



<b>Licence number</b>	L9208/2019/1
<b>Licence holder</b>	Piper Preston Pty Ltd
<b>ACN</b>	142 862 409
<b>Registered business address</b>	Ground floor, 239 Adelaide Terrace PERTH WA 6000
<b>DWER file number</b>	DER2019/000338
<b>Duration</b>	27/09/2019 to 19/05/2026
<b>Date of amendment</b>	17 October 2023
<b>Premises details</b>	Lake Way Sulphate of Potash (SOP) Project Goldfields Highway WILUNA WA 6646  Whole of mining leases M53/796, M53/797, M53/798, M53/123, M53/1109, M53/1102, M53/1104, M53/1106, M53/121, M53/1107, M53/1103, G53/25 and L53/214  Part of mining leases M53/910, M53/253, M53/1105

<b>Prescribed premises category description (Schedule 1, <i>Environmental Protection Regulations 1987</i>)</b>	<b>Assessed production / design capacity</b>
Category 14: Solar salt manufacturing: premises on which salt is produced by solar evaporation.	260,000 tonnes of Sulphate of Potash per annual period.
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	90 cubic metres per day

This amended licence is granted to the licence holder, subject to the attached conditions, on  
17 October 2023, by:

**Melissa Chamberlain**  
**A/MANAGER, RESOURCE INDUSTRIES**

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

## Licence history

Date	Reference number	Summary of changes
01/03/2019	W6206/2018/1	Works approval for construction and installation of a temporary holding pond consisting of two sub-ponds in series, a 4 m deep trench beneath the temporary pond to collect seepage and groundwater inflows, and infrastructure to pump dewatering water from the adjacent Williamson's pit.
27/09/2019	L9208/2019/1	Licence for pumping up to 1.5 GL of water from Williamson's pit to the temporary holding pond, for the purpose of producing brine.
18/10/2019	W6282/2019/1	Works approval for construction of nine evaporation ponds (3 halite ponds, 4 kainite harvesting ponds, carnallite harvest pond and bitterns pond), for the purpose of producing brine as feed for a trial brine processing plant.
10/03/2020	W6282/2019/1	Works approval amendment, for construction of a field scale brine processing plant (50,000 tpa capacity), for the purpose of determining the viability of the commercial scale production of SOP from the Lake Way resource. Also includes construction of a sewage treatment plant to support a 300-bed mine camp.
17/11/2020	L9208/2019/1	Licence amendment for operation of halite ponds 1, 3 & 4 (now referred to as Pond 2) constructed under W6282/2019/1.
25/01/2021	L9208/2019/1	Licence transferred from Salt Lake Potash Limited to Piper Preston Pty Ltd.
24/05/2021	L9208/2019/1	Licence amendment for operation of Sewage treatment facility, construction and operation of additional evaporation ponds on Lake Way, increase in throughput to 260,000tpa, establishment of Waste salts stockpiles on Lake Way, authorisation of discharging brine to Williamson Pit and changing the prescribed premises boundary
14/02/2022	L9208/2019/1	Licence amendment to authorise the construction and operation of an extension to Pond 4 and the inclusion of a newly constructed Pond 5. This amendment also incorporates brine treatment infrastructure as construction under works approval W6282/2019/1.
17/10/2023	L9208/2019/1	Licence amendment to authorise the construction and operation of pond P2 (expanding the pond arrangement from 1,691 ha to 1,844 ha), increase of prescribed premises boundary, change of stockpile pad footprint area, change of concentration of treated wastewater irrigation emission limits, removal of completed or obsolete conditions in the

L9208/2019/1 (Date of amendment: 11 October 2023)

		licence and redesignation of pond 'labels' to align with site layout and completed/ongoing construction.
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## 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:

### Production limit

1. The licence holder must ensure the premises production limit specified in Table 1 is not exceeded.

**Table 1: Production capacity limit**

Category	Premises production limit
14: Solar salt manufacturing	260,000 tonnes of Sulphate of Potash per annual period
85: Sewage Facility	90 cubic metres per day

### Infrastructure and equipment (Construction)

2. The licence holder must construct and/or install the infrastructure listed in Table 2, in accordance with;
  - (a) the corresponding design and construction requirement / installation requirement; and
  - (b) at the corresponding infrastructure location as set out in Table 2.

**Table 2: Infrastructure and equipment construction requirements**

Site infrastructure and equipment	Design and construction requirement / Installation requirement	Infrastructure location
Pond 1 extension	<ul style="list-style-type: none"> <li>walls to be constructed using a plastic sheet pile methodology or earthworks.</li> <li>Sheet piling will be to a depth of refusal around the full perimeter of the ponds, if constructed using sheet piling method</li> <li>walls constructed to provide the following capacity:               <ol style="list-style-type: none"> <li>a) a storm storage capacity of 0.2 m (based on a 1:100 year AEP rain event of 72 hours duration)</li> </ol> </li> </ul>	'Pond 1 extension' in the site layout map in Schedule 1
Pond 2	<ul style="list-style-type: none"> <li>constructed to ensure embankments maintain a minimum of 200 mm freeboard</li> </ul>	'Pond 2' in the site layout map in Schedule 1

3. The licence holder must ensure that total disturbance area of Pond 1, Pond 2, Pond 3 / H3, Pond H4, Pond TK1, Pond H5C0, H6C Ponds (6), RK ponds (6), RB ponds (2), K ponds (9), C ponds (2) will not exceed a total area of 1,844 hectares on the lake playa.

### Environmental Compliance Report

4. The licence holder must:
  - (a) within 30 calendar days of the Pond 1 extension or Pond 2 required by condition 2 being constructed and/or installed;

- (i) undertake an audit of their compliance with the requirements of condition 2; and
  - (ii) prepare and submit to the CEO an Environmental Compliance Report on that compliance.
5. The Environmental Compliance Report required by condition 4, must include as a minimum the following:
  - (a) certification by a suitably qualified civil engineer that the items of infrastructure or components thereof, as specified in condition 2, have been constructed in accordance with the relevant requirements specified in condition 2;
  - (b) as constructed plans and a detailed site plan for each item of infrastructure or component of infrastructure specified in condition 2; and
  - (c) be signed by a person authorised to represent the works approval holder and contains the printed name and position of that person.

## Infrastructure and equipment (Operation)

6. The licence holder must ensure that the site infrastructure and equipment listed in Table 3 and located at the corresponding infrastructure location is maintained and operated in accordance with the corresponding operational requirement set out in Table 3.

**Table 3: Infrastructure and equipment operational requirements**

Site infrastructure and equipment	Operational requirement	Infrastructure location
Pond 1, Pond 2, Pond 3 / H3, Pond H4, Pond TK1, Pond H5C0, H6C Ponds (6), RK ponds (6), RB ponds (2), K ponds (9), C ponds (2)	<ul style="list-style-type: none"> <li>Embankments adequately maintained to provide a minimum freeboard of at least 200 mm.</li> </ul>	Location shown in Schedule 1, Figure 1
Waste salt stockpile area	<ul style="list-style-type: none"> <li>Minimum 1.5 m bunding to be maintained to contain runoff within the stockpile area</li> </ul>	Within the "Excess Salt area" depicted in Schedule 1, Figure 1.
Discharge point: Williamson pit	<ul style="list-style-type: none"> <li>A freeboard of 1.5 m from the lowest point of pit to be maintained at all times.</li> </ul>	N/A
Activated sludge bioreactor type packaged sewage treatment plant	<ul style="list-style-type: none"> <li>Hydrostatic level transducers and overflow alarms to be maintained and operated</li> <li>Waste sludge must be contained within a sealed sludge tank</li> <li>Waste sludge must be removed from the premises for off-site disposal to an appropriately licensed facility</li> <li>flow meters must be maintained to record the volume of sewage input to the treatment plant and discharge volume</li> </ul>	N/A
Irrigation spray field	<ul style="list-style-type: none"> <li>minimum of 1.5 ha</li> </ul>	Location shown in Schedule 1, Figure 1.
<b>Brine treatment infrastructure</b>		

Site infrastructure and equipment	Operational requirement	Infrastructure location
Process plant – including attritioning circuits, flotation circuit and crystallizer	<ul style="list-style-type: none"> <li>design capacity of the plant – 595 m<sup>3</sup> per hour; and</li> <li>constructed as per Works Approval W6282/2019/1</li> </ul>	'Process plant' shown in Schedule 1, Figure 1
Rotary dryer	<p>The dryer must meet the following design requirements, as per Works Approval W6282/2019/1:</p> <ul style="list-style-type: none"> <li>packaged dryer – model Maxon 8" KINEDIZER LE (or similar);</li> <li>gas-fired (natural or LPG);</li> <li>vent stack must be fitted with a stack monitoring port in accordance with AS 4323.1 and be of sufficient diameter to accommodate apparatus used for the monitoring off-gas;</li> <li>the bag filter installed on the dryer must be: <ul style="list-style-type: none"> <li>a) adequately sized to cater for maximum air volume;</li> <li>b) capable of minimising particulate emissions to less than 50 mg/m<sup>3</sup> during normal operations;</li> <li>c) fitted with a system for detection and isolation of broken bags;</li> <li>d) fitted with means for automatically cleaning filter element(s); and</li> </ul> </li> <li>must conduct monitoring of emissions at least once during commissioning and the time limited operations, for validation purposes;</li> </ul>	'Rotary Dryer' shown in Schedule 1, Figure 1
Sediment ponds	<ul style="list-style-type: none"> <li>Must meet the dimensions as specified in Works Approval W6282/2019/1;</li> <li>Embankment walls must not exceed 1.5 m above natural ground level; and</li> <li>Outer embankments must be at least 1V:2H.</li> </ul>	'Sedimentation pond 1' and 'Sedimentation pond 2' shown in Schedule 1, Figure 1
Reclaim brine pond	<ul style="list-style-type: none"> <li>constructed to the dimensions specified in Works Approval W6282/2019/1;</li> <li>walls must meet a permeability of no greater than 1x10<sup>-9</sup> m/s;</li> <li>embankment wall height must not exceed 1.5 m above natural ground level;</li> <li>outer embankments must be at least 1V:2H; and</li> </ul>	'Reclaim brine pond' shown in Schedule 1, Figure 1

Site infrastructure and equipment	Operational requirement	Infrastructure location
	<ul style="list-style-type: none"> <li>must be lined with a HDPE lining at least 1.5 mm thick.</li> </ul>	
Contaminated water collection pond	<ul style="list-style-type: none"> <li>constructed to the dimensions specified in Works Approval W6282/2019/1;</li> <li>walls must meet a permeability of no greater than <math>1 \times 10^{-9}</math> m/s;</li> <li>embankment wall height must not exceed 1.5 m above natural ground level;</li> <li>outer embankments must be at least 1V:2H; and</li> <li>must be lined with a HDPE lining at least 1.5 mm thick.</li> </ul>	'Contaminated water collection pond' shown in Schedule 1, Figure 1
Stockpile pad	<ul style="list-style-type: none"> <li>composed of compacted overburden or similar;</li> <li>stockpile area must be bunded to contain surface water runoff; and</li> <li>surface water runoff must be diverted to the reclaim brine pond.</li> </ul>	'Stockpile pad' shown in Schedule 1, Figure 1

7. The licence holder must undertake monitoring of site infrastructure and operations in accordance with the requirements of Table 4.

**Table 4: Monitoring of site infrastructure and operations**

Daily inspections	
Site infrastructure and operations	Monitoring frequency and specifications
Pond 1, Pond 2, Pond 3 / H3, Pond H4, Pond TK1, Pond H5C0, H6C Ponds (6), RK ponds (6), RB ponds (2), K ponds (9), C ponds (2) embankments (including crest, toe, and perimeter drainage).	Daily inspections to: <ul style="list-style-type: none"><li>• confirm required freeboard is available;</li><li>• confirm structural integrity; and</li><li>• ensure no fauna are trapped in the ponds.</li></ul>
Pipelines transferring dewater to and from the Williamson Pit and discharge points (infrastructure located within prescribed boundary).	Daily inspections to identify any issues (e.g.leaks, spills and unusual changes).
Brine treatment infrastructure	
Special inspections	
Site infrastructure and operations	Monitoring frequency and specifications
Pond 1, Pond 2, Pond 3 / H3, Pond H4, Pond TK1, Pond H5C0, H6C Ponds (6), RK ponds (6), RB ponds (2), K ponds (9), C ponds (2) embankments (including crest,	Special inspections must be undertaken immediately after heavy rains, or any unusual events related to the premises to ensure the embankments and all



toe, and perimeter drainage).	infrastructure are functioning as required.
Pipelines transferring dewater to and from the Williamson Pit and discharge points (infrastructure located within prescribed premises boundary).	
Brine treatment infrastructure	

## Emissions and discharges

### Treated wastewater irrigation

8. The licence holder must ensure that the treated wastewater is discharged in accordance with the requirements specified in Table 5.

**Table 5: Treated wastewater disposal requirements**

Site infrastructure and equipment	Disposal requirement	Limit
Treated wastewater from the mine camp, treated via a package sewage treatment plant	Must only be discharged to the 'Irrigation Spray Field' as depicted in the 'Premises map' in Schedule 1	Irrigated at a rate of no more than 90 kL per day

9. The licence holder must ensure that when irrigating treated wastewater to the Irrigation spray field specified in Table 5 that;
- (a) no irrigation generated run-off, spray drift or discharge occurs beyond the premises boundary;
  - (b) irrigation does not occur on land that is waterlogged;
  - (c) treated wastewater is evenly distributed over the irrigation field and no ponding or pooling occurs;
  - (d) no soil erosion occurs;
  - (e) vegetation cover is maintained over the irrigated area; and
  - (f) no livestock is permitted to graze the irrigation area.
10. 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 6.

**Table 6: Treated wastewater irrigation emission limits**

Parameter	Unit	Concentration Limit
Biochemical oxygen demand	mg/L	<20.0
Total suspended solids		<30.0
Total nitrogen		<30.0
Total phosphorus		<12.0

Parameter	Unit	Concentration Limit
Chlorine residual		0.2 – 2.0
pH	-	6.5 – 8.5
<i>E. coli</i>	cfu/100 mL	<10

## Monitoring

### Waste input

11. The licence holder must record the total amount of waste processed at the premises, for each waste type listed in Table 7, in the corresponding unit, and for the corresponding averaging period, as set out in Table 7.

**Table 7: Waste accepted at the premises**

Waste Type	Unit	Averaging period
Sewage	m <sup>3</sup> /day	Monthly

### Treated wastewater discharge

12. The licence holder must monitor emissions in accordance with the requirements specified in Table 8.

**Table 8: Emissions and discharge monitoring**

Discharge point	Monitoring location	Parameter	Frequency	Averaging Period	Unit	Method
Irrigation spray field	Irrigation storage tank outlet	Biochemical oxygen demand	Quarterly	Spot sample	mg/L	AS/NZS 5667.10
		Total suspended solids				
		Total nitrogen				
		Total phosphorus				
		Chlorine residual				
		pH			-	
		<i>E. coli</i>			cfu/100 mL	
		Cumulative flow volume of treated wastewater discharged to the irrigation field <sup>1</sup>	Continuous	Monthly	m <sup>3</sup> /day	Flow meter

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

13. The licence holder must undertake monitoring in accordance with the requirements specified in Table 11.

**Table 11: Monitoring of radium and actinium isotope requirements table**

Condition	Parameter	Unit	Averaging period	Frequency
Pond 1, Pond 2, Pond 3 / H3, Pond H4, Pond TK1, Pond H5C0, H6C Ponds (6), RK ponds (6), RB ponds (2), K ponds (9), C ponds (2)	Gross alpha Gross beta	Bq/L	Spot sample	Six-monthly

## Records and reporting

14. 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.
15. 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 no later than 60 days after the end of that annual period an Annual Audit Compliance Report in the approved form.
16. 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;
  - the works conducted in accordance with condition 2 of this licence;
  - any maintenance of infrastructure that is performed in the course of complying with condition 6 and 7 of this licence;
  - monitoring programmes undertaken in accordance with conditions 11, 12, and 13 of this licence; and
  - complaints received under condition 14 of this licence.
17. The books specified under condition 16 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;

- (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.
- 18.** The licence holder must submit to the CEO, no later than 30 September in each year, an annual environmental report for the preceding annual period which includes, but is not limited to:
- (a) results of monitoring required by condition 13;
  - (b) a summary of any complaints received, and management actions taken for each complaint; and
  - (c) a summary of any environmental incidents and any action(s) taken.

## Definitions

In this licence, the terms in Table 1 have the meanings defined.

**Table 1: Definitions**

Term	Definition
AEP	means Annual Exceedance Probability
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).
ACN	Australian Company Number
annual period	a 12 month period commencing from September 1 until August 31 of the immediately following year.
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: <a href="mailto:info@dwer.wa.gov.au">info@dwer.wa.gov.au</a>
condition	means a condition to which this licence is subject under s.62 of the EP Act
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)
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.

Term	Definition
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.
quarterly	means a period of time where at least 45 days have occurred between the days on which samples are taken in successive quarters.
spot sample	means a discrete sample representative at the time and place at which the sample is taken.
waste	has the same meaning given to that term under the EP Act.

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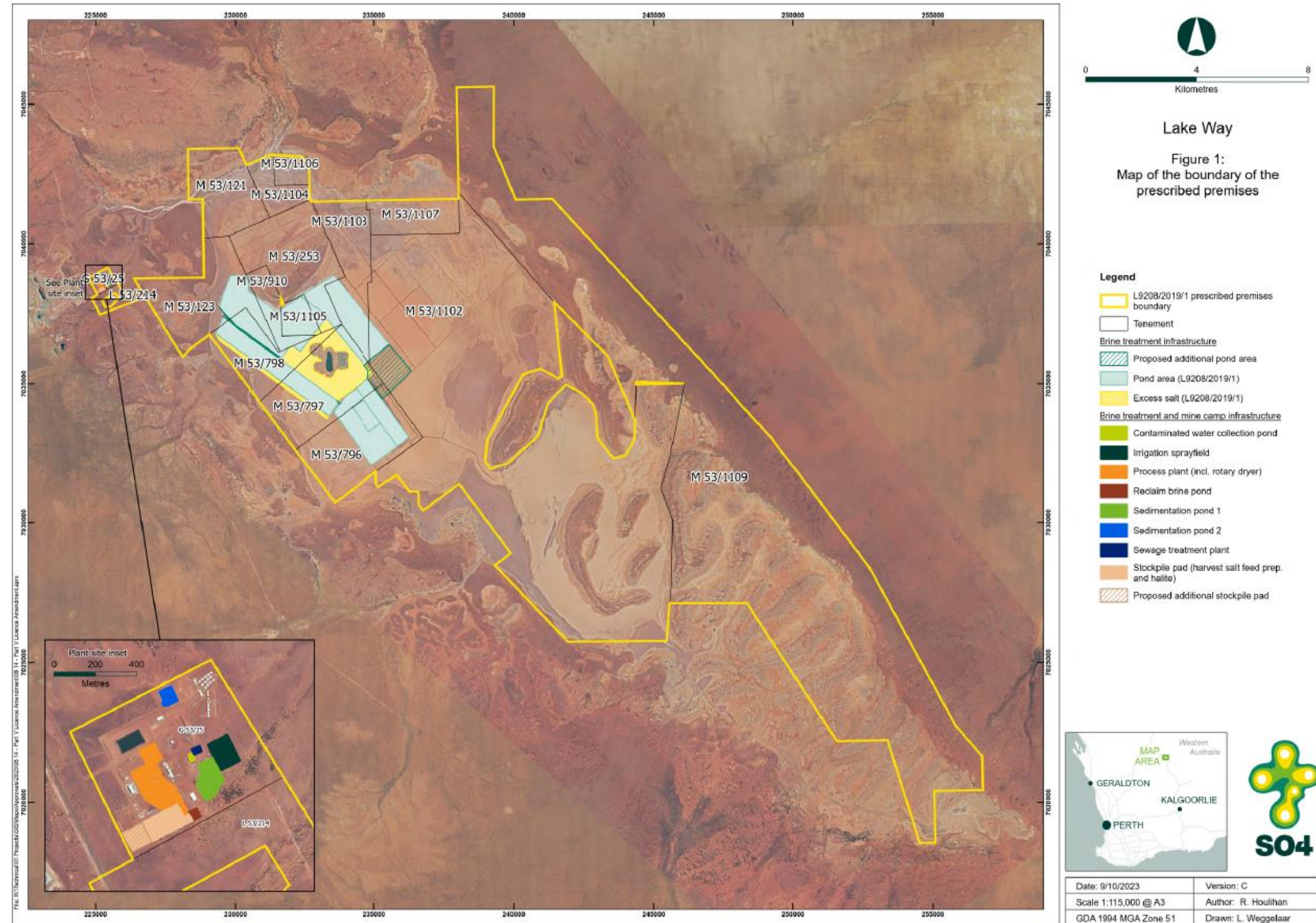
**END OF CONDITIONS**



## Schedule 1: Maps

### Premises map

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



**Figure 1: Site layout and boundary of the prescribed premises – boundary indicated by yellow outline**

L9208/2019/1 (Date of amendment: 11 October 2023)

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