



# Works Approval

## *Environmental Protection Act 1986, Part V*

**Works Approval Holder:** Mt Magnet Gold Pty Ltd

**Works Approval Number:** W5385/2013/1

**Registered office:** Suite 4, 148 Greenhill Road  
PARKSIDE SA 5063

**ACN:** 008 669 556

**Premises address:** Mt Magnet Gold  
Mining Tenements M58/121, M58/193 and M58/205  
MOUNT MAGNET WA 6623  
as depicted in Schedule 1.

The following category from the *Environmental Protection Regulations 1987* cause this Premises to be a prescribed premises for the purposes of the *Environmental Protection Act 1986*:

Category number	Category description	Category production or design capacity	Premises production or design capacity
5	Processing or beneficiation of metallic or non-metallic ore: premises on which – (a) metallic or non-metallic ore is crushed, ground, milled or otherwise processed; (b) tailings from metallic or non-metallic ore are reprocessed; or (c) tailings or residue from metallic or non-metallic ore are discharged into a containment cell or dam.	50,000 tonnes or more per annual period	2,000,000 tonnes per annual period

**Issue date:** Thursday, 8 August 2013

**Commencement date:** Thursday, 8 August 2013

**Expiry date:** Wednesday, 7 August 2019

**Conditions of Works Approval**

Subject to the conditions of the works approval set out in the attached pages.

Date signed: 30 June 2016

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**Alana Kidd**  
**Manager Licensing – Resource Industries**  
Officer delegated under Section 20  
of the *Environmental Protection Act 1986*



# Works Approval Conditions

## 1 General

### 1.1 Interpretation

1.1.1 In the Works Approval, definitions from the *Environmental Protection Act 1986* apply unless the contrary intention appears.

1.1.2 In the Works Approval, unless the contrary intention appears:

‘**Act**’ means the *Environmental Protection Act 1986*;

‘**annual period**’ means the inclusive period from 1 July until 30 June in the following year;

‘**CEO**’ means Chief Executive Officer of the Department of Environment Regulation;

‘**CEO**’ for the purpose of correspondence means;

Chief Executive Officer  
Department Administering the Environmental Protection Act 1986  
Locked Bag 33  
CLOISTERS SQUARE WA 6850  
Email: info@der.wa.gov.au

‘**Premises**’ means the area defined in the Premises Map in Schedule 1 and listed as the Premises address on page 1 of the Works Approval;

‘**Stage 3**’ means construction of the third embankment raise to RL 483 metres;

‘**Stage 4**’ means construction of the fourth and final embankment raise to a maximum of RL 485 metres;

‘**Works Approval**’ means this Works Approval numbered W5385/2013/1 and issued under the *Environmental Protection Act 1986*; and

‘**Works Approval Holder**’ means the person or organisation named as the Works Approval Holder on page 1 of the Works Approval.

### 1.2 General conditions

1.2.1 The Works Approval Holder shall construct the works in accordance with the documentation detailed in Table 1.2.1:

<b>Document</b>	<b>Parts</b>	<b>Date of Document</b>
Letter titled Works Approval Application: Mt Magnet Gold Pty Ltd Checker Tailings Storage Facility 3 (CTSF3), Dolly Pett, Mt Magnet Gold Pty Ltd	All	23 January 2013
Works Approval Application Form	All	24 January 2013
Mt Magnet Gold NL Tailings Storage Facility No 3 Notice of Intent, Soil & Rock Engineering Pty Ltd	All, including Drawings and Appendices	19 July 1999
Scope of Works Tailings Storage Facility No 3 Mt Magnet	All, including	19 July 1999



Gold Mine, Soil & Rock Engineering Pty Ltd	Drawings and Appendices	
Tailings Storage Audit and Review Tailings Storage Facility 3 and Yuletide Pit Hill 50 Gold Mine – Mt Magnet Gold Mine – June 2012, Coffey Mining	All, including Drawings and Appendices	14 August 2012
Email titled MWES Report Recommendations, Dolly Pett, Mt Magnet Gold Pty Ltd	All	29 April 2013
Hydrogeological Review CTSF3 Mt Magnet Gold Limited, MWES Consulting	All	11 March 2013
Mt Magnet Gold TSF Seepage Management Plan, MMG-ENV-PLN-021, Mt Magnet Gold Pty Ltd	All	5 July 2013
Mt Magnet Gold Tailings Storage Facility Operation Manual, MMG-PRO-PCD-005, Mt Magnet Gold Pty Ltd	All	5 July 2013
Application Form dated 13 May 2016: Amendment to extend expiry date	All	13 May 2016

Note 1: Where the details and commitments of the documents listed in condition 1.2.1 are inconsistent with any other condition of this works approval, the conditions of this works approval shall prevail.

## 2 Information

### 2.1 Reporting

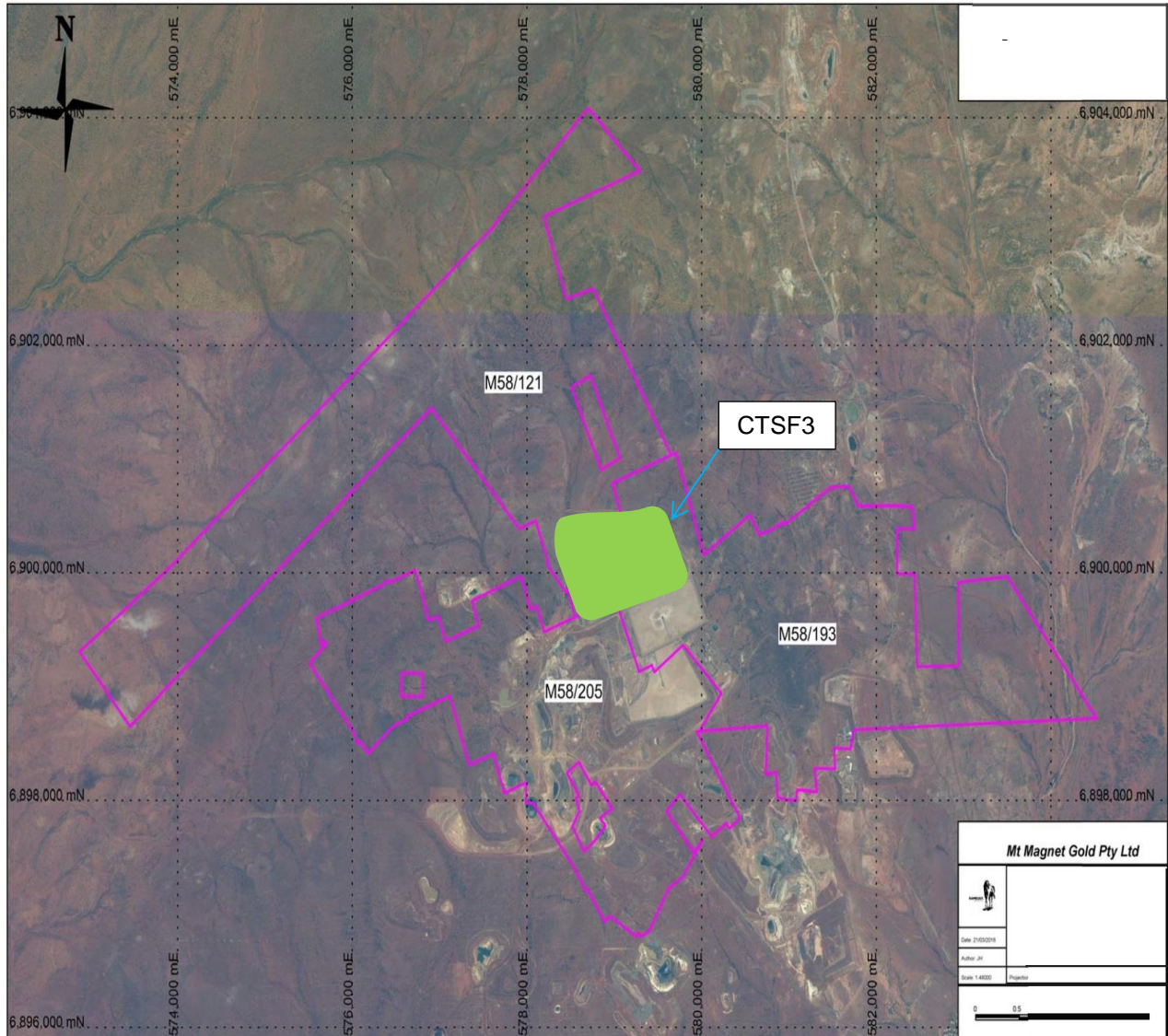
- 2.1.1 The Works Approval Holder shall submit a partial compliance document to the CEO, following the construction of Stage 3 and a final compliance document at the completion of Stage 4.
- 2.1.2 The compliance document shall:
- (a) certify that the works were constructed in accordance with the conditions of the Works Approval; and
  - (b) be signed by a person authorised to represent the Works Approval Holder and contain the printed name and position of that person within the company.



# Schedule 1: Maps

## Premises map

The Premises is shown in the map below. The pink line depicts the Premises boundary.





# Decision Document

## *Environmental Protection Act 1986, Part V*

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**Proponent:** Mt Magnet Gold Pty Ltd

**Works Approval:** W5385/2013/1

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**Registered office:** Suite 4, 148 Greenhill Road  
PARKSIDE SA 5063

**ACN:** 008 669 556

**Premises address:** Mt Magnet Gold  
Mining Tenements M58/121, M58/193 and M58/205  
MOUNT MAGNET WA 6623

**Issue date:** Thursday, 8 August 2013

**Commencement date:** Thursday, 8 August 2013

**Expiry date:** Wednesday, 7 August 2019

### **Decision**

Based on the assessment detailed in this document the Department of Environment Regulation (DER), has decided to issue an amended Works Approval. DER considers that in reaching this decision, it has taken into account all relevant considerations and legal requirements, and that the amended Works Approval and its conditions will ensure that an appropriate level of environmental protection is provided.

Decision Document prepared by: Paul Anderson  
Licensing Officer

Decision Document authorised by: Alana Kidd  
Delegated Officer



## Contents

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## 1 Purpose of this Document

This decision document explains how DER has assessed and determined the application and provides a record of DER's decision-making process and how relevant factors have been taken into account. Stakeholders should note that this document is limited to DER's assessment and decision making under Part V of the *Environmental Protection Act 1986*. Other approvals may be required for the proposal, and it is the proponent's responsibility to ensure they have all relevant approvals for their Premises.

## 2 Administrative summary

Administrative details		
Application type	Works Approval <input type="checkbox"/>	
	New Licence <input type="checkbox"/>	
	Licence amendment <input type="checkbox"/>	
	Works Approval amendment <input checked="" type="checkbox"/>	
Activities that cause the premises to become prescribed premises	<b>Category number(s)</b>	<b>Assessed design capacity</b>
	5	2,000,000 tonnes per annual period
Application verified	Date: Not applicable	
Application fee paid	Date: Not applicable	
Works Approval has been complied with	Yes <input type="checkbox"/>	No <input type="checkbox"/> N/A <input checked="" type="checkbox"/>
Compliance Certificate received	Yes <input type="checkbox"/>	No <input type="checkbox"/> N/A <input checked="" type="checkbox"/>
Commercial-in-confidence claim	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
Commercial-in-confidence claim outcome		
Is the proposal a Major Resource Project?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Was the proposal referred to the Environmental Protection Authority (EPA) under Part IV of the <i>Environmental Protection Act 1986</i> ?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
	Referral decision No:	
	Managed under Part V <input type="checkbox"/>	
		Assessed under Part IV <input type="checkbox"/>
Is the proposal subject to Ministerial Conditions?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
		Ministerial statement No:



		EPA Report No:
Does the proposal involve a discharge of waste into a designated area (as defined in section 57 of the <i>Environmental Protection Act 1986</i> )?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Department of Water consulted Yes <input type="checkbox"/> No <input type="checkbox"/>
Is the Premises within an Environmental Protection Policy (EPP) Area Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> If Yes include details of which EPP(s) here.		
Is the Premises subject to any EPP requirements? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> If Yes, include details here, eg Site is subject to SO <sub>2</sub> requirements of Kwinana EPP.		

### 3 Executive summary of proposal and assessment

Mt Magnet Gold Pty Ltd (MMG) operates the Mt Magnet Gold Mine (Mt Magnet Gold) through *Environmental Protection Act 1986* Licence L5529/1988/11.

MMG was issued Works Approval W5385/2013/1 (Works Approval) on the 8 August 2013 which authorised lifts of the embankments at the Mt Magnet Gold Checker Tailings Storage Facility 3 (CTSF3) from 475.5 metres reduced level (mRL) to a designed height of 485 mRL, in 2.5 metre (m) increments.

MMG completed works at the CTSF3 in November 2015 with an embankment height of 480.5 mRL being reached (Stage 2), and has submitted to DER on the 14 March 2016, a partial compliance document for the works as required by condition 5.1.1 of the Works Approval. MMG plans to undertake further works at the CTSF3 whereby the embankments will be lifted to a final height of 485 mRL, as approved by the Works Approval, through two additional staged lifts (stage 3 and 4). The Works Approval currently expires on the 7 August 2016, therefore MMG has applied to DER on the 13 May 2016 to have their Works Approval extended for a further 3 years so they can undertake these future works.

MMG engaged MWES Consulting (MWES) during the Works Approval application stage to investigate any potential impacts the raised tailings storage facility may have on the surrounding environment in respect to groundwater levels. MWES provided to MMG a report on its findings (*Hydrogeological Review CTSF3 Mt Magnet Gold Limited* (11 March 2013)).

MWES's report discussed future impacts and determined that groundwater pressure will rise in all surrounding areas by increasing the height of CTSF3. A greater rate of groundwater flux from the TSF will be generated, however this will be intercepted by the five installed recovery bores and the interception drain. The recovery pumps will subsequently produce higher flow rates, due to the higher available drawdown in each bore. MWES stated that the interception drain will continue to function as normal and not allow the level of groundwater to rise above the current level. MWES stated that they see no increased risk to the environment by raising of the CTSF3 to 485 mRL provided the current groundwater recovery and monitoring systems are maintained. MMG adopted these recommendations into their CTSF3 Seepage Management Plan and Tailings Storage Facility Operation Manual which were provided to DER as supporting documentation with their Works Approval application. Conditions for seepage recovery and ambient monitoring at the CTSF3 are already applied to Licence L5529/1988/11.



As part of this amendment, DER has not re-assessed the acceptability or impacts of emissions and discharges from the Premises. Where conditions have been added or removed from the existing Works Approval these are justified in Section 4. No amendment to Licence L5529/1988/11, which is for the operation of Mt Magnet Gold Mine, is required as a result of this Works Approval amendment.

DER has determined that there are no issues resulting from this amendment that require restricting the extension of Works Approval W5385/2013/1 for an additional 3 years.





## 4 Decision table

All applications are assessed in line with the *Environmental Protection Act 1986*, the *Environmental Protection Regulations 1987* and DER's Operational Procedure on Assessing Emissions and Discharges from Prescribed Premises. Where other references have been used in making the decision they are detailed in the decision document.

<b>DECISION TABLE</b>			
<b>Works Approval / Licence section</b>	<b>Condition number W = Works Approval L = Licence</b>	<b>Justification (including risk description &amp; decision methodology where relevant)</b>	<b>Reference documents</b>
<b>General</b>	N/A	<p><b>Construction</b></p> <p>This section has been updated by:</p> <ul style="list-style-type: none"> <li>removing any interpretation that is no longer referenced within the Works Approval;</li> <li>removing the definition of Director and replacing with CEO; and</li> <li>including a new definition for annual period.</li> </ul>	General provisions of the <i>Environmental Protection Act 1986</i> .
<b>General conditions</b>	W1.2.1 and W1.2.2	<p><b>Construction</b></p> <p>Condition 1.2.2 has been removed as it relates to a code of practise which is regulated by another decision making authority.</p>	Department of Environment Regulation, <i>Operational Procedure IR-OP-02 – Redundant Conditions</i> , 19 May 2016
<b>Premises operation</b>	W1.3, W2 to W4	<p><b>Construction</b></p> <p>Conditions W1.3, W2 to W4 have been removed from the Works Approvals as part of DER's Operational Procedures. These conditions were headings only and were originally used for consistent numbering purposes only and where not enforceable.</p>	Department of Environment Regulation, <i>Operational Procedure IR-OP-02 – Redundant Conditions</i> , 19 May 2016



<b>DECISION TABLE</b>			
<b>Works Approval / Licence section</b>	<b>Condition number W = Works Approval L= Licence</b>	<b>Justification (including risk description &amp; decision methodology where relevant)</b>	<b>Reference documents</b>
<b>Information</b>	W2.1.1 and W2.1.2	<b>Construction</b> Condition 2.1.1 (previous condition 5.1.1) has been updated by removing Stage 1 and Stage 2 as both of these works have been completed and a compliance document has been submitted to DER.	Mt Magnet Gold Pty Ltd, <i>Compliance Documentation – W5385/2013/1 – CTSF3 Design and Construction</i> , 14 March 2016.
<b>Schedule 1</b>	N/A	The map of the Premises has been updated.	N/A
<b>Works Approval Duration</b>	N/A	DER has determined that there are no issues resulting from this amendment that require restricting the extension the Works Approval W5385/2013/1 for a further three years. The new expiry date will be 7 August 2019.	N/A



## 5 Advertisement and consultation table

Date	Event	Comments received/Notes	How comments were taken into consideration
16/6/2016	Proponent sent a copy of draft instrument	Waiver received 24/6/16. No comments	N/A
30/06/2016	Works Approval amendment signed		



## 6 Risk Assessment

*Note: This matrix is taken from the DER Corporate Policy Statement No. 07 - Operational Risk Management*

**Table 1: Emissions Risk Matrix**

Likelihood	Consequence				
	Insignificant	Minor	Moderate	Major	Severe
Almost Certain	Moderate	High	High	Extreme	Extreme
Likely	Moderate	Moderate	High	High	Extreme
Possible	Low	Moderate	Moderate	High	Extreme
Unlikely	Low	Moderate	Moderate	Moderate	High
Rare	Low	Low	Moderate	Moderate	High