



<b>Licence number</b>	L8654/2012/2
<b>Licence holder</b>	Mineral Resources Limited
<b>ACN</b>	118 549 910
<b>Registered business address</b>	20 Walters Drive Osborne Park WA 6017
<b>DWER file number</b>	DER2015/001584-1~5
<b>Duration</b>	02/09/2023 to 01/09/2043
<b>Date of issue</b>	31 August 2023
<b>Premises details</b>	Phil's Creek Project Mining tenements M47/1359, M47/1421 and Miscellaneous Licence L47/336 As defined by the coordinates in Schedule 2 NEWMAN WA 6753

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	2,400,000 tonnes per annual period
Category 85: Sewage facility	64 cubic metres per day
Category 89: Putrescible landfill site	100 tonnes per annual period

This licence is granted to the licence holder, subject to the attached conditions, on 31 August 2023, 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
29/8/2013	L8654/2012/1	New licence
10/04/2014	L8654/2012/1	Licence amendment – increase capacity
3/09/2015	L8654/2012/1	Licence amendment to transfer the Licence from PMI to MRL and reduce the category 5 design capacity from 5.8 million tpa to 50,000 tpa
11/08/2020	L8654/2012/1	DWER initiated amendment following notification from the Licence Holder that they intend to recommence operations at the Premises and wish for the category 5 throughput to be increased back to 2,400,000 tpa.
24/08/2021	L8654/2012/1	Licence amendment to increase Category 85 throughput capacity.
31/08/2023	L8654/2012/2	Licence renewal

## 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:

### General

1. The licence holder must only accept onto the premises waste of a waste type, which does not exceed the corresponding rate at which waste is received, and which meets the corresponding acceptance specification set out in Table 1.

**Table 1: Types of waste authorised to be accepted onto the premises**

Facility	Waste type	Rate at which waste is received	Acceptance specification <sup>1</sup>
Landfill as shown on the Premises Map in Schedule 1	Inert Waste Type 1	100 tonnes per year	None specified
	Inert Waste Type 2 - plastics		
	Putrescible Waste		
	Clean Fill		
Tyre disposal area as shown on the Premises Map Schedule 1	Inert Waste Type 2 - tyres		
WWTPs as shown on the Premises Map in Schedule 1	Sewage	64 m <sup>3</sup> /day	Accepted through sewer inflow(s) only

Note 1: Additional requirements for the acceptance of controlled waste (including asbestos and tyres) are set out in the *Environmental Protection (Controlled Waste) Regulations 2004*.

2. The licence holder must ensure that where waste does not meet the waste acceptance criteria set out in condition 1, it is removed from the premises by the delivery vehicle or, where that is not possible, stored in a quarantined storage area or container and removed to an appropriately authorised facility as soon as practicable.
3. The licence holder must not accept any waste from other premises.
4. The licence holder must:
  - (a) implement security measures at the site to prevent as far as is practical unauthorised access to the site; and,
  - (b) undertake regular inspections of all security measures and repair damage as soon as practicable.

### Infrastructure

5. The Licence Holder must install the infrastructure listed in Table 2, in accordance with;
  - (a) the corresponding design and installation requirements; and
  - (b) at the corresponding infrastructure location; as set out in Table 2.

**Table 2: Design and installation requirements**

Infrastructure	Design and installation requirements	Infrastructure location
WWTP extension	<p>Must be comprised of:</p> <ul style="list-style-type: none"> <li>Tristar Submerged Aerated Filter unit or similar; and</li> <li>32 kL balance tank.</li> </ul> <p>Must be installed so as to function with existing WWTP infrastructure as a continuous treatment unit.</p> <p>Must be able to treat sewage to the following discharge parameters:</p> <ul style="list-style-type: none"> <li>BOD &lt;20 mg/L</li> <li>TSS &lt;30 mg/L</li> <li>Total Nitrogen &lt;40 mg/L</li> <li>Total Phosphorus &lt;12 mg/L</li> <li><i>E. coli</i> &lt;30 cfu/100 mL</li> <li>pH – 6 to 9</li> <li>Residual Chlorine – 0.2 – 2.0 mg/L</li> </ul> <p>Must be placed on a compacted earthen pad.</p>	WWTPs as shown on the Premises map in Schedule 1
Irrigation area extension	<p>Irrigation area must be a maximum of 14,000 m<sup>2</sup>.</p> <p>Above ground sprinklers must be placed to ensure no pooling of water occurs.</p> <p>Irrigation area must be fenced to deter access.</p>	Irrigation spray field as shown on the Premises map in Schedule 1

## Emissions and discharges

6. The licence holder must ensure that the emissions specified in Table 3 are discharged only from the corresponding discharge point and only at the corresponding discharge point location.

**Table 3: Authorised discharge points**

Emission	Discharge point	Discharge point location
Treated wastewater from the accommodation camp WWTP	Irrigation area L1	As shown in Schedule 1, Figure 1 - map of authorised emission points.
Treated wastewater from the vehicle washdown facility	Discharge point L2	As shown in Schedule 1, Figure 1 - map of authorised emission points.

7. The licence holder must ensure that emissions from the discharge points listed in Table 4, for the corresponding parameter, do not exceed the corresponding limit when monitored in accordance with condition 15.

**Table 4: Emission and discharge limits**

Discharge point	Parameter	Limit	Averaging period
Irrigation area L1	Biochemical Oxygen Demand	20 mg/L	Spot sample
	Total Suspended Solids	30 mg/L	
	pH	6 – 9 pH units	
	Total Nitrogen	40 mg/L	
	Total Phosphorus	12 mg/L	
	<i>E.coli</i>	30 cfu/100mL	
Discharge point L2	Total Recoverable Hydrocarbons	15 mg/L	Spot sample

## Operations

8. The licence holder must ensure that the waste types specified in Table 5 are only subjected to the corresponding process(es), subject to the corresponding process limits and/or specifications.

**Table 5: Waste processing**

Waste type	Process(es)	Process limits and/or specifications <sup>1</sup>
Inert Waste Type 1	Receipt, handling and disposal of waste by landfilling	<u>All waste types (except tyres)</u> Disposal of waste by landfilling shall only take place within the landfill area shown on the premises map in Schedule 1. The separation distance between the base of the landfill and the highest groundwater level must not be less than 2 m.
Putrescible Waste		
Clean Fill		
Inert Waste Type 2		Tyres must only be disposed of at the in-pit waste dump shown on the premises map in Schedule 1; and, <ul style="list-style-type: none"> <li>i) in batches separated from each other by at least 100 mm of soil and each consisting of not more than 40 m<sup>3</sup> of tyres reduced to pieces; or,</li> <li>ii) in batches separated from each other by at least 100 mm of soil and each consisting of not more than 1,000 whole tyres.</li> </ul>
Sewage	Biological, physical and chemical treatment at WWTP	None specified.

*Note 1: 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.*

9. The licence holder must manage the landfilling activities to ensure:
  - (a) the size of the tipping face is kept to a minimum and not larger than 30m in length and 2m above ground level in height; and,
  - (b) waste is placed and compacted to ensure all faces are stable and capable of retaining cover material.
10. The licence holder must ensure that cover is applied and maintained on landfilled waste types in accordance with the corresponding cover requirements in Table 6, and that sufficient stockpiles of cover are maintained on the premises at all times.

**Table 6: Cover requirements<sup>1</sup>**

Waste Type	Cover material	Cover depth	Timescales
Inert Waste Type 1	Inert and incombustible material	Sufficient to ensure the waste is completely covered and that no waste is exposed	Weekly or as soon as practicable after deposit and prior to compaction.
Putrescible Waste			
Inert Waste Type 2 (Tyres only)	Soil	500 mm	As soon as practical following the achievement of final waste levels in the area(s) in which tyres are deposited.

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

11. The licence holder must ensure that wind-blown waste is contained within the boundary of the landfill and that wind-blown waste is returned to the tipping area on at least a monthly basis.
12. The licence holder must ensure that no waste is burnt on the premises.
13. The licence holder must ensure that only treated wastewater is disposed of via irrigation.
14. The licence holder must ensure that when irrigating treated wastewater from the wastewater treatment plant that:
  - (a) no irrigation generated run-off, spray drift or discharge occurs beyond the boundary of the defined irrigation area(s);
  - (b) treated wastewater is evenly distributed over the irrigation area;
  - (c) no soil erosion occurs;
  - (d) irrigation does not occur on land that is waterlogged; and
  - (e) vegetation cover is maintained over the irrigation area.

## Monitoring

15. The licence holder must monitor emissions in accordance with the requirements specified in Table 7 and record the results of all such monitoring.

**Table 7: Emissions and discharge monitoring**

Discharge point	Monitoring location	Parameter	Frequency	Averaging period	Unit
Irrigation area L1 as shown in Schedule 1, Figure 1	WWTP outlet pipe to sprayfield	Volumetric flow rate (cumulative)	Continuous	Monthly	m <sup>3</sup> /day
		Biochemical Oxygen Demand	Quarterly	Spot sample	mg/L
		Total Suspended Solids			mg/L
		pH <sup>1</sup>			pH units
		Total Nitrogen			mg/L
		Total Phosphorus			mg/L
		<i>E. coli</i> <sup>2</sup>			cfu/100mL
Discharge point L2 as shown in Schedule 1, Figure 1	Outlet to the environment	Total recoverable hydrocarbons	Quarterly	Spot sample	mg/L

Note 1: for pH, in-field non-NATA accredited analysis permitted

Note 2: for *E.coli*, actual units are to be reported except where the result is greater than the highest detectable level of 24,000 cfu/100mL. In this case the reporting of the highest detectable level is permitted.

- 16.** The licence holder must ensure that:
- for monitoring that is undertaken in each monthly period, there are at least 15 days in between the days on which samples are taken in successive months; and
  - for monitoring that is undertaken in each quarterly period, that there are at least 45 days in between the days on which samples are taken in a successive quarter.
- 17.** The licence holder must ensure that:
- all water samples are collected and preserved in accordance with AS/NZS 5667.1;
  - all surface water sampling is conducted in accordance with AS/NZS 5667.6;
  - all wastewater sampling is conducted in accordance with AS/NZS 5667.10; and
  - all sample analysis undertaken pursuant to conditions 15 and 21 must be undertaken by laboratories with current NATA accreditation for the relevant parameters being measured, unless otherwise specified in Table 7 and Table 9.
- 18.** The licence holder must ensure that all monitoring equipment used to comply with conditions 15 and 21 is operated and calibrated in accordance with the manufacturer's specifications.

- 19.** The licence holder must, where the requirements for calibration cannot be practicably met, or a discrepancy exists in the interpretation of the requirements, bring these issues to the attention of the CEO accompanied with a report comprising details of any modifications to the methods.
- 20.** The licence holder must record the total amount of waste arriving at the landfill, for each waste type listed in Table 8 in the corresponding unit, and for each corresponding time period, as set out in Table 8.

**Table 8: Waste deposited at the landfill**

Waste type	Unit	Time period
Inert Waste Type 1 Inert Waste Type 2 Putrescible Waste Clean Fill	Tonnes or cubic metres (where no weighbridge is present)	Each load arriving at the landfill

- 21.** The licence holder must monitor surface water in accordance with the specifications in Table 9.

**Table 9: Monitoring of ambient surface water concentrations**

Monitoring location	Parameter	Unit	Frequency	Averaging period
1) SW1 upstream (119.1803821°E, 22.7329159°S)	pH <sup>1</sup>	pH units	During each flow event	Spot sample
	Electrical conductivity	µS/cm		
	Total suspended solids	mg/L		
	Metals – Aluminium, Arsenic, Cadmium Chromium, Copper, Iron, Lead, Manganese, Mercury, Nickel, Selenium, Silver, Zinc.			
	Major Ions – Sodium, Potassium, Magnesium, Chloride, Carbonate, Bicarbonate, Nitrate, Sulfate.			
2) SW2 mouth of pit (119.1948013°E, 22.7393465°S)				
3) SW3 downstream (119.1955817°E, 22.7404999°S)				

*Note 1: in-field non NATA accredited analysis is permitted for pH.*

## Records and reporting

- 22.** 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 raised; and



- (d) the complete details and dates of any action taken by the licence holder to investigate or respond to any complaint.
- 23.** 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 5 of this licence;
  - (c) monitoring programmes undertaken in accordance with conditions 15, 18, 20, and 21 of this licence; and
  - (d) complaints received under condition 22 of this licence.
- 24.** The books specified under condition 23 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.
- 25.** 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 no later than 60 days after the end of that annual period an Annual Audit Compliance Report in the approved form.
- 26.** The licence holder must submit to the CEO by no later than 60 days after the end of each annual period, an Annual Environmental Report for that annual period for the conditions listed in Table 10, and which provides information in accordance with the corresponding requirement set out in Table 10.

**Table 10: Annual Environmental Report**

Condition	Requirement
Not applicable	Summary of any discharge of waste which occurs 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.
Condition 15 and Condition 7	<ul style="list-style-type: none"> <li>(a) For irrigation area L1, the volume (in m<sup>3</sup> or kL) of treated wastewater applied daily to the irrigation area, and monthly cumulative volumes presented in table format;</li> <li>(b) treated wastewater monitoring data in tabulated and graphical form including the sampling date;</li> <li>(c) an assessment and interpretation of the data, including comparison to historical trends and emission limits; and</li> <li>(d) copies of laboratory sample analysis reports.</li> </ul>
Condition 20	Records of waste types and quantities received and disposed of at the landfill.

Condition 21	<ul style="list-style-type: none"> <li>a) Surface water monitoring data in tabulated and graphical form including the sampling date;</li> <li>b) an assessment and interpretation of the data, including comparison to historical trends; and</li> <li>c) copies of laboratory sample analysis reports.</li> </ul>
Condition 0	Calibration report
Condition 22	Summary of complaints and any action taken by the licence holder.

- 27.** The licence holder must, within 21 days of becoming aware of any non-compliance with condition 7 of this licence, notify the CEO in writing of that non-compliance and include in that notification the following information:
- a) which condition was not complied with;
  - b) the time and date when the non-compliance occurred;
  - c) if any environmental impact occurred as a result of the non-compliance and if so what that impact is and where the impact occurred;
  - d) the details and result of any investigation undertaken into the cause of the non-compliance;
  - e) what action has been taken and the date on which it was taken to prevent the non-compliance occurring again; and
  - f) what action will be taken and the date by which it will be taken to prevent the non-compliance occurring again.
- 28.** The licence holder must, at least 90 days prior to recommencement of operations (after a period of care and maintenance), notify the CEO in writing.
- 29.** The Licence Holder must within 30 calendar days of an item of infrastructure required by condition 5 being installed:
- (a) undertake an audit of their compliance with the requirements of condition 5; and
  - (b) prepare and submit to the CEO an Environmental Compliance Report on that compliance.
- 30.** The Environmental Compliance Report required by condition 29, must include as a minimum the following:
- (a) certification by a person authorised to represent the licence holder that the items of infrastructure or component(s) thereof, as specified in condition 5, have been constructed in accordance with the relevant requirements specified in condition 5; and,
  - (b) be signed by a person authorised to represent the licence holder and contains the printed name and position of that person.

## Definitions

In this licence, the terms in Table 11 have the meanings defined.

**Table 11: 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 July until 30 June of the immediately following year
AS/NZS 5667.1	means the Australian Standard AS/NZS 5667.1 <i>Water Quality – Sampling – Guidance of the Design of sampling programs, sampling techniques and the preservation and handling of samples</i>
AS/NZS 5667.6	means the Australian Standard AS/NZS 5667.6 <i>Water Quality – Sampling – Guidance on sampling of rivers and streams</i>
AS/NZS 5667.10	means the Australian Standard AS/NZS 5667.10 <i>Water Quality – Sampling – Guidance on sampling of waste waters</i>
averaging period	means the time over which a limit is measured or a monitoring result is obtained
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>
cfu/100mL	means colony forming units per 100 millilitres
Clean Fill	has the meaning defined in Landfill Definitions (see the term Landfill Definitions below)
controlled waste	has the meaning defined in <i>Environmental Protection (Controlled Waste) Regulations 2004</i>
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
EP Act	<i>Environmental Protection Act 1986</i> (WA)
EP Regulations	<i>Environmental Protection Regulations 1987</i> (WA)
hardstand	means a surface with a permeability of $10^{-9}$ metres/second or less

Term	Definition
Inert Waste Type 1	has the meaning defined in Landfill Definitions (see the term Landfill Definitions below)
Inert Waste Type 2	has the meaning defined in Landfill Definitions (see the term Landfill Definitions below)
Landfill Definitions	means the document titled “Landfill Waste Classification and Waste Definitions 1996” published by the Department of Water and Environmental Regulation
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.
NATA	means the National Association of Testing Authorities, Australia
NATA accredited	means in relation to the analysis of a sample that the laboratory is NATA accredited for the specified analysis at the time of the analysis
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
Putrescible Waste	has the meaning defined in Landfill Definitions (see the term Landfill Definitions above)
quarantined storage area or container	means a hardstand storage area or sealed-bottom container that is separate and isolated from authorised waste disposal areas and is capable of containing all non-conforming waste and its constituents, these areas must be clearly marked and their access restricted to authorised personnel
quarterly	means the 4 inclusive periods from 1 July to 30 September, 1 October to 31 December and in the following year 1 January to 31 March and 1 April to 30 June
Schedule 1	means Schedule 1 of this Licence unless otherwise stated
spot sample	means a discrete sample representative at the time and place at which the sample is taken
WWTP	means wastewater treatment plant

## END OF CONDITIONS



Schedule 1: Maps

Premises and emission point map

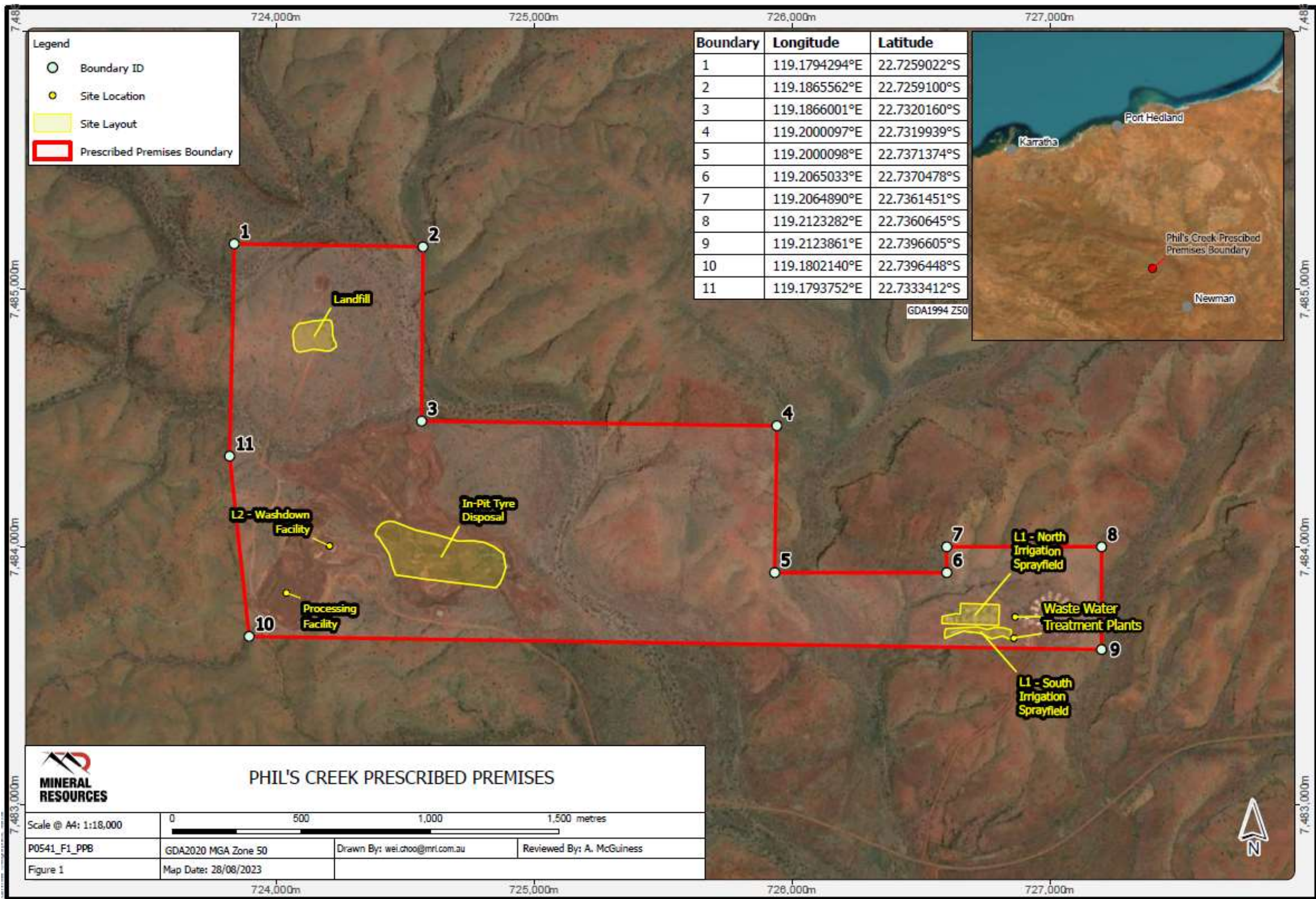


Figure 1: Map of the boundary of the prescribed premises and emission points



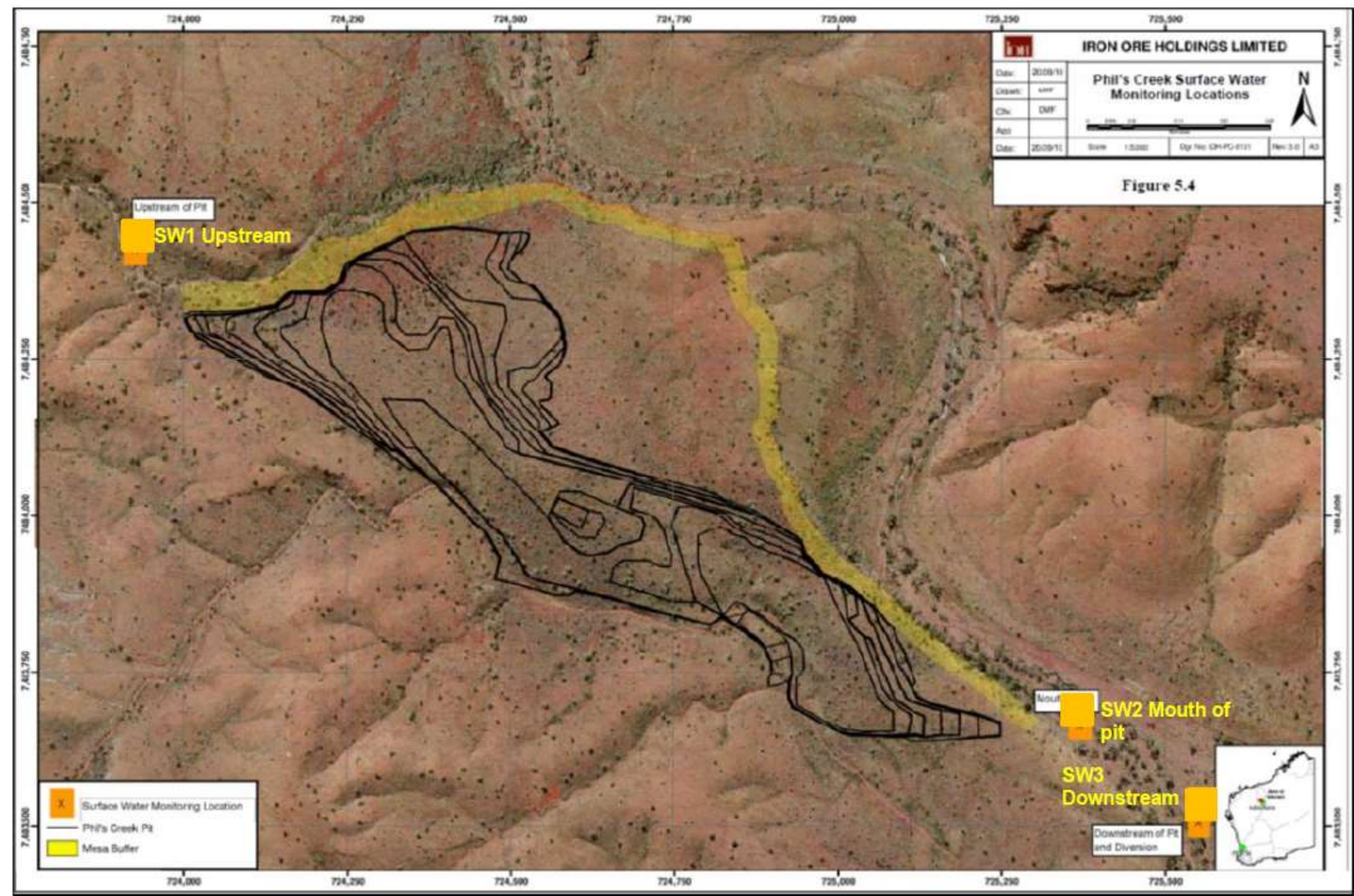


Figure 2: Surface water monitoring locations

## Schedule 2: Premises boundary

The corners of the premises boundary are the coordinates listed in Table 12.

**Table 12: Premises boundary coordinates**

	Latitude	Longitude
1	22.7259022°S	119.1794294°E
2	22.7259100°S	119.1865562°E
3	22.7320160°S	119.1866001°E
4	22.7319939°S	119.2000097°E
5	22.7371374°S	119.2000098°E
6	22.7370478°S	119.2065033°E
7	22.7361451°S	119.2064890°E
8	22.7360645°S	119.2123282°E
9	22.7396605°S	119.2123861°E
10	22.7396448°S	119.1802140°E
11	22.7333412°S	119.1793752°E