



Licence number	L7340/1997/9
Licence holder	Pilbara Iron Company (Services) Pty Ltd
ACN	107 210 248
Registered business address	Level 22, Central Park 152-158 St Georges Terrace PERTH WA 6000
DWER file number	DER2013/000903-2
Duration	01/06/2014 to 31/05/2036
Date of issue	22/05/2014
Date of amendment	26 February 2024
Premises details	Yandicoogina Iron Ore Mine Part of Mining Lease AM70/274; LGE L021123 NEWMAN WA 6753 (As defined by the coordinates in Schedule 2)

Prescribed premises category description (Schedule 1, <i>Environmental Protection Regulations 1987</i>)	Assessed design capacity
Category 5: Processing or beneficiation of metallic or non-metallic ore	60,000,000 tonnes per annual period
Category 6: Mine dewatering	Disposal of up to 78 gigalitres per annum
Category 12: Screening, etc. of material	10,000,000 tonnes per annual period
Category 54: Sewage facility	1,192 cubic metres per day
Category 64: Class II putrescible landfill site	7,500 tonnes per annual period
Category 73: Bulk storage of chemicals, etc	1,770 cubic metres in aggregate

This licence is granted to the licence holder, subject to the attached conditions, on 26 February 2024 by:

**MANAGER, RESOURCE INDUSTRIES
REGULATORY SERVICES**

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

Licence history

Reference number	Date	Summary of changes
L7340/1997/9	2 June 2016	Amendment to include the EPCM WWTP, upgraded village WWTP, YSP stacker and stockyard, Stage 1 of WFSF, operation of new landfill, construction and operation of waste dump landfill, construction and operation of D03A outlet and other administrative amendments.
L7340/1997/9	29 April 2016	Notice of amendment of licence expiry dates. Expiry date extended to 31 May 2036.
L7340/1997/9	7 September 2017	Review of premises and licence conversion.
L7340/1997/9	8 January 2018	Amendment for the construction and operation of WFC5, operation of D09A dewatering outfall, other administrative amendments.
L7340/1997/9	23 November 2020	This amendment to approve the construction and operation of waste dump landfills and putrescible landfills within the prescribed premises boundary; remove WFC5 ambient monitoring bore MB12YWFC004 and replace with SP3; update Figures (as applicable); administrative changes; and update Licence to current licensing format.
L7340/1997/9	15 November 2023	Amendment for the following: • construction and operation of two additional discharge outlets (DO10 and DO11); • operation of the Waste Fines Cell 3A (WFC3A) Extension; • removal and replacement of monitoring bores; and • amendment of chromium comparison criteria to achievable limit of reporting.
L7340/1997/9	26 February 2024	DWER initiated amendment to include the following four groundwater monitoring bores missed on the previous licence amendment application: • BH01 - MB22YJSE0001 • BH02 - MB22YJSE0002 • BH05 - MB22YJSE0005 • BH06 - MB22YJSE0006

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

Maintenance and operation requirements

1. The licence holder must ensure that the site infrastructure and equipment listed in Table 14 in Schedule 3 and located at the corresponding infrastructure location is maintained and operated in good working order.
2. The licence holder must ensure that the site infrastructure and equipment listed in Table 1 is maintained and operated in accordance with the corresponding operational requirement set out in Table 1.
3. The licence holder must ensure that the equipment and infrastructure in Table 1 are maintained in good working order.

Table 1: Infrastructure and equipment operational requirements

Site infrastructure	Description	Operational requirement
JC Area Bulk Fuel Facilities (shown as Permanent Hydrocarbon Storage Facility and Heavy Vehicle Fuel Facility in Schedule 1, Figure 2)	Infrastructure to store chemicals including, but not limited to fuel, oil or other hydrocarbons (where the total volume of all substances stored in a single or connected compound exceeds 100,000 L).	Chemicals must be located within low permeability (10^{-9} metres per second or less) compounds designed to contain not less than 110% of the volume of the largest storage vessel or interconnected system and an additional 25% of the total volume of substances stored in the compound.
JSE Area Bulk Fuel Facility (shown as Heavy Vehicle Fuel Facility in Schedule 1, Figure 2)		
JSW Area Bulk Fuel Facility (shown as Heavy Vehicle Fuel Facility in Facility in Schedule 1, Figure 2)		
WFC3A Extension	Tailings.	• Freeboard of 500 mm maintained. • Normal operating pond maintained below RL 485 m.

4. The licence Holder must:
 - (a) undertake inspections during periods of deposition as detailed in Table 2 to ensure that the facility is functioning as per the design intent;
 - (b) where any inspection identifies that an appropriate level of environmental protection is not being maintained, take corrective action to mitigate adverse environmental consequences as soon as practicable; and
 - (c) maintain a record of all inspections undertaken.

Table 2: Inspection of infrastructure

Scope of inspection	Type of inspection	Frequency of inspection
WFC3A Extension	Visual inspections for all components of the WFC including: ○ Pipelines and services corridor (Processing Plant to WFC3A Extension) ○ Pumps, valves ○ General integrity of embankment ○ Fauna entrapment At least 90% of inspections in a month shall be completed, to allow for operational or weather constraints. Reasons for missed inspections shall be documented in the Annual Environmental Report.	Daily

Waste Fines Cell construction requirements

5. The licence holder must construct the embankments associated with Stage 2 of WFC3 in accordance with the diagram in Schedule 1, Figure 6.

Dewater Discharge outlet construction requirements

6. The licence holder must install the infrastructure listed in Table 3 in accordance with;
- (a) the corresponding design and installation requirement; and
 - (b) at the corresponding infrastructure location,
- as set out in Table 3.

Table 3: Design and installation requirements

Infrastructure	Design and installation requirement	Infrastructure location
Dewatering outlets DO10 and DO11 and associated dewatering pipelines	• DO10 and DO11 must be constructed such that dewater is discharged to the environment via a rock gabion structure. • Flow meters at the discharge outlets.	Figure 5, DO10 and DO11

7. The licence holder must operate dewatering outlets DO10 and DO11 in accordance with the conditions of this Licence, following submission of the compliance document required under condition 21.

Emissions and discharges

Authorised discharge points for emissions

8. The licence holder must ensure that the emissions specified in Table 4, are discharged only from the corresponding discharge point and only at the corresponding discharge point location.

Table 4: Authorised discharge points

Emission	Discharge point	Discharge point location															
Landfill leachate to groundwater	Subject to compliance with condition 11																
Discharge of treated sewage	Sprayfields associated with the: <table> <tr> <th>Infrastructure</th><th>Design capacity (m³/day)</th><th>Sprayfield size (ha)</th></tr> <tr> <td>• Village WWTP</td><td>710</td><td>17</td></tr> <tr> <td>• Mine WWTP</td><td>20</td><td>0.31</td></tr> <tr> <td>• Fixed Plant WWTP</td><td>40</td><td>1.27</td></tr> <tr> <td>• EPCM WWTP</td><td>22</td><td>3.5</td></tr> </table>	Infrastructure	Design capacity (m ³ /day)	Sprayfield size (ha)	• Village WWTP	710	17	• Mine WWTP	20	0.31	• Fixed Plant WWTP	40	1.27	• EPCM WWTP	22	3.5	As shown in Schedule 1, Figure 4
Infrastructure	Design capacity (m ³ /day)	Sprayfield size (ha)															
• Village WWTP	710	17															
• Mine WWTP	20	0.31															
• Fixed Plant WWTP	40	1.27															
• EPCM WWTP	22	3.5															
Discharge of waste fines as a result of ore processing	Discharged into and contained by one of the following approved WFCs: • WFC3 (with total capacity for 4,500,000 m³ of waste fines) • WFC3A (with total capacity for 20,300,000 m³ of waste fines) • WFC3A Extension (with total capacity for 46,000,000 m³ of waste fines). • WFC5 (with total capacity for 20,000,000 m³ of waste fines)	As shown in Facility in Schedule 1, Figure 2 and Figure 7.															
Discharge of surplus dewater	Dewatering Outlets: DO2, DO3, DO3A, DO5, DO5A, DO6, DO8, DO9, DO9A, DO10 and DO11. Discharges to the environment must be via: • Gabion drop structure; or • T-piece and Rip-rap; or • Rip-rap only; or • Upwelling.	As shown in Schedule 1, Figure 5.															

Emission limits

9. The licence holder must ensure that treated wastewater is only discharged via irrigation to the specified discharge point(s) in accordance with the limits specified in Table 5.

Table 5: Irrigation emission limits

Discharge point	Parameter	Loading limit
Sprayfields associated with the: • Village WWTP • Mine WWTP • Fixed Plant WWTP • EPCM WWTP	Total nitrogen	480 kg/ha/year
	Total phosphorus	120 kg/ha/year

10. The licence holder must ensure that emissions from the discharge point listed in Table 6 for the corresponding parameter do not exceed the corresponding limit when monitored in accordance with condition 12.

Table 6: Emission and discharge limits

Discharge point	Parameter	Limit
Dewatering Outlet DO2	Flow rate (L/s)	440
Dewatering Outlet DO3		220
Dewatering Outlet DO3A		550
Dewatering Outlet DO5		550
Dewatering Outlet DO5A		550

Waste processing

11. The licence holder must ensure that the waste types in Table 7 are only subjected to the corresponding process(es), subject to the corresponding process limits and/or specifications.

Table 7: Waste processing

Waste Type ¹	Process(es)	Process limits and/or specifications ^{2,3}
Inert Waste Type 1	Disposal of waste by landfilling	Waste Dump landfills Constructed and maintained to the following requirements: • Located within the prescribed premises boundary (as depicted in Schedule 1, Figure 1). • Located no less than 25 m from the premises boundary; and 150 m from the Phil's Creek accommodation village. • Not located within an Environmentally Sensitive Area. • Located no less than 100 m from any perennial or permanent watercourse. • Located so that the vertical distance between the waste and the highest seasonal and expected post mining ground water level is no less than 3 m. • Earthen bunding installed around the facility to divert stormwater away from the landfill. • A sump or bunding constructed within the landfill to collect any surface water that has come into contact with waste. • A sign at the entrance which clearly defines what waste is accepted onto the landfill. • Location recorded on internal GIS mapping system. Managed and operated so that waste is covered with inert and incombustible material when practicable and to at least 200 mm at final landform.
Inert Waste Type 2		
Putrescible Waste (wooden pallets only)		

Waste Type ¹	Process(es)	Process limits and/or specifications ^{2,3}
Putrescible Waste	Disposal of waste by landfilling	Putrescible landfills Constructed and maintained to the following requirements: • Located within the prescribed premises boundary (as depicted in Schedule 1, Figure 1). • Located no less than 35 m from the premises boundary; and 150 m from the Phil's Creek accommodation village. • Not located within an Environmentally Sensitive Area. • Located at a minimum of 400 m from Yandicoogina Creek, Marillana Creek and Weeli Wolli Creek; and 100 m from any other perennial or permanent watercourse. • Located so that the vertical distance between the waste and the highest seasonal and expected post mining ground water level is no less than 10 m. • Earthen bunding installed around the facility to divert stormwater away from the landfill. • A sump constructed within the landfill to collect any surface water that has come into contact with waste. • Firebreak at least 3 m in width around the perimeter of the landfill. • Fenced to minimise windblown waste. • Gated and locked with a sign which clearly defines what waste is accepted onto the landfill. • Location recorded on internal GIS mapping system. Managed and operated to the following requirements: • Tipping area not greater than 30 m in length and 2 m above ground level. • Special Wastes Types 1 and 2 disposed of in sealed bags within a dedicated trench and covered as soon as possible with the location recorded. • Water that has come into contact with waste retained within the landfill; • Waste is covered weekly with clean inert and incombustible material to at least 200 mm so that no waste is left exposed.
Inert Waste Type 1		
Inert Waste Type 2		
Special Waste Type 1		
Special Waste Type 2		

Note 1: As defined by the Landfill Waste Classification and Waste Definitions (As amended December 2009).

Note 2: Requirements for landfilling tyres are set out in Part 6 of the *Environmental Protection Regulations 1987*.

Note 3: 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*.

Monitoring

Discharge point monitoring

- 12.** The licence holder must monitor emissions:
- (a) from each monitoring location;
 - (b) for the corresponding parameter;
 - (c) at no less than the corresponding frequency;
 - (d) for the corresponding averaging period; and
 - (e) using the corresponding method,
- as set out in Table 8

Table 8: Emissions and discharge monitoring

Monitoring location	Parameter	Minimum Frequency	Averaging period	Method
Sprayfields associated with the: • Village WWTP • Mine WWTP • Fixed Plant WWTP • EPCM WWTP	Total Phosphorus (mg/L)	Quarterly	Annual	AS 5667.10.1998
	Total Nitrogen (mg/L)			AS/NZS 5667.1:1998
	Volume (m ³)	Continuous		Flow meter device
Dewatering Outlet DO2	Flow rate (L/s)	Continuous	Annual	Flow meter device
Dewatering Outlet DO3				
Dewatering Outlet DO3A				
Dewatering Outlet DO5				
Dewatering Outlet DO5A				
Dewatering Outlet DO10				
Dewatering Outlet DO11				

- 13.** The licence holder must sample dewater discharges for concentrations of the identified parameters in accordance with Table 9.

Table 9: PFAS and discharge monitoring

Discharge Monitoring location (as per Schedule 1, Figure 2) of this licence	Parameter	Units	Minimum Frequency	Method
DO2	PFAS – Full species suite (28 analytes), including: Perfluorooctane sulfonate (PFOS) Perfluorohexane sulfonate (PFHxS) Perfluorooctanoic acid (PFOA)	µg/L	Once off spot sample – all samples to be collected as per condition 14	All samples must be collected in accordance with the DWER Guideline: Assessment and management of contaminated sites and Schedule B2 of the Assessment of Site Contamination NEPM
DO3				
DO3A				
DO5				
DO5A				
DO10				
DO11				

14. The licence holder must provide to the CEO no later than 30 days after commissioning DO10 and DO11 and as part of condition 21 a report which includes the following, but not limited to:
- (a) laboratory results from parameters tested as specified in condition 13; and
 - (b) an analysis and interpretation of the results against the 99% species protection values from the PFAS National Environmental Management Plan.

Ambient Monitoring

15. The licence holder must monitor the groundwater and surface water within and in the vicinity of WFC5 and WFC3A Extension:
- (a) from the monitoring locations;
 - (b) for the corresponding of parameter;
 - (c) in the corresponding unit;
 - (d) at no less than the corresponding frequency; and
 - (e) using the corresponding method,
- as set out in Table 10.

Table 10: Monitoring of ambient concentrations

Monitoring location	Parameter	Unit	Minimum Frequency	Averaging Period	Method
					Sampling
Groundwater monitoring for WFC5					
MCB1 MB10YMA005 SP3 As depicted in Figure 7	Depth to water ¹	mAHD	Six-monthly	Spot sample	AS 5667.11.1998 8 AS/NZS 5667.1:1998
	pH ¹	pH units			
	Total Dissolved Solids	mg/L			
	Electrical conductivity ¹	µS/cm			
	Total hardness (CaCO ₃)	mg/L			
	Major ions: Sodium (Na) Potassium (K) Calcium (Ca) Chloride (Cl) Magnesium (Mg) Fluoride (F) Bromide (Br) Sulphate (SO ₄)	mg/L			
	Metals: Copper (Cu) Lead (Pb) Iron (Fe) Mercury (Hg) Manganese (Mn) Arsenic (As) ² Cadmium (Cd) ² Chromium (Cr) ³ Nickel (Ni) ² Cobalt (Co) ² Selenium (Se) ² Boron (B) Molybdenum (Mo) Tin (Sb)	mg/L			

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	Vanadium (V) Zinc (Zn) ² Thallium (Tl) ⁴				
Groundwater monitoring for WFC3A Extension					
MB10YRN001 MB10YRN002 MB10YRN008 MB10YRN010 MB10YRN013 MB09YJSB006 MB09YJSB009 MB09YJSB008 MB16YBIL0017 MB16YBIL0018 MB16YBIL0009 MB16YBIL0010 MB15YBIL044 MB15YBIL045 MB10YMA001 JSE20 MB22YJSE0001 MB22YJSE0002 MB22YJSE0005 MB22YJSE0006	Surface water level ¹	mbgl	Monthly	Spot sample	AS/NZS 5667.1 AS/NZS 5667.11
	Electrical Conductivity ¹	µS/cm			
	pH	pH units	Quarterly		
	Dissolved Oxygen	mg/L			
	TDS (gravimetric)	mg/L	Quarterly	Spot sample	AS/NZS 5667.1 AS/NZS 5667.11
	Alkalinity CaCO ₃				
	Nitrate as N				
	Nitrite as N				
	Major Ions: Calcium (Ca) Chloride (Cl) Fluoride (F) Potassium (K) Magnesium (Mg) Sodium (Na) Phosphorus (P) Sulphate (SO ₄ ⁻²)				
	Metals / metalloids: Aluminium (Al) Arsenic (As) Barium (Ba) Boron (B) Cadmium (Cd) Cobalt (Co) Chromium (Cr) ³ Copper (Cu) Iron (Fe) Mercury (Hg) Manganese (Mn) Molybdenum (Mo) Nickel (Ni)				

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	Lead (Pb) Antimony (Sb) Selenium (Se) Silicon (Si) Tin (Sn) Thallium (Tl) Uranium (U) Zinc (Zn)				
	Acrylamide				
Piezometers VWP11, VWP13 and VWP15	Phreatic surface	mbgl and mRL	Monthly	Spot sample	AS/NZS 5667.1 AS/NZS 5667.11
Surface water monitoring					
WSP1 As depicted in Figure 7	pH ¹	pH units	October of each year	Spot sample	AS/NZS 5667.10:199 8 AS/NZS 5667.1:1998
	Total Dissolved Solids	mg/L			
	Metals: Arsenic (As) Cadmium (Cd) Cobalt (Co) Chromium (Cr) Copper (Cu) Iron (Fe) Mercury (Hg) Manganese (Mn) Nickel (Ni) Lead (Pb) Selenium (Se) Zinc (Zn)	mg/L			

Note 1: In-field non NATA analysis permitted

Note 2: Comparison against the 99% protection level in ANZG 2018 is required

Note 3: Comparison against the 0.5 µg/L limit of reporting is required

Note 4: Comparison against the USEPA National Primary Drinking Water Table of Contaminants 2009 is required.

- 16.** The licence holder must ensure all water samples collected in accordance with conditions 12, 13 and 15 are analysed by a laboratory with current NATA accreditation for the parameters being measured, unless otherwise indicated in the relevant table.

Monitoring of WFC water balance

- 17.** The licence holder must undertake annual monitoring of the water balance for WFC5 and WFC3A Extension, and (as a minimum) record the following information:
- (a) site rainfall;
 - (b) evaporation rate;
 - (c) decant water recovery volumes;
 - (d) volume of tailings deposited; and
 - (e) estimate of seepage losses.

Records and reporting

- 18.** 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:
- (a) the name and contact details of the complainant, (if provided);
 - (b) the time and date of the complaint;
 - (c) the complete details of the complaint and any other concerns or other issues; and
 - (d) the complete details and dates of any action taken by the licence holder to investigate or respond to any complaint.
- 19.** The licence holder must:
- (a) undertake an audit of their compliance with the conditions of this licence during the preceding annual period; and
 - (b) prepare and submit to the CEO by 30 April each year an Annual Audit Compliance Report in the approved form.
- 20.** The licence holder must submit to the CEO following construction of Stage 2 of WFC3, compliance documents certifying that the works were carried out in accordance with condition 5 of this licence.
- 21.** The licence holder must within 30 days of the dewatering outlets DO10 and DO11 or either a waste dump landfill and/or putrescible landfill being constructed under conditions 6 and 11:
- (a) undertake an audit of their compliance with the requirements / specifications of the condition; and
 - (b) prepare and submit to the CEO an Environmental Compliance Report on that compliance.
- 22.** The Environmental Compliance Report required by condition 21, must include as a minimum the following:
- (a) certification by an engineer that the dewatering outlets and associated dewatering pipelines as specified in condition 6, have been constructed in accordance with the relevant requirements specified in condition 6;
 - (b) as constructed plans and a detailed site plan for each item of infrastructure or component of infrastructure specified in condition 6; and
 - (c) be signed by a person authorised to represent the licence holder and contains

the printed name and position of that person.

- 23.** The licence holder must submit to the CEO by 30 April each year, an Annual Environmental Report for that annual period for the conditions listed in Table 11, and which provides information in accordance with the corresponding requirement set out in Table 11.

Table 11: Annual Environmental Report

Condition	Requirement
2	Annual volume of tailings discharged.
11	Map and GIS coordinates of the waste dump and putrescible landfills within the prescribed premises boundary.
12	The results to be provided to the CEO must include, but need not be limited to the following: (a) the dates at which monitoring was undertaken for each location; (b) the raw monitoring data from Quarterly monitoring of each location, for each parameter in tabulated form; and (c) the average of the Quarterly monitoring results calculated for the period compared against the limits specified in condition 10.
15	The results to be provided to the CEO must include, but need not be limited to the following: (a) the dates at which monitoring was undertaken for each location; (b) the raw monitoring data (in accordance with the minimum frequency) for each location, for each parameter in tabulated form; and (c) the monitoring results compared against the ANZG 2018 criteria for the protection of 95% of species in a freshwater ecosystem unless indicated otherwise in Table 10.
17	Annual water balance for WFC5 and WFC3A Extension.

- 24.** 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) any maintenance of infrastructure that is performed in the course of complying with conditions 1 and 2 of this licence;
 - (c) monitoring programmes undertaken in accordance with conditions 12, 13 and 15 of this licence; and
 - (d) complaints received under condition 18 of this licence.
- 25.** The books specified under condition 24 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 12 have the meanings defined.

Table 12: 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 1 January until 31 December of each year.
ANZG 2018	means the Australian and New Zealand Guidelines for Fresh and Marine Water Quality (ANZG) 2018. Australian and New Zealand Governments and Australian state and territory governments, Canberra ACT, Australia. Available at www.waterquality.gov.au/anz-guidelines .
Assessment of Site Contamination NEPM	Assessment of Site Contamination NEPM means the document National Environment Protection (Assessment of Site Contamination) Measure, published by the National Environmental Protection Council.
AS/NZS 5667.1:1998	means the Australian Standard AS/NZS 5667.1:1998 <i>Water Quality – Sampling – Guidance of the Design of sampling programs, sampling techniques and the preservation and handling of samples</i> .
AS 5667.10.1998	means the Australian Standard AS5667.10:1998 <i>Water quality – Sampling – Guidance on sampling of wastewaters</i> .
AS/NZS 5667.11:1998	means the Australian Standard AS/NZS 5667.11:1998 <i>Water quality – Sampling – Guidance on sampling of groundwater</i> .
books	has the same meaning given to that term under the EP Act.
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
Continuous	means a data recovery rate of at least 90% during each Quarter.
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.
dewater	refers to groundwater abstracted to allow mining of ore.

Term	Definition
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.
Environmental Compliance Report	means a report to satisfy the CEO that the conditioned infrastructure and/or equipment has been constructed and/or installed in accordance with the licence.
EP Act	<i>Environmental Protection Act 1986 (WA).</i>
EP Regulations	<i>Environmental Protection Regulations 1987 (WA).</i>
Gabion drop structure	means a dewater outlet that discharges to a descending-stepped channel bounded by rock armoured walls formed by a series of metallic mesh cages filled with rocks, concrete, or other similar substance.
JC	Junction Central.
JSE	Junction South East.
JSW	Junction South West.
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.
mAHD	means metres Australian Height Datum.
NATA	means the National Association of Testing Authorities, Australia.
NATA accreditation	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.
NEPM	mean National Environment Protection Measure
PFAS	for per- and poly-fluoroalkyl substances.
PFAS NEMP	means PFAS National Environmental Management Plan, Heads of EPAs Australia and New Zealand, January 2008.
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.
Quarter or Quarterly	refers to the four inclusive periods from 1 July to 30 September, 1 October to 31 December, 1 January to 31 March and 1 April to 30 June.
Rip-rap	means large loose rock or stones that are used to reduce the speed of dewater following discharge and armour designated areas from erosion caused by dewater.

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Term	Definition
T-piece	refers to dewater discharge outlet that is configured with a T-intersection that directs water to two open ends where dewater is discharged.
Upwelling	refers to dewater discharge infrastructure that conveys dewater to the discharge point via a buried pipeline and then pushed out by the water pressure through a grate on the top of the pipe where dewater is then directed via a Rip-rap channel to the environment.
w/w	means weight per weight
waste	has the same meaning given to that term under the EP Act.
WFC	Waste Fines Cell.
WWTP	Wastewater Treatment Plant.
$\mu\text{S/cm}$	means microseimens per centimetre.

END OF CONDITIONS

Schedule 1: Maps

Premises map

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

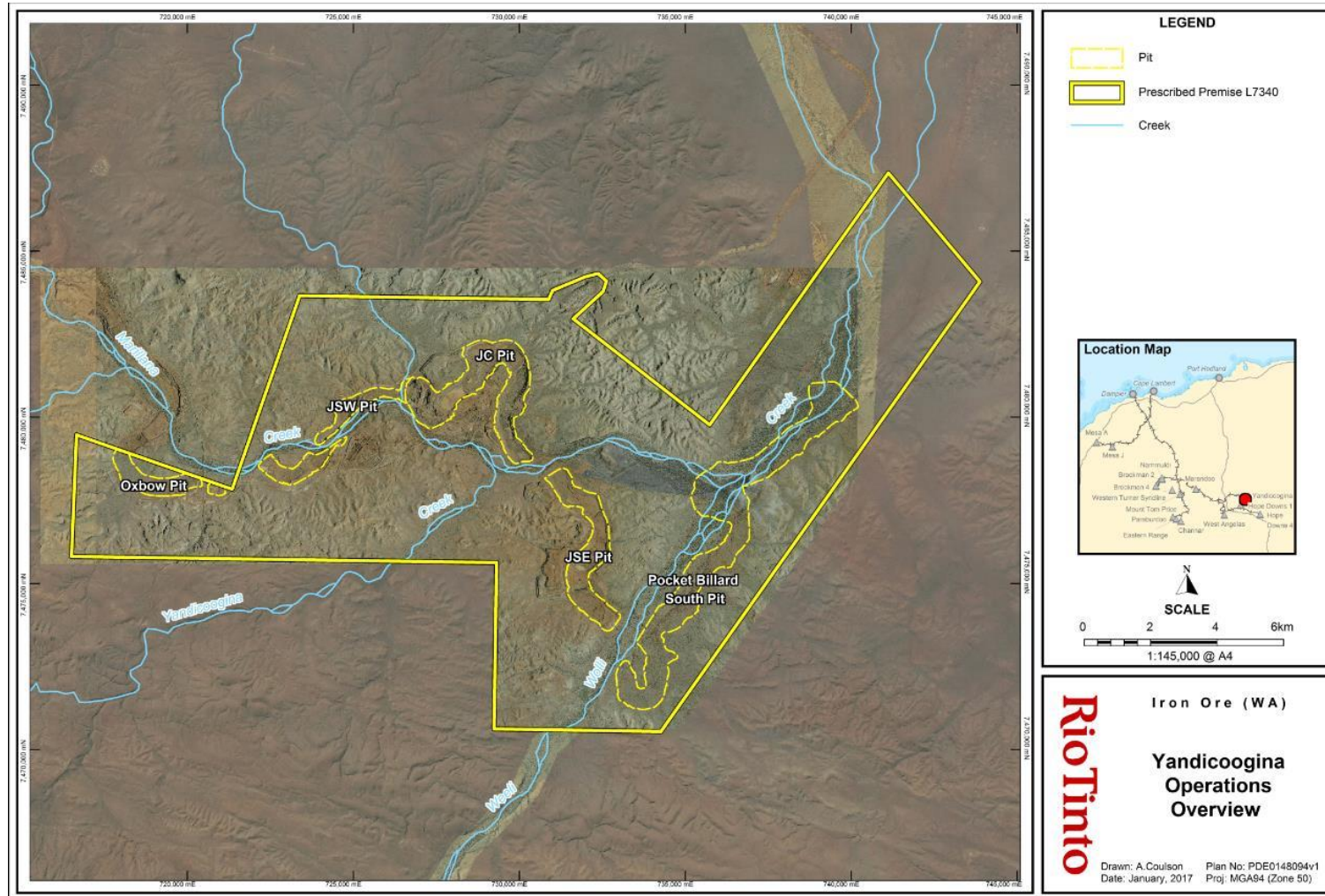


Figure 1: Map of the boundary of the prescribed premises

L7340/1997/9 (date of latest update: 26 February 2024)

Infrastructure maps

The infrastructure location is shown in the map below (Figure 2)

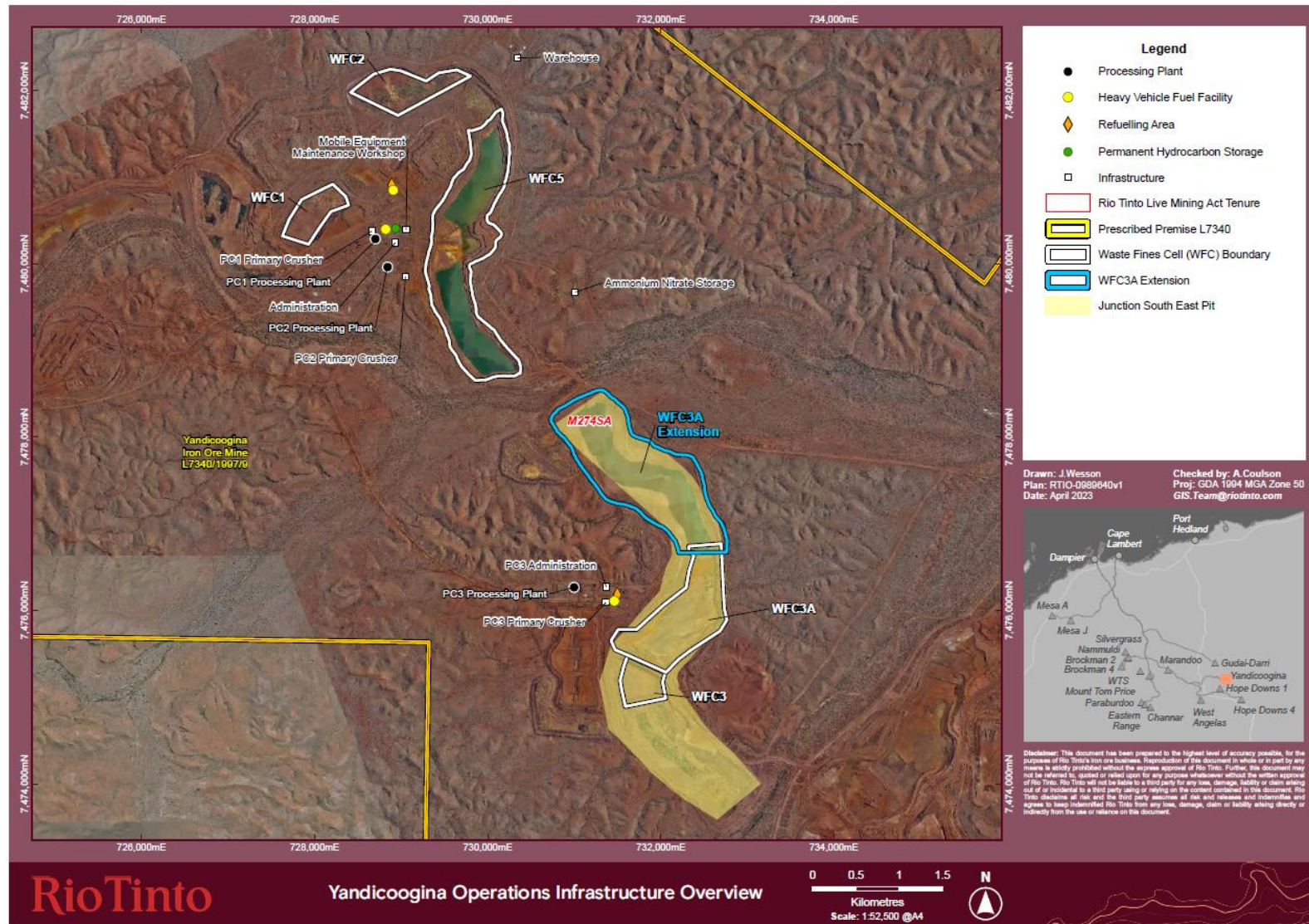


Figure 2: Infrastructure map

L7340/1997/9 (date of latest update: 26 February 2024)

The location of the landfills are shown in the map below (Figure 3)

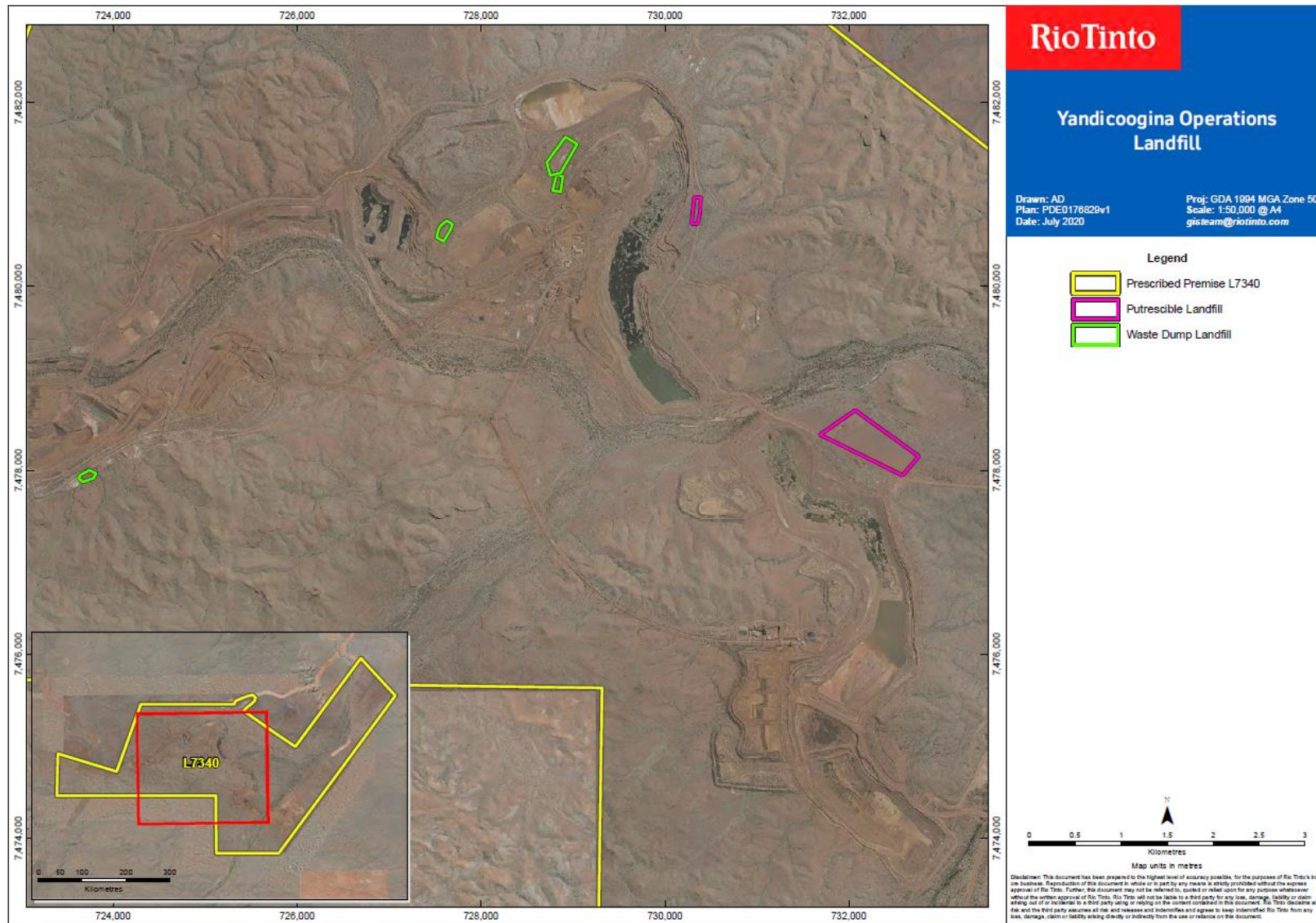


Figure 3: Existing landfill locations

L7340/1997/9 (date of latest update: 26 February 2024)

The location of the WWTP units and sprayfields are shown in the map below (Figure 4)

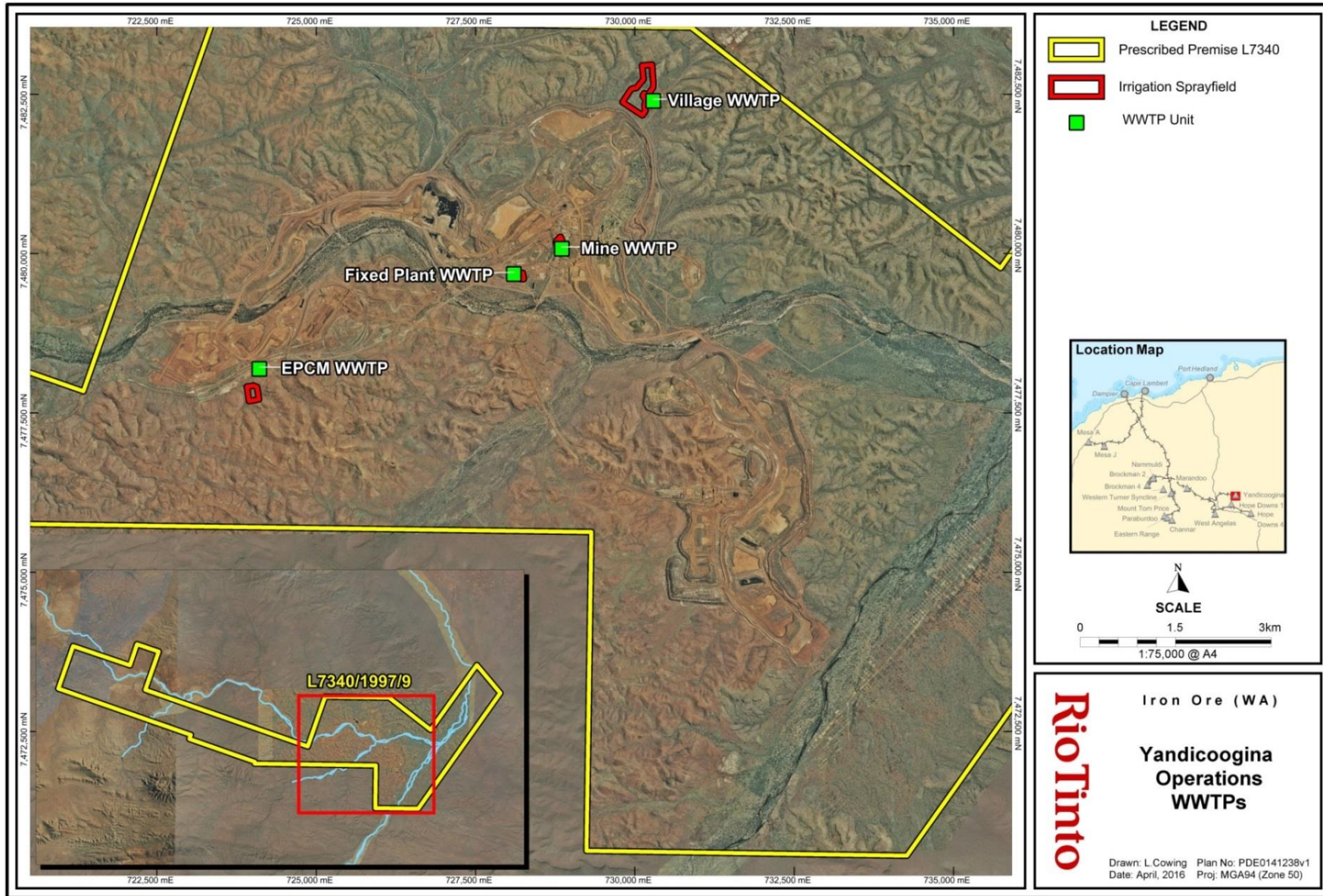


Figure 4: WWTP sprayfield locations

L7340/1997/9 (date of latest update: 26 February 2024)

The location of the dewatering discharge outlets are shown in the map below (Figure 5)

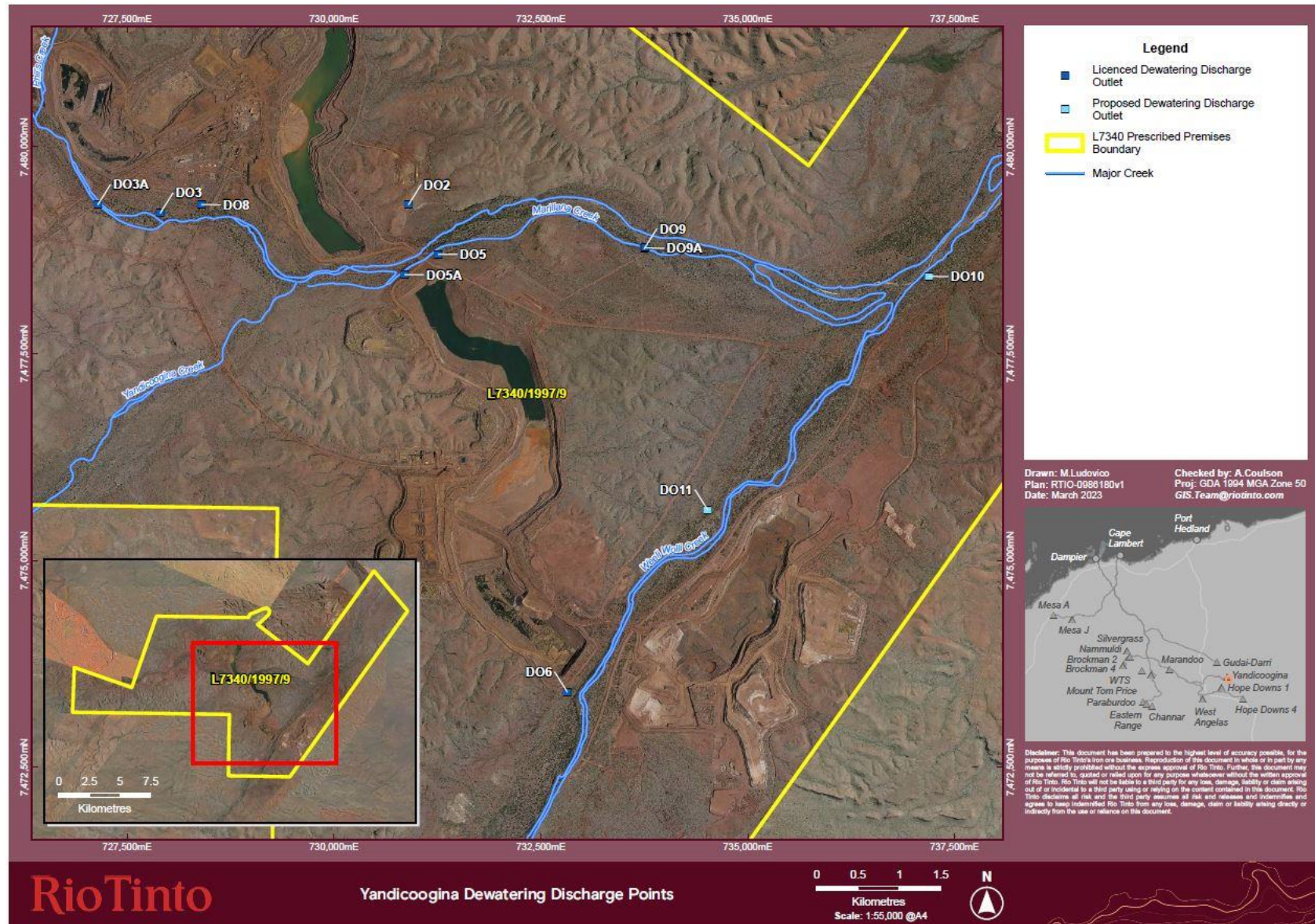


Figure 5: Dewater discharge points

L7340/1997/9 (date of latest update: 26 February 2024)

The layout of the WFC3 embankments are shown below (Figure 6)

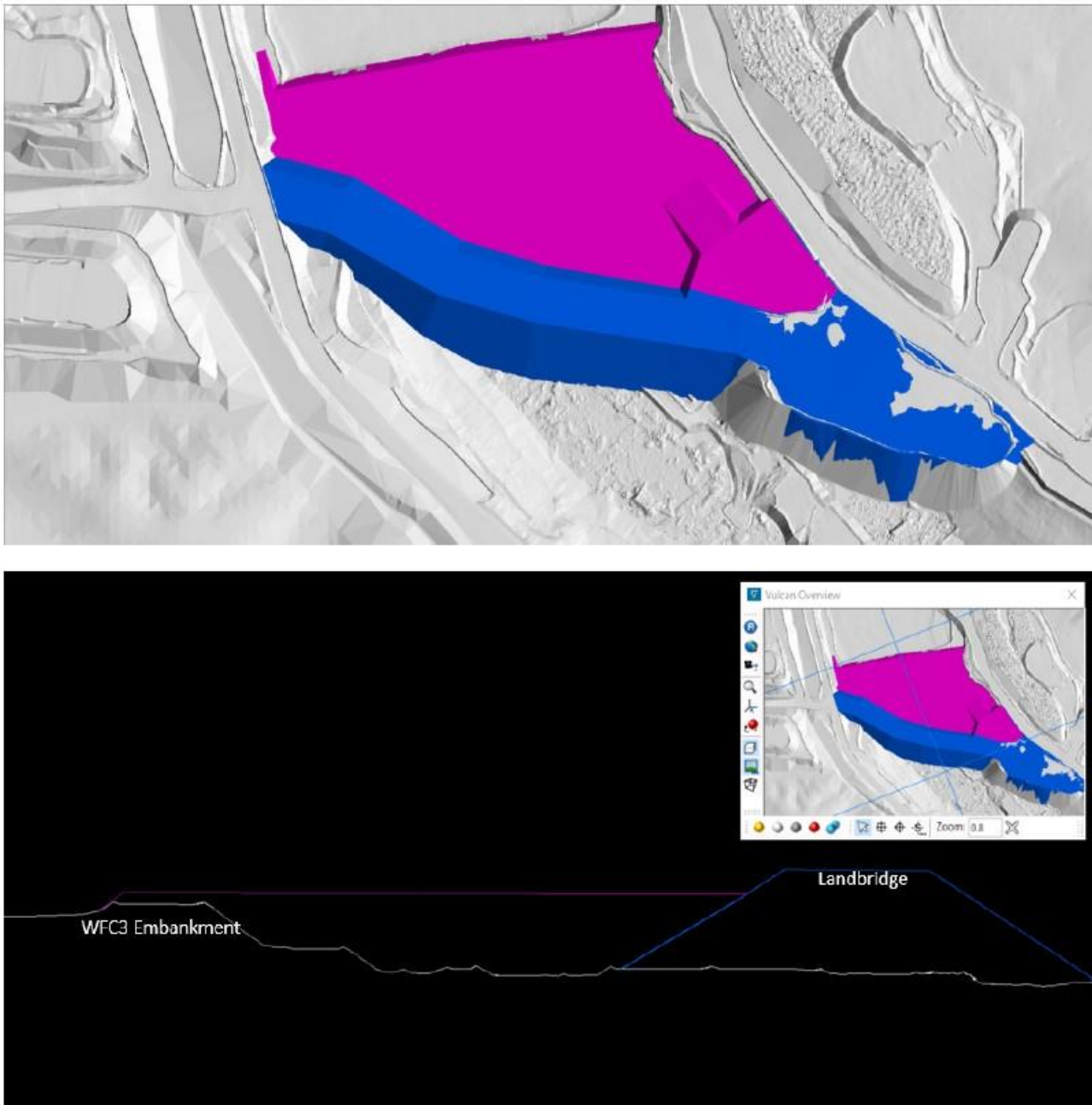


Figure 6: Final embankment layout of WFC3 (Stage 2 embankments are shown in purple and blue)

The location of the WFC5 emission point and groundwater and surface water monitoring bores are shown below (Figure 7)

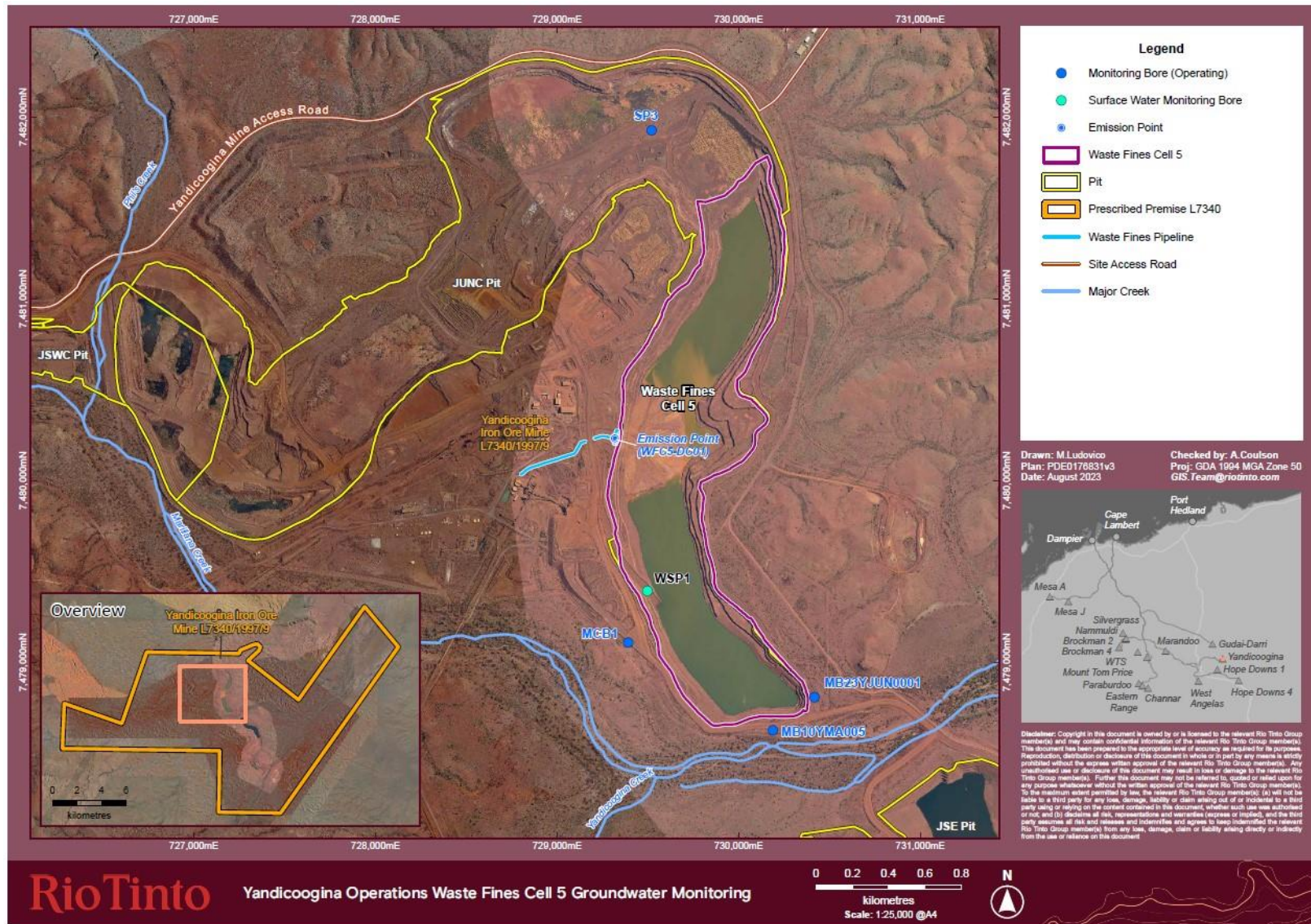


Figure 7: Location of the WFC5 emission point and groundwater and surface water monitoring bores

L7340/1997/9 (date of latest update: 26 February 2024)

The location of the WFC3A Extension emission point and groundwater monitoring bores are shown below (Figure 8)

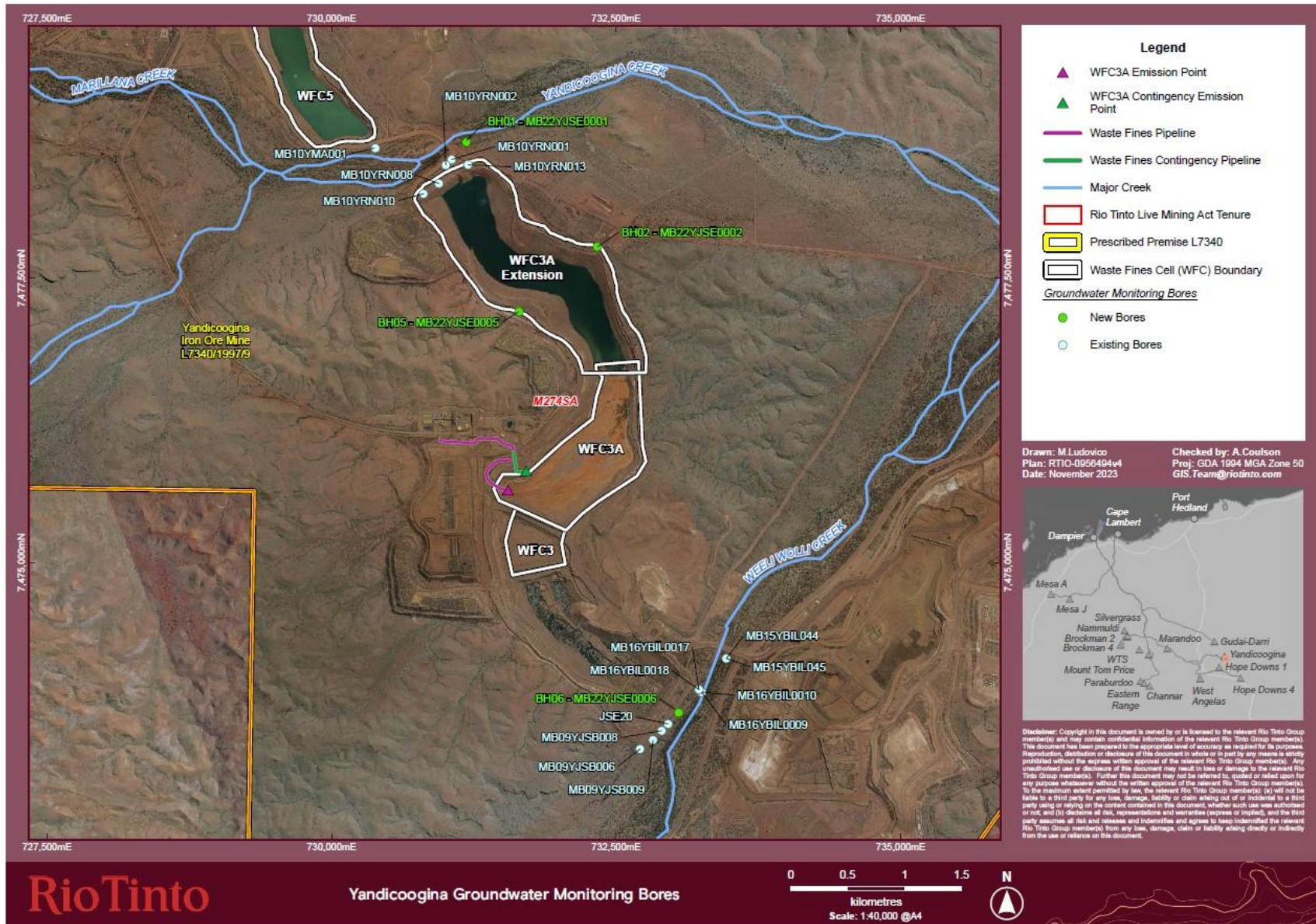


Figure 8: Location of the WFC3A Extension emission point and groundwater monitoring bores

L7340/1997/9 (date of latest update: 26 February 2024)

Schedule 2: Premises boundary

The premises boundary is defined by the coordinates in Table 13.

Table 13: Premises boundary coordinates (Zone 50)

Easting	Northing
741,120	7,487,354
743,875	7,484,080
735,736	7,479,772
734,267	7,470,550
729,240	7,470,629
729,316	7,475,629
716,506	7,475,811
721,347	7,477,838
716,664	7,479,472
723,380	7,483,660
730,884	7,483,545
732,629	7,484,095
731,626	7,482,967
734,061	7,481,073
735,736	7,479,772

Schedule 3: Infrastructure and equipment

Table 14: Infrastructure and Equipment

	Infrastructure and equipment	Infrastructure location
Category 5: Processing or beneficiation of metallic ore		
1	Dry processing plants (JC, JSW) including fixed crushers and screens	As shown in Schedule 1, Figure 2: PC1, PC4
2	Wet processing plants (JC, JSE)	As shown in Schedule 1, Figure 2: PC2, PC3
3	Stockyard, ore stackers and reclaimers, stockpiles, and train loading facilities	As shown in Schedule 1, Figure 2: Stockyards
4	Conveyors, transfer stations	Not shown
5	WFC3 (with total capacity for 4,500,000 m ³ of waste fines)	As shown in Schedule 1, Figure 2: WFC3,
6	WFC3A (with total capacity for 20,300,000 m ³ of waste fines)	As shown in Schedule 1, Figure 2: WFC3A
7	WFC3A Extension (with total capacity for 46,000,000 m ³ of waste fines)	As shown in Schedule 1, Figure 2: WFC3A Extension
8	WFC5 (with total capacity for 20,000,000 m ³ of waste fines)	As shown in Schedule 1, Figure 2: WFC5
9	Water storage/process water ponds	Not shown
10	Waste fines pipelines	For WFC5 as shown in Schedule 1, Figure 7 Not shown for all other WFCs.
11	Decant return pipelines	Not shown
12	WFC5 groundwater monitoring bores: MCB1 MB10YMA005 SP3	As shown in Schedule 1, Figure 7
Category 6: Mine dewatering		
13	Dewatering outlets: DO2, DO3, DO3A, DO5, DO5A, DO6, DO8, DO9, DO9A, DO10 and DO11	As shown in Schedule 1, Figure 5
14	Dewatering pipelines	Not shown
Category 12: Screening etc. of material		
15	Crushing and screening equipment (various)	Within the prescribed premises

	Infrastructure and equipment	Infrastructure location
		boundary (Schedule 1, Figure 1)
Category 54: Sewage facility		
16	Permanent village WWTP (710 m ³ /d) and associated 17 ha sprayfield	As shown in Schedule 1, Figure 4: Village WWTP
17	Mine WWTP (20 m ³ /d) and associated 0.31 ha sprayfield	As shown in Schedule 1, Figure 4: Mine WWTP
18	Fixed plant WWTP (40 m ³ /d) and associated 1.27 ha sprayfield	As shown in Schedule 1, Figure 4: Fixed WWTP
19	EPCM WWTP (22 m ³ /d) and associated 3.5 ha sprayfield	As shown in Schedule 1, Figure 4: EPCM WWTP
20	Pipelines, wells, transfer points	Not shown
Category 64: Class II putrescible landfill site		
21	Old landfill (JC)	As shown in Schedule 1, Figure 3: Putrescible Landfill
22	Waste Dump Landfill (JSW)	As shown in Schedule 1, Figure 3: Waste Dump Landfill
23	New Putrescible Landfill (JSE)	As shown in Schedule 1, Figure 3: Putrescible landfill
24	Waste Dump Landfill (JC)	As shown in Schedule 1, Figure 3: Waste Dump Landfill
Category 73: Bulk storage of chemicals etc.		
25	Heavy vehicle fuel facilities (HVFF)	As shown in Schedule 1, Figure 2: Heavy Vehicle Fuel Facility
26	Permanent Hydrocarbon Storage Facility	As shown in Schedule 1, Figure 2: Permanent Hydrocarbon Storage Facility
27	Refuelling Stations	As shown in Schedule 1, Figure 2: Refuelling Station