



<b>Works Approval Number</b>	W6251/2019/1
<b>Works Approval Holder</b>	Iluka Resources Limited
<b>ACN</b>	008 675 018
<b>Registered business address</b>	Level 14, 240 St Georges Terrace PERTH WA 6000
<b>File Number</b>	DER2019/000302
<b>Duration</b>	01/08/2019 to 29/07/2022
<b>Date of issue</b>	Friday, 1 August 2019
<b>Prescribed Premises</b>	Category 8: Mineral sands mining or processing
<b>Premises</b>	Eneabba Mineral Sands Mine Brand Highway ENEABBA WA 6518  Legal description – Part of tenement ML267SA

This Works Approval is granted to the Works Approval Holder, subject to the following conditions, on 1 August 2019, by:

**Tim Gentle**  
**MANAGER, RESOURCE INDUSTRIES**  
**REGULATORY SERVICES**

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

## Explanatory notes

These explanatory notes do not form part of this Works Approval.

### Defined terms

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Definition of terms used in this Works Approval can be found at the start of this Works Approval. Terms which are defined have the first letter of each word capitalised throughout this Works Approval.

### Department of Water and Environmental Regulation

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The Department of Water and Environmental Regulation (DWER) is established under section 35 of the *Public Sector Management Act 1994* and designated as responsible for the administration of Part V, Division 3 of the *Environmental Protection Act 1986* (WA) (EP Act). The Department also monitors and audits compliance with licences and works approvals, takes enforcement action and develops and implements licensing and industry regulation policy.

### Works Approval

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Section 52 of the EP Act provides that an occupier of any premises commits an offence if any work is undertaken on, or in relation to, the premises which causes the premises to become, or to become capable of being, Prescribed Premises, except in accordance with a works approval.

Section 56 of the EP Act provides that an occupier of Prescribed Premises commits an offence if Emissions are caused or increased or permitted to be caused or increased, or Waste, noise, odour or electromagnetic radiation is altered or permitted to be altered from Prescribed Premises, except in accordance with a works approval or licence.

Categories of Prescribed Premises are defined in Schedule 1 of the *Environment Protection Regulations 1987* (WA) (EP Regulations).

This Works Approval does not authorise any activity which may be a breach of the requirements of another statutory authority including, but not limited to, the following:

- conditions imposed by the Minister for Environment under Part IV of the EP Act;
- conditions imposed by DWER for the clearing of native vegetation under Part V, Division 2 of the EP Act;
- any requirements under the *Waste Avoidance and Resource Recovery Act 2007*;
- any requirements under the *Environmental Protection (Controlled Waste) Regulations 2004*; and
- any other requirements specified through State legislation.

It is the responsibility of the Works Approval Holder to ensure that any action or activity referred to in this Works Approval is permitted by, and is carried out in compliance with, statutory requirements.

The Works Approval Holder must comply with the Works Approval. Contravening a Works Approval Condition is an offence under s.55 of the EP Act.

### Responsibilities of Works Approval Holder

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Separate to the requirements of this Works Approval, general obligations of Works Approval Holders are set out in the EP Act and the regulations made under the EP Act. For example, the Works Approval Holder must comply with the following provisions of the EP Act:

- the duties of an occupier under s.61; and
- restrictions on making certain changes to Prescribed Premises unless the changes are in accordance with a Works Approval, Licence, closure notice or environmental protection notice (s.53).

Strict penalties apply for offences under the EP Act.

## Reporting of incidents

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The Works Approval Holder has a duty to report to the Department all Discharges of Waste that have caused or are likely to cause Pollution, Material Environmental Harm or Serious Environmental Harm, in accordance with s.72 of the EP Act.

## Offences and defences

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The EP Act and its regulations set out a number of offences including:

- Offence of emitting an Unreasonable Emission from any Premises under s.49.
- Offence of causing Pollution under s.49.
- Offence of dumping Waste under s.49A.
- Offence of discharging Waste in circumstances likely to cause Pollution under s.50.
- Offence of causing Serious Environmental Harm (s.50A) or Material Environmental Harm (s.50B).
- Offence of causing Emissions which do not comply with prescribed standards (s.51).
- Offences relating to Emissions or Discharges under regulations prescribed under the EP Act, including materials discharged under the *Environmental Protection (Unauthorised Discharges) Regulations 2004 (WA)*.
- Offences relating to noise under the *Environmental Protection (Noise) Regulations 1997 (WA)*.

Section 53 of the EP Act provides that a Works Approval Holder commits an offence if Emissions are caused, or altered, from a Prescribed Premises unless done in accordance with a Works Approval, Licence or the requirements of a closure notice or an environmental protection notice.

Defences to certain offences may be available to a Works Approval Holder and these are set out in the EP Act. Section 74A(b)(iii) provides that it is a defence to an offence for causing Pollution, in respect of an Emission, or for causing Serious Environmental Harm or Material Environmental Harm, or for discharging or abandoning Waste in water to which the public has access, if the Works Approval Holder can prove that an Emission or Discharge occurred in accordance with a Works Approval.

This Works Approval specifies the Emissions and Discharges, and the limits and Conditions which must be satisfied in respect of specified Emissions and Discharges, in order for the defence to offence provision to be available.

## Authorised Emissions and Discharges

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The specified and general Emissions and Discharges from the Works authorised through this Works Approval are authorised to be conducted in accordance with the Conditions of this Works Approval.

## Amendment of Works Approval

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The Works Approval Holder can apply to amend the Conditions of this Works Approval under s.59 of the EP Act. An application form for this purpose is available from DWER.

The CEO may also amend the Conditions of this Works Approval at any time on the initiative of the CEO without an application being made.

## Duration of Works Approval

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The Works Approval will remain in force for the duration set out on the first page of this Works Approval or until it is surrendered, suspended or revoked in accordance with s.59A of the EP Act.

## Suspension or revocation

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The CEO may suspend or revoke this Works Approval in accordance with s.59A of the EP Act.

# Definitions and interpretation

## Definitions

In this Works Approval, the terms in Table 1 have the meanings defined.

**Table 1: Definitions**

Term	Definition
ACN	Australian Company Number
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>
Condition	means a condition to which this Works Approval is subject under s.62 of the EP Act
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
Department Request	means a request for Books or other sources of information to be produced, made by an Inspector or CEO to the Works Approval Holder in writing and sent to the Works Approval's address for notifications, as described at the front of this Works Approval, in relation to: a) compliance with the EP Act or this Works Approval; b) the Books or other sources of information maintained in accordance with this Works Approval; or c) the Books or other sources of information relating to Emissions from the Premises
Discharge	has the same meaning given to that term under the EP Act
DWER	Department of Water and Environmental Regulation
Emission	has the same meaning given to that term under the EP Act
EMP	Eneabba Monazite Pit
Environmental Harm	has the same meaning given to that term under the EP Act
Environmental Compliance Report	means a report to satisfy the CEO that Works have been constructed in accordance with the Works Approval
EP Act	means the <i>Environmental Protection Act 1986</i> (WA)
EP Regulations	means the <i>Environmental Protection Regulations 1987</i> (WA)
Implementation Agreement or Decision	has the same meaning given to that term under the EP Act
Inspector	means an inspector appointed by the CEO in accordance with s.88 of the EP Act
Licence	has the same meaning given to that term under the EP Act
Material Environmental Harm	has the same meaning given to that term under the EP Act
MSRP	Mineral Sands Recovery Plant; includes conveyor, mobile screening unit and de-sliming cyclones
Pollution	has the same meaning given to that term under the EP Act
Premises	refers to the premises to which this Works Approval applies, as specified at the front of this Works Approval and as shown on the map in Schedule

	2 to this Works Approval
Prescribed Premises	has the same meaning given to that term under the EP Act
Professional Engineer	means a person holding current certification from the Institution of Engineers Australia (IEAust)
Serious Environmental Harm	has the same meaning given to that term under the EP Act
Time Limited Operational Phase	means full mining and processing operations permitted under this Works Approval, subject to the Conditions, whilst an application for licence amendment is being processed
tph	tonnes per hour
Unreasonable Emission	has the same meaning given to that term under the EP Act
Waste	has the same meaning given to that term under the EP Act
Works	refers to the Works described in Schedule 1, at the locations shown in Schedule 1 of this Works Approval to be carried out at the Premises, subject to the Conditions
Works Approval	refers to this document, which evidences the grant of the works approval by the CEO under s.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

## Interpretation

In this Works Approval:

- (a) the words 'including', 'includes' and 'include' will be read as if followed by the words 'without limitation';
- (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 means the version of the standard, guideline or code of practice in force at the time of granting of this Works Approval and includes any amendments to the standard, guideline or code of practice which may occur from time to time during the course of the Works Approval; and
- (e) unless specified otherwise, any reference to a section of an Act refers to that section of the EP Act.

## Conditions

### Construction phase

#### Infrastructure

1. The Works Approval Holder must install and undertake the Works for the infrastructure:
  - (a) specified in Column 1; and
  - (b) to the requirements specified in Column 2; of Table 2 below.
2. The Works Approval Holder must not depart from the requirements specified in Column 2 of Table 2 except:
  - (a) where such a departure does not increase risks to public health, public amenity or

- the environment; and
- (b) all other Conditions in this Works Approval are still satisfied.
3. Within 28 days of the completion of the Works specified in Column 2 of Table 2 the Works Approval Holder must provide to the CEO an Environmental Compliance Report.
4. The Works Approval Holder must ensure the report required by Condition 3 includes, but is not limited to, the following:
- certification by a suitably qualified Professional Engineer that each item of infrastructure or component of infrastructure specified in Column 1 of Table 2 has been constructed with no material defects and to the requirements specified in Column 2 of Table 2;
  - contains 'as constructed' plans for each item of infrastructure or component of infrastructure specified in Column 1 of Table 2;
  - where a departure from the requirements specified in Column 2 of Table 2 occurs and is of a type allowed by Condition 2, the Works Approval Holder must provide to the CEO a description of, and explanation for, the departure along with the report required by Condition 2; and
  - be signed by a person authorised to represent the Works Approval Holder and contains the printed name and position of that person within the company.

**Table 2: Infrastructure requirements table**

	Column 1	Column 2
	Infrastructure/ Equipment	Requirements (design and construction)
1	Mobile screening unit (in-pit)	<ul style="list-style-type: none"> <li>Design capacity: 800 tph;</li> </ul>
2	Process water dam	<ul style="list-style-type: none"> <li>Must be lined with HDPE of at least 1.0 mm thickness;</li> </ul>
3	Feed stockpile area	<ul style="list-style-type: none"> <li>Must be constructed with overburden material or similar and track rolled with a dozer;</li> <li>Dimensions: 45 m x 40 m</li> </ul>
4	Feed hopper and conveyor	None specified
5	Oversize screen	
6	Wet vibrating screen	
7	Desliming cyclones (2)	<ul style="list-style-type: none"> <li>Design capacity: 60 tph;</li> </ul>
8	Thickener tank	<ul style="list-style-type: none"> <li>Design capacity: 15 tph (slimes);</li> </ul>
9	Product concentrate storage area	<ul style="list-style-type: none"> <li>Dimensions: 40 m x 40 m;</li> <li>Must be constructed with a sub-surface drainage system comprising drainage pipework, aggregate, geofabric and clean fill sand;</li> </ul>
10	Process plant area	<ul style="list-style-type: none"> <li>Must be constructed in a manner that contains all surface water runoff from the process plant area to within the operational footprint, for return to the process water dam;</li> </ul>
11	Pipelines containing clay slimes / vehicle wash down	<p>Must be constructed with:</p> <ul style="list-style-type: none"> <li>Automatic cut-outs in the event of a pipe failure; OR</li> <li>Secondary containment sufficient to contain any spill for a period equal to the time between routine inspections; OR</li> <li>Telemetry systems and pressure sensors along pipelines to allow the detection of leaks and failures;</li> </ul>
12	Vehicle wash down bay	None specified.

## Time limited operational phase

5. Following submission of the report required by Condition 3, the Works Approval Holder may operate the MSRP for a period not exceeding 90 days from the submission date of that report, or until such time as a Licence amendment for the same is granted.

## Emissions

6. The Works Approval Holder must not cause any Emissions from the Works authorised through this Works Approval, and during the Time Limited Operational Phase, except for specified Emissions and general Emissions described in Column 1 of Table 3, subject to the exclusions, limitations or requirements specified in Column 2 of Table 3.

**Table 3: Authorised Emissions table**

Column 1	Column 2
Emission type	Exclusions/Limitations/Requirements
<b>Specified Emissions</b>	
Disposal of tailings	Subject to compliance with Condition 7
Indirect emissions to groundwater	Only from seepage of water entrained within clay slimes, deposited in accordance with Condition 7
Fugitive dust	Subject to compliance with Condition 8
<b>General Emissions</b>	
Emissions which arise from undertaking the Works	<p>Emissions excluded from General Emissions are:</p> <ul style="list-style-type: none"> <li>• Unreasonable Emissions; or</li> <li>• Emissions that result in, or are likely to result in, Pollution, Material Environmental Harm or Serious Environmental Harm; or</li> <li>• Discharges of Waste in circumstances likely to cause Pollution; or</li> <li>• Emissions that result, or are likely to result in, the Discharge or abandonment of Waste in water to which the public has access; or</li> <li>• Emissions or Discharges which do not comply with an Approved Policy or a prescribed standard; or</li> <li>• Emissions or Discharges which do not comply with the conditions in an Implementation Agreement or Decision; or</li> <li>• Emissions or Discharges the subject of offences under regulations prescribed under the EP Act, including materials discharged under the <i>Environmental Protection (Unauthorised Discharges) Regulations 2004</i>.</li> </ul>

## Disposal of tailings

7. The Works Approval Holder must ensure that all tailings produced during the Time Limited Operational Phase are deposited in accordance with the requirements specified in Table 4.

**Table 4: Tailings disposal requirements table**

Column 1	Column 2	Column 3
Type	Requirements	Site plan reference
Sand tailings and oversize	Must be returned to the EMP for disposal.	'EMP Resource Pit' as shown in Schedule 2
Clay slimes from the thickener	<p>Must be pumped as a thickened slurry to:</p> <ul style="list-style-type: none"> <li>• the clay slimes disposal pit; OR</li> <li>• used as dust suppressant on exposed areas within the Premises</li> </ul>	'Slimes Disposal Dam', as shown in Schedule 2



## Dust controls

8. During the Time Limited Operational Phase, the Works Approval Holder must implement the controls specified in Column 1 of Table 5 in accordance with the actions/requirements specified in Column 2 of Table 5.

**Table 5: Dust controls table**

Column 1	Column 2
Control	Actions/Requirements
Dust suppression	<ul style="list-style-type: none"> <li>• Must operate water carts when discernible levels of dust are generated from ground surfaces on the Premises;</li> <li>• Must apply proactively to unsealed operational areas associated with MSRP (e.g. in the mining area, roadways, loading areas and process plant area);</li> <li>• Must ensure that any water used on the Premises for dust suppression does not impact on the health of native vegetation;</li> </ul>
Mining	<ul style="list-style-type: none"> <li>• Must progressively remove overburden sheeting in the EMP in a manner that limits the area exposed to dust generation;</li> </ul>
Stockpiles	<ul style="list-style-type: none"> <li>• Monazite feed must be stockpiled within an earthen bunker containment area, fitted with a sprinkler system for watering the feed material;</li> <li>• Must operate a sprinkler system for watering stockpiled feed material during dry, windy conditions;</li> <li>• Mineral concentrate final product must be stockpiled within a bunker containment area;</li> <li>• Any spilled feed/product material must be removed regularly from the process plant area and returned to the stockpile(s);</li> </ul>
Material handling	<ul style="list-style-type: none"> <li>• Must implement loading and unloading procedures to ensure that dust emissions from material handling is minimised (e.g. minimise drop heights);</li> </ul>
Traffic	<ul style="list-style-type: none"> <li>• Must adhere to site speed limits and designated roads;</li> <li>• Must operate a vehicle wash down bay and ensure trucks loaded with finished product are washed prior to leaving the area.</li> </ul>

## Process monitoring

9. During the Time Limited Operational Phase, the Works Approval Holder must undertake process monitoring:
- of the process specified in Column 1 of Table 6;
  - for the parameters specified in Column 2 of Table 6; and
  - in the units specified in Column 3 of Table 6.

**Table 6: Process monitoring requirements table**

Column 1	Column 2	Column 3
Process description	Parameter	Units
Processing of ore	Amount of ore processed through the mineral recovery plant	tonnes
	Amount of mineral concentrate produced	
Disposal of tailings	Amount and location of sand tailings and clay slimes disposed on the Premises	



## Record-keeping

10. The Works Approval Holder must maintain accurate Books including information, reports and data in relation to the Works and the Books must:
    - (a) be legible;
    - (b) if amended, be amended in such a way that the original and subsequent amendments remain legible or are capable of retrieval;
    - (c) be retained for at least 3 years from the date the Books were made;
    - (d) be available to be produced to an Inspector or the CEO.
  11. The Works Approval Holder must comply with a Department Request within 14 days from the date of the Department Request or such other period as agreed to by the Inspector or the CEO.
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## Schedule 1: Works

At the time of assessment, Emissions and Discharges from the Works listed in Table 7 were considered in the determination of the risk and related Conditions for the Works Approval.

**Table 7: Authorised Works**

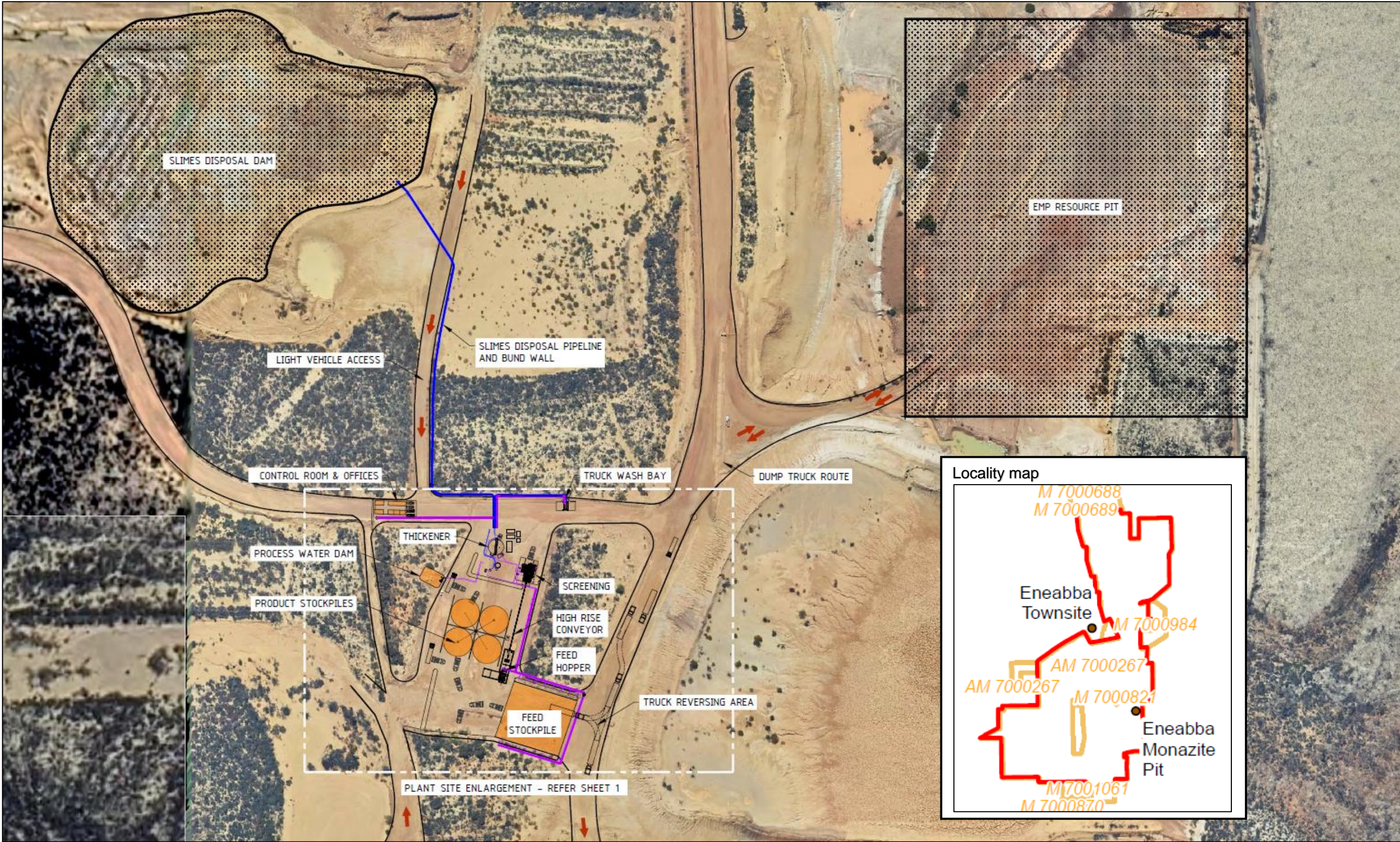
Works
Installation of the mobile screening unit (in-pit)
Civil excavation and earthworks
Construction and installation of the MSRP, including the thickener and associated infrastructure
Construction of the monazite feed stockpile and concentrate product stockpile areas, including earthen containment bunds
Construction of the process water dam
Construction of vehicle wash down bay
Installation of pipelines
Commissioning of the MSRP, including disposal of tailings streams



# Schedule 2: Maps

## Eneabba Monazite Recovery Project: Site features

The main features relating to the EMRP are shown in the map below. The locality map below depicts the location of the EMRP in relation to the Premises (Premises boundary depicted by red line).





# Schedule 2: Maps

## Eneabba Monazite Recovery Project: Plant site layout

The plant site layout and features are shown in the map below.

