



Licence number	L8569/2011/2
Licence holder	Northern Star (Carosue Dam) Pty Ltd
ACN	116 649 122
Registered business address	Level 1, 388 Hay Street SUBIACO WA 6008
DWER file number	2011/005435-1
Duration	07/07/2015 to 06/07/2031
Date of issue	18/06/2015
Date of amendment	29/11/2023
Premises details	Porphyry Gold Mine Legal description – Part of Mining tenements M31/3, M31/4, M31/5, M31/6, M31/30, M31/76, M31/380, M31/381, L31/44, L31/59, L31/62, L31/63, L31/45 and M31/172 As defined by the Premises maps in Schedule 1

Prescribed premises category description (Schedule 1, <i>Environmental Protection Regulations 1987</i>)	Assessed production capacity
Category 6: Mine dewatering: premises on which water is extracted and discharged into the environment to allow mining of ore.	3 000 000 tonnes per annual period
Category 64: Class II putrescible landfill site.	Not more than 9 500 tonnes per annual period
Category 63: Class I inert landfill site.	Not more than 5000 tonnes per annual period
Category 73: Bulk storage of chemicals, etc.	Not more than 880 m ³ in aggregate
Assessed activities directly related to the above categories	
Remediation of hydrocarbon contaminated soil generated on site at a bioremediation facility.	

This amended licence is granted to the licence holder, subject to the attached conditions, on 29 November 2023

**A/MANAGER, RESOURCE INDUSTRIES
REGULATORY SERVICES**

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

[L8569/2011/2 Date of Amendment 29/11/23](#)

Licence history

The licence and work approvals issued for the premises are:

Date	Reference number	Summary of changes
12/06/2009	W4536/2009/1	Works approval for the infrastructure and assessment of dewatering Porphyry Pit to Lake Rebecca.
12/06/2009	W4614/2009/1	Works approval to allow construction of pipeline to Million Dollar Pit and onto Lake Rebecca.
06/05/2010	W4649/2010/1	Works approval for Wallbrook dewatering project. Amended in May 2013 to extend the expiry date until May 2016.
27/05/2011	W4909/2011/1	Works approval for the Million Dollar project. Amended in April 2014 to extend the expiry until May 2018.
07/07/2011	L8569/2011/1	New licence issued.
18/06/2015	L8569/2011/2	Licence re-issue and amendment to REFIRE format.
29/04/2016	L8569/2011/2	Notice of amendment to extend the expiry date of the licence.
16/03/2020	L8569/2011/2	Licence amended to add Category 64 and Category 73 to the licence.
08/10/2021	L8569/2011/2	Transfer of licence from Saracen Gold Mine Pty Ltd to Northern Star (Carosue Dam) Pty Ltd. Administrative amendments limited only to format and appearance of licence and correction of clerical mistakes and unintentional errors.
13/01/2022	L8569/2011/2	Licence amendment to construct new dewatering pipelines from Porphyry pit to Margaret's and Enterprise pits, increase dewatering production capacity and increase hydrocarbon storage capacity
21/10/2022 11/2 9/2023	L8569/2011/2	Licence amendment to: a) Decrease freeboard limit at Margaret's pit from 6 to 1 mbgl; b) Additional Category 64 landfill on Porphyry / Maingays waste rock dump; and c) Addition of bioremediation facility as an assessed activity.
29/11/2023	L8569/2011/2	Licence amendment to: a) Expand the prescribed premise boundary to include mining tenements L31/45 and M31/152 (Wallbrook operations area) b) Include Million Dollar Pit, Eleven Bells Pit, Redbrook Pit and Red Flag Pit as dewatering

L8569/2011/2 Date of Amendment: 29/11/23

Date	Reference number	Summary of changes
		<p>effluent discharge locations.</p> <p>c) Add a Category 63 inert landfill on Wallbrook Waste dump and Enterprise Waste Rock dump</p> <p>d) Additional turkeys nest for storage of dewater at Wallbrook and Enterprise operational areas.</p> <p>e) Include bulk fuel storage at Wallbrook and Enterprise operational areas</p>

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 conditions

1. Nothing in the licence shall be taken to authorise any emission that is not mentioned in the licence, where the emission amounts to:
 - a) pollution;
 - b) unreasonable emission;
 - c) discharge of waste in circumstances likely to cause pollution; or
 - d) being contrary to any written law.
2. The licence holder must operate and maintain all pollution control and monitoring equipment to the manufacturer's specification or any relevant and effective internal management system.
3. The licence holder, except where storage is prescribed in section Premises operations, must ensure that environmentally hazardous materials are stored in accordance with the code of practice for the storage and handling of dangerous goods.
4. The licence holder must immediately recover, or remove and dispose of spills of environmentally hazardous materials outside an engineered containment system.
5. The licence holder must:
 - d) implement all practical measures to prevent stormwater run-off becoming contaminated by the activities on the premises; and
 - e) treat contaminated or potentially contaminated stormwater as necessary prior to being discharged from the premises.¹

Note¹: The *Environmental Protection (Unauthorised Discharges) Regulations 2004* make it an offence to discharge certain materials into the environment.

Premises operation

6. The licence holder must ensure that all pipelines containing environmentally hazardous substances are either:
 - a) equipped with telemetry systems and pressure sensors along pipelines to allow the detection of leaks and failures;
 - b) equipped with automatic cut-outs in the event of a pipe failure; or
 - c) provided with secondary containment sufficient to contain any spill for a period equal to the time between routine inspections.
7. The licence holder must ensure that any saline dewatering effluent shall only be managed in the following manner:
 - a) used for dust suppression in a manner that minimises damage to surrounding vegetation;
 - b) discharged to previously mined pits approved in accordance with condition 24 ; or
 - c) discharged to Lake Rebecca.

8. The licence holder must:
- undertake inspections as detailed in Table 1;
 - 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
 - maintain a record of all inspections undertaken.

Table 1: Inspection of infrastructure

Scope of inspection	Type of inspection	Frequency of inspection	Location
Dewatering pipelines	Visual integrity	12 hourly when dewatering	Schedule 1, Figure 2, 3, 9, 10
Turkey's nest freeboard	Visual to confirm required 300mm freeboard	Daily	Schedule 1, Figure 5, 9 and 10

9. The licence holder must undertake an annual assessment of vegetation within the zone of influence of any dewatering discharge lakes when discharge to Lake Rebecca is in operation. The assessment shall:
- photograph and record the presence and condition of key vegetation features within the zone of influence;
 - compare the results of the assessment against previous years assessments and identify whether any deterioration in the presence and/or quality of vegetation has taken place; and
 - be undertaken by a person suitably qualified in vegetation identification and sampling.
10. During annual periods where discharge to Lake Rebecca occurs, the licence holder must undertake an annual dewatering discharge assessment to show that mine dewatering discharges to the receiving environment are not having any adverse environmental impact. The assessment shall include:
- a site description (aerial photographs etc.), including plan showing dewatering discharge point(s);
 - topographical and meteorological data;
 - hydrology – catchment, rainfall and evaporation, runoff etc.;
 - significance of waterbody/watercourse with respect to flora and fauna;
 - waterbody/watercourse levels as a result of rainfall events (with respect to the seasonality of the waterbody/watercourse);
 - dewater discharge (volume and quality) as compared to runoff into the waterbody/watercourse and water quality (salt and metals) of the receiving waters;
 - the area of the waterbody/watercourse likely to be affected by the dewater discharge and effects on waterbody/watercourse levels resulting from the discharge;
 - the potential for water to flow along/out of the receiving waterbody/watercourse;
 - if dewatering occurs to a creek system (permanent or ephemeral), it will also be necessary to consider the consequences of the alteration of the receiving

environment, especially with respect to the impacts on vegetation and existing ecosystems;

- j) water balance estimates – including dewater and non-dewater scenarios (with and without consideration of runoff events);
- k) chemistry of the waterbody/watercourse – including dewater and non-dewater scenarios (with and without consideration of runoff events);
- l) a comparison between each year's monitoring data and that of all available data from previous years since mining commenced; and
- m) findings (including trends), conclusions and recommendations.

11. The licence holder must ensure that where waste produced on the premises are not taken off-site for lawful use or disposal, they are managed in accordance with the requirements in Table 2.

Table 2: Waste management

Waste type	Process(es)	Process limits ¹
Inert Waste Type 1 (Porphyry Landfill)	Disposal of less than 9,500 tonnes of waste by landfilling	All waste types must meet acceptance criteria for Class II landfills.
Inert Waste Type 2		Disposal of waste by landfilling must only take place within the waste rock dump area shown on the landfill location map in Schedule 1, Figure 7
Putrescible waste (including green waste)		Tyres may also be buried within the waste rock dumps. Less than 100 car tyre equivalents are to be buried at any one time. The separation distance between the base of the landfill and the highest groundwater level shall not be less than 2 m.
Hydrocarbon contaminated material		Disposal of material must only take place within a bioremediation cell within the footprint of the waste rock dump areas shown on Schedule 1, Figure 7. Material must be placed in defined bioremediation cells with specifications as required in Condition 18, Table 4. Material to be aerated quarterly.
Inert Waste Type 1 (Wallbrook and Enterprise landfills)	Disposal of less than 5,000 tonnes of waste per year by landfilling	All waste types must meet acceptance criteria for Class I landfills. Disposal of waste by landfilling must only take place within the Wallbrook and Enterprise waste rock dump as shown in Schedule 1, Figure 9 and 10. The separation distance between the base of the landfill and the highest groundwater level shall not be less than 2 m.

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

12. The licence holder must ensure that where waste does not meet the waste management criteria set out in condition 11 it is removed from the premises by the delivery vehicle or, where that is not possible, stored in a segregated storage area or container and removed to an appropriately authorised facility as soon as practicable.
13. The licence holder must manage the landfilling activities to ensure that waste is covered at least fortnightly.
14. The licence holder must ensure that cover is applied and maintained on landfilled wastes in accordance with Table 3 and that sufficient stockpiles of cover are maintained on site at all times.

Table 3: Cover requirements¹

Waste Type	Cover requirements
Inert Waste Type 1	No cover required
Inert Waste Type 2	To be covered fortnightly in which the waste was deposited with sufficient quantities of Type 1 inert waste, clean fill or other appropriate cover material to prevent the spread of fire and harbouring of disease vectors. A minimum depth of 500 mm of soil cover is maintained over the buried tyres following disposal.
Putrescible wastes	

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

15. The licence holder must implement control measures to prevent infestations of pests, flies and vermin at the premises.
16. The licence holder must ensure that windblown waste is collected on at least a weekly basis and returned to the tipping area.
17. The licence holder must ensure that there are appropriate equipment in place at the premises so that any unauthorised fire is promptly extinguished.
18. The licence holder must ensure that hydrocarbons and mine dewater are only stored within vessels or containment cells provided with the infrastructure detailed in Table 4.

Table 4: Containment infrastructure

Containment cell	Material	Infrastructure requirements
Bulk fuel yard within the project area (labelled Porphyry)	C1 combustible liquid (diesel)	Total of 8 x 110 kL self-bunded wrap tanks, located within a concrete/compacted clay or high density polyethylene lined area; or combination of self-bunded and steel storage tanks with adequate secondary bunding. Fitted with a high level mechanical floatswitch.
Mine dewatering turkeys nest dams 1, 2, 3, 4 (Wallbrook), 5 (Enterprise)	Mine dewater	Lined with a 1.0 mm HDPE liner.

Bioremediation facility	Contaminated soil	<p>Bio pads to be maximum 10x10x1m (LxWxD). Lined with 1.0 mm (or greater) HDPE liner.</p> <p>Walls of cells must be maintained to be higher than 100 mm above height of the material stored.</p> <p>Located within the footprint of the waste rock dump areas shown on the location map in Schedule 1, Figure 7</p> <p>All controls must be installed on any new bioremediation facility.</p>
Bulk Fuel Storage Enterprise	C1 combustible liquid (diesel)	<p>Total of 2 x double-skinned and self-bunded 110kl diesel storage tanks, fitted with smart fill key system for accurate recording of usage.</p> <p>Located in area detailed as fuel storage identified in Figure 10.</p>
Bulk Fuel Storage Wallbrook	C1 combustible liquid (diesel)	<p>Total of 2 x double-skinned and self-bunded 110kl diesel storage tanks, fitted with smart fill key system for accurate recording of usage.</p> <p>Located in area detailed as fuel storage in Figure 9.</p>

19. The licence holder must construct and maintain the infrastructure in Column 1 of Table 5 in accordance with the requirements specified in Column 2 of Table 5, at the locations referenced in Column 3 of Table 5.

Table 5: Infrastructure and equipment requirements

	Column 1	Column 2	Column 3
Item	Infrastructure/Equipment	Requirements (design and construction)	Site plan reference
1.	Mine dewatering turkeys nest dam 2	<ul style="list-style-type: none"> Lined with a 1.0 mm UV resistant HDPE liner; Designed to provide a 300 mm freeboard; and Fauna egress ladders/nets to be installed at each corner of turkeys nest. 	Schedule 1, Figure 5
2.	Mine dewatering turkeys nest dam 3	<ul style="list-style-type: none"> Lined with a 1.0 mm UV resistant HDPE liner; Designed to provide a 300 mm freeboard; and Fauna egress ladders/nets to be installed at each corner of turkeys nest. 	Schedule 1, Figure 5
3.	Dewatering pipeline network from Margaret's to Enterprise pits	<ul style="list-style-type: none"> To be placed within V drains with adequate bunds to contain volume of water potentially spilt between routine inspections; or 	Schedule 1, Figure 2

		<ul style="list-style-type: none"> To be constructed with automatic cut-outs in the event of a pipe failure To be constructed with telemetry systems and pressure sensors to allow the detection of leaks and failures 	
4.	Class II landfill	<ul style="list-style-type: none"> Maximum dimension of trenches to be 25x5x4m (LxWxD); and To be constructed within the footprint of the Porphyry / Maingays waste rock dump as shown within Schedule 1, Figure 6. 	<p>Within the footprint of the waste rock dump</p> <p>Schedule 1, Figure 7</p>
5.	Bioremediation facility	<ul style="list-style-type: none"> Maximum dimension of bio pads to be 10x10x1m (LxWxD); Lined with 1.0 mm (or greater) HDPE; Drainage directed away from facility; Walls of facility maintained to be higher than 100mm than the material stored; To be constructed within the footprint of a waste rock dump areas as shown within Schedule 1, Figure 7; and All controls must be installed on any new bioremediation facility. 	<p>Within the footprint of the waste rock dump</p> <p>Schedule 1, Figure 7</p>
6.	Mine dewatering turkey nest dam 4 (Wallbrook)	<ul style="list-style-type: none"> Lined with a 1.0 mm UV resistant HDPE liner; Designed to provide a 300 mm freeboard; and Fauna egress ladders/nets to be installed at each corner of turkeys nest. 	Schedule 1, Figure 9
7.	Class 1 Landfill (Wallbrook)	<ul style="list-style-type: none"> Maximum dimension of trenches to be 25 x 5 x 4m (LxWxD); Only one trench to be open at a time; and To be constructed within the footprint of the Wallbrook waste rock dump as shown within Schedule 1, Figure 9. 	<p>Within the footprint of the waste rock dump</p> <p>Schedule 1 Figure 9</p>
8	Mine dewatering turkey nest dam 5 (Enterprise)	<ul style="list-style-type: none"> Lined with a 1.0 mm UV resistant HDPE liner; Designed to provide a 300 mm freeboard; and Fauna egress ladders/nets to be installed at each corner of turkeys nest. 	Schedule 1, Figure 10
9	Dewatering pipeline between Eleven Bells, Redbrook and Red Flag pits and turkey nest dam	<p>Pipelines to be equipped with:</p> <ul style="list-style-type: none"> telemetry systems and pressure sensors along pipelines to allow the detection of leaks and failures; 	Schedule 1, Figure 9

	5	<ul style="list-style-type: none"> equipped with automatic cut-outs in the event of a pipe failure; or provided with secondary containment sufficient to contain any spill for a period equal to the time between routine inspections 	
10	Class 1 Landfill (Enterprise)	<ul style="list-style-type: none"> Maximum dimension of trenches to be 8x2x2m (LxWxD); Only one trench to be open at a time; and To be constructed within the footprint of the Enterprise waste rock dump as shown within Schedule 1, Figure 10. 	<p>Within the footprint of the waste rock dump</p> <p>Schedule 1 Figure 10</p>
11	Bulk Fuel Storage (Wallbrook)	<ul style="list-style-type: none"> 2 x double-skinned and self-bunded 110kl diesel storage tanks, fitted with smart fill key system for accurate recording of usage. 	Located in area detailed as fuel storage in Figure 9.
12	Bulk Fuel Storage (Enterprise)	<ul style="list-style-type: none"> 2 x double-skinned and self-bunded 110kl diesel storage tanks, fitted with smart fill key system for accurate recording of usage. 	Located in area detailed as fuel storage identified in Figure 10.

- 20.** The licence holder must within 30 calendar days of an item of infrastructure or equipment required by Table 5 being constructed and/or installed:
- undertake an audit of their compliance with the requirements of Table 5; and
 - prepare and submit to the CEO an Environmental Compliance Report on that compliance.
- 21.** The licence holder must ensure the construction compliance document required by condition 20:
- is certified by a qualified engineer stating that each item of infrastructure specified in Table 5 has been constructed in accordance with the conditions of the licence;
 - as constructed plans or photographs and a detailed site plan for each item of infrastructure or component of infrastructure specified in Table 5; and
 - be signed by a person authorised to represent the licence holder and contain the printed name and position of that person within the company.

Emissions

General

- 22.** The licence holder must record and investigate the exceedance of any descriptive or numerical limit or target specified in Table 8 and Table 13 of this licence.

Point source emissions to surface water

- 23.** The licence holder must ensure that where waste is emitted to surface water from the emission points in Table 6 [and identified on the map of emission points in Figure 2] it

is done so in accordance with the conditions of this licence.

Table 6: Emission points to surface water

Emission point reference	Description	Source including abatement
Lake Rebecca discharge point (LR1)	Dewatering water from the Million Dollar project	Saline mine dewater

Point source emissions to land

- 24.** The licence holder must ensure that where waste is emitted to groundwater from the emission points in Table 7 it is done so in accordance with the conditions of this licence.

Table 7: Emission points to land

Emission point reference	Description	Source including abatement
Porphyry pit (PY1/PY2)	Saline mine dewater	Water from dewatering of Million Dollar pit
Enterprise Pit (EP1)	Saline mine dewater	Water from dewatering of Margaret's pit
Margaret's pit (MG1)	Saline mine dewater	Water from dewatering of Porphyry pit
Million Dollar pit (MP1)	Saline mine dewater	Water from Enterprise pits (North and South) and water from Porphyrys pit/underground.
Eleven Bells Pit (EB1)	Saline mine dewater	Water from dewatering Redbrook Pit and Redflag Pit
Redbrook Pit (RP1)	Saline mine dewater	Water from dewatering Elevenbells Pit and Redflag Pit
Red Flag Pit Water (RF1)	Saline mine dewater	Water from dewatering Elevenbells Pit and Redbrook Pit

- 25.** The licence holder must not cause or allow point source emissions to groundwater that do not meet the limits listed in Table 8.

Table 8: Point source emission limits to groundwater

Emission point reference	Parameter	Limit (including units)	Averaging period
Porphyry pit (PY1/PY2), and Enterprise pit (EP1)	Freeboard	>6 meters below crest level	Spot sample
Margaret's Pit (MG1)	Freeboard	>1 meters below crest level	
Million Dollar pit	Freeboard	>6 meters below crest level	

(MP1)			
Eleven Bells Pit (EB1)	Freeboard	>6 meters below crest level	
Redbrook Pit (RP1)	Freeboard	>6 meters below crest level	
Red Flag Pit Water (RF1)	Freeboard	>6 meters below crest level	

Dust emissions

26. The licence holder must use all reasonable and practical measures to prevent, or where that is not practicable, to minimise dust emissions from the premises.

Monitoring

General monitoring

27. The licence holder must ensure that:
- all water samples are collected and preserved in accordance with AS/NZS 5667.1;
 - all groundwater sampling is conducted in accordance with AS/NZS 5667.4; AS/NZS 5667.6 or AS/NZS 5667.9 as relevant;
 - all sediment sampling is conducted in accordance with AS/NZS 5667.12; and
 - all laboratory samples are submitted to and tested by a laboratory with current NATA accreditation for the parameters to be measured unless indicated otherwise in relevant table.
28. The licence holder must ensure that:
- monthly monitoring is undertaken at least 15 days apart;
 - quarterly monitoring is undertaken at least 45 days apart; and
 - annual monitoring is undertaken at least 9 months apart.

Monitoring of point source emissions to surface water

29. The licence holder must undertake the monitoring in Table 9 according to the specifications in that table.

Table 9: Monitoring of point source emissions to surface water

Emission point reference	Parameter	Units	Frequency
Dewatering discharge outlet point to Lake Rebecca (LR1)	Volumetric flow total	kL	Monthly – when in operation
	pH ¹	-	Quarterly – when in operation
	Hydrocarbons	ug/L	
	Total dissolved solids (TDS) ¹	mg/L	
	Total suspended solids (TSS)		

Emission point reference	Parameter	Units	Frequency
	Cadmium, selenium, iron, cobalt, lead, copper, nickel, zinc, arsenic, chromium, sodium, potassium, calcium, manganese, chloride, bicarbonate and sulphate		

Note¹: In-field non-NATA accredited analysis permitted.

Monitoring of point source emissions to land

30. The licence holder must undertake the monitoring in Table 10 according to the specifications in that table.

Table 10: Monitoring of point source emissions to land

Emission point reference	Parameter	Units	Frequency
PY1, PY2 EP1, MP1, EB1, RP1, RF1	Freeboard	metres below crest level	Six monthly – when in operation
	Volumetric flow total	kL	Monthly – when in operation
	pH ¹	-	Quarterly – when in operation
	TDS ¹	mg/L	Quarterly – when in operation
Margaret's pit (MG1)	Freeboard	metres below crest level	Monthly – when in operation and 12 months after suspending dewater discharge into pit.
	Volumetric flow total	kL	Monthly – when in operation
	pH ¹	-	Quarterly – when in operation
	TDS ¹	mg/L	Quarterly – when in operation
Dewatering effluent used for dust suppression	Volumetric flow total	kL	Monthly

Note¹: In-field non-NATA accredited analysis permitted

Monitoring of inputs and outputs

31. The licence holder must undertake the monitoring specified in Table 11.

Table 11: Monitoring of inputs and outputs

Input/Output	Parameter	Units	Averaging period	Frequency
Waste inputs	Inert 1, inert 2, clean fill, putrescible waste, waste that complies with Class II criteria in the document	tonnes (wherea weighbridge is present)	N/A	After each landfill trench is filled

Input/Output	Parameter	Units	Averaging period	Frequency
	titled "Landfill Waste Classification and Waste Definitions" 1996	on the site)		
Waste outputs	Waste type as defined in the Landfill Waste Classification and Waste Definitions 1996	m ³ (where no weighbridge is present)		Each load leaving or rejected from the premises

Ambient environmental quality monitoring

32. The licence holder must undertake the monitoring in Table 12 according to the specifications in that table.

Table 12: Monitoring of ambient sediment quality

Monitoring point reference and location	Parameter	Units	Averaging period	Frequency
50, 100 and 200 m from dewatering discharge outlet point to Lake Rebecca (LR1)	pH ¹	-	Spot sample	Annually when in operation.
	TDS ¹	mg/L		
	Total soluble solids,			
	Cadmium, selenium, iron, cobalt, lead, copper, nickel, zinc, arsenic, chromium, sodium, potassium, calcium, manganese, chloride, bicarbonate, sulfate.			
	Salt crust thickness	mm		

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

Ambient groundwater monitoring

33. The licence holder must conduct monitoring in Table 13 according to the specifications in that table.

Table 13: Monitoring of ambient groundwater

Bore ID	Parameter	Unit	Frequency	Limit	Location
MAMB01	Standing water level	mbgl	Monthly – during active dewatering discharge into Margaret’s pit	4	Schedule 1: Maps, Figure 8, Figure 9 ¹ and Figure 10
MAMB02			Quarterly –after the cessation of dewatering		
MAMB03					
ENTWB1			Monthly – during active dewatering discharge into Million Dollar Pit		
ENTWB2			Quarterly –after the cessation of dewatering		
ENTWB3					

WBWB1			Monthly – during active dewatering discharge into Elevenbells Pit		
WBWB3			Monthly – during active dewatering discharge into Redbrook Pit		
WBWB4			Quarterly –after the cessation of dewatering		
M\$MB01			Monthly – during active dewatering discharge into Redflag Pit		
M\$MB02			Quarterly –after the cessation of dewatering		
M\$MB03					

Note 1: Figure 9 monitoring bore locations are indicative only.

Information

Records

- 34.** 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.
- 35.** 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.
- 36.** 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 19 of this licence;
 - any maintenance of infrastructure that is performed in the course of complying with condition 5, 6, and 19 of this licence;
 - monitoring programmes undertaken in accordance with conditions 29 to 33 of this licence; and
 - complaints received under condition 34 of this licence.
- 37.** The books specified under condition 36 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

d) be available to be produced to an inspector or the CEO as required.

Reporting

38. The licence holder must submit to the CEO an Annual Environmental Report by 31 March in each year. The report shall contain the information listed in Table 14 the format or form specified in that table.

Table 14: Annual environmental report

Condition or table (if relevant)	Parameter	Format or form
-	Summary of any failure or malfunction of any pollution control equipment or any environmental incidents that have occurred during the annual period and any action taken.	None specified
Condition 10	Annual dewatering discharge report.	
Condition 15	Measures to prevent infestations of pests, flies and vermin at the premises.	
Condition 16	The measures taken to control windblown waste.	
Table 9	Monitoring of point source emissions to surface water.	
Table 10	Monitoring of point source emissions to land.	
Table 11	Monitoring of inputs and outputs.	Tabular
Table 12	Monitoring of ambient sediment quality.	None specified
Table 13	Monitoring of ambient groundwater	A tabulated summary of results including: <ul style="list-style-type: none"> any limit exceedances; and discussion of groundwater mounding (if present), its extent and measures proposed to address it.
Condition 34	Complaints summary.	None specified
Condition 35	Compliance.	AACR

39. The licence holder must submit the information in Table 15 to the CEO according to the specifications in that table.

Table 15: Non-annual reporting requirements

Condition or table (if relevant)	Parameter	Reporting period	Reporting date	Format or form
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-	Copies of original reports submitted to the licence holder by third parties	Not Applicable	Within 14 days of the CEOs request	As received by the licence holder from third parties
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Notification

40. The licence holder must ensure that the parameters listed in Table 16 are notified to the CEO in accordance with the notification requirements of the table.

Table 16: Notification requirements

Condition or table (if relevant)	Parameter	Notification requirement ¹	Format or form
Condition 17	Unauthorised fire	Within fourteen (14) days of an unauthorised fire as per condition 17 of this licence.	None specified
Condition 25	Limit exceedance where management action taken	As soon as practicable but no later than 5pm of the next usual working day.	None specified
Condition 22	Breach of any limit specified in the licence	Part A: As soon as practicable but no later than 5 pm of the next usual working day.	None specified
-	Any failure or malfunction of any pollution control equipment or any incident, which has caused, is causing or may cause pollution	Part B: As soon as practicable.	
-	Intention for the site to recommence normal operations from care and maintenance status	At least 30 calendar days prior to site recommencing operations.	None specified

Note 1: Notification requirements in the Licence shall not negate the requirement to comply with s72 of the Act

Definitions

In this licence, the terms in Table 17 have the meanings defined.

Table 17: Definitions

Term	Definition
AACR	means Annual Audit Compliance Report, a report in a format approved by the CEO as presented by the licence holder or as specified by the CEO from time to time and published on the department's website and a copy of the AACR form is accessible from the DWER website
acceptance criteria	has the meaning defined in Landfill Definitions
Act	means the Environmental Protection Act 1986
annual period	means the inclusive period from 1 January until 31 December in the 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 5667.4	means the Australian Standard AS/NZS 5667.4 <i>Water Quality – Sampling Guidance on sampling from lakes, natural and man-made</i>
AS/NZS 5667.11	means the Australian Standard AS/NZS 5667.11 <i>Water Quality – Sampling – Guidance on sampling of groundwaters</i>
AS/NZS 5667.12	means the Australian Standard AS/NZS 5667.12 <i>Water Quality – Sampling – Guidance on sampling of bottom sediments</i>
averaging period	means the time over which a limit or target is measured or a monitoring result is obtained;
CEO	means Chief Executive Officer of the DWER. “submit to / notify CEO” (or similar), means either: <div style="text-align: center;"> Chief Executive Officer Department Administering the <i>Environmental Protection Act 1986</i> Locked Bag 10 JOONDALUP DC WA 6027 Telephone: (08) 6367 7000 or: Email: info@dwer.wa.gov.au </div>
clean fill	has the meaning defined in Landfill Waste Classification and Waste Definitions 1996 (as amended 2019), published by the CEO and as amended from time to time
cover material	means subsoil or other approved inert waste used for covering of waste
code of practice for the storage and handling of dangerous goods	means the document titled “Storage and handling of dangerous goods: Code of Practice” published by the Department of Mines, Industry Regulation and Safety (DMIRS), as amended from time to time

Term	Definition
dangerous goods	has the meaning defined in the <i>Dangerous Goods Safety (Storage and Handling of Non-explosives) Regulations 2007</i>
DFES	means the Department of Fire and Emergency Services of Western Australia
DWER	means Department of Water and Environmental Regulation
environmentally hazardous material	means material (either solid or liquid raw materials, materials in the process of manufacture, manufactured products, products used in the manufacturing process, by-products and waste) which if discharged into the environment from or within the premises may cause pollution or environmental harm. Note: Environmentally hazardous materials include dangerous goods where they are stored in quantities below placard quantities. The storage of dangerous goods above placard quantities is regulated by DMIRS
Fire Control Officer	in relation to this landfill site, means a person who has such qualifications in firefighting or fire control as are approved, appointed to that position by the licence holder of the landfill site
freeboard	means the distance between the maximum water surface elevations and the top of retaining banks or structures at their lowest point
fugitive emissions	means all emissions not arising from point sources
Inert Waste Type 1	has the meaning defined in Landfill Definitions
Inert Waste Type 2	has the meaning defined in Landfill Definitions
Landfill Definitions	means the document titled "Landfill Waste Classification and Waste Definitions 1996" published by the Chief Executive Officer of the Department of Environment as amended from time to time
leachate	means liquid released by or water that has percolated through waste and which contains some of its constituents
licence	means this licence numbered L8569/2011/2 and issued under the Act
licence holder	means the person or organisation named as licence holder on page 1 of the licence;
mm	means millimetre
mg/L	means milligrams per litre
monthly period	means a one-month period commencing from first day of a month until last day of the same month
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	means the area defined in the Premises Map in Schedule 1 and listed as the

Term	Definition
	premises address on page 1 of the licence
putrescible	has the meaning defined in Landfill Definitions
quarterly	means the four inclusive periods from 1 April to 30 June, 1 July to 30 September, 1 October to 31 December and in the following year, 1 January to 31 March
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; and
usual working day	means 0800 – 1700 hours, Monday to Friday excluding public holidays in Western Australia.

END OF CONDITIONS

Schedule 1: Maps

Premises map

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

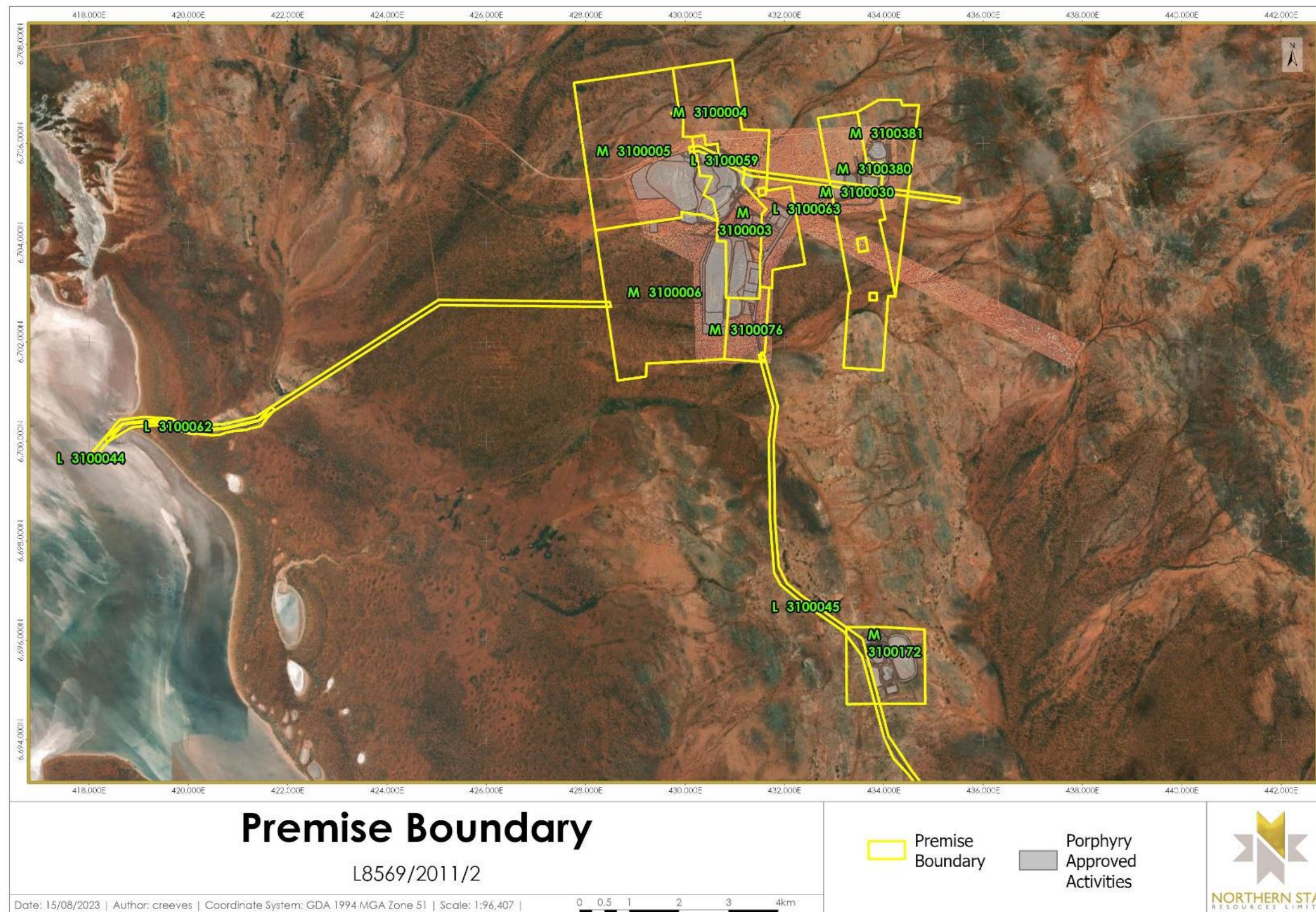


Figure 1: Map of the boundary of the prescribed premises

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Map of emission points (part 1)

The location of the emission point defined in Table 6 and Table 7 is shown below

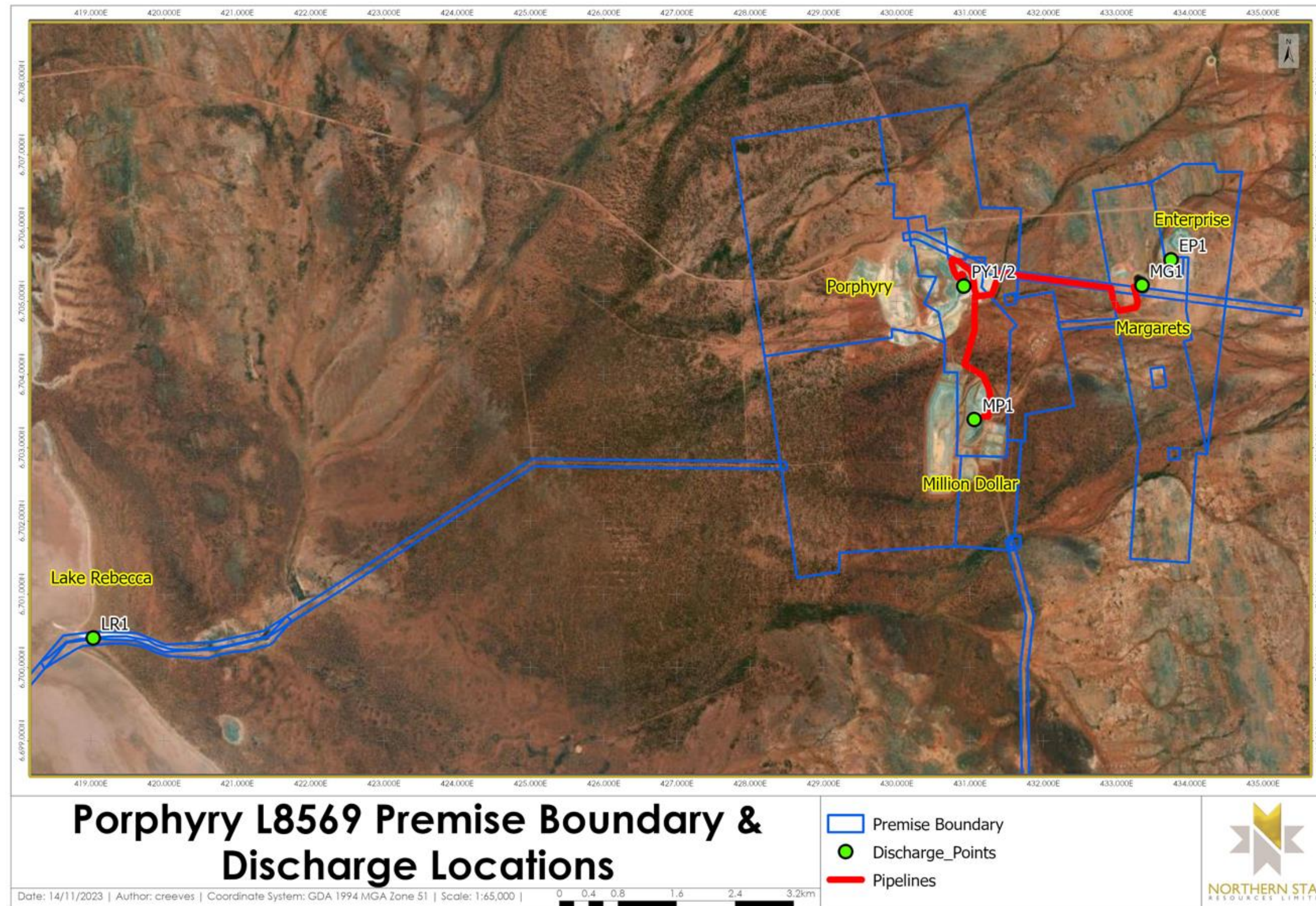


Figure 2: Emission point locations (part 1)

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Map of emission points (part 2) Map of monitoring locations



Figure 3: Emission point locations (Part 2)

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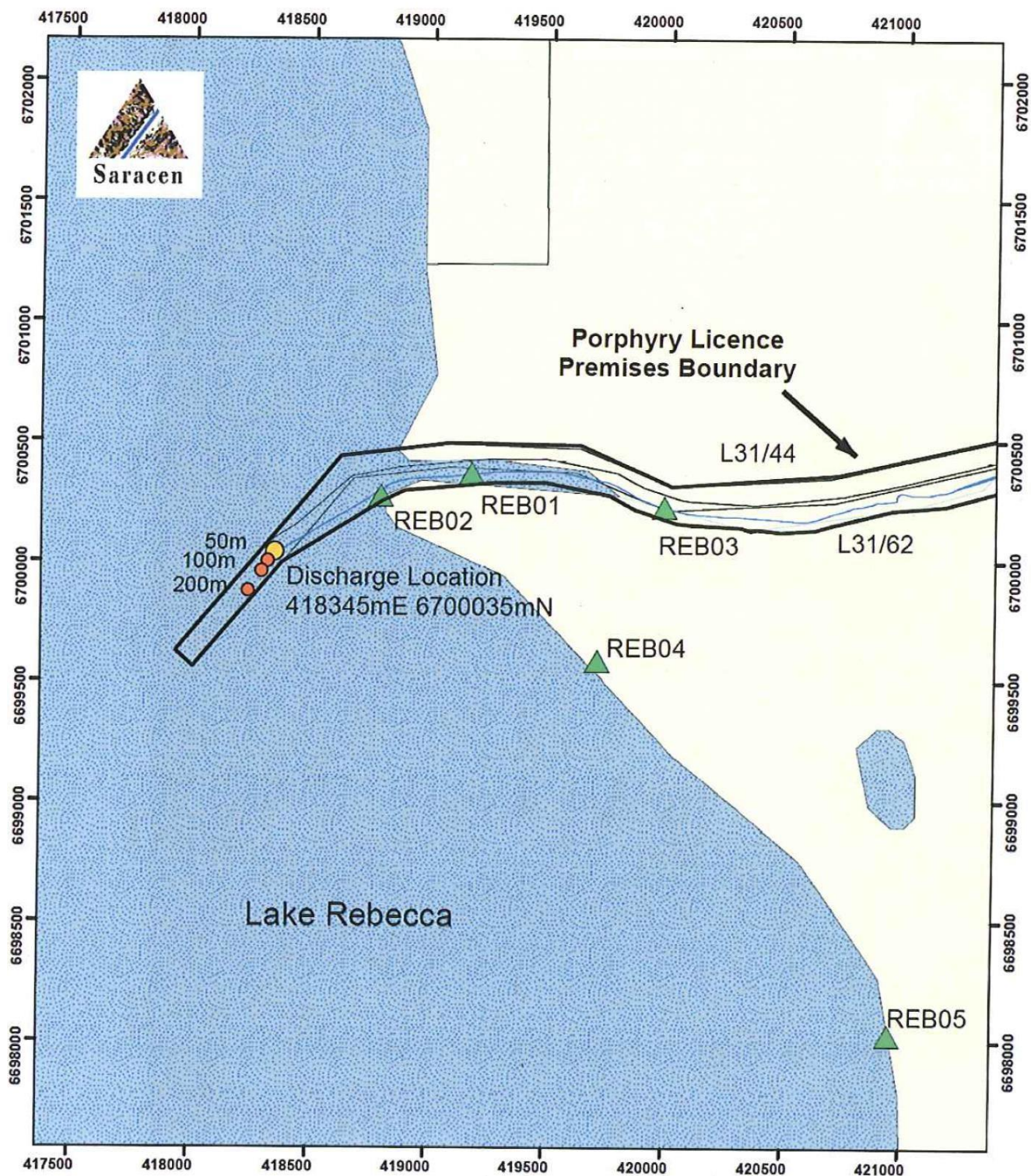


Figure 4: Monitoring point locations

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Map of landfill and saline water storage dam location

The location of the landfill and turkeys nest dams are shown in the map below (Figure 5).

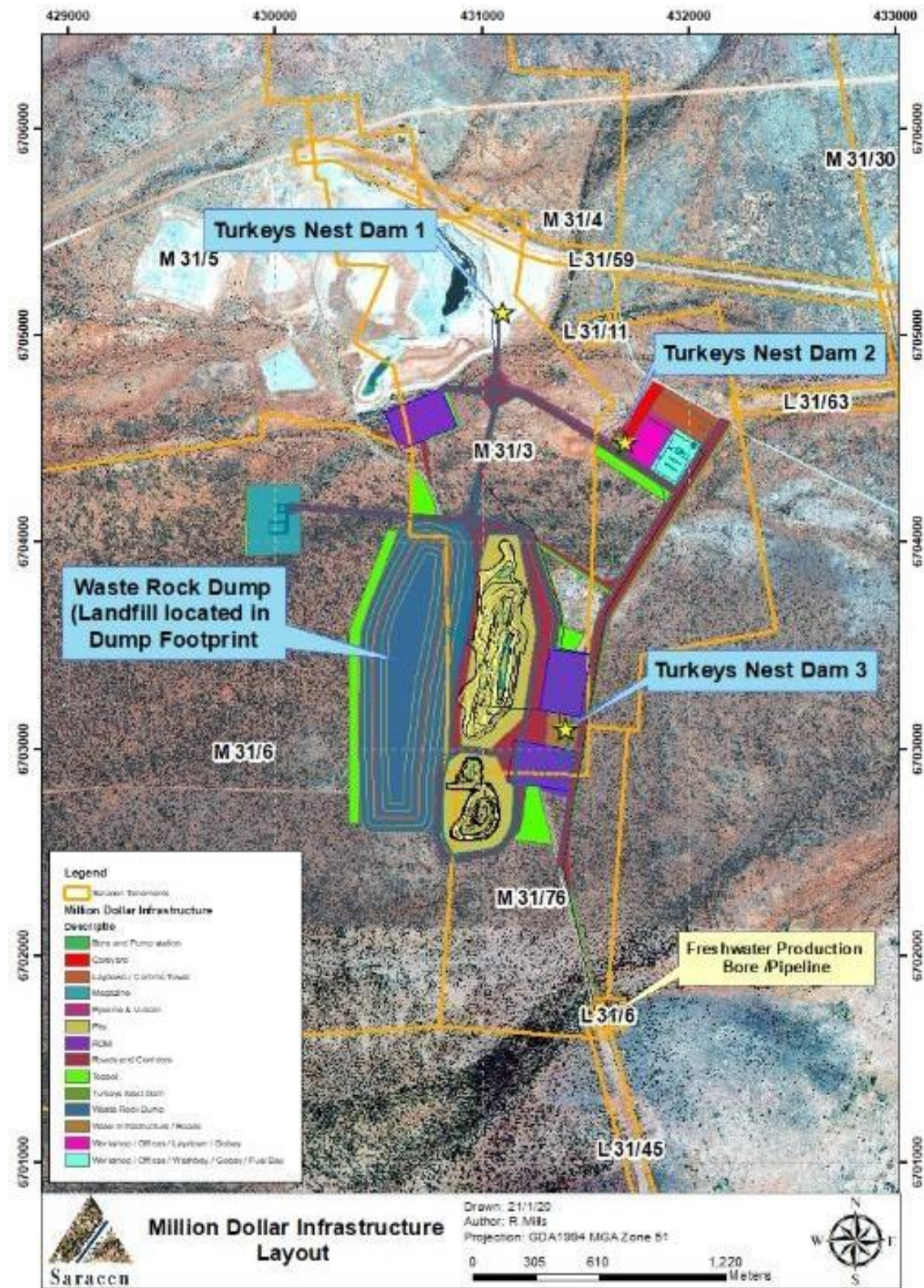


Figure 5: Landfill and Turkeys nest dam locations

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Map of bulk fuel storage facilities

The locations of the bulk fuel storage facilities are shown in the map below (Figure 6).

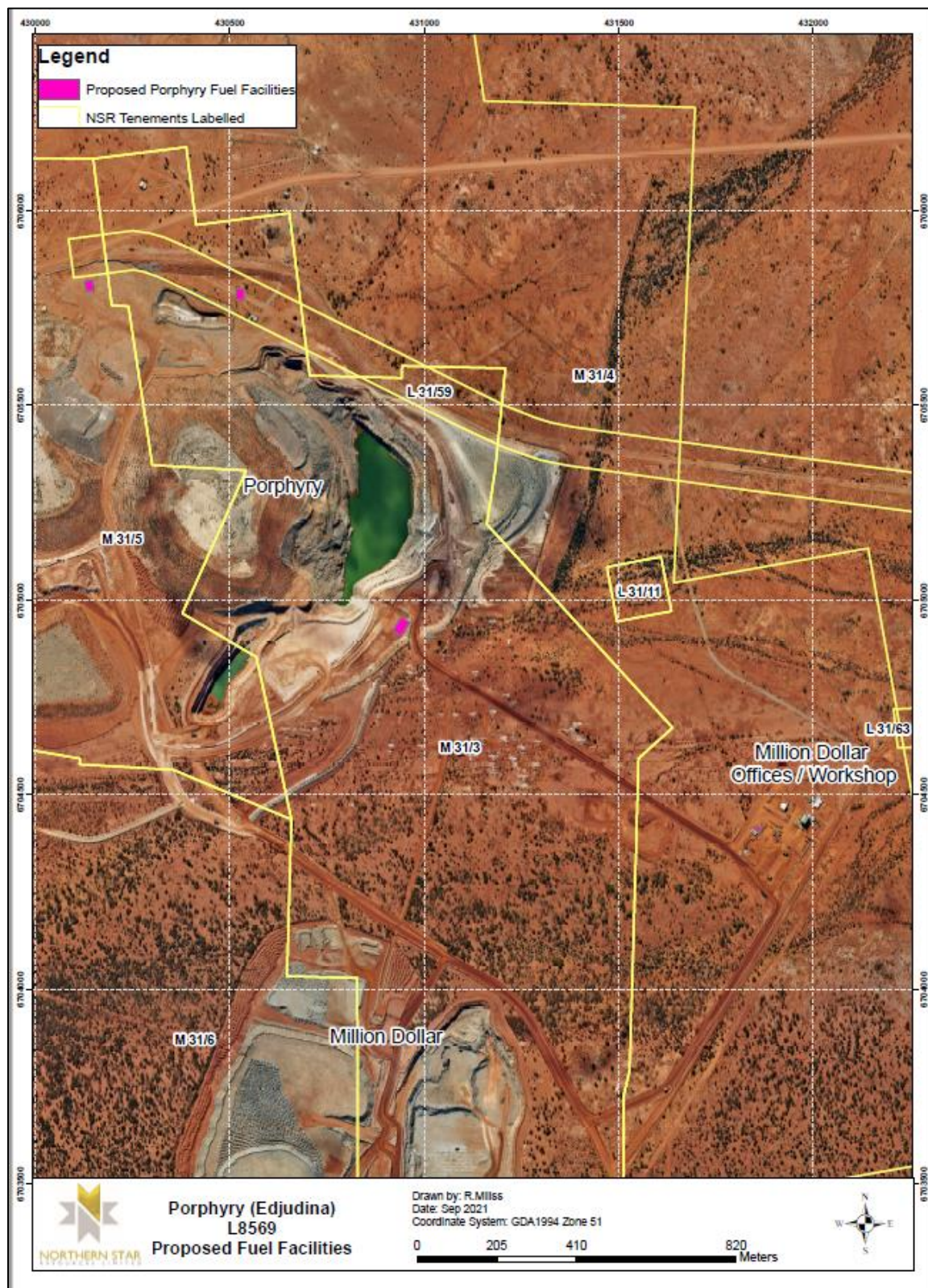


Figure 6: Map of fuel storage facilities

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Figure 7. Locations of Class II landfills and associated bioremediation facilities constructed within the Porphyry / Maingays or Million Dollar waste rock dumps.

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Figure 8. Margaret's Pit monitoring bores

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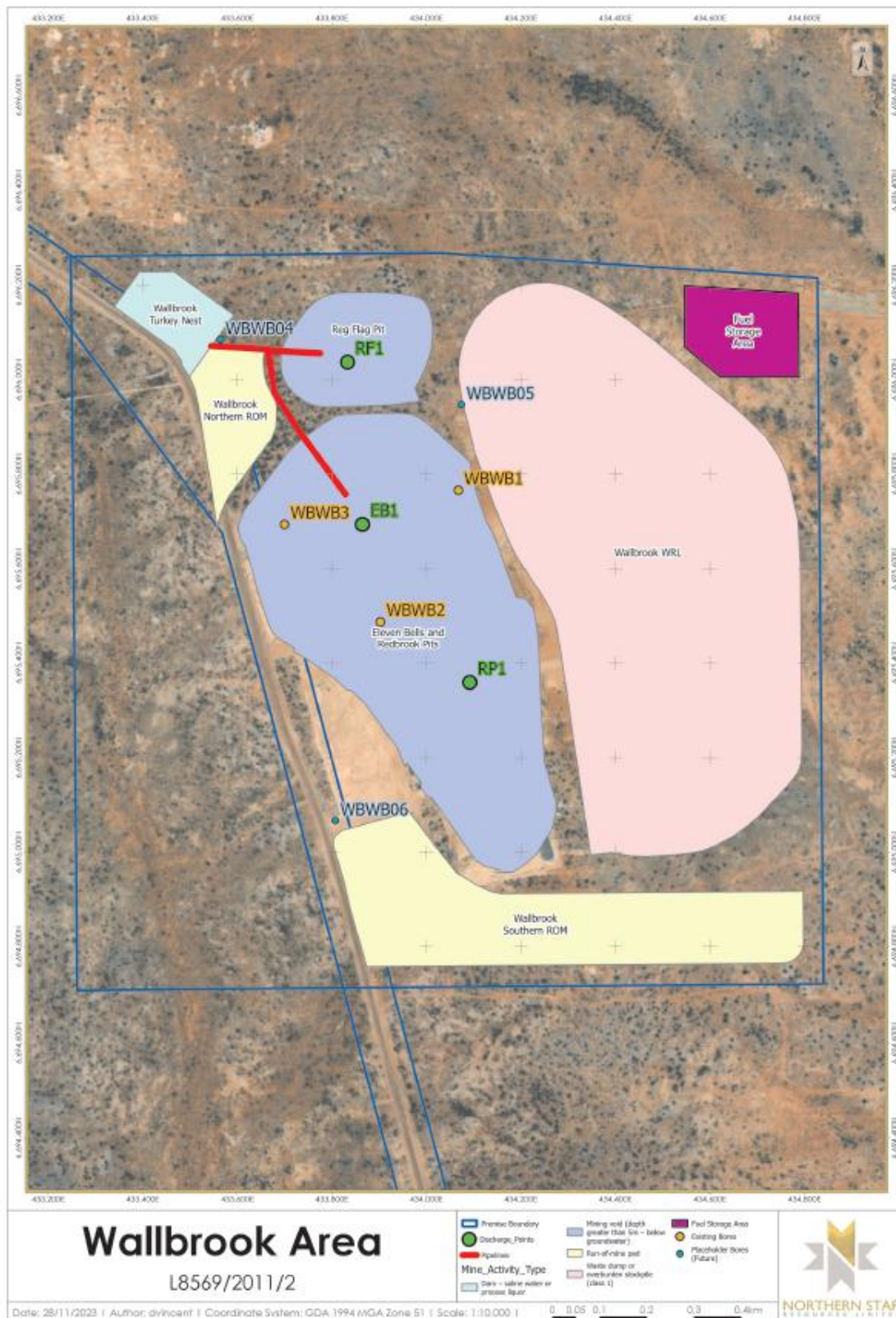


Figure 9: Wallbrook Infrastructure

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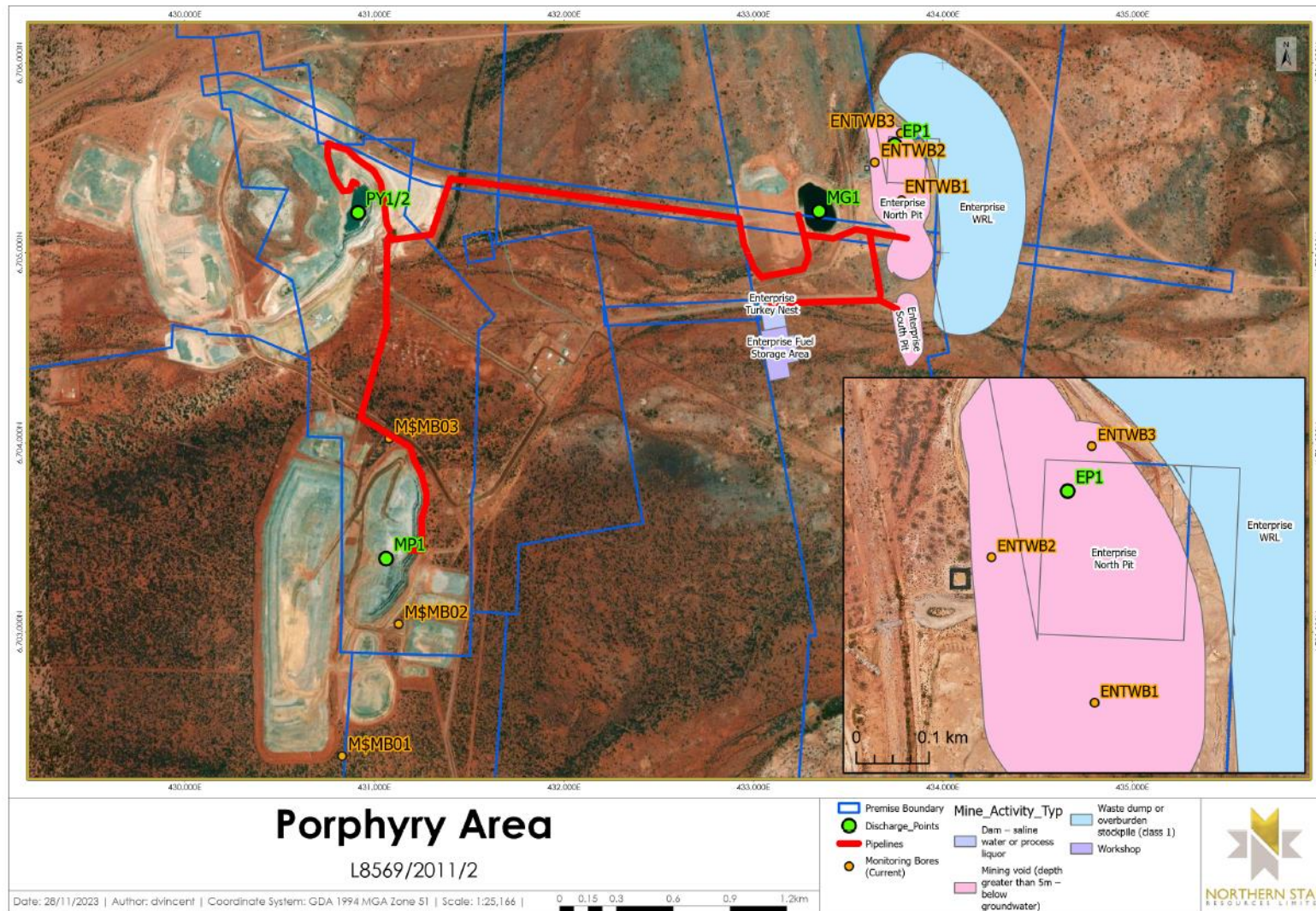


Figure 10: Enterprise Infrastructure

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