



Licence Number	L8544/2011/1
Licence Holder	FMG Nullagine Pty Ltd
ACN	153 447 646
Registered business address	87 Adelaide Terrace EAST PERTH WA 6005
File Number	2011/003178-1
Duration	11/07/2011 to 30/06/2031
Date of amendment	16/12/2019
Prescribed Premises	Category 5 Category 89
Premises	Nullagine Iron Ore Project Mining Lease M46/515, M46/522 and M46/523 NULLAGINE WA 6758 As defined by the coordinates in Schedule 1 (delete if not applicable)

This Licence is granted to the Licence Holder, subject to the following conditions, as amended on 16/12/2019, by:

LAUREN FOX
A/MANAGER – RESOURCES INDUSTRY
REGULATORY SERVICES

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

Introduction

This Introduction is not part of the Licence conditions.

Department of Water and Environmental Regulation

As of 1 July 2017, the Department of Environment Regulation (DER), the Office of the Environmental Protection Authority (OEPA) and the Department of Water (DoW) amalgamated to form the Department of Water and Environmental Regulation (DWER). DWER was established under section 35 of the Public Sector Management Act 1994 and is responsible for the administration of the Environmental Protection Act 1986 along with other legislation.

DWER's industry licensing role

DWER is a government department for the state of Western Australia in the portfolios of the Minister for Water and the Minister for Environment. DWER's purpose is to advise on and implement strategies for a healthy environment for the benefit of all current and future Western Australians.

DWER has responsibilities under Part V of the *Environmental Protection Act 1986* (the Act) for the licensing of prescribed premises. Through this process DWER regulates to prevent, control and abate pollution and environmental harm to conserve and protect the environment. DWER also monitors and audits compliance with works approvals and licence conditions, takes enforcement action as appropriate and develops and implements licensing and industry regulation policy.

Licence requirements

This Licence is issued under Part V of the Act. Conditions contained within the Licence relate to the prevention, reduction or control of emissions and discharges to the environment and to the monitoring and reporting of them.

Where other statutory instruments impose obligations on the Premises Licence Holder the intention is not to replicate them in the licence conditions. You should therefore ensure that you are aware of all your statutory obligations under the Act and any other statutory instrument. Legislation can be accessed through the State Law Publisher website using the following link:

<http://www.slp.wa.gov.au/legislation/statutes.nsf/default.html>

For your Premises relevant statutory instruments include but are not limited to obligations under the:

- *Environmental Protection (Unauthorised Discharges) Regulations 2004* – these Regulations make it an offence to discharge certain materials such as contaminated stormwater into the environment other than in the circumstances set out in the Regulations.
- *Environmental Protection (Controlled Waste) Regulations 2004* - these Regulations place obligations on you if you produce, accept, transport or dispose of controlled waste.
- *Environmental Protection (Noise) Regulations 1997* – these Regulations require noise emissions from the Premises to comply with the assigned noise levels set out in the Regulations.

You must comply with your licence. Non-compliance with your licence is an offence and strict penalties exist for those who do not comply.

Licence holders are also reminded of the requirements of section 53 of the Act which places 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.

Licence fees

If you have a licence that is issued for more than one year, you are required to pay an annual licence fee prior to the anniversary date of issue of your licence. Non payment of annual licence fees will result in your licence ceasing to have effect meaning that it will no longer be valid and you will need to apply for a new licence for your Premises.

Ministerial conditions

If your Premises has been assessed under Part IV of the Act you may have had conditions imposed by the Minister for Environment. You are required to comply with any conditions imposed by the Minister.

Premises description and Licence summary

FMG Nullagine Pty Ltd (the Licence Holder) operates an iron ore mining and processing facility on the Bonny Plains pastoral lease, approximately 10 kilometres (km) south-west of the town of Nullagine in the Pilbara region of Western Australia. The Nullagine Iron Ore Project (the Project) is a joint venture with Fortescues Metals Group Limited (FMG) and utilises FMG's infrastructure at Christmas Creek.

Bonny Downs Station is approximately 17 km south of the premises.

The Licence Holder operates two crushing and screening plants and a putrescible landfill on the premises. The crushing and screening plants have a combined design capacity of 6 million tonnes per annum (Mtpa), while the putrescible landfill has a design capacity of 500 tpa.

Other components of the Project include:

- waste water treatment plant (3.6 cubic metres (m) per day capacity);
- bioremediation land farm, lined with 2 mm High Density Polyethylene (HDPE) ;
- reverse osmosis plant (< 5000 Litres (L) per day);
- vehicle washdown bay including oily water separator;
- turkey's nest (Approximately 1,000,000 L);
- 13 generators with a total capacity of 3.4 megawatts; and
- three workshops.

The licences and works approvals issued for the Premises since 14/02/2011 are:

Instrument log		
Instrument	Issued	Description
W4823/2010/1	14/02/2011	Works approval for crushing and screening facility (category 12)
L8544/2011/1	11/07/2011	Licence for category 12
W5074/2011/1	9/01/2012	Works approval for Class II landfill (category 89)
W5154/2012/1	18/06/2012	Works approval for upgrade to the crushing and screening facility
L8544/2011/1	12/07/2012	Licence amendment to include category 89

L8544/2011/1	24/09/2012	Licence amendment to increase the capacity of category 12
W5522/2013/1	18/11/2013	Works approval for a crushing and screening plant for a 3 month low grade beneficiation crushing trial
W5869/2015/1	10/09/2015	Works approval for a crushing and screening plant for Warrigal Well
L8544/2011/1	16/06/2016	Licence amendment to include category 5, remove category 12, extend the premises boundary, include ambient groundwater monitoring, extend the duration and conversion to v2.9 format licence.
L8544/2011/1	28/07/2017	Licence transferred to FMG Nullagine Pty Ltd
L8544/2011/2	DRAFT	Amendment to the licence condition on Monitoring of ambient groundwater quality

Severance

It is the intent of these Licence conditions that they shall operate so that, if a condition or a part of a condition is beyond the power of this Licence to impose, or is otherwise *ultra vires* or invalid, that condition or part of a condition shall be severed and the remainder of these conditions shall nevertheless be valid to the extent that they are within the power of this Licence to impose and are not otherwise *ultra vires* or invalid.

END OF INTRODUCTION

Licence Conditions

1. General

1.1. Interpretation

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

1.1.2. For the purposes of this Licence, unless the contrary intention appears:

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

'annual audit compliance report' means a report in a format approved by the CEO as presented by the Licence Holder or as specified by the CEO from time to time and published on the Department's website;

'Annual period' means a 12 month period from 1 January until 31 December;

'ARI' means average recurrence interval;

'AS/NZS 5667.1' means the Australian Standard AS/NZS 5667.1 *Water Quality – Sampling – Guidance of the Design of sampling programs, sampling techniques and the preservation and handling of samples*;

'AS/NZS 5667.10' means the Australian Standard AS/NZS 5667.10 *Water Quality – Sampling – Guidance on sampling of waste waters*;

'averaging period' means the time over which a limit is measured or a monitoring result is obtained;

'CEO' means Chief Executive Officer of the Department of Water and Environmental Regulation;

'CEO' for the purpose of correspondence means;

Director General
Department Administering the *Environmental Protection Act 1986*
Locked Bag 10,
Joondalup DC, WA 6919
info@dwer.wa.gov.au

'Clean fill' has the meaning defined in Landfill Definitions;

'Inert Waste Type 1' has the meaning defined in Landfill Definitions;

'Inert Waste Type 2' has the meaning defined in Landfill Definitions;

‘Landfill Definitions’ means the document titled “Landfill Waste Classification and Waste Definitions 1996” published by the Chief Executive Officer of the Department of Environment and Conservation as amended from time to time;

‘Licence’ means this Licence numbered L8544/2011/1 and issued under the Act;

‘Licence Holder’ means the person or organisation named as Licence Holder on page 1 of the Licence;

‘mbgl’ means metres below ground level;

‘NATA’ means the National Association of Testing Authorities, Australia;

‘NATA accredited’ means in relation to the analysis of a sample that the laboratory is NATA accredited for the specified analysis at the time of the analysis;

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

‘Putrescible’ has the meaning defined in Landfill Definitions;

‘Quarterly’ means the 4 inclusive periods from 1 January to 31 March, 1 April to 30 June, 1 July to 30 September, 1 and October to 31 December;

‘Schedule 1’ means Schedule 1 of this Licence unless otherwise stated;

‘Schedule 2’ means Schedule 2 of this Licence unless otherwise stated;

‘Six monthly’ means the 2 inclusive periods from 1 January to 30 June and 1 July to 31 December;

‘spot sample’ means a discrete sample representative at the time and place at which the sample is taken.

- 1.1.3. Any reference to an Australian or other standard in the Licence means the relevant parts of the standard in force from time to time during the term of this Licence.
- 1.1.4. Any reference to a guideline or code of practice in the Licence means the version of that guideline or code of practice in force from time to time, and shall include any amendments or replacements to that guideline or code of practice made during the term of this Licence.

1.2. General Conditions

- 1.2.1. The Licensee Licence Holder shall immediately remove and dispose of any liquid resulting from spills or leaks of chemicals including fuel, oil or other hydrocarbons, whether inside or outside the low permeability compound(s).

1.3. Premises operation

- 1.3.1. The Licence Holder shall record and investigate the exceedance of any descriptive or numerical limit in this section.

- 1.3.2. The Licence Holder shall ensure that stormwater is discharged into ponds with the relevant infrastructure requirements identified in Table 1.3.1.

Table 1.3.1: Containment infrastructure		
Storage vessel or compound	Material	Requirements
Sedimentation basin	Stormwater	Maintained to ensure that there is sufficient retention time within the basin to reduce suspended solids prior to discharge of the waters offsite.

- 1.3.3. The Licence Holder shall ensure that water from dust suppression is retained on the premises.
- 1.3.4. The Licence Holder shall ensure stormwater drains on the premises are kept clear of waste to ensure that they operate effectively.
- 1.3.5. The Licence Holder shall ensure that wastes accepted onto the landfill are only of the waste types listed in Table 1.3.2 and subjected to the requirements in Table 1.3.2.

Table 1.3.1: Management of Waste

Facility as depicted in Schedule 1	Waste type	Management Strategy	Requirements ^{1,2}
Putrescible Landfill	Inert Waste Type 1, Inert Waste Type 2, Putrescible Waste and Clean Fill	Receipt, handling and disposal of waste by landfilling	<p><u>All waste types</u></p> <ul style="list-style-type: none"> Disposal of waste by landfilling shall only take place within the putrescible landfill area shown in Schedule 1. Waste shall be placed in a defined trench or within an area enclosed by earthen bunds. The separation distance between the base of the landfill and the highest groundwater level shall not be less than 3 m. The active tipping area shall be restricted to a maximum linear length of 30 m. The tipping area shall be no greater than 2 m above ground level in height. A fire break of at least 3 m shall be maintained around the boundary of the landfill site. Wind-blown waste shall be contained within the boundary of the landfill and wind-blown waste shall be returned to the tipping area at least once in each month.

Note 1: Requirements for landfilling tyres are set out in Part 6 of the *Environmental Protection Regulations 1987*.

Note 2: Additional requirements for the acceptance and landfilling of Controlled waste (including asbestos and tyres) are set out in the *Environmental Protection (Controlled Waste) Regulations 2004*.

1.3.6. The Licence Holder shall ensure that cover is applied and maintained on landfilled wastes in accordance with Table 1.3.3 and that sufficient stockpiles of cover are maintained on site at all times.

Table 1.3.2: Cover Requirements ¹

Waste Type	Material	Depth	Timescales
Putrescible wastes	Inert and incombustible material	Sufficient cover to ensure that the waste is completely covered and that no waste is exposed	As soon as practicable, but at least monthly
Inert Waste Type 2	Tyres	A minimum depth of 500mm of clean fill is maintained over the buried tyres following disposal	As soon as practicable

Note 1: Additional requirements for the covering of tyres are set out in Part 6 of the *Environmental Protection Regulations 1987*.

1.3.7. The Licence Holder shall ensure the limits specified in Table 1.3.4 are not exceeded.

Table 1.3.3: Production or design capacity limits

Category¹	Category description¹	Premises production or design capacity limit
5	Processing or beneficiation of metallic or non-metallic ore	6,000,000 tonnes per annual period
89	Putrescible landfill site	500 tonnes per annual period

Note 1: *Environmental Protection Regulations 1987*, Schedule 1.

2. Monitoring

2.1. General monitoring

- 2.1.1. The Licence Holder shall ensure that:
- (a) all water samples are collected and preserved in accordance with AS/NZS 5667.1;
 - (b) all wastewater sampling is conducted in accordance with AS/NZS 5667.10; and
 - (c) 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.
- 2.1.2. The Licence Holder shall ensure that:
- (a) quarterly monitoring is undertaken at least 45 days apart;
 - (b) six monthly monitoring is undertaken at least 5 months apart; and
 - (c) Annual monitoring is undertaken at least 9 months apart.
- 2.1.3. The Licence Holder shall ensure that all monitoring equipment used on the Premises to comply with the conditions of this Licence is calibrated in accordance with the manufacturer's specifications.
- 2.1.4. The Licence Holder shall, where the requirements for calibration cannot be practicably met, or a discrepancy exists in the interpretation of the requirements, bring these issues to the attention of the CEO accompanied with a report comprising details of any modifications to the methods.

2.2. Process monitoring

- 2.2.1. The Licence Holder shall undertake the monitoring in Table 2.2.1 when water is present according to the specifications in that table and record and investigate results that do not meet any limit specified.

Table 2.2.1: Process monitoring

Monitoring point reference	Process description	Parameter	Limit (including units)	Averaging Period	Frequency
Treated water from the Oily water separator	Waste water from the vehicle wash-down area treated by oily water separation.	Total recoverable hydrocarbons	15 mg/L	Spot sample	Quarterly

2.3. Ambient environmental quality monitoring

2.3.1. The Licence Holder shall undertake the monitoring in Table 2.3.1 according to the specifications in that table.

Table 2.3.1: Monitoring of ambient groundwater quality

Monitoring point reference and location on Map in Schedule 1 ²	Parameter	Units	Averaging period	Frequency
IMW2, IMW3, IMW4 and IMW6	Standing water level	mbgl	Spot sample	Six monthly
	pH ¹	-		
	Total Dissolved Solids	mg/L		
	Total N			
	Phosphorus			
	Total Recoverable Hydrocarbons			

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

Note 2: No sample required if bore is dry

3. Information

3.1. Records

- 3.1.1. All information and records required by the Licence shall:
- (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) except for records listed in 3.1.1(d) be retained for at least 6 years from the date the records were made or until the expiry of the Licence or any subsequent licence; and
 - (d) for those following records, be retained until the expiry of the Licence and any subsequent licence:
 - (i) off-site environmental effects; or
 - (ii) matters which affect the condition of the land or waters.

- 3.1.2. The Licence Holder shall complete an Annual Audit Compliance Report indicating the extent to which the Licence Holder has complied with the conditions of the Licence, for the annual period.
- 3.1.3. The Licence Holder shall implement a complaints management system that as a minimum records the number and details of complaints received concerning the environmental impact of the activities undertaken at the Premises and any action taken in response to the complaint.

3.2. Reporting

- 3.2.1. The Licence Holder shall submit to the CEO an Annual Environmental Report by 31 March each year. The report shall contain the information listed in Table 3.2.1 in the format or form specified in that table.

Table 3.2.1: Annual Environmental Report		
Condition or table (if relevant)	Parameter	Format or form
-	Summary of any failure or malfunction of any pollution control equipment and any environmental incidents that have occurred during the annual period and any action taken	None specified
-	Comparison of the approved production and design capacities and actual production/throughput for the Annual period.	None specified
1.2.1	Plant relocation date and location map, and any associated incidents.	None specified
Table 2.2.1	Process monitoring	None specified
Table 2.3.1	Monitoring of ambient groundwater quality	None specified
3.1.2	Compliance	Annual Audit Compliance Report (AACR)
3.1.3	Complaints summary	None specified

- 3.2.2. The Licence Holder shall ensure that the Annual Environmental Report also contains an assessment of the information contained within the report against previous monitoring results and Licence limits.
- 3.2.3. The Licence Holder shall submit the information in Table 3.2.2 to the CEO according to the specifications in that table.

Table 3.2.2: Non-annual reporting requirements				
Condition or table (if relevant)	Parameter	Reporting period	Reporting date (after end of the reporting period)	Format or form ¹
-	Copies of original monitoring reports submitted to the Licence Holder by third parties	Not Applicable	Within 14 days of the CEOs request	As received by the Licence Holder from third parties

Note 1: Forms are in Schedule 2

3.3. Notification

3.3.1. The Licence Holder shall ensure that the parameters listed in Table 3.3.1 are notified to the CEO in accordance with the notification requirements of the table.

Table 3.3.1: Notification requirements			
Condition or table (if relevant)	Parameter	Notification requirement ¹	Format or form ²
1.3.7 2.2.1	Breach of any limit specified in the Licence	Part A: As soon as practicable but no later than 5pm of the next usual working day. Part B: As soon as practicable	N1

Note 1: Notification requirements in the Licence shall not negate the requirement to comply with s72 of the Act

Note 2: Forms are in Schedule3

Schedule 1: Maps

Premises map

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

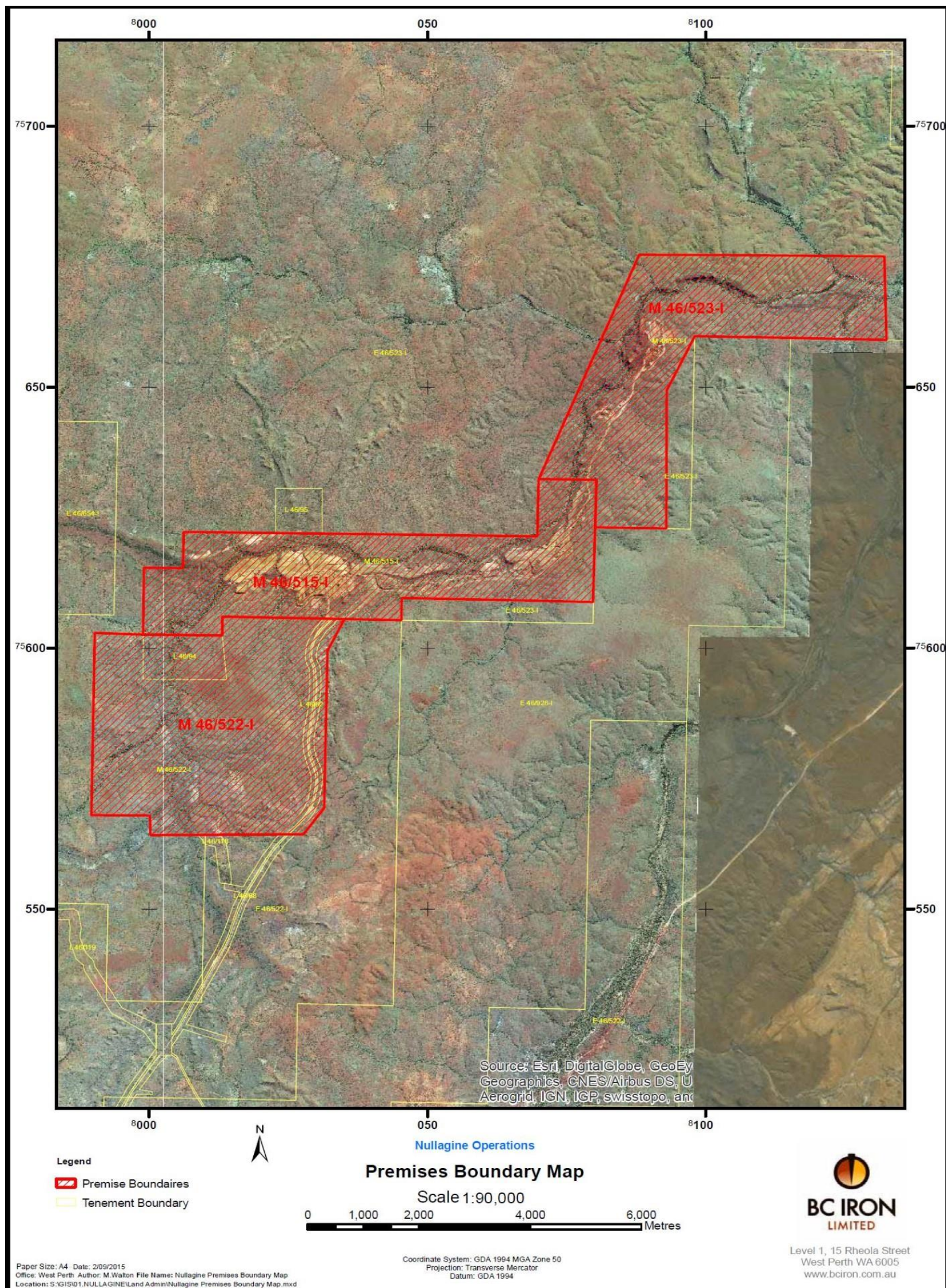


Figure 1: Premises Boundary Map

Map of Landfill and groundwater monitoring

The location of the landfill defined in Table 1.3.2 and the monitoring points defined in Table 2.3.1 are shown below.



Figure 2: Map of Landfill and Groundwater Monitoring Locations

Map of Landfill Location

The location of the Landfill defined in Table 1.3.2 is shown below.



Figure 3: Map of Landfill Location



Schedule 2: Prescribed Premises categories

The Premises prescribed categories under schedule 1 of *Environmental Protection Regulation 1987*

Prescribed Premises categories

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	50,000 tonnes or more per year	6,000,000 tonnes per annual period
89	Putrescible landfill site	More than 20 but less than 5,000 tonnes per year	500 tonnes per annual period



Schedule 3: Notification & Forms

Licence: L8544/2011/1

Licence Holder: FMG Nullagine Pty Ltd

Form: N1

Date of breach:

Notification of detection of the breach of a limit.

These pages outline the information that the operator must provide.

Units of measurement used in information supplied under Part A and B requirements shall be appropriate to the circumstances of the emission. Where appropriate, a comparison should be made of actual emissions and authorised emission limits.

Part A

Licence Number	
Name of operator	
Location of Premises	
Time and date of the detection	

Notification requirements for the breach of a limit	
Emission point reference/ source	
Parameter(s)	
Limit	
Measured value	
Date and time of monitoring	
Measures taken, or intended to be taken, to	



stop the emission	
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Part B

Any more accurate information on the matters for notification under Part A.	
Measures taken, or intended to be taken, to prevent a recurrence of the incident.	
Measures taken, or intended to be taken, to rectify, limit or prevent any pollution of the environment which has been or may be caused by the emission.	
The dates of any previous N1 notifications for the Premises in the preceding 24 months.	

Name	
Post	
Signature on behalf of FMG Nullagine Pty Ltd	
Date	