

# Permit

*Environmental Protection Act 1994*

**Environmental authority EPML00699113**

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

**Environmental authority number: EPML00699113**

**Environmental authority takes effect on** 10 October 2025.

The anniversary date of this environmental authority is 26 March each year.

## Environmental authority holder

| Name                      | Registered address                     |
|---------------------------|----------------------------------------|
| Amcol Australia Pty. Ltd. | 94 Balham Road<br>ARCHERFIELD QLD 4108 |

## Environmentally relevant activity and location details

| Environmentally relevant activity                                                                                                                                                                 | Locations                     |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------|
| Schedule 3 20(a) - Clay pit mining, dimension stone mining or mining gemstones (including the material from which gemstones are extracted) - at least 5,000t but not more than 100,000t in a year | ML55007<br>ML55008<br>ML55017 |

## 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).

### Mobile and temporary activities

If you operate a mobile and temporary environmentally relevant activity (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](http://www.qld.gov.au), using the search term 'duty to notify'.

#### Take effect

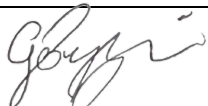
Please note that, in accordance with section 200 of the EP Act, an EA has effect:

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

However, if the EA is authorising an activity that requires an additional authorisation (a relevant tenure for a resource activity, a development permit under the *Planning Act 2016* or an SDA Approval under the *State Development and Public Works Organisation Act 1971*), this EA will not take effect until the additional authorisation has taken effect.

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

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



Signature

10 October 2025

Date

Giles Bezzina  
Department of the Environment, Tourism, Science and Innovation  
Delegate of the administering authority  
*Environmental Protection Act 1994*

**Enquiries:**  
Minerals Business Centre  
PO Box 7230, Cairns QLD 4870  
Phone: 07 4222 5352  
Email: [ESCairns@detsi.qld.gov.au](mailto:ESCairns@detsi.qld.gov.au)

**Obligations under the *Environmental Protection Act 1994***

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

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

**Other permits required**

This permit only provides an approval under the *Environmental Protection Act 1994*. 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 / 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).

**Obligations under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act)**

Matters of national environmental significance (MNES) are regulated under the Commonwealth EPBC Act rather than under state legislation. You may need to submit a referral if your project potentially impacts any matters protected under the EPBC Act. For more information on self-assessments, and referral and assessment processes please visit the Department of Climate Change, Energy, the Environment and Water webpage, <https://www.dcceew.gov.au/environment/epbc/advice>.

**Obligations under the *Aboriginal Cultural Heritage Act 2003* and *Torres Strait Islander Cultural Heritage Act 2003* (the Cultural Heritage Acts)**

The Cultural Heritage Acts require anyone who carries out a land-use activity to exercise a duty of care. This 'duty of care' means land users must take all reasonable and practicable measures to ensure their activity does not harm Aboriginal or Torres Strait Islander cultural heritage, and applies to any activity where Aboriginal or Torres Strait Islander cultural heritage is located. For more information on your obligations under this legislation, please visit the Department of Women, Aboriginal and Torres Strait Islander Partnerships and Multiculturalism webpage at, <https://www.dwatsipm.qld.gov.au/>.

**Conditions of environmental authority**

The environmentally relevant activity 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 of conditions:

- Schedule A - General
- Schedule B - Air
- Schedule C - Water
- Schedule D - Noise
- Schedule E – Waste
- Schedule F – Land
- Schedule G - Definitions
- Schedule H - Maps and Plans

**Schedule A – General****Activity**

- A1 This environmental authority authorises environmental harm referred to in the conditions. Where there is no condition or this environmental authority is silent on a matter, the lack of a condition or silence does not authorise environmental harm.
- A2 Contaminants with the potential to cause environmental harm must not be released directly or indirectly to the receiving environment, except as permitted under the conditions of this environmental authority.
- A3 In carrying out the mining activity authorised by this environmental authority, the holder of this environmental authority must comply with the authorised disturbance areas in Table A1 – Authorised disturbance and Figure H1 – Maximum Disturbance Extent.

**Table A1 - Authorised Disturbance ('Table A1')**

| Mine Feature Name           | Location (GDA2020 Zone 55) |           | Maximum Disturbance Area (ha) | Description / Purpose                |
|-----------------------------|----------------------------|-----------|-------------------------------|--------------------------------------|
|                             | Northing                   | Easting   |                               |                                      |
| North Pit                   | 798,707                    | 7,077,202 | 11.6                          | Extraction area                      |
| Far North Pit               | 798,413                    | 7,077,818 | 28.2                          | Extraction area                      |
| West Pit                    | 797,711                    | 7,076,186 | 10.5                          | Extraction area                      |
|                             | 798,087                    | 7,076,392 |                               |                                      |
| Central Pit                 | 798,793                    | 7,076,694 | 11.3                          | Extraction area                      |
|                             | 799,266                    | 7,076,358 |                               |                                      |
| ML55008 Pit (Bailey's Gate) | 802,205                    | 7,076,028 | 8.8                           | Extraction area                      |
| ML55017 Pit (Far West Pit)  | 797,136                    | 7,076,927 | 4.9                           | Extraction area                      |
| Topsoil Stockpiles          | 798,550                    | 7,075,807 | 19.6                          | Total topsoil stockpile for all pits |
|                             | 798,448                    | 7,076,074 |                               |                                      |
|                             | 798,777                    | 7,076,070 |                               |                                      |
|                             | 798,929                    | 7,076,088 |                               |                                      |
|                             | 797,719                    | 7,076,284 |                               |                                      |
|                             | 798,103                    | 7,076,311 |                               |                                      |
|                             | 798,354                    | 7,077,031 |                               |                                      |
|                             | 798,497                    | 7,076,861 |                               |                                      |
|                             | 798,605                    | 7,076,724 |                               |                                      |
|                             | 798,714                    | 7,076,654 |                               |                                      |
|                             | 798,685                    | 7,076,881 |                               |                                      |
|                             | 799,095                    | 7,076,428 |                               |                                      |
|                             | 799,268                    | 7,076,288 |                               |                                      |
|                             | 798,326                    | 7,078,012 |                               |                                      |
|                             | 798,460                    | 7,077,716 |                               |                                      |
|                             | 798,604                    | 7,077,543 |                               |                                      |

| Mine Feature Name                   | Location (GDA2020 Zone 55)                                                                                            |                                                                                                                                             | Maximum Disturbance Area (ha) | Description / Purpose                                       |
|-------------------------------------|-----------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------|-------------------------------------------------------------|
|                                     | Northing                                                                                                              | Easting                                                                                                                                     |                               |                                                             |
|                                     | 798,456<br>797,034<br>797,219<br>802,101                                                                              | 7,077,245<br>7,076,795<br>7,076,889<br>7,076,002                                                                                            |                               |                                                             |
| Overburden and laydown area         | 798,576<br>798,542<br>798,725<br>798,852<br>798,855<br>798,998<br>798,770<br>798,855<br>798,725<br>797,023<br>797,052 | 7,075,833<br>7,076,022<br>7,076,001<br>7,075,985<br>7,076,586<br>7,076,684<br>7,077,055<br>7,077,302<br>7,077,485<br>7,076,947<br>7,077,019 | 22.5                          | Total overburden and laydown area                           |
| Infrastructure                      | 798,718                                                                                                               | 7,075,918                                                                                                                                   | 0.5                           | Office, laboratory, weighbridge and storage buildings/sheds |
| Haul Roads                          | 798,479<br>797,326<br>797,039<br>797,019<br>798,914<br>797,830<br>798,756<br>799,048<br>799,235<br>802,246            | 7,076,707<br>7,076,797<br>7,076,962<br>7,076,796<br>7,075,623<br>7,076,424<br>7,076,939<br>7,076,729<br>7,076,557<br>7,076,056              | 6.0                           | Access on site (haul roads and access tracks)               |
| Sediment Basins and water storages* | 798,497<br>798,694<br>798,681<br>799,011                                                                              | 7,076,233<br>7,076,173<br>7,076,840<br>7,076,579                                                                                            | 2.4                           | Sediment control structures and water storage               |
| Total                               |                                                                                                                       |                                                                                                                                             | 126.3                         |                                                             |

\*This figure does not include sediment control structures of a temporary nature which are or could be constructed within the boundaries of any of the pits.

#### Maintenance of Measures, Plant and Equipment

A4 The holder must:

- a) Install all measures, plant and equipment necessary to ensure compliance with the conditions of the

environmental authority;

- b) Maintain such measures, plant and equipment in a proper and efficient condition;
- c) Operate such measures, plant and equipment in a proper and efficient manner; and
- d) Ensure all instruments and devices used for the measurement or monitoring of any parameter under any condition of this environmental authority are properly calibrated.

### Monitoring

- A5** Except where specified in another condition of this environmental authority, all monitoring data, records and reports required by this environmental authority or related to environmental management of the activities must be:
- a) Carried out by an appropriately qualified person;
  - b) Kept for a period of not less than five years;
  - c) Provided to the administering authority in the specified format within ten (10) business days of a request; and
  - d) Undertaken in accordance with the most recent version of any applicable standard or guideline for the activity.
- A6** The following information must be recorded in relation to all monitoring required under a condition of this environmental authority:
- a) The date and time when the sample was taken;
  - b) The location where the sample was taken; and
  - c) Any other pertinent details of relevance to interpreting the sampling results (*i.e.* stream flow, wind conditions, atmospheric conditions, any unusual observations such as odour or colouration).

### Storage and Handling of Flammable, Corrosive and Combustible Liquids

- A7** All flammable, corrosive and combustible liquids, including petroleum products, must be stored and handled in accordance with:
- a) The latest edition of *AS1940—The storage and handling of flammable and combustible liquids* where applicable;
  - b) The current Australian Standard where applicable; or
  - c) Where no relevant Australian Standard exists, store such materials within an on-site containment system sufficient to prevent release to the receiving environment.

### Complaints

- A8** The holder of this environmental authority must record all environmental complaints received about the mining activities including:
- a) Name, address and contact number for complainant (if available);
  - b) Time and date of complaint;
  - c) Reasons for the complaint;
  - d) Investigations undertaken;
  - e) Conclusions formed;
  - f) Actions taken to resolve complaint;

- g) Any abatement measures implemented; and
- h) Person responsible for resolving the complaint.

**A9** The holder of this environmental authority must, when requested by the administering authority, undertake relevant specified monitoring within a reasonable timeframe nominated or agreed to by the administering authority to investigate any complaint of actual or potential environmental harm. The results of the investigation (including analysis and interpretation of monitoring results) and abatement measures, where implemented, must be provided to the administering authority within ten (10) business days after the end of the timeframe nominated by the administering authority to undertake the investigation.

#### **Risk management**

**A10** The holder of this environmental authority must develop and implement a risk management system for mining activities which mirrors the content requirement of the *Standard for Risk Management (ISO31000:2009)*, or the latest edition of an Australian standard for risk management, to the extent relevant to environmental management, by 16 September 2017.

#### **Notification of emergencies, incidents and exceptions**

**A11** The holder of this environmental authority must notify the administering authority within 24 hours of becoming aware of any emergency, incident or event which does or may contravene a condition of this environmental authority.

**A12** Within ten (10) business days following the initial notification of an emergency or incident, or receipt of monitoring results, whichever is the latter, further written advice must be provided to the administering authority, including the following:

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

#### **Third-party reporting**

**A13** The holder of this environmental authority must:

- a) Within one year of the commencement of this environmental authority, obtain from an appropriately qualified person a report on compliance with the conditions of this environmental authority;
- b) Obtain further such reports at regular intervals, not exceeding three-yearly intervals, from the completion of the report referred to above;
- c) Provide each report to the administering authority within ninety (90) days of its completion.

#### **Standards, policies and guidelines**

**A14** Where a condition of this environmental authority requires compliance with a standard, policy or guideline published externally to this environmental authority and the standard is amended or changed subsequent to the issue of this environmental authority, the holder of this environmental authority must:

- a) Comply with the amended or changed standard, policy or guideline within two years of the amendment or change being made, unless a different period is specified in the amended standard or relevant legislation;
- b) Until compliance with the amended or changed standard, policy or guideline is achieved, continue to remain in compliance with the corresponding provision that was current immediately prior to the relevant amendment or change.

#### **END OF CONDITIONS FOR SCHEDULE A**

**Schedule B – Air**

- B1** The release of noxious or offensive odour(s), dust, particulate matter or any other airborne contaminant(s) resulting from the mining activity or mineral processing, must not cause environmental harm, at any sensitive or commercial place.
- B2** The holder of this environmental authority must ensure that all reasonable and feasible avoidance and mitigation measures are employed so that the dust and particulate matter emissions generated by the mining activities do not cause exceedances of the following levels when measured at any sensitive or commercial place:
- Dust deposition of 120 milligrams per square meter per day, averaged over one month, when monitored in accordance with *AS 3580.10.1 Methods for sampling and analysis of ambient air – Determination of particulate matter – Deposited matter – Gravimetric method*; and
  - A concentration of particulate matter with an aerodynamic diameter of less than 10 micrometre ( $\mu\text{m}$ ) (PM10) suspended in the atmosphere of 50 micrograms per cubic metre over a 24 hour averaging time, for no more than five exceedances recorded each year, when monitored in accordance with the most recent version of either:
    - Australian Standard AS 3580.9.6 Methods for sampling and analysis of ambient air – Determination of suspended particulate matter – PM10 high volume sampler with size-selective inlet – Gravimetric method of 2003; or
    - Australian Standard AS3580.9.9 Methods for sampling and analysis of ambient air—Determination of suspended particulate matter—PM10 low volume sampler—Gravimetric method.

**The release of Contaminants to the Atmosphere**

- B3** Discharges of contaminants to air from the activity, other than dust and particulate matter addressed by **condition B2**, must be in accordance with **Table B1 – Air emissions release points and contaminant limits** and must be directly vertically upwards without any impedance or hindrance.
- B4** If a complaint is made regarding air quality, the environmental authority holder must conduct a monitoring program for all release points listed in **Table B1 – Air emissions release points and contaminant limits** which complies with the most recent edition of *Australian Standard AS4323.1 Stationary source emissions method 1: Selection of sampling positions*, and the most recent edition of the administering authority's *air quality sampling manual*.

**Table B1 – Air emissions release point and contaminant limits**

| Release Point          | Location (GDA94) |            | Minimum release height (m) | Minimum velocity (m/sec) | Concentration of total suspended particulates (g/Nm <sup>3</sup> ) |
|------------------------|------------------|------------|----------------------------|--------------------------|--------------------------------------------------------------------|
|                        | Easting          | Northing   |                            |                          |                                                                    |
| Raymond Mill Bag House | 798679.09        | 7076027.27 | 6                          | 8                        | 0.25                                                               |

**END OF CONDITIONS FOR SCHEDULE B**

**Schedule C – Water****Release to waters**

- C1** Contaminated water may only be released from a location specified in **Table C1 - Authorised contaminant release points** and must not cause an exceedance of any receiving waters contaminant limit specified in **Table C3 - Receiving waters contaminant limits** when measured at the compliance monitoring point specified in **Table C2 - Receiving waters reference and compliance monitoring sites**.
- C2** Contaminated water may only be released during periods of natural flow of receiving waters.
- C3** Contaminated water released from a release point specified in **Table C1 - Authorised contaminant release points** must be monitored at the release point and frequency specified in **Table C1 - Authorised contaminant release points** and depicted in **Figure H2 - Release points and surface water monitoring locations**, for all contaminants specified in **Table C3 - Receiving waters contaminant limits**.

**Table C1 – Authorised contaminant release points ('Table C1')**

| Release point | Location (GDA2020-Zone 55) |          | Release source      | Monitoring frequency                                                                                                                                                                                                    |
|---------------|----------------------------|----------|---------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|               | Easting                    | Northing |                     |                                                                                                                                                                                                                         |
| WRP01         | 798192                     | 7078138  | Far North Pit       | One sample within first 12 hours of a release commencing. When a release event has duration of greater than 24 hours, samples must be collected daily for one week and then weekly thereafter until the release ceases. |
| WRP02         | 798161                     | 7077615  | Far North Pit       |                                                                                                                                                                                                                         |
| WRP03         | 798339                     | 7077601  | Far North Pit       |                                                                                                                                                                                                                         |
| WRP04         | 798635                     | 7077748  | Far North Pit       |                                                                                                                                                                                                                         |
| WRP05         | 798621                     | 7077425  | Far North Pit       |                                                                                                                                                                                                                         |
| WRP06         | 798653                     | 7077080  | North Pit           |                                                                                                                                                                                                                         |
| WRP07         | 798552                     | 7077092  | North Pit           |                                                                                                                                                                                                                         |
| WRP08         | 798483                     | 7077022  | Central Pit         |                                                                                                                                                                                                                         |
| WRP09         | 798792                     | 7076780  | Central Pit         |                                                                                                                                                                                                                         |
| WRP10         | 799042                     | 7076697  | Central Pit         |                                                                                                                                                                                                                         |
| WRP11         | 799254                     | 7076425  | Central Pit         |                                                                                                                                                                                                                         |
| WRP12         | 797751                     | 7076262  | West Pit            |                                                                                                                                                                                                                         |
| WRP13         | 797804                     | 7076376  | West Pit            |                                                                                                                                                                                                                         |
| WRP14         | 797977                     | 7076427  | West Pit            |                                                                                                                                                                                                                         |
| WRP15         | 798335                     | 7076520  | West Pit            |                                                                                                                                                                                                                         |
| WRP16         | 798480                     | 7076281  | Infrastructure Area |                                                                                                                                                                                                                         |
| WRP17         | 798942                     | 7076265  | Infrastructure Area |                                                                                                                                                                                                                         |
| WRP18         | 802097                     | 7076262  | ML55008 Pit         |                                                                                                                                                                                                                         |
| WRP19         | 797228                     | 7077080  | ML 55017 Pit        |                                                                                                                                                                                                                         |

**Notification of release event**

- C4** The environmental authority holder must notify the administering authority within twenty four (24) hours of any contaminated water release commencing.

**Receiving waters**

- C5** The quality of receiving waters must be monitored at the locations and frequency specified in **Table C2 - Receiving waters reference and compliance monitoring sites** and depicted in **Figure H2 - Release points and surface water monitoring locations** for each quality characteristic stated in **Table C3 - Receiving waters contaminant limits**.
- C6** The contaminant concentrations measured at a compliance site in **Table C2 - Receiving waters reference and compliance monitoring sites** must not exceed any contaminant limit specified in **Table C3 - Receiving waters contaminant limits**.

**Table C2 - Receiving waters reference and compliance monitoring sites ('Table C2')**

| Monitoring Point                     | Location description and purpose                            | Location (GDA2020-Zone 55) |          | Monitoring frequency                                                                                                                                                                                                    |
|--------------------------------------|-------------------------------------------------------------|----------------------------|----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                      |                                                             | Easting                    | Northing |                                                                                                                                                                                                                         |
| Reference sites (RS) <sup>[1]</sup>  |                                                             |                            |          |                                                                                                                                                                                                                         |
| WS1 <sup>[2]</sup>                   | Juandah Creek upstream of operations ( <i>RS for WS4</i> )  | 797957                     | 7077266  | One sample within first 12 hours of a release commencing. When a release event has duration of greater than 24 hours, samples must be collected daily for one week and then weekly thereafter until the release ceases. |
| WS5 <sup>[3]</sup>                   | Juandah Creek upstream of ML55017 pit ( <i>RS for WS4</i> ) | 796981                     | 7077255  |                                                                                                                                                                                                                         |
| WS6                                  | Upstream of ML55008 Pit ( <i>RS for WS7</i> )               | 801795                     | 7076225  |                                                                                                                                                                                                                         |
| WS8                                  | Upstream of Far North Pit ( <i>RS for WS9</i> )             | 797809                     | 7078073  |                                                                                                                                                                                                                         |
| Compliance sites                     |                                                             |                            |          |                                                                                                                                                                                                                         |
| WS4                                  | Juandah Creek – downstream of operations                    | 799088                     | 7076832  | One sample within first 12 hours of a release commencing. When a release event has duration of greater than 24 hours, samples must be collected daily for one week and then weekly thereafter until the release ceases. |
| WS7                                  | Tributary of Juandah Creek – downstream of ML55008 Pit      | 802174                     | 7076832  |                                                                                                                                                                                                                         |
| WS9                                  | Tributary of Juandah Creek – downstream of Far North Pit    | 798164                     | 7078539  |                                                                                                                                                                                                                         |
| Receiving water sites <sup>[4]</sup> |                                                             |                            |          |                                                                                                                                                                                                                         |
| WS2                                  | Tributary of Juandah Creek downslope from Dam 2             | 798030                     | 7077178  | One sample within first 12 hours of a release commencing. When a release event has duration of greater than 24 hours, samples must be collected daily for one week and then weekly thereafter until the release ceases. |
| WS3                                  | Tributary of Juandah Creek downslope from Dam 2             | 798249                     | 7076791  |                                                                                                                                                                                                                         |

Notes:

[1] Reference sites must be in accordance with the definition *Queensland Water Quality Guidelines 2009*.

[2] Reference site for WS4 until disturbance of ML55017 has commenced.

[3] Reference site for WS4 after disturbance on ML55017 has commenced.

[4] Monitoring is for information purposes.

**Table C3 – Receiving waters contaminant limits ('Table C3')**

| Contaminant                                     | Contaminant Limit                                                                                                                          |
|-------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------|
| pH (pH units)                                   | 6.5 <sup>[1]</sup> (minimum)                                                                                                               |
|                                                 | 8.5 <sup>[1]</sup> (maximum)                                                                                                               |
| Electrical conductivity (µS/cm)                 | 370 <sup>[1]</sup> or 95 <sup>th</sup> percentile <sup>[2]</sup> of the reference site <sup>[3]</sup> , whichever is higher <sup>[4]</sup> |
| Turbidity (NTU)                                 | 50 <sup>[1]</sup> or 95 <sup>th</sup> percentile <sup>[2]</sup> of the reference site <sup>[3]</sup> , whichever is higher <sup>[4]</sup>  |
| Suspended solids (mg/L)                         | 30 <sup>[1]</sup> or 95 <sup>th</sup> percentile <sup>[2]</sup> of the reference site <sup>[3]</sup> , whichever is higher <sup>[4]</sup>  |
| Sulfate (SO <sub>4</sub> <sup>2-</sup> ) (mg/L) | 5 <sup>[1]</sup> or 95 <sup>th</sup> percentile <sup>[2]</sup> of the reference site <sup>[3]</sup> , whichever is higher <sup>[4]</sup>   |

Notes:

[1] Local water guideline values for protection of aquatic ecosystems as per *Environmental Protection (Water) Policy 2009 Dawson River Sub-basin Environmental Values and Water Quality Objectives Basin No. 130 (part)*, including all waters of the Dawson River Sub-basin except the Callide Creek Catchment, published in September 2011.

[2] 95<sup>th</sup> percentile of reference site contaminant concentration applied as trigger levels/water quality objectives must be calculated in accordance with QWQG (2009) and ANZECC (2000) methodology. The environmental authority holder must maintain a database documenting all relevant water quality monitoring data and calculation of percentiles adopted as trigger levels/water quality objectives.

[3] The relevant reference site is specified in Table E4.

[4] If the contaminant concentration measured at the compliance site is equal to or less than the contaminant concentration measured at the applicable reference site, no further action is required.

**C7** If quality characteristics of the receiving water at the receiving water compliance monitoring locations exceed any of the contaminant limits specified in **Table C3 – Receiving waters contaminant limits** during a release event, the Authority holder must compare the results of the receiving water compliance monitoring site to the receiving waters reference site monitoring data and:

- a) If the level of contaminants at the receiving water compliance monitoring site does not exceed the receiving waters reference site monitoring data, then no action is to be taken; or,
- b) If the level of contaminants at the receiving water compliance monitoring site is greater than the receiving water reference site monitoring data, complete an investigation in accordance with the ANZECC (2000) guidelines methodology, into the potential for environmental harm and provide a written report to the administering authority within three (3) months, outlining:
  - i. Details of the investigations carried out; and,
  - ii. Actions taken to prevent environmental harm.

Note: Where an exceedance of a contaminant limit has occurred and is being investigated, in accordance with requirement (b) of this condition, no further reporting is required for subsequent trigger events for that quality characteristic within the three month investigation period.

**Site Water Management**

- C8** A *Water Management Plan* must be developed by an appropriately qualified person, documented and implemented for all stages of the mining activity.

**Stormwater and sediment controls**

- C9** An *Erosion and Sediment Control Plan* must be developed by an appropriately qualified person, documented and implemented for all stages of the mining activities to prevent erosion and the release of sediment to receiving waters and contamination of stormwater.

**Groundwater**

- C10** The environmental authority holder must not release contaminants to groundwater.
- C11** Any drawdown of groundwater must not impact on the users of groundwater.

**Regulated structures**

- C12** Regulated structures may not be operated or constructed as part of the mining activity.

**END OF CONDITIONS FOR SCHEDULE C**

**Schedule D – Noise**

- D1** The holder of this environmental authority must ensure that noise generated by the mining activities does not cause the criteria in **Table D1 – Noise limits** to be exceeded at any sensitive or commercial place.
- D2** Noise monitoring and recording must include the following descriptor characteristics and matters:
- LAN,T (where N equals the statistical levels of 1, 10 and 90 and T = 15 mins);
  - Background noise LA90;
  - The level and frequency of occurrence of impulsive or tonal noise and any adjustment and penalties to statistical levels;
  - Atmospheric conditions including temperature, relative humidity and wind speed and directions;
  - Effects due to any extraneous factors such as traffic noise;
  - Location, date and time of monitoring;
  - If the complaint concerns low frequency noise, Max LpLIN,T and one third octave band measurements in dB(LIN) for centre frequencies in the 10 – 200 Hz range.

**Table D1 - Noise Limits ('Table D1')**

| Noise level<br>dB(A)<br>measured as          | Noise measured at a 'noise sensitive place'                                            |                    |                   |                             |                    |                   |
|----------------------------------------------|----------------------------------------------------------------------------------------|--------------------|-------------------|-----------------------------|--------------------|-------------------|
|                                              | Average hourly A-weighted sound pressure levels <small>L<sub>A</sub> Ar 1 hour</small> |                    |                   |                             |                    |                   |
|                                              | Monday to Saturday                                                                     |                    |                   | Sundays and Public Holidays |                    |                   |
|                                              | 7am – 6pm                                                                              | 6pm – 10pm         | 10pm – 7am        | 9am – 6pm                   | 6pm – 10pm         | 10pm – 9am        |
| <small>L<sub>Aeq</sub>, adj, 15 mins</small> | CV = 50<br>AV = 5                                                                      | CV = 45<br>AV = 5  | CV = 40<br>AV = 0 | CV = 45<br>AV = 5           | CV = 40<br>AV = 5  | CV = 35<br>AV = 0 |
| <small>L<sub>A1</sub>, adj, 15 mins</small>  | CV = 55<br>AV = 10                                                                     | CV = 50<br>AV = 10 | CV = 45<br>AV = 5 | CV = 50<br>AV = 10          | CV = 45<br>AV = 10 | CV = 35<br>AV = 0 |

**Notes:**

- CV = Critical Value
- AV = Adjustment Value
- To calculate noise limits in Table D1:  
If  $bg \leq (CV - AV)$ :  
Noise limit =  $bg + AV$   
If  $(CV \text{ limit} = bbg \leq CV)$ :  
Noise limit = CV  
If  $bg > CV$ :  
Noise limit =  $bg + 0$
- In the event that measured bg (LA90, adj, 15 mins) is less than 30 dB(A), then 30 dB(A) can be substituted for the measured background level
- bg = background noise level (LA90, adj, 15 mins) measured over 3-5 days at the nearest sensitive receptor
- If the project is unable to meet the noise limits as calculated above alternative limits may be calculated using the processes outlined in the "Planning for Noise Control" guideline.

**END OF CONDITIONS FOR SCHEDULE D**

**Schedule E – Waste**

- E1** All waste generated as part of the mining activities must be lawfully reused, recycled, or removed to a facility that can lawfully accept the waste.

**END OF CONDITIONS FOR SCHEDULE E**

**Schedule F – Land**

- F1** The environmental authority holder must progressively rehabilitate all significantly disturbed land caused by the mining activities in a manner that ensures rehabilitated areas achieve the following rehabilitation objectives:
- a) Safe for humans and wildlife;
  - b) Non-polluting;
  - c) Stable;
  - d) Able to sustain an agreed post-mining land-use in accordance with the *Final Land Use and Rehabilitation Plan*;
  - e) Revegetated with species endemic appropriate to achieve the agreed post mining land use and free of declared pest species;
  - f) Compliant with the *Final Land Use and Rehabilitation Plan* required by **condition F3**; and
  - g) Compliant with all conditions of this environmental authority.
- F2** Land disturbed by mining activities must be rehabilitated in accordance with **Table F1 – Final land use and rehabilitation approval schedule**.

| Table F1 – Final Land Use and Rehabilitation Approval Schedule ('Table F1') Disturbance Type | Post Mine Land Description | Post Mine Land Capability Classification <sup>[1]</sup> |
|----------------------------------------------------------------------------------------------|----------------------------|---------------------------------------------------------|
| Infrastructure                                                                               | Marginal grazing           | vii                                                     |
| Haul roads                                                                                   | Marginal grazing           | vii                                                     |
| Pits                                                                                         | Marginal grazing           | vii                                                     |
|                                                                                              | Water storages             | n/a                                                     |

Notes:

[1] Land capability as defined in the *DME Technical Guideline for the Environmental Management of Exploration and Mining in Queensland*.

**Final land use and rehabilitation plan**

- F3** The holder of this environmental authority must develop and implement a *Final Land Use and Rehabilitation Plan* to ensure that all areas disturbed by mining activities will be suitably rehabilitated in accordance with **condition F1** and **Table F1 – Final land use and rehabilitation approval schedule**. The plan must include, but is not limited to the following:
- a) A description of rehabilitation management techniques incorporating works and monitoring programs and timetables;
  - b) Indicators for success;
  - c) Completion criteria; and
  - d) Keeping of appropriate records or rehabilitation measures implemented including taking of photographs demonstrative of rehabilitation achieved and the preparation of annual rehabilitation progress reports.

**Residual void outcome**

- F4** Residual voids must not cause any environmental harm, other than the environmental harm constituted by the existence of the residual void itself, and subject to any other condition within this environmental authority.

**Impacts to prescribed environmental matters**

- F5** Significant residual impacts to prescribed environmental matters, are not authorised under this environmental authority or the *Environmental Offsets Act 2014*.
- F6** Records demonstrating that each impact to a prescribed environmental matter did not, or is not likely to, result in a significant residual impact to that matter must be:
- a) Completed by an appropriately qualified person; and
  - b) Kept for the life of the environmental authority.

**END OF CONDITIONS FOR SCHEDULE F**

## Schedule G – Definitions

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

**“administering authority”** is the agency that administers the environmental authority provisions under the *Environmental Protection Act 1994*.

**“ANZECC (2000)”** means the *Australian and New Zealand Guidelines for Fresh and Marine Water Quality (2000)* published by the *Australian and New Zealand Environment and Conservation Council and the Agriculture and Resource Management Council of Australia and New Zealand* or any equivalent update/replacement guidelines.

**“appropriately qualified person”** means a person who has professional qualifications, training, skills or experience relevant to the nominated subject matter and can give authoritative assessment, advice and analysis on performance relating to the subject matter using the relevant protocols, standards, methods or literature.

**“authority”** means environmental authority (mining activities) under the *Environmental Protection Act 1994*

**“commercial place”** means a place used as an office or for business or commercial purposes, other than a place within the boundaries of the operational land.

**“consequence category”** means a category, either low, significant or high, into which a dam is assessed as a result of the application of tables and other criteria in the *Manual for Assessing Consequence Categories and Hydraulic Performance of Structures (ESR/2016/1933)*.

**“dam”** means a land based structure or void that contains, diverts or controls flowable substances, and includes any substances that are hereby contained, diverted or controlled by that land based structure or void and associated works.

**“environmental authority”** means a licence or approval issued pursuant to the *Environmental Protection Act 1994*.

**“environmental authority holder”** means the holder of this environmental authority.

**“infrastructure”** means dams, roads and tracks, buildings and other structures built for the purpose of mining activities but does not include facilities required for the long-term management of mining impacts or the protection of potential resources. Such facilities include dams containing hazardous waste, waste rock dumps, voids, or ore stockpiles and buildings or other structures whose ownership can be transferred and which have a residual beneficial use for the next owner of the operational land or the background land owner.

**“ $L_{A, 10, \text{adj}, 10 \text{ mins}}$ ”** means the A-weighted sound pressure level, (adjusted for tonal character and impulsiveness of sound) exceeded for 10% of any 10-minute measurement period, using Fast response. **“ $L_{A, 1, \text{adj}, 10 \text{ mins}}$ ”** means the A-weighted sound pressure level, (adjusted for tonal character and impulsiveness of sound) exceeded for 1% of any 10-minute measurement period, using Fast response.

**“ $L_{A, \text{max}, \text{adj}, T}$ ”** means the average maximum A-weighted sound pressure level, adjusted for noise character and measured over any period 10 minute period, using Fast response. **“ $L_{Ar, 1hr}$ ”** means the rating level measured over any one hour period, defined as:

$$L_{Ar, 1hr} = L_{Aeq, 1hr} + K_1 + K_2, \text{ where}$$

**“ $K_1$ ”** means the tone adjustment applicable to any one hour measurement period, and

**“ $K_2$ ”** means the impulse adjustment applicable to any one-hour measurement period.

**“ $L_{Aeq, 1hr}$ ”** means the time-average A-weighted sound pressure level over any one hour measurement period.

**“land”** in the “land schedule F” of this document means land excluding waters and the atmosphere.

**“land capability”** as defined in the *DME 1995 Technical Guidelines for the Environmental Management of*

*Exploration and Mining in Queensland.*

**“land suitability”** as defined in the *DME 1995 Technical Guidelines for the Environmental Management of Exploration and Mining in Queensland*.

**“land use”** means the selected post mining use of the land, which is planned to occur after the cessation of mining operations.

**“mineral”** means a substance which normally occurs naturally as part of the earth’s crust or is dissolved or suspended in water within or upon the earth’s crust and includes a substance which may be extracted from such a substance, and includes—

- (a) clay if mined for use for its ceramic properties, kaolin and bentonite;
  - (b) magnetite;
  - (c) metal or metalloid compounds, including but not limited to compounds containing gold, copper, silver, lead, nickel, and zinc.
  - (d) foundry sand;
  - (e) hydrocarbons and other substances or matter occurring in association with shale or coal and necessarily mined, extracted, produced or released by or in connection with mining for shale or coal or for the purpose of enhancing the safety of current or future mining operations for coal or the extraction or production of mineral oil therefrom;
  - (f) limestone if mined for use for its chemical properties;
  - (g) marble;
  - (h) mineral oil or gas extracted or produced from shale or coal by in situ processes;
  - (i) peat;
  - (j) salt including brine;
  - (k) shale from which mineral oil may be extracted or produced;
  - (l) silica, including silica sand, if mined for use for its chemical properties;
  - (m) rock mined in block or slab form for building or monumental purposes;
- but does not include—
- (n) living matter;
  - (o) petroleum within the meaning of the *Petroleum Act 1923*;
  - (p) soil, sand, gravel or rock (other than rock mined in block or slab form for building or monumental purposes) to be used or to be supplied for use as such, whether intact or in broken form;
  - (q) water.

**“natural flow”** means the flow of water through waters caused by nature.

**“non polluting”** means having no adverse impacts upon the receiving environment.

**“noxious”** means harmful or injurious to health or physical wellbeing, other than trivial harm.

**“offensive”** means causing reasonable offence or displeasure; is disagreeable to the sense; disgusting; nauseous or repulsive, other than trivial harm.

**“prescribed environmental matters”** has the meaning in section 10 of the *Environmental Offsets Act 2014*, limited to the Matters of State Environmental Significance listed in schedule 2 of the *Environmental Offsets Regulation 2014*.

**“progressive rehabilitation”** means rehabilitation (defined below) undertaken to progressively or a staged approach to rehabilitation as mining operations are ongoing.

**“receiving environment”** in relation to an activity that causes or may cause environmental harm, means the part of the environment to which the harm is, or may be, caused. The receiving environment includes (but is not limited to):

- a) A watercourse;
- b) Groundwater;
- c) An area of land that is not specified in **Table A1 – Authorised disturbance** of this environmental authority.

The term does not include land that is specified in **Table A1 – Authorised disturbance** of this environmental authority.

**“regulated structure”** means any structure in the significant or high consequence category as assessed using the *Manual for assessing consequence categories and hydraulic performance of structures (ESR/2016/1933)* published by the administering authority. A regulated structure does not include:

- A fabricated or manufactured tank or container, designed and constructed to an Australian Standard that deals with strength and structural integrity of that tank or container;
- A sump or earthen pit used to store residual drilling material and drilling fluid only for the duration of drilling and well completion activities.

**“rehabilitation”** the process of reshaping and revegetating land to restore it to a stable landform and in accordance with the acceptance criteria set out in this environmental authority and, where relevant, includes remediation of contaminated land.

**“release”** means the discharge of water (whether intentional or due to failure to prevent) to the receiving environment from any area, structure or feature located on a mining lease listed on this environmental authority.

**“representative”** means a sample set, which covers the variance in monitoring or other data, either due to natural changes or operational phases of the mining activities.

**“residual void”** means an open pit resulting from the removal of ore and/or waste rock, which will remain following the cessation of all mining activities and completion of rehabilitation processes.

**“self sustaining/sustain”** means an area of land, which has been rehabilitated and has maintained the required acceptance criteria without human intervention for a period nominated by the administering authority.

**“sensitive place”** means:

- a) A dwelling, residential allotment, mobile home or caravan park, residential marina or other residential premises; or
- b) A motel, hotel, or hostel; or
- c) An educational institution; or
- d) A medical centre or hospital; or
- e) A protected area under the *Nature Conservation Act 1992*, the *Marine Parks Act 1992*, or a World Heritage Area; or
- f) A public park or gardens
- g) A place used as a workplace, an office or for business or commercial purposes which is not part of the mining activity and does not include employees accommodation or public roads.

**“significant residual impact”** has the meaning in section 8 *Environmental Offsets Act 2014*.

**“stable”** means land form dimensions are or will be stable within tolerable limits now and in the foreseeable future.

Stability includes consideration of geotechnical stability, settlement and consolidation allowances, bearing capacity (traffic ability), erosion resistance and geochemical stability with respect to seepage and contaminant generation.

**“structure”** means dam or levee.

**“µS/cm”** means micro siemens per centimetre.

**“watercourse”** has the same meaning given in the *Water Act 2000*.

**“water quality”** means the chemical, physical and biological condition of water.

**“waters”** includes a river, stream, lake, lagoon, pond, swamp, wetland, unconfined surface water, bed and bank of any waters, dams, non-tidal or tidal waters (including the sea) or any part thereof.

#### END OF CONDITIONS FOR SCHEDULE G

**Schedule H – Maps / Plans**

Figure H 1 – Maximum Disturbance Extent

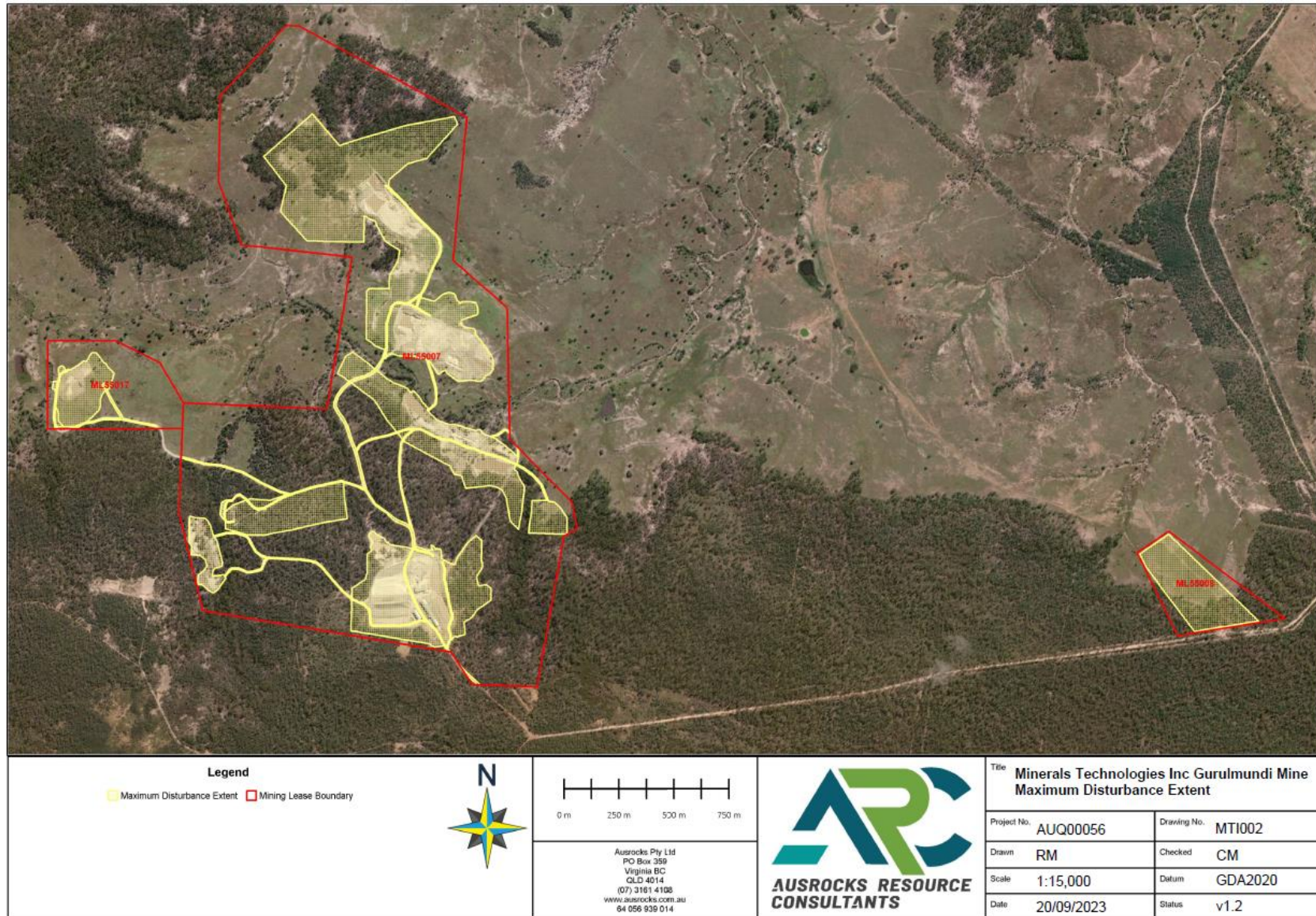
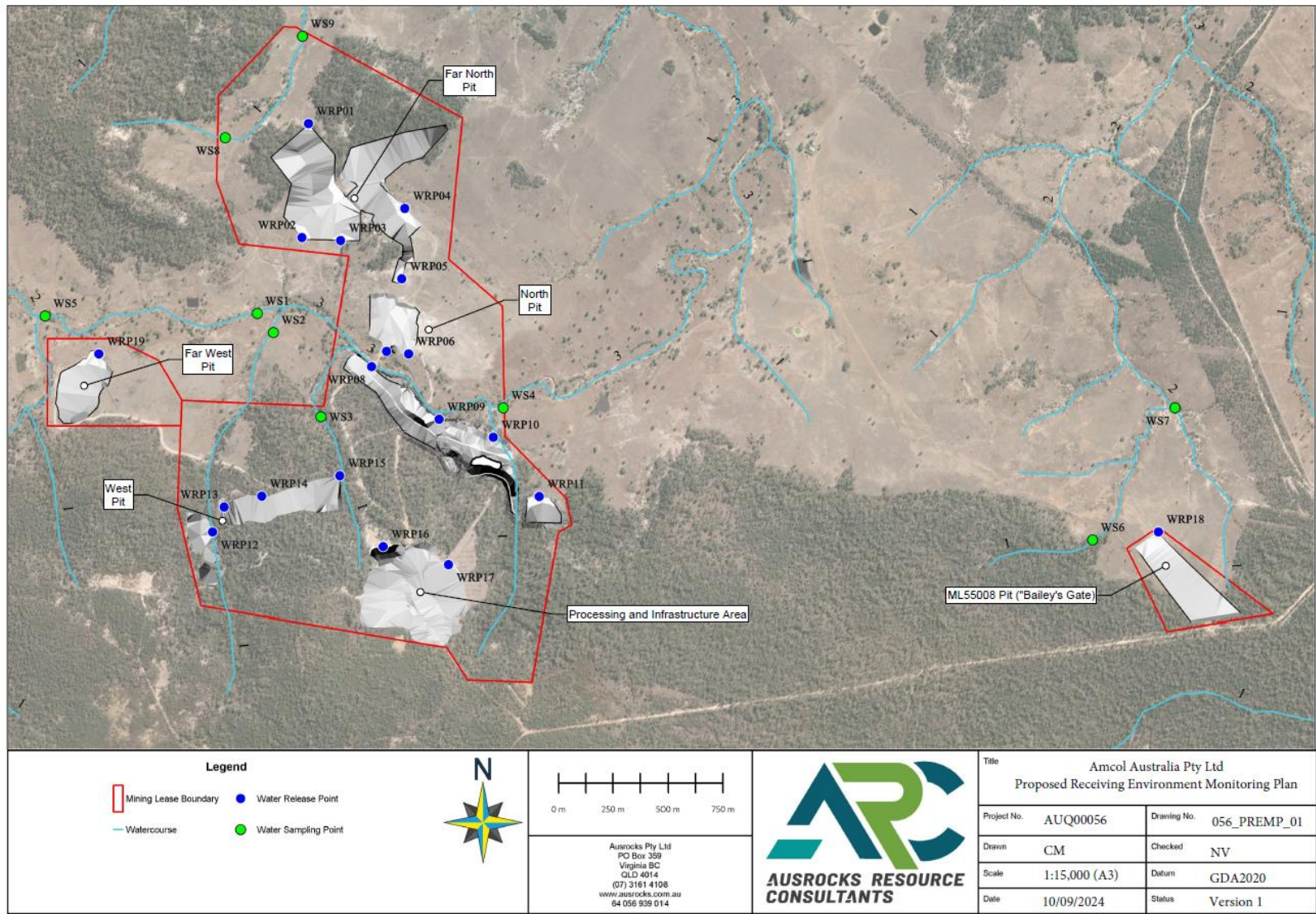


Figure H 2 - Release points and surface water monitoring locations



END OF ENVIRONMENTAL AUTHORITY