



# Works Approval

<b>Works approval number</b>	W6831/2023/1	
<b>Works approval holder</b>	Image Resources NL	
<b>ACN</b>	063 977 579	
<b>Registered business address</b>	Level 2, 1 Walker Avenue WEST PERTH WA 6005	
<b>DWER file number</b>	DER2023/000415	
<b>Duration</b>	03/072024 to	02/07/2029
<b>Date of issue</b>	03/07/2024	
<b>Premises details</b>	Atlas Project Munbinea Road NAMBUNG WA 6521 Legal description - Part of mining tenement M 70/1305 As defined by the premises maps in Schedule 1	

<b>Prescribed premises category description (Schedule 1, <i>Environmental Protection Regulations 1987</i>)</b>	<b>Assessed production capacity</b>
Category 8: Mineral sands mining and processing: premises on which mineral sands ore is mined, screened, separated or otherwise processed.	3.1 million tonnes of ore per year

This works approval is granted to the works approval holder, subject to the attached conditions, on 3 July 2024 by:

**A/MANAGER, RESOURCE INDUSTRIES  
INDUSTRY REGULATION (STATEWIDE DELIVERY)**

an officer delegated under section 20 of the *Environmental Protection Act 1986* (WA)

## Works approval history

Date	Reference number	Summary of changes
03/07/2024	W6831/2023/1	Works approval granted.

## Interpretation

In this works approval:

- (a) the words 'including', 'includes' and 'include' in conditions mean "including but not limited to", and similar, as appropriate;
- (b) where any word or phrase is given a defined meaning, any other part of speech or other grammatical form of that word or phrase has a corresponding meaning;
- (c) where tables are used in a condition, each row in a table constitutes a separate condition;
- (d) any reference to an Australian or other standard, guideline, or code of practice in this works approval:
  - (i) if dated, refers to that particular version; and
  - (ii) if not dated, refers to the latest version and therefore may be subject to change over time;
- (e) unless specified otherwise, any reference to a section of an Act refers to that section of the EP Act; and
- (f) unless specified otherwise, all definitions are in accordance with the EP Act.

**NOTE:** This works approval requires specific conditions to be met but does not provide any implied authorisation for other emissions, discharges, or activities not specified in this works approval.

# Works approval conditions

## Construction phase

### Infrastructure and equipment

1. The works approval holder must:
  - (a) construct the infrastructure and/or equipment;
  - (b) in accordance with the corresponding design and construction requirements;
  - (c) at the corresponding infrastructure location; and
  - (d) within the corresponding timeframe,
 as set out in Table 1.

**Table 1: Design and construction requirements**

Item no.	Infrastructure or equipment	Design and construction requirements	Infrastructure location	Timeframe
1.	Feed preparation plant (FPP)	<ol style="list-style-type: none"> <li>a) Broadband start-up alarms to be installed (instead of beeping/tonal alarms).</li> <li>b) Constructed on compacted soil or hardstand, contoured so that stormwater is directed to sediment sumps or an open pit.</li> </ol>	As indicated in Schedule 1, Figure 1.	N/A
2.	Wet Concentrator Plant (WCP)	<ol style="list-style-type: none"> <li>a) Maximum throughput of 350 tonnes per hour (tph).</li> <li>b) Pumps placed on the eastern side of the WCP or enclosed to attenuate noise.</li> <li>c) Broadband start-up alarms to be installed (instead of beeping/tonal alarms).</li> <li>d) Constructed on compacted soil or hardstand, contoured so that stormwater is directed to sediment sumps or the open pit.</li> </ol>	As indicated in Schedule 1, Figure 1.	N/A
3.	Process water pond	<ol style="list-style-type: none"> <li>a) Constructed with compacted soil or overburden that has been screened for PASS in accordance with condition 18.</li> <li>b) Constructed to a height of RL 45.5 m.</li> <li>c) Footprint of 0.5 hectares.</li> <li>d) Downstream embankment slope of 3:1.</li> <li>e) Minimum 3 m wide</li> </ol>	As indicated in Schedule 1, Figure 1.	N/A

Item no.	Infrastructure or equipment	Design and construction requirements	Infrastructure location	Timeframe
		<p>embankment crest.</p> <p>f) HDPE lined, anchored into the crest of the embankment.</p>		
4.	Solar drying ponds	<p>a) Constructed with compacted soil or overburden that has been screened for PASS in accordance with condition 18.</p> <p>b) Constructed to a depth of approximately 2.5 m.</p> <p>c) Up to 3 cells may be constructed with a combined footprint of no more than 16 ha.</p> <p>d) Minimum 2 m wide embankment crest.</p>	As indicated in Schedule 1, Figure 1.	N/A
5.	Run of mine (ROM) pad	<p>a) Constructed on compacted soil or overburden.</p> <p>b) Contoured so that stormwater is directed to sediment sumps or an open pit.</p>	As indicated in Schedule 1, Figure 1.	N/A
6.	Heavy metal concentrate (HMC) stockpile pad	<p>a) Constructed on compacted soil or overburden.</p> <p>b) Contoured so that stormwater is directed to sediment sumps or an open pit.</p>	As indicated in Schedule 1, Figure 1.	N/A
7.	PASS treatment pad (for overburden and/or ore)	<p>a) Constructed of a minimum 300mm layer of compacted crushed limestone with a sufficiently low permeability to prevent infiltration of leachate.</p> <p>b) Sides bunded with compacted limestone to a minimum height of at least 150mm.</p> <p>c) Contoured to collect and contain run-off.</p> <p>d) Sized sufficiently to hold the expected maximum volume of PASS material.</p>	Within the prescribed premises as shown in Schedule 1, Figure 1.	Constructed prior to the mining of ore.
8.	Pipelines containing process water, tailings, ore	<p>a) To be installed with:</p> <p>i. Secondary containment sufficient to contain any</p>	Within the prescribed premises as shown in	N/A

Item no.	Infrastructure or equipment	Design and construction requirements	Infrastructure location	Timeframe
	or saline water.	<p>spill for a period equal to the time between routine inspections; or</p> <p>ii. Flow meters and pressure sensors to allow the detection of leaks and failures.</p>	Schedule 1, Figure 1.	
9.	Vehicle washdown, workshop and refuelling areas	<p>a) Constructed on hardstand or compacted areas, contoured so that stormwater is directed to sediment sumps or an open pit.</p> <p>b) Areas of potential hydrocarbon contamination to report to an oily/water separator.</p>	As indicated in Schedule 1, Figure 1.	N/A
10.	Earthen bund around mining area	<p>a) Earthen bunding around the northern pit constructed to a height of 42.0 m AHD, with a perimeter drain along the eastern toe that falls to the north, as shown in Schedule 1, Figure 2.</p> <p>b) Constructed from soil or overburden that has been screened for PASS in accordance with condition 18.</p> <p>c) Compacted to minimise erosion.</p>	Surrounding the northern mining area, as indicated in Schedule 1, Figure 2.	Constructed prior to mining north of the "initial disturbance boundary" depicted in Schedule 1, Figure 4.
11.	Air quality monitoring system	a) Establish a PM <sub>10</sub> dust monitor in accordance with AS 3580.1.1 and AS 3580.9.6	In the air quality monitoring location indicated in Schedule 1, Figure 3 labelled AQM 1.	Installed prior to 1 October 2024.

2. Water cart to be available at all times and used for dust suppression during the construction works authorised in condition 1.
3. Construction areas should be compacted, graded and wet down during construction and excavation activities to prevent dust liftoff.
4. Earthworks should be minimised during High Wind conditions that cause dust lift off when there is a risk of impacting sensitive receptors.
5. During construction and time limited operations, all mobile equipment, including

heavy and light vehicles, must utilise broadband reversing alarms instead of beepers.

### Compliance reporting

6. The works approval holder must within 30 calendar days of an item of infrastructure or equipment required by condition 1 being constructed and/or installed:
  - (a) undertake an audit of their compliance with the requirements of condition 1; and
  - (b) prepare and submit to the CEO an Environmental Compliance Report on that compliance.
7. The Environmental Compliance Report required by condition 6, must include as a minimum the following:
  - (a) certification by an engineer that the items of infrastructure or component(s) thereof, as specified in condition 1, have been constructed in accordance with the relevant requirements specified in condition 1;
  - (b) as constructed plans and a detailed site plan for each item of infrastructure or component of infrastructure specified in condition 1; and
  - (c) be signed by a person authorised to represent the works approval holder and contains the printed name and position of that person.

### Time limited operations phase

#### Commencement and duration

8. The works approval holder may only commence time limited operations for an item of infrastructure identified in condition 1 where the Environmental Compliance Report as required by condition 6 has been submitted by the works approval holder for that item of infrastructure.
9. The works approval holder may conduct time limited operations for an item of infrastructure specified in condition 1:
  - (a) for a period not exceeding 180 calendar days from the day the works approval holder meets the requirements of condition 8 for that item of infrastructure; or
  - (b) until such time as a licence for that item of infrastructure is granted in accordance with Part V of the *Environmental Protection Act 1986*, if one is granted before the end of the period specified in condition 9(a).

#### Time limited operations requirements

10. During time limited operations the works approval holder shall operate the process water ponds and solar drying ponds such that a minimum freeboard of 1 meter is maintained at all times.
11. During time limited operations the works approval holder shall:
  - (a) undertake inspections as detailed in Table 3;
  - (b) where any inspection identifies that an appropriate level of environmental protection is not being maintained, take corrective action to mitigate adverse environmental consequences as soon as practicable; and
  - (c) maintain a record of all inspections undertaken.

**Table 3: Infrastructure and equipment requirements during time limited operations**

Infrastructure	Scope of inspection	Frequency
Pipelines containing environmentally hazardous substances	Visual integrity and leak assessment	Daily
Solar drying ponds	Visual integrity, leak assessment and to confirm 1 m freeboard is available	Daily
Process water ponds	Visual integrity, leak assessment and to confirm 1 m freeboard is available	Daily

12. During time limited operations, the works approval holder must ensure that the emission(s) specified in Table 4, are discharged only from the corresponding discharge point(s) and only at the corresponding discharge point location(s).

**Table 4: Authorised discharge points**

Emission	Discharge point	Discharge point location
Sand tailings	Mine voids, via cyclone stackers.	Within the pit area as shown in Schedule 1, Figure 1.
Slimes tailings	Solar drying ponds	As indicated in Schedule 1, Figure 1.
Process water (including decant water from the tailings or solar drying ponds)	Process water ponds	Within the prescribed premises as shown in Schedule 1, Figure 1.
Dried clay slimes	Mine voids	Within the pit area as shown in Schedule 1, Figure 1.

13. During time limited operations the works approval holder must only carry out mining and earthworks activities between the hours of 0700 and 1900 Monday to Saturday (excluding public holidays).
14. During time limited operations, the works approval holder must restrict operations to only the following fixed and mobile equipment between the hours of 1900 and 0700 Monday to Saturday and on Sundays and public holidays (i.e. nightshift, Sundays and public holidays):
- the Wet Concentrator Plant (WCP);
  - the Feed Preparation Plant (FPP);
  - 1 Cat 980 loader (at the FPP); and
  - 4 generator sets.
15. During time limited operations, the works approval holder must ensure that dust and noise controls are implemented in accordance with the requirements specified in Table 5.

**Table 5: Dust and noise controls**

Activity	Requirement
Topsoil and overburden stripping	<ul style="list-style-type: none"> <li>Water cart must be available to wet down during earthwork activities.</li> <li>Must suspend topsoil and overburden stripping activities during High Wind conditions when there is a risk of dust impacting</li> </ul>

Activity	Requirement
	sensitive receptors.
Stockpiling	<ul style="list-style-type: none"> <li>• Must utilise covers, water sprays or chemical stabilisers to minimise dust liftoff.</li> <li>• Must utilise bunds or wind shields to minimise dust, as required.</li> </ul>
Mobile vehicles	<ul style="list-style-type: none"> <li>• Must utilise watercart for dust suppression to minimise dust generation from roads.</li> <li>• Heavy vehicles must operate with a speed limit of 50km/hr on the premises.</li> <li>• Concentrate trucks must operate with a speed limit of 25km/hr on the access road.</li> </ul>
General	<ul style="list-style-type: none"> <li>• Must wet down and compact open, operational areas to prevent dust liftoff.</li> <li>• Must suspend dust generating activities during High Wind conditions when there is a risk of dust impacting sensitive receptors.</li> <li>• Must conduct regular inspections to ensure dust controls are effectively being implemented.</li> </ul>

16. During time limited operations, the works approval holder must ensure that all soils are managed to prevent potential acid sulfate soils (PASS) from deteriorating groundwater quality on or surrounding the premises.

17. During time limited operations, at a minimum, potential acid sulfate soils must be managed in accordance with the requirements specified in Table 6.

**Table 6: Potential acid sulfate soils controls**

Activity	Requirement
PASS screening	<ul style="list-style-type: none"> <li>• All overburden to be used for construction material to be tested for pH<sub>F</sub> and pH<sub>FOX</sub> prior to use in construction;</li> <li>• Testing for pH<sub>F</sub> and pH<sub>FOX</sub> must be conducted during all mine path excavation – at a minimum rate of 2 samples per hectare;</li> <li>• Soil material that shows indicators of PASS (such as a dark colour or clayey materials) must be tested in the field for pH<sub>F</sub> and pH<sub>FOX</sub>;</li> <li>• Samples that return a <ul style="list-style-type: none"> <li>○ pH<sub>F</sub> less than 4.0;</li> <li>○ pH<sub>FOX</sub> less than 3.0; or</li> <li>○ a difference between pH<sub>F</sub> and pH<sub>FOX</sub> of more than 3 pH units;</li> </ul> </li> </ul> <p>must undergo a Suite 2 (CRS) analysis in accordance with the <i>Identification and investigation of acid sulfate soils and acidic landscapes, (DWER 2015)</i></p>
Suite 2 (CRS) analysis – to be completed in accordance with the <i>Identification and investigation of acid sulfate soils and acidic landscapes, (DWER 2015)</i>	<ul style="list-style-type: none"> <li>• When a Suite 2 - Chromium Reducible Sulfur (S<sub>Cr</sub>) analysis is required to be undertaken due to positive PASS screening results (as outline above), a sufficient number of soil samples must be tested such that a qualified geologist can quantify the volume of PASS that has been encountered;</li> <li>• Tailings must undergo a Suite 2 - Chromium Reducible Sulfur (S<sub>Cr</sub>) analysis on a monthly basis;</li> <li>• Dried out clay fines from the solar drying ponds must undergo a Suite 2 - Chromium Reducible Sulfur (S<sub>Cr</sub>) analysis prior to disposal</li> </ul>

Activity	Requirement
	<p>in the open pit voids;</p> <ul style="list-style-type: none"> <li>Soil and tailings samples with a <math>pH_{FOX}</math> of less than 3 and have a Chromium Reducible Sulfur (<math>S_{Cr}</math>) content greater than 0.01% require selective handling and neutralisation in accordance with the PASS management actions (below).</li> </ul>
PASS overburden and ore management actions	<ul style="list-style-type: none"> <li>PASS overburden must be treated with a neutralisation agent at sufficient rates to fulfil the requirements of the PASS neutralisation validation requirements (below);</li> <li>PASS overburden that has been neutralised and passed the validation requirements may be used for construction purposes;</li> <li>PASS overburden that will not be used for construction purposes must be back-filled to an open pit as soon as possible;</li> <li>PASS overburden that is not used in construction and cannot be immediately back-filled to an open pit must be stored on the limestone treatment pad;</li> <li>PASS containing ore may be processed with a neutralisation agent;</li> <li>PASS containing ore that is not immediately processed must be stored on the limestone treatment pad;</li> <li>Ore that cannot be processed within 70 hours must be treated with a neutralisation agent at sufficient rates to fulfil the requirements of the PASS neutralisation validation requirements (below).</li> </ul>
PASS tailings management actions	<ul style="list-style-type: none"> <li>PASS tailings must have additional neutralisation agent added during disposal to meet the PASS neutralisation validation requirements (below);</li> <li>PASS dried out clay fines must have additional neutralisation agent added during disposal to the mine voids to meet the PASS neutralisation validation requirements (below).</li> </ul>
PASS neutralisation validation	<p>The following performance criteria must be met to confirm effective treatment of PASS:</p> <ul style="list-style-type: none"> <li>the samples have a <math>pH_{FOX}</math> of at least 5, to indicate that there is neutralising capacity greater than existing plus potential acidity of the soil;</li> <li>soil <math>pH_F</math> must be in the range 6.0 to 8.5;</li> <li>the neutralising material must appear well blended with the soil;</li> <li>excess neutralising agent must remain within the soil until all acid generation reactions are complete and the soil has no further capacity to generate acidity.</li> <li>measurements of TPA should be less than the limits of reporting.</li> <li>if soils fail the above validation, additional neutralisation needs to be applied until results comply with performance criteria.</li> </ul>
Process water neutralisation	<ul style="list-style-type: none"> <li>If the pH of the process water falls below 4, a neutralisation agent must be added to increase the pH.</li> </ul>

### Monitoring during time limited operations

18. The works approval holder must ensure that:

- all water samples are collected and preserved in accordance with AS/NZS 5667.1;
- all groundwater sampling is conducted in accordance with AS/NZS 5667.11;

- (c) all noise measurements are carried out in accordance with Part 3 of the Environmental Protection (Noise) Regulations 1997 (as applicable);
- (d) all ambient air monitoring is sited in accordance with AS 3580.1.1;
- (e) all PM<sub>10</sub> dust samples are collected and analysed in accordance with AS 3580.9.6; and
- (f) all laboratory samples are submitted to and tested by a laboratory with current NATA accreditation for the parameters being measured, unless indicated otherwise in the relevant table.

19. The works approval holder must undertake process monitoring in accordance with the specifications of Table 7.

**Table 7: Process monitoring**

Process description	Parameter	Units	Frequency
Mining activities	Volume of ore mined	m <sup>3</sup>	Monthly
	Volume of overburden removed		
	Volume of PASS handled		
Processing of ore	Volume of ore processed	m <sup>3</sup>	Monthly
	Volume of HMC produced		
Sand tailings	Volume and location of tailings deposition	m <sup>3</sup>	Monthly
	PASS sampling in accordance with Table 6	Various	
	Estimated volume of PASS tailings generated	m <sup>3</sup>	
Slimes tailings	Volume of slimes tailings discharged to SDPs	m <sup>3</sup>	Monthly
	pH <sup>1</sup>	-	
Dried clay slimes	PASS sampling in accordance with Table 6	Various	Prior to disposal in the pit
	Estimated volume of PASS clay slimes	m <sup>3</sup>	If detected
Process water	Volume of water discharged to the process water pond	m <sup>3</sup>	Monthly
	pH <sup>1</sup>	-	Monthly, or weekly if pH is less than 4
	Electrical conductivity <sup>1</sup>	µS/cm	
	Total titratable acidity (TTA) <sup>1</sup>	mg/L	
	Total alkalinity (TAlk) <sup>1</sup>		

Note 1: In field, non-NATA accredited analysis permitted.

20. The works approval holder must undertake monitoring of ambient groundwater quality in accordance with the specifications of Table 8.

**Table 8: Ambient groundwater monitoring requirements**

Monitoring point	Parameter	Unit	Frequency
Groundwater monitoring bores: I01B I03B I04B I06B I08B	Standing water level	mbgl	Monthly
	pH <sup>1</sup>	-	
	Electrical conductivity <sup>1</sup>	µS/cm	
	Total titratable acidity <sup>1</sup>	mg/L	
	Total alkalinity <sup>1</sup>		
	Major ions: bicarbonate, calcium, chloride, magnesium, potassium, sodium, sulfate, total dissolved solids	mg/L	Once during time-limited operations
	Metals and metalloids: aluminum, arsenic, cadmium, chromium, cobalt, iron, manganese, mercury, nickel, selenium, thallium, uranium, zinc		
	Radium-226 Radium-228	Bq/L	

Note 1: In field, non-NATA accredited analysis permitted.

21. The works approval holder must monitor dust emissions during time limited operations between 1 October and 31 May in accordance with Table 9.

**Table 9: Dust monitoring during time limited operations**

Monitoring point	Parameter	Unit	Frequency	Sampling duration	Method
AQM 1 (high-volume sampler)	PM <sub>10</sub>	µg/m <sup>3</sup>	At least once every 6 days	24 hours	AS/NZS 3580.9.6
	Dust composition analysis of dust deposited on the filter paper	µg/m <sup>3</sup>	At least twice during time-limited operations, after the commencement of the mining of ore.	24 hours – one filter paper	AS/NZS 3580.9.15

22. Within 30 days of the commencement date of Time-Limited Operations for the processing activities, the works approval holder must retain the services of a person qualified and experienced in the area of environmental noise assessment and who by their qualifications and experience is eligible to hold membership of the Australian Acoustical Society or the Australian Association of Acoustical Consultants to:
- investigate the nature and extent of noise emissions from the premises;
  - assess in accordance with the methodology required in the *Environmental Protection (Noise) Regulations 1997*, the compliance of the noise emissions from the primary activities, against the relevant assigned levels specified in those Regulations; and
  - compile and submit to the works approval holder within 60 days of the commencement of time-limited operations a report in accordance with condition 24.
23. A report prepared pursuant to condition 23 is to include:
- a description of the methods used for monitoring and/or modelling of noise emissions from the premises;

- (b) details and the results of the investigation undertaken pursuant to condition 23(a);
  - (c) details and results of the assessment of the noise emissions from the premises, against the relevant assigned levels in the *Environmental Protection (Noise) Regulations 1997* undertaken pursuant to condition 23(b); and
  - (d) an assessment of noise levels against the most recent previous noise assessment.
- 24.** The works approval holder must submit to the CEO the report prepared pursuant to condition 23(c) within 14 days of receiving it.
- 25.** Where an assessment pursuant to condition 23(b) indicates that noise emissions do not comply with the relevant assigned levels in the *Environmental Protection (Noise) Regulations 1997*, the works approval holder must:
- (a) reduce or cease operations to achieve compliance with the assigned noise levels;
  - (b) within 30 days of receiving an assessment report pursuant to condition 23(c) prepare a plan to ensure the undertaking of the licensed activity will no longer lead to any contravention of the *Environmental Protection (Noise) Regulations 1997*; and
  - (c) provide to the CEO a copy of the plan prepared pursuant to condition 26(b) within 14 days of its preparation.

### Compliance reporting

- 26.** The works approval holder must submit to the CEO a report on the time limited operations within 30 calendar days of the completion date of time limited operations or 30 calendar days before the expiration of the works approval, whichever is the sooner.
- 27.** The works approval holder must ensure the report required by condition 26 includes the following:
- (a) a summary of the time limited operations, including timeframes and amount of material processed;
  - (b) a summary of all monitoring results obtained during time limited operations under conditions 19, 20 and 21;
  - (c) a summary of the environmental performance of all infrastructure as constructed or installed;
  - (d) a review of performance and compliance against the conditions of the works approval; and
  - (e) where the manufacturer's design specifications and the conditions of this works approval have not been met, what measures will the works approval holder take to meet them, and what timeframes will be required to implement those measures.

### Records and reporting (general)

- 28.** The works approval holder must record the following information in relation to complaints received by the works approval holder (whether received directly from a complainant or forwarded to them by the Department or another party) about any alleged emissions from the premises:

- (a) the name and contact details of the complainant, (if provided);
  - (b) the time and date of the complaint;
  - (c) the complete details of the complaint and any other concerns or other issues raised; and
  - (d) the complete details and dates of any action taken by the works approval holder to investigate or respond to any complaint.
- 29.** The works approval holder must maintain accurate and auditable books including the following records, information, reports, and data required by this works approval:
- (a) the works conducted in accordance with condition 1;
  - (b) any maintenance of infrastructure that is performed in the course of complying with conditions 10-17;
  - (c) monitoring programmes undertaken in accordance with conditions 19, 20 and 21; and
  - (d) complaints received under condition 28.
- 30.** The books specified under condition 29 must:
- (a) be legible;
  - (b) if amended, be amended in such a way that the original version(s) and any subsequent amendments remain legible and are capable of retrieval;
  - (c) be retained by the works approval holder for the duration of the works approval; and
  - (d) be available to be produced to an inspector or the CEO as required.

## Definitions

In this works approval, the terms in Table 10 have the meanings defined.

**Table 10: Definitions**

Term	Definition
annual period	a 12 month period commencing from 1 July until 30 June of the immediately following year.
AS 3580.1.1	means the Australian Standard AS 3580.1.1 <i>Methods for sampling and analysis of ambient air – Guide to siting air monitoring equipment</i>
AS 3580.9.6	means the most recent version and the relevant parts of the Australian Standard AS 3580.9.6 <i>Methods for sampling and analysis of ambient air – Determination of suspended particulate matter – PM10 high volume sampler with size selective inlet – Gravimetric method</i>
AS/NZS 5667.1	means the Australian Standard AS/NZS 5667.1 <i>Water Quality – Sampling – Guidance on the design of sampling programs, sampling techniques and the preservation and handling of samples</i>
AS/NZS 5667.11	means the Australian Standard AS/NZS 5667.11 <i>Water Quality – Sampling – Guidance on sampling of groundwaters</i>
books	has the same meaning given to that term under the EP Act.
CEO	means Chief Executive Officer. CEO for the purposes of notification means: Director General Department administering the <i>Environmental Protection Act 1986</i> Locked Bag 10 Joondalup DC WA 6919 <a href="mailto:info@dwer.wa.gov.au">info@dwer.wa.gov.au</a>
CRS and S <sub>Cr</sub>	Chromium reducible sulphur
Department	means the department established under section 35 of the <i>Public Sector Management Act 1994</i> and designated as responsible for the administration of Part V Division 3 of the EP Act.
discharge	has the same meaning given to that term under the EP Act.
emission	has the same meaning given to that term under the EP Act.
Environmental Compliance Report	means a report to satisfy the CEO that the conditioned infrastructure and/or equipment has been constructed and/or installed in accordance with the works approval.
environmentally hazardous materials	means material (either solid or liquid) which, if discharged into the environment from or within the premises, may cause pollution or environmental harm.
EP Act	<i>Environmental Protection Act 1986</i> (WA).
EP Regulations	<i>Environmental Protection Regulations 1987</i> (WA).

Term	Definition
Freeboard	the distance between the maximum water surface elevation and the top of the retaining banks or structures at their lowest point.
High Wind conditions	means wind conditions rating 7 or greater on the Beaufort Windforce Scale (i.e. wind speeds 50 km/h or greater).
HMC	Heavy Metal Concentrate.
monthly period	means a one-month period commencing from first day of a month until first day of the immediately following month.
PASS	Potential Acid Sulfate Soils.
pH <sub>F</sub>	soil pH measured in the field.
pH <sub>FOX</sub>	measure of soil pH after rapid oxidation with hydrogen peroxide.
PM <sub>10</sub>	total particulate matter with a diameter of less than or equal to 10 µm.
premises	the premises to which this licence applies, as specified at the front of this licence and as shown on the premises map (Figure 1) in Schedule 1 to this works approval.
prescribed premises	has the same meaning given to that term under the EP Act.
ROM	Run of Mine.
time limited operations	refers to the operation of the infrastructure and equipment identified under this works approval that is authorised for that purpose, subject to the relevant conditions.
TPA	total potential acidity.
waste	has the same meaning given to that term under the EP Act.
works approval	refers to this document, which evidences the grant of the works approval by the CEO under section 54 of the EP Act, subject to the conditions.
works approval holder	refers to the occupier of the premises being the person to whom this works approval has been granted, as specified at the front of this works approval.

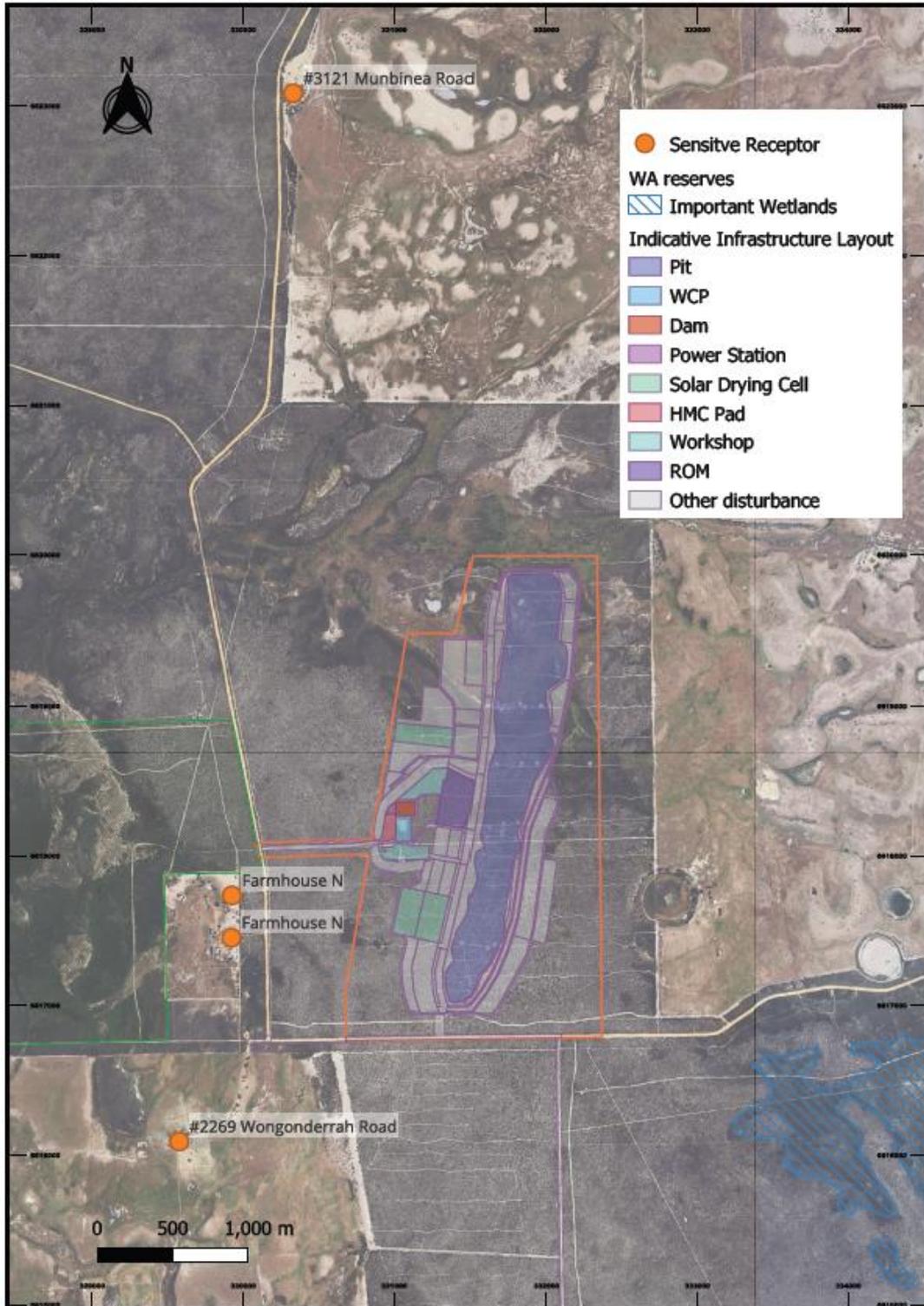
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**END OF CONDITIONS**

# Schedule 1: Maps

## Premises map

The boundary of the prescribed premises is shown in the map below (Figure 1).



**Figure 1: Map of the boundary of the prescribed premises with indicative location of key infrastructure**

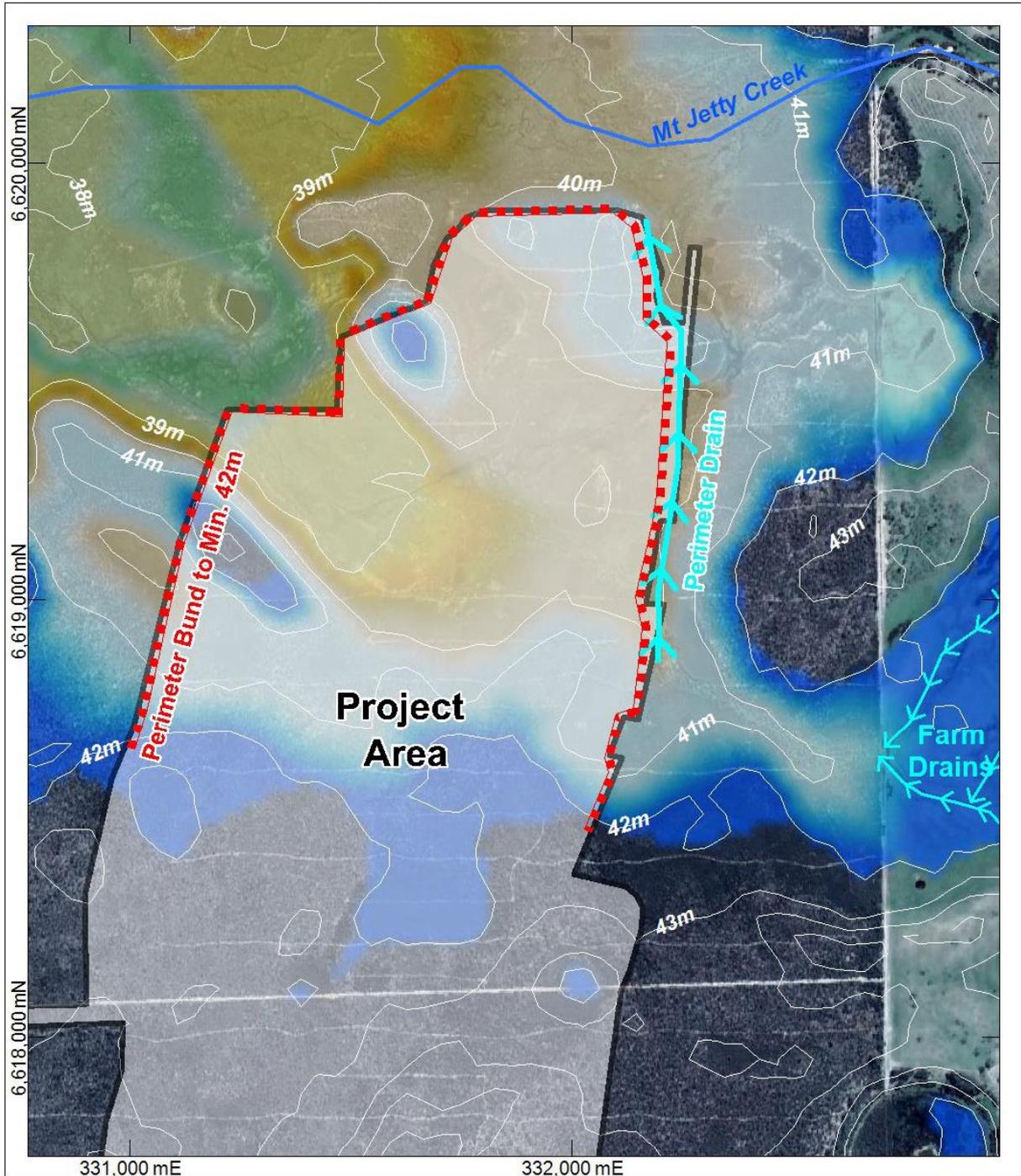
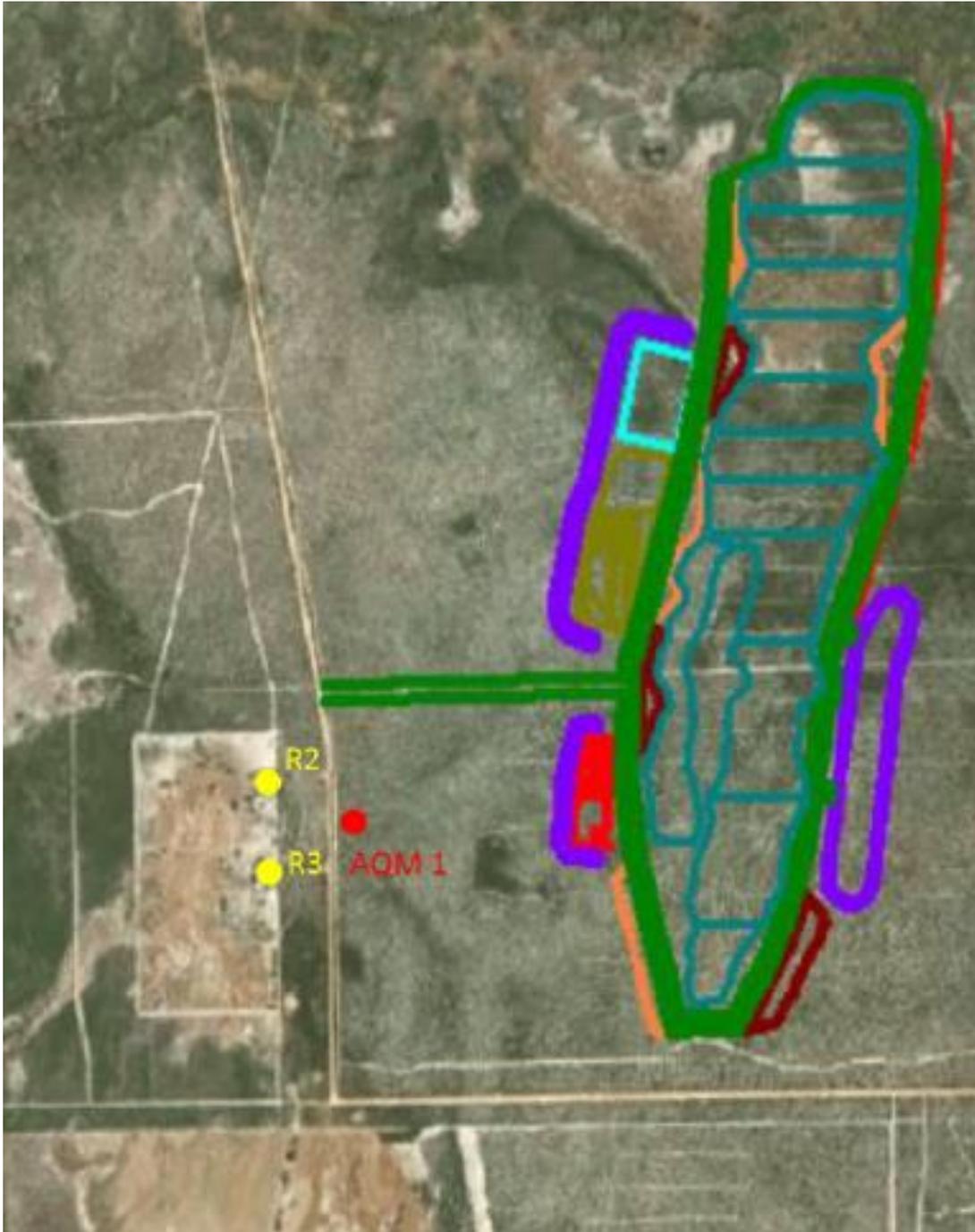
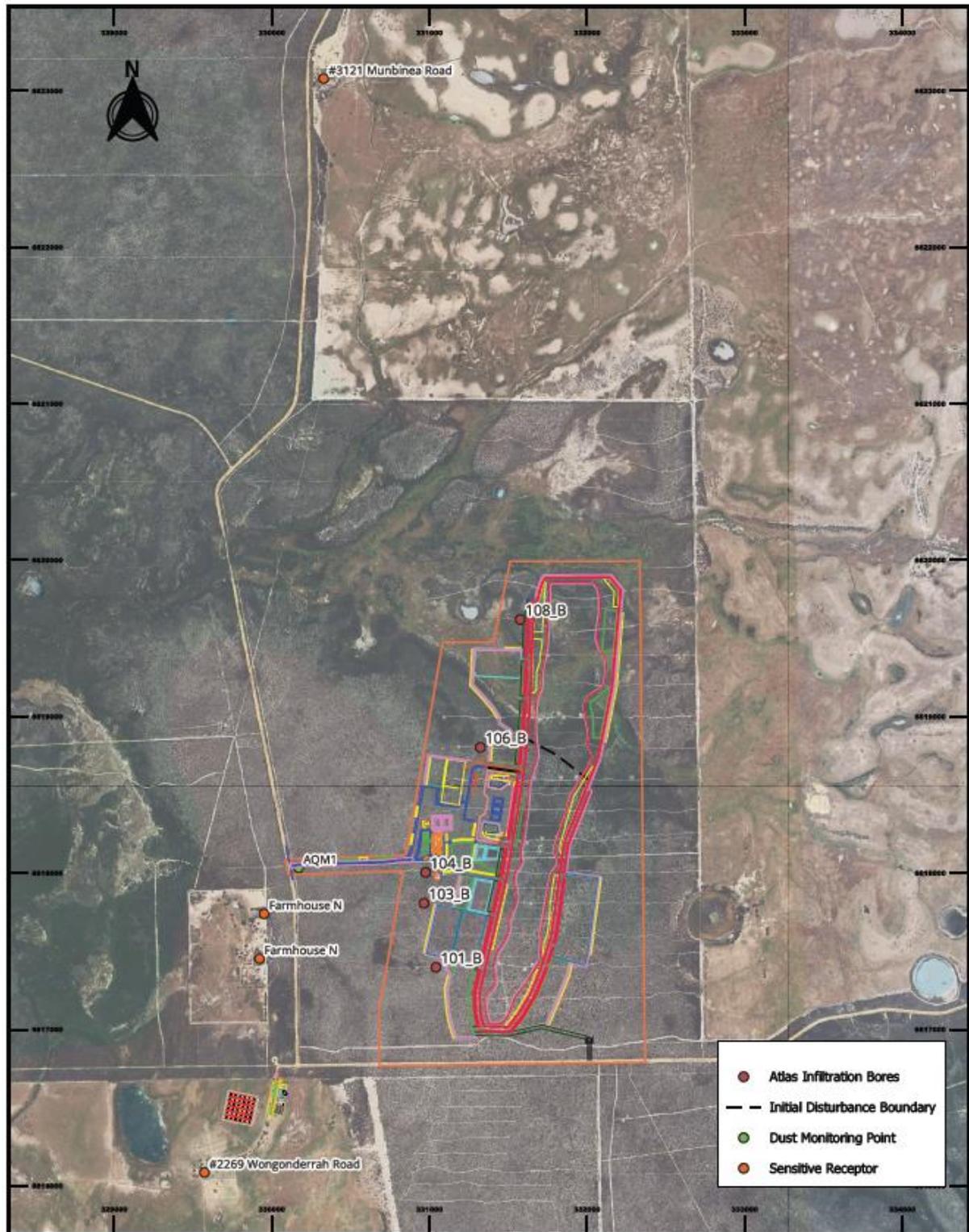


Figure 2: Map depicting the approximate lay out of the earthen bund around the mining area with a perimeter drain



**Figure 3: Map depicting the approximate location (AQM 1) for the placement of the air quality monitor**



Date: 26/06/2024



Figure 4: Map depicting groundwater monitoring bore locations and initial mining disturbance boundary