



Licence number	L9446/2024/1
Licence holder	Pilbara Iron Pty Ltd
ACN	107 216 535
Registered business address	Level 18, Central Park 152-158 St George Terrace PERTH WA 6000
DWER file number	DER2024/000353
Duration	15/11/2024 to 14/11/2043
Date of issue	15/11/2024
Premises details	Ti Tree Rail Camp Wastewater Treatment Plant CHICHESTER Legal description - Miscellaneous Licence L47/47 As defined by the coordinates in Schedule 2

Prescribed premises category description (Schedule 1, <i>Environmental Protection Regulations 1987</i>)	Assessed design capacity
Category 85: Sewage facility: premises – (a) on which sewage is treated (excluding septic tanks); or (b) from which treated sewage is discharged onto land or into waters.	97 cubic metres per day

This licence is granted to the licence holder, subject to the attached conditions, on 15 November 2024, by:

**SENIOR ENVIRONMENTAL OFFICER
INDUSTRY REGULATION**

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

Licence history

Date	Reference number	Summary of changes
15/11/2024	L9446/2024/1	Licence granted.

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

- The licence holder must ensure that the site infrastructure and equipment listed in Table 1 and located at the corresponding infrastructure location is maintained and operated in accordance with the corresponding operational requirement set out in Table 1.

Table 1: Infrastructure and equipment requirements

	Site infrastructure and equipment	Operational requirement	Infrastructure location
1	Modified Ludzack-Ettinger (MLE) Wastewater treatment plant (WWTP)	<p>(a) Must comprise the following:</p> <ul style="list-style-type: none"> • Raked Screen • Balance Tank • Anoxic Tank • Aeration Tank • Clarifier • Effluent sterilization (chlorination) unit • Treated effluent tank (193 kL) • A series of pumps, screens, diffusers, blowers and mixers to transfer and process the wastewater <p>(b) Stormwater must be prevented from entering the sewage treatment system and storage infrastructure;</p> <p>(c) WWTP must be located on a concrete pad within a concrete bund that is maintained to be impermeable and is connected to an overflow pond;</p> <p>(d) All sewage storage and treatment tanks, vessels, transfer pipelines and conveyance infrastructure must be maintained to be impermeable and free of leaks and defects;</p> <p>(e) Flow meters must be maintained on the WWTP inlet and outlet to irrigation spray fields 1 and 2; and</p> <p>(f) Alarm system must be maintained to notify the operator of:</p> <ul style="list-style-type: none"> (i) Pump faults; (ii) High tank levels; and (iii) Tank overflows. 	As specified in Schedule 1, Figure 1 and Figure 2

	Site infrastructure and equipment	Operational requirement	Infrastructure location
2	Irrigation spray fields 1 and 2	<ul style="list-style-type: none"> (a) Area of spray fields 1 and 2 must be at least 5.5 ha and bunding must be maintained to ensure no interaction with surface water; (b) Sprinklers must be positioned to ensure even distribution of wastewater; (c) Pipelines must be maintained to be impermeable and free of leaks; (d) Fence with visible safety signage to deter access must be maintained; (e) Sprinkler system with the equivalent of 40 full sprinklers spraying over a 30 m diameter must be maintained; and (f) Vegetative cover must be maintained over the irrigation area. 	As specified in Schedule 1, Figure 1 and Figure 2
3	Emergency overflow pond	<ul style="list-style-type: none"> (a) Must be lined with a 1.50 mm HDPE liner that is maintained free of leaks and defects to achieve a permeability of less than 1×10^{-9} m/s; (b) Must have a minimum storage capacity of at least 267,000 litres; and (c) A minimum top of embankment freeboard height of 300 mm must be maintained. 	As specified in Schedule 1, Figure 2
4	Sludge drying area	<ul style="list-style-type: none"> (a) The impervious base and bund walls must be maintained to be free of leaks and defects, and achieve a permeability of less than 1×10^{-9} m/s; (b) At least one geobag must be available for operational use at all times; (c) Any liquid that seeps from the geobag must be returned back to the anoxic tank for reprocessing; and (d) Sludge must be dried and contained within the geobag until spadeable, prior to removal by a licensed waste carrier for disposal to an appropriately authorised facility. 	As specified in Schedule 1, Figure 2

Waste processing

2. The licence holder must ensure that the waste types specified in Table 2 are only subjected to the corresponding process(es), subject to the corresponding process limits and/or specifications.

Table 2: Waste processing

Waste type	Process(es)	Process limits and/or specifications
Sewage	Biological, chemical and physical treatment	(a) Must not exceed 97 m ³ /day; and (b) Sewage must be treated to the following criteria: (i) pH: 6.8 - 8.5 (ii) BOD: <10 mg/L (iii) TSS: <10 mg/L (iv) TN: <13 mg/L (v) TP: <1.5 mg/L (vi) <i>E. coli</i> <10 cfu/100 mL (vii) Residual chlorine: 0.2 - 2 mg/L
Treated wastewater	Disposal via irrigation	(a) Must not exceed 97 kL/day; (b) No irrigation generated runoff, spray drift or discharge occurs beyond the boundary of spray field 1 and spray field 2; and (c) Must be evenly distributed over the irrigation area, so that no ponding or pooling occurs.

Emissions and discharges

General

3. The licence holder must:
 - (a) immediately recover, or remove and dispose of, spills of sewage, treatment chemicals, fuel, oil, or other hydrocarbons, occurring outside an engineered containment system; and
 - (b) ensure that all material used for the recovery, removal, and/or disposal of spills is stored in an impermeable container prior to disposal at an appropriately authorised facility.
4. The licence holder must prevent stormwater run-off becoming contaminated by the activities and operations undertaken at the premises.

Treated wastewater discharges

5. The licence holder must ensure that the emission(s) specified in Table 3, are discharged only from the corresponding discharge point(s) and only at the corresponding discharge point location(s).

Table 3: Authorised discharge points

Emission	Discharge point	Discharge point location
Treated effluent	Sprinklers within irrigation spray fields 1 and 2	As specified in Schedule 1, Figure 1 and Figure 2

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6. The licence holder must ensure that emissions from the discharge point listed in Table 4 for the corresponding parameter do not exceed the corresponding concentration and loading limits when monitored in accordance with condition 7.

Table 4: Emission and discharge limits

Discharge point	Parameter	Concentration limit	Loading limit
Sprinklers within irrigation spray fields 1 and 2	BOD	10 mg/L	-
	TSS	10 mg/L	-
	TN	13 mg/L	300 kg/ha/year
	TP	1.5 mg/L	50 kg/ha/year
	pH	>6.8 and <8.5	-
	<i>E. coli</i>	10 cfu/100mL	-
	Residual chlorine	>0.2 mg/L and <2 mg/L	-

Monitoring

7. The licence holder must:
- monitor discharges in accordance with the requirements specified in Table 5;
 - undertake the monitoring specified in Table 5 for each monthly period such that there are at least 15 days in between the days on which samples are taken in successive months; and
 - have all sample analysis undertaken by a laboratory with current NATA accreditation for the relevant parameters, unless indicated otherwise in Table 5.

Table 5: Discharge monitoring

Discharge point	Monitoring location	Parameter	Frequency	Averaging period	Unit	Method
Irrigation spray fields 1 and 2	WWTP outlet	Cumulative flow volume ¹	Continuous	Monthly	kL	Flow metering device
		pH ¹	Daily or continuous online	Monthly	-	Spot sample in accordance with AS/NZS 5667.1, AS/NZS 5667.10 and AS 2031
		BOD	Monthly	N/A	mg/L	
		TSS				
		Total N				
		Total P				
		<i>E. coli</i>				
Total coliforms	cfu/ 100 mL					

Discharge point	Monitoring location	Parameter	Frequency	Averaging period	Unit	Method
		Residual chlorine ¹	Daily or continuous online	Monthly	mg/L	

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

8. The licence holder must record the total amount of waste inputs and outputs at the premises, in the corresponding unit, and for each corresponding time period, as set out in Table 6.

Table 6: Waste inputs and outputs monitoring

Waste inputs and outputs	Unit	Frequency	Averaging period
Sewage inflow to the WWTP	m ³ /day	Continuous	Monthly
Treated effluent outflow	m ³ /day	Continuous	Monthly
Sludge removed from the premises	tonnes	Each load removed	Yearly

Records and reporting

Records

9. 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;
 - the complete details of the complaint and any other concerns or other issues raised; and
 - the complete details and dates of any action taken by the licence holder to investigate or respond to any complaint.
10. The licence holder must maintain accurate and auditable books including the following records, information, reports, and data required by this licence:
- the calculation of fees payable in respect of this licence;
 - any maintenance of infrastructure that is performed in the course of complying with condition 1 of this licence;
 - monitoring programmes undertaken in accordance with conditions 7 and 8 of this licence; and
 - complaints received under condition 9 of this licence.

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11. The books specified under condition 10 must:
- be legible;
 - if amended, be amended in such a way that the original version(s) and any subsequent amendments remain legible and are capable of retrieval;
 - be retained by the licence holder for the duration of the licence; and
 - be available to be produced to an inspector or the CEO as required.

Reporting

12. 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 an Annual Audit Compliance Report in the approved form by 30 April each year.
13. The licence holder must:
- prepare an Environmental Report that provides information in accordance with Table 7 for the preceding two annual periods, and
 - submit that Environmental Report to the CEO by 30 April 2026 and biennially thereafter.

Table 7: Environmental reporting requirements

Condition	Requirement
-	Summary of any emissions and discharges occurring as a result of an emergency, accident or malfunction of any pollution control equipment or which is not authorised by the licence and any action taken.
1, 2,6 and 7	<ol style="list-style-type: none"> Details of any licence limit exceedances observed during the reporting period and any actions that were undertaken to resolve the exceedances. Details of any monitoring event that occurred within 15 days of the prior monitoring event, along with an explanation as to why monitoring was not able to be completed at least 15 days apart.
7	Discharge to land monitoring results, including: <ol style="list-style-type: none"> cumulative monthly volume (in m³ or kL) of treated effluent applied to the irrigation spray fields presented in table format, including the average daily application rate calculated for each month; treated effluent monitoring data in tabulated form including the sampling date; tabulated monthly and annual loadings of nitrogen and phosphorus applied to the irrigation spray field, including an explanation of the basis for determining loading rates; treated effluent monitoring data for total nitrogen, total phosphorus and <i>E. coli</i> presented in graphical form that shows the current and preceding two reporting periods an assessment and interpretation of the data, including comparison to historical trends and loading limits; and copies of laboratory sample analysis reports
8	Sewage inflows, treated effluent discharged to the irrigation area and sludge removed from the premises for each annual period.
9	Complaints summary

Definitions

In this licence, the terms in Table 8 have the meanings defined.

Table 8: 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 are available on the Department's website).
annual period	a 12 month period commencing from 1 January until 31 December in that same year.
ARI	means the average or expected value of the periods between exceedances of a given rainfall total accumulated over a given duration.
AS 1940	means <i>Australian Standard AS 1940 The storage and handling of flammable and combustible liquids.</i>
AS 2031	means <i>Australian Standard AS 2031 Water quality – Sampling for microbiological analysis.</i>
AS/NZS 5667.1	means <i>Australian Standard AS/NZS 5667.1 Water quality – Sampling, Part 1: Guidance on the design of sampling programs, sampling techniques and the preservation and handling of samples.</i>
AS/NZS 5667.10	means <i>Australian Standard AS/NZS 5667.10 Water quality – Sampling, Part 10: Guidance on sampling of waste waters.</i>
biennially	means every two years.
BOD	Biological Oxygen Demand
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
cfu	colony forming units
department; DWER	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.

Term	Definition
emission	has the same meaning given to that term under the EP Act.
EP Act	<i>Environmental Protection Act 1986 (WA)</i>
EP Regulations	<i>Environmental Protection Regulations 1987 (WA)</i>
kg/ha/year	kilograms per hectare per year
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.
m ³	cubic metres
mg/L	milligrams per litre
NATA	National Association of Testing Authorities, Australia.
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.
spot sample	means a discrete sample representative at the time and place at which the sample is taken.
TN	total nitrogen
TP	total phosphorous
TSS	total suspended solids
waste	has the same meaning given to that term under the EP Act.

END OF CONDITIONS

Schedule 1: Maps

Premises map

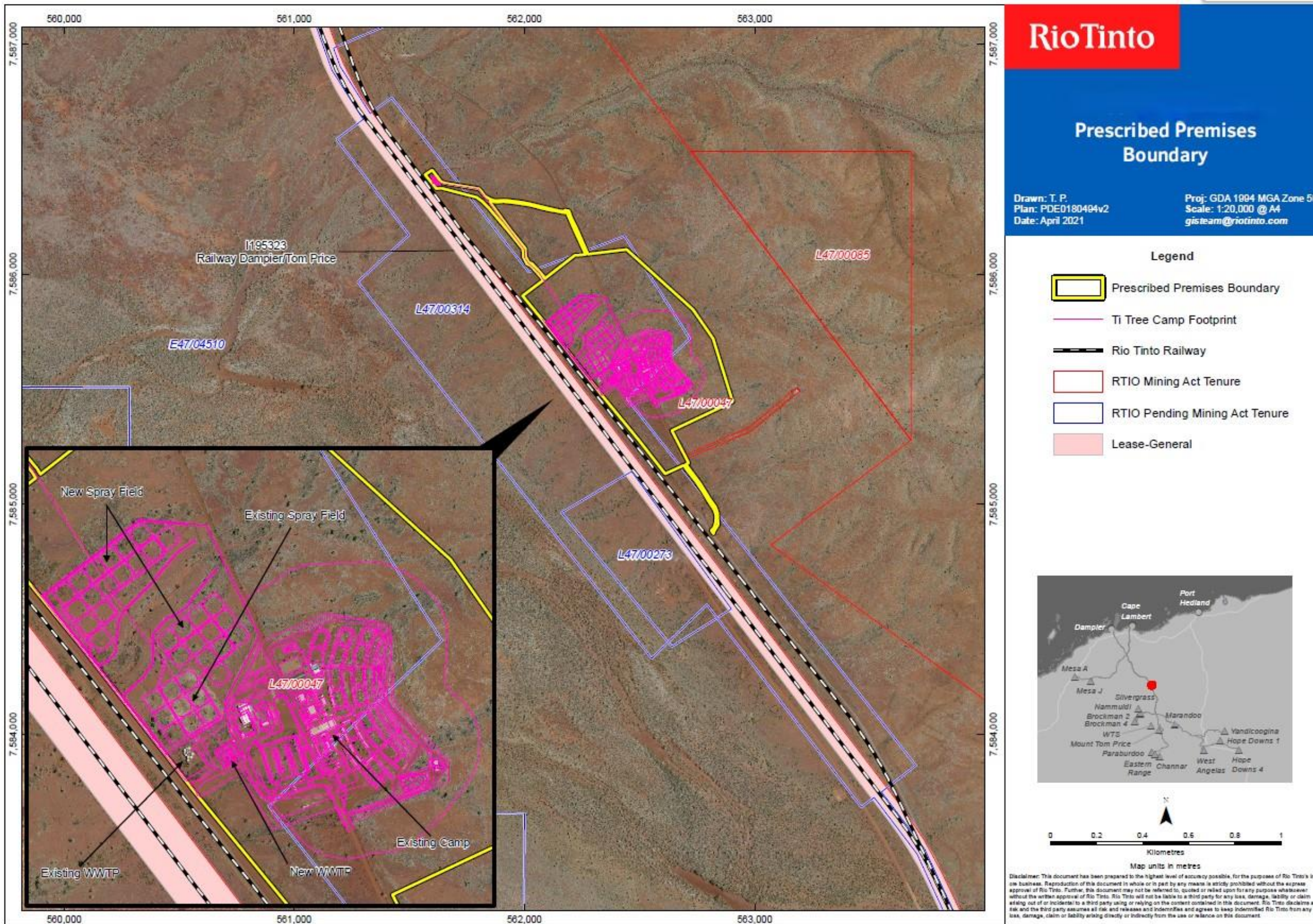


Figure 1: The boundary of the prescribed premises is shown in yellow in the above figure

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IR-T06 Licence template (v10.0) (May 2024)



Figure 2: Site plan

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IR-T06 Licence template (v10.0) (May 2024)

Schedule 2: Premises boundary

The vertices of the premises boundary are the coordinates listed in Table 9.

Table 9: Premises boundary coordinates (GDA2020 MGA Zone 50)

Point	Easting	Northing	Point	Easting	Northing
1	562839.1716	7584910.235	63	562122.7067	7586280.406
2	562833.3665	7584899.697	64	562153.2245	7586274.127
3	562825.4093	7584885.82	65	562168.3474	7586272.137
4	562821.8553	7584878.931	66	562172.5116	7586274.637
5	562819.4063	7584870.923	67	562174.4988	7586276.497
6	562809.0413	7584885.29	68	562190.9245	7586273.157
7	562814.5248	7584888.979	69	562201.974	7586245.723
8	562818.4663	7584891.638	70	562229.7955	7586186.265
9	562823.5457	7584901.456	71	562258.7631	7586119.189
10	562827.1739	7584917.763	72	562274.0097	7586085.655
11	562829.3425	7584941.048	73	562442.0435	7586106.471
12	562827.3058	7584959.045	74	562729.172	7585845.044
13	562823.521	7584973.662	75	562818.3673	7585718.24
14	562800.7872	7585007.225	76	562903.0686	7585444.566
15	562771.5474	7585054.865	77	562638.377	7585319.191
16	562743.9238	7585096.657	78	562711.0724	7585178.7
17	562700.864	7585151.915	79	562699.454	7585172.681
18	562690.8453	7585168.812	80	562761.8338	7585089.428
19	562610.1515	7585132.099	81	562802.7085	7585023.811
20	562500.2509	7585272.041	82	562828.6004	7584986.659
21	562329.5289	7585479.279	83	562836.6978	7584964.014
22	562154.1811	7585704.843	84	562838.85	7584949.807
23	561990.5918	7585904.132	85	562838.6356	7584934.11
24	562079.2511	7585972.828	86	562839.922	7584919.483
25	562073.2563	7585982.266	87	562839.1716	7584910.235
26	562051.8584	7586007.911	88	562264.4775	7586084.896
27	562024.276	7586036.695	89	562210.36	7586203.041
28	562011.8908	7586041.164	90	562184.501	7586261.63
29	562010.959	7586041.614	91	562181.1697	7586266.179
30	562009.1037	7586043.394	92	562173.9464	7586265.649
31	562009.1037	7586043.504	93	562168.9906	7586266.179
32	561994.8466	7586070.129	94	562163.0289	7586266.758

Point	Easting	Northing	Point	Easting	Northing
33	561994.2364	7586072.228	95	562155.9787	7586268.548
34	561992.4058	7586107.321	96	562130.8783	7586272.957
35	561933.984	7586179.616	97	562110.3626	7586276.666
36	561841.4079	7586288.944	98	562080.1169	7586284.235
37	561816.0932	7586313.879	99	562021.2745	7586298.332
38	561790.292	7586332.565	100	561953.7246	7586308.72
39	561639.863	7586371.357	101	561923.3469	7586313.199
40	561639.7558	7586371.397	102	561907.3252	7586313.979
41	561623.8661	7586371.607	103	561888.871	7586312.699
42	561615.5873	7586369.728	104	561878.7451	7586312.569
43	561567.481	7586431.415	105	561872.0742	7586312.439
44	561597.5866	7586451.011	106	561857.0833	7586315.898
45	561635.7813	7586401.391	107	561850.1568	7586319.228
46	561655.5466	7586393.443	108	561848.4416	7586312.149
47	561800.9786	7586370.487	109	561854.8322	7586302.561
48	561811.962	7586356.14	110	561941.6609	7586186.225
49	561826.8293	7586337.814	111	562001.2124	7586112.49
50	561837.2108	7586330.765	112	562001.7236	7586111.61
51	561847.213	7586326.286	113	562002.3338	7586109.5
52	561859.7714	7586320.767	114	562004.1644	7586073.848
53	561871.4393	7586317.948	115	562016.9867	7586049.893
54	561882.5877	7586317.698	116	562028.6463	7586045.753
55	561892.9692	7586318.718	117	562029.5781	7586045.304
56	561906.5584	7586319.618	118	562030.6088	7586044.524
57	561919.5043	7586319.618	119	562059.3291	7586014.53
58	561938.3461	7586317.308	120	562081.0322	7585988.545
59	561990.8969	7586310.38	121	562081.4445	7585987.985
60	562009.1037	7586307.18	122	562087.1506	7585979.007
61	562023.8472	7586304.651	123	562216.4702	7586080.126
62	562079.2593	7586290.314	124	562264.4775	7586084.896