

# Works Approval

Prescribed premises category de (Schedule 1, <i>Environmental Prot</i>		Assessed capacity	
Premises details	Enterprise Mine Site Legal description - Part of Mining tenements M24/29 and M24/170 as shown in Figure 1 CITY OF KALGOORLIE-BOULDER WA 6430		
Date of amendment	1/09/2021		
Date of issue	25/11/2019		
Duration	25/11/2019 to 25/11/202	23	
File Number	DER2019/000313		
Registered business address	377 Hannan Street KALGOORLIE WA 6430		
Works Approval Holder ACN	Paddington Gold Pty Ltd 008 585 886		
Works Approval Number	W6279/2019/1		

Prescribed premises category description (Schedule 1, <i>Environmental Protection Regulations 1987</i> )	Assessed capacity
Category 5: Processing or beneficiation of metallic or non-metallic ore	650,000 tonnes per annum
Category 6: Mine Dewatering: Premises on which water is extracted and discharged into the environment to allow mining of ore.	500,000 tonnes per annum

This Works Approval was amended on 1 September 2021, by:

### Lauren Edmands MANAGER RESOURCE INDUSTRIES

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

# **Definitions and interpretation**

### **Definitions**

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

#### Table 1: Definitions

Term	Definition		
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</i> <i>1986</i> Locked Bag 10 Joondalup DC WA 6919		
	info@dwer.wa.gov.au		
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</i> Sector Management Act 1994 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 the 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;		
	<ul> <li>(b) the Books or other sources of information maintained in accordance with this Works Approval; or</li> <li>(c) the Books or other sources of information relating to Emissions from the Premises.</li> </ul>		
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.		
Environmental Harm	has the same meaning given to that term under the EP Act.		
EP Act	means the Environmental Protection Act 1986 (WA).		
EP Regulations	means the Environmental Protection Regulations 1987 (WA).		
Implementation Agreement or Decision	has the same meaning given to that term under the EP Act.		

Term	Definition
Inspector	means an inspector appointed by the CEO in accordance with s.88 of the EP Act.
Material Environmental Harm	has the same meaning given to that term under the EP Act.
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 1 to this Works Approval.
Prescribed Premises	has the same meaning given to that term under the EP Act.
Serious Environmental Harm	has the same meaning given to that term under the EP Act.
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 2, 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' 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, referes to the latest version and therefore may be subject to change over time;
  - (iii) unless specified otherwise, any reference to a section of an Act refers to that section of the EP Act; and

(iv) unless specified otherwise, all definitions are in accordance with the EP Act.

# Works approval history

Date	Reference number	Summary of changes
25/11/2019	W6279/2019/1	Works approval granted.
1/09/2021	W6279/2019/1	Works approval amended to extend expiry date to 25/11/2023.

# Conditions

#### Infrastructure and equipment

- **1.** The Works Approval Holder must install and undertake the Works for the infrastructure and equipment:
  - (a) specified in Column 1;
  - (b) to the requirements specified in Column 2;
  - (c) at the location specified in Column 3

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 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. Subject to Condition 1, within 28 days of the completion of the Works specified in Column 1 of Table 2, the Works Approval Holder must provide to the CEO an engineering compliance report from the Engineering Project Manager or their delegate, confirming each item of infrastructure or component of infrastructure specified in Column 1 of Table 2 below has been constructed with no material defects and to the requirements specified in Column 2.
- **4.** 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 certification required by Condition 3.

Column 1	Column 2	Column 3
Infrastructure/ Equipment	Requirements (design and construction)	Site plan reference
Dewatering pipelines	<ul> <li>Required to meet the following standards:</li> <li>AS/NZS 2033:3008: Installation of polyethylene pipe systems;</li> <li>AS/NZS 4129:2008: Fittings for polyethylene (PE) pipes for pressure applications;</li> <li>AS/NZS 4130:2009 Polyethylene (PE) pipes for pressure applications; and</li> <li>AS/NZS 4131:2010: Polyethylene (PE) compounds for pressure pipes and fittings</li> </ul>	Dewatering abstraction and discharge points and dewatering pipeline as shown in Figure 1 in Schedule 1
Pipelines supplying water to paste fill plant	<ul> <li>Required to meet the following standards:</li> <li>AS/NZS 2033:3008: Installation of polyethylene pipe systems;</li> <li>AS/NZS 4129:2008: Fittings for polyethylene (PE) pipes for pressure applications;</li> </ul>	Dewatering pipeline and transport infrastructure as shown in Figure 1 in Schedule 1

Table	2:	Infrastructure	and e	auin	ment	reaui	rements	table
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Column 1	Column 2	Column 3
Infrastructure/ Equipment	Requirements (design and construction)	Site plan reference
	<ul> <li>AS/NZS 4130:2009 Polyethylene (PE) pipes for pressure applications; and</li> <li>AS/NZS 4131:2010: Polyethylene (PE) compounds for pressure pipes and fittings</li> <li>Be located within a bund sufficiently sized to capture spills from the corresponding length of pipeline.</li> </ul>	
Paste Fill Plant:	<ul> <li>Bunding of the tailings hopper, mixer, tanks, sump and ramp required to be:         <ul> <li>On compacted sub-base.</li> <li>Concrete rated to 20MPa.</li> <li>Concrete 150mm thickness with F26 mesh placed centrally.</li> <li>In trafficable areas the concrete thickness at least 200mm.</li> <li>With retention capacity of at least 120% by volume of the material in the slurry/mixing tank.</li> <li>A pump be installed that has a capacity of 20L/s.</li> </ul> </li> <li>Paste plant tailings storage hardstand required to be:         <ul> <li>At least 80m x 80m in area</li> <li>Constructed of natural clay rolled and compacted to a permeability of at least 1 x 10<sup>-6</sup> m/s</li> <li>Graded towards runoff collection sump</li> <li>Slope to entry point designed to ensure containment of any runoff water to the sump</li> <li>Bunded on three sides with walls 2.5m high of compacted clay</li> </ul> <li>Plant hardstand required to be:         <ul> <li>Constructed of natural clay rolled and compacted to a permeability of at least 1 x 10<sup>-6</sup> m/s</li> <li>Graded towards runoff collection sump</li> <li>Slope to entry point designed to ensure containment of any runoff water to the sump</li> <li>Bunded on three sides with walls 2.5m high of compacted clay</li> </ul> </li> <li>Plant hardstand required to be:     <ul> <li>Constructed of natural clay rolled and compacted to a permeability of at least 1 x 10<sup>-6</sup> m/s</li> <li>Graded towards runoff collection sump</li> </ul> </li> <li>Run off water, water storage tank and paste plant pipelines required to be:             <ul> <li>Within secondary containment infrastructure where above ground</li> <li>Secondary containment sloped toward a catch pit</li> </ul> </li></li></ul>	Paste plant layout as shown in Figure 2 in Schedule 1

## Commissioning phase

- **5.** The Works Approval Holder must conduct Commissioning of the paste fill plant for a period not exceeding one month.
- **6.** The Works Approval Holder must conduct Commissioning of the dewatering pipeline for a period not exceeding one month.
- **7.** The Works Approval Holder must notify the CEO within 7 days after, the completion of date of Commissioning.
- **8.** The Works Approval Holder must ensure the report required by Condition 7 of this Works Approval includes:
  - (a) A summary of the commissioning activities undertaken, including time frames;
  - (b) Any discharges which occur;
  - (c) A summary of any accidents or malfunctions which may have occurred;
  - (d) A summary of monitoring results obtained under Condition 15.
  - (e) current monitoring results shall be compared to previous monitoring and baseline data in tabular and graphical formats for each parameter.

#### Time limited operational phase

**9.** Upon completion of commissioning and the submission of the Compliance Report in accordance with Condition 3, the Works Approval Holder may conduct full dewatering operations for a period not exceeding six months from the completion date of Commissioning, or until a Licence for the operation is granted, whichever comes first.

#### **Emissions**

**10.** The Works Approval Holder must not cause any Emissions from the Works authorised through this Works Approval 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
Specified Emissions	
Dewatering discharge to the Enterprise pit	Subject to compliance with Condition 15
General Emissions (excluding Specified Emissions)	
Emissions which arise from undertaking the Works set out in Schedule 2.	Emissions excluded from General Emissions are:
	Unreasonable Emissions; or
	Emissions that result in, or are likely

Column 1	Column 2
Emission type	Exclusions/Limitations/Requirements
	to result in, Pollution, Material Environmental Harm or Serious Environmental Harm; or
	<ul> <li>Discharges of Waste in circumstances likely to cause Pollution; or</li> </ul>
	• Emissions that result, or are likely to result in, the Discharge or abandonment of Waste in water to which the public has access; or
	<ul> <li>Emissions or Discharges which do not comply with an Approved Policy; or</li> </ul>
	<ul> <li>Emissions or Discharges which do not comply with prescribed standard; or</li> </ul>
	<ul> <li>Emissions or Discharges which do not comply with the conditions in an Implementation Agreement or Decision; or</li> </ul>
	• Emissions or Discharges the subject of offences under regulations prescribed under the EP Act, including materials discharged under the Environmental Protection (Unauthorised Discharges) Regulations 2004.

### **Operation Conditions**

- **11.** The Works Approval Holder shall maintain the bund capacity around the tailings hopper, mixer, tanks, sump and ramp such that sludge and runoff water is periodically removed to ensure a retention capacity equalling at least 120% by volume of the material in the slurry/mixing tank.
- **12.** The Licensee shall ensure that no visible dust generated by the activities on the Premises crosses the boundary of the Premises.
- **13.** Trucks transporting dry tailings shall be covered to ensure that tailings dust is contained.
- **14.** 12 hourly visual inspections are to be carried out of pipelines and scour pits for integrity.

### Monitoring

**15.** The Licence Holder must monitor the parameters specified in Column 1 from the locations specified in Column 2 of Table 4. The parameters must be sampled at the frequency specified in Column 3, and in accordance with the method specified in Column 4.

**16.** The water and sediment samples as set out in Table 4 must be analysed at a NATA accredited laboratory.

Table 4: Emissions and discharge monitoring

Column 1		Column 2	Column 3	Column 4
Parameters		Location	Frequency	Method
Volumetric flow	w rate	Enterprise Open Pit	Continuous	
Water quality	EC pH Total Dissolved Solids Total Recoverable Hydrocarbons		Once on establishment of flow from Enterprise Underground	AS/NZS 5667.1 AS/NZS 5667.10
Anions and Cations	Bicarbonate (HCO <sub>3</sub> ) Carbonate (CO <sub>3</sub> ) Calcium (Ca) Chloride (Cl) Magnesium (Mg) Potassium (K) Sodium (Na) Sulfate (SO <sub>4</sub> )			
Total Metals and Trace Elements	Aluminum (Al) Antimony (Sb) Arsenic (As) Barium (Ba) Beryllium (Be) Boron (B) Cadmium (Cd) Chromium (Cd) Chromium (Cr) Cobalt (Co) Copper (Cu) Iron (Fe) Lead (Pb) Manganese (Mn) Mercury (Hg) Molybdenum (Mo) Nickel (Ni) Selenium (Se) Thallium (Tl) Uranium (U) Vanadium (V) Zinc (Zn)			

### **Record-keeping**

- **17.** 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 ways 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.
- **18.** 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.

# Schedule 1: Maps

#### **Premises map**

The Premises are shown in the map below.

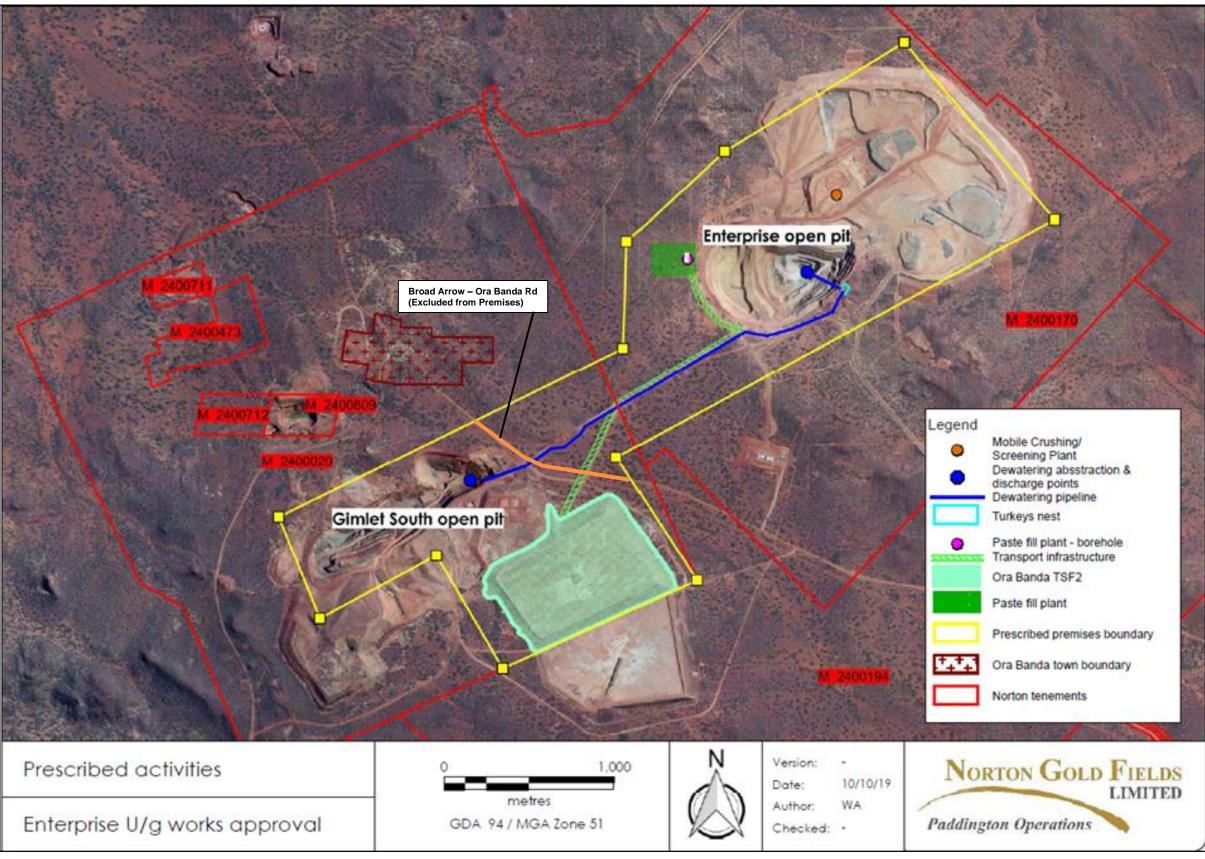


Figure 1: Premises map

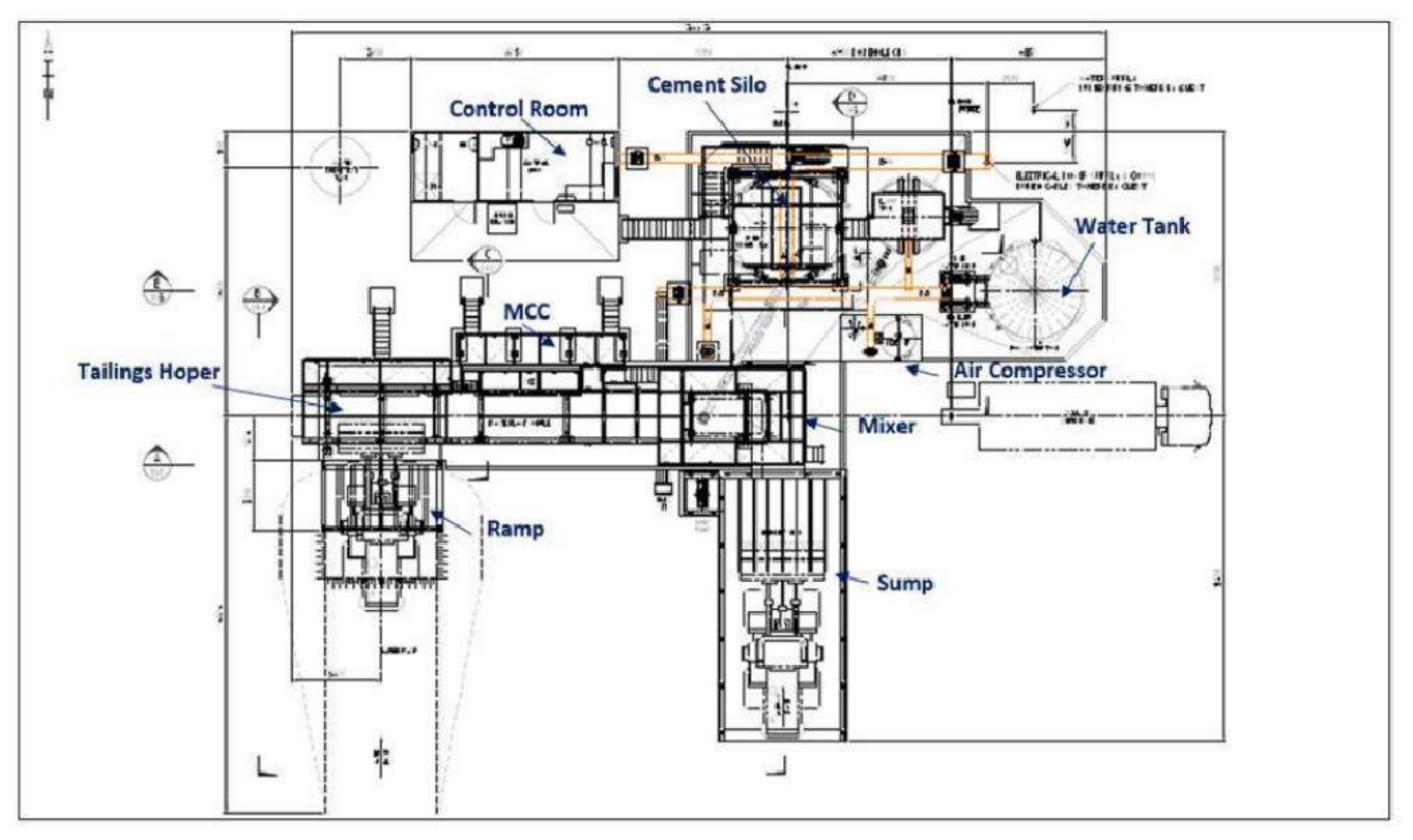


Figure 2: Paste plant layout

# **Schedule 2: Works**

At the time of assessment, Emissions and Discharges from the Works listed in Table 5 were considered in the determination of the risk and related Conditions for the Works Approval.

#### Table 4: Authorised Works

Works	Specifications/Drawings
Construction of paste fill plant with bunding	Figure 2 of Schedule 1
Pipeline from Enterprise underground mine to Enterprise pit.	Figure 1 of Schedule 1

#### Site layout

The infrastructure and equipment are set out on the Premises in accordance with the site layout specified on the Premises map in Schedule 1.