that the complaint cannot be substantiated; and<br>(c) the administering authority or an authorised person has not, by written notice, otherwise revived the obligation to investigate the complaint. |
| **G4** | **Reasonable adjustment of practices, procedures or infrastructure for resolving nuisance complaints**<br>The person undertaking the activity to which this environmental authority relates, after conducting or commissioning an investigation of a complaint of nuisance caused light and if the complaints are validated, make reasonable adjustments to processes or equipment to prevent a recurrence. |

**END OF CONDITIONS**

**Definitions**

Key terms and/or phrases used in this document are defined in this section. 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.

**"µg/m$^3$"** means micrograms per cubic metre.

**"µS/cm"** means microsiemens per centimetre.

**"approved place"** means the mining project that consists of the mining leases listed on the title page of this document.

**"background noise"** means $LA_{90,T}$ being the A-weighted sound pressure level exceeded for 90 percent of the time period not less than 15 minutes, using Fast response.

**"commercial place"** means a place, other than a nuisance sensitive place, used as an office or for business or commercial purposes including the place within the curtilage of that place reasonably used by persons at that place.

**"dB"** means decibel.

**"drum"** means any individual container for holding a chemical and having a capacity of not more than 250 litres (L).

**"dwelling"** means any of the following structures or vehicles that is principally used as a residence —

(a) a house, unit, motel, nursing home or other building or part of a building;

(b) a caravan, mobile home or other vehicle or structure on land;

(c) a water craft in a marina.

**"$L_{A10,\ 10min}$"** means an A-weighted sound pressure level equal to or exceeded for 10% of a 10 minute sample period, measured using fast ("F") response.

**"$L_{A1,\ adj,\ 10min}$"** means an A-weighted sound pressure level equal to or exceeded for 1% of a 10 minute sample period, measured using fast ("F") response, and adjusted for impulsiveness and tonality.

**"$L_{A10,\ adj,\ 10min}$"** means an A-weighted sound pressure level equal to or exceeded for 10% of a 10 minute sample period, measured using fast ("F") response, and adjusted for impulsiveness and tonality.

**"$L_{Aeq,adj,15min}$"** means an A-weighted sound pressure level of a continuous steady sound, adjusted for tonal character, that within a 1-hour period has the same mean square sound pressure of a sound that varies with time.

**"land"** in Schedule C of the Parts comprising this approval, excludes waters and the atmosphere.

**"mg/L"** means milligrams per litre.

**"m/s"** means metres per second.

**"monitoring"** in relation to monitoring the impact of an activity on the receiving environment, includes analysing, assessing, examining, inspecting, measuring, modelling or reporting any of the following —

(a) the quantity, quality, characteristics, timing and variability of the release of the contaminant;

(b) the effectiveness of control measures;

(c) characteristics of, and impact on, the receiving environment;

(d) the effectiveness of remedial or rehabilitation measures.

**"noxious"** means harmful or injurious to health or physical well being.

**"nuisance sensitive place"** means a place, including the curtilage of the place ordinarily used by persons at that place, that is one or more of the following —

(a) a dwelling, residential allotment, mobile home or caravan park, residential marina or other residential premises;

(b) a motel, hotel or hostel;

(c) a kindergarten, school, university or other educational institution;

(d) a medical centre or hospital;

(e) a protected area under the Nature Conservation Act 1992, the *Marine Parks Act 2004* or a World Heritage Area; or

(f) a public thoroughfare, park or gardens.

**"offensive"** means causing offence or displeasure; is disagreeable to the sense; disgusting, nauseous or repulsive.

**"$PM_{2.5}$"** means particulate matter with an aerodynamic diameter of less than or equal to 2.5 µm.

**"$PM_{TSP}$"** means total suspended particulates.

**"protected area"** means –

(a) a protected area under the *Nature Conservation Act 1992*; or

(b) a marine park under the *Marine Parks Act 2004*; or

(c) a World Heritage Area.

**"site"** means land or tidal waters on or in which it is proposed to carry out the development approved under this development approval.

**"void waters"** means those waters that are removed from the 'North Pit' as part of the scheduled dewatering program, and excludes all waters other than those captured within the void as a result of direct stormwater overland flow, and incidental rainfall over the void itself as well as any groundwaters that may have discharged directly into the void as a result of historic mining activities. For the purposes of clarification void waters does not include any contaminants discharged directly into the void.

**"waters"** includes any river, stream, lake, lagoon, pond, swamp, wetland, unconfined surface water, unconfined water natural or artificial watercourse, bed and bank of any waters, dams, non-tidal or tidal waters (including the sea), stormwater channel, stormwater drain, roadside gutter, stormwater run-off, and groundwater and any part thereof.

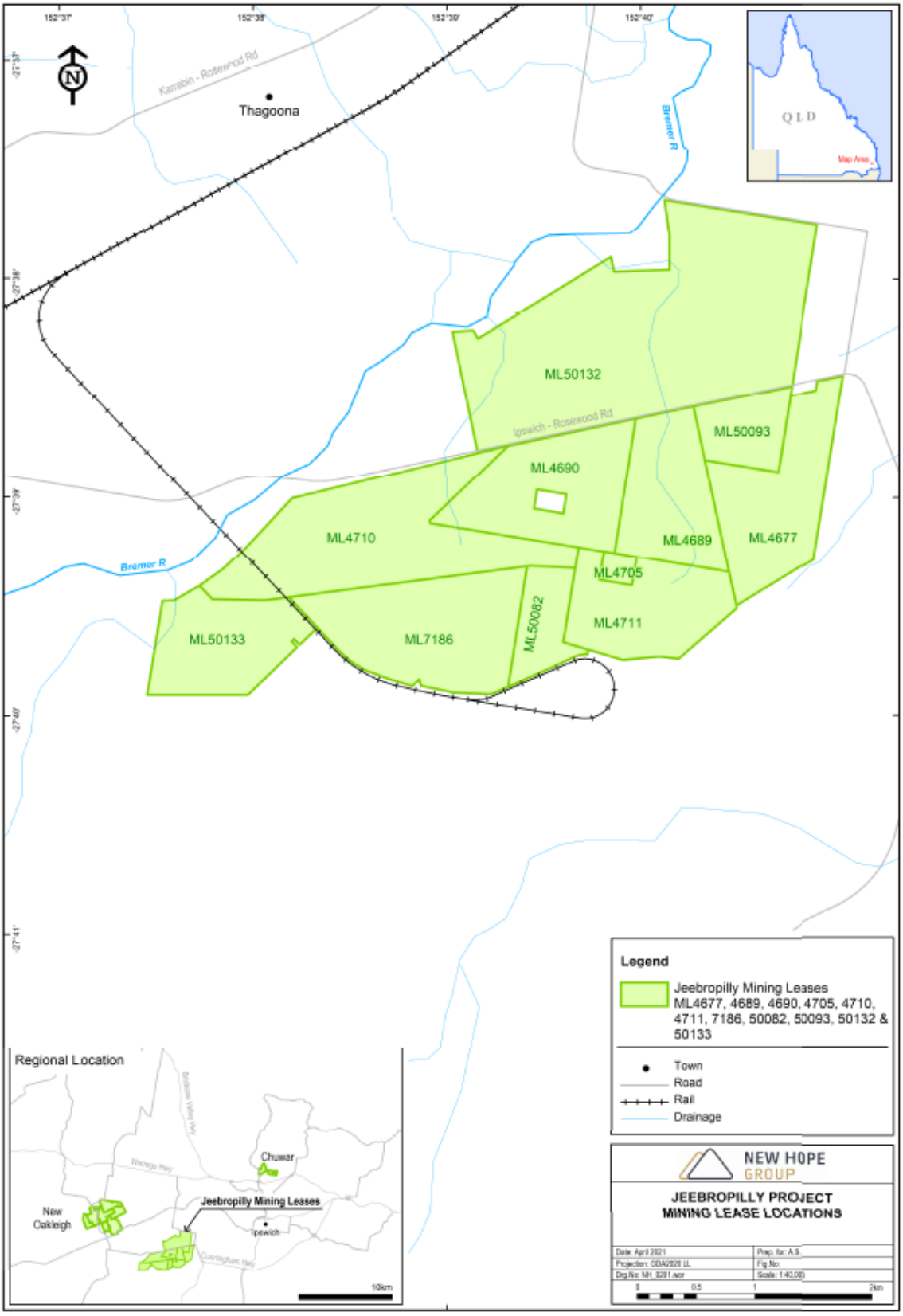
**"works" or "operation"** means the development approved under this development approval.

**END OF DEFINITIONS**

## Appendices

### Appendix 1 – Surface Water Monitoring Sites

## Appendix 2 – Mining lease tenure boundaries




**END OF ENVIRONMENTAL AUTHORITY**