Government of Western Australia
Department of Water and Environmental Regulation

Licence

Licence number	L8469/2010/2
Licence Holder	Galaxy Lithium Australia Limited
ACN	130 182 099
Registered business address	Level 4, 21 Kintail Road APPLECROSS WA 6953
DWER file number	DER2014/001110-1
Internal number	INS-0001690
Duration	14/10/2013 to 13/10/2029
Date of issue	03/10/2013
Date of amendment	11/04/2025
Premises details	Ravensthorpe Spodumene Project Newdegate-Ravensthorpe Rd RAVENSTHORPE WA 6346 Part of Mining Tenement M74/244, G74/13 and L74/46 as defined by the map in Schedule 1 and the coordinates in Schedule 2

Prescribed premises category description (Schedule 1, *Environmental Protection Regulations 1987*)	**Assessed production / design capacity**
Category 5: Processing and beneficiation of metallic or nonmetallic ore.	2,000,000 tonnes per annual period
Category 12: Screening etc. of material.	80,000 tonnes per annual period

This amended licence is granted to the licence holder, subject to the following conditions, on 11 April 2025, by:

Christine Pustkuchen

Digitally signed by Christine Pustkuchen
Date: 2025.04.11 17:10:32 +08'00'

MANAGER, RESOURCE INDUSTRIES

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

Contents

Introduction

This introduction is not part of the licence conditions.

DWER's industry licensing role

The Department of Water and Environmental Regulation (DWER) is a government department for the state of Western Australia in the portfolio of the Minister for Environment. DWER's purpose is to advise on and implement strategies for a healthy environment for the benefit of all current and future Western Australians.

DWER has responsibilities under Part V of the *Environmental Protection Act 1986* (the Act) for the licensing of prescribed premises. Through this process DWER works with the business owners, community, consultants, industry and other representatives to prevent, control and abate pollution and environmental harm to conserve and protect the environment. DWER also monitors and audits compliance with works approvals and licence conditions, takes enforcement action as appropriate and develops and implements licensing and industry regulation policy.

Licence requirements

This licence is issued under Part V of the Act. Conditions contained within the licence relate to the prevention, reduction or control of emissions and discharges to the environment and to the monitoring and reporting of them.

Where other statutory instruments impose obligations on the premises licence holder the intention is not to replicate them in the licence conditions. You should therefore ensure that you are aware of all your statutory obligations under the Act and any other statutory instrument. Legislation can be accessed through the State Law Publisher website using the following link: http://www.slp.wa.gov.au/legislation/statutes.nsf/default.html

For your premises relevant statutory instruments include but are not limited to obligations under the:

- *Environmental Protection (Unauthorised Discharges) Regulations 2004* – these Regulations make it an offence to discharge certain materials such as contaminated stormwater into the environment other than in the circumstances set out in the Regulations.

- *Environmental Protection (Controlled Waste) Regulations 2004* - these Regulations place obligations on you if you produce, accept, transport or dispose of controlled waste.
- *Environmental Protection (Noise) Regulations 1997* – these Regulations require noise emissions from the Premises to comply with the assigned noise levels set out in the Regulations.

You must comply with your licence. Non-compliance with your licence is an offence and strict penalties exist for those who do not comply.

Licence holders are also reminded of the requirements of section 53 of the Act which places restrictions on making certain changes to prescribed premises unless the changes are in accordance with a works approval, licence, closure notice or environmental protection notice.

Licence fees

If you have a licence that is issued for more than one year, you are required to pay an annual licence fee prior to the anniversary date of issue of your licence.

Ministerial conditions

If your premises has been assessed under Part IV of the Act you may have had conditions imposed by the Minister for Environment. You are required to comply with any conditions imposed by the Minister.

Premises description and licence summary

Galaxy Resources Limited (Galaxy) is licensed for a mining and processing facility for the production of spodumene, a lithium aluminium silicate ($LiAl(Si_2O_6)$), comprising of lithium oxide (Li_2O), and tantalum oxide (Ta_2O_5). The project is located at Mt Cattlin two kilometres northwest of the Ravensthorpe town site. The Ravensthorpe Spodumene Project has the capacity to extract 2,000,000 tonnes of ore per year to produce 300 kilotonnes per annum (ktpa) of spodumene concentrate and 450 tonnes per annum (tpa) of tantalite.

The premises commenced operation in October 2010 but was placed into care and maintenance in July 2012. Since July 2012 the company retained their Part V licence to allow operations to recommence. Operations recommenced in 2016 and a number of licence amendments were granted to include new wet plant process infrastructure, upgrades and relocation of crushing and screening plant, and change of disposal method for their waste tailings.

Dewatering occurs on site and the water extracted is pumped to a raw water storage dam for use in the process when the premises is operating. Dewatering continues while the premises is in care and maintenance.

Power supply is from a diesel-fired power station. As the capacity is less than 10MW (max 6MW of power generated) it does not trigger the threshold for Category 52 prescribed premises under Schedule 1 of the EP Regs.

In April 2025 the licence was amended to allow crushing and screening activities under Category 12. The licence holder operates a mobile crushing and screening plant in order to provide material for premises use and offsite use premises operates a crushing and screening plant under a category.

The infrastructure on the premises includes:

- open pit;
- two waste rock dump;
- primary/spodumene concentrator;

- tailings storage facility (TSF) and associated pipelines:
    - SW Pit (decommissioned);
    - SE Pit TSF (operational);
    - NE Pit (proposed from 2025); and
    - TSF1 (decommissioned).
- reverse osmosis plant (waste will be directed to the Raw/Process Water Dam);
- a jaw crusher;
- a cone crusher;
- screens;
- stackers;
- production bores;
- associated pipelines and storage pond, power station (5 MW diesel-fired);
- offices;
- workshops;
- stores;
- laboratory; and
- access roads.

The licences and works approvals issued for the premises since 19 June 2009 are:

Instrument log		
Instrument	**Issued**	**Description**
W4533/2009/1	19/06/2009	New works approval for premises construction
W4533/2009/1	8/07/2010	Works approval amendment (removal of Phase 2)
W4533/2009/1	11/10/2010	Works approval amendment (removal of spill trays under conveyors)
L8469/2010/1	14/10/2010	New licence issued for premises operation
L8469/2010/1	7/07/2011	Licence amendment (noise management requirements)
L8469/2010/1	24/05/2012	Licence amendment (TSF manual revision)
W4533/2009/1	24/05/2012	Works approval amendment (extension to expiry for TSF lifts)
W4533/2009/1	17/01/2013	Works approval amendment (reflux classifier)
L8469/2010/2	3/10/2013	Licence reissue
L8469/2010/2	4/09/2014	Licence amendment (groundwater management and conversion to latest DER licence format).
L8469/2010/1	29/04/2016	Amendment Notice 1: Department initiated amendment in accordance with section 59(1)(k) of the *Environmental Protection Act 1986* to amend the duration of the licence date month year.
L8469/2010/2	2/06/2016	Licence amendment application to include construction of temporary tailings stockpile area and inclusion of Reflux clarifiers and Lithium Belt Filter into the process plant circuit.
L8469/2010/2	27/03/2018	Amendment Notice 2: an application for licence amendment was made on 15 May 2017 to confirm upgrades to the wet process plant and the repaired Tailings Storage Facility (TSF)

Instrument log		
Instrument	**Issued**	**Description**
		plus addition of two mobile crushing and screening plants and, an increased production capacity for category 5 activities up to 1,600,000 tonnes per annum (tpa).
L8469/2010/2	20/06/2018	Amendment Notice 3: an application for licence amendment was made on 12 April 2018 to upgrade to the process plant and the modular screening plant resulting in an increased production capacity for category 5 activities up to 2.0 Million tonnes per annum (Mtpa).
L8469/2010/2	25/01/2019	Amendment Notice 4: an application for licence amendment was made on 18 October 2018 to TSF cell 1 wall lift 3 to final RL height of 280.3m.
L8469/2010/2	08/04/2019	Amendment Notice 5: an application for licence amendment was made on 15 January 2019 to include relocation of Optical Sorter onto ROM pad inclusion of modular two stage crusher and 6m high acoustics barrier.
L8469/2010/2	03/07/2019	Amendment Notice 6: an application for licence amendment was made on 15 February 2019 to construct infrastructure and operate tailings waste deposition into disused mine void referred to as SW Pit.
L8469/2010/2	30/06/2020	Authorising 24x7 operations of Category 5 processing infrastructure at the premises. Consolidation of previous amendment notice conditions. Deletion of redundant conditions pursuant to Amendment Notice 4 based on Licence Holder's notification that TSF Cell 1 embankment lift will not proceed because the above-ground TSF has been decommissioned.
L8469/2010/2	11/02/2022	Amendment to authorise the operation of a new in-pit TSF (2SE Pit), changes to the premises boundary and removal and inclusion of groundwater monitoring bores on the licence.
L8469/2010/2	09/8/2024	Amendment to authorise the operation of a new in-pit TSF (NE Pit), changes to the premises boundary, removal of dust monitoring improvement program condition and the addition of additional air quality monitoring requirements.
L8469/2010/2	11/04/2025	Amendment (*APP-0026216)* to authorise operations of Category 12 screening etc. of material activities.

Severance

It is the intent of these licence conditions that they shall operate so that, if a condition or a part of a condition is beyond the power of this licence to impose, or is otherwise *ultra vires* or invalid, that condition or part of a condition shall be severed and the remainder of these conditions shall nevertheless be valid to the extent that they are within the power of this licence to impose and are not otherwise *ultra vires* or invalid.

END OF INTRODUCTION

Licence conditions

1 General

1.1 Interpretation

1.1.1 In the licence, definitions from the *Environmental Protection Act 1986* apply unless the contrary intention appears.

1.1.2 For the purposes of this licence, unless the contrary intention appears:

'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;

'Act' means the *Environmental Protection Act 1986;*

'AHD' means the Australian height datum;

'Annual Period' means the inclusive period from 1 January until 31 December in each year;

'applicable standards and guidelines' means but is not limited to the following documents:

- Department of Water and Environmental Regulation, '*Assessment and management of contaminated sites'* (November 2021) as amended from time to time. If relevant assessment levels are not included in this guideline, alternative assessment levels should be adopted from appropriate Australian and/or International guidance documents to enable an adequate assessment of the data;
- Australian and New Zealand Guidelines for Fresh and Marine Water Quality, as amended from time to time.

'AS/NZS 3580.9.3' means Australian Standard AS/NZS 3580.9.3 *Determination of suspended particulate matter—Total suspended particulate matter (TSP)—High volume sampler gravimetric method;*

'AS/NZS 3580.1' means Australian Standard AS/NZS 3580.1.1 *Methods for sampling and analysis of ambient air;*

'AS/NZS 5667.1' means the Australian Standard AS/NZS 5667.1 *Water Quality – Sampling – Guidance of the Design of sampling programs, sampling techniques and the preservation and handling of samples;*

'AS/NZS 5667.11' means the Australian Standard AS/NZS 5667.11 *Water Quality – Sampling – Guidance on sampling of groundwaters:*

'Assessment of Site Contamination NEPM' means the National Environment Protection (Assessment of Site Contamination) Measure 1999;

'averaging period' means the time over which a limit or target is measured or a monitoring result is obtained;

'**AWS**' means automatic weather station;

'BGL' means below ground level;

'broadband style reversing alarms' means reversing alarms that generate a warning signal consisting of a wide range of frequencies that automatically adjusts its output depending on local noise levels;

'**care and maintenance'** means the state of operating the premises when ore is not being crushed, processed or beneficiated through the Processing Plant; however infrastructure on site may still be maintained in suitable condition to enable processing to re-commence when required;

'catchment dam' means the dam receiving stormwater runoff from the processing plant area, as depicted and labelled 'catchment dam' on the premises map in Schedule 1;

'CEMS' means continuous emissions monitoring system;

'CEO' means Chief Executive Officer of the Department of Water and Environmental Regulation;

'CEO' for the purpose of correspondence means:

Chief Executive Officer
Department Administering the *Environmental Protection Act 1986*
Locked Bag 10
JOONDALUP DC WA 6027
Telephone: (08) 6367 7000
Facsimile: (08) 6367 7001
Email: info@dwer.wa.gov.au

'**Compliance Report'** means 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;

'controlled waste' has the definition in *Environmental Protection (Controlled Waste) Regulations 2004*;

'DDG' means dust deposition gauge;

'EP Act' means *Environmental Protection Act 1986;*

'freeboard' means the distance between the maximum water surface elevations and the top of retaining banks or structures at their lowest point;

'GL/yr' means Gigalitres per year;

'**level ground'** means ground that is not inclined at a grade of more than 1 in 20;

'Licence' means this Licence numbered L8469/2010/2 and issued under the Act;

'Licence holder' means Galaxy Lithium Australia Limited;

'LOR' means Limit or Reporting;

'm^3' means cubic meters;

'm/s' means meters per second;

'mbgl' means metres below ground level;

'mg/L' means milligrams per litre;

'Mtpa' means million tonnes per annum;

'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;

'night' means between the hours of 2200 hours on any day to 0700 hours Monday to Saturday and 0900 hours on Sunday's or Public holidays;

'or equivalent' means a model of machinery with equivalent or lower sound power levels than the model specified;

'Premises' means the area defined in the premises map in Schedule 1 and listed as the premises address on page 1 of the licence;

'processing plant' means the infrastructure related to the crushing, processing and/or beneficiation of the ore including the wet crushing circuit, wet plant and ROM pad as depicted and labelled in the premises map in Schedule 1;

'Process water dam' means the pond containing water for use in the processing plant, as depicted and labelled Process water dam on the premises map in Schedule 1;

'RL' means Relative Level and is the height or elevation above a survey point adopted as the site datum for the purpose of establishing levels;

'ROM pad' means the run of mine stockpile area, as depicted and labelled 'ROM pad' on the Premises Map in Schedule 1;

'Schedule 1' means Schedule 1 of this Licence unless otherwise stated;

'Schedule 2' means Schedule 2 of this Licence unless otherwise stated;

'Schedule 3' means Schedule 3 of this Licence unless otherwise stated;

'spot sample' means a discrete sample representative at the time and place at which the sample is taken;

'tpa' means tonnes per annum;

'Unit 1' means the "Mobile crushing plant installation area" as indicated in Schedule 2;

'Unit 2' means the "Yield Optimisation Project Area" as indicated in Schedule 2;

'usual working day' means 0800 – 1700 hours, Monday to Friday excluding public holidays in Western Australia; and

'µS/cm' means microsiemens per centimetre.

1.1.3 Any reference to an Australian or other standard in the licence means the relevant parts of the standard in force from time to time during the term of this licence.

1.1.4 Any reference to a guideline or code of practice in the licence means the version of that guideline or code of practice in force from time to time and shall include any

amendments or replacements to that guideline or code of practice made during the term of this licence.

1.2 Premises operation

1.2.1 The licence holder must record and investigate the exceedance of any descriptive or numerical limit or target specified in any part of this licence.

1.2.2 The licence holder must maintain a minimum freeboard of 300 millimetres at all times in the catchment dam and the process water dam.

1.2.3 The licence holder must ensure that water in the catchment dam and the process water dam is reused for dust suppression, processing and/or is retained in the ponds to evaporate so discharges from these ponds to the environment do not occur.

1.2.4 The licence holder must:

(a) ensure that no more than twenty five (25) tyres are stored at any one time at any location awaiting final disposal via burial at the Waste Dump;
(b) ensure that tyres are only stacked on level ground; and
(c) ensure that all tyres are stacked on their side walls.

1.2.5 The licence holder must:

(a) ensure that tyres are not buried in any location on the premises other than the Waste Dump area;
(b) place a final cover of at least 500 millimetres depth over tyres buried at the premises;
(c) bury tyres laid flat on their side walls, separated in all directions by a minimum of 30 cm and with voids and surrounds filled with suitable competent material;
(d) ensure buried tyres are located a minimum of two metres from any final out slope of the final waste dump profile;
(e) not dispose of any burnt tyres (or that appear burnt) at the premises; and
(f) not ignite any tyres on the premises.

1.2.6 The licence holder must ensure that pipelines containing tailings and product have either:

(a) secondary containment sufficient to contain any spill for a period equal to the time between routine inspections; or
(b) equipped with telemetry systems and pressure sensors along pipelines to allow the detection of leaks and failures; or
(c) equipped with automatic cut-outs in the event of a pipe failure.

1.2.7 The licence holder must:

(a) construct and/or install infrastructure;
(b) in accordance with the corresponding design and construction requirements; and
(c) at the corresponding infrastructure location.

as set out in Table 1.2.1.

Table 1.2.1: Infrastructure requirements			
Item	**Infrastructure**	**Design and construction requirements**	**Infrastructure location**
1.	NE in-pit TSF tailings and decant return pipelines	▪ Pipelines to be constructed at the location indicated in Schedule 1, Figure 4; and ▪ Pipelines to meet the requirements of condition 1.2.7.	As depicted in Schedule 1, Figure 4.
2.	NE in-pit TSF recovery bores: WTD35 and WTD36	▪ Two recovery bores to be installed in the location depicted in Schedule 1, Figure 2 and deemed fit for purpose by a suitably qualified professional; ▪ Up to 4 recovered decant water holding tanks to be installed; and ▪ Tanks and recovery bores to be constructed and operational for use prior to the commencement of deposition of tailings into NE in-pit TSF.	As depicted in Schedule 1, Figure 2.

1.2.8 The licence holder must within 60 days of each item of infrastructure required by condition 1.2.4 being constructed:

(a) at the corresponding infrastructure location;

(b) undertake an audit of their compliance with the requirements of condition 1.2.4; and

(c) prepare and submit to the CEO an audit report on that compliance.

1.2.9 The report required by condition 1.2.5, must:

(a) be certified by a suitably qualified professional engineer that each item of infrastructure listed in Table 1.2.1 meets the corresponding specifications and at the locations set out in Table 1.2.1 and has been constructed with no material defects;

(b) contain as constructed plans or photographs for the infrastructure; and

(c) be signed by a person authorised to represent the Licence Holder and contains the printed name and position of that person within the company.

1.2.10 The Licence Holder must ensure that the premises infrastructure and equipment listed in Table 1.2.2 and located at the corresponding infrastructure location is maintained and operated in accordance with the corresponding operational requirements set out in Table 1.2.2.

Table 1.2.2: Infrastructure and equipment operational requirements

	Site infrastructure and equipment	**Operational requirements**	**Infrastructure location**
1.	Crushing and screening plant and associated infrastructure	▪ Crushing and screening plant to consist of: ○ 1x jaw crusher with a maximum throughput of 240 tph; ○ 1x cone crusher with a maximum throughput	Crushing and screening plant as depicted in Schedule 1,

	Site infrastructure and equipment	Operational requirements	Infrastructure location
		of 150 tph; ○ 2x double deck screen with a maximum throughput of 240 tph; ○ 1x triple deck screen; and ○ 2x stackers. ▪ Water cart/truck with a holding capacity of 15 KL to be available at all times to manage dust emissions; ▪ Water spray bars and nozzles located within the crushing and screening circuit are aimed and operated at aggregate transfer points to manage dust emissions. ▪ All product and waste stockpiles are to be wetted down during operations to manage dust emissions; ▪ Contaminated or potentially contaminated stormwater from within crushing and screening plant operating area to be captured and directed to the NE in-pit TSF via swale drain; and ▪ Crushing and screening plant only to be operated within the hours of 0700 to 1900 Monday to Saturday and between 0900 to 1900 on Sundays and Public Holidays.	Figure 6. Labelled as Swale drain Schedule 1, Figure 7.

1.2.11 The licence holder must before 30 May 2025:

(a) undertake an audit of their compliance with the requirements of condition 1.2.10; and

(b) prepare and submit to the CEO an audit report on that compliance.

1.2.12 The report required by condition 1.2.11, must:

(a) be certified by a suitably qualified professional engineer/operator that each item of infrastructure listed in Table 1.2.2 meets the corresponding specifications and at the locations set out in Table 1.2.2 and has been constructed with no material defects;

(b) contain as constructed plans or photographs for the infrastructure; and

(c) be signed by a person authorised to represent the licence holder and contains the printed name and position of that person within the company

1.2.13 The licence holder must notify the CEO in writing no less than 7 days prior to commencing operation of the ore crushing screening infrastructure (Category 5)), including the ROM Optical Sorter and any ancillary infrastructure, between 7.00pm and 7.00am.

1.2.14 The licence holder may operate the ore crushing screening infrastructure (Category 5) including the ROM Optical Sorter and any ancillary infrastructure, between 7.00pm

and 7.00am as required, for a period not exceeding 8 months from the date of commencement, as included in the notification pursuant to condition 1.2.8.

1.2.15 The licence holder must ensure that noise attenuation infrastructure (such as engineered noise barriers) is constructed and maintained to ensure compliance with the requirements of the Environmental Protection (Noise) Regulations 1997 at all times.

1.2.16 The licence holder must ensure that all contaminated or potentially contaminated stormwater runoff from coarse reject stockpiles is captured and retained on the premises.

2 Emissions

2.1 Fugitive emissions

2.1.1 The licence holder must take the following measures with regards to dust emissions from all activities on site:

(a) maintain all dust suppression systems on conveyors, screens and crushers and ensure they are in working order at all times during operation;

(b) maintain water trucks on site so that they are available at all times to implement dust suppression on site roads, the ROM pad and the open pit; and

(c) restrict traffic speeds on the premises to reduce the risk of dust generation.

2.1.2 The licence holder must undertake the fugitive dust management requirements in Table 2.1.1.

Table 2.1.1: Fugitive dust management requirements

Activity	Operation requirements
Water and Dust suppressants	Operate proactively subject to weather forecasting over a 24-hour period. Reduce the scope of activity or halt the activity should receptors be impacted.
Cessation of activities	Cease an activity causing visible dust lift-off where dust management measures have not prevented dust lift-off and there is a risk of dust affecting sensitive external receptors (residences).

3 Monitoring

3.1 General monitoring

3.1.1 The licence holder must ensure that:

(a) all water samples are collected and preserved in accordance with AS/NZS 5667.1;

(b) all groundwater sampling is conducted in accordance with AS/NZS 5667.11; and

(c) all laboratory samples are submitted to and tested by a laboratory with current NATA accreditation for the parameters being measured unless indicated otherwise in the relevant table.

3.1.2 The licence holder must record production or throughput data and any other process parameters relevant to any non-continuous or CEMS monitoring undertaken.

3.1.3 The licence holder must ensure that all monitoring equipment used on the premises to comply with the conditions of this Licence is calibrated in accordance with the manufacturer's specifications.

3.1.4 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.

3.2 Monitoring of inputs and outputs

3.2.1 The licence holder must undertake the monitoring in Table 3.2.1 according to the specifications in that table.

Table 3.2.1: Monitoring of inputs and outputs

Input/Output	Parameter	Units	Averaging period	Frequency
Tyres	Numbers of waste tyres stored and buried	Number of waste tyres	Annual period	Continuous
Industrial waste	Volume produced (off-site disposal)	m^3		
Domestic waste	Volume produced (off-site disposal)			
Tailings	Volume discharged to Tailings Storage Facilities	m^3	Annual period	
			Daily	
Tailings decant	Inflows from any decant, underdrainage system and the NE in-pit TSF recovery bores (if applicable)		Annual period	
			Daily	
Waste rock	Weight of material crushed and/or screened	tonnes	Annual period	

3.3 Process monitoring

3.3.1 The licence holder must undertake the monitoring in Table 3.3.1 according to the specifications in that table.

Table 3.3.1: Process monitoring					
Monitoring point reference as depicted in Schedule 1, Figure 2	**Process description**	**Parameter**	**Units**	**Frequency**	**Method**
Catchment dam Process water dam	Water storage	Distance between the water level and the top of retaining banks or structures at their lowest point	mm	(i) Daily when ore is being crushed, processed or beneficiated through the Processing Plant; and (ii) Weekly when ore is not being crushed, processed or beneficiated through the Processing Plant.	Visual inspection
2SE In-pit Tailings Storage Facility and NE In-pit Tailings Storage Facility	Deposition and storage of tailings and water decant	tailings delivery lines;	-	(i) Daily when tailings deposition into the tailings storage facility is occurring; and (ii) Weekly when tailings deposition into the tailings storage facility is not occurring.	Visual inspection
		tailings free water recovery lines;			
		the trafficability to access roads and ramps;			
		embankment integrity (including checks for seepage);			
		embankment stability;			
		the operating condition of spigot points;			
		the rotation of spigotting areas;			
		the size of free water pond;			
		the position of free water pond;			

Table 3.3.1: Process monitoring					
Monitoring point reference as depicted in Schedule 1, Figure 2	**Process description**	**Parameter**	**Units**	**Frequency**	**Method**
		any deceased fauna in the vicinity of tailings storage areas; and			
		Freeboard capacity.			

3.3.2 The licence holder must ensure that the SW In-pit TSF, 2SE In-pit TSF and NE In-pit TSF perimeter bunds are maintained to divert stormwater away from the pits.

3.3.3 The licence holder must ensure that the operational total freeboard in the 2SE in-pit Tailings Storage Facility is at least 500 mm below the lowest point of the 2SE pit rock-fill embankment.

3.3.4 The licence holder must ensure that the operational total freeboard in the NE in-pit TSF is at least 300 mm below the lowest point of the NE embankment.

3.4 Ambient environmental quality monitoring – Groundwater quality

3.4.1 The licence holder must undertake the monitoring in Table 3.4.1 according to the specifications in that table and record and investigate results that do not meet any limit specified.

Table 3.4.1: Monitoring of ambient groundwater quality						
Monitoring point reference and location as depicted in the premises map in Schedule 1, Figure 2	**Parameter**	**Trigger Level**	**Limit**	**Units**	**Averaging period**	**Frequency**
Decommissioned above ground TSF bores MB01, MB17, MB18, MB19, and MB20 **Boundary monitoring bores** MB30, MB31, MB32, MB33, MB34, MB35 and MB36	Standing water level	-	-	m(BGL)	Spot sample	Monthly
			-	m(AHD)		
	pH[1]		-	-		Quarterly (November, February, May and August)
	Electrical conductivity[1]			µS/cm		
	Total Dissolved Solids (TDS), Sodium, Calcium, Potassium, Magnesium, Sulfate, Chloride,		-	mg/L		

Table 3.4.1: Monitoring of ambient groundwater quality						
Monitoring point reference and location as depicted in the premises map in Schedule 1, Figure 2	**Parameter**	**Trigger Level**	**Limit**	**Units**	**Averaging period**	**Frequency**
	Fluoride, Aluminium, Arsenic, Cadmium, Cobalt, Chromium, Copper, Iron, Manganese, Nickel, Lead, Zinc, Barium, Boron, Chromium (III), Mercury, Molybdenum, Antimony, Selenium, Tin, Vanadium, Uranium, Silicon, Calcium Carbonate, Total Nitrogen, Total Phosphate, Lithium, Caesium, Rubidium, Thallium, Bromide					
	Gross-alpha	-		Bq/L		
	Gross beta	-				
Decommissioned SW in-pit TSF bores MB09, MB10, MB11 and MB12 **2SE in-pit TSF bores** MB13, MB14, MB15 and MB16	Standing water level	-	3	m(BGL) m(AHD)	Spot sample	Monthly
NE In-pit TSF bores MB22, MB23 and MB24		6	3	m(BGL) m(AHD)		
Decommissioned SW in-pit TSF bores	pH[1]	-	-	-		Quarterly (November, February,
	Electrical conductivity[1]			µS/cm		

Table 3.4.1: Monitoring of ambient groundwater quality						
Monitoring point reference and location as depicted in the premises map in Schedule 1, Figure 2	**Parameter**	**Trigger Level**	**Limit**	**Units**	**Averaging period**	**Frequency**
MB09, MB10, MB11 and MB12 **2SE in-pit TSF bores** MB13, MB14, MB15 and MB16 **NE In-pit TSF bores** MB22, MB23 and MB24	Total Dissolved Solids (TDS), Sodium, Calcium, Potassium, Magnesium, Sulphate, Chloride, Fluoride, Aluminium, Arsenic, Cadmium, Cobalt, Chromium, Copper, Iron, Manganese, Nickel, Lead, Zinc, Barium, Boron, Chromium (III), Mercury, Molybdenum, Antimony, Selenium, Tin, Vanadium, Uranium, Silicon, Calcium Carbonate, Total Nitrogen, Total Phosphate, Lithium, Caesium, Rubidium, Thallium, Bromide			mg/L		May and August)
	Gross-alpha			Bq/L		
	Gross beta					

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

3.4.2 In the event that the trigger level for standing water level is exceeded in bores MB22, MB23 and MB24 listed in Table 3.4.1, the licence holder must submit a seepage management plan to the CEO within 3 months of the exceedance occurring. The management plan must include but not be limited to: the installation of groundwater recovery bores to lower the standing water level around the NE in-pit TSF, including construction timeframes and justification for the number of bores and their locations (as determined by a suitably qualified hydrogeologist).

3.4.3 The licence holder must implement the seepage management plan and install recovery bores within 3 months of submission of the seepage management plan to the CEO as required by condition 3.4.2.

3.5 Ambient environmental monitoring

3.5.1 The licence holder must undertake the monitoring in Tables 3.5.1 according to the specifications in that table and record and investigate results that do not meet any target specified.

Table 3.5.1: Monitoring of air and dust

Monitoring point reference as depicted in the Schedule 1: Figure 3	Parameter	Target	Method	Units	Averaging period	Frequency
Dust Deposition Gauges: DDG03, DDG04, DDG05, DDG08, DDG10, DDG11, DDG13, DDG14, DDG15, DDG16, [1]DDG17, DDG18, DDG19, [1]DDG20, DDG21 and DDG22	Deposited dust	--	AS/NZS 3580.10.1	g/m^2/month	Monthly	Continuous for the duration of each sampling period
Ravensthorpe town site Hi-Vol monitor (HV01)	PM_{10}[2]	50	AS/NZS 3580.9.6	µg/m^3	24 hours	One day in six-day period
	Lithium, manganese and zinc	--				
Automatic Weather Station (AWS)	Wind direction and strength	--	AS/NZS 3580.14	Cardinal directions and m/s	Continuous	

Note 1: DDG 17 and DDG 20 are the background dust deposition gauges
Note 2: LOR to be reported at 1 µg/m^3

3.5.2 In the event that the target is exceeded in condition 3.5.1 the licence holder must investigate the potential cause for the exceedance and report the findings and any actions taken to the CEO within 60 days of exceeding the target.

3.6 Specified actions- Noise verification monitoring- night time operations (1900 hours to 0700 hours)

3.6.1 Within 30 days of the commencement date of the night time operations, the licence holder must retain the services of a person qualified and experienced in the area of environmental noise assessment and who by their qualifications and experience is eligible to hold membership of the Australian Acoustical Society or the Australian Association of Acoustical Consultants to:

(a) investigate the nature and extent of noise emissions from the premises during night time operations;

(b) assess in accordance with the methodology required in the Environmental Protection (Noise) Regulations 1997, the compliance of the noise emissions from the primary activities, against the relevant assigned levels specified in those Regulations; and

(c) compile and submit to the licence holder a report in accordance with condition 3.6.2.

3.6.2 A report prepared pursuant to condition 3.6.1(c) must include:

(a) a description of the methods used for monitoring and/or modelling of noise emissions from the premises;

(b) details and the results of the investigation undertaken pursuant to condition 3.6.1(a);

(c) details and results of the assessment of the noise emissions from the premises, against the relevant assigned levels in the Environmental Protection (Noise) Regulations 1997 undertaken pursuant to condition 3.6.1(b);

(d) an assessment of monitored noise levels against the most recent noise modelling assessment; and

(e) recommendations for ongoing noise monitoring to assess compliance against the assigned levels in the Environmental Protection (Noise) Regulations 1997 and recommendations/criteria proposed for review of noise modelling assessment.

3.6.3 The licence holder must submit to the CEO the report prepared pursuant to condition 3.6.1(c) no later than 60 days from the date of commencement of night time operations as notified to the CEO pursuant to condition 1.2.8.

4 Information

4.1 Records

4.1.1 All information and records required by the licence must:

(a) be legible;

(b) if amended, be amended in such a way that the original and subsequent amendments remain legible or are capable of retrieval;

(c) except for records listed in condition 4.1.1(d) be retained for at least 6 years from the date the records were made or until the expiry of the licence or any subsequent licence; and

(d) for those following records, be retained until the expiry of the licence and any subsequent licence:

(i) off-site environmental effects; or

(ii) matters which affect the condition of the land or waters.

4.1.2 The licence holder must submit to the CEO within 90 calendar days after the end of the annual period an Annual Audit Compliance Report (AACR) indicating the extent

to which the licence holder has complied with the conditions in this licence for the annual period.

4.1.3 The licence holder must implement a complaints management system that as a minimum records the number and details of complaints received concerning the environmental impact of the activities undertaken at the premises and any action taken in response to the complaint.

4.1.4 The licence holder must maintain inspection log book/s on site in which each inspection undertaken in accordance with condition 3.3.1, Table 3.3.1 is logged and comments made on observations at the time of inspection.

4.2 Reporting

4.2.1 The licence holder must submit to the CEO an Annual Environmental Report within 90 calendar days after the end of the annual period. The report shall contain the information listed in Table 4.2.1 in the format or form specified in that table.

Table 4.2.1: Annual Environmental Report

Condition or table (if relevant)	Parameter	Format or form[1]
-	Summary of any failure or malfunction of any pollution control equipment and any environmental incidents that have occurred during the annual period and any action taken	None specified
3.1.2	Production / throughput data	
3.2.1	Monitoring of inputs and outputs	
3.4.1	Monitoring of ambient groundwater quality	
3.5.1	Ambient environmental monitoring- air	
4.1.2	Compliance	Annual Audit Compliance Report (AACR)
4.1.3	Complaints summary	None specified

Note 1: Forms are in Schedule 3
Note 2: The AACR Form template approved by the CEO for use is available via DWER's external website.

4.2.2 The licence holder must ensure that the Annual Environmental Report also contains:

(a) an assessment of the information contained within the report against previous monitoring results and licence limits and/or targets; and
(b) an assessment of the information contained within the report in terms of environmental impact and performance, with reference to applicable standards and guidelines.

4.3 Notification

4.3.1 The licence holder must ensure that the parameters listed in Table 4.3.1 are notified to the CEO in accordance with the notification requirements of the table.

Table 4.3.1: Notification requirements

Condition or table (if relevant)	Parameter	Notification requirement[1]	Format or form[2]
3.4.1	Breach of any limit specified in the licence	Part A: As soon as practicable but no later than 5pm of the next usual working day. Part B: As soon as practicable.	N1
-	Any failure or malfunction of any pollution control equipment or any incident, which has caused, is causing or may cause pollution		
3.1.4	Calibration report	As soon as practicable.	None specified
-	Cessation of any care and maintenance period and transitioning to production	No less than 60 days prior.	None specified
-	Cessation of production and transition to care and maintenance.	No less than 60 days prior.	None specified

Note 1: Notification requirements in the Licence shall not negate the requirement to comply with s72 of the Act
Note 2: Forms are in Schedule 3

Schedule 1: Maps

Premises map

The premises is shown in the map below. The red line depicts the premises boundary.

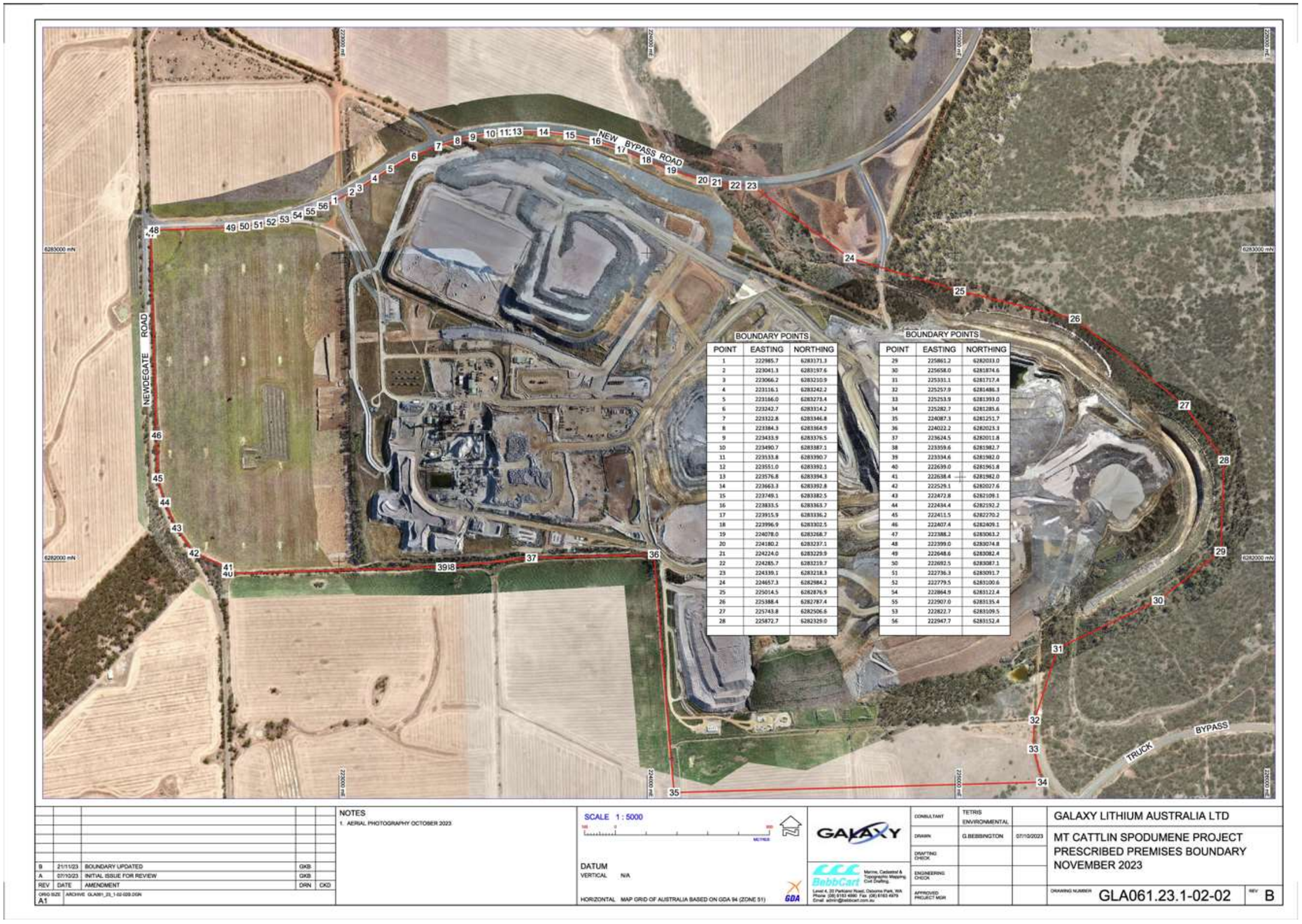

Figure 1: Map depicting the premises prescribed boundary

Premises layout map

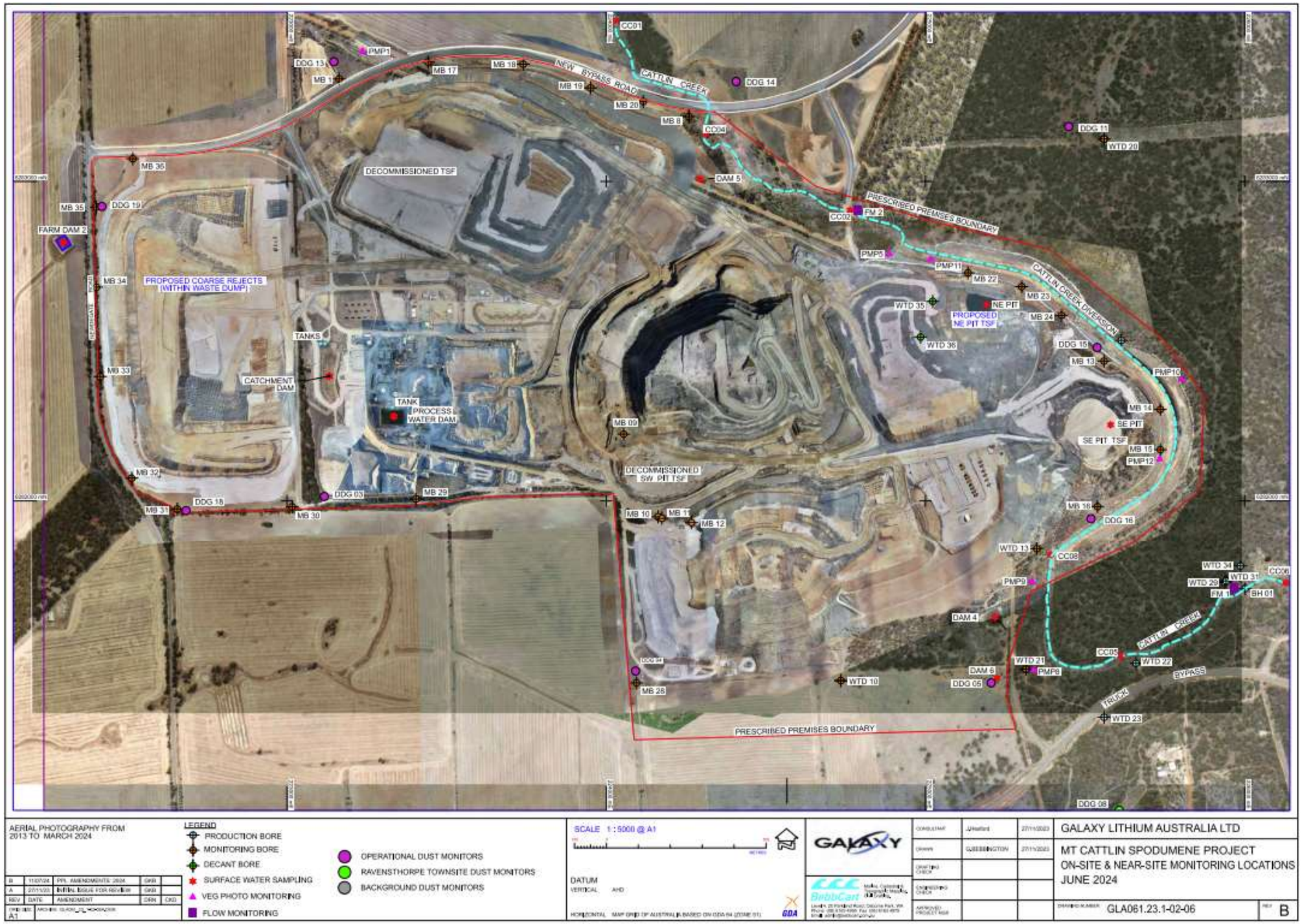

Figure 2: Premises layout map depicting groundwater monitoring bores, decant bores and vegetation monitoring locations

Baseline Dust Monitoring locations.

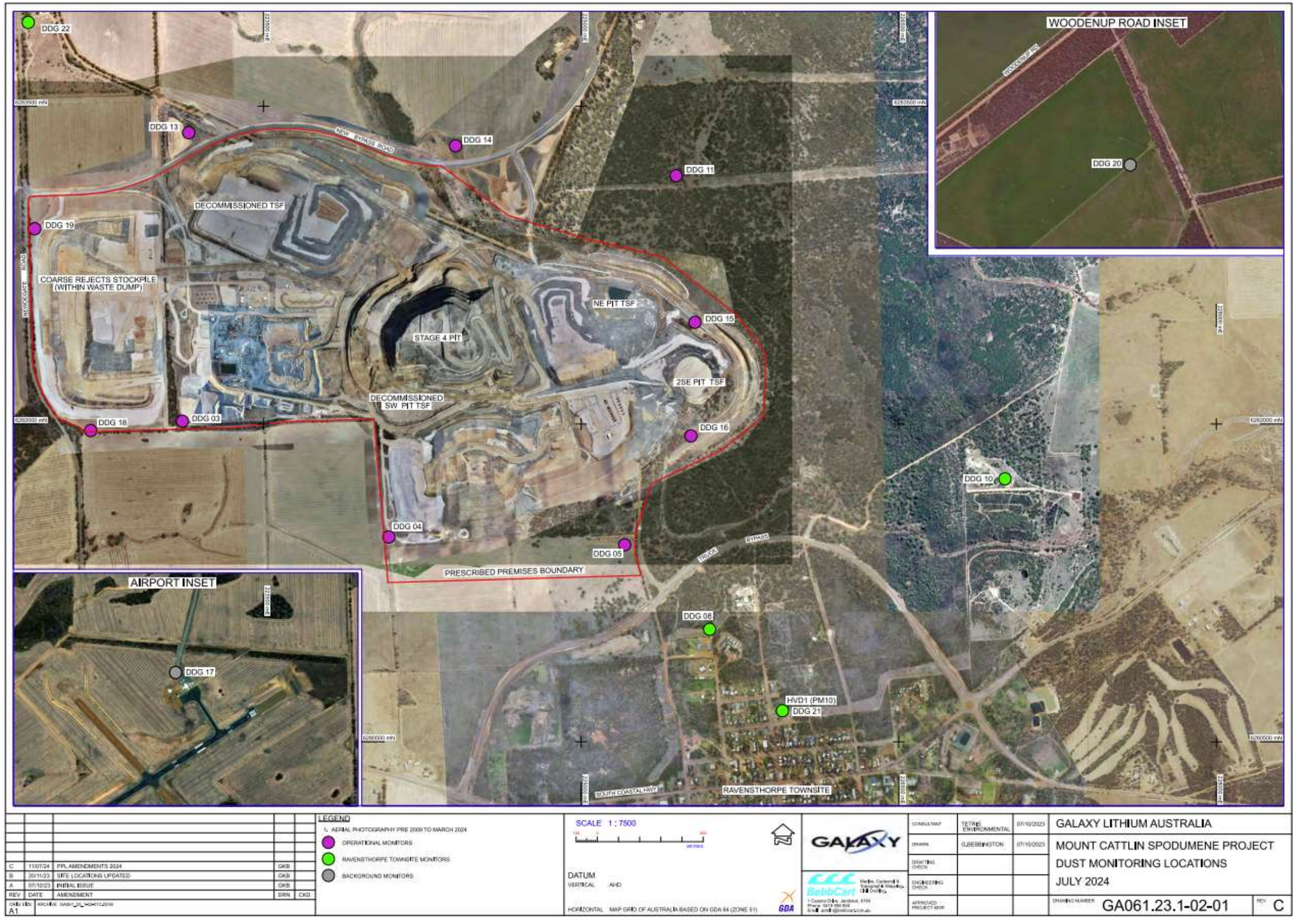

Figure 3: Dust monitoring locations as refered to in condition 3.5.1

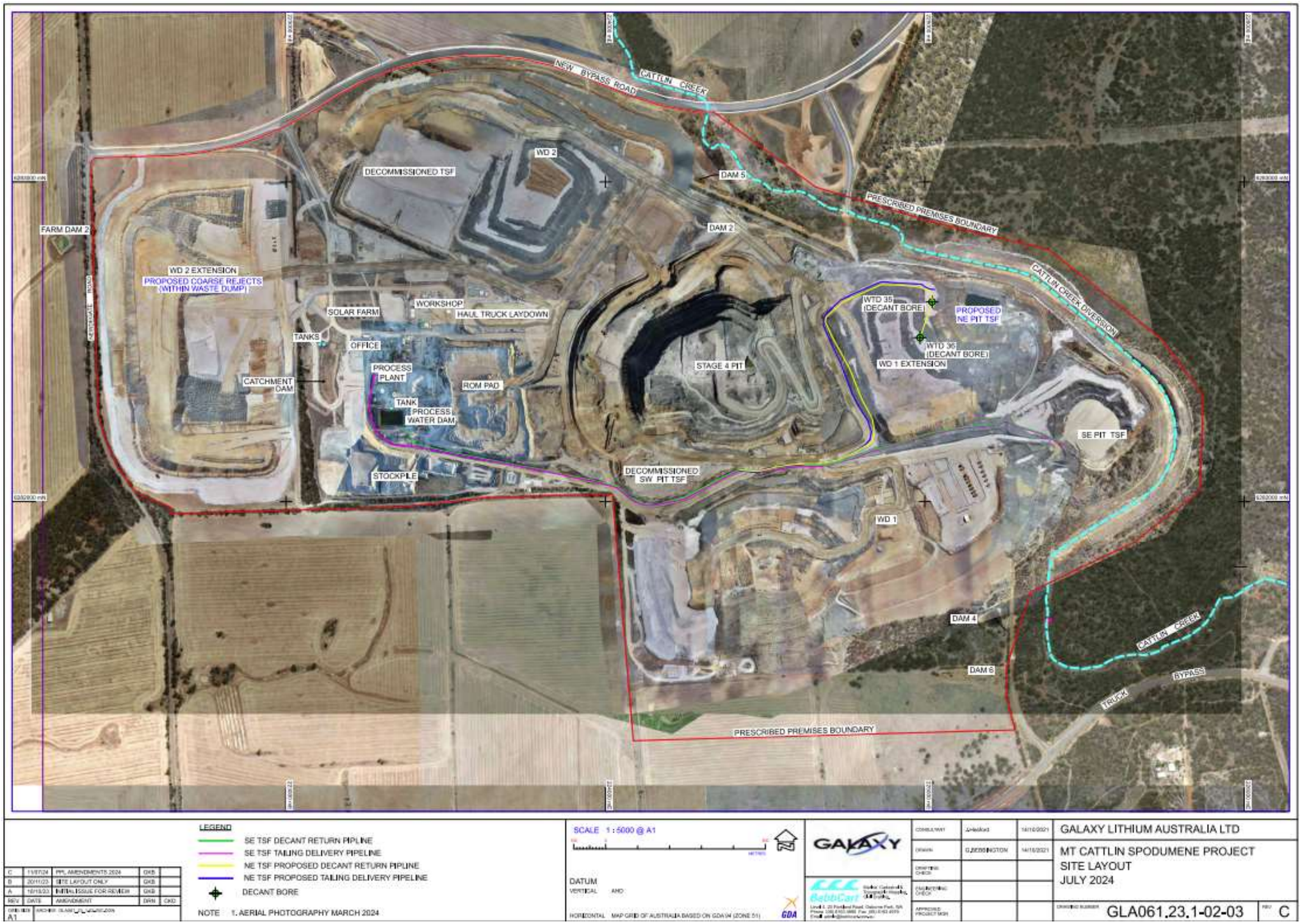

Figure 4: Premises layout map depicting and site layout

Figure 5: Automatic Weather Station Location

Figure 6: Location of Category 12 Crushing and Screening Plant

Figure 7: Swale drain

Schedule 2: Premises boundary

The presribed premises boundary is defined by coordiantes in the Table below.

Premises boundary GPS coordinates as numbered within Schedule 1: Figure 2

POINT	EASTING	NORTHING	POINT	EASTING	NORTHING
1	222985.7	6283171.3	29	225861.2	6282033.0
2	223041.3	6283197.6	30	225658.0	6281874.6
3	223066.2	6283210.9	31	225331.1	6281717.4
4	223116.1	6283242.2	32	225257.9	6281486.3
5	223166.0	6283273.4	33	225253.9	6281393.0
6	223242.7	6283314.2	34	225282.7	6281285.6
7	223322.8	6283346.8	35	224087.3	6281251.7
8	223384.3	6283364.9	36	224022.2	6282023.3
9	223433.9	6283376.5	37	223624.5	6282011.8
10	223490.7	6283387.1	38	223359.6	6281982.7
11	223533.8	6283390.7	39	223334.6	6281982.0
12	223551.0	6283392.1	40	222639.0	6281961.8
13	223576.8	6283394.3	41	222638.4	6281982.0
14	223663.3	6283392.8	42	222529.1	6282027.6
15	223749.1	6283382.5	43	222472.8	6282109.1
16	223833.5	6283363.7	44	222434.4	6282192.2
17	223915.9	6283336.2	45	222411.5	6282270.2
18	223996.9	6283302.5	46	222407.4	6282409.1
19	224078.0	6283268.7	47	222388.2	6283063.2
20	224180.2	6283237.1	48	222399.0	6283074.8
21	224224.0	6283229.9	49	222648.6	6283082.4
22	224285.7	6283219.7	50	222692.5	6283087.1
23	224339.1	6283218.3	51	222736.3	6283091.7
24	224657.3	6282984.2	52	222779.5	6283100.6
25	225014.5	6282876.9	54	222864.9	6283122.4
26	225388.4	6282787.4	55	222907.0	6283135.4
27	225743.8	6282506.6	53	222822.7	6283109.5
28	225872.7	6282329.0	56	222947.7	6283152.4

Schedule 3: Notification & Forms

Licence: L8469/2010/2 Licence Holder: Galaxy Resources Pty Ltd
Form: N1 Date of breach:

Notification of detection of the breach of a limit

These pages outline the information that the operator must provide.
Units of measurement used in information supplied under Part A and B requirements shall be appropriate to the circumstances of the emission. Where appropriate, a comparison should be made of actual emissions and authorised emission limits.

Part A

Licence Number	
Name of operator	
Location of Premises	
Time and date of the detection	

Notification requirements for the breach of a limit	
Emission point reference/ source	
Parameter(s)	
Limit	
Measured value	
Date and time of monitoring	
Measures taken, or intended to be taken, to stop the emission	

Part B

Any more accurate information on the matters for notification under Part A.	
Measures taken, or intended to be taken, to prevent a recurrence of the incident.	
Measures taken, or intended to be taken, to rectify, limit or prevent any pollution of the environment which has been or may be caused by the emission.	

The dates of any previous N1 notifications for the Premises in the preceding 24 months.	

Name	
Post	
Signature on behalf of Galaxy Resources Pty Ltd	
Date	