



# Licence

## *Environmental Protection Act 1986, Part V*

**Licensee:** Atlas Iron Limited

**Licence:** L8733/2013/1

**Registered office:** Level 18  
300 Murray Street  
PERTH WA 6000

**ACN:** 110 396 168

**Premises address:** Abydos Direct Shipping Ore Project  
M45/1179, L45/204 and L45/207  
MARBLE BAR WA 6760  
As depicted in Schedule 1

**Issue date:** Thursday, 25 July 2013

**Commencement date:** Monday, 29 July 2013

**Expiry date:** Saturday, 28 July 2018

**Prescribed Premises Category**

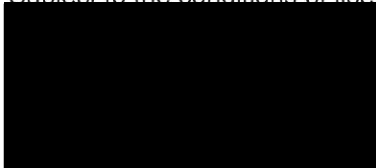
Schedule 1 of the *Environmental Protection Regulations 1987*

Category number	Category description	Category production or design capacity	Premises production or design capacity
5	Processing or beneficiation of metallic or non-metallic ore: premises on which – (a) Metallic or non-metallic ore is crushed, ground, milled or otherwise processed; (b) Tailings from metallic or non-metallic ore are reprocessed; or Tailings or residue from metallic or non-metallic ore are discharged into a containment cell or dam.	50,000 tonnes or more per year	3,500,000 tonnes per year
85	Sewage facility: Premises- (a) On which sewage is treated (excluding septic tanks); or (b) From which treated sewage is discharged onto land or waters.	More than 20 but less than 100 cubic metres per day	70 cubic metres per day
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.	More than 20 but less than 5,000 tonnes per year	460 tonnes per year



**Conditions of Licence**

Subject to the conditions of licence set out in the attached pages.



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



## Contents

Licence	1
Contents	3
Introduction	3
Licence conditions	6
1 General	6
2 Emissions	11
3 Monitoring	12
4 Improvements	13
5 Information	13
Schedule 1: Maps	15
Schedule 2: Reporting & notification forms	19

## 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 for Environment. DER's purpose is to advise on and implement strategies for a healthy environment for the benefit of all current and future Western Australians.

DER has responsibilities under Part V of the *Environmental Protection Act 1986* (the Act) 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 monitors and audits compliance with works approvals and licence conditions, takes enforcement action as appropriate and develops and implements licensing and industry regulation policy.

### Licence requirements

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

Where other statutory instruments impose obligations on the Premises/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**

Atlas Iron Limited (Atlas Iron) operates the Abydos Direct Shipping Ore (DSO) Project (the Project) which is located approximately 100 kilometres (km) south east of Port Hedland and 85 km west of Marble Bar in the Shire of East Pilbara. The land surrounding the Project area is predominantly used for mineral resource prospecting, exploration and mining. Pastoral grazing is carried out on a small scale in the area. Lalla Rookh homestead is the closest residential property to the Project, located approximately 25 km north of the site, although it is thought to be abandoned.

The Project is located within the Pilbara Groundwater Management Area and the Pilbara Groundwater Province and is not located within a public drinking water source area.

The Project comprises of an open pit mine from which ore is extracted using conventional drill and blast, load and haul methods at a rate of approximately 3.5 million tonnes per annum (Mtpa) over a mine life of six years. The Project includes:

- two pits;
- two waste rock dumps;
- contractors area;
- mine operations centre;
- run of mine (ROM) pad facility;
- operations village;
- wastewater treatment plant (WWTP);
- landfill facility; and
- Trigg Backfill and Trigg Waste Rock Dump tyre disposal sites.

Product is transported to Port Hedland in covered quad configuration road trains via the Marble Bar Road. The main emissions relating to the Project is the emission of dust during the crushing and screening process, and treated effluent from the WWTP. Atlas Iron has committed to implementing appropriate dust suppression measures to minimise dust emissions and impacts to the environment.

#### **September 2014 Amendment**

Construction of the WWTP for the Operations Village has been completed. Licence L8733/2013/1 was amended to include the operation of the category 85 WWTP.

A reverse osmosis (RO) plant has been installed at the Operations Village. The RO plant discharges saline water. Whilst the RO plant is below the capacity to require licensing the discharge water is blended with the water held in the final tanks of the WWTP. This water is used for dust suppression or discharged to the irrigation field.



A Heavy Vehicle Wash-down Bay (HVWB) has been constructed. Water from this facility passes through an oily water separator prior to being stored in a turkeys nest dam. A second RO plant has been installed at the Mine Operations Centre. This plant is also under the threshold requiring regulation. Discharge water from this RO plant flows into the HVWB turkeys nest dam and is diluted with groundwater. It is used for dust suppression onsite.

#### **February 2015 amendment**

Construction of the landfill facility, approved under works approval W5743/2014/1, has been completed. The proponent has requested that licence L8733/2013/1 be amended to include the operation of the category 89 putrescible landfill. Atlas has also requested that tyres be disposed of onsite, within the Trigg Backfill and Trigg Waste Rock Dump. Category 89 landfills allow for the disposal of Type II inert wastes, including tyres.

Conditions relating to the burial of tyres within the backfill and rock waste dump have also been applied to the licence at the time of this amendment.

The Licences and Works Approvals issued for the Premises since 9 August 2012 are:

<b>Instrument log</b>		
<b>Instrument</b>	<b>Issued</b>	<b>Description</b>
W5203/2012/1	9 August 2013	Abydos Construction Camp Wastewater Treatment Plant
W5253/2012/1	11 October 2013	Abydos Direct Shipping Ore Project crushing and screening plant and Operations Wastewater Treatment Plant
R2334/2012/1	14 February 2013	Operation of the temporary Abydos Construction Camp Wastewater Treatment Plant approved under works approval W5203/2012/1
L8733/2013/1	25 July 2013	Licence issued for the Abydos DSO Project
W5743/2014/1	18 December 2014	Abydos Direct Shipping Ore category 89 landfill facility
L8733/2013/1	4 December 2014	Licence amendment to include category 85 Wastewater Treatment Plant
L8733/2013/1		Licence amendment to include category 89 and condition relating to the burial of tyres

#### **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:

**'AS/NZS 2031'** means the Australian Standard AS/NZS 2031 *Selection of containers and preservation of water samples for microbiological analysis*;

**'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*;

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

**'ACM'** means asbestos containing material and has the meaning defined in the Guidelines for Assessment, Remediation and Management of Asbestos Contaminated Sites, Western Australia, (DOH, 2009);

**'AHD'** means the Australian height datum;

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

**'annual period'** means the period from 1 March until 28 February (or 29 February in a leap year) in the following year;

**'asbestos'** means the asbestiform variety of mineral silicates belonging to the serpentine or amphibole groups of rock-forming minerals and includes actinolite, amosite, anthophyllite, chrysolite, crocidolite, tremolite and any mixture containing 2 or more of those;

**'asbestos fibres'** has the meaning defined in the Guidelines for Assessment, Remediation and Management of Asbestos Contaminated Sites, Western Australia, (DOH, 2009);

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

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

**'CEO'** for the purpose of correspondence means;

Manager Licensing  
Department of Environment Regulation  
Locked Bag 33  
Cloisters Square  
PERTH WA 6850  
Telephone: (08) 9182 2000  
Facsimile: (08) 9144 1118  
Email: [industry.regulation@der.wa.gov.au](mailto:industry.regulation@der.wa.gov.au);





**'code of practice for the storage and handling of dangerous goods'** means the Storage and handling of dangerous goods, Code of Practice, Department of Mines and Petroleum, Government of Western Australia;

**'Contaminated Solid Waste'** has the meaning defined in Landfill Definitions;

**'controlled waste'** has the definition in Regulation 2 of the *Environmental Protection (Controlled Waste) Regulations 2004*;

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

**'DER Asbestos Guidelines'** means document titled "Guidelines for managing asbestos at construction and demolition waste recycling facilities", published by the Department of Environment and Conservation, as amended from time to time;

**'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 L8733/2013/1 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;

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

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

**'rehabilitation'** means the completion of the engineering of a landfill cell and includes 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; and

**'wastewater treatment vessels'** means any vessel or tank containment infrastructure associated with the treatment of wastewater.



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

**1.2 General conditions**

- 1.2.1 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.<sup>1</sup>
 Note1: The *Environmental Protection (Unauthorised Discharges) Regulations 2004* make it an offence to discharge certain materials into the environment.

**1.3 Premises operation**

- 1.3.1 The Licensee shall record and investigate the exceedence of any descriptive or numerical limit and/or target in this section.
- 1.3.2 The Licensee shall only allow waste to be accepted onto the Premises if:
  - (a) it is of a type listed in Table 1.3.1;
  - (b) the quantity accepted is below any limit listed in Table 1.3.1; and
  - (c) it meets any specification listed in Table 1.3.1.

<b>Table 1.3.1: Waste acceptance</b>		
<b>Waste</b>	<b>Quantity Limit</b>	<b>Specification<sup>1</sup></b>
Sewage	70 m <sup>3</sup> /day	Accepted through sewer inflow(s) only, or through sewage produced on the prescribed premises and with prior written approval from DER.
Inert Waste Type 1	460 tonnes per annual period	None specified
Putrescible Waste		
Inert Waste Type 2 (Tyres)		

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*.





1.3.3 The Licensee shall ensure that where waste does not meet the waste acceptance criteria set out in condition 1.3.1 it is removed from the Premises by the delivery vehicle or, where that is not possible, stored in a quarantined storage area or container and removed to an appropriately authorised facility as soon as practicable.

1.3.4 The Licensee shall ensure that the wastes accepted onto the Premises are only subjected to the process set out in Table 1.3.2 and in accordance with any process requirements described in that table.

<b>Table 1.3.2: Waste processing</b>		
<b>Waste type</b>	<b>Process</b>	<b>Process requirements<sup>1</sup></b>
Sewage	Physical, biological and chemical treatment	Treatment of sewage waste shall be limited at or below the treatment capacity of 70 m <sup>3</sup> /day.
Inert Waste Type 1	Receipt, handling, associated storage 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 Landfill Area Map in Schedule 1.
Putrescible Waste		No waste shall be temporarily stored or landfilled within 35 metres from the boundary of the premises.  The separation distance between the base of the landfill and the highest groundwater level shall not be less than 2 metres.
Inert Waste Type 2 (Tyres)		<u>Tyre disposal</u> Disposal of used tyres shall only take place within the prescribed premises in the location shown in the Tyre Disposal Location Map shown in Schedule 1.  Tyres shall only be disposed of in batches separated from each other by at least 100 mm of soil in batches of not more than 40 m <sup>3</sup> of tyres reduced to pieces or not more than 1000 whole tyres.  All tyre disposal locations are to be marked and recorded.

1.3.5 The Licensee shall manage the landfilling activities to ensure:

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



1.3.6 The Licensee shall ensure that waste material is only stored and/or treated within vessels or compounds provided with the infrastructure detailed in Table 1.3.3.

<b>Table 1.3.3: Containment infrastructure</b>		
<b>Vessel or compound</b>	<b>Material</b>	<b>Requirements</b>
Wastewater Treatment Plant Tanks and Pipelines	Sewage and discharged reverse osmosis water	Impermeable receptacle or storage chamber
Turkeys Nest Dam	Treated wastewater from Heavy Vehicle Wash Bay and discharged reverse osmosis water	Lined with a HDPE liner.

1.3.7 The Licensee shall manage the irrigation of treated wastewater such that:

- (a) no irrigation generated run-off, spray drift or discharge occurs beyond the boundary of the defined irrigation area(s);
- (b) treated wastewater is evenly distributed over the irrigation area;
- (c) no soil erosion occurs;
- (d) irrigation does not occur on land that is waterlogged; and
- (e) vegetation cover is maintained over the irrigation areas identified in Table 2.5.1.

1.3.8 The Licensee shall manage the wastewater treatment vessels such that:

- (a) overtopping of the vessels does not occur;
- (b) stormwater runoff is prevented from entering the vessels;
- (c) there is no discernible seepage loss from the vessels; and
- (d) vegetation and floating debris (emergent or otherwise) is prevented from growing or accumulating in the vessels.

1.3.9 The Licensee shall ensure that the Wastewater Treatment Plant and Irrigation Area contain signage to prevent unauthorised access.

1.3.10 The Licensee shall ensure that cover is applied and maintained on landfilled wastes in accordance with Table 1.3.4 and that sufficient stockpiles of cover are maintained on site at all times.

<b>Table 1.3.4: Cover requirements <sup>1</sup></b>			
<b>Waste Type</b>	<b>Material</b>	<b>Depth</b>	<b>Timescales</b>
Inert Waste Type 1	Inert and incombustible material	Sufficient to ensure that waste is completely covered and that no waste is exposed	Monthly or as soon as practicable after deposit and prior to compaction
Putrescible Waste			
Inert Waste Type 2 (Tyres)		Final soil cover of not less than 500mm	

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

1.3.11 The Licensee shall implement the following security measures at the site:

- (a) erect and maintain suitable fencing to prevent unauthorised access to the site;
- (b) ensure that any entrance gates to the premises are securely locked when the premises are unattended; and
- (c) undertake regular inspections of all security measures and repair damage as soon as practicable.

1.3.12 The Licensee shall take all reasonable and practical measures to ensure that no wind-blown waste escapes from the Premises and that wind-blown waste is collected on at least a monthly basis and returned to the tipping area.



## 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 shall ensure that where waste is emitted to land from the emission points in Table 2.5.1 and identified in emission point maps in Schedule 1 it is done so in accordance with the conditions of this Licence.

Emission point	Emission point reference on Map of emission points	Description	Source including abatement
L1	WWTP irrigation area discharge pipe	Discharge to irrigation area from Wastewater Treatment Plant final storage tanks	Treated Wastewater Treatment Plant effluent and reverse osmosis plant reject water

2.5.2 The Licensee shall not cause or allow emissions to land greater than the limits listed in Table 2.5.2.

Emission point reference	Parameter	Limit (including units)	Averaging period
L1 WWTP discharge to irrigation field	Load of Total Nitrogen	480 kg/ha/year	Annual
	Total Load of Total Phosphorus	120 kg/ha/year	Annual
	Volume	70m <sup>3</sup> per day	Annual

2.5.3 The Licensee shall target emissions to land to meet the levels specified in Table 2.5.3.

Emission point reference	Parameter	Target (including units)	Averaging period
L1 WWTP discharge to irrigation field	pH <sup>1</sup>	6.5-8.5 pH units	Spot sample
	5-Day Biochemical Oxygen Demand	<20 mg/L	
	Total Suspended Solids	<30 mg/L	
	Total Nitrogen	<30 mg/L	
	Total Phosphorus	<8 mg/L	
	<i>E.coli</i>	<10 <sup>6</sup> cfu/100 ml	
	Electrical Conductivity	<1800 µS/cm	

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

### 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.



**2.7 Odour**

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

**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 microbiological samples are collected and preserved in accordance with AS/NZS 2031; and
- (d) all laboratory samples are submitted to and tested by a laboratory with current NATA accreditation for the parameters being measured (unless otherwise indicated in the appropriate table).

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

3.1.3 The Licensee shall ensure that all monitoring equipment used on the premises to comply with the conditions of this licence are calibrated in accordance with the manufacturer's specification.

**3.2 Monitoring of point source emissions to air**

There are no specified conditions relating to monitoring of point source emissions to air in this section.

**3.3 Monitoring of point source emissions to surface water**

There are no specified conditions relating to monitoring of point source emissions to air in this section.

**3.4 Monitoring of point source emissions to groundwater**

There are no specified conditions relating to monitoring of point source emissions to air in this section.

**3.5 Monitoring of emissions to land**

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

<b>Table 3.5.1: Monitoring of emissions to land</b>					
<b>Emission point reference</b>	<b>Monitoring point reference</b>	<b>Parameter</b>	<b>Units</b>	<b>Averaging Period</b>	<b>Frequency</b>
L1	Sampling point on recirculation line to final holding tanks.	pH <sup>1</sup>	-	Spot Samples	Quarterly
		Biochemical Oxygen Demand	mg/L		
		Total Suspended Solids	mg/L		
		Total Nitrogen	mg/L		
		Total Phosphorus	mg/L		
		<i>E. coli</i>	cfu/100 mL		
		Electrical Conductivity	µS/cm		
	Volumetric flow rate (cumulative)	m <sup>3</sup> /day	Monthly	Continuous	

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



### 3.6 Monitoring of inputs and outputs

3.6.1 The Licensee shall undertake the monitoring in Table 3.6.1 according to the specifications in that table.

<b>Input/Output</b>	<b>Parameter</b>	<b>Units</b>	<b>Averaging period</b>	<b>Frequency</b>
Waste Inputs	Inert Waste Type 1, Inert Waste Type 2 (Tyres), Putrescible Waste	tonnes or m <sup>3</sup> (where no weighbridge is present)	N/A	Each load arriving at the Premises
Waste Outputs	Waste type as defined in the Landfill Definitions			Each load leaving or rejected from the Premises

### 3.7 Process monitoring

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

### 3.8 Ambient environmental quality monitoring

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

## 4 Improvements

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

## 5 Information

### 5.1 Records

5.1.1 All information and records required by the Licence shall:

- (a) be legible;
- (b) if amended, be amended in such a way that the original and subsequent amendments remain legible or are capable of retrieval;
- (c) except for records listed in 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 and 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 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 28 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.

<b>Table 5.2.1: Annual Environmental Report</b>		
<b>Condition or table (if relevant)</b>	<b>Parameter</b>	<b>Format or form<sup>1</sup></b>
-	Summary of any failure or malfunction of any pollution control equipment or any incidents that have occurred during the year and any action taken	None specified
Table 1.3.1	Summary of any treatment capacity target exceedances and any action taken.	None specified
Table 3.5.1	pH, 5 Day Biochemical Oxygen Demand, Total Suspended Solids, Electrical Conductivity, Total Nitrogen, Total Phosphorus, <i>E.Coli</i> and Volumetric flow rate and cumulative volumes discharged to irrigation area and use for dust suppression	None Specified
Table 3.6.1	Summary of waste inputs and waste outputs	None specified
5.1.3	Compliance	AACR
5.1.4	Complaints summary	None specified
-	Measures taken to suppress dust	

Note 1: Forms are in Schedule 2

## 5.3 Notification

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

<b>Table 5.3.1: Notification requirements</b>			
<b>Condition or table (if relevant)</b>	<b>Parameter</b>	<b>Notification requirement<sup>1</sup></b>	<b>Format or form<sup>2</sup></b>
-	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.  Part B: As soon as practicable	N1 or ET1 (as appropriate)
2.1.1	Breach of any limit specified in the Licence		

Note 1: No notification requirement in the Licence shall not negate the requirement to comply with s72 of the Act.

Note 2: Forms are in Schedule 2.

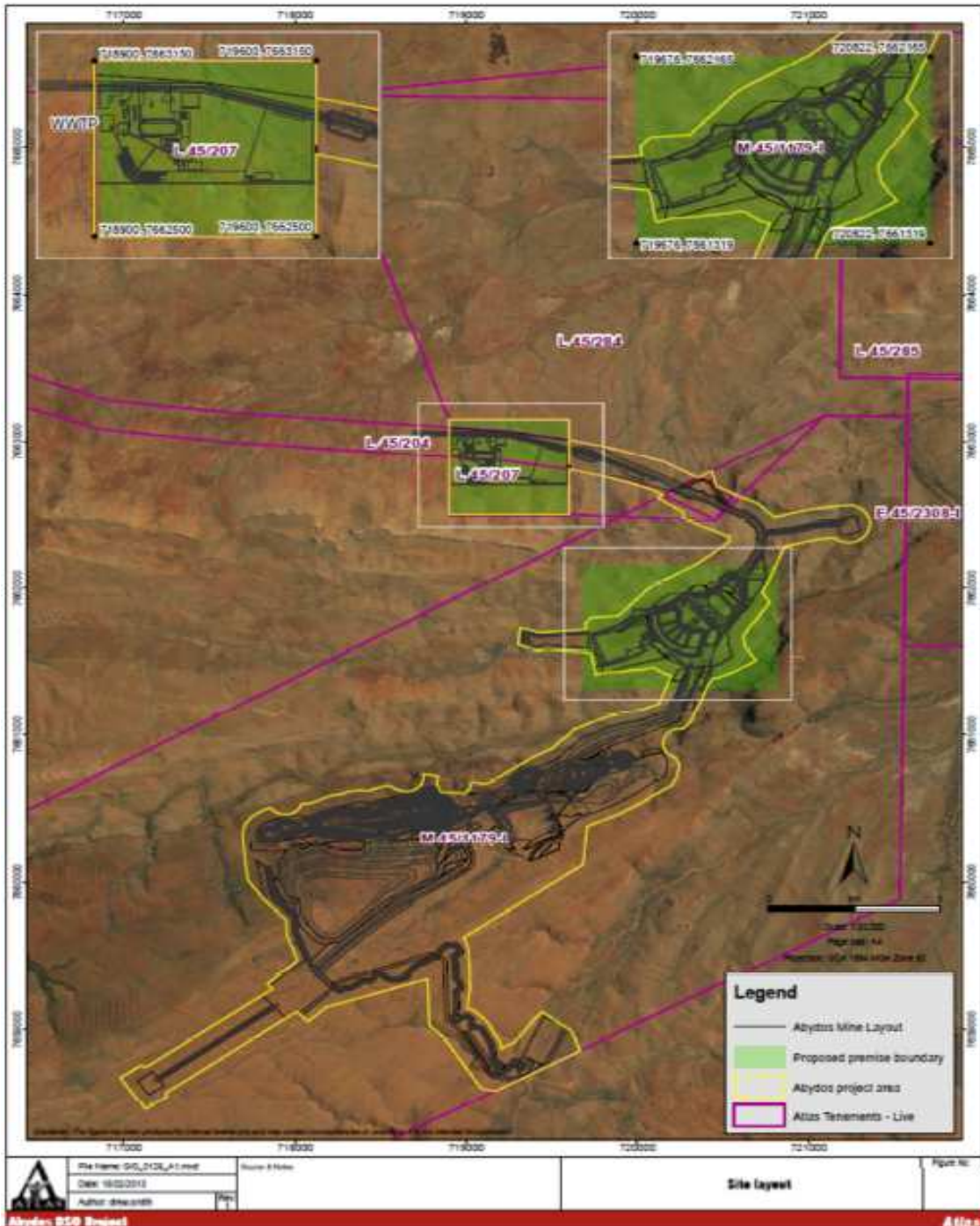




# Schedule 1: Maps

## PREMISES MAP

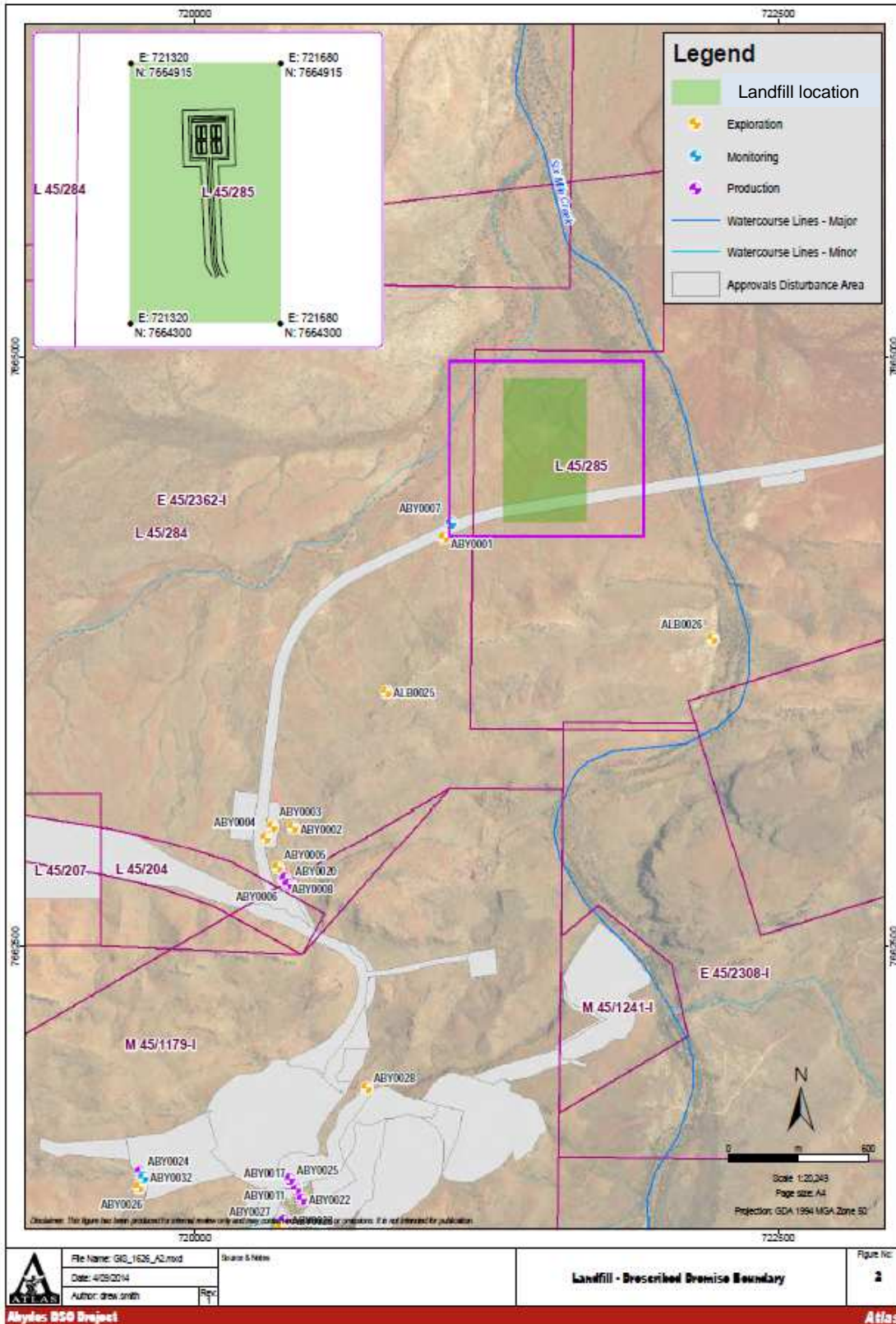
The Premises is shown in the map below. The yellow line depicts the Premises boundary.





**LANDFILL LOCATION MAP**

Map depicting the location of the landfill facility

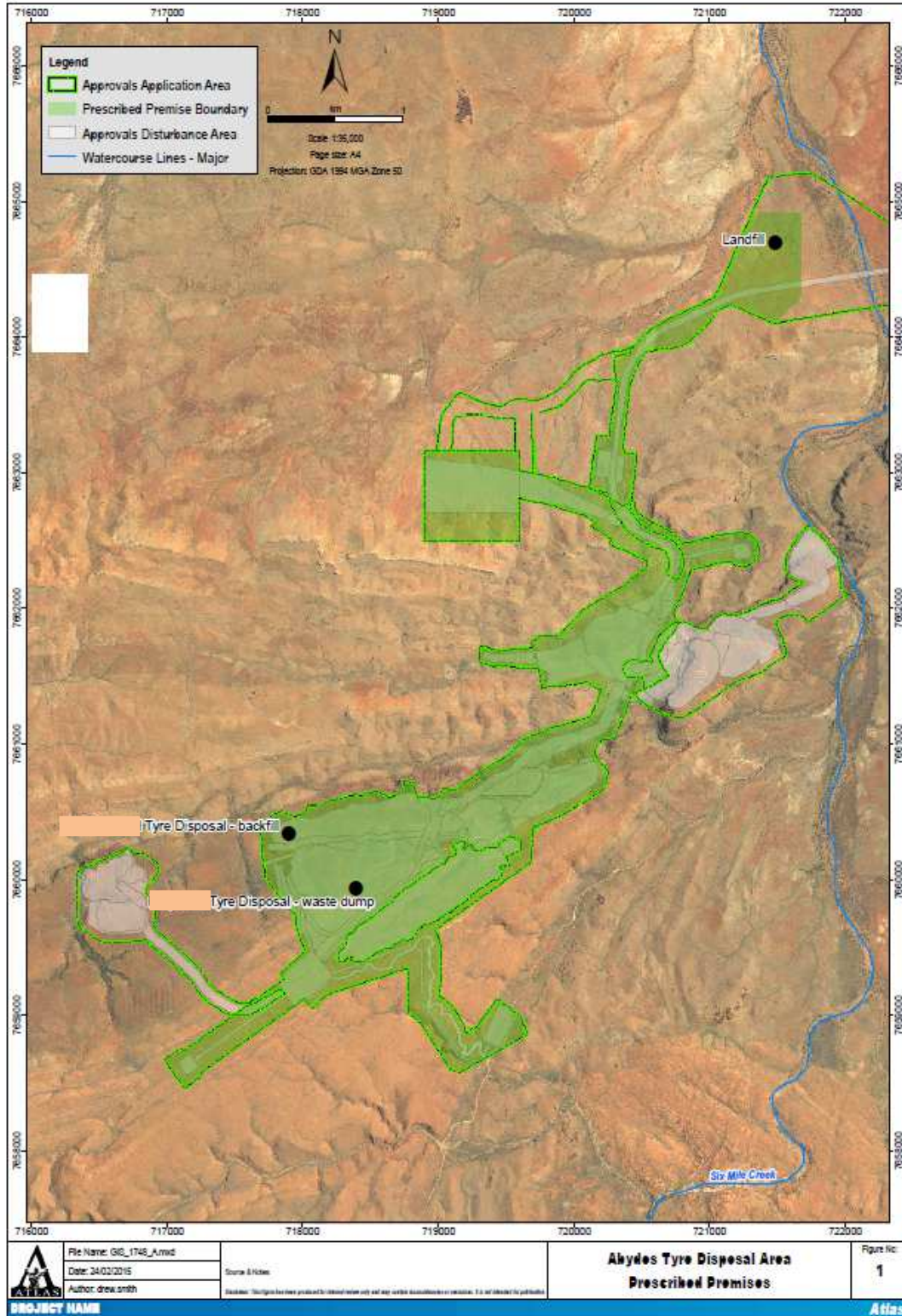






### TYRE DISPOSAL LOCATION

Map depicting tyre disposal location

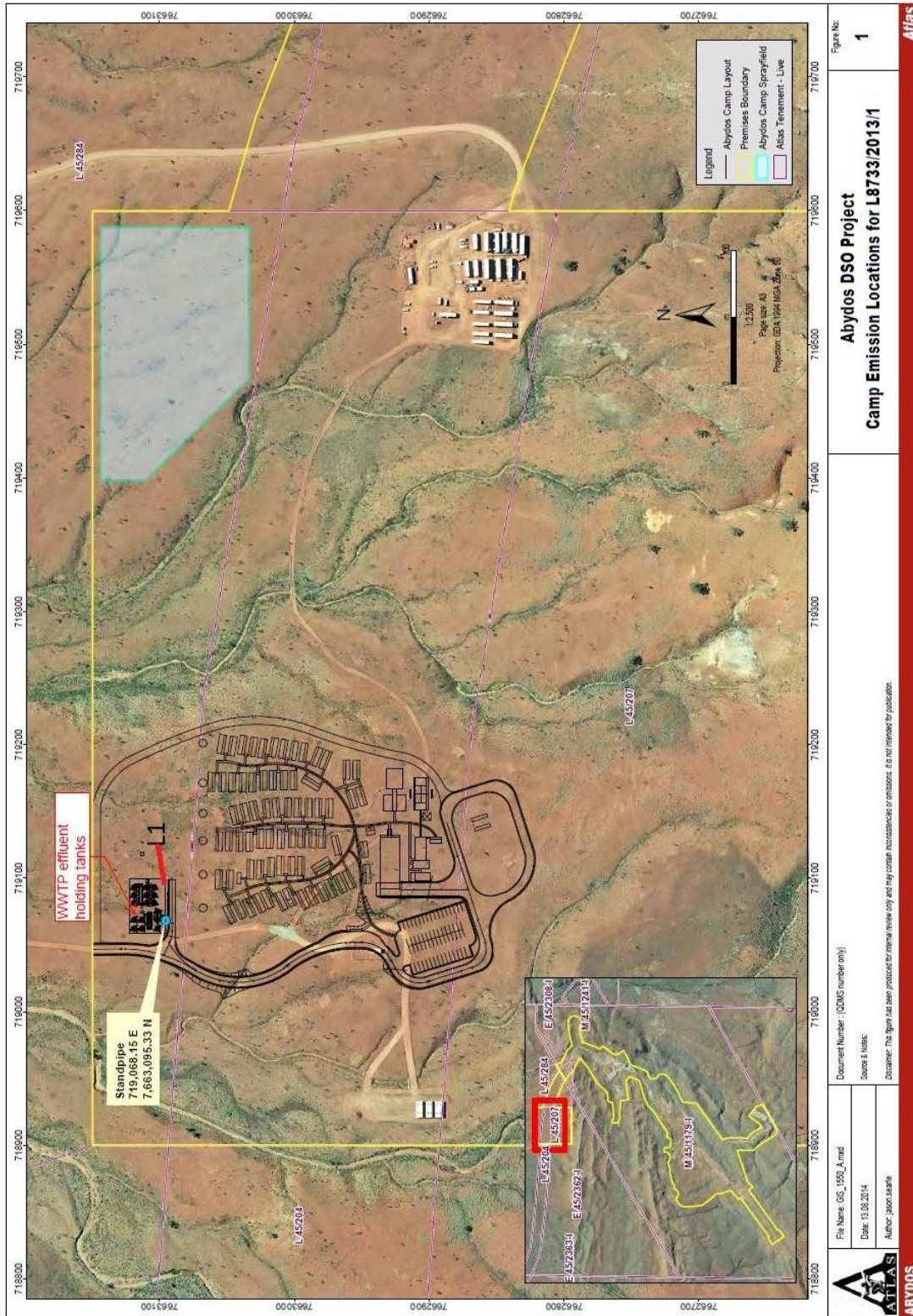






**EMISSION POINTS MAPS**

Map depicting location of Wastewater Treatment Plant Discharge Point





## 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:	ABN:
Trading as:	
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?:	
<input type="checkbox"/> Yes	<input type="checkbox"/> Reported to DER verbally Date _____
	<input type="checkbox"/> Reported to DER in writing Date _____
<input type="checkbox"/> 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) must 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	<input type="checkbox"/> <input type="checkbox"/>	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	<input type="checkbox"/> <input type="checkbox"/>	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	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	by affixing the common seal of the licensee in accordance with the <i>Corporations Act 2001</i> ; or by two directors of the licensee; or by a director and a company secretary of the licensee, or (a) _____ if the licensee is a proprietary company that has a sole director who is also the sole company secretary – by that director, or (b) _____ 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)	<input type="checkbox"/> <input type="checkbox"/>	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	<input type="checkbox"/> <input type="checkbox"/>	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: \_\_\_\_\_

SIGNATURE: \_\_\_\_\_

NAME:  
(printed) \_\_\_\_\_

NAME:  
(printed) \_\_\_\_\_

POSITION: \_\_\_\_\_

POSITION: \_\_\_\_\_

DATE: \_\_\_\_/\_\_\_\_/\_\_\_\_

DATE: \_\_\_\_/\_\_\_\_/\_\_\_\_

SEAL (if signing under seal)



Licence: L8733/2013/1  
Form: ET1  
Name: Target exceedances

Licensee: Atlas Iron Limited  
Period:

**Form ET1: Target exceedances**

Please provide an analysis of the target exceedances for the quarter, including but not limited to:

- (a) the emission point
- (b) the root cause analysis for the exceedances;
- (c) any common or contributory factors including but not limited to fuel, mass emissions, gas flow rates, inlet & exit temperature, abatement status;
- (d) a description of remedial measures taken or planned to be taken, including those taken to prevent recurrence of the exceedances;
- (e) complaints received that may have been caused by this exceedance; and
- (f) for those exceedances that may have caused complaints, meteorological details: temperature, wind speed and wind direction, humidity.

Signed on behalf of Atlas Iron Limited: .....

Date: .....



Licence: L8733/2013/1  
 Form: N1

Licensee: Atlas Iron Limited  
 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	

<b>Notification requirements for the breach of a limit</b>	
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	

<b>Notification requirements for any failure or malfunction of any pollution control equipment or any incident which has caused, is causing or may cause pollution</b>	
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 any previous N1 notifications for the Premises in the preceding 24 months.	

Name	
Post	
Signature on behalf of Atlas Iron Limited	
Date	



# Partial Decision Document

## *Environmental Protection Act 1986, Part V*

---

**Proponent:** Atlas Iron Limited

**Licence:** L8733/2013/1

---

**Registered office:** Level 18  
300 Murray Street  
PERTH WA 6000

**ACN:** 110 396 168

**Premises address:** Abydos Direct Shipping Ore Project  
M45/1179, L45/204 and L45/207  
MARBLE BAR WA 6760

**Issue date:** Thursday, 25 July 2013

**Commencement date:** Monday, 29 July 2013

**Expiry date:** Saturday, 28 July 2018

### Decision

Based on the assessment detailed in this document the Department of Environment Regulation (DER), has decided to issue an amended licence. DER considers that in reaching this decision, it has taken into account all relevant considerations.

Decision Document prepared by: Haley Brunel  
Licensing Officer

Decision Document authorised by: Alana Kidd  
Manager Licensing



## Contents

Partial Decision Document	1
Contents	2
1 Purpose of this Document	2
2 Administrative summary	3
3 Executive summary of proposal and assessment	4
4 Decision table	5
5 Advertisement and consultation table	8
6 Risk Assessment	9

## 1 Purpose of this Document

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

### Works approval and licence conditions

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

#### Standard conditions (SC)

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

Works approval conditions: 1.1.1-1.1.4, 1.2.1, 1.2.2, 5.1.1 and 5.1.2.

Licence conditions: 1.1.1-1.1.4, 1.2.1-1.2.4, 5.1.1-5.1.4 and 5.2.1.

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

#### Optional standard conditions (OSC)

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

#### Non standard conditions (NSC)

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





## 2 Administrative summary

Administrative details		
Application type	Works Approval <input type="checkbox"/>	
	New Licence <input type="checkbox"/>	
	Licence amendment <input checked="" type="checkbox"/>	
	Works Approval amendment <input type="checkbox"/>	
Activities that cause the premises to become prescribed premises	<b>Category number(s)</b>	<b>Assessed design capacity</b>
	5	3.5 million tonnes per annual period
	85	70 m <sup>3</sup> per day
	89	460 tonnes per annual period
Application verified	Date: 25/02/2013	
Application fee paid	Date: 28/03/2013	
Works Approval has been complied with	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>	
Compliance Certificate received	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>	
Commercial-in-confidence claim	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Commercial-in-confidence claim outcome		
Is the proposal a Major Resource Project?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Was the proposal referred to the Environmental Protection Authority (EPA) under Part IV of the <i>Environmental Protection Act 1986</i> ?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Referral decision No: Managed under Part V <input type="checkbox"/> Assessed under Part IV <input type="checkbox"/>
Is the proposal subject to Ministerial Conditions?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Ministerial statement No: EPA Report No:
Does the proposal involve a discharge of waste into a designated area (as defined in section 57 of the <i>Environmental Protection Act 1986</i> )?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Department of Water consulted Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Is the Premises within an Environmental Protection Policy (EPP) Area	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
If Yes include details of which EPP(s) here.		
Is the Premises subject to any EPP requirements?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
If Yes, include details here, eg Site is subject to SO <sub>2</sub> requirements of Kwinana EPP.		



### 3 Executive summary of proposal and assessment

Atlas Iron Limited (Atlas Iron) operates the Abydos Direct Shipping Ore (DSO) Project (the Project) which is located approximately 100 kilometres (km) south east of Port Hedland and 85 km west of Marble Bar in the Shire of East Pilbara.

The land surrounding the Project area is predominantly used for mineral resource prospecting, exploration and mining. Pastoral grazing is carried out on a small scale in the area. Lalla Rookh homestead is the closest residential property to the Project, located approximately 25 km north of the site, although it is thought to be abandoned.

The Project area is characterised by undulating granite and basalt plains, and a semi-desert tropical climate. The surrounding landscape comprises steep sided ridges and hills, while well-developed drainage lines dissect the ridges to form gullies and small gorges. Soil textures are relatively uniform, with the majority of soils characterised as loam and sandy loam.

The Project is located within the Pilbara Groundwater Management Area and the Pilbara Groundwater Province. It is not located within a public drinking water source area.

The Project comprises of an open pit mine from which ore is extracted using conventional drill and blast, load and haul methods at a rate of approximately 3.5 million tonnes per annum (Mtpa) over a mine life of six years. The Project includes:

- Two pits;
- Two waste rock dumps;
- Contractors area;
- Mine operations centre;
- Run of mine (ROM) pad facility;
- Accommodation village;
- Wastewater treatment plant;
- Landfill facility; and
- Tyre disposal the Trigg Backfill and Trigg Waste Rock Dump.

Atlas Iron received approval to construct the crushing and screening plant under Works Approval W5234/2012/1, which also approved the construction of the Abydos Operations Village Wastewater Treatment Plant (WWTP). The Works Approval was issued 11 October 2012 and compliance documentation for the construction of the crushing and screening plant was submitted to DER. Licence L8733/2013/1 was issued for the crushing and screening plant in 2013.

#### **February 2015 Amendment**

The category 89 landfill facility has been constructed. This licence amendment is to include the facility on the licence for operation. Atlas is also proposing to dispose of tyres via burial at two separate locations, being the Trigg Backfill and Trigg Waste Rock Dump. Appropriate conditions relating to the operation of a category 89 landfill, including the disposal of tyres, have been added to the amended licence.

DER has not re-assessed the acceptability or impacts of emissions and discharges from the Premises or re-visited any existing control levels. Where conditions have been added/amended on the existing licence these have been justified in Section 4.



## 4 Decision table

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

DECISION TABLE				
Works Approval / Licence section	Condition number W = Works Approval L = Licence	OSC or NSC	Justification (including risk description & decision methodology where relevant)	Reference documents
General conditions	L1.2.5	NSC	<p><b>Operation</b></p> <p><u>Emission Description</u>  <i>Emission:</i> Stormwater contaminated with leachate from landfilling operations.  <i>Impact:</i> Contamination of surrounding land and surface water drainage systems. Potential impacts on ecology of surface water from the addition of nutrients and heavy metals.  <i>Controls:</i> The proponent has constructed stormwater diversion structures to divert stormwater runoff from the landfill.</p> <p><u>Risk Assessment</u>  <i>Consequence:</i> Minor  <i>Likelihood:</i> Possible  <i>Risk Rating:</i> Moderate</p> <p><u>Regulatory Controls</u>            OSC 1.2.5 is an existing condition on this Licence and requires the Licensee to implement all practical measures to prevent stormwater run-off becoming contaminated by the activities on the Premises. This condition also requires the proponent to treat contaminated or potentially contaminated stormwater as necessary prior to being discharged from the Premises. This condition is applicable to the operation of the landfill.</p>	<p>Application supporting documentation</p> <p><i>Environmental Protection (Rural Landfill) Regulations 2002</i></p> <p><i>Environmental Protection (Unauthorised Discharges) Regulations 2004</i></p>



DECISION TABLE				
Works Approval / Licence section	Condition number W = Works Approval L = Licence	OSC or NSC	Justification (including risk description & decision methodology where relevant)	Reference documents
			<u>Residual Risk</u> <i>Consequence</i> : Minor <i>Likelihood</i> : Rare <i>Risk Rating</i> : Low	
<b>Premises operation</b>	L1.3.1-L1.3.5  L1.3.10-L1.3.12	OSC	<p>OSC 1.3.1-1.3.4 has been amended in the licence to include details of waste acceptance and processing requirements for the landfill and tyre disposal site. This has included limiting acceptance of waste in accordance with the Landfill Waste Classification and Waste Definitions 1996 (as amended) and the volume of waste which can be accepted. Requirements for the disposal of tyres have also been included, ensuring compliance with the <i>Environmental Protection Regulations 1987</i> is achieved.</p> <p>OSC 1.3.5 has been included to ensure that waste is levelled and compacted as soon as practicable to facilitate successful rehabilitation within 6 months of completion of a cell.</p> <p>Landfill cover, security measures and litter collection requirements have been applied to the Licence through OSC 1.3.10-1.3.12.</p>	<p>Landfill Waste Classification and Waste Definitions 1996 (as amended)</p> <p><i>Environmental Protection Regulations 1987</i></p> <p><i>Environmental Protection (Rural Landfill) Regulations 2002</i></p>
<b>Odour</b>	N/A	N/A	<u>Emission Description</u> <i>Emission</i> : Odour emissions <i>Impact</i> : Odour has the potential to impact on the amenity of sensitive receptors <i>Controls</i> : Odour will be controlled by the regular covering of the tip face. The closest residence is located approximately 55 km from the site, therefore any odour generated is unlikely to impact on any human habitation.	Application supporting documentation
			<u>Risk Assessment</u> <i>Consequence</i> : Insignificant	



<b>DECISION TABLE</b>				
<b>Works Approval / Licence section</b>	<b>Condition number W = Works Approval L= Licence</b>	<b>OSC or NSC</b>	<b>Justification (including risk description &amp; decision methodology where relevant)</b>	<b>Reference documents</b>
			<i>Likelihood: Rare Risk Rating: Low</i>  <u>Regulatory Controls</u> Due to the low risk rating, no regulatory controls have been imposed.	
<b>Monitoring of inputs and outputs</b>	L3.6.1	OSC	To ensure that waste volumes entering the premises and any waste rejected from the premise are known OSC L3.6.1 has been added to the licence. This will ensure the landfill is operating in accordance with its design capacity.	Application supporting documentation
<b>Information</b>	L5.1.5	NSC	NSC 5.1.5 has been included to ensure that compliance with the Class II landfill acceptance criteria is achieved.	



## 5 Advertisement and consultation table

Date	Event	Comments received/Notes	How comments were taken into consideration
16/02/2015	Proponent sent a copy of draft instrument	Request to include additional tyre disposal location and update Table 1.3.1 to correct the landfill design capacity	Tyre disposal location map was updated to include additional disposal location and Table 1.3.1 was updated
5/3/2015	Amended licence issued advertised	-	-



## 6 Risk Assessment

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

**Table 1: Emissions Risk Matrix**

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