



Licence number	L8232/2008/2
Licence holder	Pilbara Iron Company (Services) Pty Ltd
ACN (if applicable)	107 210 248
Registered business address	Level 22, Central Park 152-158 St Georges Terrace PERTH WA 6000
DWER file number	DER2013/001103
Duration	31/07/2013 to 30/07/2029
Date of issue	18/07/2013
Date of amendment	16/12/2021
Premises details	Brockman Syncline 4 Mine ML4SA and G47/1232 ROCKLEA WA 6751

Prescribed premises category description (Schedule 1, <i>Environmental Protection Regulations 1987</i>)	Assessed production / design capacity
Category 5: Processing or beneficiation of metallic or non-metallic ore	44,000,000 tonnes per year
Category 6: Mine dewatering	6,400,000 tonnes per annual period
Category 12: Screening, etc. of material	10,000,000 tonnes per annual period
Category 54: Sewage facility	983 cubic metres per day
Category 64: Class II putrescible landfill site	3,375 tonnes per annual period
Category 73: Bulk storage of chemicals, etc	2,205 cubic metres in aggregate

This amended licence is granted to the licence holder, subject to the attached conditions, on 16 December 2021, by:

ALANA KIDD

MANAGER, RESOURCE INDUSTRIES

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

[L8232/2008/2 \(amended 16/12/2021\)](#)

Licence history

Date	Reference number	Summary of changes
31/07/2008	L8232/2008/1	Licence issued.
15/07/2010	L8232/2008/1	<p>Licence amended:</p> <ul style="list-style-type: none"> Inclusion of Category 5 (Processing or beneficiation of metallic or non-metallic ore) associated with W4471/2008/1 issued in November 2008 and Category 85 under Registration R2017/2008/1; and As this was a nil condition licence conditions and requirements were applied to this licence during the amendment stage.
07/07/2011	L8232/2008/1	<p>Licence amended:</p> <ul style="list-style-type: none"> Inclusion of category 89 landfill site; and Modifications to ancillary infrastructure.
20/09/2012	L8232/2008/1	<p>Licence amended:</p> <ul style="list-style-type: none"> Deletion of category 85, since the combined capacity of the two wastewater treatment plants onsite is 458 cubic metres per day and can be covered under category 54; Inclusion of liquid chemical storage conditions; Alignment of Annual Environmental Report and Annual Audit Compliance Report reporting dates; and The Environmental Assessment Report has been updated to include the phase 2 ore processing facility and landfill trench dimensions have been updated.
18/07/2013	L8232/2008/2	Licence reissued.
07/11/2013	L8232/2008/2	<p>Licence amended:</p> <ul style="list-style-type: none"> Inclusion of the Camp WWTP2, which was constructed under W5283/2012/1. Compliance and commissioning documentation were received on the 3 October 2013.
18/07/2018	L8232/2008/2	<p>Licence amended:</p> <ul style="list-style-type: none"> Inclusion of Category 6 (design capacity 6,400,000 tpa) and Licence conditions; Inclusion of Category 12 (design capacity 10,000,000 tpa) and Licence conditions; Inclusion of the waste dump landfill, Licence

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		<p>conditions and Category 64 (design capacity of 3,375 tpa). Category 64 replaced Category 89;</p> <ul style="list-style-type: none"> • Removal of previous conditions 1, 2, 3, 6 - 11, 13 and 14; • New Premises maps; and • Administrative changes.
16/12/2021	L8232/2008/2	<p>Licence amended:</p> <ul style="list-style-type: none"> • Replacement of the existing Brockman Syncline 4 (BS4) Mine WWTP with a 60 m³/day WWTP; • Construction of a new 1.3 ha irrigation area adjacent to an existing 0.7 ha irrigation area; and • Modifications to the formatting and updating conditions.

Interpretation

In this licence:

- (a) the words 'including', 'includes' and 'include' in conditions mean "including but not limited to", and similar, as appropriate;
- (b) where any word or phrase is given a defined meaning, any other part of speech or other grammatical form of that word or phrase has a corresponding meaning;
- (c) where tables are used in a condition, each row in a table constitutes a separate condition;
- (d) any reference to an Australian or other standard, guideline, or code of practice in this licence:
 - (i) if dated, refers to that particular version; and
 - (ii) if not dated, refers to the latest version and therefore may be subject to change over time;
- (e) unless specified otherwise, any reference to a section of an Act refers to that section of the EP Act; and
- (f) unless specified otherwise, all definitions are in accordance with the EP Act.

NOTE: This licence requires specific conditions to be met but does not provide any implied authorisation for other emissions, discharges, or activities not specified in this licence.

Licence conditions

The licence holder must ensure that the following conditions are complied with:

Infrastructure and equipment

Construction – infrastructure and equipment

1. The licence holder must construct and/or install the infrastructure listed in Table 1 in accordance with
 - (a) the corresponding design and construction / installation requirements;
 - (b) at the corresponding infrastructure location; and
 - (c) within the corresponding timeframe,
 as set out in Table 1.

Table 1: Design and construction / installation requirements

Infrastructure	Design and construction / installation requirements	Infrastructure location
Brockman Syncline 4 Mine WWTP	<ul style="list-style-type: none"> 60 m³/day; Designed to meet the following treated effluent quality: <ul style="list-style-type: none"> pH 6.5 – 8.5 pH units; E.coli < 10 cfu/100 mL; BOD < 20 mg/L; TSS < 30 mg/L; TN < 10 mg/L; TP < 2 mg/L; and Residual chlorine > 0.5 mg/L; Any local spillage resulting from pump maintenance work or leaks shall drain into a containment storage; Spill response equipment provided; An alarm containing a red flashing light. Sounding of the alarm and lighting up of the red warning light indicates malfunctioning of the air system or indicates a high-water level in the pump out chamber; Tank levels, alarm shall have the ability to be monitored remotely 24hrs a day 7 days a week; Two full days emergency storage built into the capacity of the facility storage tanks; The concrete tanks are buried below ground level approximately 2.5 m, leaving approximately 1.0 m above ground level then surrounded by 100 mm thick crush rock and earth bund; and The facility will be surrounded by a cyclone fence. 	Refer to Schedule 1: Maps, Figure 2
Brockman Syncline 4 Mine WWTP Irrigation Area	<ul style="list-style-type: none"> 1.3 ha new irrigation area (total irrigation area of 2 ha when combined with the existing 0.7 ha irrigation area); Irrigation spray field to be at least 100 m from 	Refer to Schedule 1: Maps, Figure 2

Infrastructure	Design and construction / installation requirements	Infrastructure location
	nearest major drainage channel; <ul style="list-style-type: none"> Spray field sized accordingly to prevent excessive pooling of material; Sprinklers will be evenly spaced and allow for 360° rotation to ensure adequate distribution and maximum spread over the area to avoid soil saturation and pooling; Irrigation area is fenced with appropriate signage; and Restricted access to irrigation area. 	

2. The licence holder must within 30 days of each item of infrastructure required by condition 1 being constructed:
 - (a) undertake an audit of their compliance with the requirements of condition 1; and
 - (b) prepare and submit to the CEO an audit report on that compliance.
3. The report required by condition 2, must:
 - (a) be certified by a suitably qualified professional engineer that each item of infrastructure listed in Table 1 meets the corresponding specifications and at the locations set out in Table 1 and has been constructed with no material defects;
 - (b) contain constructed plans for the works; and
 - (c) be signed by a person authorised to represent the licence holder and contains the printed name and position of that person within the company.
4. The licence holder may only commence environmental commissioning of an item of infrastructure listed in condition 1, Table 1 once the Environmental Compliance Report has been submitted for that item of infrastructure in accordance with condition 3.
5. Any environmental commissioning activities undertaken for an item of infrastructure specified in Table 2 may only be carried out:
 - (d) In accordance with the corresponding commissioning requirements; and
 - (e) For the corresponding authorised commissioning duration.

Table 2: Environmental commissioning requirements

Infrastructure	Commissioning requirements	Authorised commissioning duration
Brockman Syncline 4 Mine WWTP	Design effluent quality criteria targeted at: <ul style="list-style-type: none"> pH 6.5 – 8.5 pH units; E.coli < 10 cfu/100 mL; BOD < 20 mg/L; TSS < 30 mg/L; TN < 10 mg/L; TP < 2 mg/L; and Residual chlorine > 0.5 mg/L. 	Six months
Brockman Syncline 4 Mine	Monthly inspection logs of the	Six months

Infrastructure	Commissioning requirements	Authorised commissioning duration
WWTP Irrigation Area	following: <ul style="list-style-type: none"> • Integrity of all water lines, tanks and bunds; • All piping and fittings to the irrigation spray field are free of damages and leaks; • Observe the sprinklers in the irrigation field have even coverage and are operating as designed; and • Effluent discharge managed to ensure no ponding or runoff. 	

6. The licence holder must monitor emissions during environmental commissioning in accordance with Table 3.

Table 3: Emissions and discharges monitoring during environmental commissioning

Discharge point	Monitoring location	Parameter	Frequency	Averaging Period	Unit	Method
Brockman Syncline 4 Mine WWTP	Final irrigation storage tank	Volumetric flow rate	Continuous	Monthly	m ³	AS/NZS 5667.6
		pH ¹	Fortnightly	Spot sample	pH units	
		<i>E.coli</i>			cfu/100mL	
		Biochemical Oxygen Demand			mg/L	
		Total Suspended Solids				
		Residual Chlorine ¹				
		Total Nitrogen				
		Total Phosphorus				

7. The licence holder must record the results of all monitoring activity required by condition 10.
8. The licence holder must submit to the CEO an Environmental Commissioning Report within 30 calendar days of the completion date of environmental commissioning for each item of infrastructure specified in Table 2.
9. The licence holder must ensure the Environmental Commissioning Report required by condition 8 of this licence includes the following:
- (a) A summary of the environmental commissioning activities undertaken, including timeframes and amount of influent treated and effluent discharged to the Brockman Syncline 4 Mine WWTP Irrigation Area;

- (b) The point-source emissions monitoring results recorded in accordance with condition 6, Table 3;
- (c) A summary of the environmental performance of each item of infrastructure or equipment as constructed or installed (as applicable), which at minimum includes records detailing the:
 - (i) Environmental commissioning of the Brockman Syncline 4 Mine WWTP;
 - (ii) Testing the Brockman Syncline 4 Mine WWTP.
- (d) A review of the licence holder's performance and compliance against the conditions of this licence; and
- (e) Where they have not been met, measures proposed to meet the manufacturer's design specifications and the conditions of this licence, together with timeframes for implementing the proposed measures.

Crushing and screening

- 10. The licence holder shall only operate the Mobile Crushing and Screening Plant(s) in accordance with the Iron Ore (WA) Mobile Crushing and Screening Management Plan (RTIO-HSE-0235877).

Discharge to land

- 11. The licence holder shall ensure that all effluent discharged consists only of treated sewage and is discharged to the irrigation sprayfield areas depicted in Attachment 2.
- 12. The licence holder shall ensure that all dewatering discharge flows through the gabion outlet at Boolgeeda Creek dewatering discharge point.

Stormwater management

- 13. The licence holder shall install and maintain mechanisms to ensure that stormwater from the following areas, is diverted to facilities for treatment prior to disposal, reuse or discharge:
 - (a) Process plants;
 - (b) Washdown bays;
 - (c) Refuelling areas; and
 - (d) Mechanical workshops.

Waste management from ancillary operations

- 14. The licence holder shall as soon as practicable recover, or remove and dispose of, any liquid resulting from spills or leaks of chemicals including fuel, oil or other hydrocarbons, from inside or outside the low permeability compound(s).
- 15. The licence holder shall utilise and maintain protective bunding, skimmers, silt traps, neutralisation pits, fuel and oil traps, drains and sealed collection sumps around the process plant and maintenance workshop areas to enable recovery of spillages and protection of surrounding soils and groundwater.
- 16. The licence holder shall utilise measures or agents such as quick break detergents, to prevent oil-water emulsions from passing through the separator systems.

Management of putrescible landfill

- 17. The licence holder shall accept and bury only the following types of waste at the

putrescible landfill facility:

- (a) Clean Fill;
- (b) Uncontaminated Fill;
- (c) Inert Waste Type 1;
- (d) Putrescible Waste; and
- (e) Special Waste Type 1;

as defined in the Landfill Definitions.

- 18.** The licence holder shall ensure that the tipping area of the putrescible landfill is not greater than:
- (a) 30 metres in length; and
 - (b) 2 metres above ground level in height.
- 19.** The licence holder shall ensure that waste in the tipping area of the putrescible landfill is covered:
- (a) at least weekly;
 - (b) with a dense (at least 200 millimetres), inert and incombustible material; and
 - (c) totally, so that no waste is left exposed.
- 20.** The licence holder shall ensure that there is no waste within:
- (a) 100 metres of any surface water body at the site; and
 - (b) 3 metres of the highest level of the water table aquifer at the putrescible landfill site.
- 21.** The licence holder shall manage stormwater on the putrescible landfill site so that:
- (a) it is diverted from areas of the site where there is waste; and
 - (b) water that has come into contact with waste is to be diverted into a sump on the site, or otherwise retained on the site.

Management of waste dump landfills

- 22.** The licence holder shall bury only the following types of waste within the prescribed premises boundary (as depicted in Schedule 1, Figure 1) at the waste dump landfill facilities:
- (a) Inert Waste Type 1;
 - (b) Inert Waste Type 2; and
 - (c) Wooden pallets and wooden packaging;
- as defined in the Landfill Definitions.
- 23.** The licence holder shall ensure that waste in the tipping area of the waste dump landfills is covered with a dense (at least 200 millimetres), inert and incombustible material at final landform design.
- 24.** The licence holder shall ensure that there is no waste within:
- (a) 100 metres of any surface water body at the sites; and
 - (b) 3 metres of the highest level of the water table aquifer at the waste dump landfill sites.
- 25.** The licence holder shall manage stormwater on the waste dump landfill sites so that

water that has come into contact with waste is retained on the site.

Emissions and discharges

Mine dewatering discharges

26. The licence holder shall only discharge dewatering water from the dewatering discharge point depicted in Attachment 3.
27. The licence holder shall ensure that the concentration of Total Recoverable Hydrocarbons in waters discharged from the premises does not exceed 30 mg/L.

Monitoring

28. The licence holder must ensure that:
 - (a) monitoring is undertaken in each weekly period such that there are at least 4 days in between the days on which samples are taken in successive weeks;
 - (b) monitoring is undertaken in each monthly period such that there are at least 15 days in between the days on which samples are taken in successive months;
 - (c) monitoring is undertaken in each quarterly period such that there are at least 45 days in between the days on which samples are taken in successive quarters;
 - (d) monitoring is undertaken in each six-monthly period such that there are at least 5 months in between the days on which samples are taken in successive periods of six months; and
 - (e) monitoring is undertaken in each annual period such that there are at least 9 months in between the days on which samples are taken in successive years.
29. The licence holder must monitor emissions in accordance with the requirements specified in Table 4 and record the results of all such monitoring.

Table 4: Emissions and discharges monitoring

Discharge point	Monitoring location	Parameter	Frequency	Averaging period	Unit	Method
Brockman Syncline WWTP (village) 4 Nammuldi WWTP (village) Brockman Syncline Mine WWTP 4	Final irrigation storage tank	Volumetric flow rate	Continuous	Monthly	m ³	AS/NZS 5667.6
		pH ¹	Quarterly	Spot sample	pH units	
		<i>E.coli</i>			cfu/100mL	
		Biochemical Oxygen Demand			mg/L	
		Total Suspended Solids				
		Residual Chlorine ¹				
		Total Nitrogen				
		Total Phosphorus				

Discharge point	Monitoring location	Parameter	Frequency	Averaging period	Unit	Method
Dewatering discharge point	Refer to Schedule 1: Maps, Figure 3	Volumetric flow rate	Continuous	Monthly	m ³	AS/NZS 5667.6

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

30. The licence holder must ensure that all analysis undertaken pursuant to condition 29 is undertaken by a holder of a current accreditation from the National Association of Testing Authorities (NATA) for the methods of sampling and analysis relevant to the corresponding relevant parameter.

Records and reporting

31. The licence holder must submit to the CEO by 30 April each year for the annual period, an Annual Environmental Report for that annual period for the conditions listed in Table 5, and which provides information in accordance with the corresponding requirement set out in Table 5.

Table 5: Annual Environmental Report

Condition	Requirement
-	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
29, Table 4	<ul style="list-style-type: none"> results; comparison of results against previous monitoring results and relevant guidelines; and summary of emissions and discharges monitoring
32	Annual Audit Compliance Report
33	Complaints summary
-	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

32. The licence holder must:
- undertake an audit of their compliance with the conditions of this licence during the preceding annual period; and
 - prepare and submit to the CEO by 30 April each year for the annual period an Annual Audit Compliance Report in the approved form.
33. The licence holder must record the following information in relation to complaints received by the licence holder (whether received directly from a complainant or forwarded to them by the Department or another party) about any alleged emissions from the premises:
- the name and contact details of the complainant, (if provided);
 - the time and date of the complaint;

- (c) the complete details of the complaint and any other concerns or other issues raised; and
 - (d) the complete details and dates of any action taken by the licence holder to investigate or respond to any complaint.
- 34.** The licence holder must maintain accurate and auditable books including the following records, information, reports, and data required by this licence:
 - (a) the calculation of fees payable in respect of this licence;
 - (b) the works conducted in accordance with condition 1 of this licence;
 - (c) any maintenance of infrastructure that is performed in the course of complying with condition 1 of this licence;
 - (d) monitoring programmes undertaken in accordance with condition 29, Table 4 of this licence; and
 - (e) complaints received under condition 33 of this licence.
- 35.** The books specified under condition 34 must:
 - (a) be legible;
 - (b) if amended, be amended in such a way that the original version(s) and any subsequent amendments remain legible and are capable of retrieval;
 - (c) be retained by the licence holder for the duration of the licence; and
 - (d) be available to be produced to an inspector or the CEO as required.

Definitions

In this licence, the terms in Table 6 have the meanings defined.

Table 6: Definitions

Term	Definition
ACN	Australian Company Number
Annual Audit Compliance Report (AACR)	means a report submitted in a format approved by the CEO (relevant guidelines and templates may be available on the Department's website).
annual period	a 12 month period commencing from 01 January until 31 December in the same year
Australian Standard 5667	means the most recent version and the relevant parts of the Australian and New Zealand series of guidance standards on Water Quality Sampling
BOD	Biochemical Oxygen Demand
books	has the same meaning given to that term under the EP Act.
BS4	means Brockman Syncline 4
CEO	means Chief Executive Officer of the Department. "submit to / notify the CEO" (or similar), means either: Director General Department administering the <i>Environmental Protection Act 1986</i> Locked Bag 10 Joondalup DC WA 6919 or: info@dwer.wa.gov.au
cfu/100mL	means colony forming units per 100 millilitres
Clean Fill	has the meaning defined in Landfill Definitions
Department	means the department established under section 35 of the <i>Public Sector Management Act 1994</i> (WA) and designated as responsible for the administration of the EP Act, which includes Part V Division 3.
discharge	has the same meaning given to that term under the EP Act.
emission	has the same meaning given to that term under the EP Act.
EP Act	<i>Environmental Protection Act 1986</i> (WA)
EP Regulations	<i>Environmental Protection Regulations 1987</i> (WA)
Inert Waste Type 1	has the meaning defined in Landfill Definitions

Term	Definition
Inert Waste Type 2	has the meaning defined in Landfill Definitions
licence	refers to this document, which evidences the grant of a licence by the CEO under section 57 of the EP Act, subject to the specified conditions contained within.
licence holder	refers to the occupier of the premises, being the person specified on the front of the licence as the person to whom this licence has been granted.
monthly period	means a one-month period commencing from the first calendar day of a month until the final calendar day of the same month.
NATA	means National Association of Testing Authorities, Australia
NATA accredited	means in relation to the analysis of a sample that the laboratory is NATA accredited for the specified analysis at the time of the analysis
premises	refers to the premises to which this licence applies, as specified at the front of this licence and as shown on the premises map (Figure 1) in Schedule 1 to this licence.
prescribed premises	has the same meaning given to that term under the EP Act.
Putrescible Waste	has the meaning defined in Landfill Definitions
Quarterly	means the 4 inclusive periods from 1 January to 31 March, 1 April to 30 June, 1 July to 30 September and 1 October to 31 December in the same year
Special Waste Type 1	has the meaning defined in Landfill Definitions
Tipping area	means the area of the landfill where waste is currently being disposed
TN	Total Nitrogen
TP	Total Phosphorus
TSS	Total Suspended Solids
Uncontaminated Fill	has the meaning defined in Landfill Definitions
waste	has the same meaning given to that term under the EP Act.
WWTPs	means Wastewater Treatment Plants

END OF CONDITIONS

Schedule 1: Maps

Premises map

The boundary of the prescribed premises is shown in the map below (Figure 1).

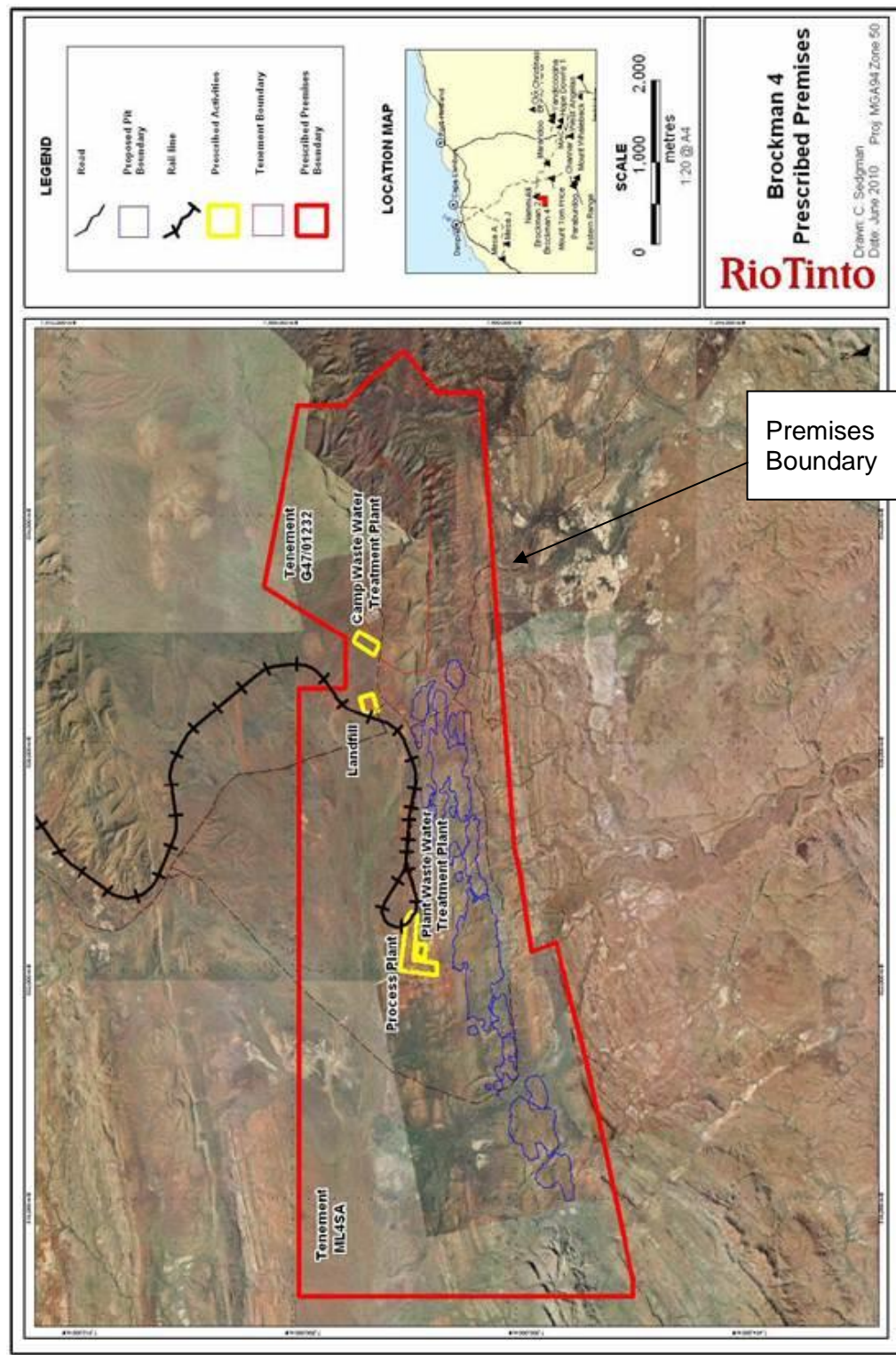


Figure 1: Map of the boundary of the prescribed premises

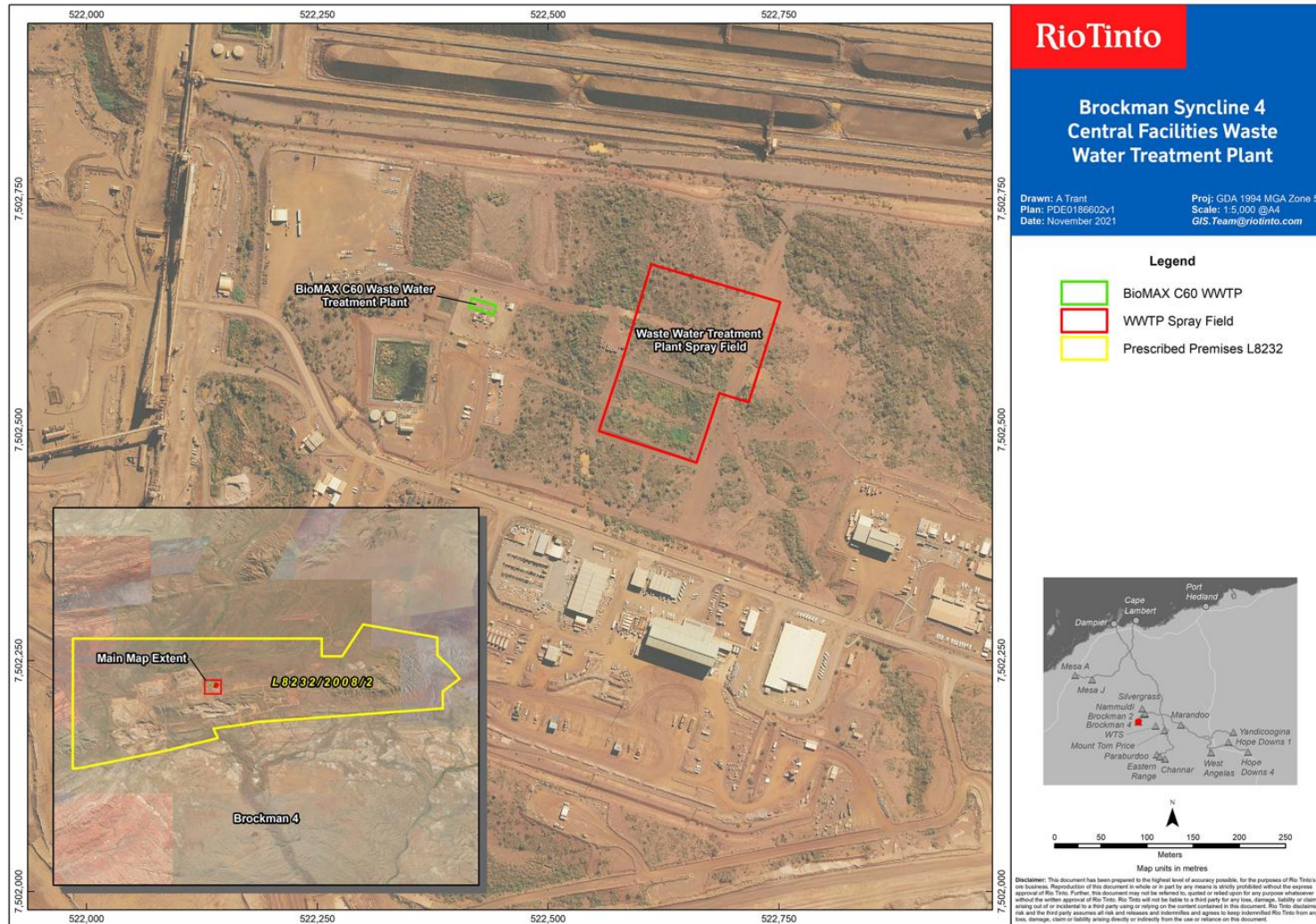


Figure 2: Brockman Syncline 4 Mine WWTP and Irrigation Area

L8232/2008/2 (amended 16/12/2021)

IR-T06 Licence template (v7.0) (February 2020)

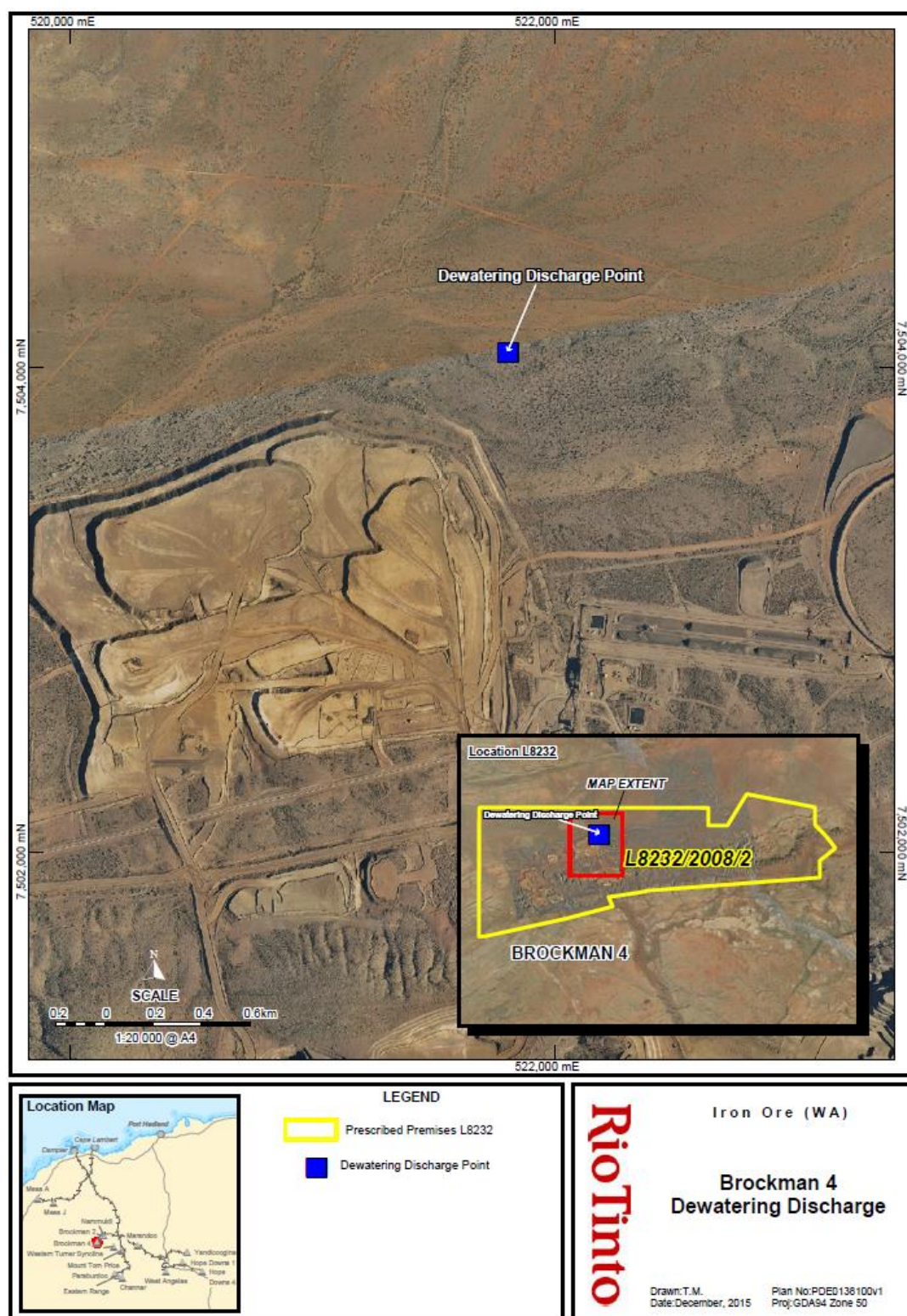


Figure 3: Dewatering discharge point

L8232/2008/2 (amended 16/12/2021)

IR-T06 Licence template (v7.0) (February 2020)

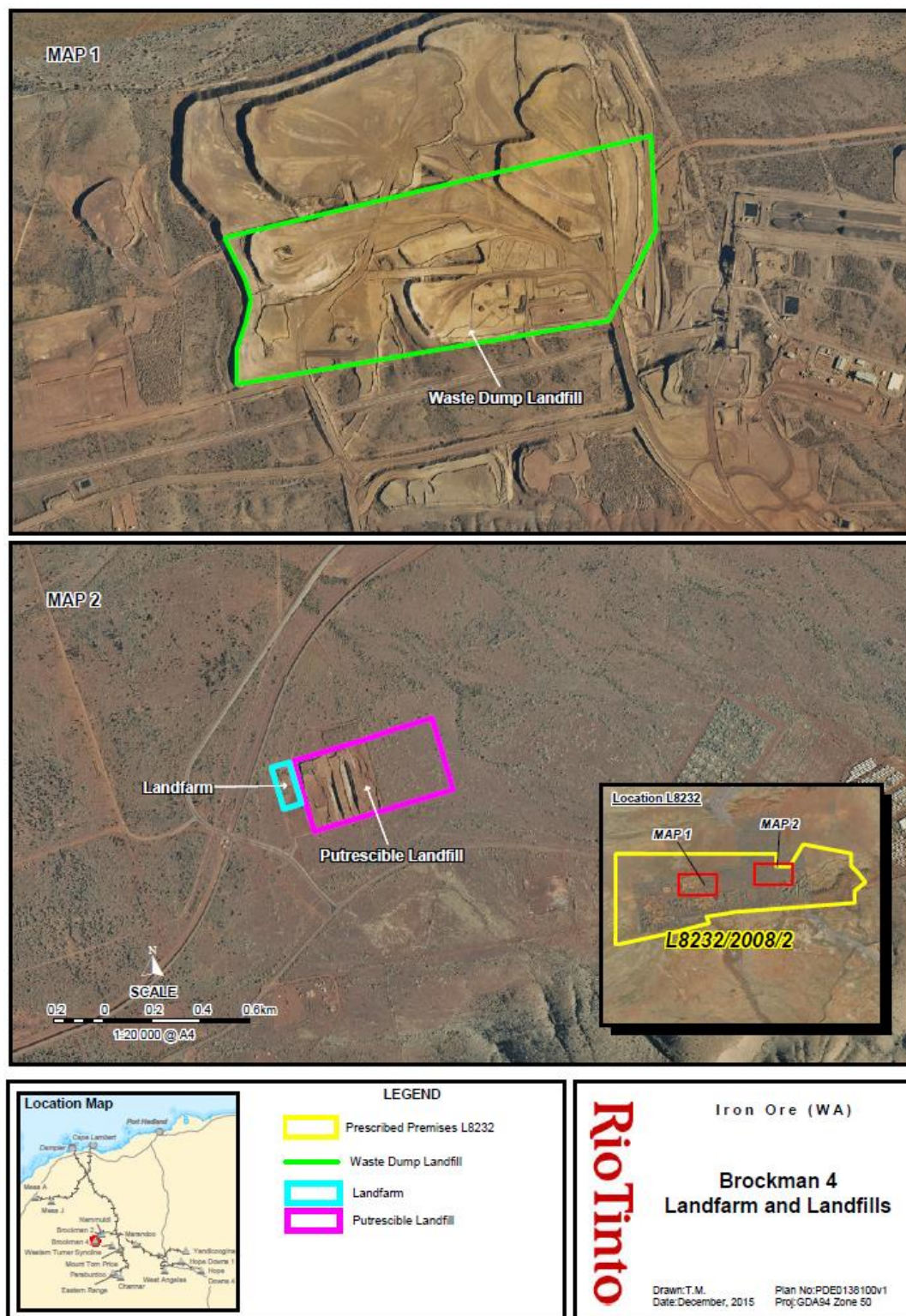


Figure 4: Current Waste Dump Landfill and Putrescible Landfill