Appendix 3 – DER Operating Licence

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

Your ref: L8621/2011/1
Our ref: 2011/009784
Enquiries: Fiona Esszig
Phone: 9182 2036
Fax: 9144 1118
Email: Fiona.Esszig@der.wa.gov.au

Ms Susanna Beech
Roy Hill Iron Ore Pty Ltd
Locked Bag 42
WELSHPOOL WA 6986

Dear Ms Beech

***ENVIRONMENTAL PROTECTION ACT 1986* – AMENDMENT TO LICENCE**

Licence: L8621/2011/1
Premises: Roy Hill Iron Ore Mine

Further to my letter dated 3 April 2014, please find enclosed your amended *Environmental Protection Act 1986* licence.

If you have any questions or objections relating to the licence, please do not hesitate to contact the enquiries officer above on 9182 2036 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 licence 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

Ruth Dowd
Officer delegated under Section 20
of the *Environmental Protection Act 1986*

Thursday, 8 May 2014

enc: Amended Licence L8621/2011/1, EAR
copy to: Local Government Authority: Shire of East Pilbara

Government of Western Australia
Department of Environment Regulation

Licence

Environmental Protection Act 1986, Part V

Licensee: **Roy Hill Iron Ore Pty Ltd**

Licence: **L8621/2011/1**

Registered office: 5 Whitham Road
PERTH AIRPORT WA 6105

ACN: 130 249 633

Premises address: Roy Hill Iron Ore Mine
M46/518 and M46/519.
NEWMAN WA 6753
As depicted in Schedule 1.

Issue date: Thursday, 22 March 2012

Commencement date: Monday, 26 March 2012

Expiry date: Saturday, 25 March 2017

Prescribed premises category
Schedule 1 of the *Environmental Protection Regulations 1987*

Category number	Category description	Category production or design capacity	Approved premises production or design capacity
12	Screening, etc. of material: premises (other than premises within category 5 or 8) on which material extracted from the ground is screened, washed, crushed, ground, milled, size or separated.	50,000 tonnes or more year	6,570,000 tonnes per annual period
54	Sewage facility: premises: (a) on which sewage is treated (excluding septic tanks); or (b) from which treated sewage is discharged onto land or into waters.	100 cubic metres or more per day	Total premises capacity equals 603.1 cubic metres per day
89	Putrescible landfill site: premises on which waste (as determined by reference to the waste types set out in the document entitled "Landfill Waste Classification and Waste Definitions 1996" published by the CEO and as amended from time to time) is accepted for burial.	More than 20 but less than 5,000 tonnes per year	1,200 tonnes per annual period

Conditions of Licence
This Licence is subject to the conditions set out in the attached pages.

Officer delegated under section 20
of the *Environmental Protection Act 1986*

Contents

Introduction

This Introduction is not part of the Licence conditions.

DER's industry licensing role
The Department of Environment Regulation (DER) is a government department for the state of Western Australia in the portfolio of the Minister of the Environment. DER's purpose is to protect and conserve the state's environment on behalf of the people of Western Australia.

DER has responsibilities under Part V of the *Environmental Protection Act 1986* for the licensing of prescribed premises. Through this process DER works with the business owners, community, consultants, industry and other representatives to prevent, control and abate pollution and environmental harm to conserve and protect the environment. DER also monitor and audit compliance with works approvals and licence conditions, take enforcement action as appropriate and develop and implement 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/Licensee 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
To support the construction of the Roy Hill Iron Ore Project Mine, Roy Hill Iron Ore Pty Ltd has constructed the Mankarlyirrakurra Exploration Camp including a wastewater treatment plant (WWTP).

The Mankarlyirrakurra Exploration Camp is capable of treating up to 93.1 cubic metres of effluent per day (m^3/day). It is anticipated that the WWTP will be a temporary facility. An additional WWTP has been constructed at the Accommodation Village. This system has the capacity to treat up to 510m^3/day of effluent. The total site capacity is 603.1m^3/day. A putrescible landfill facility capable of receiving up to 1,200 tonnes of waste per year has also been constructed to support activities onsite associated with the development of the Roy Hill Iron Ore Project Mine.

Eight crushing and screening plants are required to facilitate the construction of the Roy Hill Iron Ore Mine. The plants are required to aid the construction mine infrastructure including the Accommodation Village, internal roads, airport runway and railway (via the provision of ballast), and will operate at various times for varying durations. With all eight plants in operation, the site has a production capacity of 6,570,000 tonnes per year.

The Licence is the result of an amendment sought by the Licensee to add categories 12 and 54.

The licenses and works approvals issued for the Premises since 2011:

Instrument Log		
Instrument	**Issued**	**Description**
W4802/2010/1	27/1/2011	New application (Category 54 and 89 - Accommodation Village and landfill)
W5059/2011/1	17/11/2011	New application (Category 85 - Mankarlyirrakurra Exploration Camp)
L8621/2011/1	22/3/2012	New application
W5067/2011/1	7/6/2012	New application (Category 5 - Processing Plant and Tailings Storage Facility)
W5251/2012/1	4/10/2012	New application (Category 85 – Fly Camp)
W5395/2013/1	24/4/2013	New application (Category 12 - Crushing and Screening)
L8621/2011/1	30/5/2013	Amended to include category 89 landfill
L8621/2011/1	19/9/2013	Amendment to include category 12 and upgrade from category 85 to category 54.
W5500/2013/1	24/10/2013	New application for landfill expansion (category 89)
L8621/2011/1	8/5/2014	Amendment to include the landfill expansion (category 89)

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 In the Licence, unless the contrary intention appears:

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

'AHD' means the Australian height datum;

'Acceptance Criteria' has the meaning defined in Landfill Definitions;

'annual period' means the period from 1 January until 31 December in that year;

'AS 1940' means the current version of Australian Standard AS 1940 *The storage and handling of flammable and combustible liquids*;

'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;*

'AS/NZS 5667.11' means the Australian Standard AS/NZS 5667.11 *Water Quality – Sampling – Guidance on sampling of groundwaters;*

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

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

'code of practice for the storage and handling of dangerous goods' means document titled "Storage and handling of dangerous goods: Code of Practice" published by the Department of Mines and Petroleum, as amended from time to time;

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

'CEO' means Chief Executive Officer of the Department of Environment ;

'CEO' for the purpose of correspondence and advice means:
Regional Leader, Industry Regulation, North West Region
Department of Environment Regulation
PO Box 835
KARRATHA WA 6714
Telephone: (08) 9182 2000
Facsimile: (08) 9144 1118
Email: industryregpilbara@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;

'fugitive emissions' means all emissions not arising from point sources identified in Sections 2.2, 2.3, 2.4 and 2.5;

'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 as amended from time to time;

'Licence' means this licence numbered L8621/2011/1 and issued under the Act;

'Licensee' means the person or organisation named as Licensee on page 1 of the Licence;

'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;

'practicable' is as defined in the *Environmental Protection Act 1986*;

'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 Waste' means the organic component of the waste stream which can be decomposed by microbial action and become putrid and likely to cause obnoxious odours and attract (scavenging) birds or animals; putrescible waste includes food wastes or wastes of animal or vegetable origin;

'quarterly period' means the 4 inclusive periods from 1 January to 31 March, 1 April to 30 June, 1 July to 30 September and 1 October to 31 December in that year;

'restoration' means the completion of the engineering of a landfill cell and may include capping and/or final cover;

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

'Schedule 2' means Schedule 2 of this Licence unless otherwise stated;

'sewage' means waste containing faecal matter or urine and conveyed in sewers;

'spot sample' means a discrete sample representative at the time and place at which the sample is taken; and

'usual working day' means 0800 – 1700 hours, Monday to Friday excluding public holidays in Western Australia.

1.1.3 Any reference to an Australian or other standard in the Licence means the relevant parts of the 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 Nothing in this Licence shall be taken to authorise any emission that is not mentioned in this licence, where the emission amounts to:
(a) pollution;
(b) unreasonable emission;
(c) discharge of waste in circumstances likely to cause pollution; or
(d) being contrary to any written law.

1.2.2 The Licensee shall operate and maintain all pollution control and monitoring equipment to the manufacturer's specification or any relevant and effective internal management system.

1.2.3 The Licensee, 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.

1.2.4 The Licensee shall immediately recover, or remove and dispose of spills of environmentally hazardous materials outside an engineered containment system.

1.2.5 The Licensee shall:
(a) implement all practical measures to prevent stormwater run-off becoming contaminated by the activities on the Premises; and
(b) treat contaminated or potentially contaminated stormwater as necessary prior to being discharged from the Premises.[1]

Note1: The Environmental Protection (Unauthorised Discharges) Regulations 2004 make it an offence to discharge certain materials into the environment.

1.2.6 The Licensee shall manage stormwater on the site to ensure that:
(a) it does not pond on the surface of the landfill;
(b) it is diverted away from those portions of the premises which are or have been used for waste deposition; and
(c) stormwater that is or has been in contact with waste is diverted into a sump on the site or otherwise retained on the site.

1.3 Premises Operations

1.3.1 The Licensee shall only accept waste on to the Premises if:
(a) it is of a type listed in Table 1.3.1;
(b) the quantity accepted is below any quantity limit listed in Table 1.3.1; and
(c) it meets any specification listed in Table 1.3.1.

Table 1.3.1: Waste acceptance		
Waste type	**Quantity limit**	**Specification** [1]
Inert Waste Type 1	1,200 tonnes/year in total	None specified
Inert Waste Type 2		None specified
Putrescible Waste		Non specified
Clean Fill		None specified
Sewage	93.1 m^3/day	Accepted at the Exploration Camp wastewater treatment plant through sewer inflow(s) only
Sewage	510 m^3/day	Accepted at the Accommodation Village wastewater treatment plant through sewer inflow(s) only

Note 1: Additional requirements for the acceptance of controlled waste (including asbestos and tyres) are set out in the *Environmental Protection (Controlled Waste) Regulations 2004*.

1.3.2 The Licensee shall ensure that where waste does not comply with condition 1.3.1 it is removed from the Premises by the delivery vehicle or, where that is not possible, stored in a segregated storage area or container and removed to an appropriately authorised facility as soon as practicable.

1.3.3 The Licensee shall ensure that wastes accepted onto the Premises are only subjected to the process(es) set out in Table 1.3.2 and in accordance with any process limits described in that Table.

Table 1.3.2: Waste processing		
Waste type	**Process(es)**	**Process limits** [1]
Inert Waste Type 1	Receipt, handling and disposal of waste by landfilling	<u>All waste types</u> Disposal of waste by landfilling shall only take place within the landfill area shown on the Premises Map in Schedule 1. The separation distance between the base of the landfill and the highest groundwater level shall not be less than 2m.
Putrescible Waste		
Clean Fill		
Inert Waste Type 2		Tyres shall only be landfilled: i) in batches separated from each other by at least 100mm of soil and each consisting of not more than 40 m^3 of tyres reduced to pieces; or ii) in batches separated from each other by at least 100mm of soil and each consisting of not more than 1000 whole tyres
Sewage	Biological, physical and chemical treatment.	Treatment of sewage waste at the Exploration Camp wastewater treatment plant shall be at or below the treatment capacity of 93.1 m^3/day
Sewage	Biological, physical and chemical treatment.	Treatment of sewage waste at the Accommodation village wastewater treatment plant shall be at or below the treatment capacity of 510 m^3/day

Note 1: 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*.

1.3.4 The Licensee shall manage the landfilling activities to ensure:
(a) the size of the tipping face is kept to a minimum and not larger than 30m in length and 2m above ground level in height;

(b) waste is levelled and compacted as soon as practicable after it is discharged;
(c) waste is placed and compacted to ensure all faces are stable and capable of retaining restoration material; and
(d) restoration of a cell or phase takes place within 6 months after disposal in that cell or phase has been completed.

1.3.5 The Licensee 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 1.3.3: Cover requirements [1]

Waste Type	Material	Depth	Timescales
Inert Waste Type 1	Inert and incombustible material	Sufficient to ensure the waste is completely covered and that no waste is exposed	Weekly or as soon as practicable after deposit and prior to compaction
Putrescible Waste			
Inert Waste Type 2 (Tyres only)	Soil	500mm	As soon as practical following the achievement of final waste levels in the area(s) in which tyres are deposited.

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

1.3.6 The Licensee shall:
(a) erect and maintain suitable fencing around the irrigation area and landfill facility that acts as an effective barrier to unauthorised persons, cattle, horses and other stock; and
(b) undertake regular inspections of all security measures and repair damage as soon as practicable.

1.3.7 The Licensee shall ensure that wind-blown waste is contained within the landfill area and that wind-blown waste is returned to the tipping area on at least a monthly basis.

1.3.8 The Licensee shall ensure that the irrigation of treated wastewater meets the following:
(a) no irrigation generated run-off, spray drift or discharge occurs beyond the boundary of the irrigation area;
(b) wastewater is evenly distributed over the irrigation area;
(c) soil erosion is prevented from occurring; and
(d) a healthy vegetation cover is maintained over the wastewater irrigation areas.

2 Emissions

2.1 General

2.1.1 The Licensee shall record and investigate the exceedance of any descriptive or numerical limit or target specified in any part of section 2 of this Licence.

2.2-2.4 Point source emissions to air, surface water and groundwater

There are no specified conditions relating to point source emissions to air, surface water or groundwater in these sections.

2.5 Emissions to land

2.5.1 The Licensee is permitted, subject to conditions in the licence, to emit waste to land through the emissions points listed in Table 2.5.1 and depicted in the map in Schedule 1.

Table 2.5.1: Emission points to land

Emission point reference (and location on Map of emission points)	Description	Source
L1	Discharge from the Exploration Camp wastewater treatment plant to the on-site irrigation area	Treated wastewater
L2	Discharge from the Accommodation Village wastewater treatment plant to the on-site irrigation area	Treated wastewater

2.5.2 The Licensee shall target emissions at or below the targets listed in Table 2.5.2.

Table 2.5.2: Emission targets to land

Emission point Reference	Parameter	Target (including units)	Reference period
L1	Biochemical Oxygen Demand	20 mg/l	Spot sample
	Total Suspended Solids	30 mg/l	
	pH	6.5-8.5	
	Total Nitrogen	30 mg/L	
	Total Phosphorus	8 mg/L	
	E.coli	10,000 cfu/100mL	
L2	Biochemical Oxygen Demand	20 mg/l	Spot sample
	Total Suspended Solids	40 mg/l	
	pH	6.5-8.5	
	Total Nitrogen	26mg/L	
	Total Phosphorus	6 mg/L	
	E.coli	10,000 cfu/100mL	
	Total Dissolved Solids	1,600 mg/L	

2.6 Fugitive emissions

2.6.1 The Licensee shall use all reasonable and practical measures to prevent and where that is not practicable to minimise dust emissions from the Premises.

2.6.2 The Licensee shall ensure that no visible dust generated by the activities on the Premises crosses the boundary of the Premises.

2.7 Odour

2.7.1 The Licensee shall ensure that odour emitted from the Premises does not unreasonably interfere with the health, welfare, convenience, comfort or amenity of any person who is not on the Premises.

2.8 Noise

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

3 Monitoring

3.1 General monitoring

3.1.1 The licensee 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;
(c) all groundwater sampling is conducted in accordance with AS/NZS 5667.11;
(d) all samples are submitted to a laboratory with current NATA accreditation for the parameters to be measured.

3.1.2 The Licensee shall ensure that quarterly monitoring is undertaken at least 45 days apart.

3.1.3 The Licensee shall have all monitoring equipment referred to in any condition of the Licence calibrated in accordance with the manufacturer's.

3.1.4 The Licensee 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.

3.2-3.4 Monitoring of point source emissions to air, surface water and groundwater

There are no specified conditions relating to monitoring of point source emissions to air, surface water or groundwater in these sections.

3.5 Emissions to land

3.5.1 The Licensee shall undertake the monitoring in Table 3.5.1 according to the specifications in that table.

Table 3.5.1: Monitoring of emissions to land

Emission point reference	Parameter	Units	Reference period	Frequency
L1 (Prior to discharge to the irrigation areas)	Cumulative Volume	m^3	Monthly	Monthly
	Biochemical Oxygen Demand	mg/L	Spot sample	Quarterly
	Total Suspended Solids	mg/L		
	pH			
	Total Nitrogen	mg/L		
	Total Phosphorus	mg/L		
	E. coli	mg/L		
L2 (Prior to discharge to the irrigation areas)	Cumulative Volume	m^3	Spot sample	Quarterly
	Biochemical Oxygen Demand	mg/L		
	Total Suspended Solids	mg/L		
	pH			
	Total Nitrogen	mg/L		
	Total Phosphorus	mg/L		
	E. coli	mg/L		
	Total Dissolved Solids	mg/L		

3.6 Monitoring of inputs and outputs

3.6.1 The Licensee shall undertake the monitoring specified in Table 3.6.1.

Table 3.6.1 Monitoring of inputs and outputs

Input/Output	Parameter	Units	Averaging Period	Frequency
Waste Inputs	Inert Waste Type 1, Inert Waste Type 2, Putrescible Waste and Clean Fill	tonnes or (where no weighbridge is present) m^3	N/A	Each load arriving at the landfill

3.7 Process monitoring

There are no specified conditions relating to process monitoring.

3.8 Ambient environmental quality monitoring

3.8.1 The Licensee shall undertake the monitoring in Table 3.8.1 according to the specifications in that table.

Table 3.8.1: Monitoring of ambient groundwater quality

Monitoring point reference & location	Parameter	Units	Averaging period	Frequency
RHPZ0026,and RHPZ0034	Standing water level	m(AHD)	Spot sample	Quarterly
	pH			
	Electrical conductivity	µS/cm		
	Total dissolved solids	mg/L		
	Total hardness	mg/L		
	Chloride	mg/L		
	Sodium	mg/L		
	Metals - Aluminium (Al), Arsenic (As), Barium (Ba), Boron (Bo), Cadmium (Ca), Chromium (Cr), Copper (Cu), Iron (Fe), Lead (Pb), Manganese (Mn), Mercury (Hg), Molybdenum (Mo), Nickel (Ni), Selenium (Se), Silver (Ag), Zinc (Zn)	mg/L		
	Total cyanide	mg/L		
	Nitrate as N	mg/L		
	Total Phosphorus	mg/L		
	Biochemical oxygen demand	mg/L		
	Total recoverable hydrocarbons	mg/L		

3.9 Meteorological monitoring

There are no specified conditions relating to meteorological monitoring.

4 Improvements

4.1 Improvement Program

There are no specified improvement conditions in this section.

5 Information

5.1 Records

5.1.1 All information and records required by this 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 5.1.1(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 or any subsequent licence:
  - (i) off-site environmental effects; or
  - (ii) matters which affect condition of the land or waters.

5.1.2 The Licensee shall ensure that:
- (a) any person left in charge of the Premises is aware of the conditions of this Licence and has access at all times to this Licence or copies thereof; and
- (b) any person who performs tasks on the Premises is informed of all of the conditions of this Licence that relate to the tasks which that person is performing.

5.1.3 The Licensee shall complete an Annual Audit Compliance Report indicating the extent to which the Licensee has complied with the conditions of the Licence, and any previous licence issued under Part V of the Act for the Premises for the previous annual period.

5.1.4 The Licensee 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.

5.1.5 The Licensee shall implement and maintain a system which ensures that a record is made of:
- (a) the waste types and quantities accepted at the site;
- (b) the waste types and quantities disposed of at the site; and
- (c) any documentary evidence to demonstrate compliance with the Class II landfill acceptance criteria.

5.2 Reporting

5.2.1 The Licensee shall submit to the CEO an Annual Environmental Report within 90 calendar days after the end of the annual period. The report shall contain the information listed in Table 5.2.1 in the format or form specified in that table.

Table 5.2.1: Annual Environmental Report		
Condition or Table (if relevant)	**Parameter**	**Format or Form[1]**
-	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
Table 3.5.1	Cumulative Volume	None specified
Table 3.5.1	Biochemical Oxygen Demand, Total Suspended Solids, pH, Total Nitrogen, Total Phosphorus, E.coli	WR1
Table 3.8.1	Standing Water Level, pH, Electrical Conductivity, Total Dissolved Solids, Total Hardness, Chloride, Sodium, Metals - Aluminium (Al), Arsenic (As), Barium (Ba), Boron (Bo), Cadmium (Ca), Chromium (Cr), Copper (Cu), Iron (Fe), Lead (Pb), Manganese (Mn), Mercury (Hg), Molybdenum (Mo), Nickel (Ni), Selenium (Se), Silver (Ag), Zinc (Zn), Total Cyanide, Nitrate as N, Total Phosphorus, Biochemical Oxygen Demand, Total Recoverable Hydrocarbons	GR1
Table 2.4.2	Target exceedances	None specified
5.1.3	Compliance	Annual Audit Compliance Report (AACR)
5.1.4	Complaints summary	None specified
5.1.5	Records of waste types and quantities received at the site and disposed of at the site.	None specified

Note 1: Forms are in Schedule 2

5.2.2 The Licensee shall ensure that the Annual Environmental Report also contains:
(a) an assessment of the information contained within the report against previous monitoring results and Licence limits and/or targets; and
(b) a list of any original monitoring reports submitted to the Licensee from third parties for the annual period and make these reports available on request.

5.3 Notification

5.3.1 The Licensee shall ensure that the parameters listed in Table 5.3.1 are notified to the CEO and in accordance with the notification requirements of the table.

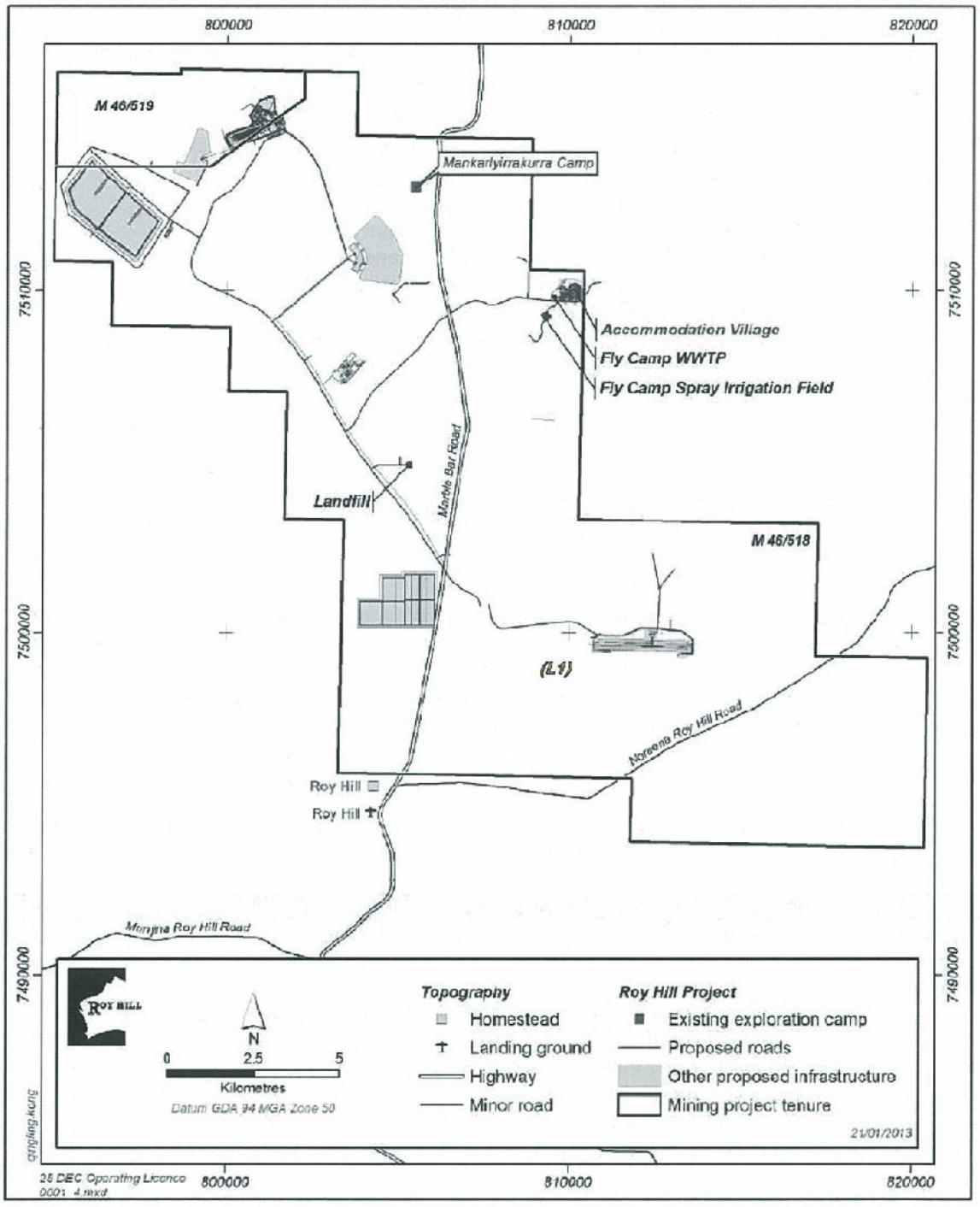
Table 5.3.1: Notification requirements			
Condition or table (if relevant)	**Parameter**	**Notification requirement[1]**	**Format or form[2]**
	Any failure or malfunction of any pollution control equipment or any incident, which has caused, is causing or may cause pollution	Part A: As soon as practicable but no later than 5pm of the next usual working day from the incident being identified. 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 Schedule 2

Schedule 1: Maps

Premises Map

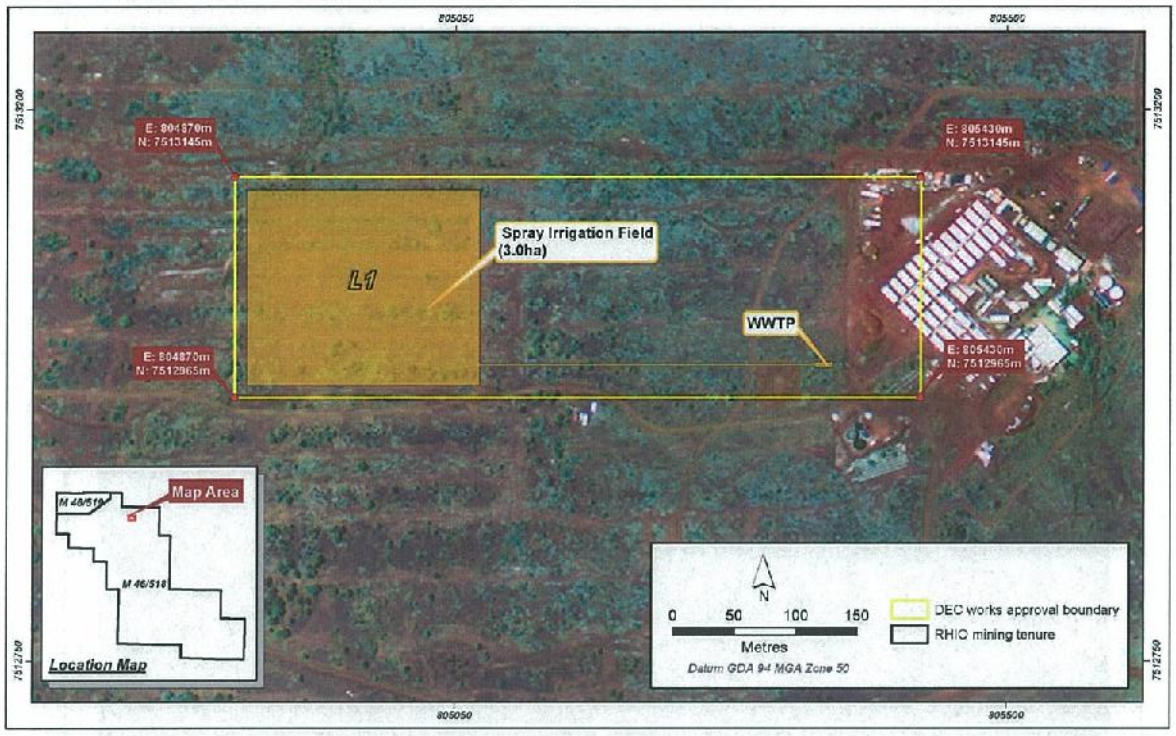
The Premises is shown in the map below. The black line depicts the Premises boundary. The area in which the disposal of waste by landfilling may take place is also shown in the map below.



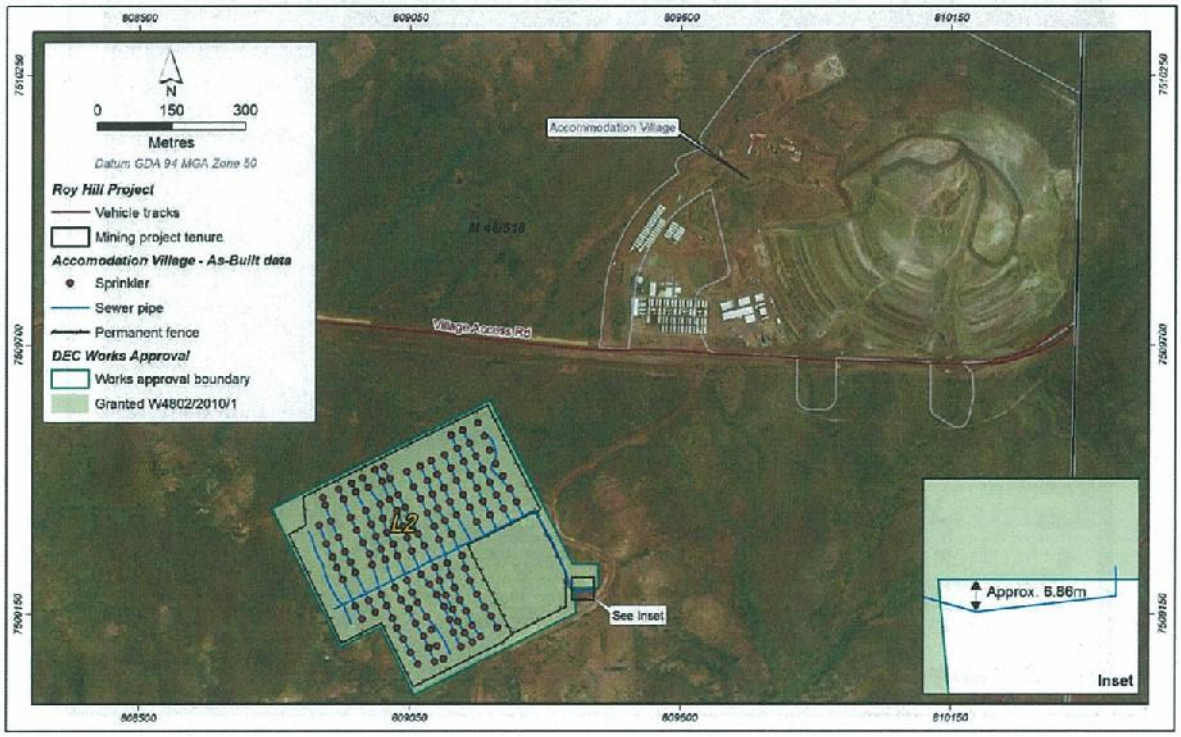
Map of emissions

The locations of the emission point defined in Tables 2.4.1 are shown in the maps below.

L1 – Mankarlyirrakurra Exploration Camp Irrigation Area

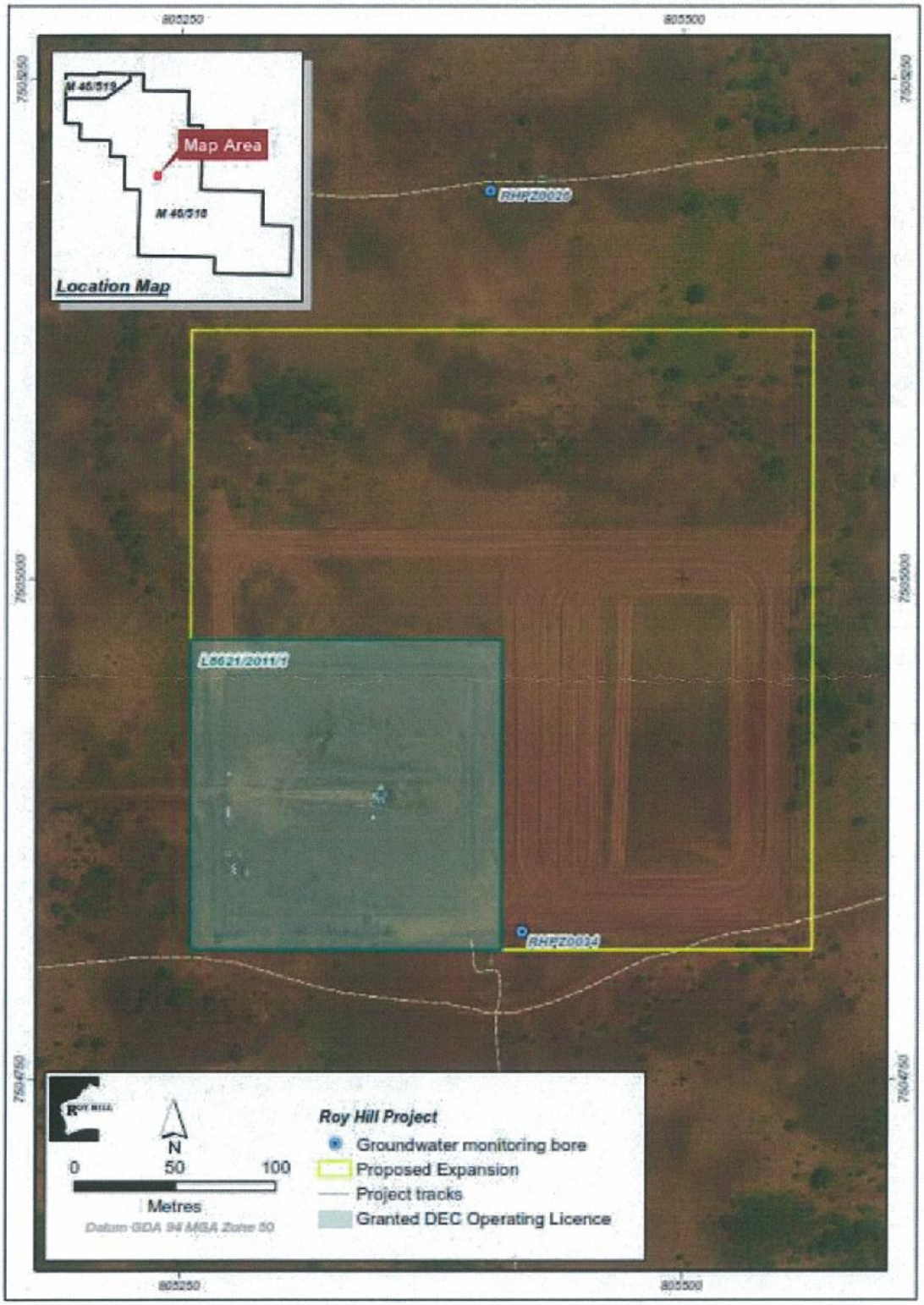


L2 – Accommodation Village Irrigation Area



Map of monitoring locations

The locations of the groundwater monitoring points defined in Tables 3.8.1 are shown below.



Schedule 2: Reporting & Notification Forms

These forms are provided for the proponent to report monitoring and other data required by the Licence. They can be requested in an electronic format.

ANNUAL AUDIT COMPLIANCE REPORT PROFORMA

SECTION A

LICENCE DETAILS

Licence Number:	Licence File Number:
Company Name: Trading as:	ABN:
Reporting period: _____ to _____	

STATEMENT OF COMPLIANCE WITH LICENCE CONDITIONS

1. Were all conditions of the licence complied with within the reporting period? (please tick the appropriate box)

Yes ☐ Please proceed to Section C

No ☐ Please proceed to Section B

Each page must be initialled by the person(s) who signs Section C of this Annual Audit Compliance Report (AACR).

Initial:

SECTION B
DETAILS OF NON-COMPLIANCE WITH LICENCE CONDITION.

Please use a separate page for each licence condition that was not complied with.

a) Licence condition not complied with:	
b) Date(s) when the non compliance occurred, if applicable:	
c) Was this non compliance reported to DER?:	
☐ Yes ☐ Reported to DER verbally Date _____ ☐ Reported to DER in writing Date _____	☐ No
d) Has DER taken, or finalised any action in relation to the non compliance?:	
e) Summary of particulars of the non compliance, and what was the environmental impact:	
f) If relevant, the precise location where the non compliance occurred (attach map or diagram):	
g) Cause of non compliance:	
h) Action taken, or that will be taken to mitigate any adverse effects of the non compliance:	
i) Action taken or that will be taken to prevent recurrence of the non compliance:	

Each page must be initialled by the person(s) who signs Section C of this AACR

Initial:

SECTION C

SIGNATURE AND CERTIFICATION

This Annual Audit Compliance Report (AACR) may only be signed by a person(s) with legal authority to sign it. The ways in which the AACR must be signed and certified, and the people who may sign the statement, are set out below.

Please tick the box next to the category that describes how this AACR is being signed. If you are uncertain about who is entitled to sign or which category to tick, please contact the licensing officer for your premises.

If the licence holder is		**The Annual Audit Compliance Report must be signed and certified:**
An individual	☐	by the individual licence holder, or
	☐	by a person approved in writing by the Chief Executive Officer of the Department of Environment Regulation to sign on the licensee's behalf.
A firm or other unincorporated company	☐	by the principal executive officer of the licensee; or
	☐	by a person with authority to sign on the licensee's behalf who is approved in writing by the Chief Executive Officer of the Department of Environment Regulation.
A corporation	☐	by affixing the common seal of the licensee in accordance with the *Corporations Act 2001*; or
	☐	by two directors of the licensee; or
	☐	by a director and a company secretary of the licensee, or
	☐	if the licensee is a proprietary company that has a sole director who is also the sole company secretary – by that director, or
	☐	by the principal executive officer of the licensee; or
	☐	by a person with authority to sign on the licensee's behalf who is approved in writing by the Chief Executive Officer of the Department of Environment Regulation.
A public authority (other than a local government)	☐	by the principal executive officer of the licensee; or
	☐	by a person with authority to sign on the licensee's behalf who is approved in writing by the Chief Executive Officer of the Department of Environment Regulation.
a local government	☐	by the chief executive officer of the licensee; or
	☐	by affixing the seal of the local government.

It is an offence under section 112 of the *Environmental Protection Act 1986* for a person to give information on this form that to their knowledge is false or misleading in a material particular. There is a maximum penalty of $50,000 for an individual or body corporate.

I/We declare that the information in this annual audit compliance report is correct and not false or misleading in a material particular.

SIGNATURE: _____

NAME:
(printed) _____

POSITION: _____

DATE: _____/_____/_____

SIGNATURE: _____

NAME:
(printed) _____

POSITION: _____

DATE: _____/_____/_____

SEAL (if signing under seal)

Licence: L8621/2011/1 Licensee: Roy Hill Iron Ore Pty Ltd
Form: N1 Date of breach:

Notification of detection of the breach of a limit or any failure or malfunction of any pollution control equipment or any incident which has caused, is causing or may cause pollution.

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	

Notification requirements for any failure or malfunction of any pollution control equipment or any incident which has caused, is causing or may cause pollution	
Date and time of event	
Reference or description of the location of the event	
Description of where any release into the environment took place	
Substances potentially released	
Best estimate of the quantity or rate of release of substances	
Measures taken , or intended to be taken, to stop any emission	
Description of the failure or accident	

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 previous N1 notifications for the Premises the preceding 24 months.	

Name	
Post	
Signature on behalf of Roy Hill Iron Ore Pty Ltd	
Date	

Licence: L8621/2011/1
Form: WR1
Name: Monitoring of point source emissions to land

Licensee: Roy Hill Iron Ore Pty Ltd
Period:

Form WR1: Monitoring of point source emissions to land						
Emission point	**Parameter**	**Target**	**Result**	**Averaging Period**	**Method**	**Sample date & Times**
L1	Biochemical Oxygen Demand	20 mg/L		Spot Sample		
	Total Suspended Solids	30 mg/L				
	pH	6.5-8.5				
	Total Nitrogen	30 mg/L				
	Phosphorus	8 mg/L				
	E. Coli	10,000 cfu/100mL				
L2	Biochemical Oxygen Demand	20 mg/L		Spot Sample		
	Total Suspended Solids	40 mg/L				
	pH	6.5-8.5				
	Total Nitrogen	6 mg/L				
	Phosphorus	6 mg/L				
	E. Coli	10,000 cfu/100mL				
	Total Dissolved Solids	1,600 mg/L				

Signed on behalf of Roy Hill Iron Ore Pty Ltd: ..... Date: .....

Licence: L8621/2011/1
Form: GR1
Name: Monitoring of groundwater

Licensee: Roy Hill Iron Ore Pty Ltd
Period:

Form GR1: Monitoring of groundwater

Emission point	Parameter	Unit	Result	Averaging Period	Method	Sample date & Times
RHPZ0026 & RHPZ0034	Standing Water Level	m(AHD)		Spot Sample		
	pH					
	Electrical Conductivity	uS/cm				
	Total Dissolved Solids	mg/L				
	Total hardness	mg/L				
	Chloride	mg/L				
	Sodium	mg/L				
	Aluminium (Al)	mg/L				
	Arsenic (As)	mg/L				
	Barium (Ba)	mg/L				
	Boron (Bo)	mg/L				
	Cadmium (Ca)	mg/L				
	Chromium (Cr)	mg/L				
	Copper (Cu)	mg/L				
	Iron (Fe)	mg/L				
	Lead (Pb)	mg/L				
	Manganese (Mn)	mg/L				
	Mercury (Hg)	mg/L				
	Molybdenum (Mo)	mg/L				
	Nickel (Ni)	mg/L				

RHPZ0026 & RHPZ0034	Selenium (Se)	mg/L		Spot Sample		
	Silver (Ag)	mg/L				
	Zinc (Zn)	mg/L				
	Total cyanide	mg/L				
	Nitrate as N	mg/L				
	Total Phosphorus	mg/L				
	Biochemical Oxygen Demand	mg/L				
	Total Recoverable Hydrocarbons	mg/L				

Signed on behalf of Roy Hill Iron Ore Pty Ltd: ..... Date: .....

LICENCE NUMBER: L8621/2011/1
LICENCE FILE NUMBER: 2011/009784
APPLICATION DATE: 17/10/2011
AMENDMENT DATE: 8/5/2014
EXPIRY DATE: 25/03/2017

PREMISES DETAILS

LICENSEE AND OCCUPIER
Roy Hill Iron Ore Pty Ltd
5 Whitham Road
PERTH AIRPORT WA 6105
ACN: 123 722 038

PREMISES
Roy Hill Iron Ore Mine
Mining tenements M46/518 and M46/519
NEWMAN WA 6753

PRESCRIBED PREMISES SUMMARY

Table 1: Prescribed premises summary

Category number*	Category Description*	Category Production or Design Capacity*	Premises Production or Design Capacity#	Premises Fee Component**
12	Screening, etc. of material	50,000 tonnes or more per year	6,570,000 tonnes per year	More than 5,000,000 tonnes per year
54	Sewage facility	More than 100 cubic metres per day	603.1 cubic metres per day	Not more than 200 cubic metres per day
89	Landfill facility	More than 20 but less than 5,000 tonnes per year	1,200 tonnes per year	N/A

* From Schedule 1 of the *Environmental Protection Regulations 1987*
\# From application
** From Schedule 4 of the *Environmental Protection Regulations 1987*

This Environmental Assessment Report (EAR) has been drafted for the purposes of detailing information on the management and mitigation of emissions and discharges from the prescribed premises. The objective of the EAR is to provide a risk assessment of emissions and discharges, and information on the management of other activities occurring onsite which are not related to the control of emissions and discharges from the prescribed premises activity. This does not restrict the Department of Environment Regulation (DER) to assessing only those emissions and discharges generated from the activities that cause the premises to become prescribed premises.

Basis of Assessment

The Roy Hill Iron Ore Mine have been assessed as a "prescribed premises" under categories 12, 54 & 89, within Schedule 1 of the *Environmental Protection Regulations 1987*.

Category 12 - *Screening, etc. of material: premises (other than premises within category 5 or 8) on which material extracted from the ground is screened, washed, crushed, ground, milled, sized or separated.*

The works approval was amended in June 2013 to include category 12. Eight crushing and screening plants are required to facilitate the construction of the Roy Hill Iron Ore Mine. The plants are required to aid the construction mine infrastructure including the Accommodation Village, internal roads, airport runway and railway (via the provision of ballast), and will operate at various times for varying durations. With all eight plants in operation, the site has a production capacity of 6,570,000 tonnes per year.

Category ~~85~~ 54 - Sewage facility*: premises –*
(a) on which sewage is treated (excluding septic tanks); or
(b) from which treated sewage is discharged onto land or into waters.

To support the expanding population at the existing Mankarlyirrakurra Exploration Camp, Roy Hill Iron Ore Pty Ltd (RHIO) has constructed a WWTP capable of treating up to 93.1 m^3 of effluent per day. It is anticipated that the WWTP is a temporary facility. An additional WWTP has been constructed at the Accommodation Village. This system has the capacity to treat up to 510m^3/day of effluent. The total site capacity is 603.1m^3/day.

Category 89 - *Putrescible landfill site: premises on which waste (as determined by reference to the waste type set out in the document entitled "Landfill Waste Classification and Waste Definitions 1996" published by the Chief Executive Officer, as amended from time to time) is accepted for burial.*

A putrescible landfill facility capable of receiving up to 1,200 tonnes of waste per year is also present to support activities onsite associated with the development of the Roy Hill Iron Ore Project Mine.

Amendment April 2014

The existing landfill, which was approved for 1,125 tonnes of waste per annum, was sized at 2.5 hectares (ha). As of June 2013, 55 tonnes of waste had been disposed of to the landfill facility, however, approximately 40% of the 2.5 ha area had been utilised. RHIO has indicated that design of the initial landfill occurred during earlier stages of the Roy Hill Iron Ore Mine development (i.e. during the feasibility study), and areas required for the disposal of waste were underestimated. Additionally, due to contractual requirements, RHIO has been required to dispose of more construction wastes than what was anticipated. RHIO has also identified that the burial method has used a large volume of soil to cover waste, which, along with other factors, has resulted in the landfill not being capable of receiving predicted waste inputs.

RHIO has thus constructed an additional landfill to support the construction of the Roy Hill Iron Ore Mine. The new landfill is located adjacent to the existing facility and covers an area of 10 ha. Conditions already exist on the licence relating to landfill management.

1.0 BACKGROUND

1.1 GENERAL COMPANY DESCRIPTION

The Roy Hill Iron Ore Mine (the Mine) involves the mining of a resource of approximately one billion tonnes of bedded Marra Mamba iron ore and approximately one billion tonnes of detrital iron ore located on the foot slopes of the Chichester Ranges. Mining operations will provide approximately 65 million tonnes of ore per annum which will be transported via rail to Port Hedland for export. It is estimated that the Mine will have an operating life of approximately 20 years.

1.2 LOCATION OF PREMISES

The Mine is located on mining leases M46/518 and M46/519 approximately 110km north of Newman in the Pilbara Region. The location of the Mankarlyirrakurra Exploration Camp is shown in Figure 1. The nearest sensitive receptor to the camp is Roy Hill Homestead which is situated approximately 10km south of the project site.

Climate

The Mine is located within the Pilbara region in Western Australia, which is characterised by two distinct seasons (hot, wet summers and cool, dry winters), very low rainfall, high evaporation and high daytime temperatures. Newman, which is located approximately 110km south of the project area, experiences an average yearly rainfall of 310.2mm. Rainfall events predominantly occur during the summer months between January and March as a result of tropical storms and cyclones which penetrate from the north. Temperatures at Newman Airport average between 23.9°C and 39°C in summer and 8.1°C to 24.8°C in winter.

Geology

The Pilbara region has a long history of tectonic stability and slow rates of erosion. The Mine area covers part of the Chichester Plateau and northern fringes of the Fortescue Valley. The rocks of the Chichester Plateau are mainly volcanic, tuff and basalt, with intercalated shales and sandstones in strata, often capped by the Marra Mamba Iron formation, which is very hard and resistant and is responsible for the escarpment of the Chichester Range. The underlying basalts of the Chichester Range continue uninterrupted to dip down beneath the Fortescue Valley and then onwards beneath the Hamersley Escarpment. The Fortescue Valley consists mainly of Quaternary alluvium, colluvium and sand plains overlying the Tertiary Oakover formation (limestone and calcareous gravels) and chert breccias that are exposed locally.

Flora and fauna

The Mine area is located within the Pilbara biogeographic region at the boundary between the Chichester and Fortescue subregions. The typical vegetation found in the region is *Acacia aneura* low woodlands and tall shrublands which comprises of moderately dense to open tall *A. aneura* shrubland over sparse to open *A. tetragonophylla*, *Senna artemisioides* subsp. *helmsii* shrubs over moderately dense to open grasslands dominated by *Aristida contorta*.

No threatened ecological communities or priority ecological communities will be impacted by the WWTP. No declared rare flora occur in the Mine area. There is also no threatened flora listed under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act).

No threatened fauna species listed under the EPBC Act or *Wildlife Conservation Act 1950* were recorded in the Roy Hill Iron Ore Project area.

Surface and groundwater

The Mine area is located in the foothills and upper colluvial plains of the Chichester Range that is drained by several ephemeral creeks, which generally flow in a south-westerly direction towards the Fortescue River and Marsh. The water quality in these creeks during flow events is generally good (i.e. low salinity) however, turbidity can be high due to the flash-flood nature of flow events. Kulbee Creek passes through the centre of the mine area, while Kulkinbah Creek is located to the immediate south.

Groundwater within the Mine area was found to occur from 46 metres below ground level (mbgl) on the high ground to 8mbgl in local areas adjacent to drainage lines averaging at 35mbgl. Depth to groundwater near the WWTP is in excess of 40mbgl and 30mbgl near the landfill.

Groundwater quality is good in the upper levels of the alluvial deposits away from the Fortescue Marsh, however saline water occurs at a shallow depth near the marsh and in the ore deposits at depth.

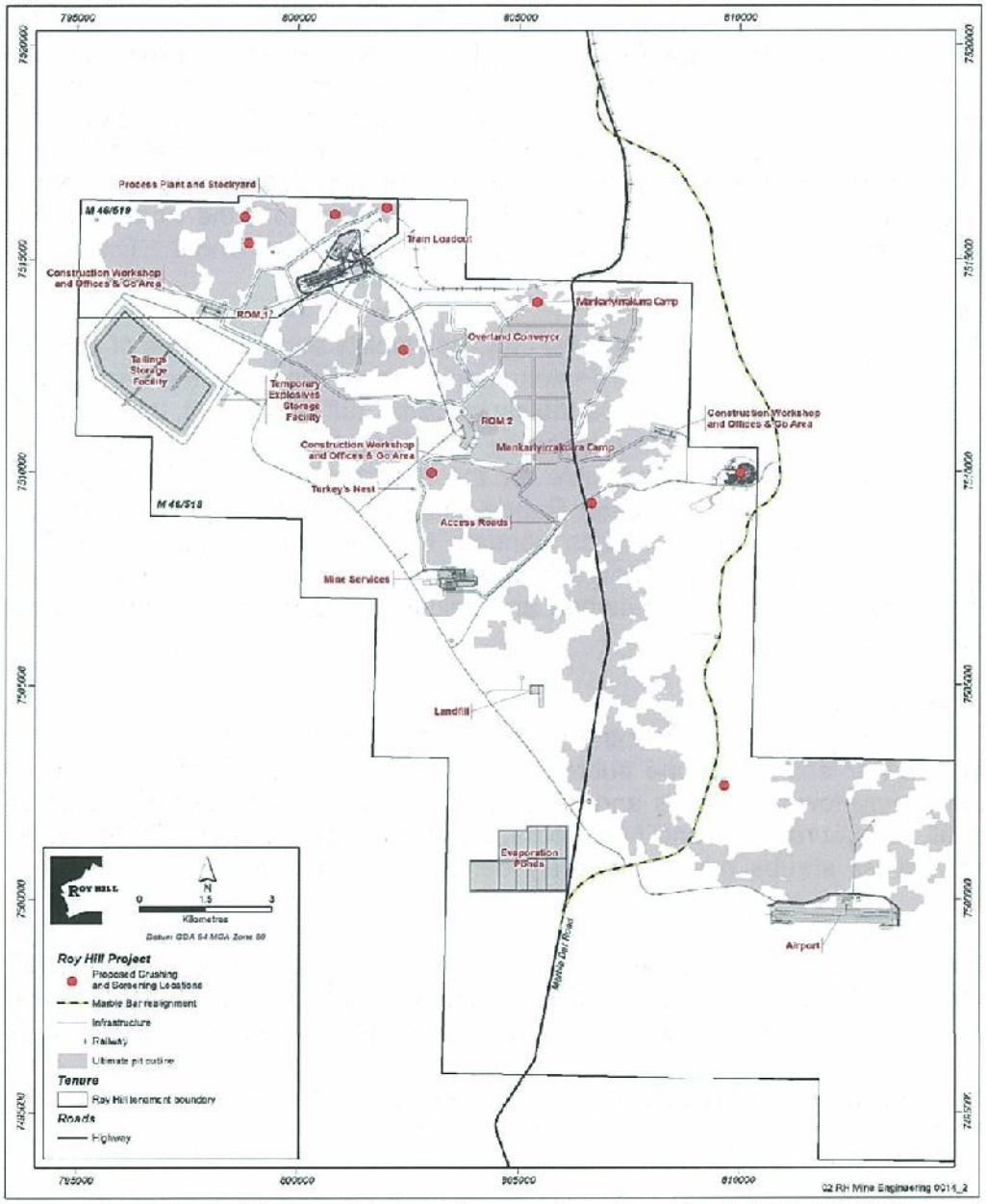


Figure 1. Location of the crushing and screening plants (red dots), WWTPs and landfill.

1.3 PROPOSAL DESCRIPTION

WWTP

There are currently two accommodation facilities operating at the Roy Hill Iron Ore Mine; the Mankarlyirrakurra Exploration Camp and Accommodation Village. Each camp facility is supported by a WWTP with the capacity to treat 93.1m^3/day and 510m^3/day respectively, taking the total site capacity for sewage treatment to 603.1m^3/day.

Mankarlyirrakurra Exploration Camp WWTP

To support the expansion of the Mankarlyirrakurra Exploration Camp, RHIO has installed a WWTP with the capacity to treat up to 93.1m^3 of effluent per day. The location of the Mankarlyirrakurra Exploration Camp WWTP and irrigation area is shown in Figure 2.

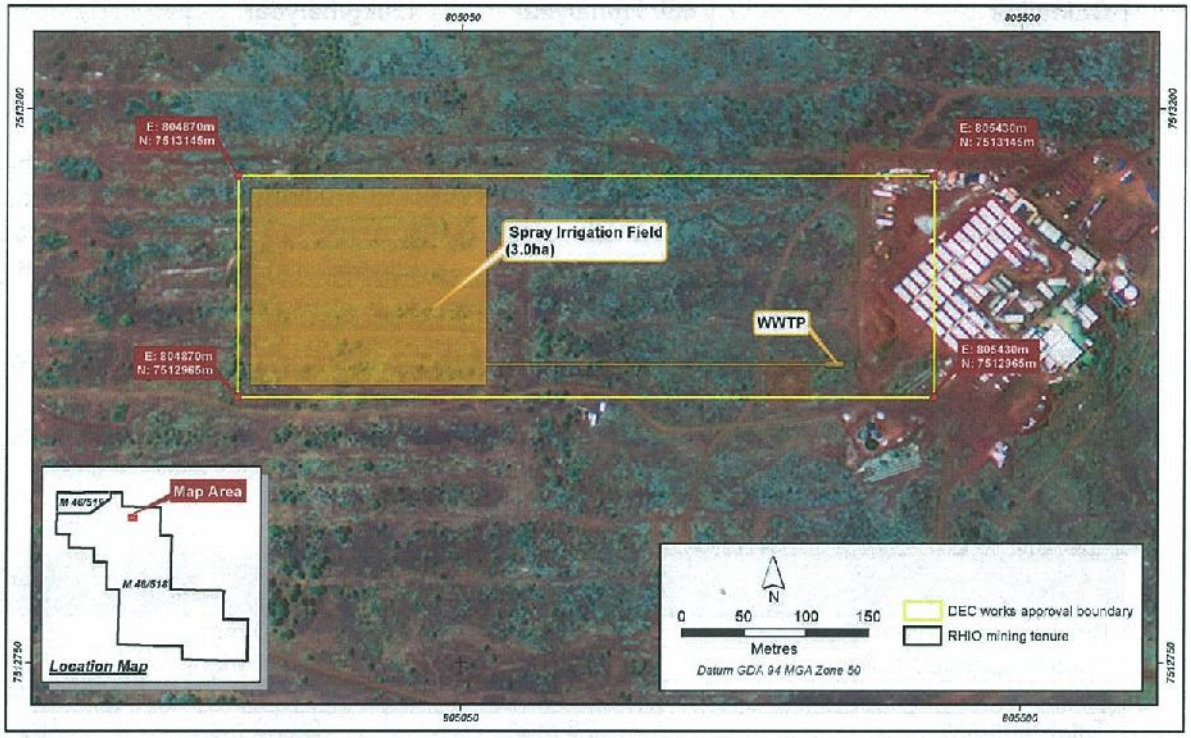


Figure 2. Location of the WWTP and irrigation field.

Waste effluent is discharged to a 3.04 ha spray irrigation field located approximately 500m from the camp (Figure 2). Treatment is via a sequencing batch reactor type plant which utilises both aerobic and anaerobic processes. Secondary treated effluent is chlorinated and discharged by impact sprinklers to the dedicated effluent disposal spray fields. Thirty sprinklers are installed within the spray irrigation field and there is a minimum of two disposal events per day to ensure that no ponding occurs within the spray field and runoff outside of the fenced area does not occur. Expected water quality of treated wastewater is shown in Table 2.

Table 2: WWTP performance standards for water quality.

Parameter	Expected performance standard	Australian Guidelines*	% of guideline
Biochemical Oxygen Demand	20 mg/L	20-30 mg/L	67 %
Total suspended solids	30 mg/L	25-40 mg/L	75 %
Total Nitrogen	30 mg/L	20-50 mg/L	60 %
Total Phosphorus	8 mg/L	6-12 mg/L	67 %
Faecal coliforms (org/100mL)	<10,000 cfu/100 mL	10^5-10^6 org/ 100mL	<1 %

**Australian Guidelines for Sewerage Systems – Effluent Management*
The above guidelines refer to evapo-transpiration (irrigation) of wastewater which has undergone secondary treatment (Class C)

The size of the irrigation field ensures that nutrient loadings are consistent with the Department of Water's *Water Quality Protection Note 22 – Irrigation with nutrient rich wastewater* (2008) as shown in Table 3.

Table 3: Expected nutrient loadings for the 3.04ha irrigation field.

Parameter	Nitrogen	Phosphorus
Maximum throughput	93.1 m^3/day	
Irrigation area	3.04 ha	
Effluent quality	<30 mg/L	<8 mg/L
Nutrient loading	**335 kg/ha/year**	**89 kg/ha/year**
Guideline	**480 kg/ha/year**	**120kg/ha/year**

* *Water Quality Protection Note 22 – Irrigation with nutrient rich wastewater* (Department of Water 2008).
These guidelines refer to Risk Category D.

Accommodation Village WWTP

Waste effluent from the Accommodation Village WWTP is discharged to a 16 ha spray irrigation field located approximately 500m from the camp. Treatment is via two sequencing batch reactor (SBR) type plants which utilise both aerobic and anaerobic processes. Secondary treated effluent is chlorinated and discharged by impact sprinklers to the dedicated effluent disposal spray fields.

Reject wastewater from the RO plant is also combined with the treated effluent from the WWTP and discharged to the irrigation field. Approximately 285 m^3/day of reject water is disposed of. Expected quality of effluent to be discharged to the irrigation area (once combined with the RO reject water) is shown in Table 4.

Table 4: Expected water quality for disposal.

Parameter	Expected performance standard	Australian Guidelines*	% of guideline
Biochemical Oxygen Demand	20 mg/L	20-30 mg/L	67 %
Total suspended solids	40 mg/L	25-40 mg/L	75 %
Total Dissolved Solids	1,600 mg/L	N/A	N/A
Total Nitrogen	26 mg/L	20-50 mg/L	100 %
Total Phosphorus	6 mg/L	6-12 mg/L	100%
Faecal coliforms	<10,000 cfu/100 mL	10^5-10^6 org/ 100mL	<1 %

**Australian Guidelines for Sewerage Systems – Effluent Management. The above guidelines refer to evapo-transpiration (irrigation) of wastewater which has undergone secondary treatment (Class C)*

The size of the irrigation field was reduced from 18 ha to 16 ha to accommodate the reduced nutrient concentrations resulting from dilution with the RO reject water. The size of the irrigation fields ensures that nutrient loadings are consistent with the Department of Water's *Water Quality Protection Note 22 – Irrigation with nutrient rich wastewater* (2008) as shown in Table 5.

Table 5: Expected nutrient loadings for the 16ha irrigation field.

Parameter	Nitrogen	Phosphorus
Maximum throughput	795 m^3/day (inc. RO reject water)	
Irrigation area	16 ha	
Effluent quality	26 mg/L	6 mg/L
Nutrient loading	**471.5 kg/ha/year**	**108.8 kg/ha/year**
Guideline	**480 kg/ha/year**	**120kg/ha/year**

* *Water Quality Protection Note 22 – Irrigation with nutrient rich wastewater* (Department of Water 2008).
These guidelines refer to Risk Category D.

Monitoring

RHIO have committed to the following monitoring of the WWTPs:

- a meter has been fitted to the control panel to record monthly cumulative run times of treated wastewater discharged by the pump; and
- water quality samples are collected from the WWTP and analysed for pH, total suspended solids, biochemical oxygen demand, total nitrogen, total phosphorus and coliforms on a quarterly basis.

In addition to this RHIO conduct weekly inspections of the WWTPs, pipelines and spray fields, which includes:

- inspection of equipment, pumps and pipes for leaks, drips and/or damage;
- system levels and operating capacity including blockages and floating matter;
- visual water quality, including odours;
- integrity of WWTP and pipelines;
- integrity of surface diversion structures;
- vegetation health in the spray fields; and
- weeds adjacent to the WWTP requiring removal.

Landfill

RHIO also operate a landfill facility at the mine to accept putrescible and inert construction waste. It is expected that approximately 2,400tonnes of waste will be deposited in the landfill over a two year period (estimated waste disposal is 1,200 tonnes per year). The landfill consists of up to 21 independent tipping areas with only one trench being operational at any given time. The tipping area will be approximately 8 m wide, 3 m deep and 50 m long. Adequate signage has been installed to designate separate areas of the landfill (i.e. recycling area, tipping area etc). Volumes and waste types deposited in the landfill are recorded by RHIO in a log book which is kept onsite.

Stormwater diversion earthworks are in place to prevent "clean" stormwater from entering the facility with contaminated water remaining within the designated trenches. A 1.8 m high security fence is also in place to prevent faunal ingress and the dispersion of windblown waste. The facility is inspected at least monthly for windblown waste with any such waste returned to the tipping area of the site.

Crushing and Screening Plants

To facilitate construction of the Roy Hill Iron Ore Mine, Roy Hill requires eight crushing and screening plants at 10 locations across site (Figure 1). Two of the proposed plants have the capacity to produce up to 150 tonnes per hour (equivalent to 657,000 tonnes per year each) and the remaining six have a production capacity of 200 tonnes per hour (equivalent to 876,000 tonnes per year each). With all eight plants in operation, the site has a combined production capacity of 6,570,000 tonnes per year. Expected total throughput is 586,800 tonnes per year.

Each plant is fed using an excavator, and a front end loader is used to transfer product to trucks for transfer to construction sites. There is one raw feed stockpile located at each crushing and screening plant and up to three product stockpiles. Stockpiles are temporary in nature as material is used as it is processed.

Operation of the crushing and screening plants is temporary to support construction of the Mine.

1.4 REGULATORY CONTEXT

1.4.1 Part IV *Environmental Protection Act 1986*, Environmental Impact Assessment

The Mine was referred to the Environmental Protection Authority (EPA) in July 2005 and was assessed at the level of Public Environmental Review. Ministerial Statement No. 824 was published by the Minister for the Environment in December 2009.

1.4.2 Part V *Environmental Protection Act 1986*, Environmental Management

The Mankarlyirrakurra Exploration Camp WWTP at the Mine has been assessed as a prescribed premises under categories 12, 54 and 8985 of the Environmental Protection Regulations 1987. The following works approval have been issued for the Roy Hill Iron Ore Mine:

- Mankarlyirrakurra Exploration Camp WWTP (issued November 2011 - W5059/2011/1. Compliance documentation was submitted on 25 November 2011.
- The landfill was approved under works approval W4802/2010/1. The compliance document was received on 7 November 2012.
- Accommodation Village WWTP works approval (W4802/2010/1) was issued on 27 January 2011 and compliance documentation received on 9 May 2013.
- The Fly Camp WWTP works approval (W5241/2012/1) was issued on 4 October 2012. Compliance documentation was received on 5 July 2013. The plant experienced a number of issues during commissioning and has now been decommissioned. Personnel from the Fly Camp have been transferred to the Accommodation Village.
- Crushing and screening was approved under works approval (W5395/2013/1) up to a maximum capacity of 6,570,000tpa.
- The landfill expansion was approved under works approval W5500/2013/1. Compliance documentation was received on 6 March 2014.

1.4.3 Other Decision Making Authorities' Legislation which applies

Department of Mines and Petroleum (DMP)

The storage of chemicals and dangerous goods onsite is covered by the following legislation:

- *Dangerous Goods Safety Act 2004;*
- *Dangerous Goods Safety (Explosives) Regulations 2007*;
- *Dangerous Goods Safety (Storage and Handling of Non-explosives) Regulations 2007*;
- *Occupational Safety and Health Act 1984;* and
- *Occupational Safety and Health Regulations 1996.*

Department of Health (DoH):

The construction, operation and maintenance of the WWTPs and the irrigation of treated wastewater are also regulated by the DoH under the *Health (Treatment of Sewage and Disposal of Effluent and Liquid Waste) Regulations 1974.*

DoH approval to construct the Mankarlyirrakurra Exploration Camp WWTP was granted on 31 October 2010 (approval no. 233.11). Following an inspection of the facility the Shire of East Pilbara approved the use of the WWTP on 7 December 2011.

1.4.4 Rights in Water Irrigation Act 1914

A 5C licences (GWL 158412(5) and GWL 155272(5)) have been issued under the *Rights in Water Irrigation Act 1914* for the purposes of taking water for general camp purposes. An additional 5c licence (GWL 172642(1)) is in place over M46/518 and M46/519 which allows RHIO to take up to 3,700,000kL of water per year for mining purposes.

1.4.5 Local Government Authority

Roy Hill Iron Ore Project Mine is located within the Shire of East Pilbara.

2.0 STAKEHOLDER AND COMMUNITY CONSULTATION

SUBMISSIONS RECEIVED DURING 21 DAY PUBLIC COMMENT PERIOD

The application for licence details for this facility were advertised in The West Australian newspaper on 27 February 2012 as a means of advising stakeholders and to seek public comments. No submissions were received.

This amendment does not require advertising.

3.0 EMISSIONS AND DISCHARGES RISK ASSESSMENT

DER considers that conditions should focus on regulating emissions and discharges of significance. Where appropriate, emissions and discharges which are not significant should be managed and regulated by other legislative tools or management mechanisms.

The following section assesses the environmental risk of potential emissions from the Roy Hill Iron Ore Mine. In order to determine the site's appropriate environmental regulation, an emissions and discharges risk assessment was conducted of the Roy Hill Iron Ore Mine using the environmental risk matrix outlined in Appendix A. The results of this are summarised in Table 6.

Table 6: Risk assessment and regulatory response summary table.

Risk factor	Significance of emissions	Socio-Political Context of Each Regulated Emission	Risk Assessment	DER Regulation (EP Act - Part V)	EAR Reference	Other management (legislation, tools, agencies)
Air emissions (point source)	**Emission significance – 1** No significant air emissions are expected during operation.	Low level of community interest or concern.	E – No regulation, other management mechanisms.	LIC – No conditions.	N/A.	General provisions of the *Environmental Protection Act 1986.*
Dust emissions	**Emission significance – 1** Dust will be generated during operation of the landfill facility however this is expected to be minimal. Water will be used to suppress dust where necessary. Dust will also be generated from the operation of the crushing and screening plants. The nearest sensitive receptors are the Exploration Camp and Accommodation Village, however, they are not expected to be significantly impacted. The following measures will be implemented to control dust: • Dust suppression techniques such a mobile water carts are utilised to control dust on unsealed surfaces; • Dust sprays are fitted to conveyor belts and feed hoppers to wet down the raw feed material; • Daily inspections of dust emissions are undertake by contractors and plant operations, and if dust is identified to be an issue, additional spray heads will be added to increase wetting; • Vehicle speeds have been reduced to minimise dust emissions; and • Crushing and screening during high winds will be avoided.	Low level of community interest or concern.	E – No regulation, other management mechanisms.	LIC – Standard condition relating to dust.	N/A.	General provisions of the *Environmental Protection Act 1986.*
Odour emissions	**Emission significance – 1** *WWTP* There is the potential for odour to be generated during operation of the WWTPs. All of the WWTPs are located at least a few hundred metres from the accommodation facilities. *Landfill facility* There is the potential for odours to be generated from wastes disposed of to the landfill. Waste is covered on a weekly basis using inert material to minimise odours.	Low level of community interest or concern.	E – No regulation, other management mechanisms.	LIC – Standard conditions have been included in the licence. Conditions requiring waste to be covered on a weekly basis.	N/A.	General provisions of the *Environmental Protection Act 1986.*

Risk factor	Significance of emissions	Socio-Political Context of Each Regulated Emission	Risk Assessment	DER Regulation (EP Act - Part V)	EAR Reference	Other management (legislation, tools, agencies)
	Crushing and screening No odour will be generated during the operation of crushing and screening plants.					
Noise emissions	**Emission significance – 1** *WWTP* No significant noise emissions are expected during the operation of the WWTPs. *Landfill facility* Minor and intermittent noise is expected during operation of the landfill however these are not expected to be significant. Machinery operated within the landfill site which will be fitted with appropriate noise reduction devices to minimise noise and will only operate during the day. *Crushing and screening* Noise will be generated from the operation of crushing and screening plants. Equipment is operated during daylight hours only and is regularly inspected and maintained to ensure noise levels are minimised during the equipment life. The nearest sensitive receptors are the Exploration Camp and Accommodation Village, however, they are not expected to be significantly impacted.	**Low** level of community interest or concern.	**E – No regulation, other management mechanisms.**	LIC – No conditions.	N/A.	General provisions of the *Environmental Protection Act 1986.* *Environmental Protection (Noise) Regulations 1997.*
Light emissions	**Emission significance – 1** No significant light emissions are expected during operation.	**Low** level of community interest or concern.	**E – No regulation, other management mechanisms.**	LIC – No conditions.	N/A.	General provisions of the *Environmental Protection Act 1986.*
Discharges to water	**Emission significance – 1** *WWTP* Wastewater will be discharged to land via controlled spray irrigation. There are no sensitive receptors in the vicinity and pooling will be minimal due to the use of water by vegetation and evaporation rate ~3m per year. Depth to groundwater is approximately 40mbgl.	**Low** level of community interest or concern.	**E – No regulation, other management mechanisms.**	LIC – Conditions relating to groundwater monitoring near the landfill.	N/A.	General provisions of the *Environmental Protection Act 1986.* *Environmental Protection (Unauthorised Discharges) Regulations 2004.*

Risk factor	Significance of emissions	Socio-Political Context of Each Regulated Emission	Risk Assessment	DER Regulation (EP Act - Part V)	EAR Reference	Other management (legislation, tools, agencies)
	Landfill facility Surface water will be diverted around the landfill site to prevent contamination of "clean" stormwater. Any stormwater which falls within the landfill will be retained onsite. RHIO have committed to undertaking quarterly groundwater monitoring to detect any groundwater contamination. *Crushing and screening* There are no discharges to surface waters during operation of the crushing and screening plants. Stormwater is diverted around disturbed areas and construction sites using diversion structures to ensure that ponding and flooding of the plant area does not occur. This also prevents stormwater from coming into contact with potentially contaminated areas.					
Discharges to land	**Emission significance – 3** Wastewater will be discharged to land via controlled spray irrigation to three separate irrigation areas (one for each WWTP). There are no sensitive receptors in the vicinity and pooling will be minimal due to the use of water by vegetation and evaporation rate ~3m per year. Depth to groundwater is approximately 40mbgl and therefore risk to groundwater is minimal. Effluent discharge quality is consistent with Australian Guidelines for Sewerage Systems: Effluent Management. Parameter significance: <u>Markarlyirrakurra Exploration Camp</u> • **BOD – 3** (20 mg/L = 67% of guidelines) • **TSS – 2** (30 mg/L = 75% of guidelines) • **TN – 3** (30 mg/L = 60% of guidelines) • **TP – 3** (8 mg/L = 67% of guidelines) • **E. coli – 1** (10,000 cfu/100mL = <1% of guidelines) <u>Accommodation Village</u>	Low level of community interest or concern.	C – Licence condition (setting targets + EMPs – longer timeframes).	LIC – Conditions relating to monitoring the quality of effluent discharged including specific discharge targets. Standard conditions relating to management of the irrigation field.	N/A.	General provisions of the *Environmental Protection Act 1986.* *Environmental Protection (Unauthorised Discharges) Regulations 2004.* *Environmental Protection (Controlled Waste) Regulations 2004.* *Health (Treatment of Sewage and Disposal of Effluent and Liquid Waste) Regulations 1974.*

Risk factor	Significance of emissions	Socio-Political Context of Each Regulated Emission	Risk Assessment	DER Regulation (EP Act - Part V)	EAR Reference	Other management (legislation, tools, agencies)
	• **BOD – 3** (20 mg/L = 67% of guidelines) • **TSS – 3** (40 mg/L = 100% of guidelines) • **TN – 3** (26 mg/L = 52% of guidelines) • **TP – 2** (6 mg/L = 50% of guidelines) • **E. coli – 1** (10,000 cfu/100mL = <1% of guidelines) Each irrigation field has been sized to receive wastewater whilst complying with the nutrient loading guidelines outlined in the Department of Water's Water Quality Protection Note 22 Irrigation with nutrient rich wastewater (see Tables 3). The WWTPs includes high level audio and visual alarms to alert personnel of a potential overflow.					
Solid / liquid wastes	**Emission significance – 1** *WWTP* Sludge produced by the WWTPs will be removed from site by a licensed contractor and disposed of at an appropriately licensed facility. *Landfill facility* Putrescible and inert wastes are disposed of to the landfill facility. The facility consists of seven trenches with only one trench operational at any one time. The volumes and types of wastes deposited at the facility are recorded by RHIO in log book kept onsite. The facility is signed to ensure proper waste disposal and fenced to prevent faunal access and dispersion of windblown wastes. Access to the landfill site is controlled with only authorised personnel permitted entry. Hydrocarbon contaminated wastes are not disposed of at the landfill facility, instead these are removed from site by an appropriately licensed contractor. RHIO implements a waste hierarchy to minimise waste generation and facilitate recycling.	**Low** level of community interest or concern.	**E** – No regulation, other management mechanisms.	**LIC** – Standard conditions relating to landfill management.	N/A.	General provisions of the *Environmental Protection Act 1986.* *Environmental Protection (Unauthorised Discharges) Regulations 2004.* *Environmental Protection (Controlled Waste) Regulations 2004.*

Risk factor	Significance of emissions	Socio-Political Context of Each Regulated Emission	Risk Assessment	DER Regulation (EP Act - Part V)	EAR Reference	Other management (legislation, tools, agencies)
Hydrocarbon/ chemical storage	**Emission significance – 1** Hydrocarbons are used during the operation of the WWTPs sourced from storage tanks stored in a designated fuel storage area. All hydrocarbon and chemical substances are stored in above ground tanks situated within secondary containment facilities designed in accordance with relevant Australian Standards, regulations and codes of practice. Spill kits are available onsite in the event of a spill. Hydrocarbon contaminated wastes are not disposed of at the landfill facility, instead these are removed from site by an appropriately licensed contractor. *Crushing and screening* Crushing and screening plants are serviced by mobile fuel trucks. Fuel is sourced externally until the main fuel farm is constructed and, therefore, no significant amounts of fuel are stored at the crushing and screening sites. Drip trays are used during refuelling to capture any spills and spill kits are utilised in the event of a spill. Minor hydrocarbons (such as drums) are stored appropriately in bunds to minimise the risk of spills to ground. Storage is in accordance with Australian Standards including AS1940 Storage and handling of flammable and combustible liquids. Waste materials such as spent oils and lubricants are removed from site to a licensed disposal facility.	Low level of community interest or concern.	E – No regulation, other management mechanisms.	LIC –Standard hydrocarbon storage conditions.	N/A.	*Environmental Protection (Unauthorised Discharges) Regulations 2004.* *Environmental Protection (Controlled Waste) Regulations 2004.* AS 1940 – Storage and Handling of Flammable and Combustible Liquids. *Dangerous Goods Safety (Storage and Handling of Non-explosives) Regulations 2007.*
Native vegetation clearing	Clearing of native vegetation has been assessed under Part IV of the *Environmental Protection Act 1986.*	N/A.	N/A.	N/A.	N/A.	General provisions of the *Environmental Protection Act 1986.*
Contaminated site identification	The premises is not located on a contaminated site.	N/A.	N/A.	N/A.	N/A.	*Contaminated Sites Act 2003.*

4.0 GENERAL SUMMARY AND COMMENTS

RHIO constructed the Markarlyirrakurra Exploration Camp and landfill to support the development of the Roy Hill Iron Ore Mine. The camp features a WWTP with the capacity to treat 93.1m^3 of effluent per day. The landfill facility has capacity to receive up to 2,400 tonnes of waste.

The emissions and discharges have been assessed and have been deemed to be of either low or moderate significance. Facilities such as these have performed well in the region and there are no significant environmental receptors at risk from the discharge of effectively treated effluent. DER has set standard monitoring conditions in the operating licence to allow DER to ensure that wastewater treatment is meeting the water quality levels committed. Conditions relating to the management of the irrigation area have also been included.

Management of the landfill is regulated through standard licence conditions including the monitoring and reporting waste inputs. Conditions requiring groundwater near the landfill to be monitored, and results reported to DER, are also included.

The site will be subject to inspections by DER officers on a periodic basis.

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APPENDIX A: EMISSIONS AND DISCHARGES RISK ASSESSMENT MATRIX

Table 9: 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 10: 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 DER "Officer's Guide to Emissions and Discharges Risk Assessment" May 2006.

Table 11: 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

Note: The above matrix is taken from "the DER Officer's Guide to Emissions and Discharges Risk Assessment" May 2006.

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Appendix 4 – Environmental Studies

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Appendix 5 – RHIO Legal Obligations Register – Rehabilitation and Closure

Source Document Title	Source Document Execution Date/ Date Approval Granted	Source Document Primary Category	Source Document Secondary Category	Roy Hill Entity	External Party/Parties to Source Document	Status of Source Document	Clause, Provision, Section, or Item Number of the Obligation	Obligation	Status of Obligation
Miscellaneous Licence - 46/104	27/06/2012	Mining Tenements	Miscellaneous Licence	RHIO	DMP	Live	Condition 6	All topsoil that may be removed ahead of pipelaying operations to be stockpiled for replacement in accordance with the directions of the Environmental Officer, Department of Mines and Petroleum.	**Open**
Miscellaneous Licence - 46/104	27/06/2012	Mining Tenements	Miscellaneous Licence	RHIO	DMP	Live	Condition 12	On the completion of the life of mining operations in connection with this licence the holder shall: •remove all installations constructed pursuant to this licence; and •on such areas cleared of natural growth by the holder or any of its agents, the holder shall plant trees and/or shrubs and/or any other plant as shall conform to the general pattern and type of growth in the area and as directed by the Environmental Officer, Department of Mines and Petroleum and properly maintain same until the Environmental Officer advises regrowth is self supporting; unless the Minister responsible for the Mining Act 1978 orders or consents otherwise	**Open**
Miscellaneous Licence - 46/104	27/06/2012	Mining Tenements	Miscellaneous Licence	RHIO	DMP	Live	Condition 13	The electrical installation shall meet the requirements of relevant on-site conditions and be carried out to the satisfaction of the Special Inspector of Mines - Electrical, DMP.	**Open**
Miscellaneous Licence - 46/104	27/06/2012	Mining Tenements	Miscellaneous Licence	RHIO	DMP	Live	Condition 15	The construction and operation of the project and measures to protect the environment to be carried out in accordance with the document titled: • (Reg ID 36148) "Letter of Intent for accommodation village access road on L46/104" dated on 10 July 2012 signed by Susanna Beach and retained on Department of Mines and Petroleum File No. EARS-MP-36148 Where a difference exists between the above document(s) and the following conditions, then the following conditions shall prevail.	**Open**
Miscellaneous Licence - 46/104	27/06/2012	Mining Tenements	Miscellaneous Licence	RHIO	DMP	Live	Condition 17	The development and operation of the project being carried out in such a manner so as to create the minimum practicable disturbance to the existing vegetation and natural landform.	**Open**
Miscellaneous Licence - 46/104	27/06/2012	Mining Tenements	Miscellaneous Licence	RHIO	DMP	Live	Condition 18	All topsoil and vegetation being removed ahead of all mining operations and being stockpiled appropriately for later respreading or immediately respread as rehabilitation progresses.	**Open**
Miscellaneous Licence - 46/104	27/06/2012	Mining Tenements	Miscellaneous Licence	RHIO	DMP	Live	Condition 19	All rubbish and scrap is to be progressively disposed of in a suitable manner.	**Open**
Miscellaneous Licence - 46/104	27/06/2012	Mining Tenements	Miscellaneous Licence	RHIO	DMP	Live	Condition 21	The Licensee submitting to the Executive Director, Environment Division, DMP, a brief annual report outlining the project operations, minesite environmental management and rehabilitation work undertaken in the previous 12 months and the proposed operations, environmental management plans and rehabilitation programmes for the next 12 months. This report to be submitted each year in: •March.	**Open**
Miscellaneous Licence - 46/104	27/06/2012	Mining Tenements	Miscellaneous Licence	RHIO	DMP	Live	Condition 23	On the completion of operations or progressively when possible, all waste dumps, tailings storage facilities, stockpiles or other mining related landforms must be rehabilitated to form safe, stable, non-polluting structures which are integrated with the surrounding landscape and support self sustaining, functional ecosystems comprising suitable, local provenance species or alternative agreed outcome to the satisfaction of the Executive Director, Environment Division, DMP.	**Open**

Miscellaneous Licence - 46/104	27/06/2012	Mining Tenements	Miscellaneous Licence	RHIO	DMP	Live	Condition 24	A Mine Closure Plan is to be submitted in the Annual Environmental Reporting month specified in tenement conditions in the year specified below, unless otherwise directed by an Environmental Officer, DMP. The Mine Closure Plan is to be prepared in accordance with the "Guidelines for Preparing Mine Closure Plans, June 2011" available on DMP's website: •2015	**Open**
Miscellaneous Licence - 47/346	29/03/2012	Mining Tenements	Miscellaneous Licence	RHIO	DMP	Live	Condition 18	All topsoil that may be removed ahead of pipelaying operations to be stockpiled for replacement in accordance with the directions of the Environmental Officer, Department of Mines and Petroleum.	**Open**
Miscellaneous Licence - 47/346	29/03/2012	Mining Tenements	Miscellaneous Licence	RHIO	DMP	Live	Condition 21	On the completion of the life of mining operations in relation to this licence the holder shall: • remove all installations constructed pursuant to this licence; • cover over all wells and holes in the ground to such degree of safety as shall be determined by the Environmental Officer, Department of Mines and Petroleum; and • on such areas cleared of natural growth by the holder or any of its agents, the holder shall plant trees and/or shrubs and/or any other plant as shall conform to the general pattern and type of growth in the area and as directed by the Environmental Officer, Department of Mines and Petroleum and properly maintain same until the Environmental Officer advises regrowth is self supporting; unless the Mining Registrar or Minister responsible for the Mining Act 1978 orders or consents otherwise.	**Open**
Miscellaneous Licence - 47/346	29/03/2012	Mining Tenements	Miscellaneous Licence	RHIO	DMP	Live	Condition 22	The construction and operation of the project and measures to protect the environment to be carried out in accordance with the document titled: • (Reg ID 48275) "Letter of Intent for Temporary Access Road on Miscellaneous Licence 47/346" dated 30 May 2014 signed by Murali Mahendran and retained on Department of Mines and Petroleum File No. EARS-MP-48275 as Doc ID 2945309; • (Reg ID 37113) "Preliminary Rehabilitation and Closure PlanM46/518, M46/519, L47/346 and L46/104" dated 21 December 2012 signed by Susanna Beech and retained on Department of Mines and Petroleum File No. EARS-MPMCP-37113 as Doc ID 2171280 Where a difference exists between the above document(s) and the following conditions, then the following conditions shall prevail.	**Open**
Miscellaneous Licence - 47/346	29/03/2012	Mining Tenements	Miscellaneous Licence	RHIO	DMP	Live	Condition 24	The development and operation of the project being carried out in such a manner so as to create the minimum practicable disturbance to the existing vegetation and natural landform.	**Open**
Miscellaneous Licence - 47/346	29/03/2012	Mining Tenements	Miscellaneous Licence	RHIO	DMP	Live	Condition 25	All topsoil and vegetation being removed ahead of all mining operations and being stockpiled appropriately for later respreading or immediately respread as rehabilitation progresses.	**Open**
Miscellaneous Licence - 47/346	29/03/2012	Mining Tenements	Miscellaneous Licence	RHIO	DMP	Live	Condition 26	At the completion of operations, all buildings and structures being removed from site or demolished and buried to the satisfaction of the Executive Director, Environment Division, DMP.	**Open**
Miscellaneous Licence - 47/346	29/03/2012	Mining Tenements	Miscellaneous Licence	RHIO	DMP	Live	Condition 27	All rubbish and scrap is to be progressively disposed of in a suitable manner.	**Open**
Miscellaneous Licence - 47/346	29/03/2012	Mining Tenements	Miscellaneous Licence	RHIO	DMP	Live	Condition 30	On the completion of operations or progressively when possible, all waste dumps, tailings storage facilities, stockpiles or other mining related landforms must be rehabilitated to form safe, stable, non-polluting structures which are integrated with the surrounding landscape and support self sustaining, functional ecosystems comprising suitable, local provenance species or alternative agreed outcome to the satisfaction of the Executive Director, Environment Division, DMP.	**Open**
Miscellaneous Licence - 47/346	29/03/2012	Mining Tenements	Miscellaneous Licence	RHIO	DMP	Live	Condition 31	The Licensee submitting to the Executive Director, Environment Division, DMP, a brief annual report outlining the project operations, minesite environmental management and rehabilitation work undertaken in the previous 12 months and the proposed operations, environmental management plans and rehabilitation programmes for the next 12 months. This report to be submitted each year in: •March.	**Open**

Miscellaneous Licence - 47/346	29/03/2012	Mining Tenements	Miscellaneous Licence	RHIO	DMP	Live	Condition 32	A Mine Closure Plan is to be submitted in the Annual Environmental Reporting month specified in tenement conditions in the year specified below, unless otherwise directed by an Environmental Officer, DMP. The Mine Closure Plan is to be prepared in accordance with the "Guidelines for Preparing Mine Closure Plans, June 2011" available on DMP's website: •2015	**Open**
Mining Lease - 46/518	1/11/2010	Mining Tenements	Mining Lease	RHIO	DMP	Live	Endorsement 8	The storage and disposal of petroleum hydrocarbons, chemicals and potentially hazardous substances being in accordance with the current published version of the Department of Water's relevant Water Quality Protection Notes and Guidelines for mining and mineral processing.	**Open**
Mining Lease - 46/518	1/11/2010	Mining Tenements	Mining Lease	RHIO	DMP	Live	Endorsement 13	Measures such as effective drainage controls, sediment traps and stormwater retention facilities being implemented to minimise erosion and sedimentation of receiving catchments and adjacent areas.	**Open**
Mining Lease - 46/518	1/11/2010	Mining Tenements	Mining Lease	RHIO	DMP	Live	Condition 2	All surface holes drilled for the purpose of exploration are to be capped, filled or otherwise made safe immediately after completion.	**Open**
Mining Lease - 46/518	1/11/2010	Mining Tenements	Mining Lease	RHIO	DMP	Live	Condition 3	All disturbances to the surface of the land made as a result of exploration, including costeans, drill pads, grid lines and access tracks, being backfilled and rehabilitated to the satisfaction of the Environmental Officer, Department of Mines and Petroleum (DMP). Backfilling and rehabilitation being required no later than 6 months after excavation unless otherwise approved in writing by the Environmental Officer, DMP.	**Open**
Mining Lease - 46/518	1/11/2010	Mining Tenements	Mining Lease	RHIO	DMP	Live	Condition 4	All waste materials, rubbish, plastic sample bags, abandoned equipment and temporary buildings being removed from the mining tenement prior to or at the termination of exploration program.	**Open**
Mining Lease - 46/518	1/11/2010	Mining Tenements	Mining Lease	RHIO	DMP	Live	Condition 11	The construction and operation of the project and measures to protect the environment being carried out in accordance with the document titled: "Letter of Intent: Roy Hill 1 Iron Ore Mine, M46/518 and M46/519 - Installation of two Pluvio Rain Gauges (Reg ID 29076)" dated 24 November 2010 signed by Greg Walker and retained on Department of Mines and Petroleum File No. E0206/200511. Where a difference exists between the above document and the conditions of the lease, then the conditions shall prevail.	**Open**
Mining Lease - 46/518	1/11/2010	Mining Tenements	Mining Lease	RHIO	DMP	Live	Condition 11	The construction and operation of the project and measures to protect the environment being carried out in accordance with the document titled: "Roy Hill 1 Iron Ore Project Mining Proposal - Enabling Infrastructure and Drilling M46/518 and M46/519" (Reg ID 29314) dated 25 February 2011 (version 3a) signed by Cheryl Edwardes and retained on Department of Mines and Petroleum File No.E0435/201001. Where a difference exists between the above document and the conditions of the lease, then the conditions shall prevail.	**Open**
Mining Lease - 46/518	1/11/2010	Mining Tenements	Mining Lease	RHIO	DMP	Live	Condition 11	The construction and operation of the project and measures to protect the environment being carried out in accordance with the document titled: (Reg ID: 31965) "Letter of Intent - Roy Hill Exploration Camp and Fuel Farm Expansion" dated 11 August 2011 signed by Greg Walker and retained on Department of Mines and Petroleum File No. EARS-MP-31965.	**Open**
Mining Lease - 46/518	1/11/2010	Mining Tenements	Mining Lease	RHIO	DMP	Live	Condition 11	The construction and operation of the project and measures to protect the environment being carried out in accordance with the document titled: (Reg ID: 31578) "Roy Hill 1 Iron Ore Project - Mining Proposal Addendum - Enabling Infrastructure And Drilling - M46/518 and M46/519" dated 6 July 2011 signed by Tjorn Sibma and retained on Department of Mines and Petroleum File No. EARSMP-31578. Where a difference exists between the above document and the conditions of the lease, then the conditions shall prevail.	**Open**
Mining Lease - 46/518	1/11/2010	Mining Tenements	Mining Lease	RHIO	DMP	Live	Condition 11	The construction and operation of the project and measures to protect the environment being carried out in accordance with the document titled: (Reg ID: 31578) "Roy Hill 1 Iron Ore Project - Additional Information: Mining Proposal Addendum - Enabling Infrastructure And Drilling - M46/518 and M46/519" and attachments dated 15 August 2011 signed by Susanna Beech and retained on Department of Mines and Petroleum File No. EARS-MP-31578.	**Open**

Mining Lease - 46/518	1/11/2010	Mining Tenements	Mining Lease	RHIO	DMP	Live	Condition 11	The construction and operation of the project and measures to protect the environment being carried out in accordance with the document titled: (Reg. ID 33184) "Addendum to mining proposal for enabling infrastructure and drilling M46/518" dated 10 November 2011 signed by Susanna Beech and retained on Department of Mines and Petroleum file No. EARS-MP-33184.	**Open**
Mining Lease - 46/518	1/11/2010	Mining Tenements	Mining Lease	RHIO	DMP	Live	Condition 11	The construction and operation of the project and measures to protect the environment being carried out in accordance with the document titled: "Addendum to Enabling Infrastructure Mining Proposal - Camp Relocation and Access Roads M46/518 and M46/519" (reg. ID 34170) dated 10 February 2012 signed by Darryl Hockey and retained on Department of Mines and Petroleum file No. EARS-MP-34170. Where a difference exists between the above document and the conditions of the lease, then the conditions shall prevail.	**Open**
Mining Lease - 46/518	1/11/2010	Mining Tenements	Mining Lease	RHIO	DMP	Live	Condition 11	The construction and operation of the project and measures to protect the environment being carried out in accordance with the document titled: (Reg. ID 35265) "Letter of Intent for expansion of Roy Hill Iron Ore Exploration Camp" dated 27 April 2012 signed by Susanna Beech and retained on Department of Mines and Petroleum file No. EARS-MP-35265. Where a difference exists between the above document and the conditions of the lease, then the conditions shall prevail.	**Open**
Mining Lease - 46/518	1/11/2010	Mining Tenements	Mining Lease	RHIO	DMP	Live	Condition 11	The construction and operation of the project and measures to protect the environment being carried out in accordance with the document titled: (Reg. ID 35396) "Addendum to Enabling Infrastructure Mining Proposal - Borrow Pits, North/South Access Road, Airport, Topsoil Dump and Surface Water Management Structures in M46/518" dated 11 May 2012 signed by Susanna Beech and retained on Department of Mines and Petroleum file No. EARS-MP-35396. Where a difference exists between the above document and the conditions of the lease, then the conditions shall prevail.	**Open**
Mining Lease - 46/518	1/11/2010	Mining Tenements	Mining Lease	RHIO	DMP	Live	Condition 11	The construction and operation of the project and measures to protect the environment being carried out in accordance with the document titled: (Reg ID 32525) "Roy Hill Iron Ore Mine Mining Proposal Years 1 to 5 M46/518 and M46/519" dated 31 May 2012 signed by Susanna Beech and retained on Department of Mines and Petroleum File No. EARS-MP-32525. Where a difference exists between the above document and the conditions of the lease, then the conditions shall prevail.	**Open**
Mining Lease - 46/518	1/11/2010	Mining Tenements	Mining Lease	RHIO	DMP	Live	Condition 11	The construction and operation of the project and measures to protect the environment being carried out in accordance with the document titled: (Reg ID 37113) "Preliminary Rehabilitation and Closure Plan M46/518, M46/519, L47/346 and L46/104" dated 21 December 2012 signed by Susanna Beech and retained on Department of Mines and Petroleum File No. EARS-MPMPC-37113. Where a difference exists between the above document and the conditions of the lease, then the conditions shall prevail.	**Open**
Mining Lease - 46/518	1/11/2010	Mining Tenements	Mining Lease	RHIO	DMP	Live	Condition 11	The construction and operation of the project and measures to protect the environment being carried out in accordance with the document titled: (Reg ID 37152) "Letter of Intent - Installation of Temporary Mobile Contractor's Camp offices, Workshop and Laydown Area at the Roy Hill Project Aerodrome" dated 20 September 2012 signed by Susanna Beech and retained on Department of Mines and Petroleum File No. EARS-MP-37152. Where a difference exists between the above document and the conditions of the lease, then the conditions shall prevail.	**Open**
Mining Lease - 46/518	1/11/2010	Mining Tenements	Mining Lease	RHIO	DMP	Live	Condition 11	The construction and operation of the project and measures to protect the environment being carried out in accordance with the document titled: (Reg ID 38089) "Letter of Intent for a Laydown and Concrete Batch Plant on M46/518" dated 19 December 2012 signed by Susanna Beech and retained on Department of Mines and Petroleum File No. EARS-MP-38089. Where a difference exists between the above document and the conditions of the lease, then the conditions shall prevail.	**Open**

Mining Lease - 46/518	1/11/2010	Mining Tenements	Mining Lease	RHIO	DMP	Live	Condition 11	The construction and operation of the project and measures to protect the environment being carried out in accordance with the document titled: (Reg ID:38770) "Letter of Intent for crushing and screening plant on M46/518 and M46/519" dated 30 April 2013 signed by Susanna Beech and retained on Department of Mines and Petroleum file no.EARS-MP-38770. Where a difference exists between the above document and the conditions of the lease, then the conditions shall prevail.	**Open**
Mining Lease - 46/518	1/11/2010	Mining Tenements	Mining Lease	RHIO	DMP	Live	Condition 11	The construction and operation of the project and measures to protect the environment being carried out in accordance with the document titled: (Reg ID 38586) "Letter of Intent for the Temporary Storage of Subsoil and Access roads on M46/518" dated 15 February 2013 signed by Susanna Beech and retained on Department of Mines and Petroleum File No. EARS-MP-38586. Where a difference exists between the above document and the conditions of the lease, then the conditions shall prevail.	**Open**
Mining Lease - 46/518	1/11/2010	Mining Tenements	Mining Lease	RHIO	DMP	Live	Condition 11	The construction and operation of the project and measures to protect the environment being carried out in accordance with the document titled: (Reg ID 37113) "Roy Hill Iron Ore Mine Mining Proposal Years 1 to 5 M46/518 and M46/519: Part B" dated 7 March 2013 signed by Darryl Hockey and retained on Department of Mines and Petroleum File No. EARS-MPMCP-37113. Where a difference exists between the above document and the conditions of the lease, then the conditions shall prevail.	**Open**
Mining Lease - 46/518	1/11/2010	Mining Tenements	Mining Lease	RHIO	DMP	Live	Condition 11	The construction and operation of the project and measures to protect the environment being carried out in accordance with the document titled: (Reg ID 43565) "Letter of Intent for amendment of hydraulic structures on M46/518 and M46/519" dated 26 September 2013 signed by Susanna Beech and retained on Department of Mines and Petroleum File No. EARS-MP-43565. Where a difference exists between the above document and the conditions of the lease, then the conditions shall prevail.	**Open**
Mining Lease - 46/518	1/11/2010	Mining Tenements	Mining Lease	RHIO	DMP	Live	Condition 11	The construction and operation of the project and measures to protect the environment being carried out in accordance with the document titled: (Reg ID 43623) "Letter of Intent for Extension to Approved Borrow Pit Rev1" dated 18 December 2013 signed by Susanna Beech and retained on Department of Mines and Petroleum File No. EARS-MP-43623. Where a difference exists between the above document and the conditions of the lease, then the conditions shall prevail.	**Open**
Mining Lease - 46/518	1/11/2010	Mining Tenements	Mining Lease	RHIO	DMP	Live	Condition 11	The construction and operation of the project and measures to protect the environment being carried out in accordance with the document titled: (Reg ID 46067) "Letter of Intent for changes to the Mine General Arrangement on M46/518 and M46/519" dated 9 May 2014 signed by Susanna Beech and retained on Department of Mines and Petroleum File No. EARS-MP-46067 as Doc ID 02881647 Where a difference exists between the above document and the conditions of the lease, then the conditions shall prevail.	**Open**
Mining Lease - 46/518	1/11/2010	Mining Tenements	Mining Lease	RHIO	DMP	Live	Condition 11	The construction and operation of the project and measures to protect the environment being carried out in accordance with the document titled: (Reg ID 50991) "Letter of Intent for Revised Mine General Arrangement on M46/518 abd M46/519" dated 30 July 2014 signed by Susanna Beech and retained on Department of Mines and Petroleum File No. EARS-MP-50991 as Doc ID 3061799". Where a difference exists between the above document and the conditions of the lease, then the conditions shall prevail.	**Open**
Mining Lease - 46/518	1/11/2010	Mining Tenements	Mining Lease	RHIO	DMP	Live	Condition 11	The construction and operation of the project and measures to protect the environment being carried out in accordance with the document titled: (Reg ID 50983) "Detailed Design Report for Tailings Pumping and Pipeline" dated 19 September 2014 signed by R Groenewegen, S Gupta and D Brough and retained on Department of Mines and Petroleum File No. J02889 as Doc ID 3160521. Where a difference exists between the above document and the conditions of the lease, then the conditions shall prevail.	**Open**

Mining Lease - 46/518	1/11/2010	Mining Tenements	Mining Lease	RHIO	DMP	Live	Condition 13	The development and operation of the project being carried out in such a manner so as to create the minimum practicable disturbance to the existing vegetation and natural landform, to the satisfaction of an Environmental Officer, DMP.	**Open**
Mining Lease - 46/518	1/11/2010	Mining Tenements	Mining Lease	RHIO	DMP	Live	Condition 14	All topsoil and vegetation being removed ahead of all mining operations and being stockpiled appropriately for later respreading or immediately respread as rehabilitation progresses.	**Open**
Mining Lease - 46/518	1/11/2010	Mining Tenements	Mining Lease	RHIO	DMP	Live	Condition 15	At the completion of operations, all buildings and structures being removed from site or demolished and buried to the satisfaction of an Environmental Officer, DMP.	**Open**
Mining Lease - 46/518	1/11/2010	Mining Tenements	Mining Lease	RHIO	DMP	Live	Condition 16	All rubbish and scrap is to be progressively disposed of in a suitable manner, to the satisfaction of an Environmental Officer, DMP.	**Open**
Mining Lease - 46/518	1/11/2010	Mining Tenements	Mining Lease	RHIO	DMP	Live	Condition 18	Where saline water is used for dust suppression, all reasonable measures being taken to avoid any detrimental effects to surrounding vegetation and topsoil stockpiles, to the satisfaction of an Environmental Officer, DMP.	**Open**
Mining Lease - 46/518	1/11/2010	Mining Tenements	Mining Lease	RHIO	DMP	Live	Condition 19	The Lessee submitting to the Director, Environment Division, DMP, a brief annual report outlining the project operations, minesite environmental management and rehabilitation work undertaken in the previous 12 months and the proposed operations, environmental management plans and rehabilitation programmes for the next 12 months. This report to be submitted each year in: •March.	**Complete**
Mining Lease - 46/518	1/11/2010	Mining Tenements	Mining Lease	RHIO	DMP	Live	Condition 20	As the completion of operations or progressively where possible, all access roads, borrow pits and other disturbed areas being covered with topsoil, deep ripped and revegetated with local native grasses, shrubs and trees to the satisfaction of the Executive Director, Environment Division, DMP.	**Open**
Mining Lease - 46/518	1/11/2010	Mining Tenements	Mining Lease	RHIO	DMP	Live	Condition 21	On the completion of operations or progressively when possible, all waste dumps, tailings storage facilities, stockpiles or other mining related landforms must be rehabilitated to form safe, stable, non-polluting structures which are integrated with the surrounding landscape and support self sustaining, functional ecosystems comprising suitable, local provenance species or alternative agreed outcome to the satisfaction of the Executive Director, Environment Division, DMP.	**Open**
Mining Lease - 46/518	1/11/2010	Mining Tenements	Mining Lease	RHIO	DMP	Live	Condition 22	A Mine Closure Plan is to be submitted in the Annual Environmental Reporting month specified in tenement conditions in the year specified below, unless otherwise directed by an Environmental Officer, DMP. The Mine Closure Plan is to be prepared in accordance with the "Guidelines for Preparing Mine Closure Plans, June 2011" available on DMP's website: · 2015	**Open**
Mining Lease - 46/518	1/11/2010	Mining Tenements	Mining Lease	RHIO	DMP	Live	Condition 23	Placement of waste material must be such that the final footprint after rehabilitation will not be impacted upon by pit wall subsidence or be within the zone of pit instability	**Open**
Mining Lease - 46/518	1/11/2010	Mining Tenements	Mining Lease	RHIO	DMP	Live	Condition 24	The construction details of any tailings storage or evaporation pond embankment shall be documented by an engineering or geotechnical specialist and confirm that the construction satisfies the design intent. The construction document shall include the records of all construction quality control testing, the basis of any method specification adopted, and any significant modifications to the original design together with the reasons why the modifications were necessary. The construction document shall also present as-built drawings for the embankment earthworks and pipework. A copy of the construction document shall be submitted to DMP for its records.	**Open**
Mining Lease - 46/518	1/11/2010	Mining Tenements	Mining Lease	RHIO	DMP	Live	Condition 27	At the time of decommissioning of the tailings storage facility and evaporations ponds and prior to rehabilitation, a further review report by a geotechnical or engineering specialist will be required by the Executive Director, Environment Division, DMP. This report should review the status of the structure and its contained tailings, examine and address the implications of the physical and chemical characteristics of the materials, and present and review the results of all environmental monitoring. The rehabilitation stabilisation works proposed and any on-going remedial requirements should also be addressed.	**Open**

Mining Lease - 46/519	1/11/2010	Mining Tenements	Mining Lease	RHIO	DMP	Live	Endorsement 7	The storage and disposal of petroleum hydrocarbons, chemicals and potentially hazardous substances being in accordance with the current published version of the Department of Water's relevant Water Quality Protection Notes and Guidelines for mining and mineral processing.	**Open**
Mining Lease - 46/519	1/11/2010	Mining Tenements	Mining Lease	RHIO	DMP	Live	Endorsement 12	Measures such as effective drainage controls, sediment traps and stormwater retention facilities being implemented to minimise erosion and sedimentation of receiving catchments and adjacent areas.	**Open**
Mining Lease - 46/519	1/11/2010	Mining Tenements	Mining Lease	RHIO	DMP	Live	Condition 2	All surface holes drilled for the purpose of exploration are to be capped, filled or otherwise made safe immediately after completion.	**Open**
Mining Lease - 46/519	1/11/2010	Mining Tenements	Mining Lease	RHIO	DMP	Live	Condition 3	All disturbances to the surface of the land made as a result of exploration, including costeans, drill pads, grid lines and access tracks, being backfilled and rehabilitated to the satisfaction of the Environmental Officer, Department of Mines and Petroleum (DMP). Backfilling and rehabilitation being required no later than 6 months after excavation unless otherwise approved in writing by the Environmental Officer, DMP.	**Open**
Mining Lease - 46/519	1/11/2010	Mining Tenements	Mining Lease	RHIO	DMP	Live	Condition 4	All waste materials, rubbish, plastic sample bags, abandoned equipment and temporary buildings being removed from the mining tenement prior to or at the termination of exploration program.	**Open**
Mining Lease - 46/519	1/11/2010	Mining Tenements	Mining Lease	RHIO	DMP	Live	Condition 5	Unless the written approval of the Environmental Officer, DMP is first obtained, the use of drilling rigs, scrapers, graders, bulldozers, backhoes or other mechanised equipment for surface disturbance or the excavation of costeans is prohibited. Following approval, all topsoil being removed ahead of mining operations and separately stockpiled for replacement after backfilling and/or completion of operations.	**Open**
Mining Lease - 46/519	1/11/2010	Mining Tenements	Mining Lease	RHIO	DMP	Live	Condition 9	The construction and operation of the project and measures to protect the environment being carried out in accordance with the document titled: "Letter of Intent: Roy Hill 1 Iron Ore Mine, M46/518 and M46/519 - Installation of two Pluvio Rain Gauges (Reg ID 29076)" dated 24 November 2010 signed by Greg Walker and retained on Department of Mines and Petroleum File No. E0206/200511. Where a difference exists between the above document and the conditions of the lease, then the conditions shall prevail.	**Open**
Mining Lease - 46/519	1/11/2010	Mining Tenements	Mining Lease	RHIO	DMP	Live	Condition 9	The construction and operation of the project and measures to protect the environment being carried out in accordance with the document titled: "Roy Hill 1 Iron Ore Project Mining Proposal - Enabling Infrastructure and Drilling M46/518 and M46/519" (Reg ID 29314) dated 25 February 2011 (version 3a) signed by Cheryl Edwardes and retained on Department of Mines and Petroleum File No. E0435/201001. Where a difference exists between the above document and the conditions of the lease, then the conditions shall prevail.	**Open**
Mining Lease - 46/519	1/11/2010	Mining Tenements	Mining Lease	RHIO	DMP	Live	Condition 9	The construction and operation of the project and measures to protect the environment being carried out in accordance with the document titled: (Reg ID: 31578) "Roy Hill 1 Iron Ore Project - Mining Proposal Addendum - Enabling Infrastructure And Drilling - M46/518 and M46/519" dated 6 July 2011 signed by Tjorn Sibma and retained on Department of Mines and Petroleum File No. EARSMP-31578. Where a difference exists between the above document and the conditions of the lease, then the conditions shall prevail.	**Open**
Mining Lease - 46/519	1/11/2010	Mining Tenements	Mining Lease	RHIO	DMP	Live	Condition 9	The construction and operation of the project and measures to protect the environment being carried out in accordance with the document titled: (Reg ID: 31578) "Roy Hill 1 Iron Ore Project - Additional Information: Mining Proposal Addendum - Enabling Infrastructure And Drilling - M46/518 and M46/519" and attachments dated 15 August 2011 signed by Susanna Beech and retained on Department of Mines and Petroleum File No. EARS-MP-31578. Where a difference exists between the above document and the conditions of the lease, then the conditions shall prevail.	**Open**
Mining Lease - 46/519	1/11/2010	Mining Tenements	Mining Lease	RHIO	DMP	Live	Condition 9	The construction and operation of the project and measures to protect the environment being carried out in accordance with the document titled: (Reg. ID 33184) "Addendum to mining proposal for enabling infrastructure and drilling M46/518" dated 10 November 2011 signed by Susanna Beech and retained on Department of Mines and Petroleum file No. EARS-MP-33184. Where a difference exists between the above document and the conditions of the lease, then the conditions shall prevail.	**Open**

Mining Lease - 46/519	1/11/2010	Mining Tenements	Mining Lease	RHIO	DMP	Live	Condition 9	The construction and operation of the project and measures to protect the environment being carried out in accordance with the document titled: "Programme of Work on M46/519 for Roy Hill Iron Ore Pty Ltd" (Reg. ID 33411) dated 6 December 2011 signed by Coral Jeffries and retained on Department of Mines and Petroleum file No. EARS-POW-33411. Where a difference exists between the above document and the conditions of the lease, then the conditions shall prevail.	**Open**
Mining Lease - 46/519	1/11/2010	Mining Tenements	Mining Lease	RHIO	DMP	Live	Condition 9	The construction and operation of the project and measures to protect the environment being carried out in accordance with the document titled: (Reg ID 32525) "Roy Hill Iron Ore Mine Mining Proposal Years 1 to 5 M46/518 and M46/519" dated 31 May 2012 signed by Susanna Beech and retained on Department of Mines and Petroleum File No. EARS-MP-32525. Where a difference exists between the above document and the conditions of the lease, then the conditions shall prevail.	**Open**
Mining Lease - 46/519	1/11/2010	Mining Tenements	Mining Lease	RHIO	DMP	Live	Condition 9	The construction and operation of the project and measures to protect the environment being carried out in accordance with the document titled: (Reg ID 37113) "Preliminary Rehabilitation and Closure Plan M46/518, M46/519, L47/346 and L46/104" dated 21 December 2012 signed by Susanna Beech and retained on Department of Mines and Petroleum File No. EARS-MPMPC-37113. Where a difference exists between the above document and the conditions of the lease, then the conditions shall prevail.	**Open**
Mining Lease - 46/519	1/11/2010	Mining Tenements	Mining Lease	RHIO	DMP	Live	Condition 9	The construction and operation of the project and measures to protect the environment being carried out in accordance with the document titled: (Reg ID: 38770) "Letter of Intent for crushing and screening plant on M46/518 and M46/519" dated 30 April 2013 signed by Susanna Beech and retained on Department of Mines and Petroleum file no. EARS-MP-38770. Where a difference exists between the above document and the conditions of the lease, then the conditions shall prevail.	**Open**
Mining Lease - 46/519	1/11/2010	Mining Tenements	Mining Lease	RHIO	DMP	Live	Condition 9	·The construction and operation of the project and measures to protect the environment being carried out in accordance with the document titled: Reg ID 37113) "Roy Hill Iron Ore Mine Mining Proposal Years 1 to 5 M46/518 and M46/519: Part B" dated 7 March 2013 signed by Darryl Hockey and retained on Department of Mines and Petroleum File No. EARS-MPMCP-37113. Where a difference exists between the above document and the conditions of the lease, then the conditions shall prevail.	**Open**
Mining Lease - 46/519	1/11/2010	Mining Tenements	Mining Lease	RHIO	DMP	Live	Condition 9	The construction and operation of the project and measures to protect the environment being carried out in accordance with the document titled: (Reg ID 43565) "Letter of Intent for amendment by hydraulic structures on M46/518 and M46/519" dated 26 September 2013 signed by Susanna Beech and retained on Department of Mines and Petroleum File No. EARS-MP-43565. Where a difference exists between the above document and the conditions of the lease, then the conditions shall prevail.	**Open**
Mining Lease - 46/519	1/11/2010	Mining Tenements	Mining Lease	RHIO	DMP	Live	Condition 9	The construction and operation of the project and measures to protect the environment being carried out in accordance with the document titled: (Reg ID 46067) "Letter of Intent for changes to the Mine General Arrangement on M46/518 and M46/519" dated 9 May 2014 signed by Susanna Beech and retained on Department of Mines and Petroleum File No. EARS-MP-46067 as Doc ID 02881647. Where a difference exists between the above document and the conditions of the lease, then the conditions shall prevail.	**Open**
Mining Lease - 46/519	1/11/2010	Mining Tenements	Mining Lease	RHIO	DMP	Live	Condition 9	The construction and operation of the project and measures to protect the environment being carried out in accordance with the document titled: (Reg ID 50991) "Letter of Intent for Revised Mine General Arrangement on M46/518 abd M46/519" dated 30 July 2014 signed by Susanna Beech and retained on Department of Mines and Petroleum File No. EARS-MP-50991 as Doc ID 3061799". Where a difference exists between the above document and the conditions of the lease, then the conditions shall prevail.	**Open**

Mining Lease - 46/519	1/11/2010	Mining Tenements	Mining Lease	RHIO	DMP	Live	Condition 9	The construction and operation of the project and measures to protect the environment being carried out in accordance with the document titled: (Reg ID 50983) "Detailed Design Report for Tailings Pumping and Pipeline" dated 19 September 2014 signed by R Groenewegen, S Gupta and D Brough and retained on Department of Mines and Petroleum File No. J02889 as Doc ID 3160521. Where a difference exists between the above document and the conditions of the lease, then the conditions shall prevail.	**Open**
Mining Lease - 46/519	1/11/2010	Mining Tenements	Mining Lease	RHIO	DMP	Live	Condition 10	Any alteration or expansion of operations within the lease boundaries beyond that outlined in the above document(s) not commencing until a plan of operations and a programme to safeguard the environment are submitted to the Director, Environment, DMP for his assessment and until his written approval to proceed has been obtained.	**Open**
Mining Lease - 46/519	1/11/2010	Mining Tenements	Mining Lease	RHIO	DMP	Live	Condition 11	The development and operation of the project being carried out in such a manner so as to create the minimum practicable disturbance to the existing vegetation and natural landform, to the satisfaction of an Environmental Officer, DMP.	**Open**
Mining Lease - 46/519	1/11/2010	Mining Tenements	Mining Lease	RHIO	DMP	Live	Condition 12	All topsoil and vegetation being removed ahead of all mining operations and being stockpiled appropriately for later respreading or immediately respread as rehabilitation progresses.	**Open**
Mining Lease - 46/519	1/11/2010	Mining Tenements	Mining Lease	RHIO	DMP	Live	Condition 13	At the completion of operations, all buildings and structures being removed from site or demolished and buried to the satisfaction of an Environmental Officer, DMP.	**Open**
Mining Lease - 46/519	1/11/2010	Mining Tenements	Mining Lease	RHIO	DMP	Live	Condition 14	All rubbish and scrap is to be progressively disposed of in a suitable manner, to the satisfaction of an Environmental Officer, DMP.	**Open**
Mining Lease - 46/519	1/11/2010	Mining Tenements	Mining Lease	RHIO	DMP	Live	Condition 17	The Lessee submitting to the Director, Environment Division, DMP, a brief annual report outlining the project operations, minesite environmental management and rehabilitation work undertaken in the previous 12 months and the proposed operations, environmental management plans and rehabilitation programmes for the next 12 months. This report to be submitted each year in: · March.	**Open**
Mining Lease - 46/519	1/11/2010	Mining Tenements	Mining Lease	RHIO	DMP	Live	Condition 18	On the completion of operations or progressively when possible, all waste dumps, tailings storage facilities, stockpiles or other mining related landforms must be rehabilitated to form safe, stable, non-polluting structures which are integrated with the surrounding landscape and support self sustaining, functional ecosystems comprising suitable, local provenance species or alternative agreed outcome to the satisfaction of the Executive Director, Environment Division, DMP.	**Open**
Mining Lease - 46/519	1/11/2010	Mining Tenements	Mining Lease	RHIO	DMP	Live	Condition 19	A Mine Closure Plan is to be submitted in the Annual Environmental Reporting month specified in tenement conditions in the year specified below, unless otherwise directed by an Environmental Officer, DMP. The Mine Closure Plan is to be prepared in accordance with the "Guidelines for Preparing Mine Closure Plans" available on DMP's website: · 2015	**Open**
Mining Lease - 46/519	1/11/2010	Mining Tenements	Mining Lease	RHIO	DMP	Live	Condition 20	Placement of waste material must be such that the final footprint after rehabilitation will not be impacted upon by pit wall subsidence or be within the zone of pit instability	**Open**
Mining Lease - 46/519	1/11/2010	Mining Tenements	Mining Lease	RHIO	DMP	Live	Condition 24	At the time of decommissioning of the tailings storage facility and evaporations ponds and prior to rehabilitation, a further review report by a geotechnical or engineering specialist will be required by the Executive Director, Environment Division, DMP. This report should review the status of the structure and its contained tailings, examine and address the implications of the physical and chemical characteristics of the materials, and present and review the results of all environmental monitoring. The rehabilitation stabilisation works proposed and any on-going remedial requirements should also be addressed.	**Open**
Mining Proposal Years 1 to 5 - 100RH-1000-EN-REP-2008	31-May-12	Mining Tenements	Mining Proposal	RHIO	Department of Mines and Petroleum	Live	Table S1, Commitment 3	Clearing of native vegetation will be kept to a minimum.	**Open**
Mining Proposal Years 1 to 5 - 100RH-1000-EN-REP-2008	31-May-12	Mining Tenements	Mining Proposal	RHIO	Department of Mines and Petroleum	Live	Table S1, Commitment 4	Land will be cleared in previously disturbed areas wherever practicable.	**Open**

Mining Proposal Years 1 to 5 - 100RH-1000-EN-REP-2008	31-May-12	Mining Tenements	Mining Proposal	RHIO	Department of Mines and Petroleum	Live	Table S1, Commitment 5	No land will be cleared or disturbed without a Ground Disturbance Permit.	**Open**
Mining Proposal Years 1 to 5 - 100RH-1000-EN-REP-2008	31-May-12	Mining Tenements	Mining Proposal	RHIO	Department of Mines and Petroleum	Live	Table S1, Commitment 7	Surface water flows will be maintained across the Mine project area where possible	**Open**
Mining Proposal Years 1 to 5 - 100RH-1000-EN-REP-2008	31-May-12	Mining Tenements	Mining Proposal	RHIO	Department of Mines and Petroleum	Live	Table S1, Commitment 8	Surface water flows and quality will be regularly monitored against trigger values that will be established based on baseline conditions. (a) Prior to construction of the surface water management structures outlined in Appendix C a Factor of Safety will be established for each structure based on results of geotechnical investigations and testing and a consequence assessment in accordance with local and national dam safety guidelines. Materials used for construction of structures will be verified through the testing regime outlined in Appendix H to ensure that they meet design specifications. (b) Prior to construction of the surface water management structures outlined in Appendix C, a Mine Flood Management Plan will be developed based on the Flood Risk Management Procedure and Risk Management Matrix outlined in Appendix I.	**Open**
Mining Proposal Years 1 to 5 - 100RH-1000-EN-REP-2008	31-May-12	Mining Tenements	Mining Proposal	RHIO	Department of Mines and Petroleum	Live	Table S1, Commitment 14	Weed hygiene measures will be implemented for all earthmoving equipment to avoid the inadvertent spread of weeds.	**Open**
Mining Proposal Years 1 to 5 - 100RH-1000-EN-REP-2008	31-May-12	Mining Tenements	Mining Proposal	RHIO	Department of Mines and Petroleum	Live	Table S1, Commitment 15	Declared Plant species will be controlled with a spraying program on an as needs basis.	**Open**
Mining Proposal Years 1 to 5 - 100RH-1000-EN-REP-2008	31-May-12	Mining Tenements	Mining Proposal	RHIO	Department of Mines and Petroleum	Live	Table S1, Commitment 17	A rehabilitation consultant will be engaged to provide technical advice on topsoil management and progressive rehabilitation. Topsoil stripping, stockpiling and management will be carried out in accordance with the Roy Hill Project Mine Site Topsoil Stripping and Stockpile Guideline (100RH-1000-EN-GUI-2001).	**Open**
Mining Proposal Years 1 to 5 - 100RH-1000-EN-REP-2008	31-May-12	Mining Tenements	Mining Proposal	RHIO	Department of Mines and Petroleum	Live	Table S1, Commitment 18	The location of hydrocarbon contaminated soil will be recorded in the RHIO GIS database and the area will be immediately remediated. All hydrocarbon-contaminated waste materials that cannot be remediated on-site will be disposed of to an off-site licensed landfill facility.	**Open**
Mining Proposal Years 1 to 5 - 100RH-1000-EN-REP-2008	31-May-12	Mining Tenements	Mining Proposal	RHIO	Department of Mines and Petroleum	Live	Table S1, Commitment 19	Non-hazardous solid wastes will be disposed of at the on-site licensed landfill facility.	**Open**
Mining Proposal Years 1 to 5 - 100RH-1000-EN-REP-2008	31-May-12	Mining Tenements	Mining Proposal	RHIO	Department of Mines and Petroleum	Live	Table S1, Commitment 20	Potential acid forming waste rock will be managed in accordance with the RHIO Acid Rock Drainage Management Plan (SMEC, 2009d).	**Open**
Mining Proposal Years 1 to 5 - 100RH-1000-EN-REP-2008	31-May-12	Mining Tenements	Mining Proposal	RHIO	Department of Mines and Petroleum	Live	Table S1, Commitment 25	Progressive rehabilitation will be undertaken, where practicable.	**Open**
Mining Proposal Years 1 to 5 - 100RH-1000-EN-REP-2008	31-May-12	Mining Tenements	Mining Proposal	RHIO	Department of Mines and Petroleum	Live	Table S1, Commitment 26	On decommissioning infrastructure will be deconstructed and removed from site and all disturbed surfaces will be rehabilitated.	**Open**
Mining Proposal Years 1 to 5 - 100RH-1000-EN-REP-2008	31-May-12	Mining Tenements	Mining Proposal	RHIO	Department of Mines and Petroleum	Live	Table S1, Commitment 27	Revegetation works will be monitored and, if required, remedial works will be undertaken.	**Open**
Mining Proposal Years 1 to 5 - 100RH-1000-EN-REP-2008	31-May-12	Mining Tenements	Mining Proposal	RHIO	Department of Mines and Petroleum	Live	Table S1, Commitment 28	RHIO will design and construct final mine landforms that are safe, stable, non-polluting and capable of supporting local plant species.	**Open**

Mining Proposal Years 1 to 5 - 100RH-1000-EN-REP-2008	31-May-12	Mining Tenements	Mining Proposal	RHIO	Department of Mines and Petroleum	Live	Table S1, Commitment 29	To validate the design, construction and rehabilitation principles for permanent landforms, a Technical Expert will be engaged to provide site specific direction prior to the construction of any permanent landforms (including Waste Rock Dumps (WRD), permanent surface water diversion structures, ROMs and backfilled mine pits). The Scope of Work (SOW) required of the Technical Expert will include detailed engineering and geoscientific designs for all permanent landforms that will consider safety, geotechnical, civil, hydrological and geochemical aspects. Construction sequencing and environmental strategies to manage potential acid rock drainage (ARD), sedimentation, dispersive soils, and surface water flows will be paramount to the SOW. Consideration of the final rehabilitated land form will drive design and construction. Of key importance is the need to consider flood prone areas (from modelled scenarios) and the placement of dumps and unfavourable material within the dump itself. The Technical Expert will be directed to ensure that WRD are designed so that adverse material (dispersive material/Potential Acid Formation (PAF)) is located within the centre of the WRD and above the predicted Probable Maximum Flood (PMF) level. Furthermore, the closure design of the WRDs will be based in part on the PMF to ensure stability post closure. This will include rock armouring of the base of the WRD above the PMF level that will be sized to withstand the PMF event.	**Open**
Mining Proposal Years 1 to 5 - 100RH-1000-EN-REP-2008	31-May-12	Mining Tenements	Mining Proposal	RHIO	Department of Mines and Petroleum	Live	Table S1, Commitment 30	RHIO will progressively develop completion criteria prior to the cessation of mining.	**Open**
Mining Proposal Years 1 to 5 - 100RH-1000-EN-REP-2008	31-May-12	Mining Tenements	Mining Proposal	RHIO	Department of Mines and Petroleum	Live	Table S1, Commitment 31	RHIO will consult with the Pastoral Lands Board, Roy Hill Pastoral Station and the Shire of East Pilbara with respect to the transfer of liabilities from mining leases to other tenure.	**Open**
Mining Proposal Years 1 to 5 M46/518 & M46/519 Part B -100RH-1000-EN-REP-2023_Rev 2	7-Mar-13	Mining Tenements	Mining Proposal	RHIO	Department of Mines and Petroleum	Live	Table S1, Commitment 2	Clearing of native vegetation will be kept to a minimum and previously disturbed land will be utilised in preference to undisturbed areas wherever practicable.	**Open**
Mining Proposal Years 1 to 5 M46/518 & M46/519 Part B -100RH-1000-EN-REP-2023_Rev 2	7-Mar-13	Mining Tenements	Mining Proposal	RHIO	Department of Mines and Petroleum	Live	Table S1, Commitment 12	A Monitoring Program for the Kulbee Creek diversion channel and associated levee will be implemented where practicable and appropriate consistent with that outlined in Sections 3.4.5 and Sections 5 and 6 of Appendix B.	**Open**
Mining Proposal Years 1 to 5 M46/518 & M46/519 Part B -100RH-1000-EN-REP-2023_Rev 2	7-Mar-13	Mining Tenements	Mining Proposal	RHIO	Department of Mines and Petroleum	Live	Table S1, Commitment 14	Groundwater quantity and quality will be monitored, as will health of groundwater-dependent vegetation.	**Open**
Mining Proposal Years 1 to 5 M46/518 & M46/519 Part B -100RH-1000-EN-REP-2023_Rev 2	7-Mar-13	Mining Tenements	Mining Proposal	RHIO	Department of Mines and Petroleum	Live	Table S1, Commitment 18	Weed hygiene measures will be implemented for all earthmoving equipment to avoid the inadvertent spread of weeds.	**Open**
Mining Proposal Years 1 to 5 M46/518 & M46/519 Part B -100RH-1000-EN-REP-2023_Rev 2	7-Mar-13	Mining Tenements	Mining Proposal	RHIO	Department of Mines and Petroleum	Live	Table S1, Commitment 19	Declared Plant species will be controlled with a spraying program on an as needs basis.	**Open**
Mining Proposal Years 1 to 5 M46/518 & M46/519 Part B -100RH-1000-EN-REP-2023_Rev 2	7-Mar-13	Mining Tenements	Mining Proposal	RHIO	Department of Mines and Petroleum	Live	Table S1, Commitment 21	A detailed design shall/will be developed that will be consistent with, and addresses the recommendations for additional works contained within the Preliminary Design Report at Appendix E (GHD, 2013). The detailed design shall/will contain detailed specifications for the first five years of construction and operation of the TSF.	**Open**

Mining Proposal Years 1 to 5 M46/518 & M46/519 Part B -100RH-1000-EN-REP-2023_Rev 2	7-Mar-13	Mining Tenements	Mining Proposal	RHIO	Department of Mines and Petroleum	Live	Table S1, Commitment 25	Groundwater monitoring bores will be constructed in the vicinity of the TSF to monitor groundwater quality and groundwater levels. These groundwater monitoring bores will form part of the quality assurance system in place to assure that groundwater leaving the area does not exceed ANZECC/ARMCANZ trigger values for a slightly to moderately disturbed ecosystem. Groundwater sampling and testing for water quality will be conducted at least quarterly. Groundwater levels, surface water levels, piezometric levels and moisture content will be monitored at regular intervals that are frequent enough to ascertain the response to daily diurnal changes, climatic events and production changes. Monitoring frequencies shall also be consistent with recording frequencies at the site weather station(s). Monitoring reports will be provided to DMP.	**Open**
Mining Proposal Years 1 to 5 M46/518 & M46/519 Part B -100RH-1000-EN-REP-2023_Rev 2	7-Mar-13	Mining Tenements	Mining Proposal	RHIO	Department of Mines and Petroleum	Live	Table S1, Commitment 27	Site trials will be conducted in order to examine the batter profiles and determine whether the batters should be concave or otherwise at closure.	**Open**
Mining Proposal Years 1 to 5 M46/518 & M46/519 Part B -100RH-1000-EN-REP-2023_Rev 2	7-Mar-13	Mining Tenements	Mining Proposal	RHIO	Department of Mines and Petroleum	Live	Table S1, Commitment 35	A detailed rehabilitation plan will be developed prior to decommissioning of the Mine.	**Open**
Mining Proposal Years 1 to 5 M46/518 & M46/519 Part B -100RH-1000-EN-REP-2023_Rev 2	7-Mar-13	Mining Tenements	Mining Proposal	RHIO	Department of Mines and Petroleum	Live	Table S1, Commitment 36	Progressive rehabilitation will be undertaken, where practicable.	**Open**
Mining Proposal Years 1 to 5 M46/518 & M46/519 Part B -100RH-1000-EN-REP-2023_Rev 2	7-Mar-13	Mining Tenements	Mining Proposal	RHIO	Department of Mines and Petroleum	Live	Table S1, Commitment 37	On decommissioning infrastructure will be deconstructed and removed from site and all disturbed surfaces will be rehabilitated.	**Open**
Mining Proposal Years 1 to 5 M46/518 & M46/519 Part B -100RH-1000-EN-REP-2023_Rev 2	7-Mar-13	Mining Tenements	Mining Proposal	RHIO	Department of Mines and Petroleum	Live	Table S1, Commitment 38	Revegetation works will be monitored and, if required, remedial works will be undertaken.	**Open**
Mining Proposal Years 1 to 5 M46/518 & M46/519 Part B -100RH-1000-EN-REP-2023_Rev 2	7-Mar-13	Mining Tenements	Mining Proposal	RHIO	Department of Mines and Petroleum	Live	Table S1, Commitment 39	RHIO will design and construct final landforms that are safe, stable, non-polluting and capable of supporting local plant species.	**Open**
Mining Proposal Years 1 to 5 M46/518 & M46/519 Part B -100RH-1000-EN-REP-2023_Rev 2	7-Mar-13	Mining Tenements	Mining Proposal	RHIO	Department of Mines and Petroleum	Live	Table S1, Commitment 40	Rehabilitation and closure requirements for the TSF (and associated flood protection, if required) will be determined as part of the study outlined in Commitment 41.	**Open**

Mining Proposal Years 1 to 5 M46/518 & M46/519 Part B -100RH-1000-EN-REP-2023_Rev 2	7-Mar-13	Mining Tenements	Mining Proposal	RHIO	Department of Mines and Petroleum	Live	Table S1, Commitment 41	To validate the design, construction and rehabilitation principles for permanent landforms (including the TSF, WRD, permanent surface water diversion structures, ROMs and backfilled mine pits) a Technical Expert will be engaged to provide site specific direction prior to the construction of any permanent landforms. The Scope of Work required of the Technical Expert will include detailed engineering and geo-scientific designs for all permanent landforms that will consider safety, geotechnical, civil, hydrological and geochemical aspects of the landform and project. Construction sequencing and environmental strategies to manage potential acid rock drainage, sedimentation, dispersive soils and surface water flows will be paramount to the Scope of Work. Consideration of the final rehabilitated land form will drive design and construction. Of key importance is the need to consider flood prone areas (from modelled scenarios) and the placement of WRDs and unfavourable material within the WRD itself. The Technical Expert will be directed to ensure that WRDs are designed so that adverse material (dispersive material and potentially acid forming material) is located within the centre of the WRD and above the predicted PMF level. Furthermore, the closure design of the WRDs will be based in part on the PMF to ensure stability post closure. This will include rock armouring of the base of the WRD above the PMF level that will be sized to withstand the PMF event.	**Open**
Mining Proposal Years 1 to 5 M46/518 & M46/519 Part B -100RH-1000-EN-REP-2023_Rev 2	7-Mar-13	Mining Tenements	Mining Proposal	RHIO	Department of Mines and Petroleum	Live	Table S1, Commitment 42	RHIO will progressively develop completion criteria prior to the cessation of mining.	**Open**
Mining Proposal Years 1 to 5 M46/518 & M46/519 Part B -100RH-1000-EN-REP-2023_Rev 2	7-Mar-13	Mining Tenements	Mining Proposal	RHIO	Department of Mines and Petroleum	Live	Table S1, Commitment 43	RHIO to consult with the Pastoral Lands Board, Roy Hill Pastoral Station and the Shire of East Pilbara with respect to the transfer of liabilities from mining leases to other tenure.	**Open**
Ministerial Statement 824	23-Dec-09	Environment - Part IV EPA	Ministerial Statement	RHIO	Environmental Protection Authority	Live	Condition 8-1	The proponent shall ensure that run-off and seepage from the waste rock dump, waste fines storage facilities and evaporation pond do not cause the quality of surface water or groundwater within or leaving the proposal area to exceed ANZECC/ARMCANZ* trigger values for a slightly to moderately disturbed ecosystem, taking into consideration natural background water quality, so that existing and potential uses, including ecosystem maintenance, are protected.	**Open**
Ministerial Statement 824	23-Dec-09	Environment - Part IV EPA	Ministerial Statement	RHIO	Environmental Protection Authority	Live	Condition 8-2	The proponent shall monitor the quality of surface water and groundwater around the waste fines and evaporation pond storage facilities and locations where salt is encapsulated to ensure that requirements of condition 8-1 are met. This monitoring is to be carried out using methods consistent with Australian and New Zealand Environment and Conservation Council and Agriculture and Resource Management Council of Australia and New Zealand 2000, Australian Guidelines for Water Quality Monitoring and Reporting (and its updates) and to the satisfaction of the CEO on advice of the Department of Environment and Conservation.	**Open**
Ministerial Statement 824	23-Dec-09	Environment - Part IV EPA	Ministerial Statement	RHIO	Environmental Protection Authority	Live	Condition 8-5 (1-3)	In the event that monitoring required by condition 8-2 indicates that the requirements of conditions 8-1 are not being met: 1. the proponent shall report such findings to the CEO within 21 days of the decline in water quality standards being identified; 2. the proponent shall provide evidence which allows determination of the cause of the decline in water quality standards; 3. if determined by the CEO to be a result of activities undertaken in implementing the proposal, the proponent shall submit actions to be taken to remediate the decline in water quality standards within 21 days of the determination being made to the CEO; and	**Open**

Ministerial Statement 824	23-Dec-09	Environment - Part IV EPA	Ministerial Statement	RHIO	Environmental Protection Authority	Live	Condition 10-1(1)	The proponent shall undertake rehabilitation to achieve the following outcomes: 1. the waste rock dump and waste fines storage facilities shall be non-polluting and shall be constructed so that their final shape, stability, surface drainage, resistance to erosion and ability to support local native vegetation are comparable to natural landforms in the area.	**Open**
Ministerial Statement 824	23-Dec-09	Environment - Part IV EPA	Ministerial Statement	RHIO	Environmental Protection Authority	Live	Condition 10-1(2)	The proponent shall undertake rehabilitation to achieve the following outcomes: 2. the mine pits shall be backfilled with overburden to the original ground level.	**Open**
Ministerial Statement 824	23-Dec-09	Environment - Part IV EPA	Ministerial Statement	RHIO	Environmental Protection Authority	Live	Condition 10-1(3)	The proponent shall undertake rehabilitation to achieve the following outcomes: 3. the waste rock dump, waste fines storage facilities and other areas disturbed through implementation of the proposal, shall be progressively rehabilitated with vegetation composed of native plant species of local provenance (as agreed by the CEO in consultation with the Department of Environment and Conservation).	**Open**

Ministerial Statement 824	23-Dec-09	Environment - Part IV EPA	Ministerial Statement	RHIO	Environmental Protection Authority	Live	Condition 10-1(4)	The proponent shall undertake rehabilitation to achieve the following outcomes: 4. the percentage cover of living vegetation in all rehabilitation areas shall be comparable with that of nearby land which has not been disturbed during implementation of the proposal.	**Open**
Ministerial Statement 824	23-Dec-09	Environment - Part IV EPA	Ministerial Statement	RHIO	Environmental Protection Authority	Live	Condition 10-1(5)	The proponent shall undertake rehabilitation to achieve the following outcomes: 5. no new species of weeds (including both declared weeds and environmental weeds) shall be introduced into the area as a result of the implementation of the proposal.	**Open**
Ministerial Statement 824	23-Dec-09	Environment - Part IV EPA	Ministerial Statement	RHIO	Environmental Protection Authority	Live	Condition 10-1(6)	The proponent shall undertake rehabilitation to achieve the following outcomes: 6. the coverage of weeds (including both declared weeds and environmental weeds) within the rehabilitation areas shall be no greater than 10%.	**Open**
Ministerial Statement 824	23-Dec-09	Environment - Part IV EPA	Ministerial Statement	RHIO	Environmental Protection Authority	Live	Condition 10-2	Rehabilitation activities shall continue as necessary until such time as the requirements of condition 10-1 are met, and are demonstrated by inspections and reports to be met, for a minimum of five years to the satisfaction of the CEO and the Chief Executive Officer of the Department of Mines and Petroleum.	**Open**
Ministerial Statement 824	23-Dec-09	Environment - Part IV EPA	Ministerial Statement	RHIO	Environmental Protection Authority	Live	Condition 11-1	Prior to commencing ground-disturbing activity, the proponent shall submit a detailed and project-specific Conceptual Closure Strategy to the requirements of the CEO and the Chief Executive Officer of the Department of Mines and Petroleum.	**Complete**

Ministerial Statement 824	23-Dec-09	Environment - Part IV EPA	Ministerial Statement	RHIO	Environmental Protection Authority	Live	Condition 11-2	The Conceptual Closure Strategy shall include detailed results of geochemical and geophysical characterisation of materials, in particular the potential for acid drainage, metalliferous drainage, and of the occurrence of dispersive materials and asbestiform minerals. Testing for materials with potential to cause acid and metalliferous drainage shall include static and kinetic testing carried out using techniques and timeframes consistent with national and international standards (Leading Practice Sustainable Development Program for the Mining Industry – Managing Acid and Metalliferous Drainage 2009 – Department of Industry, Tourism and Resources; The Global Acid Rock Drainage Guide 2009 – International Network for Acid Prevention).	**Complete**
Ministerial Statement 824	23-Dec-09	Environment - Part IV EPA	Ministerial Statement	RHIO	Environmental Protection Authority	Live	Condition 11-3	The Conceptual Closure Strategy shall provide detailed technical information on proposed management measures to prevent pollution, environmental harm or human health impacts during implementation of the proposal and after mine completion and closure.	**Complete**
Ministerial Statement 824	23-Dec-09	Environment - Part IV EPA	Ministerial Statement	RHIO	Environmental Protection Authority	Live	Condition 11-4	The Conceptual Closure Strategy shall include maps and diagrams showing the proposed placement, dimensions, design and proposed methods of construction and closure of waste disposal facilities and mine pits.	**Complete**
Ministerial Statement 824	23-Dec-09	Environment - Part IV EPA	Ministerial Statement	RHIO	Environmental Protection Authority	Live	Condition 11-5	The Conceptual Closure Strategy shall demonstrate that the waste rock dump and waste fines storage facilities will be located, designed and constructed to ensure that they are non-polluting and so that their final shape, height, stability, surface drainage, resistance to erosion and ability to support native vegetation are comparable to natural landforms in the area.	**Complete**
Ministerial Statement 824	23-Dec-09	Environment - Part IV EPA	Ministerial Statement	RHIO	Environmental Protection Authority	Live	Condition 11-6	The Conceptual Closure Strategy shall provide detailed technical information demonstrating that sufficient quantities of suitable materials are available on site for the implementation and closure (including unplanned or temporary closure) of the proposal.	**Complete**
Ministerial Statement 824	23-Dec-09	Environment - Part IV EPA	Ministerial Statement	RHIO	Environmental Protection Authority	Live	Condition 11-7	The Conceptual Closure Strategy shall include specific practicable procedures to ensure the protection of the environment in the event of unplanned or temporary mine closure.	**Complete**
Ministerial Statement 824	23-Dec-09	Environment - Part IV EPA	Ministerial Statement	RHIO	Environmental Protection Authority	Live	Condition 11-8	The proponent shall implement the proposal consistent with the Conceptual Closure Strategy referred to in conditions 11-1 to 11-7.	**Open**
Ministerial Statement 824	23-Dec-09	Environment - Part IV EPA	Ministerial Statement	RHIO	Environmental Protection Authority	Live	Condition 12-1	At least 5 years prior to mine completion, the proponent shall prepare and submit a Final Closure and Decommissioning Plan to the requirement of the CEO and the Chief Executive Officer of the Department of Mines and Petroleum.	**Open**
Ministerial Statement 824	23-Dec-09	Environment - Part IV EPA	Ministerial Statement	RHIO	Environmental Protection Authority	Live	Condition 12-2	The Final Closure and Decommissioning Plan shall be prepared consistent with: 1. ANZMEC/MCA 2000, Strategic Framework for Mine Closure Planning; and 2. Department of Industry Tourism and Resources 2006 Mine Closure and Completion (Leading Practice Sustainable Development Program for the Mining Industry), Commonwealth Government, Canberra. and shall provide detailed technical information on the following: 1. final closure of all areas disturbed through implementation of the proposal so that they are safe, stable and non-polluting; 2. decommissioning of all plant and equipment; 3. disposal of waste materials; 4. final rehabilitation of waste rock dump; waste fines storage facilities; and other areas; 5. capping of the evaporation pond; 6. management and monitoring following mine completion; and 7. inventory of all contaminated sites and proposed management.	**Open**
Ministerial Statement 824	23-Dec-09	Environment - Part IV EPA	Ministerial Statement	RHIO	Environmental Protection Authority	Live	Condition 12-3	The proponent shall close, decommission and rehabilitate the proposal consistent with the approved Final Closure and Decommissioning Plan.	**Open**
Ministerial Statement 824	23-Dec-09	Environment - Part IV EPA	Ministerial Statement	RHIO	Environmental Protection Authority	Live	Condition 12-4	The proponent shall make the Final Closure and Decommissioning Plan required by conditions 12-1 and 12-2 publicly available in a manner acceptable to the CEO.	**Open**

Ministerial Statement 829	31-Mar-10	Environment - Part IV EPA	Ministerial Statement	RHIO	Environmental Protection Authority	Live	Condition 1-1 Schedule 1	The proponent shall implement the proposal as documented and described in Schedule 1 of this statement subject to the conditions and procedures of this statement. The proposal is to: mine iron ore from the Stage 2 project area on the southern slopes of the Chichester Range; and construction and operation of a remote borefield, water pipeline and associated infrastructure (pump stations, power and water pipelines). The locations of the various project components are shown in Figures 2 and 3. The main characteristics of the proposal are summarised in Table 1 below. A detailed description of the proposal is provided in section 2 of the proposal referral document, (Roy Hill 1 Iron Ore Mining Project, Stage 2 Referral Document. Prepared by ENVIRON for Roy Hill Iron Ore Pty Ltd, October 2009). Table 1 Summary of Key Proposal Characteristics: • Mine Life - 20 years (Stage 1 and 2) • Processing Rate - Up to 65 Mt/a throughput to produce 55 Mt/a for export • Target Grade - 60% Iron (Fe) (average lump or fines) or higher • Mineral Resource - Up to 400 Mt bedded Marra Mamba ore, 1 Bt detrital ore • Strip Ratio - 4:1 (average overburden to ore ratio) • Area of Disturbance - Up to 4,793 ha • Maximum Pit Depth - 100 m nominal • Overburden - Up to 2,000 Mt • Water Supply - 150,000 ML from the remote borefield and 48,000 ML from mine dewatering • Mine Dewatering - 223,000 ML (Average 61 ML per day) • Saline Dewater for Disposal to evaporation pond - 175,000 ML	**Open**
Ministerial Statement 829	31-Mar-10	Environment - Part IV EPA	Ministerial Statement	RHIO	Environmental Protection Authority	Live	Condition 2-1	The proponent for the time being nominated by the Minister for Environment under sections 38(6) or 38(7) of the Environmental Protection Act 1986 is responsible for the implementation of the proposal.	**Open**
Ministerial Statement 829	31-Mar-10	Environment - Part IV EPA	Ministerial Statement	RHIO	Environmental Protection Authority	Live	Condition 2-2	The proponent shall notify the Chief Executive Officer of the Office of the Environmental Protection Authority (CEO) of any change of the name and address of the proponent for the serving of notices or other correspondence within 30 days of such change.	**Open**
Ministerial Statement 829	31-Mar-10	Environment - Part IV EPA	Ministerial Statement	RHIO	Environmental Protection Authority	Live	Condition 3-1	The authorisation to implement the proposal provided for in this statement shall lapse and be void fifteen years after the date of this statement if the proposal to which this statement relates is not substantially commenced.	**Open**
Ministerial Statement 829	31-Mar-10	Environment - Part IV EPA	Ministerial Statement	RHIO	Environmental Protection Authority	Live	Condition 3-2	The proponent shall provide the CEO with written evidence which demonstrates that the proposal has substantially commenced on or before the expiration of fifteen years from the date of this statement.	**Open**
Ministerial Statement 829	31-Mar-10	Environment - Part IV EPA	Ministerial Statement	RHIO	Environmental Protection Authority	Live	Condition 10-5	In the event that monitoring required by condition 10-2 indicates that the requirements of conditions 10-1 are not being met: 1. the proponent shall report such findings to the CEO within 21 days of the decline in water quality standards being identified; 2. the proponent shall provide evidence which allows determination of the cause of the decline in water quality standards; 3. if determined by the CEO to be a result of activities undertaken in implementing the proposal, the proponent shall submit actions to be taken to remediate the decline in water quality standards within 21 days of the determination being made to the CEO; and 4. the proponent shall implement actions to remediate the decline in water quality standards upon approval of the CEO and shall continue to implement such actions until such time the CEO determines that the remedial actions may cease.	**Open**
Ministerial Statement 829	31-Mar-10	Environment - Part IV EPA	Ministerial Statement	RHIO	Environmental Protection Authority	Live	Condition 10-6	The proponent shall make the monitoring reports required by condition 10-2 publicly available in a manner approved by the CEO.	**Open**

Ministerial Statement 829	31-Mar-10	Environment - Part IV EPA	Ministerial Statement	RHIO	Environmental Protection Authority	Live	Condition 11-1	The proponent shall undertake rehabilitation to achieve the following outcomes: 1. the waste fines storage facilities and evaporation pond, shall be non-polluting and shall be constructed so that their final shape, stability, surface drainage, resistance to erosion and ability to support local native vegetation are comparable to natural landforms within the local area. 2. the mine pits shall be backfilled to above the pre-mining water table and contoured to blend in with the natural topography. 3. the waste fines storage facilities, evaporation pond and other areas disturbed through implementation of the proposal, shall be progressively rehabilitated with vegetation composed of native plant species of local provenance (as agreed by the CEO in consultation with the Department of Environment and Conservation). 4. the percentage cover of living vegetation in all rehabilitation areas shall be comparable with that of nearby land which has not been disturbed during implementation of the proposal. 5. no new species of weeds (including both declared weeds and environmental weeds) shall be introduced into the area as a result of the implementation of the proposal. 6. the coverage of weeds (including both declared weeds and environmental weeds) within the rehabilitation areas shall not exceed that identified in baseline monitoring undertaken prior to commencement of operations, or exceed that existent on comparable, nearby land which has not been disturbed during implementation of the proposal, whichever is less.	**Open**
Ministerial Statement 829	31-Mar-10	Environment - Part IV EPA	Ministerial Statement	RHIO	Environmental Protection Authority	Live	Condition 12-1	Prior to commencing ground-disturbing activity, the proponent shall submit a detailed and project-specific Conceptual Closure Strategy to the requirements of the CEO on advice of the Department of Environment and Conservation and Department of Mines and Petroleum.	**Complete**
Ministerial Statement 829	31-Mar-10	Environment - Part IV EPA	Ministerial Statement	RHIO	Environmental Protection Authority	Live	Condition 12-2	The Conceptual Closure Strategy shall include detailed results of geochemical and geophysical characterisation of materials, in particular the potential for acid drainage, metalliferous drainage, and of the occurrence of dispersive materials and asbestiform minerals. Testing for materials with potential to cause acid and metalliferous drainage shall include static and kinetic testing carried out using techniques and timeframes consistent “Leading Practice Sustainable Development Program for the Mining Industry – Managing Acid and Metalliferous Drainage 2009” (Department of Industry, Tourism and Resources) and “The Global Acid Rock Drainage Guide 2009” (International Network for Acid Prevention).	**Complete**
Ministerial Statement 829	31-Mar-10	Environment - Part IV EPA	Ministerial Statement	RHIO	Environmental Protection Authority	Live	Condition 12-3	The Conceptual Closure Strategy shall provide detailed technical information on proposed management measures to prevent pollution, environmental harm or human health impacts during implementation of the proposal and after mine completion and closure.	**Complete**
Ministerial Statement 829	31-Mar-10	Environment - Part IV EPA	Ministerial Statement	RHIO	Environmental Protection Authority	Live	Condition 12-4	The Conceptual Closure Strategy shall include maps and diagrams showing the proposed placement, dimensions, design and proposed methods of construction and closure of waste disposal facilities and mine pits.	**Complete**
Ministerial Statement 829	31-Mar-10	Environment - Part IV EPA	Ministerial Statement	RHIO	Environmental Protection Authority	Live	Condition 12-5	The Conceptual Closure Strategy shall demonstrate that the waste fines storage facilities and evaporation pond will be located, designed and constructed to ensure that they are non-polluting and so that their final shape, height, stability, surface drainage, resistance to erosion and ability to support native vegetation are comparable to natural landforms in the area.	**Complete**
Ministerial Statement 829	31-Mar-10	Environment - Part IV EPA	Ministerial Statement	RHIO	Environmental Protection Authority	Live	Condition 12-6	The Conceptual Closure Strategy shall provide detailed technical information demonstrating that sufficient quantities of suitable materials are available on site for the implementation and closure (including unplanned or temporary closure) of the proposal.	**Complete**
Ministerial Statement 829	31-Mar-10	Environment - Part IV EPA	Ministerial Statement	RHIO	Environmental Protection Authority	Live	Condition 12-7	The Conceptual Closure Strategy shall include specific practicable procedures to ensure the protection of the environment in the event of unplanned or temporary mine closure.	**Complete**

Ministerial Statement 829	31-Mar-10	Environment - Part IV EPA	Ministerial Statement	RHIO	Environmental Protection Authority	Live	Condition 12-8	The proponent shall implement the proposal consistent with the Conceptual Closure Strategy referred to in conditions 12-1 to 12-7.	**Complete**
Ministerial Statement 829	31-Mar-10	Environment - Part IV EPA	Ministerial Statement	RHIO	Environmental Protection Authority	Live	Condition 13-1	At least 5 years prior to mine completion, the proponent shall prepare and submit a Final Closure and Decommissioning Plan to the requirement of the CEO on advice of the Department of Environment and Conservation and Department of Mines and Petroleum.	**Open**
Ministerial Statement 829	31-Mar-10	Environment - Part IV EPA	Ministerial Statement	RHIO	Environmental Protection Authority	Live	Condition 13-2	The Final Closure and Decommissioning Plan shall be prepared consistent with: 1. ANZMEC/MCA 2000, Strategic Framework for Mine Closure Planning; and 2. Department of Industry Tourism and Resources 2006 Mine Closure and Completion (Leading Practice Sustainable Development Program for the Mining Industry), Commonwealth Government, Canberra; and shall provide detailed technical information on the following: 3. final closure of all areas disturbed through implementation of the proposal so that they are safe, stable and non-polluting; 4. decommissioning of all plant and equipment; 5. disposal of waste materials; 6. final rehabilitation of waste fines storage facilities; evaporation pond and other areas; 7. management and monitoring following mine completion; and 8. inventory of all contaminated sites and proposed management.	**Open**
Ministerial Statement 829	31-Mar-10	Environment - Part IV EPA	Ministerial Statement	RHIO	Environmental Protection Authority	Live	Condition 13-3	The proponent shall close, decommission and rehabilitate the proposal consistent with the approved Final Closure and Decommissioning Plan.	**Open**
Ministerial Statement 829	31-Mar-10	Environment - Part IV EPA	Ministerial Statement	RHIO	Environmental Protection Authority	Live	Condition 13-4	The proponent shall make the Final Closure and Decommissioning Plan required by 13-1 and 13-2 publicly available in a manner acceptable to the CEO.	**Open**

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