Government of **Western Australia**
Department of **Environment Regulation**

Your ref: W5364/2013/1
Our ref: 2013/000058
Enquiries: Peter van Schoubroeck
Phone: (08) 9842 4569
Fax:
Email: peter.vanschoubroeck@der.wa.gov.au

Manager
Ravensthorpe Nickel Operations Pty Ltd
Locked Bag 100
RAVENSTHORPE WA 6346

Dear Sir/ Madam

***ENVIRONMENTAL PROTECTION ACT 1986* – AMENDMENT TO WORKS APPROVAL**
Works Approval: W5364/2013/1
Premises: Ravensthorpe Nickel Project
Location: M74/114, M74/115, M74/116, M74/123, M74/144, M74/145, M74/173, 74/174 and M74/175

Further to my letter dated 05/09/2013, please find enclosed your amended *Environmental Protection Act 1986* works approval.

If you have any questions or objections relating to the works approval, please do not hesitate to contact the enquiries officer above on 9842 4569 for clarification or discussion of any grievances you have.

If you are concerned about, or object to any aspect of the amendment, you may lodge an appeal with the Minister for the Environment within 21 days from the date on which this works approval is received. The Office of the Appeals Convenor can be contacted on 6467 5190 to find out the procedure and fee.

Members of the public may also appeal the amendments. The Appeals Registrar at the Office of the Appeals Convenor can be contacted after the closing date of appeals to check whether any appeals were received.

Yours sincerely

Danielle Eyre
Officer delegated under Section 20
of the *Environmental Protection Act 1986*

20 September 2013

TL0571 v2.0

Government of **Western Australia**
Department of **Environment Regulation**

Works Approval

Environmental Protection Act 1986, Part V

Works Approval Holder: **Ravensthorpe Nickel Operations Pty Ltd**

Works Approval Number: **W5364/2013/1**

Registered office: Level 1, 24 Outram Street
WEST PERTH WA 6005

ACN: 092 506 584

Premises address: Ravensthorpe Nickel Project
M74/114, M74/115, M74/116, M74/123, M74/144, M74/145, M74/173, M74/174 and M74/175 South Coast Hwy
RAVENSTHORPE WA 6346
Being M74/114, M74/115, M74/116, M74/123, M74/144, M74/145, M74/173, M74/174 and M74/175 as depicted in Schedule 1.

Issue date: Thursday 14/03/2013

Commencement date: Monday 18/03/2013

Expiry date: Thursday 17/03/2016

Amendment date: Thursday 19/09/2013

The following category/s 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	Approved 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 tailings or residue from metallic or non-metallic ore are discharged into a containment cell or dam.	50 000 tonnes or more per year	13 900 000 tonnes per year
31	Chemical manufacturing: premises (other than premises within category 32) on which chemical products are manufactured by a chemical process.	100 tonnes or more per year	1 606 000 tonnes per year
52	Electric power generation: premises (other than premises within category 53 or an emergency or standby power generating plant) on which electrical power is generated using a fuel.	10 megawatts or more in aggregate (using a fuel other than natural gas)	68 megawatts

54	Sewage facility: premises — (a) on which sewage is treated (excluding septic tanks); or from which treated sewage is discharged onto land or into waters.	100 cubic metres or more per day	300 cubic metres per day

Conditions
Subject to this Works Approval and the conditions set out in the attached pages.

.....
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:

"the Act" means the *Environmental Protection Act 1986;*

"Code of Practice for the Storage and handling of dangerous goods" means the Storage and handling of dangerous goods, Code of Practice, Department of Mines and Petroleum, Government of Western Australia;

"Director" means Director, Environmental Regulation Division of the Department of Environment Regulation for and on behalf of the Chief Executive Officer as delegated under Section 20 of the *Environmental Protection Act 1986;*

"dangerous goods" has the meaning defined in the Dangerous Goods Safety (Storage and Handling of Non-explosives) Regulations 2007;

"Director" for the purpose of correspondence means;
Regional Leader, Industry Regulation, South Coast Region
Department of Environment Regulation
120 Albany Hwy
ALBANY WA 6330
Telephone: (08) 9842 4567
Facsimile: (08) 9841 7105
Email: industryregsalbany@der.wa.gov.au;

"environmentally hazardous material" means material (either solid or liquid raw materials, materials in the process of manufacture, manufactured products, products used in the manufacturing process, by-products and waste) which if discharged into the environment from or within the premises may cause pollution or environmental harm. Note: Environmentally hazardous materials include dangerous goods where they are stored in quantities below placard quantities. The storage of dangerous goods above placard quantities is regulated by the Department of Mines and Petroleum;

"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;

"Schedule 1" means Schedule 1 of this Licence unless otherwise stated;

"Works Approval" means this Works Approval numbered W5364/2013/1 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.

1.1.3 Any reference to an Australian or other standard in the Works Approval means the relevant parts of the current version of that standard.

1.1.4 Any reference to a Guideline or Code of Practice in the Licence means the current version of the Guideline or Code of Practice.

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:

Table 1.2.1: Construction Requirements[1]

Document	Parts	Date of Document
Golder Associates, *Mining proposal and works approval application expansion of the tailings storage facility at the Ravensthorpe Nickel Operations WA (M74/115, M74/116 and M47/175)*, Report number 127643091-004-R-Rev0.	All, including appendices, figures and recommendations	21 December 2012
FQM Australia Nickel Pty Limited, *Amendment to Mining Proposal MP38188 and Works Approval W5364/2013/1 (Expansion of Tailings Storage Facility at Ravensthorpe Nickel Operations Mining Tenements M74/115, M74/116 and M74/175) Submitted: July 2013*, Document ID RNO-ENV-MPR-002	All, including appendices, figures and recommendations	9 July 2013

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.

1.2.2 The Works Approval Holder, except where storage is prescribed in section 1.3, shall ensure that environmentally hazardous materials are stored in accordance with the Code of Practice for the Storage and handling of dangerous goods.

1.2.3 The Works Approval Holder shall undertake commissioning in accordance with the document *Amendment to Mining Proposal MP38188 and Works Approval W5364/2013/1 (Expansion of Tailings Storage Facility at Ravensthorpe Nickel Operations Mining Tenements M74/115, M74/116 and M74/175) Submitted: July 2013.*

1.2.4 The Works Approval Holder shall commission the tailings storage facility contingency cell, for a period not exceeding 4 months.

1.3 Premises operation

1.3.1 The Works Approval Holder shall only allow the deposition of tailings within the tailings storage facility contingency cell when tailings are in excess of the tailings storage facility east and west cell containment capacity and prior to commissioning of the new tailings storage facility.

2 Emissions

There are no specified conditions relating to emissions in this section.

3 Monitoring

There are no specified conditions relating to monitoring in this section.

4 Improvements

There are no specified conditions relating to improvements in this section.

5 Information

5.1 Reporting

5.1.1 The Works Approval Holder shall submit a compliance document to the Director, following the construction of the works and prior to commissioning of the same.

5.1.2 The compliance document shall:

(a) certify that the works were constructed in accordance with the conditions of the works approval;

(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.

5.2 Notification

5.2.1 The Works Approval Holder shall ensure that the parameters listed in Table 5.2.1 are notified to the Director at the contact address and in accordance with the notification requirements of the table.

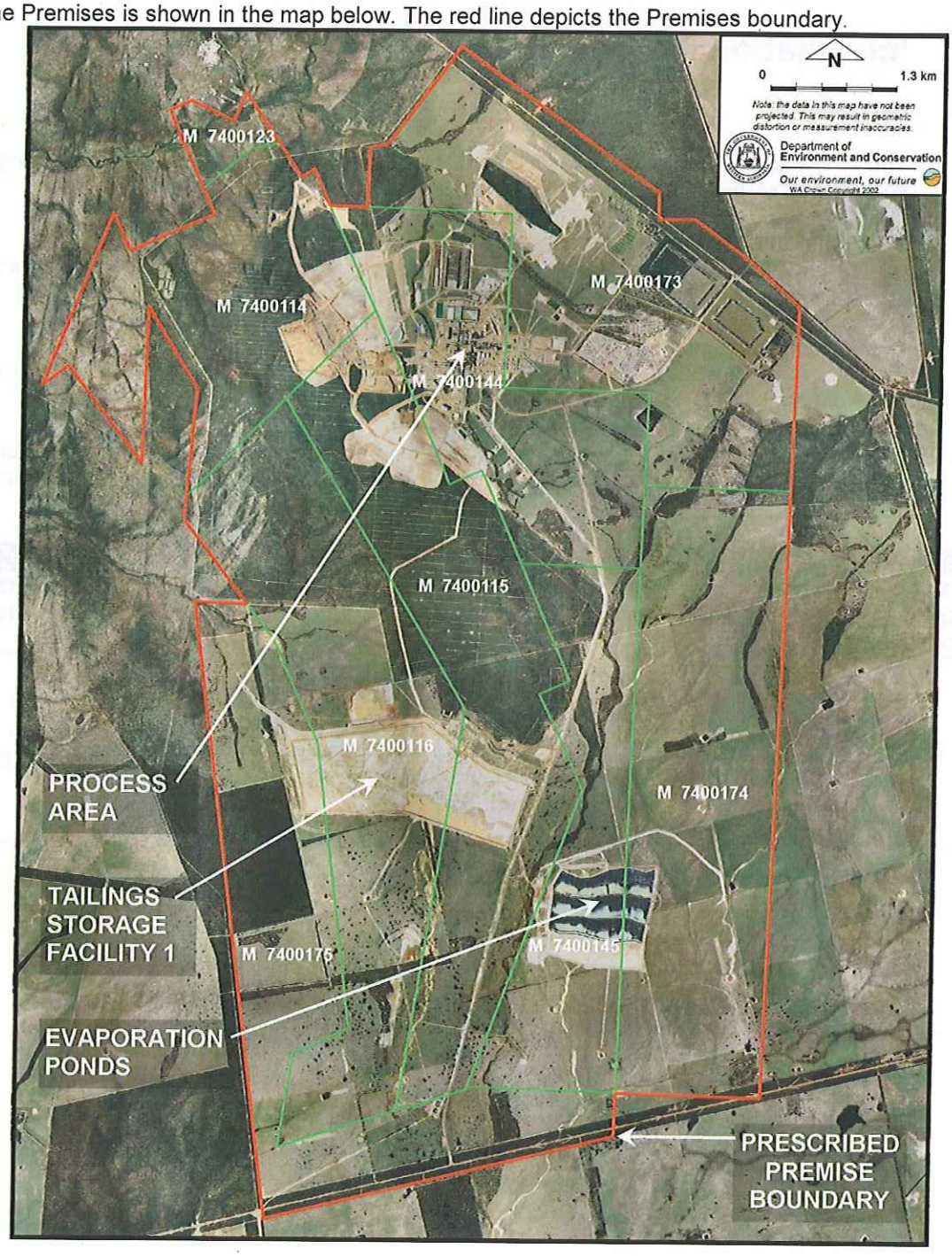
Table 5.2.1: Notification requirements

Condition or table (if relevant)	Parameter	Notification requirement	Format or form
1.2.4	Commencement of commissioning	7 days prior to start	None specified
	Completion of commissioning	7 days after completion	
	Any failure or malfunction of the tailings storage facility contingency cell wall prior to submission of the compliance document required by condition 5.1.1	As soon as practicable but no later than 5pm of the next usual working day	

Schedule 1: Maps

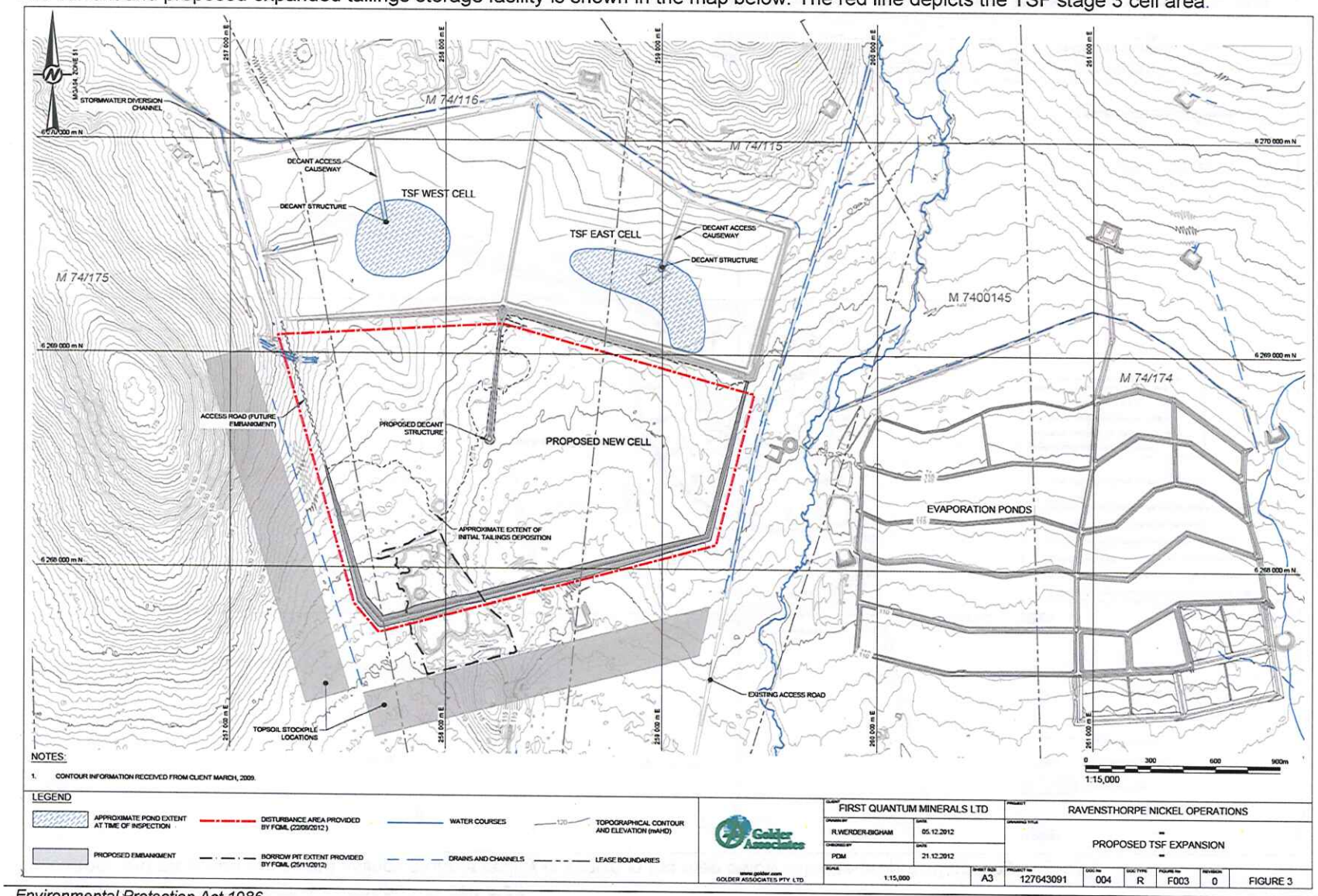
Premises map

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



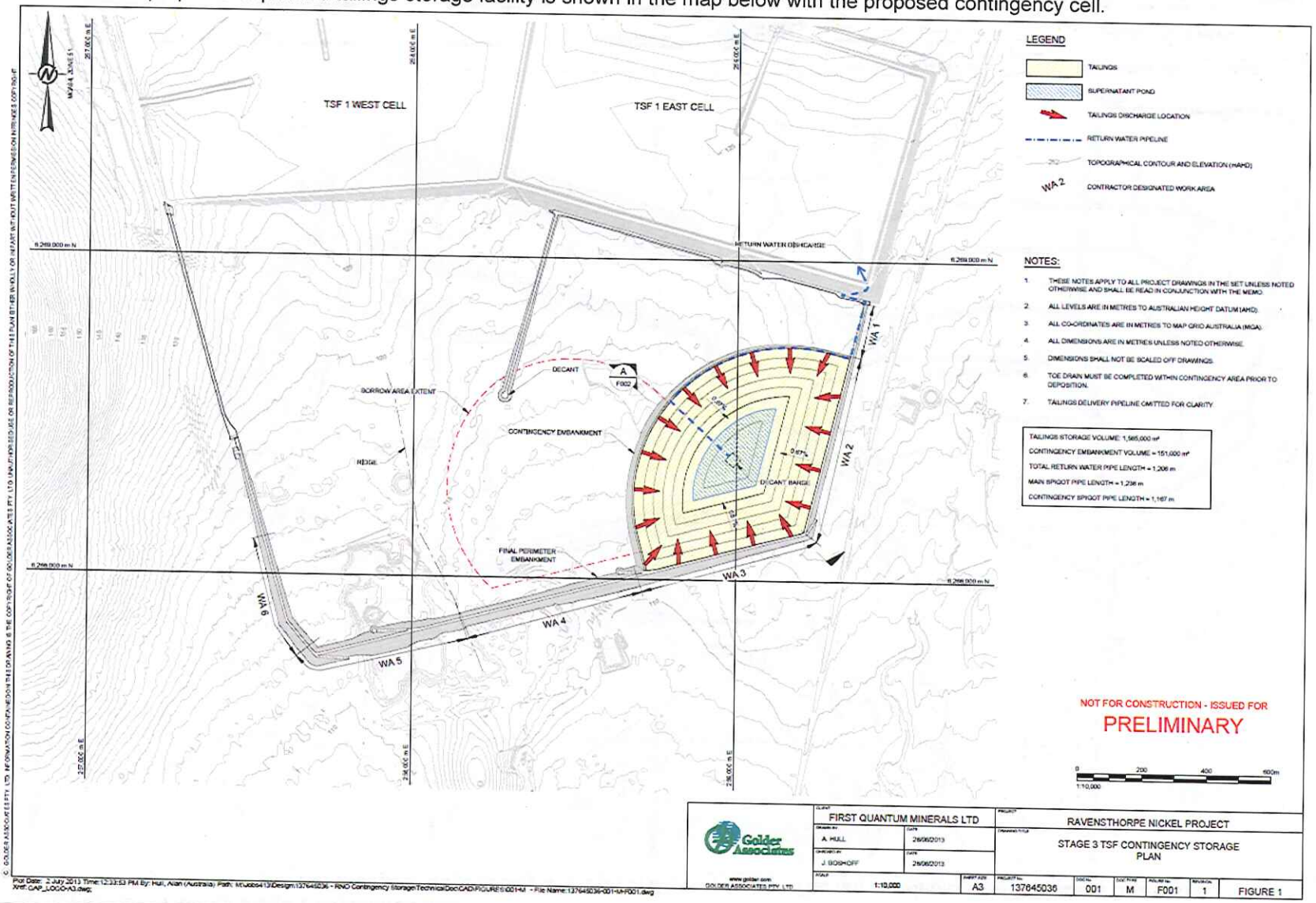
Tailings Storage Facility stage 3 expansion map

The current and proposed expanded tailings storage facility is shown in the map below. The red line depicts the TSF stage 3 cell area.



Tailings Storage Facility stage 3 contingency cell map

The current and proposed expanded tailings storage facility is shown in the map below with the proposed contingency cell.



Government of **Western Australia**
Department of **Environment Regulation**

Decision Document

Environmental Protection Act 1986, Part V

Proponent: **Ravensthorpe Nickel Operations Pty Ltd**

Works Approval: **W5364/2013/1**

Registered office:	Level 1, 24 Outram Street WEST PERTH WA 6005
ACN:	092 506 584
Premises address:	Ravensthorpe Nickel Project M74/114, M74/115, M74/116, M74/123, M74/144, M74/145, M74/173, 74/174 and M74/175 South Coast Hwy RAVENSTHORPE WA 6346 Being M74/114, M74/115, M74/116, M74/123, M74/144, M74/145, M74/173, M74/174 and M74/175 as depicted in Schedule 1.
Issue date:	Thursday 14/03/2013
Commencement date:	Monday 18/03/2013
Expiry date:	Thursday 17/03/2016
Amendment date:	Thursday 19/09/2013

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 Works Approval and its conditions will ensure that an appropriate level of environmental protection is provided.

Decision document prepared by:	Peter van Schoubroeck Regional Environmental Officer
Decision Document Authorised By:	Caron Goodbourn Regional Leader

Contents

1 Purpose of this Document

This decision document explains how DER has assessed and determined the application for a works approval or licence, 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.

Works approval and licence conditions
DER has three types of conditions that may be imposed on works approvals and licences. They are as follows;

Standard conditions (SC)

DER has standard conditions that are imposed on all works approvals and licences regardless of the activities undertaken on the Premises and the information provided in the application. These are included as the following conditions on works approvals and licences:

Works approval conditions: 1.1.1-1.1.3, 1.2.1, 1.2.2, 5.1.1 and 5.1.2.

Licence conditions: 1.1.1-1.1.3, 1.2.1-1.2.4, 5.1.1-5.1.4 and 5.2.1.

For such conditions, justification within the Decision Document is not provided.

Optional standard conditions (OSC)

In the interests of regulatory consistency DER has a set of optional standard conditions that can be imposed on works approvals and licences. DER will include optional standard conditions as necessary, and are likely to constitute the majority of conditions in any licence. The inclusion of any optional standard conditions are justified in Section 4 of this document.

Non standard conditions (NSC)

Where the proposed activities require conditions outside the standard conditions suite DER will impose one or more non-standard conditions. These include both premises and sector specific conditions, and are likely to occour within few licences. Where used, justification for the application of these conditions will be included in Section 4.

2 Administrative Summary

Administrative Details		
Application Type	Works Approval ☐ New Licence ☐ Licence Amendment ☐ Works Approval Amendment ☒	
Activities that cause the premises to become prescribed premises	**Category Number(s)**	**Design Capacity**
	5	13 900 000 tonnes per year
	31	1 606 000 tonnes per year
	52	68 megawatts
	54	300 cubic metres per day
Application Verified Application Fee Paid	Date: 15/01/2013 Date: 31/01/2013	
Works Approval has been complied with Compliance Certificate received	Yes ☐ No ☐ N/A ☒ Yes ☐ No ☐ N/A ☒	
Commercial-in-confidence claim	Yes ☐ No ☒	
Commercial-in-confidence claim outcome	Not applicable	
Is the proposal a Major Resource Project?	Yes ☒ No ☐	
Was the proposal referred to the Environmental Protection Authority (EPA) under Part IV of the *Environmental Protection Act 1986*?	Yes ☒ No ☐	Referral Decision No: 000509 Managed under Part V ☒ Assessed under Part IV ☒
Is the proposal subject to Ministerial Conditions?	Yes ☒ No ☐	Ministerial Statement No: 633 EPA Report No: 930; 1093
Does the proposal involve a discharge of waste into a designated area (as defined in section 57 of the *Environmental Protection Act 1986*)?	Yes ☐ No ☒ Department of Water consulted Yes ☐ No ☒	
Is the Premises within an Environmental Protection Policy (EPP) Area Yes ☐ No ☒		
Is the Premises subject to any EPP requirements? Yes ☐ No ☒		

3 Executive summary of proposal

FQM Australia Nickel Pty Ltd (FQMAN) wholly own Ravensthorpe Nickel Operation Pty Ltd (RNO) who operate the Ravensthorpe Nickel Project (RNP). RNP is located approximately 35 km east of Ravensthorpe along the South Coast Highway in the Shire of Ravensthorpe. RNO is proposing to expand the existing Tailings Storage Facility (TSF), TSF stage 3, to provide 1.5 years storage within the starter embankment.

The land clearing will be undertaken in accordance with Ministerial Statement 633, which allows for 460 ha of ground disturbance for the TSF. The current ground level disturbance for the TSF is 235.9 ha. The 223 ha clearing for the expansion will mean a total ground level disturbance of 458.9 ha. The stage three expansion design of the TSF comprises one cell, directly south and adjacent to the existing TSF cells, with a shared embankment wall. The facility will be an irregular shape in plan, to fit in with the topography and tenure constraints of the proposed site (see Appendix B and C). The starter embankment will be constructed using borrow material taken from basin area of the proposed TSF. For the subsequent stages, to be assessed under a subsequent proposal/s, the embankments will be raised using the upstream method.

Tailings will be deposited from multiple spigots located around the perimeter crest of the cell. Deposition will be carefully managed to allow each cell sufficient drying time. The embankments will be constructed with a crest width of 7 m, an upstream slope of 2H:1V and a downstream slope of 3H:1V. The starter embankment will be constructed using clayey fill material excavated from a borrow area within the TSF expansion footprint. The borrow area will be excavated to a maximum depth of around 5 m below ground level. An existing borrow pit will be partially backfilled by the TSF expansion over the initial two months of tailings deposition.

A seepage assessment shows that the RNO site is featured by low permeability bedrocks, overlain and in-filled with tertiary and recent deposits of clay, silt and sand. The seepage modeling concluded that the TSF expansion will not increase seepage to groundwater from background levels; however additional monitoring bores will be added to the monitoring network.

This assessment shows that emissions and discharges associated with operations at the premises will not be significant if managed in accordance with conditions of the licence, requirements of Ministerial Statement 633 and commitments of RNO.

Approval for the expanded TSF footprint works were issued in March 2013. The amendment application of July 2013 will see works establish the capacity for a small interim contingency cell inside the approved expanded TSF footprint. The contingency cell will allow for tailings deposition within the expanded TSF footprint prior to commissioning of the new TSF cell due to reduced capacity in the currently active eastern and western TSF cells.

4 Decision Table

All applications are assessed under the *Environmental Protection Act 1986*, the *Environmental Protection Regulations 1987*, DER's *Policy Statement - Limits and targets for prescribed premises* (2006) and the risk matrix attached to this decision document in Appendix A and DER's Industry Regulation Emissions and Discharges Assessment Framework. Where other references have been used in making the decision they are detailed in the decision table.

DERISION TABLE				
Works Approval / Licence Section	**Condition Number** **W = Works Approval** **L= Licence**	**OSC or NSC**	**Justification (including risk description & decision methodology where relevant)**	**Reference Documents**
General Conditions	**W**1.2.3; **W**1.2.4; and **W**1.3.1.	OSC and NSC	**Operation and Construction** *Emission Significance* - 2 *Socio-political context* - Medium concern or interest. *Risk Assessment* - D - other management mechanisms No significant discharges are expected from the construction and operation of the TSF expansion. Previous TSF works were assessed under W3911/2004/1 and W4764/2010/1. There is a risk of seepage, leakage and/ or wall failure from the TSF into the surrounding environment during operation from in-situ tailings. Existing licence conditions (*NSC 3, 15, 16, 20 and 21; see relevant section below*) are adequate to address these risks and include the requirement for dust management and monitoring of the TSF, ambient dust monitoring for the Premises and the monitoring of groundwater bores. The amended works program for the TSF contingency cell will require a commissioning program, OSC 1.2.3 and 1.2.4, to allow tailings deposition within the TSF contingency cell prior to the submission of the compliance document required by SC 5.1.1. Deposition in the TSF contingency cell will take place where tailings deposition is in excess of the existing TSF east and west cell containment capacity and prior to commissioning of the new tailings storage facility.	Application supporting documentation *Dangerous Goods Safety (Storage and Handling of Non-explosives) Regulations 2007* General provisions of the *Environmental Protection Act 1986* RNO Environmental Management Plans

DERISION TABLE				
Works Approval / Licence Section	**Condition Number W = Works Approval L= Licence**	**OSC or NSC**	**Justification (including risk description & decision methodology where relevant)**	**Reference Documents**
Emissions General	N/A	N/A	**Operation and Construction** *Emission Significance* - 2 *Socio-political context* - Medium concern or interest. *Risk Assessment* - D - other management mechanisms No significant discharges are expected from the construction and operation of the TSF expansion. Previous TSF works were assessed under W3911/2004/1 and W4764/2010/1. There is a risk of seepage, leakage and/ or wall failure from the TSF into the surrounding environment during operation from in-situ tailings. Existing licence conditions are adequate and include the requirement for dust management and monitoring of the TSF, ambient dust monitoring for the Premises and the monitoring of groundwater bores. No general conditions are required to be added to the works approval or licence.	Application supporting documentation *Dangerous Goods Safety (Storage and Handling of Non-explosives) Regulations 2007* General provisions of the *Environmental Protection Act 1986* RNO Environmental Management Plans
Point source emissions to air including monitoring	N/A	N/A	**Operation and Construction** *Emission Significance* - 2 *Socio-political context* - Medium concern or interest. *Risk Assessment* - D - other management mechanisms No significant point source air emissions are expected from the construction or operation of the TSF expansion. Previous TSF works were assessed under W3911/2004/1 and W4764/2010/1. There is a risk of seepage, leakage and/ or wall failure from the TSF into the surrounding environment during operation from in-situ tailings. Existing licence conditions are adequate and include the requirement for dust management and monitoring of the TSF, ambient dust monitoring for the Premises and the monitoring of groundwater bores. No specified conditions relating to point source emissions to air or the monitoring of these emissions are required to be added to the works approval or licence.	*Environmental Protection (Unauthorised Discharges Regulations, 2004).* Application supporting documentation RNO Environmental Management Plans

DERISION TABLE				
Works Approval / Licence Section	**Condition Number W = Works Approval L= Licence**	**OSC or NSC**	**Justification (including risk description & decision methodology where relevant)**	**Reference Documents**
Point source emissions to surface water including monitoring	N/A	N/A	**Operation and Construction** *Emission Significance* - 1 *Socio-political context* - Medium concern or interest *Risk Assessment* - E -no regulation, other management mechanisms There will be no point source emissions to water expected from the construction or operation of the TSF expansion. The nearest surface water body is approximately 9.5 km to the south-west of the works. No specified conditions relating to point source emissions to water or the monitoring of such emissions are required to be added to the works approval or licence.	Application supporting documentation General provisions of the *Environmental Protection Act 1986* RNO Environmental Management Plans
Emissions to land including monitoring	L15; and L16	NSC	**Operation and Construction** *Emission Significance* - 2 *Socio-political context* - Medium concern or interest. *Risk Assessment* - D - other management mechanisms No significant emissions to land are expected from the construction or operation of the TSF expansion. Previous TSF works were assessed under W3911/2004/1 and W4764/2010/1. There is a risk of seepage, leakage and/ or wall failure from the TSF into the surrounding environment during operation from in-situ tailings. Existing licence conditions, NSC 15 and 16, are adequate to address these risks and include the monitoring of groundwater bores. No specified conditions relating to emission to land or the monitoring of these emissions are required to be added to the works approval or licence. A recent review of the local hydrology and monitoring bore network will inform a pending licence review to rationalise the groundwater monitoring program and groundwater bore network.	

DERISION TABLE				
Works Approval / Licence Section	**Condition Number W = Works Approval L= Licence**	**OSC or NSC**	**Justification (including risk description & decision methodology where relevant)**	**Reference Documents**
Point source emissions to groundwater including monitoring	N/A	N/A	**Operation and Construction** *Emission Significance* - 2 *Socio-political context* - Medium concern or interest. *Risk Assessment* - D - other management mechanisms No significant point source emissions to groundwater expected from the construction or operation of the TSF expansion. There is a risk of seepage from the TSF into groundwater. A number of management mechanisms combine with the low hydraulic conductivity of the sites geology to reduce this risk, these being: cut-off trench; low permeability soil liner under the decant area; basin under drainage collection system; under drainage collection tower; and embankment upstream toe drain. No specified conditions relating to point source emissions to groundwater are required to be added to the works approval. Current licence conditions requiring the monitoring of groundwater are adequate and will include additional monitoring bores upon commissioning of the TSF expansion.	Application supporting documentation General provisions of the *Environmental Protection Act 1986* RNO Environmental Management Plans
Fugitive Emissions	L3; L20; and L21	NSC	**Operation and Construction** *Emission Significance* - 1 *Socio-political context* - Medium concern or interest *Risk Assessment* - E - no regulation, other management mechanisms No significant fugitive emissions are expected from the construction or operation of the TSF expansion. No specified conditions relating to fugitive emissions or the monitoring of these emissions are required to be added to the works approval or licence. The risk of dust emissions for the Premises and TSF are adequately addressed in the licence by the NSC 3, 20 and 21 which includes a wind speed triggered dust emission monitoring program of the TSF.	

DERISION TABLE				
Works Approval / Licence Section	**Condition Number W = Works Approval L= Licence**	**OSC or NSC**	**Justification (including risk description & decision methodology where relevant)**	**Reference Documents**
Odour	N/A	N/A	**Operation and Construction** *Emission Significance* - 1 *Socio-political context* - Medium concern or interest *Risk Assessment* - E - no regulation, other management mechanisms No significant odour emissions are expected from the construction or operation of the TSF expansion. No specified conditions relating to odour emissions or the monitoring of these emissions are required to be added to the works approval or licence.	Application supporting documentation General provisions of the *Environmental Protection Act 1986*
Noise	N/A	N/A	**Operation and Construction** *Emission Significance* - 2 *Socio-political context* - Low concern or interest *Risk Assessment* - D - other management mechanisms Noise emissions are likely to temporarily increase during the construction on the TSF expansion and then return to normal operating conditions upon completion of the works. The emissions are not expected to be significant. Noise modelling conducted for the original RNO proposal indicated that noise levels would comply with the Environmental Protection (Noise) Regulations 1997 in normal and worse case scenarios. The nearest sensitive receptor is about 4.4 km from the processing plant.	Application supporting documentation *Environmental Protection (Noise) Regulations 1997* *Mines Safety and Inspection Regulations 1996* *Occupational Safety and Health Regulations 1984* RNO Environmental Management Plans

DERISION TABLE				
Works Approval / Licence Section	**Condition Number W = Works Approval L= Licence**	**OSC or NSC**	**Justification (including risk description & decision methodology where relevant)**	**Reference Documents**
Monitoring General	N/A	N/A	**Operation and Construction** *Emission Significance* - 2 *Socio-political context* - Medium concern or interest *Risk Assessment* - D - other management mechanisms Adequate monitoring is currently undertaken by RNO through the licence. No specified conditions relating to input and output monitoring are required to be added to the works approval or licence.	Application supporting documentation General provisions of the *Environmental Protection Act 1986*
Monitoring of inputs and outputs	N/A	N/A	**Operation and Construction** *Emission Significance* - 2 *Socio-political context* - Medium concern or interest *Risk Assessment* - D - other management mechanisms Adequate input and output monitoring is currently undertaken by RNO. No specified conditions relating to input and output monitoring are required to be added to the works approval or licence.	
Process Monitoring	N/A	N/A	**Operation and Construction** *Emission Significance* - 2 *Socio-political context* - Medium concern or interest *Risk Assessment* - D - other management mechanisms Adequate process monitoring is currently undertaken by RNO. No specified conditions relating to process monitoring are required to be added to the works approval or licence.	

DERISION TABLE				
Works Approval / Licence Section	**Condition Number** **W = Works Approval** **L= Licence**	**OSC or NSC**	**Justification (including risk description & decision methodology where relevant)**	**Reference Documents**
Ambient Quality Monitoring	L20; and L21	N/A	**Operation and Construction** *Emission Significance* - 2 *Socio-political context* - Medium concern or interest *Risk Assessment* - D - other management mechanisms Adequate ambient dust monitoring conditions, NSC 20 and 21, are contained within the current licence. No specified conditions relating to ambient quality monitoring are required to be added to the works approval or licence.	Application supporting documentation General provisions of the *Environmental Protection Act 1986* RNO Environmental Management Plans
Meteorological monitoring	N/A	N/A	**Operation and Construction** No specified conditions relating to meteorological monitoring are required to be added to the works approval or licence. No new emissions of significance require meteorological monitoring to be undertaken.	
Improvements	N/A	N/A	**Operation and Construction** No specified conditions relating to improvements are required to be added to the works approval or licence.	
Information	**W**5.2.1	OSC	**Operation and Construction** The TSF contingency cell will require a commissioning program, OSC 1.2.3 and 1.2.4, to allow tailings deposition within the TSF contingency cell prior to the submission of the compliance document required by SC 5.1.1. Notification requirements under OSC 5.2.1 will ensure the timeframe for use of the TSF contingency cell is within capacity and as planned. In addition any failure of malfunction of the TSF contingency cell wall, due to the internal contingency cell wall being constructed to a lower standard, prior to the new cell wall being complete will be advised to DER.	

5 Advertisement and Consultation Table

Date	Event	Comments received/Notes	How comments were taken into consideration
11/02/2013	Application advertised in West Australian (or other relevant newspaper)	None applicable	None applicable
8/02/2013	Application referred to interested parties listed	None applicable	None applicable
8/02/2013	Proponent sent a copy of draft instrument	None applicable	None applicable
18/03/2013	Issued works approval advertised in West Australian (or other relevant newspaper)	None applicable	None applicable
23/09/2013	Issued amended works approval advertised in West Australian (or other relevant newspaper)		

Appendix A

EMISSIONS AND DISCHARGES RISK ASSESSMENT MATRIX

Note: These matrix are taken from the DER Officer's Guide to Emissions and Discharges Risk Assessment *(2006).*

Table 3: Measures of Significance of Emissions

Emissions as a percentage of the relevant emission or ambient standard		Worst Case Operating Conditions (95th Percentile)			
		>100%	50 – 100%	20 – 50%	<20%*
Normal Operating Conditions (50th Percentile)	>100%	5	N/A	N/A	N/A
	50 – 100%	4	3	N/A	N/A
	20 – 50%	4	3	2	N/A
	<20%*	3	3	2	1

*For reliable technology, this figure could increase to 30%

Table 4: Socio-Political Context of Each Regulated Emission

		Relative proximity of the interested party with regards to the emission				
		Immediately Adjacent	Adjacent	Nearby	Distant	Isolated
Level of Community Interest or Concern*	5	High	High	Medium High	Medium	Low
	4	High	High	Medium High	Medium	Low
	3	Medium High	Medium High	Medium	Low	No
	2	Low	Low	Low	Low	No
	1	No	No	No	No	No

Note: These examples are not exclusive and professional judgement is needed to evaluate each specific case

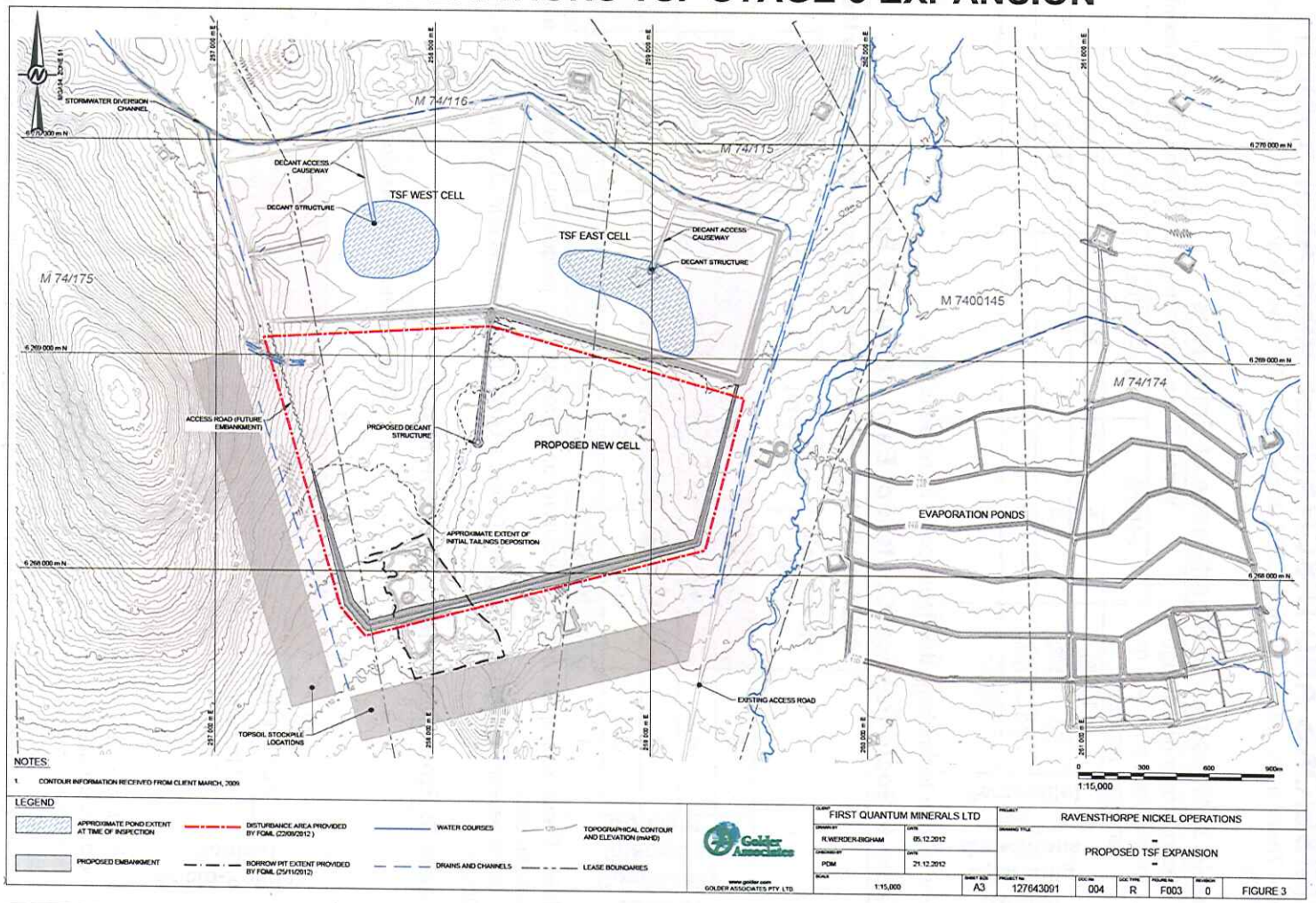
*This is determined by DER using the *Officer's Guide to Emissions and Discharges Risk Assessment* (2006).

Table 5: Emissions Risk Reduction Matrix

		Significance of Emissions				
		5	4	3	2	1
Socio-Political Context	High	A	A	B	C	D
	Medium High	A	A	B	C	D
	Medium	A	B	B	D	E
	Low	A	B	C	D	E
	No	B	C	D	E	E

PRIORITY MATRIX ACTION DESCRIPTORS
A = Do not allow (fix)
B = licence condition (setting limits + EMPs - short timeframes) (setting targets optional)
C = licence condition (setting targets + EMPs - longer timeframes)
D= EIPs, other management mechanisms/licence conditions (monitoring/reporting)/other regulatory tools
E = No regulation, other management mechanisms

Appendix B
RAVENSTHORPE NICKEL OPERATIONS TSF STAGE 3 EXPANSION



Appendix C

RAVENSTHORPE NICKEL OPERATIONS TSF STAGE 3 CONTINGENCY CELL