Government of Western Australia
Department of Water and Environmental Regulation

Licence

Licence number	L8435/2010/3
Licence holder	GSM Mining Company Pty Ltd
ACN	165 235 030
Registered business address	Level 4, 235 St Georges Terrace PERTH WA 6000
DWER file number	INS-0001672
Duration	07/10/2013 to 06/10/2034
Date of issue	03/10/2013
Date of amendment	20 November 2025
Premises details	Granny Smith Gold Mine Mining tenements Mining tenements L38/329, L38/80, L38/106, L38/144, M38/18, M38/1280, M38/161, M38/162, M38/167, M38/191, M38/205, M38/287, M38/361, M38/380, M38/389, M38/397, M38/440, M38/525, M38/532, M38/690, M38/691, M38/692 and M38/725 LAVERTON WA 6440

Prescribed premises category description (Schedule 1, *Environmental Protection Regulations 1987*)	**Assessed production / design capacity**
Category 5: Processing or beneficiation of metallic or non-metallic ore	4,500,000 tonnes per annual period
Category 6: Mine dewatering	Continuous discharge of 10,219,614 kL per annual period Additional 20,000,000 kL for a period up to 13 months from the commencement of discharge at the Eastern discharge point (W3)
Category 33: Chemical blending or mixing	4,000 tonnes per year
Category 52: Electric power generation	25 MW diesel 40 MW using LNG
Category 54: Sewage facility	360 m^3 per day
Category 64 – Class II putrescible landfill	10,000 tonnes per year
Category 73 – Bulk storage of chemicals, etc.	3,580 m^3

This amended licence is granted to the licence holder, subject to the attached conditions, on 20 November 2025, by:

Fiona Westcott
Digitally signed by Fiona Westcott
Date: 2025.11.20 11:46:16 +08'00'

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

Licence history

Date	Reference number	Summary of changes
06/10/2003	L5108/1988/8	Licence re-issue.
06/10/2004	L5108/1988/9	Licence re-issue.
19/03/2008	W4395/2007/1	TSF cell 2 raise from RL443m to RL450m.
17/12/2009	W4588/2009/1	TSF cell 3 raise from RL424m to RL426.5m.
01/04/2010	L8435/2010/1	New licence to replace L5108/1988/9 which ceased due to non-payment of annual fees.
23/12/2010	W4788/2010/1	TSF cell 1 raise by 2.5m to RL445.5m.
11/08/2011	W4903/2011/1	TSF cell 2 raise by 2.5m to RL448.5m.
01/10/2010	L8435/2010/2	Licence re-issue.
07/06/2012	W5165/2012/1	The dewatering from Granny Smith pit, Goanna pit and Windich pit into Lake Carey.
18/01/2013	W5268/2012/1	New waste water treatment plant.
27/06/2013	W5398/2013/1	TSF cell 3 raise by 2.5m to RL329m.
03/10/2013	L8435/2010/3	Licence re-issue.
19/03/2015	L8435/2010/3	Licence amendment to new format and to include new discharge points for TSF seepage water.
03/09/2015	L8435/2010/3	Licence amended to assess new LNG power station and to merge Licence with L7454/2000/9 Wallaby Project.
07/01/2016	L8435/2010/3	Licence amendment to assess TSF Cell 1 lift and update groundwater monitoring bores.
31/01/2018	L8435/2010/3	Amendment Notice 1 for construction of a paste plant, TSF cell 3 raise to RL432.2 m and amend the TSF groundwater monitoring regime.
07/03/2019	L8435/2010/3	Amendment Notice 2 for addition of WAP pond land monitoring, increase in gas production capacity, amend WWTP monitoring schedule, addition of historical landfill site, Windich landfill site and M38/361, amend landfill cover requirements, water transfer pond containment upgrade.
12/04/2021	L8435/2010/3	Licence amendment to update the premises boundary. During this amendment, Amendment Notices 1 and 2 have been consolidated into this amendment and the licence updated to the current licensing format.

Date	Reference number	Summary of changes
16/01/2025	L8435/2010/3	Licence amendment to add operation of TSF Cell 4 (deposition of tailings), water containment infrastructure for rainfall events and administrative changes.
29/07/2025	L8435/2010/3	Licence amendment to include the discharge of additional volume of mine dewatering from Granny Smith Open pit and Windich Pit to a new discharge point (W3) at Lake Carey. Prescribed premises boundary also updated and redundant LNG power station commissioning requirements removed.
11/11/2025	L8435/2010/3	Licence amendment to include TSF Cell 3 raise to 437 mRL, clearly distinguish the Wallaby Transfer Pond (WTP) from the Processing Water Transfer Pond (PWTP), update the power station configuration, amend landfill locations and increase bulk chemical storage design capacity.

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:

Premises operation

1. The licence holder must ensure that all pipelines containing tailings, decant water, dewatering water and effluent are:

(a) equipped with telemetry systems and pressure sensors along pipelines to allow the detection of leaks and failures; and either

(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.

2. The licence holder must ensure that tailings, decant water, dewatering water and effluent are only discharged into containment cells, dams and ponds with the relevant infrastructure requirements and at the locations specified in Table 1.

Table 1: Containment Infrastructure

Containment point reference	Material	Infrastructure requirements
TSF 1, 2 and 3	Tailings	Lined with in-situ clay to limit seepage to groundwater. Embankment grade maintained at 1V:2H or less.
TSF 4	Tailings	The TSF Cell 4 must be constructed with an in-situ compacted soil liner (minimum 300 mm thick) with a hydraulic conductivity of 1 x 10^{-7}. Maintain Freeboard above the Normal Operating Pond of 1:100 AEP 72-hour storm plus an additional 500mm (Total Freeboard).
RTSF	Reclaimed tailings	1.5 m bunding of the entire perimeter.
Process water pond	Return water	Lined with HDPE.
Lagoons 1 and 2	Waste activated sludge; and Emergency treated wastewater	Compacted clay lined – waste activated sludge to be discharged into one lagoon at a time to allow drying before being appropriately disposed of by landfilling. Approval from CEO to be sought prior to use in emergency situations.

Containment point reference	Material	Infrastructure requirements
Wallaby Transfer Pond (WTP)	Mine dewater and stormwater	HDPE lined embankment foundations and base of water transfer pond are maintained. Embankment level of 4 m above ground.
Processing Water Transfer Pond (PWTP)	Mine dewater, stormwater, decant water and seepage water	HDPE lined embankment foundations and base of water transfer pond are maintained. Embankment level of 4 m above ground.
Borrow pit	Excess sediment built up from water transfer pond	Nil.
Wallaby anti-pollution pond (WAP pond)	Surface runoff, rain water and treated waste water from the OWS at the	Constructed from caprock/laterite material approximately 100 m x 50 m and 2 m deep.

3. The licence holder must manage containment cells and ponds in Table 1 such that:

(a) Maintain freeboard above the Normal Operating Pond of 1:100 AEP 72-hour storm plus an additional 500mm (total freeboard); and

(b) methods of operation minimise the likelihood of erosion of the embankments by wave action.

4. The licence holder must manage TSFs such that:

(a) a seepage collection and recovery system is provided and used to capture seepage from the TSF;

(b) seepage is returned to the TSF or re-used in process; and

(c) the decant pond is maintained in the centre of the TSF cell.

5. The licence holder must:

(a) undertake inspections as detailed in Table 2;

(b) 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

(c) maintain a record of all inspections undertaken.

Table 2: Inspection of infrastructure

Scope of inspection	Type of inspection	Frequency of inspection
Tailings pipelines	Visual integrity	Twice daily
Return water lines	Visual integrity	Twice daily

Scope of inspection	Type of inspection	Frequency of inspection
Integrity of TSF perimeter embankments; including seepage, cracking, depressions, erosion.	Visual integrity	Daily
Wallaby Transfer Pond	Visual integrity	Daily
Processing Water Transfer Pond	Visual integrity	Daily (when active)
Dewatering pipelines	Visual integrity	Daily
Embankment freeboard	Visual to confirm required freeboard capacity is available	Daily
Decant pond	Visual to confirm the size is less than 15% of the surface of each TSF	Daily
Goanna pit	Visual to confirm required freeboard capacity is available Visual checks for avifauna deaths	Daily
RTSF Runoff Pond	Visual to confirm required freeboard capacity is available	Weekly
Borrow pit	Visual to confirm required freeboard capacity is available	Daily when discharge occurs
WAP pond	Visual to confirm required freeboard capacity is available (to ensure any overflow is directed only to the WAP overflow area via the single spillway)	Daily
Bulk chemical storage	Visual to confirm tanks have not filled above recommended levels. Inspection of hoses and lines.	Quarterly

6. The licence holder must shall undertake an annual assessment of vegetation within the zone of influence of any TSF 3. The assessment shall:

(a) photograph and record the presence and condition of key vegetation features within the zone of influence;

(b) 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

(c) be undertaken by a person suitably qualified in vegetation identification and sampling.

7. The licence holder must undertake a quarterly water balance for the active TSF. The water balance shall as a minimum consider the following:

(a) site rainfall;

(b) evaporation;

(c) decant water recovery volumes;

(d) seepage recovery volumes; and

(e) volumes of tailings deposited.

8. The licence holder must manage the irrigation of treated wastewater such 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.

9. The licence holder must monitor quarterly the health and condition of vegetation located at the irrigation area. An annual report is to be submitted within the Annual Environmental Report on the condition of the vegetation cover at the irrigation area.

10. The licence holder must ensure that wastes accepted onto landfill are only subjected to the process(es) set out in Table 3 and in accordance with any process limits described in that Table.

Table 3: Waste processing

Waste type	Process(es)	Process limits[1, 2]
Inert Waste Type 1 Putrescible waste Clean Fill	Disposal of waste by landfilling	<u>All waste types</u> Disposal of waste by landfilling shall only take place within the landfill areas shown on the Landfill Area Maps in Schedule 1. No waste shall be temporarily stored or landfilled within 35 m of the boundary of the premises.
		The separation distance between the base of the landfill and the highest groundwater level shall not be less than 2 m.
Used tyres	Storage and burial	Not more than 1,000 tyres shall be stored at the premises at any one time; Used tyre stacks shall not exceed 100 m^2 in area and 4 m in height; Used tyres must be stacked on their side walls or if stored on their treads, area baled with a securing device made from a non-combustible material.

Special Waste Type 1	Asbestos and fibrous material burial	Must be disposed of in designated asbestos disposal area; Must be deposited at least 2 m below the final tipping surface of the landfill; No works shall be commenced on that landfill that has potential to release asbestos fibres; The material will be placed in the designated location double bagged in accordance with the GSM Fibrous Minerals Management guideline.
Sewage	Biological and physical treatment	360 m^3 per day

Note 1: Requirements for landfilling tyres are set out in Part 6 of the *Environmental Protection Regulations 1987*. Note 2: 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*.

11. The licence holder must ensure that cover is applied and maintained on landfilled wastes in accordance with Table 4 and that sufficient stockpiles of cover are always maintained on site.

Table 4: Cover requirements

Waste Type	Cover requirements[1]
Putrescible wastes	To be covered as required 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.
Inert Waste Type 1	No cover required.
Inert Waste Type 2	A minimum depth of 500 mm of clean fill is maintained over the buried tyres following disposal.
Special Waste Type 1	To be covered as required with >1 m of uncontaminated soil as soon as practicable, no later than the end of the working day in which the waste was deposited.

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

12. The licence holder must ensure that the requirements as detailed in Table 5 are met during operation of the Paste Plant and RTSF.

Table 5: Paste plant and RTSF operation requirements

Infrastructure	Requirements
RTSF	Paste process plant, binder storage and reclaimed tailings located/stored only in the RTSF. The entire perimeter of the RTSF enclosed by a 1.5 m bund. Constructed so that run-off and storm water from earthen areas is directed to a Runoff Pond. Located as depicted in Schedule 1: Maps: RTSF: Location General layout as depicted in Schedule 1: Maps: RTSF: General arrangement.
RTSF runoff pond	Sized to contain run off generated by a 1-100 year, 72 hour storm event with a 500 mm freeboard. Freeboard of 500 mm maintained. Water pump installed to enable runoff and stormwater to report to the process plant for re-use, or pumped to a water cart for dust suppression.
Paste plant	Constructed on a concrete base and bunded as depicted in Schedule 1: Maps: Paste Plant – Layout and bunding. Spills within process plant bunding report to the bog-out sump and pumped out for re-use in the paste process plant. Solids removed by loader. Paste discharged directly from the Paste Plant to the paste reticulation by underground pipeline. Paste reticulation collars bunded and spills report to the bog- out sump. Bog-out sump as depicted in Schedule 1: Maps: Paste Plant – Layout and bunding.

13. The licence holder must ensure that the discharge of wastewater from the WAP Overflow Area (as shown in Schedule 1) does not occur.

Emissions

General

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

Point source emissions to air

15. The licence holder must ensure that where waste is emitted to air from the emission points in Table 6 and identified on the map of emission points in Schedule 1 it is done so in accordance with the conditions of this Licence.

Table 6: Emission points to air

Emission point reference	Emission Point	Emission point height (m)	Source, including any abatement
A1	Power station – 11 generators each with an emission stack	9.2	Combustion of diesel to power the turbines.
A2	Carbon regeneration kiln stack	13.14	Firing of carbon at approximately 700º to strip any elements that attached to the carbon during the elution stage of processing.
A3	Power station – 27 generators each with an emission stack	5.6 (minimum) to 9.0 (maximum)	Combustion of liquified natural gas to power turbines.

Point source emissions to surface water

16. The licence holder must ensure that where waste is emitted to surface water from the emission points in Table 7 and identified on the map of emission points in Schedule 1 it is done so in accordance with the conditions of this licence.

Table 7: Emission points to surface water

Emission point reference	Emission point reference on Map of emission points	Description	Source including abatement	Timeframe
W1	Western discharge point - Lake Carey	Receiving environment – hypersaline lake	Mine dewater from the underground operation and production bore water is directed to the Wallaby Transfer Pond prior to discharge to Lake Carey to ensure sufficient retention time to maximise removal of suspended solids. Nominated production bore water is directly discharged through the western discharge system.	-
W2	Southern discharge point – Lake Carey			-

W3	Eastern discharge point – Lake Carey		Mine dewater from the Granny Smith pit and Windich pit to be directed to the Processing Water Transfer Pond prior to discharge to Lake Carey to ensure sufficient retention time to maximise removal of suspended solids.	Authorised to operate for a period of 13 months from the commencement of dewater discharge to Lake Carey.

Point source emissions to groundwater

17. The licence holder must ensure that where waste is emitted to groundwater from the emission points in Table 8 and identified on the map of emission points in Schedule 1 it is done so in accordance with the conditions of this Licence.

Table 8: Emission points to groundwater

Emission point reference	Description	Source including abatement
Goanna pit	Discharge to pit lake in previously mined out open pit	Seepage water from TSF 1, 2, 3 and 4 seepage interception trenches, decant water, stormwater

18. The licence holder must not cause or allow point source emissions to groundwater that do not meet the limits listed in Table 9.

Table 9: Point sources emission limits to groundwater

Emission point reference	Parameter	Limit (including units)	Averaging period
Goanna pit	Standing water level	At least 3 m below crest level	Spot sample

Emissions to land

19. The licence holder must ensure that where waste is emitted to land from the emission points in Table 10 and identified on the map of emission points in Schedule 1 it is done so in accordance with the conditions of this Licence.

Table 10: Emissions to land

Emission point reference	Emission point reference on Map of emission point	Description	Source including abatement
L1	Spray field	Pipe feeding irrigation 72 ha of native vegetation	Treated wastewater from sewage plant
NA (Identified in Schedule 1)	WAP	Pond constructed out of caprock/laterite to capture surface runoff. Overflow area adjacent to pond-clay pan.	Treated wastewater from OWS.

20. The licence holder must not cause or allow emissions to land that do not meet the limits listed in Table 11.

Table 11: Emission limits to land

Emission point reference	Parameter	Limit (including units)	Averaging period
WAP WAP Overflow Area	TRH	50 mg/L	Spot sample

Monitoring

General monitoring

21. The licence holder must ensure that:

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

(b) all wastewater sampling is conducted in accordance with AS/NZS 5667.10;

(c) all surface water sampling is conducted in accordance with AS/NZS 5667.4, AS/NZS 5667.6 or AS/NZS 5667.9 as relevant;

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

(e) all sediment sampling is conducted in accordance with AS/NZS 5667.12; and

(f) 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.

22. The licence holder must ensure that:

(a) monthly monitoring is undertaken at least 15 days apart.

(b) two-monthly monitoring is undertaken at least 30 days apart; and

(c) quarterly monitoring is undertaken at least 45 days apart.

Monitoring of point source emissions to surface water

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

Table 12: Monitoring of point source emissions to surface water

Emission point reference	Parameter		Units	Trigger Value	Frequency
W1 W2 and W3	Discharge water	Alkalinity	mg/L as $CaCO_3$	W1: - W2: - W3: Less than 15 mg/L	Two-monthly
		Acidity		-	
		Net acidity (acidity-alkalinity)		-	
		pH	pH units	-	Quarterly

Emission point reference	Parameter		Units	Trigger Value	Frequency
		Total Dissolved Solids	mg/L		(ending February, May, August and November)
		Total Suspended Solids	mg/L		
		Copper (Cu), Sodium, (Na), Chloride (Cl), Aluminium (Al), Cadmium (Cd), Iron (Fe), Magnesium (Mg), Calcium (Ca), Potassium (K), Manganese (Mn), Selenium (Se), Cobalt (Co), Lead (Pb), Copper (Cu), Nickel (Ni), Zinc (Zn), Arsenic (As), Chromium (Cr)	mg/L		
		Selenium (Se)	µg/L	W1: - W2: - W3: 0.027 mg/L	

24. The licence holder must undertake the following action if the triggers identified within condition 23 are exceeded:

(a) Increase monitoring frequency for the parameter exceeded at W3 emission point for a period of five (5) consecutive fortnightly monitoring events;

(b) If the alkalinity trigger is exceeded, pH, acidity and net acidity must also be monitored in accordance with the requirements of condition 24(a); and

(c) If the trigger is exceeded again during the period specified in condition 24(a), the licence holder must submit to the CEO a written report within 10 days following this period, detailing:

i. The time, date and location of where the trigger value exceedance occurred;

ii. All monitoring data including the number of trigger value exceedances that occurred during the period specified in condition 24(a); and

iii. The response action or specified measures that were taken following the multiple trigger exceedances to minimise the likelihood of environmental harm to aquatic fauna at the discharge location.

Monitoring of point source emissions to groundwater

25. The licence holder must undertake the monitoring in Table 13 according to the specifications in that table.

Table 13: Monitoring of point source emissions to groundwater

Emission point reference	Parameter	Limit	Units	Frequency
GMB1 – GMB4	pH[1]	-	pH units	Quarterly
	SWL	-	mbgl	
	Total dissolved solids	-	mg/L	
	Total suspended solids	-		
	Weak acid dissociable cyanide and Total Cyanide[2]	0.5 mg/L WAD CN 1 mg/L Total cyanide		
	chloride, sulphate, bicarbonate, nitrate	-		
	calcium, magnesium, sodium, potassium, lead, zinc, iron, copper, aluminium, cadmium, cobalt, chromium and nickel	-		
Goanna pit water	Pit lake elevation	419 mRL	mAHD	Quarterly
	pH[1]	6-8	-	
	Weak acid dissociable cyanide and Total Cyanide[2]	0.5 mg/L WAD CN 1 mg/L Total cyanide	mg/L	
Granny pit water	Pit lake elevation	415 mRL	mAHD	Quarterly
	pH[1]	6-8	-	
	Weak acid dissociable cyanide and Total Cyanide[2]	0.5 mg/L WAD CN 1 mg/L Total cyanide	mg/L	

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

Note 2: ISO-5667.3 2012 sampling methods permitted.

Monitoring of emissions to land

26. The licence holder must undertake the monitoring in Table 14 according to the specifications in that table.

Table 14: Monitoring of emissions to land

Emission point reference	Parameter	Units	Frequency
L1	Biochemical oxygen demand	mg/L	Quarterly
	Total suspended solids	mg/L	
	Total nitrogen	mg/L	
	Total phosphorous	mg/L	
	Thermotolerant coliforms (including *E.coli*)	cfu/100mL	
	pH[1]	-	
	Effluent flow rate	kL/day	Continuous
WAP WAP Overflow Area	TRH	mg/L	Quarterly

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

Process monitoring

27. The licence holder must undertake the monitoring in Table 15 according to the specifications in that table.

Table 15: Process monitoring

Process description	Parameter	Limit	Units	Frequency	Method
Tailings deposition	Volumes of tailings deposited into the TSF	-	tonnes	Continuous	None specified
	Volumes of water recovered from the TSF	-			
	Volumes of seepage recovered and reused to Process Plant	-			
Seepage discharge from TSF Trench I	Cumulative volumes of seepage discharged to Goanna Pit	-	kL	Continuous	None specified
	Cumulative volumes of seepage discharged to Granny Pit	-			
	pH[1]	6-8	-	Quarterly	Spot sample

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

Ambient environmental quality monitoring

28. The Licence holder must undertake the monitoring in Tables 16 and 17 according to the specifications in that table and ensure the parameters are maintained within the specified limit.

Table 16: Monitoring of ambient groundwater environmental quality

Monitoring point reference and location	Parameter	Units	Averaging period	Frequency	Limit
TSF Cell 1: MB79, MB80, MB81 TSF Cell 2: MB27 TSF Cell 3: MB30, MB31, MB32, MB37, MB40, MB46, MB53, MB56, MB61, MB62, MB63, MB64, MB67, PB3A and PB5	Standing water level	mbgl	Spot sample	Quarterly	-
TSF Cell 3: MB29, MB36, MB38, MB39, MB48, MB49, MB54, MB55 and MB56	Standing water level	mgbl	Spot sample	Annually	-
TSF Cell 1: MB79, MB80, MB81 TSF Cell 2: MB27 TSF Cell3: MB30, MB31, MB32, MB40, MB46, MB56, MB62, MB63, MB64, PB3A and PB5	pH[1]	pH units	Spot sample	Quarterly	-
	Electrical conductivity	µS/cm			
	Total dissolved solids	mg/L			
	Total cyanide[2]				
	Weak acid dissociable cyanide[2]				
	Chloride, sulphate, bicarbonate, nitrate				
	Calcium,				

Monitoring point reference and location	Parameter	Units	Averaging period	Frequency	Limit
	magnesium, sodium, potassium, lead, zinc, iron, copper, aluminium, cadmium, cobalt, chromium, nickel and arsenic				
TSF Cell 3: MB29, MB36, MB37, MB48, MB53, MB54, MB66,	pH	pH units	Spot sample	Annually	-
	Electrical conductivity	µS/cm			
	Total dissolved solids	mg/L			
	Total cyanide[2]				
	Weak acid dissociable cyanide[2]				
	Chloride, sulphate, bicarbonate, nitrate				
	Calcium, magnesium, sodium, potassium, lead, zinc, iron, copper, aluminium, cadmium, cobalt, chromium, nickel and arsenic				
TSF Cell 4: MB72, MB73, MB74, MB75, MB76, MB77, MB78	Standing water level	mbgl	Spot sample	Monthly for 6 months, from issue of Licence then quarterly to align with TSF 2 and TSF 3 monitoring regimen.	Maintain >1.5 m water table depth for shallow bores MB72, MB74 and MB78 only. Ensure water elevation in deep bores does not exceed the water level in the shallow aquifer for

Monitoring point reference and location	Parameter	Units	Averaging period	Frequency	Limit
					more than a 3-month period
	pH[1]	mg/L			-
	Electrical conductivity				
	Total dissolved solids				
	Weak acid dissociable (WAD) cyanide[2] Total Cyanide[2], Calcium, magnesium, sodium, potassium, CO3, Chlorine, Sulfate (SO40), aluminium, arsenic, cadmium, chromium, copper, Iron, manganese, nickel, zinc, lead and cobalt	mg/L	Spot Sample	Quarterly	-

Note 1: In-field non-NATA accredited analysis permitted. Note 2: ISO-5667.3 2012 sampling methods permitted.

Table 17: Monitoring of ambient sediment quality

Monitoring point reference and location	Parameter	Units	Frequency
W1, W2 and W3	Total crust thickness	mm	Annual
	pH[1]	pH units	Annual
	Total discharge volumes	kL	Monthly
	Discharge rates	L/s	Continuous
	Copper (Cu), Sodium, (Na), Chloride (Cl), Aluminium (Al), Cadmium (Cd), Iron (Fe), Magnesium (Mg), Calcium (Ca), Potassium (K), Manganese (Mn), Selenium (Se), Cobalt (Co), Lead (Pb), Copper (Cu), Nickel (Ni), Zinc (Zn), Arsenic (As), Chromium (Cr)	mg/L	Annual

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

29. The licence holder must complete an annual ecological assessment of specified control sites upstream and test sites downstream of all discharge points (W1, W2 and W3) as per the minimum requirements in Schedule 2.

30. The licence holder must develop a detailed sediment sampling methodology in consultation with a NATA-accredited laboratory, with this methodology to be submitted to the CEO by 30 October 2025.

Records and reporting

31. 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.

32. 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.

33. 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 18, and which provides information in accordance with the corresponding requirement set out in Table 18.

Table 18: Annual Environmental Report

Condition	Requirement
-	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
23	Monitoring of point source emissions to surface water, including comparison of parameters concentrations to limits specified in Table 12
25	Monitoring of point source emissions to groundwater
26	Monitoring of emissions to land
27	Process monitoring and target exceedances
28	Ambient groundwater quality monitoring
28	Ambient sediment quality monitoring

Condition	Requirement
29	Annual Ecological Assessment monitoring data and report addressing the environmental effects of mine dewater discharge to Lake Carey.
-	TSF Cell three seepage management update report
31	Complaints summary

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

(a) any relevant process, production or operational data; and

(b) an assessment of the information contained within the report against previous monitoring results and Licence limits and/or targets.

35. The licence holder must submit the information in Table 19 to the CEO according to the specifications in that table.

Table 19: Non-annual reporting requirements

Condition or table (if relevant)	Parameter	Reporting period	Reporting date (after end of the reporting period)	Format or form[1]
-	Copies of original monitoring 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

36. The licence holder must ensure that the parameters listed in Table 20 are notified to the CEO in accordance with the notification requirements of the table.

Table 20: Notification requirements

Condition or table (if relevant)	Parameter	Notification requirement[1]	Format or form
14	Breach of any limit specified in the Licence	No later than 5pm of the next usual working day.	None specified

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

37. 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) any maintenance of infrastructure that is performed in the course of complying with conditions 1, 2 and 12 of this licence;

(c) monitoring programmes undertaken in accordance with conditions 23, 25, 26, 27 and 28 of this licence; and

(d) complaints received under condition 31 of this licence.

38. The books specified under condition 37 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.

39. The Licence Holder must conduct their phased Seepage Management Plan for Cell 4 to:

(a) Investigate the nature, extent and impact of seepage and groundwater mounding occurring

(b) Prepare an Interim TSF Groundwater and Seepage Management Plan based on monitoring and investigations collected

(c) Submit to the CEO the report prepared pursuant to condition 39(b) on no later than the 31 March 2026.

40. The licence holder must:

(a) construct and install the infrastructure or equipment;

(b) in accordance with the corresponding construction and installation requirements; and

as set out in Table 21.

Table 21: Infrastructure construction and installation requirements

Item	Infrastructure	Construction and installation requirements
1	Granny Smith open pit and Windich pit to W3 dewatering infrastructure (pipeline has already been constructed)	(a) 2 x pumps to be installed in Granny Smith pit. (b) 1 x pump to be installed in Windich pit. (c) Telemetry system and automatic shut-off to detect and control leaks to be installed on dewatering pipeline.

41. The Licence holder must within 28 calendar days of an item of infrastructure or equipment required by condition 40 being constructed and/or installed:

(a) undertake an audit of their compliance with the requirements of condition 40; and

(b) prepare and submit to the CEO an Environmental Compliance Report on that compliance.

42. The Environmental Compliance Report required by condition 41, must include as a minimum the following:

(a) certification by a qualified engineer that the items of infrastructure or component(s) thereof, as specified in condition 40, have been constructed in accordance with the relevant requirements specified in condition 40;

(b) as constructed plans or photographs and a detailed site plan for each item of infrastructure or component of infrastructure specified in condition 40; and

(c) be signed by a person authorised to represent the works approval holder and contains the printed name and position of that person.

Definitions

In this licence, the terms in Table 22 have the meanings defined.

Table 22: 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 may be available on the Department's website).
annual period	a 12 month period commencing from 1 January until 31 December in the same year.
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 5667.4	means the Australian Standard AS/NZS 5667.4 *Water Quality – Sampling – Guidance on sampling from lakes, natural and man- made.*
AS/NZS 5667.10	means the Australian Standard AS/NZS 5667.10 *Water Quality – Sampling – Guidance on sampling of waste waters.*
AS/NZS 5667.11	means the Australian Standard AS/NZS 5667.11 *Water Quality – Sampling – Guidance on sampling of groundwaters.*
AS/NZS 5667.12	means the Australian Standard AS/NZS 5667.12 *Water Quality – Sampling – Guidance on sampling of bottom sediments.*
averaging period	means the time over which a limit ~~or target~~ is measured or a monitoring results is obtained.
books	has the same meaning given to that term under the EP Act.
CEO	means Chief Executive Officer of the Department. "submit to / notify the CEO" (or similar), means either: Director General Department administering the *Environmental Protection Act 1986* Locked Bag 10 Joondalup DC WA 6919 or: info@dwer.wa.gov.au
Clean Fill	has the meaning defined in the Landfill Definitions.

Department	means the department established under section 35 of the *Public Sector Management Act 1994* (WA) and designated as responsible for the administration of the EP Act, which includes Part V Division 3.
discharge	has the same meaning given to that term under the EP Act.
emission	has the same meaning given to that term under the EP Act.
EP Act	*Environmental Protection Act 1986* (WA).
EP Regulations	*Environmental Protection Regulations 1987* (WA).
freeboard	means the distance between the maximum water surface elevations and the top of retaining banks or structures at their lowest point.
Inert Waste Type 1	has the meaning defined in the Landfill Definitions.
Inert Waste Type 2	has the meaning defined in the Landfill Definitions.
John 1983	Means John J, 1983, *The Diatom Flora of the Swan River Estuary, Western Australia.*
Landfill Definitions	means the document titled “Landfill Waste Classification and Waste Definitions 1996” published by the Chief Executive Officer of the Department of Water and Environmental Regulation as amended from time to time.
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.
mbgl	means metres below ground level.
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.
prescribed premises	has the same meaning given to that term under the EP Act.
quarterly	means the 4 inclusive periods from 1 January to 31 March, 1 April to 31 June, 1 July to 31 September and 1 October to 31 December.
RTSF	means Reclaimed Tailings Storage Facility.

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.
stage 1	means the installation of 22 generators (Cummins QSK60) to be operational until 30 June 2016.
stage 2	means the removal of the 22 generators from stage 1 and replaced with 18 generators (Cummins QSK60) which have been modified as higher capacity units from 1 July 2016 onwards.
Stantec, 2023	Means Stantec 2023, *Annual Ecological Assessment 2022 Report*, prepared for Gold Field Australia Pty Ltd, dated February 2023.
Storer et al., 2022	means Storer T, O'Neill K, Christie E, Galvin L & van Looij E 2022, *The South West Index of River Condition, Module 2 – method summary: collection and analysis of aquatic biota*, River Science Technical Series, report no. 2, Healthy Rivers program, Department of Water and Environmental Regulation, Perth
TSF	means Tailings Storage Facility.
Two-monthly	means every two months
usual working day	means 0800 – 1700 hours, Monday to Friday excluding public holidays in Western Australia.
waste	has the same meaning given to that term under the EP Act.
zone of influence	means the area of a receiving environment with the potential to be altered or changed as a result of an emission or discharge.

END OF CONDITIONS

Schedule 1: Maps

Premises map

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

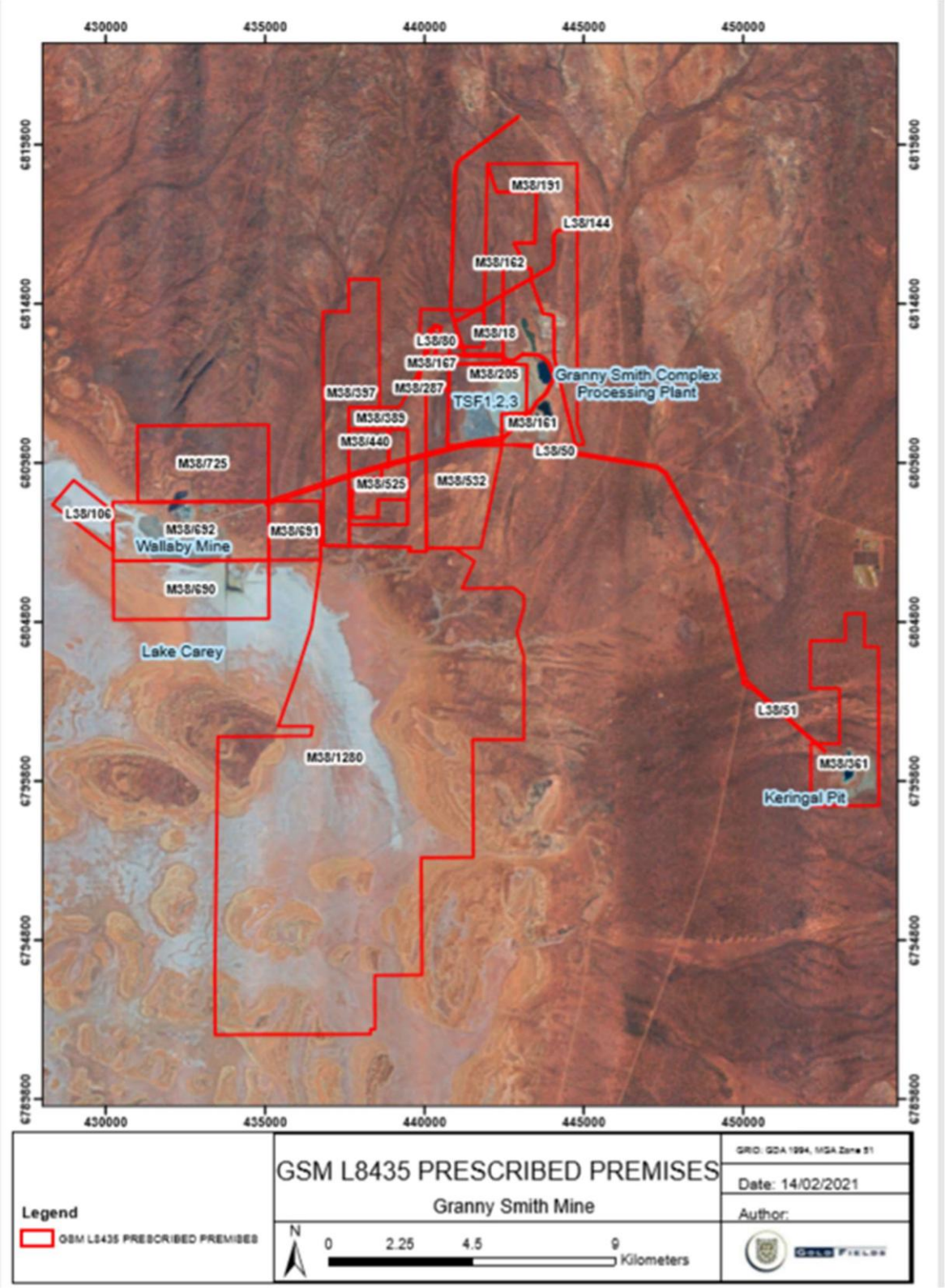

Figure 1: Map of the boundary of the prescribed premises

Infrastructure

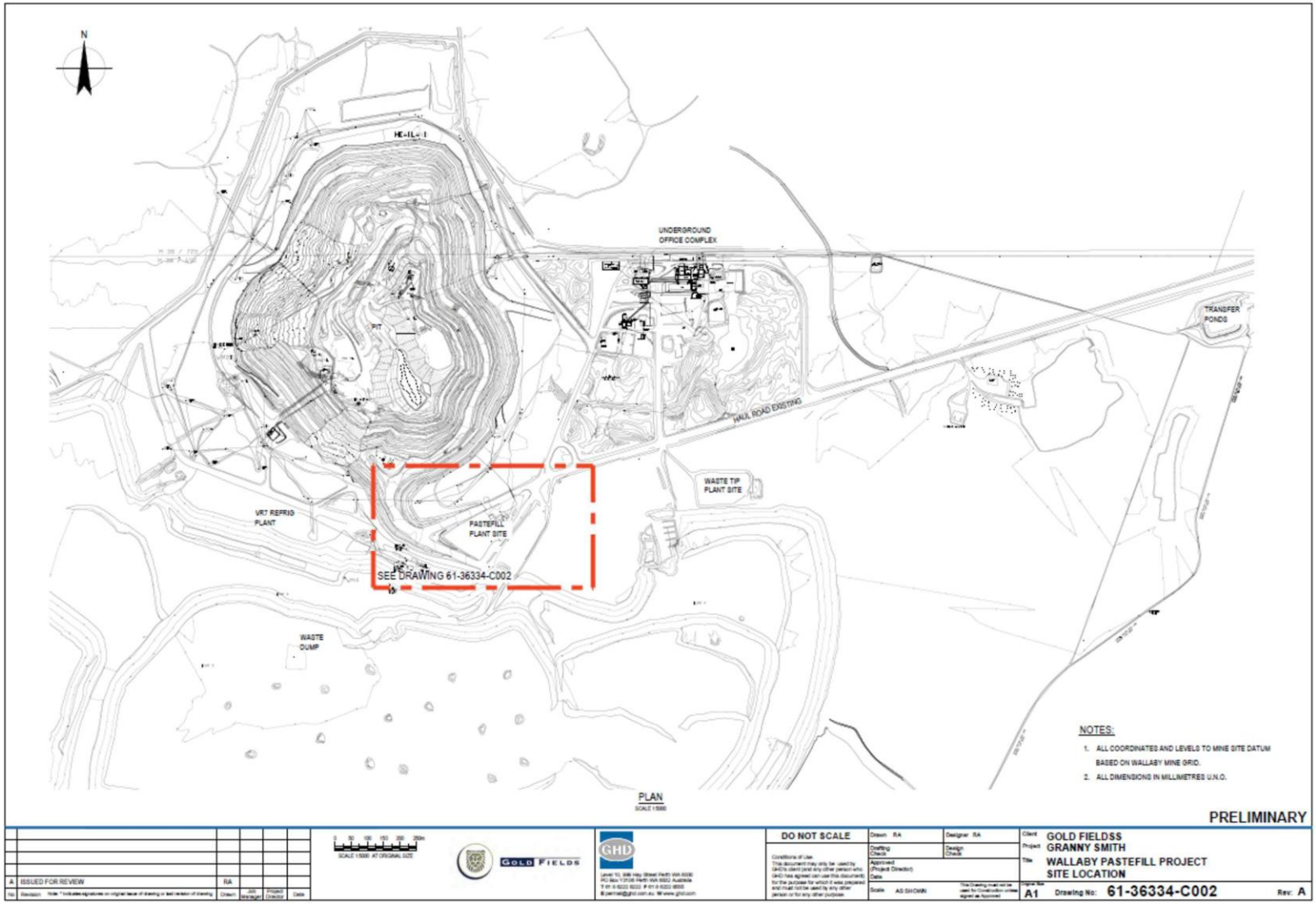

Figure 2: RTFS: Location

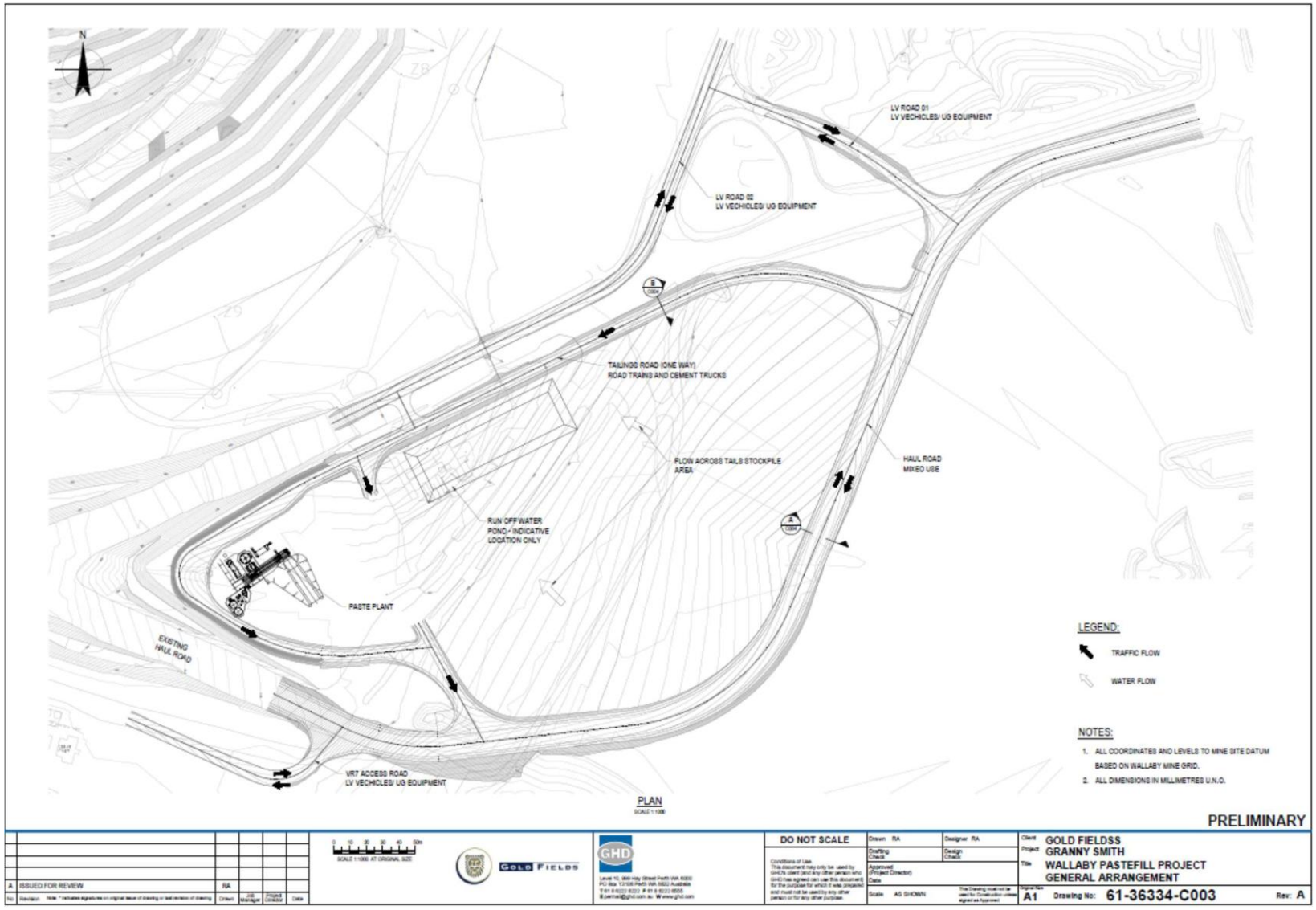

Figure 3: RTSF: General arrangement

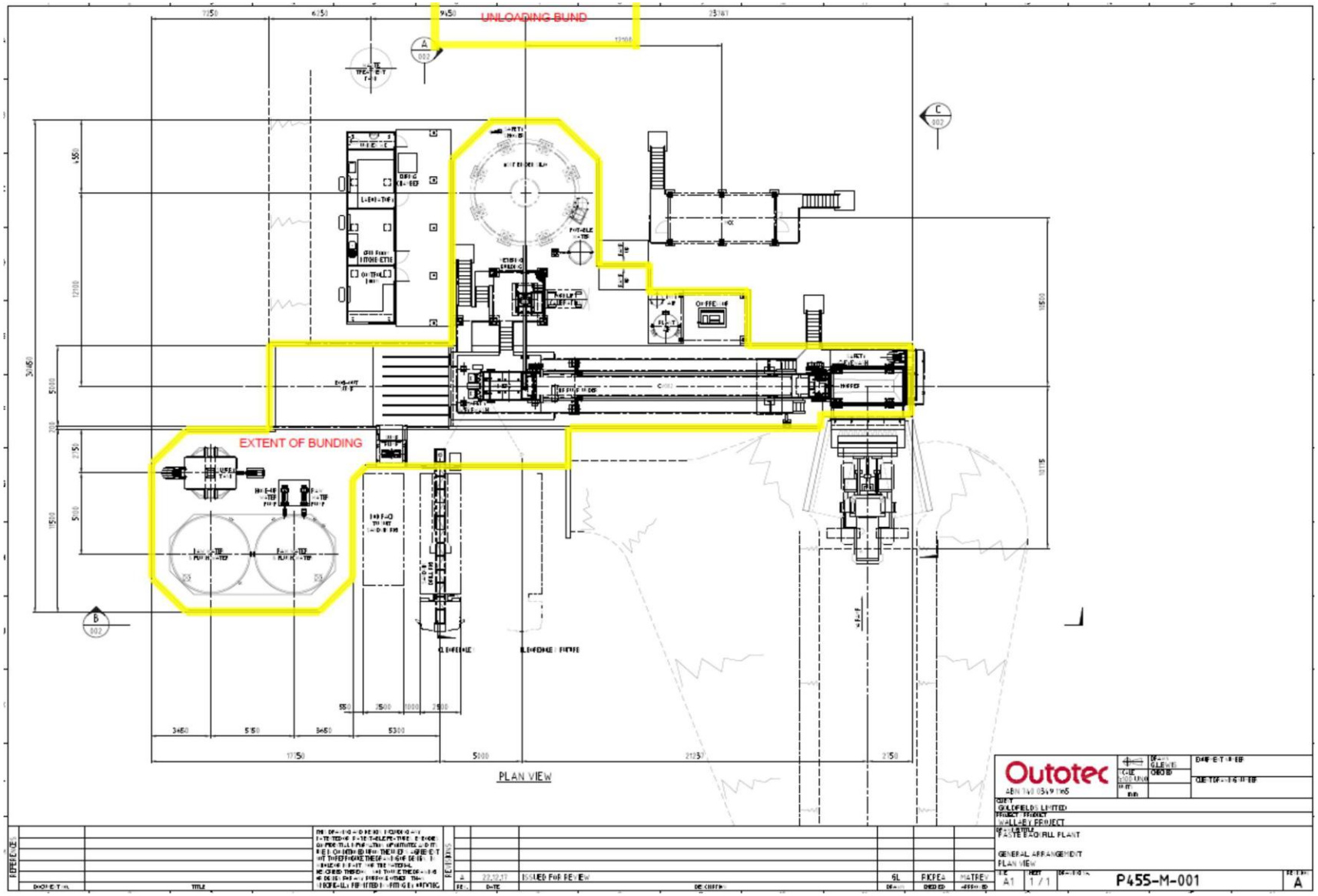

Figure 4: Paste Plant – Layout and bunding

The boundary of the WAP overflow area as defined in condition 13 is shown in yellow below.

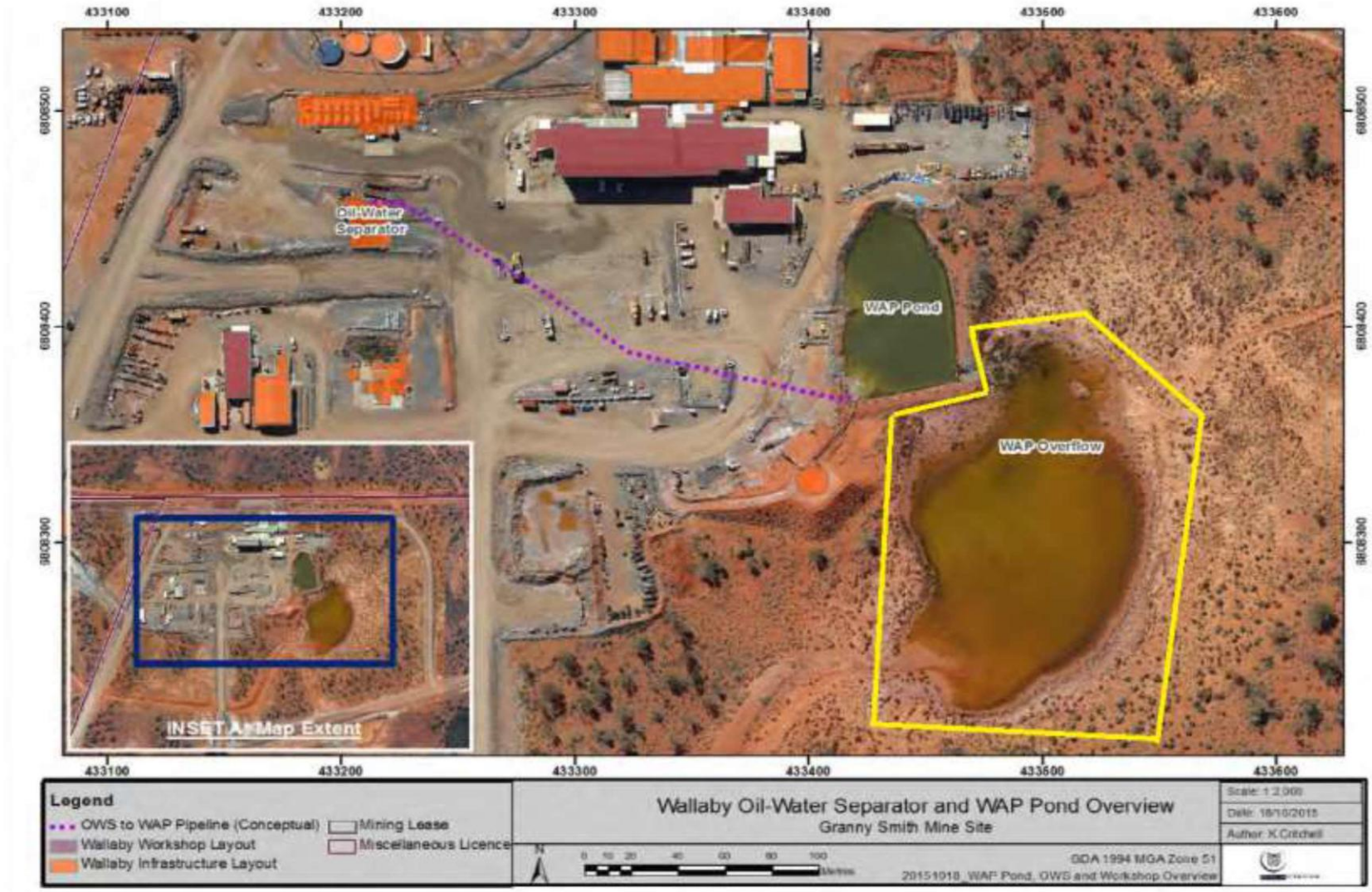

Figure 5: WAP Overflow Area

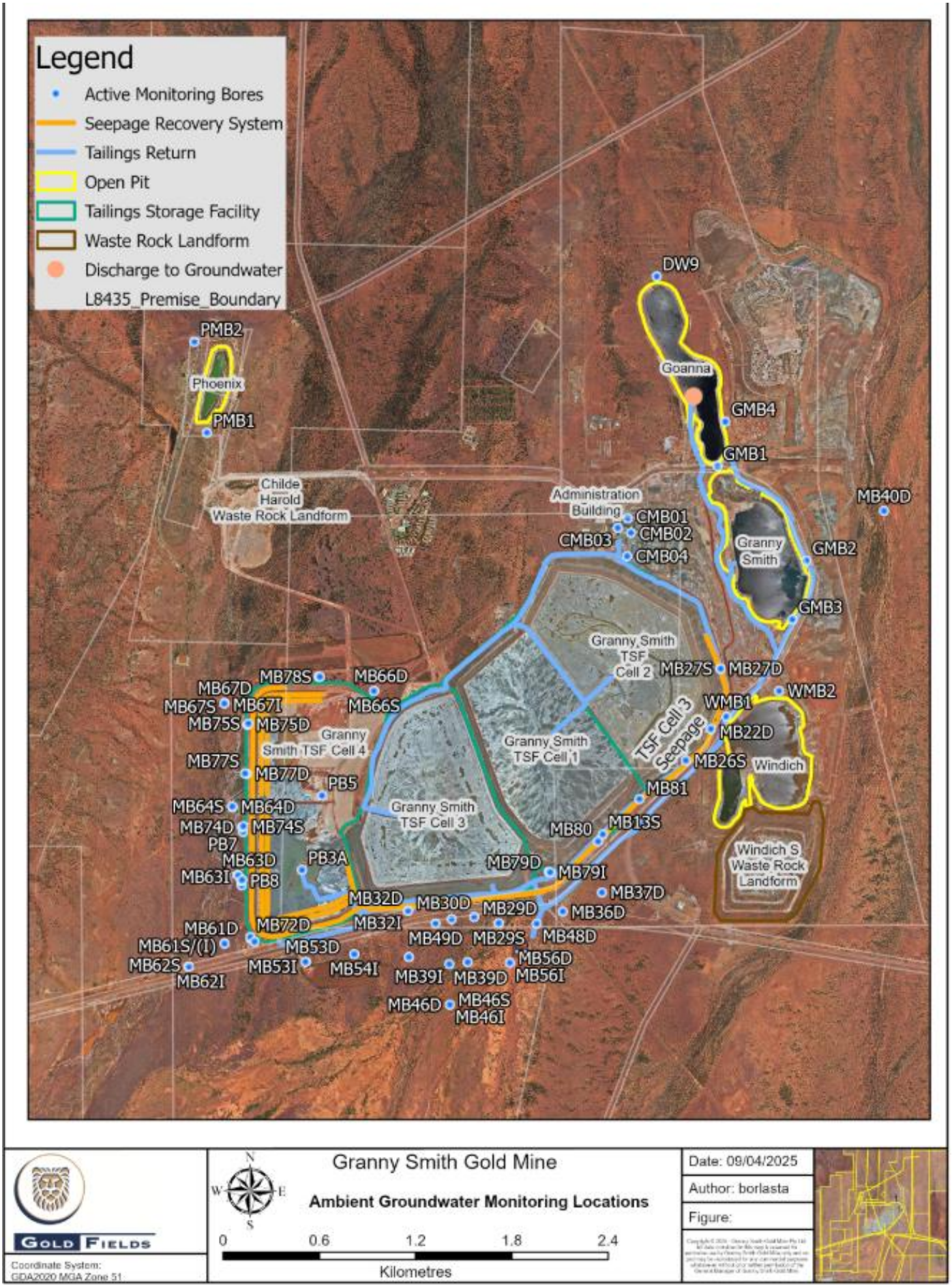

Figure 6: Ambient groundwater monitoring locations

Emission points and monitoring locations

The locations of the emission points defined in Table 6 are shown below

Figure 7: Emissions to air

The locations of the emission points defined in Table 7 and monitoring points defined in Tables 13 and 18 are shown below.

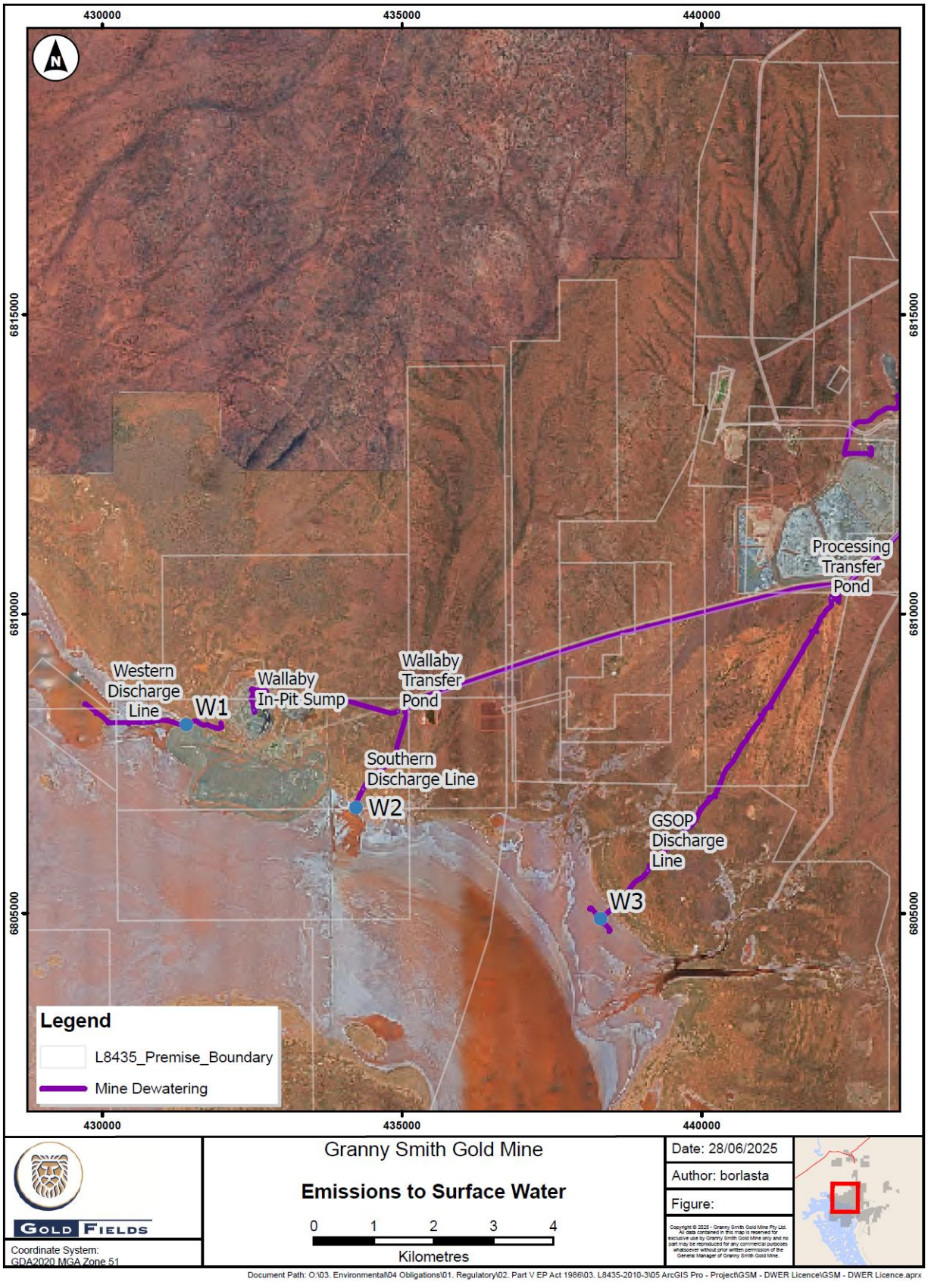

Figure 8: Emission and monitoring locations for W1, W2 and W3

The locations of the emission points defined in Table 8 are shown below.

Figure 9: Emission points to groundwater

The locations of the emissions points defined in Tables 10 and 15 for L1 are shown below.

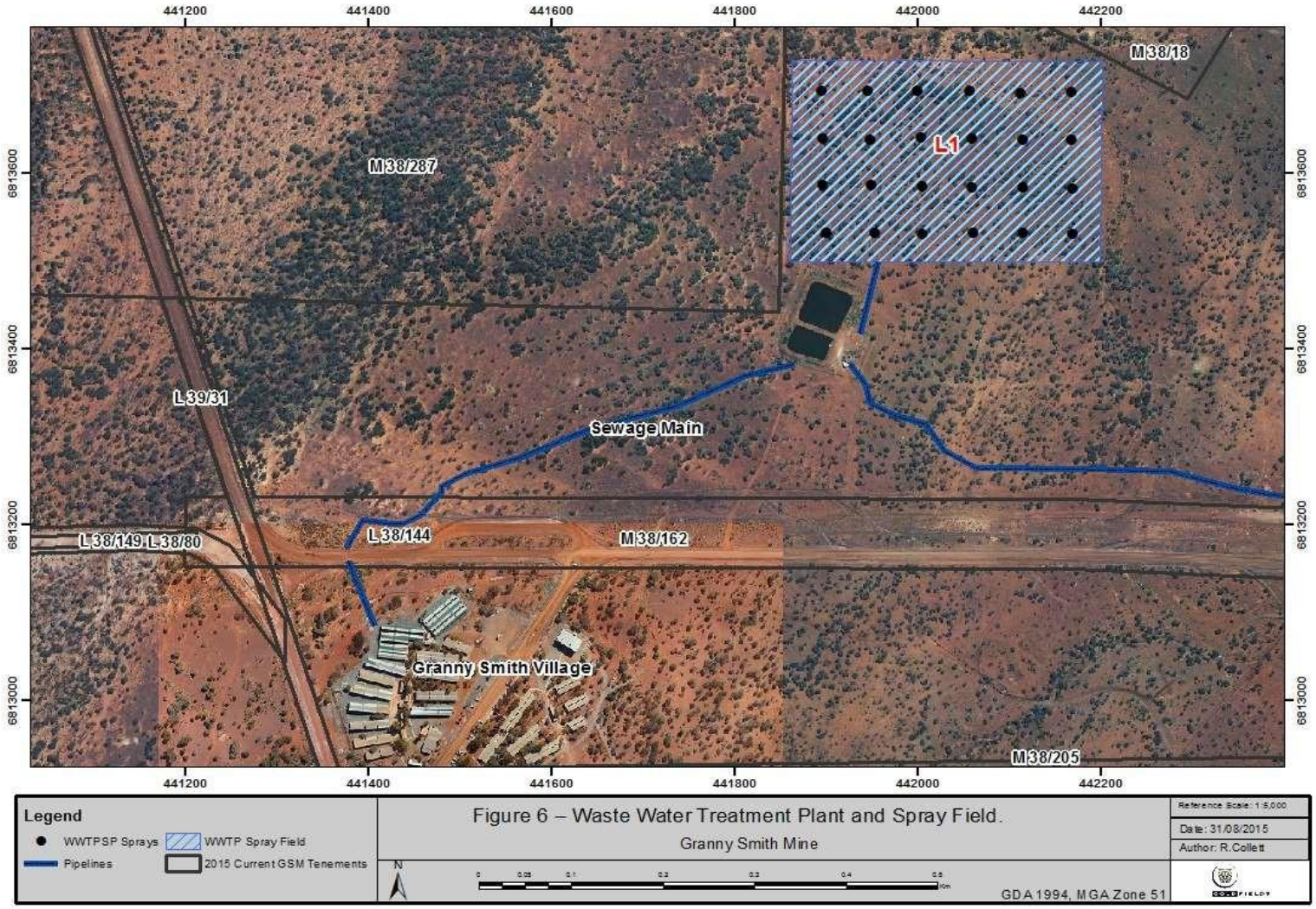

Figure 10: Emission and monitoring location for L1

Figure 11: Water transfer ponds

Map of Landfill Area

The location of the landfills defined in Table 3 are shown in Figures 12 and 13 below.

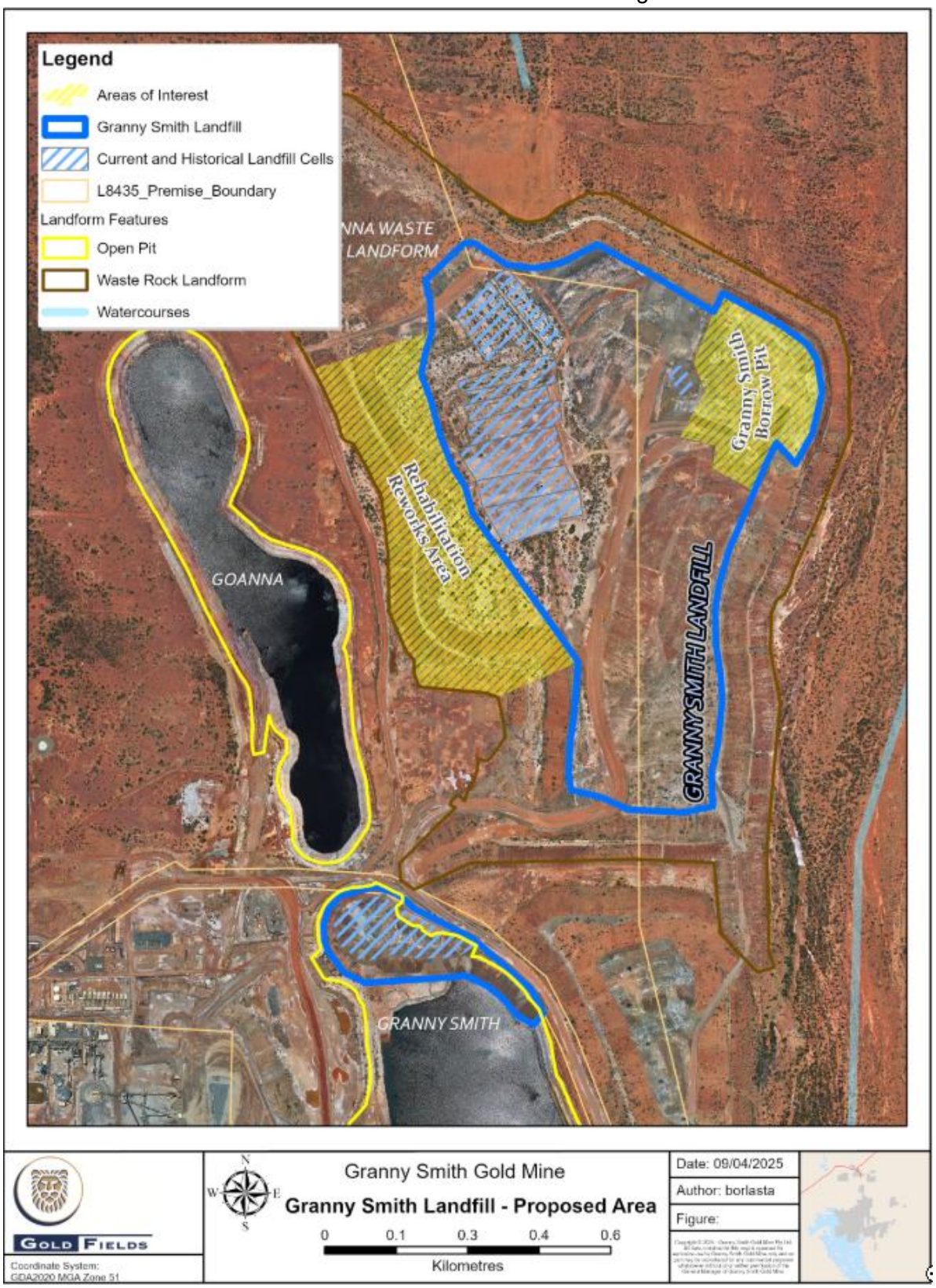

Figure 12: Granny Smith landfill location

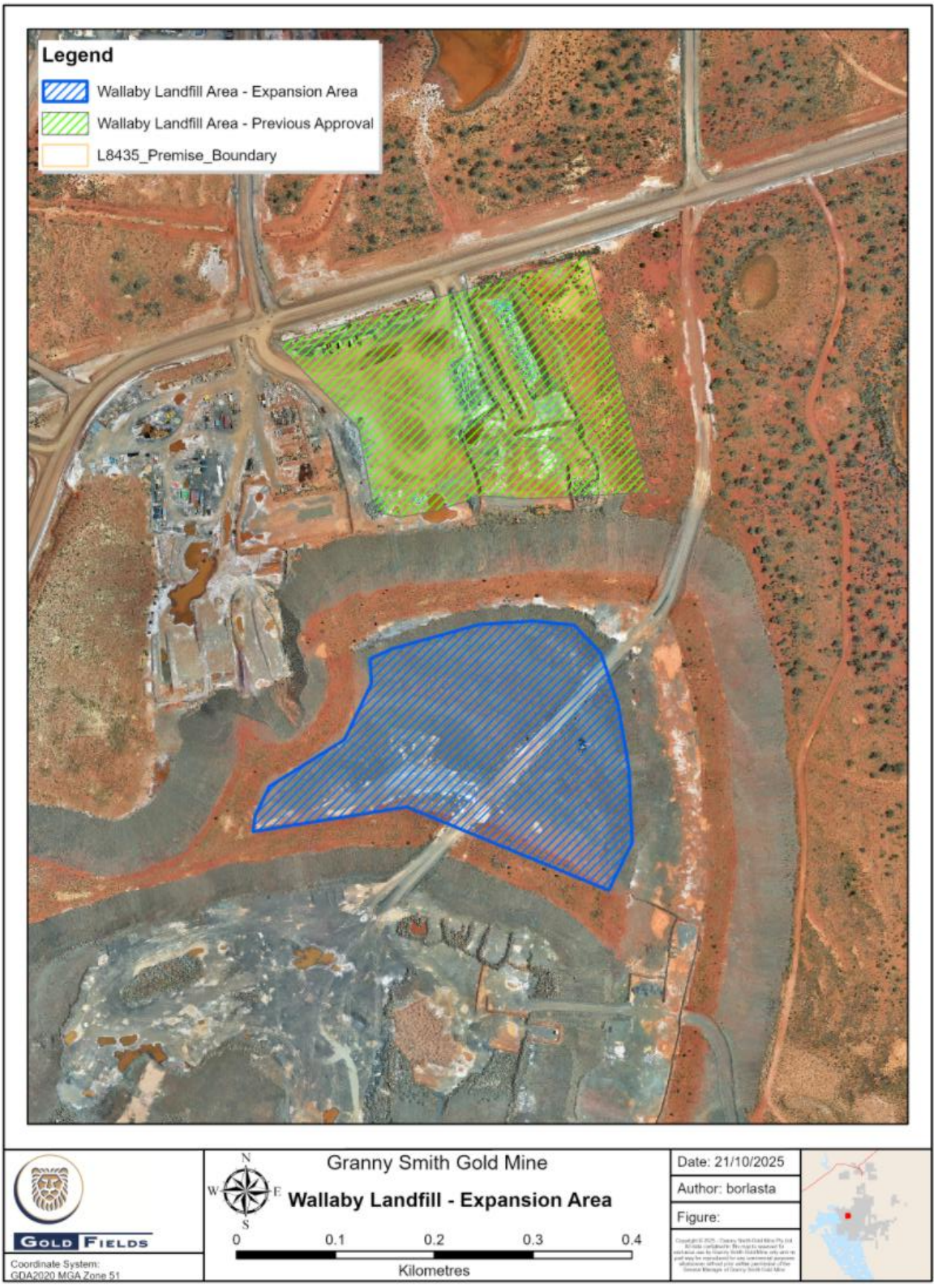

Figure 13: Wallaby landfill location

Schedule 2: Annual Ecological Assessment Requirements

Minimum Annual Ecological Assessments Requirements				
Monitoring location	**Minimum Parameters]'** /	**Unit**	**Minimum Frequency**	**Required method and detail**
Refer to Figure 14 for approximate locations of – 'control' sites and test or 'discharge' sites. Site locations are to provide adequate spatial coverage to allow assessment of risks to Lake Carey from all three discharge points W1, W2, W3 and are expected to be reassessed annually for ongoing relevance.	Water Quality		Commencing autumn 2025: Annually in autumn (in the months of March, April and May)	
	pH[1]	pH units		• Two replicate samples for both total and filtered fractions collected at each site; • Analysed at a NATA accredited laboratory. • QA samples must be collected and analysed including field and lab duplicates and blanks. • Total and bioavailable concentrations to be analysed for metals • All QA data including related information such as Limits of Reporting to be provided in reports. • As per methods AS/NZS 5667.1 and AS/NZS 5667.6. • In-field non-NATA accredited analysis permitted for pH, temperature, dissolved oxygen and electrical conductivity
	Temperature	ºC		
	Electrical conductivity	µS/cm		
	Turbidity	NTU		
	Dissolved oxygen	Mg/L and %		
	Total dissolved solids	mg/L		
	Dissolved organic carbon	mg/L		
	Organic carbon	mg/L		
	Arsenic, cadmium, calcium, cobalt, copper, iron, lead, lithium, magnesium, manganese, nickel, phosphate, potassium, sodium, selenium, sulphate, thorium,	mg/L		

	uranium and zinc			
	Sediment quality			
	Arsenic, cadmium, calcium, chromium, cobalt, copper, iron, lead, lithium, magnesium, manganese, nickel, phosphate, potassium, sodium, sulphate, thorium, tin, uranium, zinc, organic carbon, particle size, moisture	mg/kg		• Each sample is collected from within a 1 m x 1 m quadrat, with the top 2 cm of lake sediment collected using a sterilised 250 mL glass jar scraped across the quadrat representing a composite sample. Additional scraping is made until the jar is filled (excluding voids). • A minimum of three replicate samples collected at each site. • Replicate samples are taken at different locations at the site to ensure subsequent samples are not influenced by sampling disturbance. • Total (wet and dry conditions) and bioavailable (wet phase only) concentrations analysed at a NATA accredited laboratory. • QA samples must be collected including field duplicates and blanks. • As per methods AS/NZS 5667.1 and AS/NZS 5667.12[2]
	Aquatic fauna diversity and abundance			
	Macroinvertebrate taxa (highest resolution possible) and abundance	#		• Dry phase sampling – one sample per site of sediment collected from 1-2 cm depth across a 25 x 25 cm quadrant. Sample preparation and analysis as per methods described in Stantec 2023 • Wet phase sampling - one sample collected over a minimum 20 x 20 m L-shaped transect (dependent on the size of the system), with a 250 µm D-frame dip net using a kick/sweep motion • targeting the open water column, benthic substrate, debris, logs/branches and aquatic macrophytes. • Macroinvertebrate data should be provided with taxonomy and trait information (at least functional feeding groups and any sensitivity grades/information used for analysis).
	Benthic microbial community (diatoms)	#		• One sediment sample per site with three replicate slides per sample analysed from the top 5 mm of each sample (as per John 1983 – see Definitions). • Sample analysis following methods described in Annual Ecological Assessments.

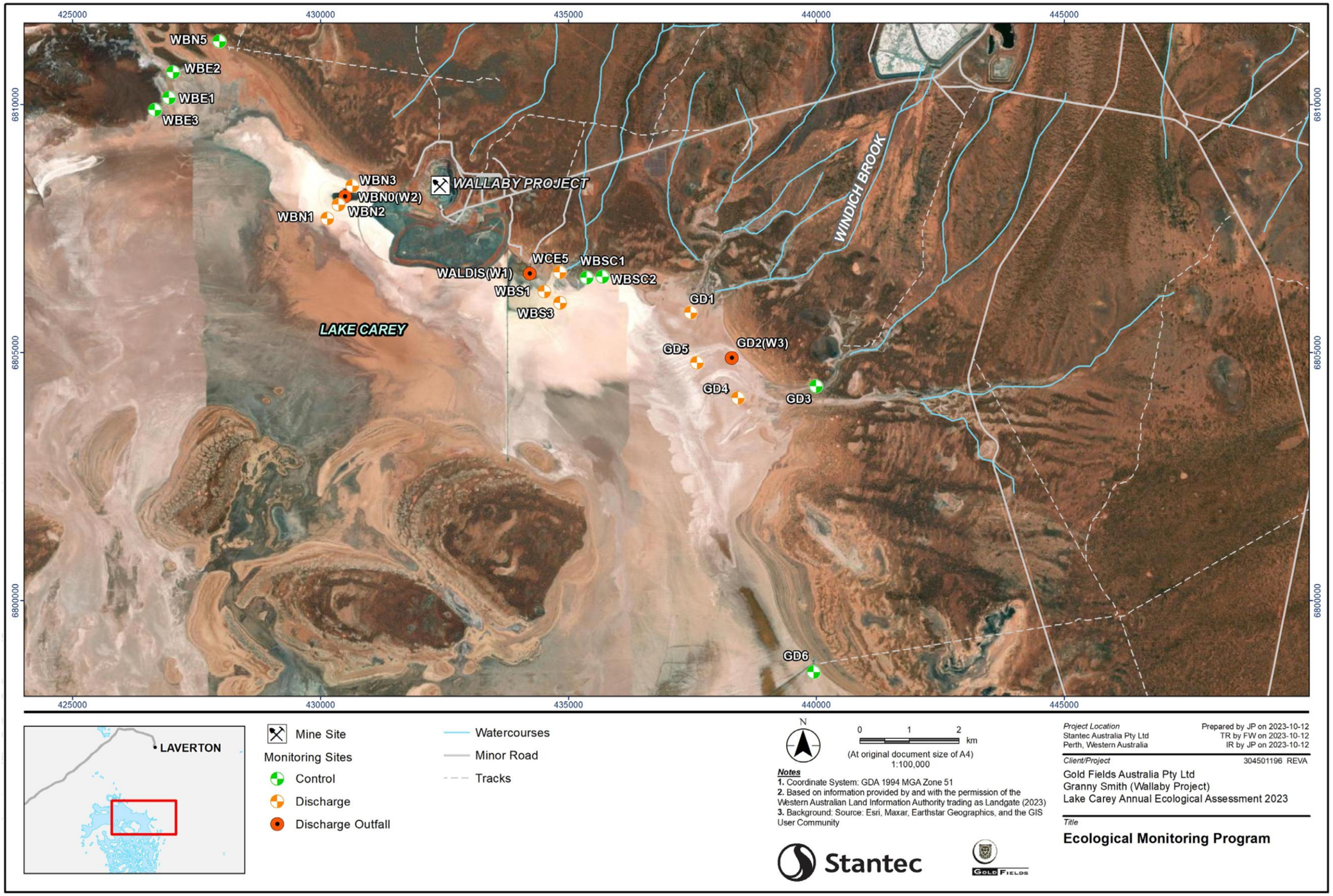

Figure 14 Location of Annual Ecological Assessment monitoring sites for the W1, W2 and W3 discharge outfalls