Works Approval

Works approval number	W6579/2021/1
Works approval holder	OZ Minerals Musgrave Operations Pty Ltd
ACN	640 213 341
Registered business address	2 Hamra Drive, ADELAIDE AIRPORT SA 5950
DWER file number	DER2021/000448
Duration	20/07/2022 to 19/07/2030
Date of issue	20/07/2022
Date of amendment	16/11/2022
Premises details	West Musgrave Project Mining Licences: M 69/149, L 69/56 and L 69/57, as defined in Schedule 2

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: premises on which — (a) metallic or non-metallic ore is crushed, ground, milled or otherwise processed; or (b) tailings from metallic or non-metallic ore are reprocessed; or (c) tailings or residue from metallic or non-metallic ore are discharged into a containment cell or dam.	12.5 million tonnes per year
Category 12: Screening etc. of material: premises (other than premises within category 5 or 8) on which material extracted from the ground is screened, washed, crushed, ground, milled, sized or separated.	150,000 tonnes per year
Category 52: Electric power generation: premises (other than premises within category 53 or an emergency or standby power generating plant) on which electrical power is generated using a fuel.	56 MW
Category 54: Sewage facility: premises — (a) on which sewage is treated (excluding septic tanks); or (b) from which treated sewage is discharged onto land or into waters	600 m^3/day
Category 57: Used tyre storage (general): premises (other than premises within category 56) on which used tyres are stored.	500 tyres

Category 62: Solid waste depot: premises on which waste is stored or sorted, pending final disposal or re-use, other than in the course of operating — (a) a refund point (as defined in the Waste Avoidance and Resource Recovery Act 2007 section 47C(1)) (a refund point); or (b) a facility or other place (an aggregation point) for the aggregation of containers that have been returned to refund points until those containers are accepted for processing or disposal.	1,800 tonnes per year
Category 64: Class II or III putrescible landfill site: premises (other than clean fill premises) on which waste of a type permitted for disposal for this category of prescribed premises, in accordance with the Landfill Waste Classification and Waste Definitions 1996, is accepted for burial.	1,000 tonnes per year
Category 73: Bulk storage of chemicals etc.: premises on which acids, alkalis or chemicals that — (a) contain at least one carbon to carbon bond; and (b) are liquid at STP (standard temperature and pressure), are stored.	5,215 m^3 in aggregate

This amended works approval is granted to the works approval holder, subject to the attached conditions, on 16 November 2022, by:

Michael Greenslade Digitally signed by Michael Greenslade
Date: 2022.11.16 11:25:39 +08'00'

MANAGER, PROCESS INDUSTRIES

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

Works approval history

Date	Reference number	Summary of changes
20/07/2022	W6579/2021/1	Works approval granted
16/11/2022	W6579/2021/1	Minor amendments to WWTP location and operation

Interpretation

In this works approval:

(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 works approval:

(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 works approval requires specific conditions to be met but does not provide any implied authorisation for other emissions, discharges, or activities not specified in this works approval.

Works approval conditions

The works approval holder must ensure that the following conditions are complied with:

Construction phase

Infrastructure and equipment

1. The works approval holder is authorised to:

(a) construct and/or install the infrastructure and/or equipment;

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

(c) at the corresponding infrastructure location,

as set out in Table 1.

2. The works approval holder must construct the critical containment infrastructure:

(a) in accordance with the corresponding design / construction requirements; and

(b) at the corresponding infrastructure location,

as set out in Table 2.

3. The works approval holder must design, construct, and install groundwater monitoring wells in accordance with the requirements specified in Table 3.

4. The works approval holder must undertake a baseline ambient groundwater sample according to Table 3 for the new bores. The results must compare against 95% level of species protection – ANZG 2018 criteria.

Table 1: Design and construction / installation requirements

	Infrastructure	Design and construction / installation requirements	Infrastructure location
	Ore processing infrastructure (category 5)		
1.	Primary and secondary crushing areas	Ore received at a ROM bin that feeds the Primary Crusher. All ore crushing infrastructure is enclosed with air extracted and passed through a dust collector: (a) that has a design flow rate of up to 38,200 m^3/hr; (b) consisting of bag filtration system that is able to be regularly cleaned using pulse jetting; and (c) that is capable of achieving a maximum dust discharge of 50 mg/Nm^3; (d) installed with a dust monitoring system in the stack outlet to enable remote identification of broken bags. Sprays must be fitted to the crusher discharge conveyor with a droplet size suited to optimise dust suppression prior to discharge to the coarse ore stockpile.	As depicted in Figure 4 and at the 'Minerals Processing Plant' location depicted in Figure 1, of Schedule 1.
2.	Grinding circuit	Grinding circuit consists of: (a) three vertical roller mills operating in parallel and connected to an air extraction unit that leads to a baghouse; (b) reject feed conveyors and ground ore conveyors that are covered and/or equipped with spray misters at exit points; (c) reject feed bin; and (d) ground ore storage silos, that are contained within a bunded concrete area that directs spillage into sumps, equipped with collection pumps.	As depicted in Figure 4 and at the 'Minerals Processing Plant' location depicted in Figure 1, of Schedule 1.
3.	Floatation, product and waste circuit	Floatation, product and waste circuit is contained within a bunded hardstand area and consists of: (a) repulp tank; (b) bulk rougher floatation cells; (c) regrind circuit; (d) bulk cleaner floatation cells; (e) separation floatation cells; (f) nickel thickener tank; (g) copper thickener tank; and (h) tailings thickener tank; and	As depicted in Figure 4 and at the 'Minerals Processing Plant' location depicted in Figure 1, of Schedule 1.

	Infrastructure	Design and construction / installation requirements	Infrastructure location
		(i) connecting pipework.	
4.	Concentrate storage	Concentrate storage shed constructed with: (a) concrete flooring; (b) doors to allow the shed to be closed during concentrate handling to minimise dust emissions; and (c) at least 20 m of concreted or bituminised road with rumble strips at truck exit points. Dedicated storage container storage area.	As depicted in Figure 4 and at the 'Minerals Processing Plant' location depicted in Figure 1, of Schedule 1.
5.	Water storage infrastructure	Water storage infrastructure includes: (a) Raw water dam; (b) Settlement dam; (c) Crusher evaporation pond, each constructed with the capacity to maintain a minimum 300 mm freeboard and fitted with water level indicators.	As depicted in Figure 4 and at the 'Minerals Processing Plant' location depicted in Figure 1, of Schedule 1.
	Crushing and screening equipment (category 12)		
6.	Crushing and screening plant (non-ore)	Mobile crushing and screening machinery designed to process up to 150,000 tonnes per annual period. Designed with a maximum screening throughput of 700 tonnes per hour. Equipped with dust suppression sprays.	N/A – mobile
	Power generation (category 52)		
7.	Thermal Electricity Generation Plant	Thermal Electricity Generation Plant constructed with a maximum output of 56 MW using diesel fuel and: (a) consisting of 12 to 25 engine generators each being a Bergen C25-33L-9/ B33-45L-6 or equivalent sized between 2 to 4.2 MWe each; (b) installed in engine hall layout in accordance with Schedule 1, Figure 5; (c) installed on concrete hardstand that is bunded and drains to a culvert running the full length of the building draining to a spill containment pit; (d) including an oil water separator capable of processing spills and tank ruptures; and (e) to be installed as per manufacturers specifications.	As depicted in Figure 5 and at the 'Thermal Electricity Generation Plant' location depicted in Figure 1, of Schedule 1.
8.	Fuel storage	Constructed in accordance with row 5 of Table 2.	N/A

	Infrastructure	Design and construction / installation requirements	Infrastructure location
	Waste disposal facilities (categories 54, 57, 62 and 64)		
9.	WWTP (Passive system)	Wastewater treatment infrastructure must be designed and constructed to meet the following specifications: (a) WWTP consisting of primary, secondary and tertiary treatment units installed to process up to 275 m^3/day (cumulative) of wastewater from construction and/or operation workforce; (b) Primary treatment of wastewater: within Anaerobic Baffled Reactor tanks (up to 8 x 89.1kL tanks) prior to discharging to secondary treatment; (c) Secondary treatment consisting of: (i) 80kL for balance and emergency storage; (ii) up to 6 x 1,022 m^2 filter bed units, each lined with single 1.0mm HDPE liner (no welds); (iii) pressure dosing/wastewater distribution manifolds covered with geofabric, topsoil and vents for system aeration; (iv) base of the filter bed units graded to direct treated water to a collection tunnel that redirects captured water to tertiary treatment, as depicted in Figures 6 and 7, of Schedule 1; (d) Passive WWTP system must be able to treat sewage to meet Department of Health standards specified in the *Guidelines for the Non-potable Uses of Recycled Water in Western Australia* (2011) for 'High' Exposure Risk Level prior to reuse; and (e) volumetric flow meter installed on discharge outlet pipe to monitor volumes discharged to storage tank.	As depicted in Figures 7, 8 and at the 'WWTP' location depicted in Figure 1, of Schedule 1.
10.	Construction camp WWTP: MBR and/or SBR Exploration camp WWTP: SBR (2)	Wastewater treatment infrastructure must be designed and constructed to meet the following specifications: (a) Construction camp WWTP systems (SBR and/or MBR) installed to process up to 325 m^3/day (cumulative) of wastewater from construction and/or operation workforce; (b) Exploration camp WWTP systems (two separate SBR systems) installed to process up to 40 m^3/day (cumulative) of wastewater from exploration and/or construction workforce; (c) All MBR and SBR WWTP systems must be able to treat sewage to the	As depicted in Figure 6 and at the 'WWTP' locations depicted in Figure 1, of Schedule 1.

	Infrastructure	Design and construction / installation requirements	Infrastructure location
		following wastewater quality outputs specified in Table 10 prior to irrigation; and (d) volumetric flow meter installed on discharge outlet pipe to monitor volumes discharged to irrigation spray field.	
11.	WWTP (all)	Wastewater treatment tanks for (a) alarm system installed to notify the operator of: i. pump faults; ii. high tank levels; and iii. tank overflows; (b) all sewage and sludge storage and treatment tanks, vessels, transfer pipelines and conveyance infrastructure must be impermeable and free of leaks and defects. Polyethylene sludge storage tank constructed to: (a) dose sludge with coagulants; (b) compress and dewater sludge using an inline screw filter press; (c) transport compressed sludge through an incline auger and chute to containment for later disposal to landfill (skip bin or bag); and (d) drain and capture excess water from sludge, returning it to the anaerobic processing stages of the Passive WWTP (row 9 of this Table) or the MBR or SBR (2) WWTPs (row 10 of this Table).	As depicted in Figure 6 as 'SBR WWTP layout' and 'MBR WWTP layout' and at the 'WWTP' locations depicted in Figure 1, of Schedule 1.
12.	WWTP irrigation fields	The irrigation field accepting treated wastewater from the construction camp MBR WWTP must be at least 500,000 m^2 in area. The irrigation field accepting treated wastewater from the two SBR WWTPs at the exploration camp must be at least 28,000 m^2 in area. In the event that the SBR WWTPs at the exploration camp is operated for longer than 6 months, the irrigation field must be increased to an area of at least 56,000 m^2. The WWTP irrigation fields must include: (a) sprinklers that are positioned to ensure even distribution of wastewater and capable of discharging wastewater over a 15 m radius each; and (b) fencing with visible safety signage installed to deter access.	At the 'Irrigation Field' locations depicted in Figure 1, of Schedule 1.

	Infrastructure	Design and construction / installation requirements	Infrastructure location
13.	Tyre storage	Tyre storage area capable of storing up to 500 tyres in compliance with AS 1940 in an area not accessible by public.	At the 'Waste Transfer Station' location depicted in Figure 1, of Schedule 1.
14.	Solid waste storage and transfer	Solid waste transfer area constructed over a covered and bunded concrete pad to prevent stormwater access.	At the 'Waste Transfer Station' location depicted in Figure 1, of Schedule 1.
15.	Landfill	Landfill trenches progressively constructed to the dimensions of approximately 150 m long and 6 m wide over an area of approximately 300 m x 200 m. Designed with a final waste disposal capacity of up to 50,000 m^3. Constructed within a wire mesh fence around the perimeter of the landfill facility to prevent fauna access and flyaway litter.	At the 'Landfill' location depicted in Figure 1, of Schedule 1.
	Stormwater management		
16.	Surface water management	Site must be designed to divert uncontaminated surface water runoff away from operational and concentrate storage areas. Processing areas must be concrete sealed and bunded and designed to contain surface water runoff on the premises. Process area constructed to allow residual stormwater to be redirected to the Process Water Pond or evaporated.	N/A

Table 2: Critical containment infrastructure design and construction requirements

	Infrastructure	Design and construction / installation requirements	Infrastructure location
	Tailings storage facility (category 5)		
1.	Tailings storage facility	Designed with the following characteristics: (a) Maximum storage capacity (at final height) of 306 Million tonnes across two cells. (b) Maximum starter embankment height: RL 471.3 m AHD. (c) Maximum overall downstream slope batter (external batters): 1V:3H (~20°). (d) Maximum upstream slope batter (internal batters): 1V:2H (~31°). (e) TSF embankment walls constructed: (i) with a permeability no more than 1×10^{-7} m/s; (ii) to at least 2 m below ground surface, or connected to the calcrete layer beneath the base of the TSF where intercepted within 2 m of the ground surface; and (iii) with a rock armour along the western embankment walls of the TSF to prevent erosion from surface water flows during high rainfall events; (a) Fractured and/or brecciated foundation under the starter embankment must be ripped and recompacted where intercepted within 2 m of the ground surface. (b) Embankment walls compacted to achieve a dry density of greater than 95% standard maximum dry density. (c) Constructed with underdrainage approximately 50 m and 100 m upstream of the toe and 1x underdrainage beneath each of the two decant pond locations. (d) Under drainage infrastructure must be installed within filter compatible zones of gravel and sand to minimise the potential for clogging during operation. (e) Toe drains constructed along downstream embankments approximately 1 m deep and graded to sump locations. (f) Vibrating wire piezometers installed for the purpose of monitoring the ongoing performance of the drains.	As depicted in Figures 2 and 3, at the 'TSF' location depicted in Figure 1, of Schedule 1.
2.	Tailings and return water pipelines	<u>Decant system</u> (a) constructed with slope batters of 1V:2H and a nominal crest width of 7 m; (b) floating turret connected to a trailer mounted pump located on the decant access causeway; (c) decant pump with minimum capacity of 60 L/s; and (d) floating turret decant system to be installed at the TSF and able to capture supernatant water to a minimum depth of 250 mm.	As depicted in Figures 2 and 8, and at the 'TSF' location depicted in Figure 1, of Schedule 1.

<table>
<tr><th></th><th>Infrastructure</th><th>Design and construction / installation requirements</th><th>Infrastructure location</th></tr>
<tr><td></td><td></td><td>TSF water recovery system designed to capture and pump water directly from TSF ponds and downstream embankment toe drains to the process plant and/or the process water pond defined in row 3 of this table.
Tailings and return water pipelines to be:
(a) placed so as to avoid interaction with site vehicles and machinery;
(b) bunded within a trench at least 800mm deep to contain discharges. Bunding must direct captured discharged to sumps constructed at low elevation points to provide containment capacity of a pipeline leak;
(c) installed with pressure/flow sensors and alarms capable of detecting pipeline failure and alerting personnel to prevent continued discharge; and
(d) fitted with isolation valves.</td><td></td></tr>
<tr><td>3.</td><td>Process water pond</td><td>Process water pond must be:
(a) constructed with a minimum storage capacity of 50,000 m^3;
(b) installed with leak detection system;
(c) fitted with water level indicators and control alarms; and
(d) lined in accordance with requirements specified below.
<table>
<tr><th>Item</th><th>Property/construction requirement</th></tr>
<tr><td>Liner properties</td><td>HDPE liners must have the following properties:
• Minimum 1.0mm thickness;
• Specific gravity of 0.94 or more;
• Melt index of 0.05 g to 0.30 g in 10 minutes;
• Carbon black content of 2-3%;
• Minimum tensile strength at yield of 16,000 kN/m^2;
• Minimum tensile strength at break of 550 kN/m^2;
• Minimum elongation at yield of 10%, and at break 300%</td></tr>
<tr><td>Liner fabrication</td><td>• Liners must be fabricated to form the shape of the pond embankments;
• All seams and joins made on the premises must be continuous;
• Panels of the liner must be overlapped by a minimum of 100 mm, prior to heat welding or mechanical joining</td></tr>
<tr><td>Welding materials</td><td>• Membrane welding materials must be supplied by the liner manufacturer, and be identical with the liner membrane</td></tr>
</table></td><td>As depicted as ‘Process Water Dam’ in Figure 4 of Schedule 1.</td></tr>
</table>

	Infrastructure	Design and construction / installation requirements		Infrastructure location
		Seams and joins	• All seams and joins, where applicable, must be constructed and tested as watertight over in accordance with manufacturer specifications for QA/QC	
		Shear resistance	• Shear resistance must be tested in accordance with ASTM D5321	
	Chemical storage (category 73)			
4.	Fuel storage and delivery areas	All bulk fuel storage and handling to be constructed in accordance with AS 1940, and: (a) fitted with leak detection system and alarms; (b) equipped with high level alarms to prevent overflow during operation; designed to be able to transfer potentially contaminated stormwater within bunded areas to an oily water separator.		At the 'Hydrocarbon Storage Facility' and 'Thermal Electricity Generation Plant' location depicted in Figure 1, of Schedule 1.
5.	Electricity generation fuel storage area	Five self-bunded bulk diesel tanks and associated distribution and refilling infrastructure, with a total capacity of up to 1 ML and in compliance with AS 1940 and AS 3833.		At the 'Containerised fuel tank' location depicted in Figure 5, of Schedule 1.
6.	Vehicle fuel storage and handling area	Bulk diesel storage and refilling infrastructure including: (a) one vertical bulk diesel tank with a total capacity of 3 ML, or nine 200 kL self-bunded tanks with a total capacity of 1.8 ML; and (b) two 10,000 L intermediate storage tanks and refuelling infrastructure; (c) one 200 kL diesel transfer storage tank. Fuel unloading and refuelling areas constructed with reinforced concrete slab graded to drain to a low point with collection sump to contain spills and leaks. Storage and handling infrastructure constructed in compliance with AS 1940 and AS 3833.		At the 'Hydrocarbon Storage Facility' location depicted in Figure 1, of Schedule 1.
7.	Reagents storage area	All components of the reagents mixing and handling facility to be constructed within bunded concrete containment slab equipped with sump pumps. Bunded area to have a minimum capacity of 110% of the largest container stored within it or 25% of the volume of all containers, whichever is larger. Reagent tanks to be equipped with high level alarms to prevent overflow.		At the 'Minerals Processing Plant' location depicted in Figure 1, of Schedule 1.

	Infrastructure	Design and construction / installation requirements	Infrastructure location
		Storage infrastructure constructed in compliance with AS 1940 and AS 3833.	
8.	Waste oil storage	Consisting of one bunded, above ground storage tank with a total capacity of up to 0.2 ML. Storage infrastructure constructed in compliance with AS 1940 and AS 3833.	At the 'Hydrocarbon Storage Facility' location depicted in Figure 1, of Schedule 1.

Table 3: Groundwater monitoring infrastructure requirements

	Infrastructure	Design and construction / installation requirements	Infrastructure location	Timeframe
1.	Groundwater monitoring bores	Groundwater monitoring bores installed at the locations referenced in Table 11 and depicted in Figure 9, of Schedule 1 including shallow and deep nested bores targeting both the shallow sand layer and deeper aquifer at each monitoring location. Well design and construction must be in accordance with ASTM D5092/D5092M-16: Standard practice for design and installation of groundwater monitoring bores. Well screens must target the part, or parts, of the aquifer most likely to be affected by contamination. The bores must be logged during the installation of the monitoring wells. A record of the geology encountered during drilling must be described and classified in accordance with Australian Standard AS 1726.	As depicted in Figure 9, of Schedule 1.	Must be constructed, developed (purged), sampled and determined to be operational at least 12 months prior to deposition of tailings material into the TSF.

Compliance reporting

5. The works approval holder must within 30 calendar days of an item of infrastructure or equipment required by conditions 1 and 3 being constructed and/or installed:

(a) undertake an audit of their compliance with the requirements of condition 1;

(b) baseline ambient groundwater results according to condition 4; and

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

6. The Environmental Compliance Report/s required by condition 5, must include as a minimum the following:

(a) certification by a suitably qualified and experienced Engineer (eligible for membership of the Institute of Engineers, Australia) that the items of infrastructure or component(s) thereof, as specified in rows 1 to 5 (inclusive), 7, 8 and 16 of Table 1, have been constructed in accordance with the relevant requirements specified in condition 1;

(b) certification by a person authorised to represent the works approval holder that the items of infrastructure or component(s) thereof, as specified in rows 6 and 9 to 15 (inclusive) of Table 1, and row 1 of Table 3, have been constructed in accordance with the relevant requirements specified in condition 1;

(c) as constructed plans and a detailed site plan for each item of infrastructure or component of infrastructure specified in condition 1;

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

(e) where an item of infrastructure has been certified as not being located or constructed, or does not comply with the corresponding requirements, the works approval holder must correct the non-compliant or defective works, prior to re-certifying, or provide to the CEO a description of, and explanation for, any departures from the requirements specified in Table 1 and/or Table 3 that do not require relocation or rectification and do not constitute a material defect along with the Environmental Compliance Report.

7. The works approval holder must, within 60 calendar days of the critical containment infrastructure identified by condition 2 being constructed:

(a) undertake an audit of compliance with the requirements of condition 2; and

(b) prepare and submit to the CEO a Critical Containment Infrastructure Report on that compliance.

8. The Critical Containment Infrastructure Report/s required by condition 6 must include as a minimum the following:

(a) certification by a suitably qualified Tailings Dam Design Engineer or their delegate such that each item of critical containment infrastructure or component thereof, as specified in rows 1 and 2 of Table 2, has or has not been built and installed in accordance with the requirements specified in condition 2, and is fit for its intended purpose;

(b) certification by a suitably qualified and experienced Engineer (eligible for membership of the Institute of Engineers, Australia) that the items of infrastructure or component(s) thereof, as specified in rows 3 to 8 (inclusive) of Table 2, have been constructed in accordance with the relevant requirements specified in condition 2;

(c) as-constructed plans and a detailed site plan showing the location and dimensions for each item of critical containment infrastructure or component thereof, as specified in condition 2;

(d) as-constructed permeability of the embankment, foundation, liner around each decant structure and the process water pond;

(e) photographic evidence of the installation of the infrastructure;

(f) where an item of infrastructure has been certified as not being located or constructed, or does not comply with the corresponding requirements, the works approval holder must correct the non-compliant or defective works, prior to re-certifying, or provide to the CEO a description of, and explanation for, any departures from the requirements specified in Table 2 that do not require relocation or rectification and do not constitute a material defect, along with the Critical Containment Infrastructure Report; and

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

Environmental commissioning phase

Environmental commissioning requirements

9. The works approval holder may only commence environmental commissioning of the infrastructure in each stage of construction listed in condition 1 once the Environmental Compliance Report has been submitted for that stage of construction in accordance with conditions 5 of this works approval.

10. Any environmental commissioning activities undertaken for an item of infrastructure specified in condition 1 may only be carried out:

(a) in accordance with the corresponding commissioning requirements; and

(b) for the corresponding authorised commissioning duration,

as set out in Table 4.

Table 4: Environmental commissioning requirements

Infrastructure	Commissioning requirements	Authorised commissioning duration
West Musgrave Processing Plant – Infrastructure specified in rows 1 to 5 (inclusive) of Table 1	Environmental commissioning to validate and check integrity and design parameters of tanks, ponds, pipelines, bunds with water and ore. Emission testing during commissioning to determine equipment effectiveness; and ability to comply with time limited operating conditions of this Works Approval.	26 weeks
	Dust spray flow rates and droplet sizes adjusted to ensure optimal dust suppression.	
	Vacuum, ventilation and baghouse systems, broken bag alarms and dust monitoring system operational when handling ore.	
	Environmental commissioning to validate and check design parameters of facilities with water and ore.	
	Tailings produced to be sent to the TSF, providing the Critical Containment Infrastructure Report required by condition 7 has been assessed as per condition 11, and compliance with commissioning requirements met.	

	Record tonnes of ore processed during commissioning.	
Thermal electricity generation plant	Emission testing during commissioning to determine equipment effectiveness.	26 weeks
WWTPs and irrigation field	Irrigation system valves, pumps, pipelines, and other fittings must be tested to ensure integrity and that they are free from leaks. For the Passive WWTP (row 9 of Table 1), integrity and leakage testing must be completed prior to burial.	12 weeks for each WWTP
	Spills of wastewater or chemicals outside containment infrastructure must be cleaned up immediately.	
	Outputs monitored in accordance with condition 14.	
Mining fleet fuel storage area	Tanks, system valves, pumps, pipelines, and other fittings must be tested to ensure integrity and that they are free from leaks. High level alarms and automated shut-offs tested to ensure that they are operational.	10 weeks
Electricity generation fuel storage area	Tanks, system valves, pumps, pipelines, and other fittings must be tested to ensure integrity and that they are free from leaks. High level alarms and automated shut-offs tested to ensure that they are operational.	10 weeks

11. The works approval holder may only commence environmental commissioning for an item of critical containment infrastructure listed in condition 2:

(a) where the CEO has notified the works approval holder that the Critical Containment Infrastructure Report for that item of infrastructure as required by condition 7 meets the requirements of that condition; or

(b) where at least 10 business days have passed after the Critical Containment Infrastructure Report for that item of infrastructure as required by condition 7 has been submitted to the CEO.

12. The works approval holder must ensure that any environmental commissioning activities undertaken for an item of critical containment infrastructure specified in condition 2 may only be carried out:

(a) in accordance with the corresponding commissioning requirements; and

(b) for the corresponding authorised commissioning duration,

as set out in Table 5.

Table 5: Environmental commissioning – critical containment infrastructure

Infrastructure	Commissioning requirements	Authorised commissioning duration
TSF and tailings/ return water pipelines	Vibrating wire piezometers determined to be operational. Tailings and return water pipelines must be hydrotested and pipeline leak detection tested.* *Tailings pipeline leak detection equipment is permitted to be off for a period while flow is stabilised in the pipeline. During this time the works approval holder must inspect tailings and return water pipelines at least 12 hourly.	26 weeks

	Record tonnes of tailings deposited and seepage recovery rates during commissioning.	
Process water pond	Water level indicators and associated control system alarms tested to ensure that they are operational. Freeboard of 300 mm must be maintained.	

13. During environmental commissioning, the works approval holder must ensure that the emission specified in Table 6, are discharged only from the corresponding discharge point and only to the corresponding discharge point location.

Table 6: Authorised discharge points during commissioning

Emission	Discharge point	Discharge point location
Minerals Processing Plant dust extraction unit discharge to air	Discharged from a stack via extraction unit and baghouse.	'Dust extraction' as depicted in Figure 4 of Schedule 1
Tailings discharged to containment cells via pipeline	TSF	'TSF' as depicted in Figure 2 of Schedule 1
Thermal Electricity Generation Plant exhaust to air	Discharged from a stack at each genset unit.	'Generator house' (4) as depicted in Figure 5 of Schedule 1
Discharge of treated effluent to the irrigation field	Discharged from sprinklers to an irrigation field following treatment at either the Passive WWTP, SBR (2) or MBR, as described in Table 1.	'Irrigation field' as depicted in Figure 1 of Schedule 1

Monitoring during environmental commissioning

14. The works approval holder must monitor emissions to the WWTP Irrigation Field, as depicted in Figure 1 of Schedule 1, during environmental commissioning in accordance with Table 7.

Table 7: Discharge monitoring during environmental commissioning

Monitoring location	Parameter	Frequency	Averaging period	Method
Flow meter to storage tanks	Cumulative volumetric flow rate (m^3/day)[1]	Daily or continuous online	N/A	N/A
Exploration camp WWTP: SBR (2) outlet to the irrigation field Construction camp WWTP: MBR outlet Passive WWTP outlet	pH[1]	At least once at each monitoring location during commissioning	Spot sample	AS 5667
	BOD (mg/L)			
	TSS (mg/L)			
	Total Nitrogen (mg/L)			
	Total Phosphorous (mg/L)			
	E. coli (cfu/100mL)			
	Residual Chlorine (mg/L)[1]			

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

15. For the monitoring activity required by condition 14, the works approval holder must ensure that analysis of samples is conducted by a laboratory with current NATA

accreditation for the parameters specified, unless indicated otherwise in Table 7.

Environmental commissioning reporting

16. The works approval holder must submit to the CEO an Environmental Commissioning Report within 60 calendar days of the completion date of environmental commissioning for each item of infrastructure or critical containment infrastructure specified in conditions 10 and 12.

17. The works approval holder must ensure the Environmental Commissioning Report required by condition 16 of this works approval includes the following:

(a) a summary of the environmental commissioning activities undertaken, including timeframes and amount of ore and wastewater processed;

(b) a summary of the environmental performance of each item of infrastructure or equipment as constructed or installed, which at minimum includes records detailing:

(i) the treated effluent monitoring results specified in condition 14; and

(ii) the amount of tailings disposed to the TSF, depicted in Figure 2 of Schedule 1;

(c) a review of the works approval holder's performance and compliance against the conditions of this works approval; and

(d) where they have not been met, measures proposed to meet the manufacturer's design specifications and the conditions of this works approval, together with timeframes for implementing the proposed measures

Time limited operations phase

Commencement and duration

18. The works approval holder may only conduct time limited operations for an item of infrastructure identified in conditions 1 and 2:

(a) for a period not exceeding 180 calendar days from the completion date of environmental commissioning; or

(b) until such a time as a licence is granted for that infrastructure in accordance with Division 3, Part V of the *Environmental Protection Act 1986*,

whichever is sooner.

Time limited operations requirements and emission limits

19. During time limited operations, the works approval holder must ensure that the premises infrastructure and equipment listed in Table 8 and located at the corresponding infrastructure location is maintained and operated in accordance with the corresponding operational requirement set out in that table.

Table 8: Infrastructure and equipment requirements during time limited operations

	Site infrastructure and equipment	Operational requirement	Infrastructure location
1.	Minerals Processing Plant	• Record tonnes of ore processed during time limited operation. • Vacuum, ventilation and baghouse systems, broken bag alarms and dust monitoring system operational when handling ore.	Figure 4 in Schedule 1

		• Tailings thickener tank must be operated to process tailings to have a solids density of at least 60% (w/w%) prior to discharge of tailings to the TSF. • Concentrate storage shed doors remain closed during concentrate handling, unless where truck access is required, to minimise dust emissions. • Daily inspection and cleaning of concentrate storage shed exit road when concentrate is handled.	
2.	TSF	• No more than 8 million tonnes of tailings deposited to the TSF. • Tailings discharged sub-aerially and cyclically into the facility in thin discrete layers. • Decant pond to be maintained to maximum 5% of the TSF area. • Minimum freeboard of 550 mm maintained. • Record tonnes of wet tailings deposited during time limited operations. • Continually monitor the measured flow rate on the outflow of the underdrainage system to monitor the performance of the underdrains. • Seepage collected from underdrainage and sumps must not return to the TSF.	Figure 2 in Schedule 1
3.	Process water pond	Minimum freeboard of 300 mm maintained.	Figure 1 in Schedule 1
4.	Tailings and return water pipelines	• Inspected daily to confirm integrity. • Record spills location and volume.	Figure 10 in Schedule 1
5.	Groundwater monitoring (TSF)	Monitor groundwater in accordance with condition 25.	Figure 9 in Schedule 1
6.	WWTP and disposal/reuse	• Monitor discharges of treated effluent to each WWTP Irrigation Field, in accordance with condition 23. • Sprinklers maintained to ensure even distribution and prevent pooling of treated effluent. • Waste sludge must be stored in an enclosed tank prior to disposal or further treatment. • Reuse of treated wastewater from the Passive WWTP in accordance with approval from the Department of Health.	Figure 1 and Figures 6 and 7 in Schedule 1
7.	Tyre storage	Tyre storage area capable of storing up to 500 tyres in compliance with AS 1940 in an area not accessible by public.	Figure 1 in Schedule 1
8.	Solid waste storage and transfer	Solid wastes stored within bunded storage areas. Solid wastes stored within the solid waste transfer area and hydrocarbon waste transfer area must be covered.	Figure 1 in Schedule 1
9.	Landfill	• The following waste types are permitted for disposal at the landfill up to a cumulative total of 1,000 tonnes per annual period: ○ Putrescible Waste	Figure 1 in Schedule 1

		○ Inert Waste Type 1 ○ Inert Waste Type 2 ○ Inert Waste Type 3 ○ Special Wastes Type 2 that do not require incineration. • Special Waste Type 1 and Type 3 not permitted for disposal at the landfill. • Putrescible Waste, including xanthate packaging, and Special Wastes Type 2 capped at least weekly. • Perimeter of landfill monitored weekly for the collection of flyaway litter.	

20. During time limited operations, the works approval holder must ensure that the emission(s) specified in Table 9, are discharged only from the corresponding discharge point(s) and only at the corresponding discharge point location(s).

Table 9: Authorised discharge points during time limited operations

Emission	Discharge point	Discharge point location
Minerals Processing Plant dust extraction and discharge to air	Discharged from a VRM and crushing circuit stacks via extraction units and baghouses.	'Dust extraction' as depicted in Figure 4 of Schedule 1
Tailings discharged to containment cells via pipeline	TSF	'TSF' as depicted in Figure 2 of Schedule 1
Thermal Electricity Generation Plant exhaust to air	Discharged from a stack at each genset unit.	'Generator house' (4) as depicted in Figure 5 of Schedule 1
Discharge of treated effluent to the Irrigation Field	Discharged from sprinklers to an irrigation field following treatment at the WWTP described in rows 9 and 10 of Table 1.	'Irrigation field' as depicted in Figure 1 of Schedule 1

21. During time limited operations, the works approval holder must record the following data monthly for the site water balance:

(a) site rainfall;

(b) evaporation rate;

(c) tailings return water recovery volumes;

(d) seepage recovery volumes;

(e) estimate of seepage losses; and

(f) wet tonnes of tailings deposited.

22. The works approval must ensure that there is no discharge of abstracted groundwater from within the premises to the environment from the date of initial disposal of tailings to the TSF.

Monitoring during time limited operations

23. The works approval holder must monitor emissions during time limited operations in accordance with Table 10 and ensure that the emissions from the monitoring locations do not exceed the corresponding limits specified in that table.

Table 10: Discharge monitoring during time limited operations

Monitoring location	Parameter	Limit (SBR[3])	Limit (MBR and Passive WWTP)	Frequency	Averaging period	Method
Exploration camp WWTP: SBR (2) outlet to the irrigation field Construction camp WWTP: MBR outlet Passive WWTP outlet[1]	Cumulative volumetric flow rate (m^3/day)[2]	100 m^3/day	MBR: 225 m^3/day (MBR) Passive WWTP: 275 m^3/day	Daily or continuous online	N/A	N/A
	pH[2]	6.5-8.5	6.5-8.5	Quarterly	Spot sample	AS 5667
	BOD (mg/L)	< 20 mg/L	< 10 mg/L			
	TSS (mg/L)	< 30 mg/L	< 10 mg/L			
	Total Nitrogen (mg/L)	< 30 mg/L	< 30 mg/L			
	Total Phosphorous (mg/L)	< 8 mg/L	< 8 mg/L			
	E. coli (cfu/100mL)	< 1,000 cfu/100mL	< 1 cfu/100mL			
	Residual Chlorine (mg/L)[1]	0.2-2.0 mg/L	0.2-2.0 mg/L			

Note 1: Only when discharges to the Irrigation Field are occurring during the period
Note 2: In-field, non-NATA accredited analysis permitted
Note 3: Limits refer to the outputs of both SBR units from the point of discharge to the Irrigation Field.

24. During the first 30 days of time limited operations, the works approval holder must collect at least 10 individual representative tailings samples, including pore water, to determine the likely behaviour of elements under a range of leaching conditions, and may include, but not be limited to:

(a) testing using the LEAF Test Method 1313 pH-dependent leaching test;

(b) geotechnical characterisation of tailings including: particle size distribution, volume of solids, settling test (drained and undrained), air drying test and hydraulic conductivity of the same tailings tested in (a)

(c) testing for the parameters listed in Table 11, excluding standing water level; and

(d) all test results shall be collated and provided in a report to the CEO within one week after receipt of the laboratory report.

25. The works approval holder must monitor groundwater during time limited operations for concentrations of the identified parameters in accordance with Table 11.

Table 11: Monitoring of groundwater during time limited operations

Monitoring location	Parameter	Unit	Frequency	Averaging period
TSF1 – TSF6; GDE-01; GDE-02;	pH[1]	-	Quarterly from date of compliance with condition 9.	Spot sample
	Electrical Conductivity, EC	µS/cm		

MMB-01; MMB-03; MMB-04; MMB-05S; MMB-05D; MMB-06S; MMB-06D; MMB-08S; and MMB-08D; WMPW06, as depicted in Figure 9 of Schedule 1	Total Dissolved Solids, TDS	mg/L		
	Major ions (Na^+, K^+, Ca^{2+}, Mg^{2+}, HCO_3^-, Cl^-, SO_4^{2-}, NO_3^-, NO_2^- and NH_4^+)	mg/L		
	Aluminium, Al	mg/L		
	Arsenic, As	mg/L		
	Antimony, Sb	mg/L		
	Barium, Ba	mg/L		
	Cadmium, Cd	mg/L		
	Chromium, Cr	mg/L		
	Cobalt, Co	mg/L		
	Copper, Cu	mg/L		
	Fluoride, F	mg/L		
	Iron, Fe	mg/L		
	Lead	mg/L		
	Manganese, Mn	mg/L		
	Molybdenum, Mo	mg/L		
	Nickel, Ni	mg/L		
	Nitrogen (Total)	mg/L		
	Selenium, Se	mg/L		
	Silver, Ag	mg/L		
	Thallium, Tl	mg/L		
	Uranium, U	mg/L		
	Vanadium, V	mg/L		
	Zinc, Zn	mg/L		
	Standing water level	mbgl, mRL	Monthly	Spot sample

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

26. In the event that the trigger values defined in Table 12 are exceeded at groundwater monitoring bores, as depicted in Figure 9 of Schedule 1, the works approval must:

(a) install and operate groundwater abstraction bores for the purpose of reducing risk of groundwater mounding; and

(b) construct an interception trench upstream of embankments (along the outer embankment/s); and/or

(c) treat the supernatant pond locations with chemicals or clay to reduce the hydraulic conductivity of the supernatant decant pond; and/or

(d) further thicken tailings prior to deposition; and/or

(e) other method as agreed with the CEO in writing for the purpose of minimising impacts from seepage,

within 3 months of identifying the trigger value exceedance.

Table 12: Trigger values

Monitoring location	Parameter	Units	Trigger value
TSF1 – TSF6	Standing water level	mbgl	4
MMB-04 and WMPW06	pH[1]	-	7-8.5
	Electrical Conductivity, EC	µS/cm	4,500
	Total Dissolved Solids, TDS	mg/L	2,850
	HCO_3	mg/L	<180
	NO_3	mg/L	130
	NH_4	mg/L	1.5
	SO_4	mg/L	405
	Aluminium, Al	µg/L	55
	Arsenic, As	µg/L	13
	Barium, Ba	µg/L	54
	Cadmium, Cd	µg/L	2
	Chromium, Cr	µg/L	3.3
	Cobalt, Co	µg/L	1.4
	Copper, Cu	µg/L	3
	Fluoride, F	mg/L	2
	Lead, Pb	µg/L	3.4
	Manganese, Mn	µg/L	1,900
	Molybdenum, Mo	µg/L	34
	Nickel, Ni	µg/L	11
	Nitrogen (Total)	mg/L	31
	Selenium, Se	µg/L	11
	Silver, Ag	µg/L	0.06
	Thallium, Tl	µg/L	2
	Uranium, U	µg/L	7.3
	Vanadium, V	µg/L	34
	Zinc, Zn	µg/L	49

Note 1: Represents an acceptable range for pH. Any excursion above or below this range would represent a trigger exceedance for the purpose of instigating management action under this condition.

27. The works approval holder must include the following information in the report referred to in condition 29 in relation to any exceedances of any of the trigger values identified in that condition:

(a) the measurement or concentration recorded in relation to the exceedance, including any laboratory reports;

(b) the time and date when the exceedance was identified;

(c) whether any known environmental impact occurred as a result of the exceedance and, if so, what that impact was and where the impact occurred;

(d) the details of the management action(s) taken pursuant with condition 26 in response to the exceedance;

(e) the details and result of any investigation undertaken into the cause of the exceedance; and

(f) the details of any action or specified measures that have been taken, or will be taken, to prevent the exceedance occurring again and for the purpose of minimising the likelihood of pollution or environmental harm.

28. The works approval holder must ensure that standing water levels measured at groundwater monitoring bores TSF1 to TSF6 (inclusive) and GDE-01, as depicted in Figure 9 of Schedule 1, do not rise above 2 metres below ground level.

Compliance reporting

29. The works approval holder must submit to the CEO a report on tailings deposition during commissioning and time limited operations within 30 calendar days of the completion date of time limited operations or 30 calendar days before the expiration date of the works approval, whichever is the sooner.

30. The works approval holder must ensure the report required by condition 29 includes the following:

(a) A summary of the time limited operations, including timeframes and volume of tailings deposited per month;

(b) The ambient groundwater monitoring results obtained during time limited operations under Table 11;

(c) A summary of the environmental performance of TSF as constructed or installed (as applicable), which includes records detailing:

(i) volume of tailings deposited;

(ii) tailings density;

(iii) tailings solids density;

(iv) TSF water balance where the rate of evaporation is not assumed to be the same as the pan evaporation rate;

(v) monthly records of tailings level at TSF in mRL;

(vi) a review of performance and compliance against the conditions of the works approval and the Environmental Commissioning Report; and

(vii) where the manufacturer's design specifications and the conditions of this works approval have not been met, what measures will the works approval holder take to meet them, and what timeframes will be required to implement those measures.; and

(d) Information required by condition 27, if applicable.

Records and reporting (general)

31. The works approval holder must record the following information in relation to complaints received by the works approval 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 works approval holder to investigate or respond to any complaint.

32. The works approval holder must maintain accurate and auditable books including the following records, information, reports, and data required by this works approval:

(a) the works conducted in accordance with conditions 1, 2 and 3;

(b) any maintenance of infrastructure that is performed in the course of complying with condition 19;

(c) monitoring programmes undertaken in accordance with conditions 4, 14, 23 and 25; and

(d) complaints received under condition 31.

33. The books specified under condition 32 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 works approval holder for the duration of the works approval; and

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

Definitions

In this works approval, the terms in Table 13 have the meanings defined.

Table 13: Definitions

Term	Definition
annual period	a 12 month period commencing from 1 July until 30 June of the immediately following year.
AHD	Australian Height Datum
AS 1726	*Australian Standard 1726:2017 Geotechnical site investigations.*
AS 1940	*Australian/New Zealand Standard 1940:2017 The storage and handling of flammable and combustible liquids*.
AS 3833	*Australian/New Zealand Standard 3833:2007 The storage and handling of mixed classes of dangerous goods, in packages and intermediate bulk containers.*
AS 5667	*Australian/New Zealand Standard 5667.1:1998 Water Quality – Sampling*
ASTM D5092/D5092M-16	*ASTM D5092/D5092M-16: Standard practice for design and installation of groundwater monitoring bores.*
BOD	Biological Oxygen Demand
books	has the same meaning given to that term under the EP Act.
CEO	means Chief Executive Officer. CEO for the purposes of notification means: Director General Department administering the *Environmental Protection Act 1986* Locked Bag 10 Joondalup DC WA 6919 info@dwer.wa.gov.au
cfu/100mL	refers to coliforming units per 100 mL of treated effluent from the SBR and MBR WWTPs
critical containment infrastructure	means the items of infrastructure listed in condition 2.
Critical Containment Infrastructure Report	means a report to satisfy the CEO that works of critical containment infrastructure have been constructed in accordance with the works approval.
Department	means the department established under section 35 of the *Public Sector Management Act 1994* and designated as responsible for the administration of Part V Division 3 of the EP Act.

Term	Definition
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.
environmental commissioning	means the sequence of activities to be undertaken to test equipment integrity and operation, or to determine the environmental performance, of equipment and infrastructure to establish or test a steady state operation and confirm design specifications.
Environmental Commissioning Report	means a report on any commissioning activities that have taken place and a demonstration that they have concluded, with focus on emissions and discharges, waste containment, and other environmental factors.
Environmental Compliance Report	means a report to satisfy the CEO that the conditioned infrastructure and/or equipment has been constructed and/or installed in accordance with the works approval.
EP Act	*Environmental Protection Act 1986* (WA).
EP Regulations	*Environmental Protection Regulations 1987* (WA).
Inert Waste Type(s) 1, 2 and 3	has the same meaning given to those terms under the Landfill Waste Classification and Waste Definitions (December 2019)
LEAF Test Method 1313	refers to Test Method 1313: Liquid-Solid Partitioning as a Function of Extract pH Using a Parallel Batch Extraction Procedure
mbgl	metres below ground level
mRL	metres relative level
NATA	National Association of Testing Authorities
premises	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 works approval.
prescribed premises	has the same meaning given to that term under the EP Act.
Putrescible waste	has the same meaning given to that term under the Landfill Waste Classification and Waste Definitions (December 2019)
Special Wastes Type (s) 1, 2 and 3	has the same meaning given to those terms under the Landfill Waste Classification and Waste Definitions (December 2019)
time limited operations	refers to the operation of the infrastructure and equipment identified under this works approval that is authorised for that purpose, subject to the relevant conditions.
TSF	tailings storage facility
TSS	Total Suspended Solids

Term	Definition
waste	has the same meaning given to that term under the EP Act.
WMP	West Musgrave Project
works approval	refers to this document, which evidences the grant of the works approval by the CEO under section 54 of the EP Act, subject to the conditions.
works approval holder	refers to the occupier of the premises being the person to whom this works approval has been granted, as specified at the front of this works approval.
WWTP	Wastewater treatment plant

END OF CONDITIONS

Schedule 1: Maps

Premises map

The boundary of the prescribed premises is shown in the map below.

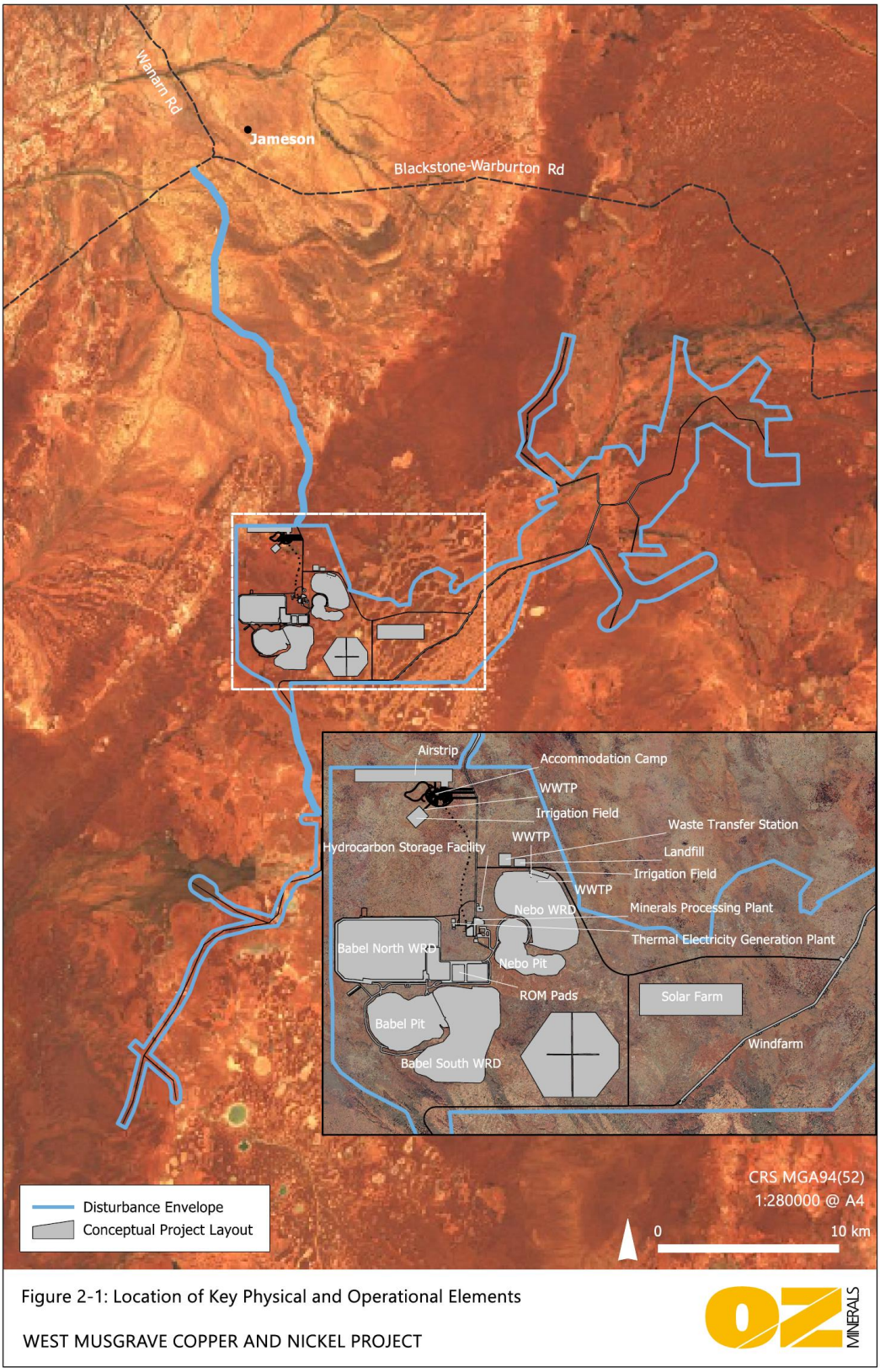

Figure 1: Map of the boundary of the prescribed premises

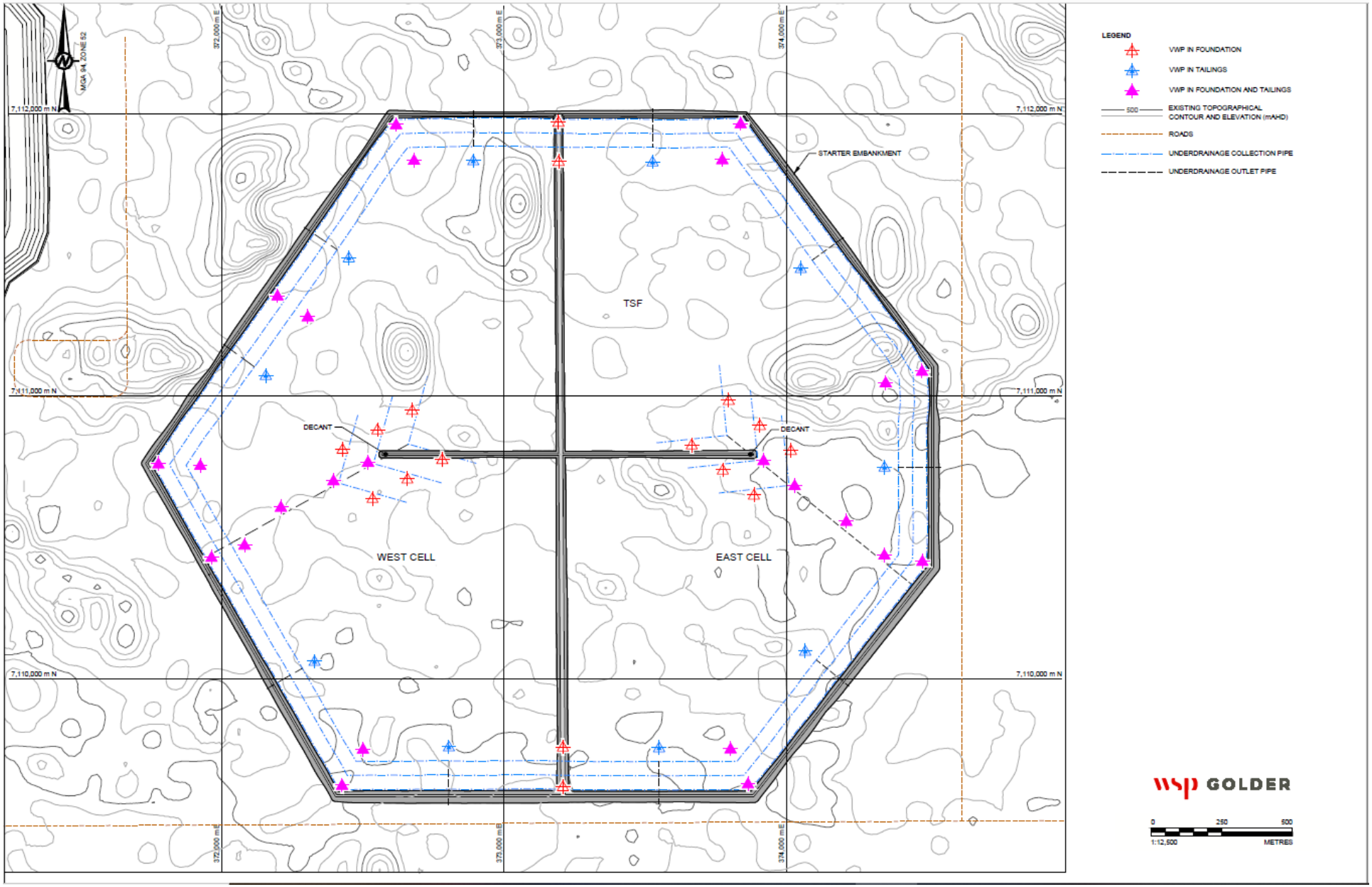

Figure 2: Tailings storage facility underdrainage design

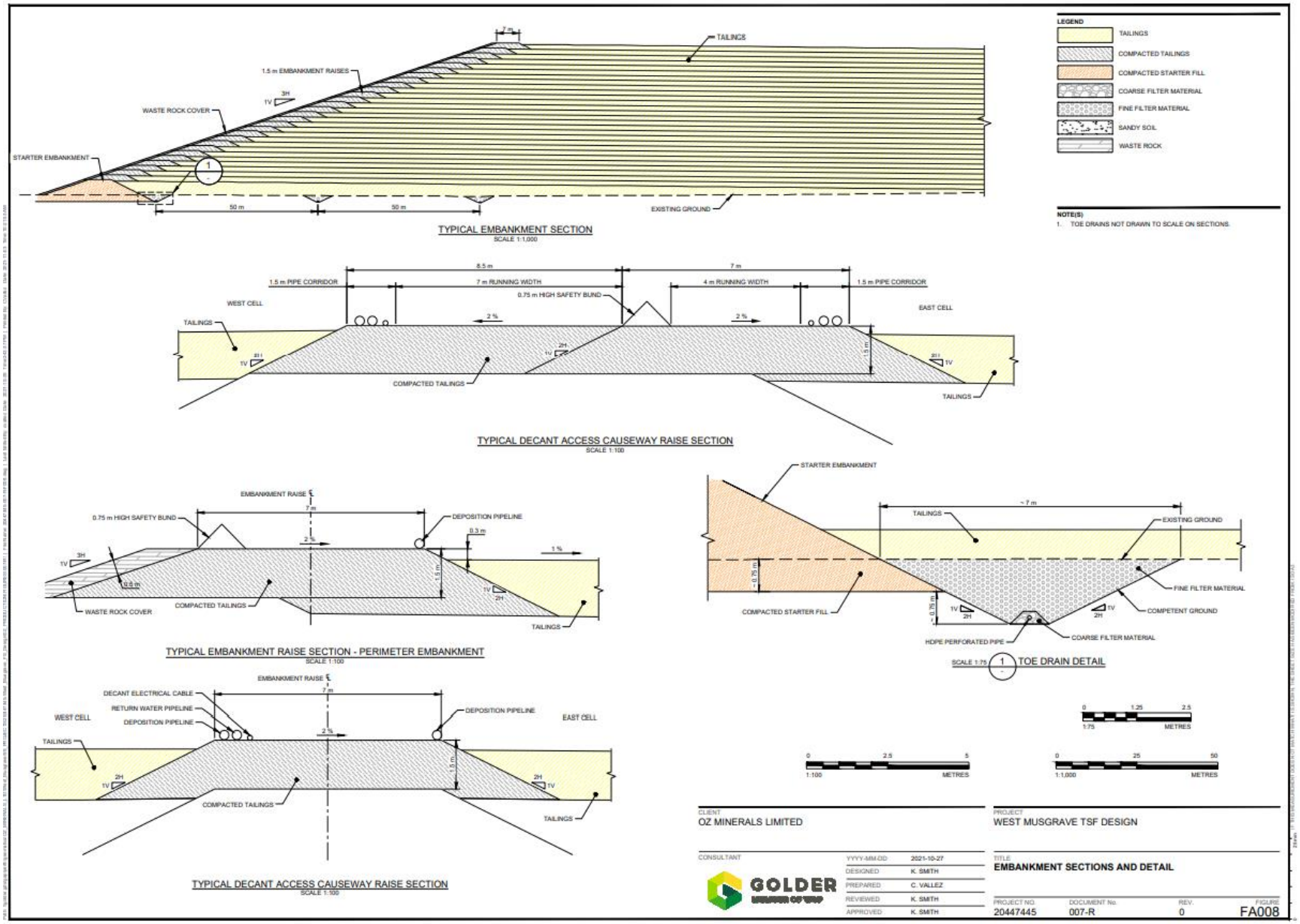

Figure 3: Tailings storage facility embankment design

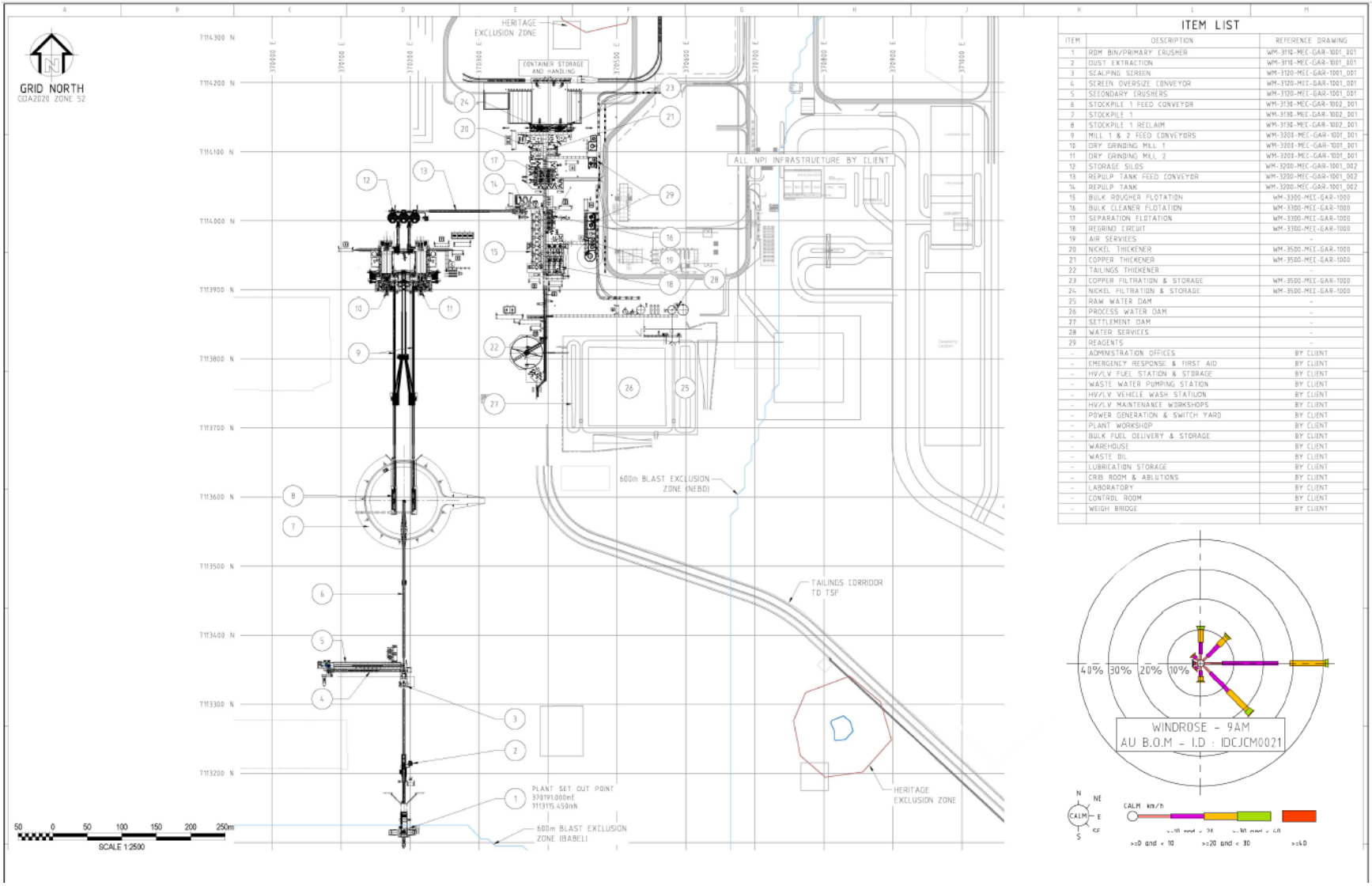

Figure 4: Minerals Processing Plant layout

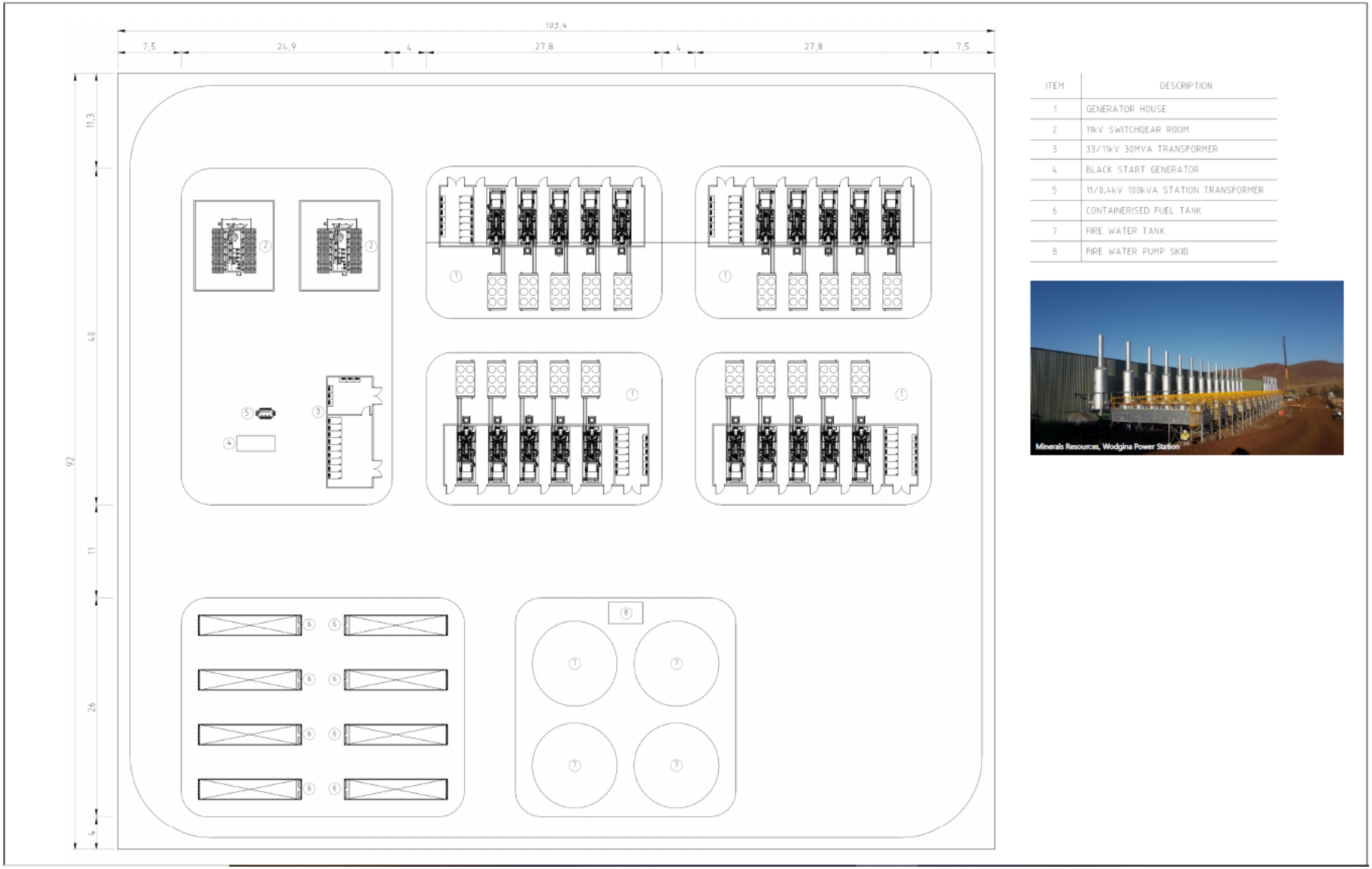

Figure 5: Design layout of Thermal Electricity Generation Plant

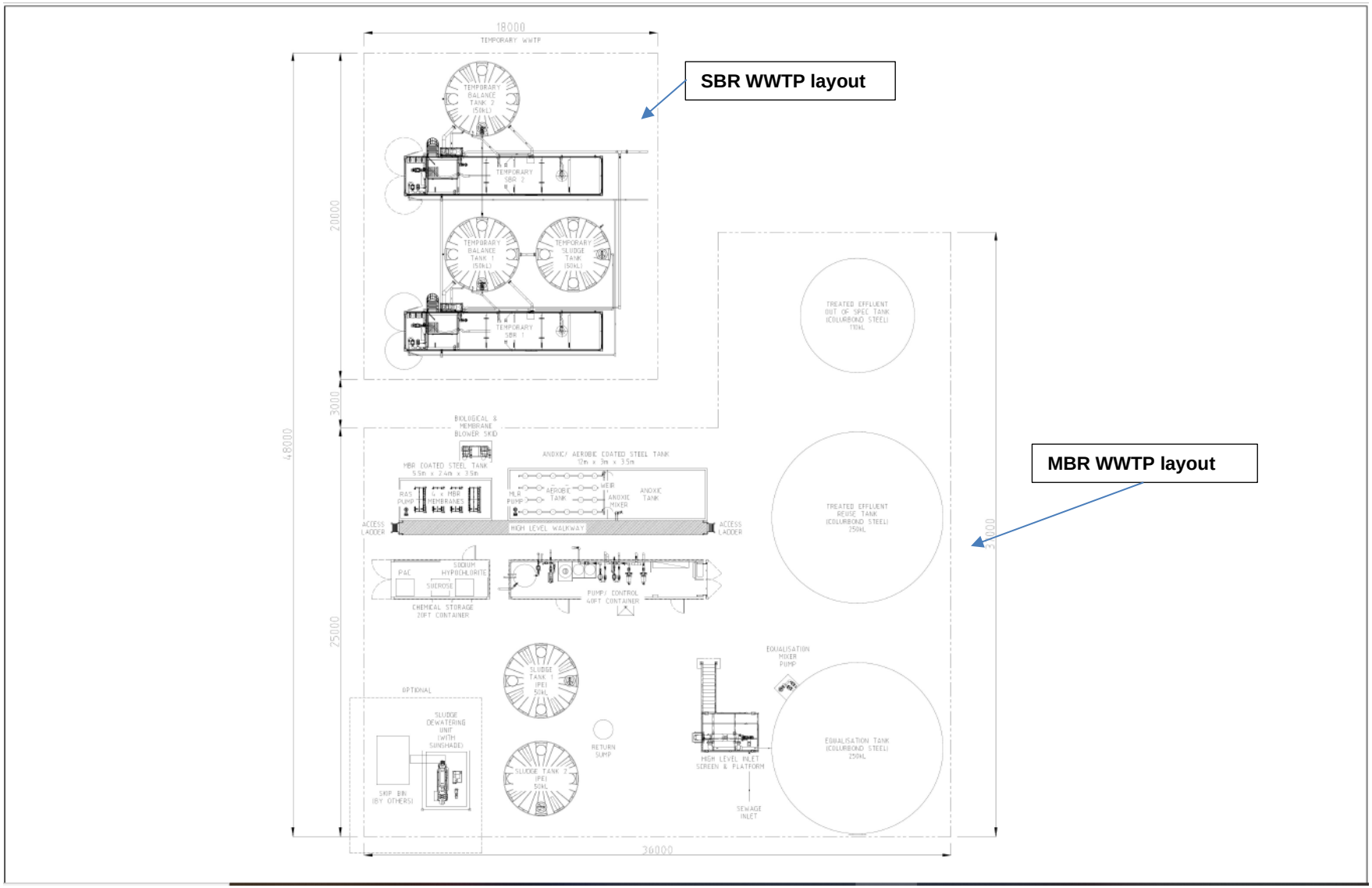

Figure 6: Design layout of SBR and MBR WWTP infrastructure

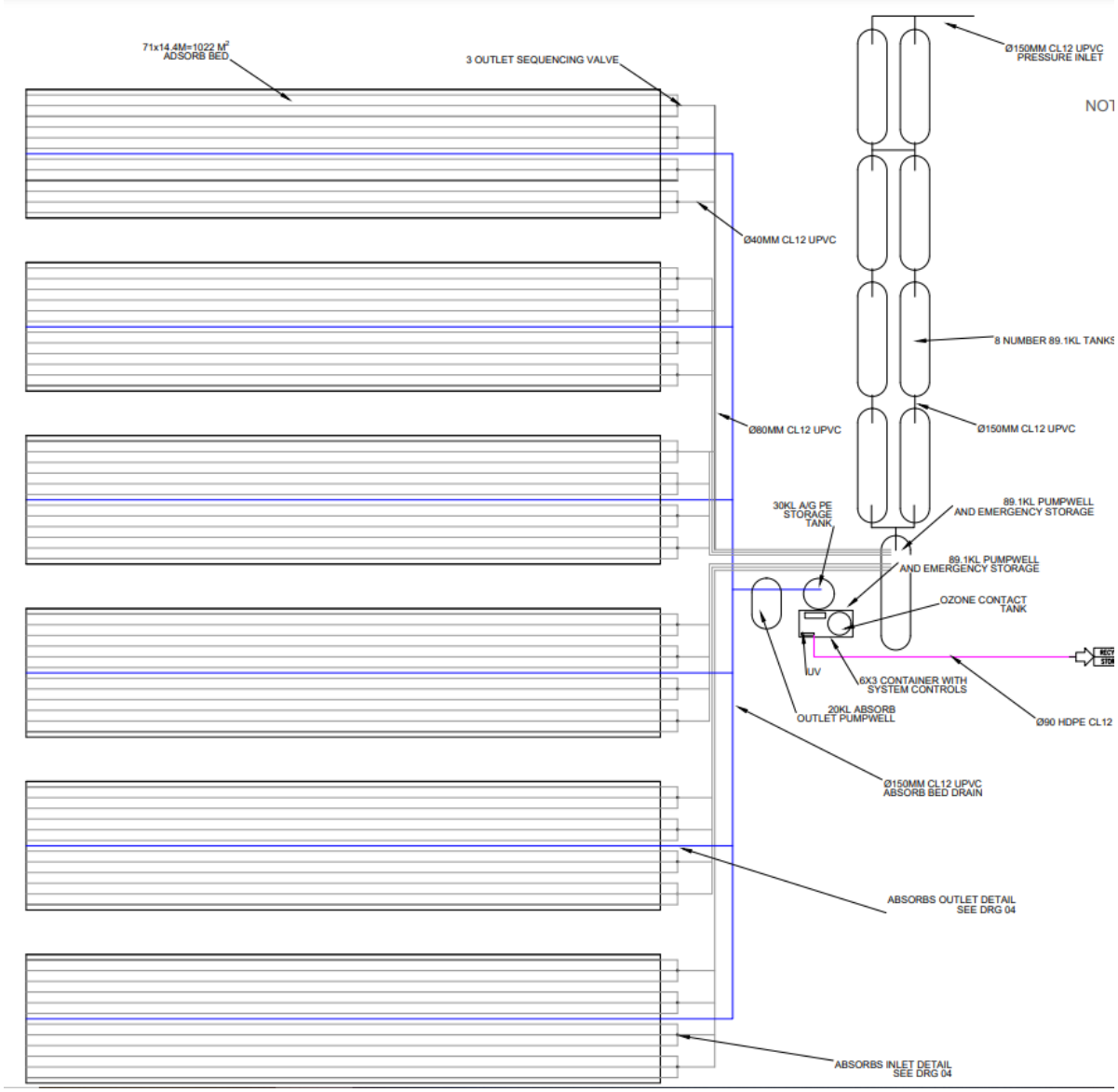

Figure 7: Design layout of Passive WWTP infrastructure

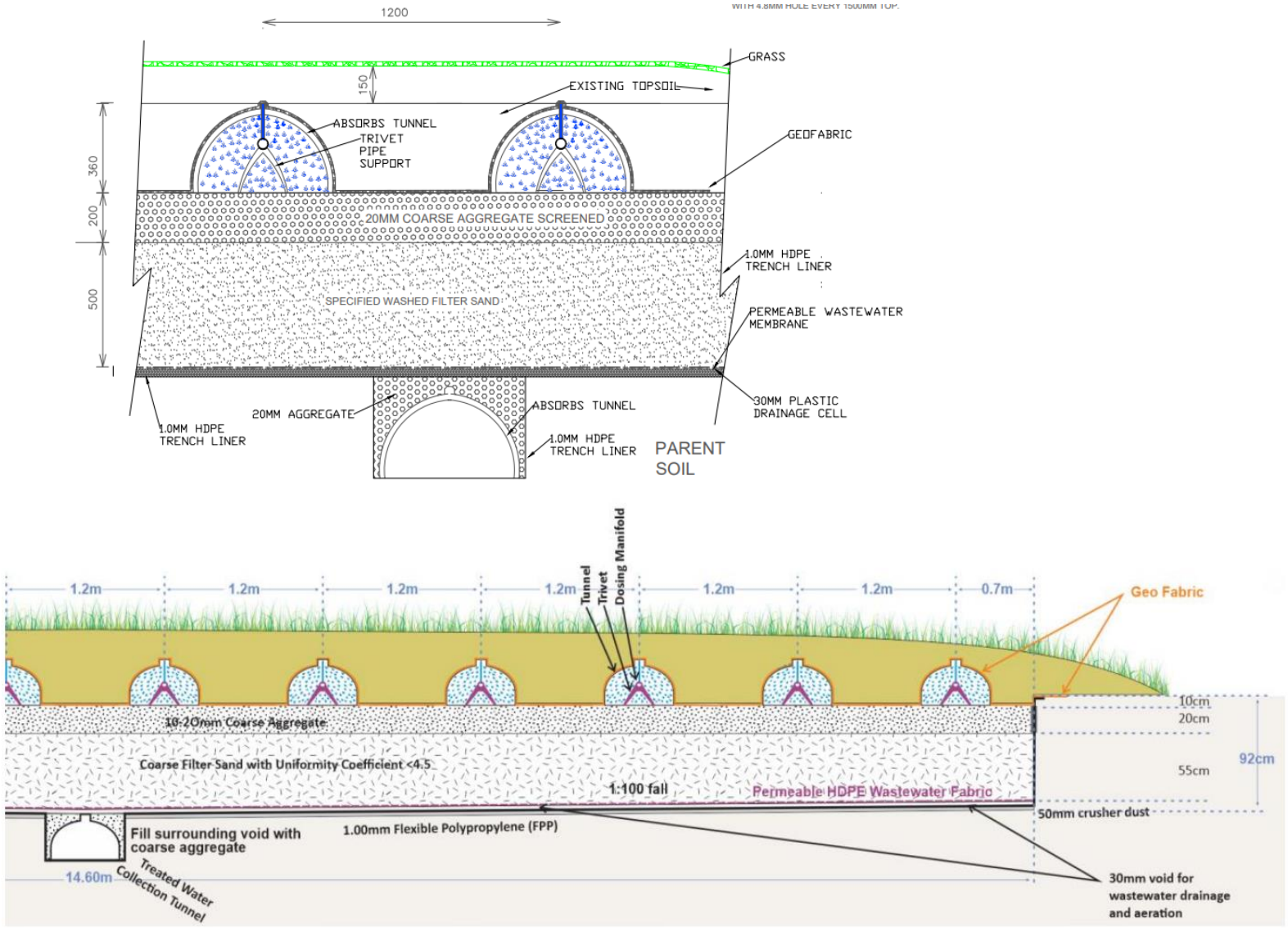

Figure 8: Cross section layout of secondary wastewater treatment filter beds (ABSORB beds depicted in Figure 7)

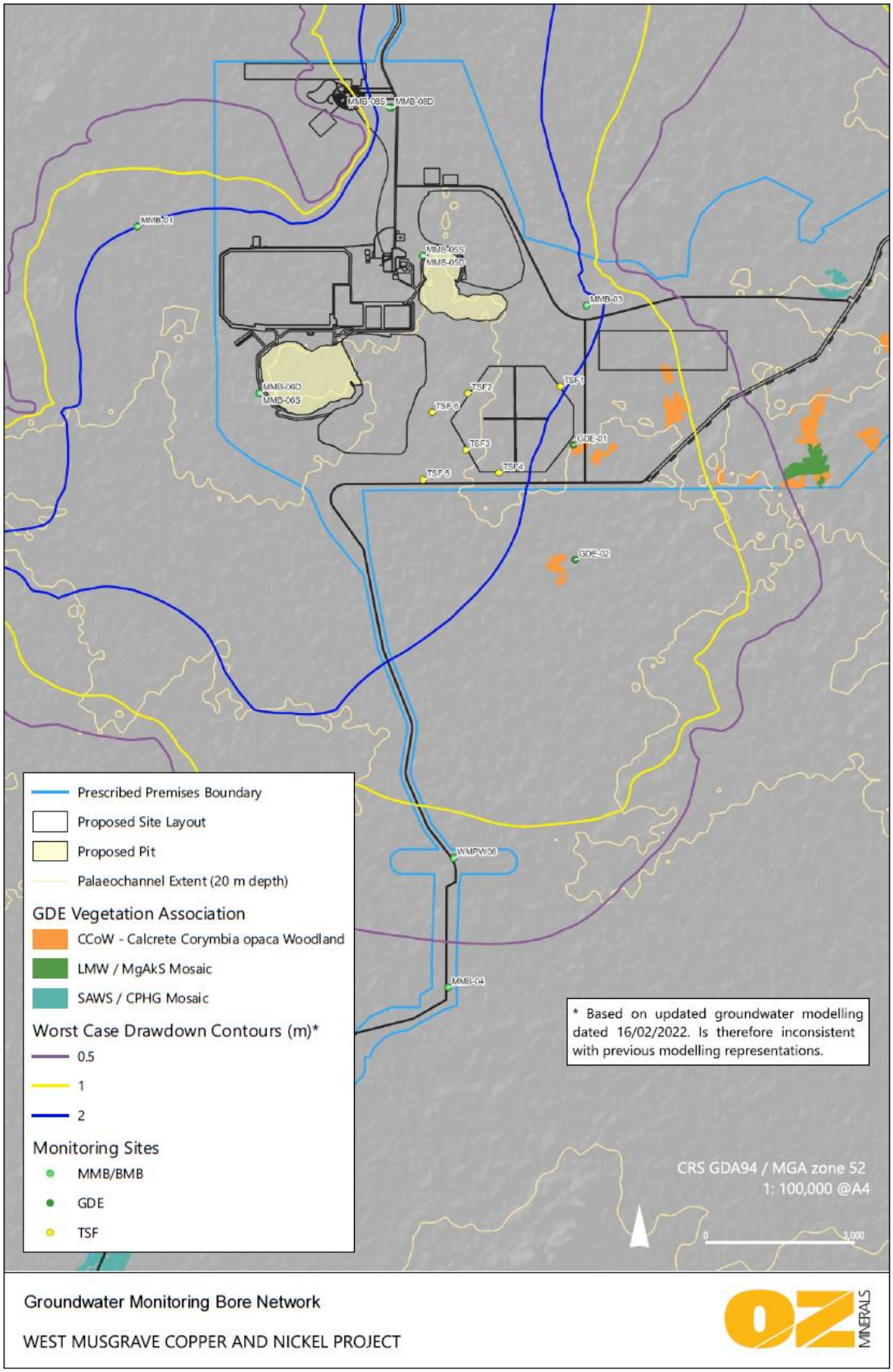

Figure 9: Groundwater monitoring bore locations

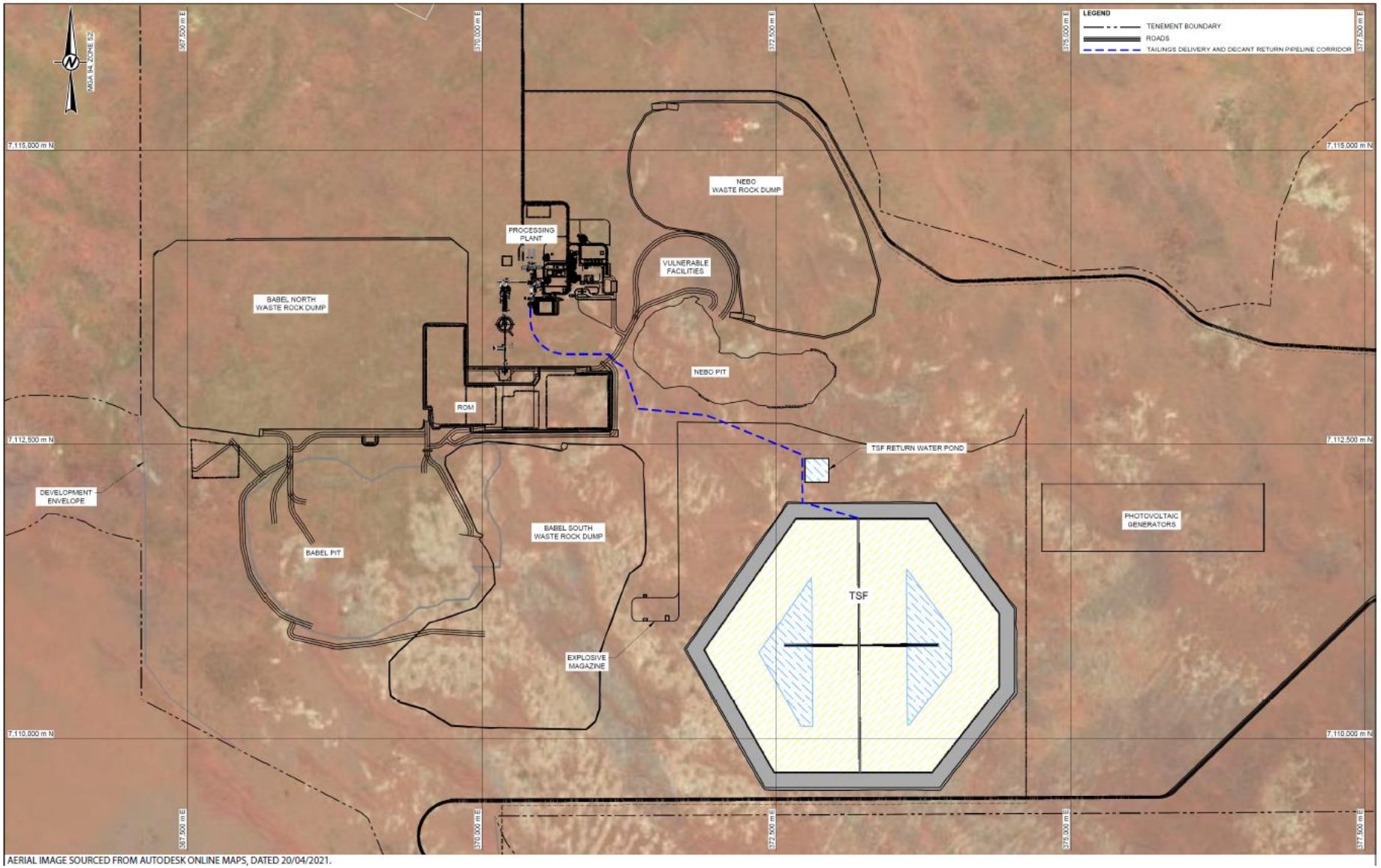

Figure 10: Tailings storage facility general arrangement with return pipeline corridor

Schedule 2: Premises boundary

The premises boundary is defined by the coordinates in Table 14.

Table 14: Premises boundary coordinates

ID	Longitude (l)	Latitude (l)	ID	Longitude (l)	Latitude (l)	ID	Longitude (l)	Latitude (l)
180326	127.7054	-26.2243	180366	127.6492	-26.2252	180406	127.6443	-26.2316
180327	127.7013	-26.2259	180367	127.6489	-26.2251	180407	127.6445	-26.2319
180328	127.6966	-26.23	180368	127.6486	-26.2251	180408	127.6446	-26.2321
180329	127.692	-26.2387	180369	127.6483	-26.2252	180409	127.6448	-26.2323
180330	127.6891	-26.246	180370	127.6482	-26.2252	180410	127.645	-26.2326
180331	127.6796	-26.2432	180371	127.6478	-26.2252	180411	127.6452	-26.2328
180332	127.6786	-26.243	180372	127.6476	-26.2253	180412	127.6455	-26.233
180333	127.6778	-26.2427	180373	127.6474	-26.2253	180413	127.6458	-26.2332
180334	127.6773	-26.2426	180374	127.6472	-26.2254	180414	127.646	-26.2334
180335	127.6772	-26.2426	180375	127.6469	-26.2255	180415	127.6509	-26.2364
180336	127.6771	-26.2425	180376	127.6467	-26.2256	180416	127.6513	-26.2366
180337	127.6761	-26.2423	180377	127.6465	-26.2257	180417	127.6516	-26.2367
180338	127.6743	-26.2418	180378	127.6463	-26.2258	180418	127.6518	-26.2369
180339	127.6693	-26.2404	180379	127.646	-26.2259	180419	127.6521	-26.237
180340	127.6637	-26.2376	180380	127.6458	-26.226	180420	127.6525	-26.2371
180341	127.6587	-26.2339	180381	127.6456	-26.2262	180421	127.6528	-26.2371
180342	127.6588	-26.2328	180382	127.6455	-26.2263	180422	127.6531	-26.2372
180343	127.6588	-26.2325	180383	127.6453	-26.2265	180423	127.6535	-26.2372
180344	127.6588	-26.2322	180384	127.6451	-26.2266	180424	127.6538	-26.2372
180345	127.6587	-26.2319	180385	127.645	-26.2268	180425	127.6541	-26.2372
180346	127.6587	-26.2316	180386	127.6449	-26.2269	180426	127.6552	-26.2371
180347	127.6586	-26.2313	180387	127.6447	-26.2271	180427	127.6606	-26.2412
180348	127.6585	-26.231	180388	127.6445	-26.2273	180428	127.6609	-26.2413
180349	127.6583	-26.2308	180389	127.6444	-26.2275	180429	127.6611	-26.2414
180350	127.6582	-26.2305	180390	127.6444	-26.2277	180430	127.6633	-26.2426
180351	127.658	-26.2302	180391	127.6442	-26.2279	180431	127.6646	-26.2432
180352	127.6578	-26.23	180392	127.6441	-26.2281	180432	127.667	-26.2445
180353	127.6576	-26.2298	180393	127.644	-26.2283	180433	127.6673	-26.2446
180354	127.6574	-26.2296	180394	127.644	-26.2285	180434	127.6676	-26.2447
180355	127.6572	-26.2294	180395	127.6439	-26.2288	180435	127.6785	-26.2476
180356	127.6569	-26.2292	180396	127.6439	-26.229	180436	127.6627	-26.2508
180357	127.6566	-26.229	180397	127.6438	-26.2293	180437	127.6624	-26.2509
180358	127.6517	-26.2259	180398	127.6438	-26.2296	180438	127.6622	-26.251
180359	127.6514	-26.2258	180399	127.6438	-26.2299	180439	127.66	-26.2517
180360	127.6511	-26.2256	180400	127.6438	-26.2301	180440	127.6593	-26.2519
180361	127.6508	-26.2255	180401	127.6439	-26.2302	180441	127.6564	-26.2528
180362	127.6505	-26.2254	180402	127.6439	-26.2305	180442	127.6564	-26.2528
180363	127.6501	-26.2253	180403	127.644	-26.2307	180443	127.6559	-26.2531
180364	127.6498	-26.2252	180404	127.6441	-26.2311	180444	127.6554	-26.2534
180365	127.6495	-26.2252	180405	127.6442	-26.2313	180445	127.6506	-26.2579

ID	Longitude (l)	Latitude (l)	ID	Longitude (l)	Latitude (l)	ID	Longitude (l)	Latitude (l)
180446	127.6496	-26.2601	180486	127.6033	-26.3467	180526	127.631	-26.328
180447	127.6466	-26.2646	180487	127.6031	-26.3472	180527	127.6315	-26.3293
180448	127.6452	-26.2661	180488	127.6024	-26.3483	180528	127.6324	-26.3321
180449	127.6442	-26.2678	180489	127.6068	-26.3506	180529	127.6323	-26.3361
180450	127.644	-26.2681	180490	127.6081	-26.3483	180530	127.6324	-26.3366
180451	127.644	-26.2682	180491	127.6081	-26.3482	180531	127.6325	-26.337
180452	127.6439	-26.2684	180492	127.6082	-26.3482	180532	127.6328	-26.3374
180453	127.6419	-26.2732	180493	127.6085	-26.3476	180533	127.6331	-26.3378
180454	127.6386	-26.2813	180494	127.6089	-26.3467	180534	127.6334	-26.3381
180455	127.6343	-26.288	180495	127.6093	-26.346	180535	127.6339	-26.3383
180456	127.6324	-26.2905	180496	127.61	-26.3446	180536	127.6343	-26.3384
180457	127.6283	-26.2959	180497	127.6111	-26.3426	180537	127.6348	-26.3384
180458	127.6265	-26.2984	180498	127.6113	-26.3422	180538	127.6353	-26.3384
180459	127.6259	-26.2991	180499	127.6114	-26.3421	180539	127.6358	-26.3383
180460	127.6254	-26.2998	180500	127.6114	-26.342	180540	127.6362	-26.3381
180461	127.6251	-26.3002	180501	127.6115	-26.3418	180541	127.6366	-26.3378
180462	127.6219	-26.3044	180502	127.6118	-26.3411	180542	127.6369	-26.3375
180463	127.6206	-26.3062	180503	127.612	-26.3406	180543	127.6371	-26.3371
180464	127.6202	-26.3067	180504	127.6121	-26.3403	180544	127.6373	-26.3367
180465	127.6172	-26.3106	180505	127.6133	-26.3371	180545	127.6373	-26.3361
180466	127.6128	-26.307	180506	127.6134	-26.3369	180546	127.6374	-26.332
180467	127.6094	-26.3103	180507	127.6134	-26.3368	180547	127.6373	-26.3313
180468	127.6098	-26.3106	180508	127.6135	-26.3366	180548	127.6373	-26.3312
180469	127.6115	-26.312	180509	127.6135	-26.3366	180549	127.6364	-26.3281
180470	127.6148	-26.3147	180510	127.6137	-26.336	180550	127.6362	-26.3278
180471	127.6135	-26.319	180511	127.6141	-26.3343	180551	127.6362	-26.3278
180472	127.6134	-26.3192	180512	127.6145	-26.3331	180552	127.6355	-26.3259
180473	127.6133	-26.3195	180513	127.6149	-26.3318	180553	127.6352	-26.3254
180474	127.6132	-26.3199	180514	127.6149	-26.3318	180554	127.6348	-26.325
180475	127.613	-26.3206	180515	127.6151	-26.331	180555	127.6347	-26.3249
180476	127.6126	-26.3222	180516	127.6155	-26.3296	180556	127.6294	-26.3207
180477	127.6125	-26.3222	180517	127.6162	-26.3274	180557	127.6291	-26.3205
180478	127.6124	-26.3226	180518	127.6189	-26.3183	180558	127.6286	-26.3201
180479	127.612	-26.324	180519	127.6235	-26.3221	180559	127.628	-26.3196
180480	127.6119	-26.3243	180520	127.6245	-26.3229	180560	127.6272	-26.319
180481	127.6114	-26.3262	180521	127.6246	-26.323	180561	127.6266	-26.3185
180482	127.6086	-26.3355	180522	127.6247	-26.323	180562	127.6259	-26.3179
180483	127.608	-26.3371	180523	127.6257	-26.3238	180563	127.6256	-26.3177
180484	127.6068	-26.3402	180524	127.6278	-26.3255	180564	127.6247	-26.317
180485	127.6036	-26.3463	180525	127.6287	-26.3262	180565	127.6243	-26.3167

ID	Longitude (l)	Latitude (l)	ID	Longitude (l)	Latitude (l)	ID	Longitude (l)	Latitude (l)
180566	127.6232	-26.3157	180606	127.6674	-26.2545	180646	127.7287	-26.1999
180567	127.6209	-26.3138	180607	127.6721	-26.2535	180647	127.7293	-26.1998
180568	127.6222	-26.3121	180608	127.6723	-26.2535	180648	127.7297	-26.1997
180569	127.6341	-26.2963	180609	127.6726	-26.2534	180649	127.7302	-26.1995
180570	127.6382	-26.2909	180610	127.6788	-26.2515	180650	127.7305	-26.1992
180571	127.6383	-26.2907	180611	127.682	-26.2513	180651	127.7305	-26.1992
180572	127.6384	-26.2906	180612	127.685	-26.2511	180652	127.7309	-26.1989
180573	127.6394	-26.289	180613	127.6852	-26.2511	180653	127.731	-26.1987
180574	127.6402	-26.2878	180614	127.6853	-26.2511	180654	127.7311	-26.1985
180575	127.643	-26.2835	180615	127.6855	-26.2511	180655	127.7312	-26.1982
180576	127.6432	-26.2832	180616	127.6921	-26.2505	180656	127.7312	-26.1981
180577	127.6432	-26.2831	180617	127.6923	-26.2502	180657	127.7313	-26.1977
180578	127.6435	-26.2823	180618	127.6943	-26.2472	180658	127.7312	-26.1972
180579	127.6445	-26.2799	180619	127.6955	-26.245	180659	127.7311	-26.1968
180580	127.6451	-26.2785	180620	127.6966	-26.2406	180660	127.7309	-26.1964
180581	127.6453	-26.2779	180621	127.6977	-26.2386	180661	127.7306	-26.1961
180582	127.646	-26.2764	180622	127.6994	-26.2368	180662	127.7302	-26.1958
180583	127.6461	-26.2759	180623	127.7	-26.2355	180663	127.7301	-26.1957
180584	127.6463	-26.2756	180624	127.7	-26.2355	180664	127.7298	-26.1956
180585	127.6464	-26.2752	180625	127.7	-26.2353	180665	127.7293	-26.1954
180586	127.6478	-26.2718	180626	127.7	-26.2336	180666	127.7287	-26.1954
180587	127.6481	-26.2712	180627	127.7	-26.2335	180667	127.7196	-26.1953
180588	127.6486	-26.2699	180628	127.7	-26.2334	180668	127.7179	-26.1953
180589	127.6521	-26.2642	180629	127.7002	-26.2333	180669	127.7144	-26.1911
180590	127.6522	-26.2641	180630	127.7003	-26.2333	180670	127.7143	-26.191
180591	127.6526	-26.2634	180631	127.701	-26.2333	180671	127.7143	-26.1909
180592	127.653	-26.2627	180632	127.7018	-26.2317	180672	127.7142	-26.1908
180593	127.6532	-26.2624	180633	127.7021	-26.2315	180673	127.7141	-26.1907
180594	127.6537	-26.2617	180634	127.7022	-26.2314	180674	127.714	-26.1906
180595	127.6538	-26.2614	180635	127.7021	-26.2315	180675	127.714	-26.1905
180596	127.6541	-26.2612	180636	127.7022	-26.2314	180676	127.7139	-26.1903
180597	127.6545	-26.2608	180637	127.7041	-26.2297	180677	127.7102	-26.1824
180598	127.6551	-26.2602	180638	127.7062	-26.2289	180678	127.7101	-26.1823
180599	127.6555	-26.2598	180639	127.7089	-26.2284	180679	127.7101	-26.1822
180600	127.6577	-26.2577	180640	127.7114	-26.2271	180680	127.71	-26.1821
180601	127.6586	-26.2569	180641	127.7161	-26.2249	180681	127.71	-26.182
180602	127.6607	-26.2562	180642	127.7188	-26.224	180682	127.71	-26.1818
180603	127.6627	-26.2556	180643	127.7188	-26.2162	180683	127.7099	-26.1817
180604	127.6638	-26.2552	180644	127.7194	-26.202	180684	127.7099	-26.1816
180605	127.6668	-26.2546	180645	127.7199	-26.1998	180685	127.7099	-26.1815

ID	Longitude (l)	Latitude (l)	ID	Longitude (l)	Latitude (l)	ID	Longitude (l)	Latitude (l)
180686	127.7099	-26.1814	180726	127.7076	-26.1294	180766	127.839	-26.0747
180687	127.7099	-26.1812	180727	127.7083	-26.1294	180767	127.84	-26.0743
180688	127.7099	-26.1811	180728	127.7087	-26.1294	180768	127.8413	-26.0738
180689	127.7098	-26.181	180729	127.71	-26.1294	180769	127.8413	-26.0738
180690	127.7099	-26.1809	180730	127.7104	-26.1294	180770	127.8419	-26.0735
180691	127.7099	-26.1807	180731	127.7113	-26.1294	180771	127.8423	-26.0734
180692	127.7099	-26.1806	180732	127.7123	-26.1294	180772	127.8461	-26.072
180693	127.7099	-26.1805	180733	127.713	-26.1294	180773	127.8496	-26.0707
180694	127.7099	-26.1804	180734	127.7186	-26.1295	180774	127.8528	-26.0696
180695	127.7112	-26.1739	180735	127.7191	-26.1295	180775	127.8534	-26.0693
180696	127.7112	-26.1737	180736	127.7245	-26.1295	180776	127.8547	-26.0689
180697	127.7112	-26.1735	180737	127.7255	-26.1295	180777	127.8555	-26.0685
180698	127.7113	-26.1733	180738	127.7274	-26.1295	180778	127.8574	-26.0675
180699	127.7113	-26.1732	180739	127.7282	-26.1295	180779	127.8586	-26.0669
180700	127.7113	-26.173	180740	127.7317	-26.1295	180780	127.8606	-26.0659
180701	127.7113	-26.1728	180741	127.7337	-26.1295	180781	127.8617	-26.0653
180702	127.7113	-26.1726	180742	127.7344	-26.1295	180782	127.8626	-26.0649
180703	127.7112	-26.1724	180743	127.7443	-26.1296	180783	127.863	-26.0647
180704	127.7112	-26.1723	180744	127.746	-26.1296	180784	127.8653	-26.0635
180705	127.7112	-26.1721	180745	127.7466	-26.1296	180785	127.8657	-26.0633
180706	127.7112	-26.1719	180746	127.7489	-26.1296	180786	127.8672	-26.0625
180707	127.7111	-26.1717	180747	127.751	-26.1296	180787	127.8682	-26.0639
180708	127.7111	-26.1715	180748	127.7529	-26.1296	180788	127.8704	-26.0669
180709	127.711	-26.1714	180749	127.7532	-26.1296	180789	127.8709	-26.0676
180710	127.7109	-26.1712	180750	127.7558	-26.1296	180790	127.8709	-26.0676
180711	127.7109	-26.171	180751	127.7574	-26.1296	180791	127.8725	-26.07
180712	127.7056	-26.1586	180752	127.7575	-26.1296	180792	127.8744	-26.0728
180713	127.7056	-26.1585	180753	127.7632	-26.1297	180793	127.8745	-26.0729
180714	127.7055	-26.1584	180754	127.7642	-26.1297	180794	127.8745	-26.0729
180715	127.7055	-26.1583	180755	127.7646	-26.1297	180795	127.8777	-26.0772
180716	127.7055	-26.1582	180756	127.7646	-26.1297	180796	127.8791	-26.079
180717	127.7054	-26.1581	180757	127.7646	-26.1297	180797	127.8796	-26.0797
180718	127.7054	-26.158	180758	127.7975	-26.1297	180798	127.88	-26.0802
180719	127.7018	-26.1405	180759	127.823	-26.1057	180799	127.8804	-26.0807
180720	127.7007	-26.1294	180760	127.8343	-26.0761	180800	127.8812	-26.0818
180721	127.7012	-26.1294	180761	127.8357	-26.0758	180801	127.8826	-26.0836
180722	127.7022	-26.1294	180762	127.8364	-26.0756	180802	127.8829	-26.0841
180723	127.705	-26.1294	180763	127.8365	-26.0756	180803	127.8831	-26.0843
180724	127.7056	-26.1294	180764	127.837	-26.0754	180804	127.8832	-26.0845
180725	127.7066	-26.1294	180765	127.8381	-26.075	180805	127.8835	-26.0869

ID	Longitude (l)	Latitude (l)	ID	Longitude (l)	Latitude (l)	ID	Longitude (l)	Latitude (l)
180806	127.8835	-26.0879	180846	127.8804	-26.1034	180886	127.9352	-26.0742
180807	127.8835	-26.088	180847	127.8809	-26.1031	180887	127.9358	-26.0735
180808	127.8832	-26.0886	180848	127.8811	-26.103	180888	127.9363	-26.0727
180809	127.8829	-26.0892	180849	127.8818	-26.1025	180889	127.9365	-26.0719
180810	127.8822	-26.09	180850	127.8821	-26.1023	180890	127.9366	-26.071
180811	127.8813	-26.0911	180851	127.8831	-26.1012	180891	127.9366	-26.0701
180812	127.88	-26.0919	180852	127.8841	-26.1002	180892	127.9364	-26.0698
180813	127.8794	-26.0922	180853	127.8853	-26.0995	180893	127.9363	-26.0693
180814	127.8782	-26.0929	180854	127.8874	-26.0983	180894	127.9358	-26.0685
180815	127.8781	-26.0929	180855	127.8875	-26.0982	180895	127.9352	-26.0678
180816	127.8774	-26.0935	180856	127.8881	-26.0978	180896	127.9347	-26.0674
180817	127.8771	-26.0937	180857	127.8882	-26.0977	180897	127.9345	-26.0672
180818	127.8767	-26.0941	180858	127.8886	-26.0974	180898	127.9336	-26.0668
180819	127.8759	-26.0949	180859	127.8887	-26.0972	180899	127.9327	-26.0665
180820	127.8751	-26.0957	180860	127.8911	-26.0943	180900	127.932	-26.0665
180821	127.8741	-26.0963	180861	127.8912	-26.0942	180901	127.9317	-26.0664
180822	127.8739	-26.0964	180862	127.8916	-26.0937	180902	127.9307	-26.0665
180823	127.8731	-26.0969	180863	127.8922	-26.0925	180903	127.9298	-26.0668
180824	127.8725	-26.0976	180864	127.8924	-26.0922	180904	127.9293	-26.067
180825	127.8725	-26.0976	180865	127.8925	-26.092	180905	127.9268	-26.0682
180826	127.8721	-26.0983	180866	127.8926	-26.0917	180906	127.9241	-26.0695
180827	127.872	-26.0984	180867	127.8932	-26.0903	180907	127.922	-26.0706
180828	127.8718	-26.0992	180868	127.8933	-26.09	180908	127.9215	-26.0708
180829	127.8717	-26.1001	180869	127.8935	-26.09	180909	127.9209	-26.0711
180830	127.8717	-26.101	180870	127.894	-26.0901	180910	127.9195	-26.0718
180831	127.8718	-26.1011	180871	127.8942	-26.0901	180911	127.9192	-26.0719
180832	127.872	-26.1018	180872	127.8953	-26.0902	180912	127.9173	-26.0729
180833	127.8723	-26.1023	180873	127.8968	-26.0903	180913	127.915	-26.074
180834	127.8725	-26.1026	180874	127.8978	-26.0903	180914	127.9104	-26.0763
180835	127.8731	-26.1033	180875	127.898	-26.0903	180915	127.9099	-26.0765
180836	127.8738	-26.1039	180876	127.899	-26.0902	180916	127.903	-26.0799
180837	127.8747	-26.1043	180877	127.899	-26.0902	180917	127.9018	-26.0805
180838	127.8749	-26.1044	180878	127.9015	-26.0898	180918	127.8997	-26.0809
180839	127.8756	-26.1046	180879	127.9035	-26.0894	180919	127.8977	-26.0813
180840	127.8759	-26.1046	180880	127.9046	-26.0892	180920	127.8958	-26.0812
180841	127.8766	-26.1047	180881	127.9054	-26.089	180921	127.8943	-26.0805
180842	127.8776	-26.1046	180882	127.906	-26.0888	180922	127.8914	-26.0793
180843	127.8785	-26.1043	180883	127.9115	-26.086	180923	127.8905	-26.0781
180844	127.8785	-26.1043	180884	127.934	-26.0749	180924	127.89	-26.0774
180845	127.8792	-26.104	180885	127.9344	-26.0747	180925	127.8893	-26.0765

ID	Longitude (l)	Latitude (l)	ID	Longitude (l)	Latitude (l)	ID	Longitude (l)	Latitude (l)
180926	127.8883	-26.0752	180966	127.9198	-26.0339	181006	127.9613	-25.9905
180927	127.8869	-26.0734	180967	127.9203	-26.0332	181007	127.9604	-25.9905
180928	127.8867	-26.0731	180968	127.9205	-26.0323	181008	127.9579	-25.9904
180929	127.8866	-26.0729	180969	127.9207	-26.0314	181009	127.957	-25.9904
180930	127.8868	-26.0729	180970	127.9206	-26.0306	181010	127.9674	-25.975
180931	127.8872	-26.0727	180971	127.9204	-26.0301	181011	127.9607	-25.9689
180932	127.8874	-26.0725	180972	127.9269	-26.0207	181012	127.944	-25.9823
180933	127.8875	-26.0723	180973	127.9272	-26.0044	181013	127.9349	-25.9849
180934	127.8875	-26.072	180974	127.9316	-26.003	181014	127.923	-25.9759
180935	127.8876	-26.0716	180975	127.9331	-26.0025	181015	127.9201	-25.9641
180936	127.8875	-26.0712	180976	127.9351	-26.0018	181016	127.9214	-25.9601
180937	127.8873	-26.0708	180977	127.9553	-26.0144	181017	127.9152	-25.9581
180938	127.8872	-26.0704	180978	127.9553	-26.0273	181018	127.915	-25.9612
180939	127.8868	-26.0698	180979	127.9553	-26.0279	181019	127.9122	-25.9854
180940	127.8864	-26.0693	180980	127.9554	-26.0288	181020	127.908	-25.9993
180941	127.8864	-26.0692	180981	127.9556	-26.0294	181021	127.9063	-26.005
180942	127.8862	-26.069	180982	127.9557	-26.0296	181022	127.9045	-26.0035
180943	127.8859	-26.0688	180983	127.9558	-26.0298	181023	127.8982	-26.0026
180944	127.8858	-26.0686	180984	127.9561	-26.0304	181024	127.8969	-26.0189
180945	127.8857	-26.0683	180985	127.9567	-26.0311	181025	127.894	-26.022
180946	127.8855	-26.0679	180986	127.9575	-26.0316	181026	127.8937	-26.0215
180947	127.8853	-26.0677	180987	127.9584	-26.0321	181027	127.8929	-26.0201
180948	127.8848	-26.0674	180988	127.9593	-26.0323	181028	127.8898	-26.0148
180949	127.8843	-26.0672	180989	127.9596	-26.0324	181029	127.8895	-26.0144
180950	127.884	-26.0671	180990	127.9603	-26.0324	181030	127.8889	-26.0137
180951	127.8839	-26.067	180991	127.9612	-26.0323	181031	127.8882	-26.0132
180952	127.8837	-26.067	180992	127.9619	-26.0328	181032	127.8877	-26.0129
180953	127.8841	-26.0669	180993	127.966	-26.0325	181033	127.8873	-26.0127
180954	127.8844	-26.0668	180994	127.9827	-26.032	181034	127.8864	-26.0125
180955	127.8847	-26.0666	180995	127.9826	-26.0175	181035	127.8854	-26.0124
180956	127.8847	-26.0666	180996	127.9653	-26.0177	181036	127.8844	-26.0125
180957	127.9089	-26.0671	180997	127.9653	-25.9999	181037	127.884	-26.0126
180958	127.906	-26.0625	180998	127.9788	-25.9997	181038	127.8837	-26.0126
180959	127.8953	-26.0623	180999	127.9761	-25.9938	181039	127.8837	-26.0126
180960	127.8954	-26.0534	181000	127.965	-25.9935	181040	127.8752	-26.0134
180961	127.9004	-26.0524	181001	127.9649	-25.9933	181041	127.8732	-26.0183
180962	127.9166	-26.0358	181002	127.9644	-25.9925	181042	127.8672	-26.0183
180963	127.9175	-26.0356	181003	127.9638	-25.9918	181043	127.8581	-26.0281
180964	127.9184	-26.0352	181004	127.9631	-25.9912	181044	127.8436	-26.0159
180965	127.9192	-26.0346	181005	127.9622	-25.9908	181045	127.8388	-26.0176

ID	Longitude (l)	Latitude (l)	ID	Longitude (l)	Latitude (l)	ID	Longitude (l)	Latitude (l)
181046	127.8388	-26.0176	181086	127.8284	-26.0657	181126	127.7899	-26.0839
181047	127.8375	-26.0164	181087	127.8286	-26.0667	181127	127.7899	-26.0839
181048	127.8338	-26.0128	181088	127.8293	-26.0678	181128	127.7899	-26.0839
181049	127.8372	-25.9988	181089	127.8293	-26.0678	181129	127.7898	-26.0839
181050	127.8485	-25.9911	181090	127.8274	-26.0682	181130	127.7898	-26.0838
181051	127.8485	-25.9841	181091	127.8274	-26.0682	181131	127.7898	-26.0838
181052	127.8547	-25.9758	181092	127.8274	-26.0682	181132	127.7898	-26.0838
181053	127.8595	-25.9577	181093	127.8234	-26.069	181133	127.7898	-26.0838
181054	127.8532	-25.9563	181094	127.8231	-26.0691	181134	127.7898	-26.0838
181055	127.8507	-25.9659	181095	127.8229	-26.0691	181135	127.7898	-26.0803
181056	127.8485	-25.9737	181096	127.8227	-26.0692	181136	127.7926	-26.0771
181057	127.8399	-25.9865	181097	127.819	-26.0703	181137	127.7921	-26.0769
181058	127.8286	-25.9954	181098	127.8184	-26.0704	181138	127.7904	-26.0761
181059	127.8307	-26.0097	181099	127.818	-26.0706	181139	127.7831	-26.0727
181060	127.8273	-26.017	181100	127.8179	-26.0706	181140	127.7802	-26.0737
181061	127.8322	-26.0216	181101	127.8145	-26.0719	181141	127.7783	-26.0743
181062	127.8471	-26.0296	181102	127.8144	-26.072	181142	127.7779	-26.0744
181063	127.8488	-26.0356	181103	127.8141	-26.0721	181143	127.7755	-26.0752
181064	127.838	-26.0396	181104	127.7944	-26.0823	181144	127.7745	-26.0755
181065	127.8399	-26.0432	181105	127.7942	-26.0824	181145	127.7739	-26.076
181066	127.842	-26.043	181106	127.795	-26.0827	181146	127.7699	-26.0794
181067	127.8484	-26.0406	181107	127.7924	-26.0849	181147	127.7682	-26.0831
181068	127.8484	-26.0407	181108	127.7906	-26.0842	181148	127.7677	-26.0843
181069	127.8407	-26.0458	181109	127.79	-26.0845	181149	127.7674	-26.0868
181070	127.8365	-26.0487	181110	127.7899	-26.0841	181150	127.7673	-26.088
181071	127.8363	-26.0488	181111	127.7899	-26.0841	181151	127.767	-26.0908
181072	127.8342	-26.0502	181112	127.7899	-26.0841	181152	127.7664	-26.0907
181073	127.8335	-26.0506	181113	127.7899	-26.0841	181153	127.7664	-26.0907
181074	127.8325	-26.0513	181114	127.7899	-26.0841	181154	127.7663	-26.0907
181075	127.8321	-26.0516	181115	127.7899	-26.084	181155	127.7662	-26.0906
181076	127.8315	-26.052	181116	127.7899	-26.084	181156	127.7661	-26.0906
181077	127.831	-26.0524	181117	127.7899	-26.084	181157	127.766	-26.0906
181078	127.8304	-26.0528	181118	127.7899	-26.084	181158	127.7659	-26.0906
181079	127.8296	-26.0533	181119	127.7899	-26.084	181159	127.7658	-26.0906
181080	127.8295	-26.0536	181120	127.7899	-26.084	181160	127.7656	-26.0906
181081	127.829	-26.055	181121	127.7899	-26.0839	181161	127.7655	-26.0906
181082	127.8287	-26.0557	181122	127.7899	-26.0839	181162	127.7654	-26.0906
181083	127.828	-26.0576	181123	127.7899	-26.0839	181163	127.7653	-26.0906
181084	127.828	-26.0625	181124	127.7899	-26.0839	181164	127.7652	-26.0906
181085	127.8283	-26.0646	181125	127.7899	-26.0839	181165	127.7651	-26.0906

ID	Longitude (l)	Latitude (l)	ID	Longitude (l)	Latitude (l)	ID	Longitude (l)	Latitude (l)
181166	127.765	-26.0906	181206	127.7562	-26.0879	181246	127.7159	-26.0508
181167	127.7649	-26.0906	181207	127.7561	-26.0879	181247	127.7122	-26.0508
181168	127.7648	-26.0906	181208	127.756	-26.0879	181248	127.711	-26.0508
181169	127.7647	-26.0906	181209	127.7559	-26.0879	181249	127.7105	-26.0508
181170	127.7646	-26.0906	181210	127.7558	-26.0879	181250	127.7102	-26.0508
181171	127.7645	-26.0906	181211	127.7557	-26.0878	181251	127.7061	-26.0508
181172	127.7645	-26.0906	181212	127.7556	-26.0878	181252	127.7062	-26.0505
181173	127.7638	-26.0907	181213	127.7554	-26.0878	181253	127.7065	-26.0493
181174	127.7611	-26.0911	181214	127.7553	-26.0878	181254	127.7067	-26.0487
181175	127.7608	-26.0912	181215	127.7552	-26.0878	181255	127.7067	-26.0487
181176	127.7606	-26.0909	181216	127.7551	-26.0878	181256	127.7084	-26.0468
181177	127.7606	-26.0909	181217	127.755	-26.0878	181257	127.7101	-26.0438
181178	127.7604	-26.0907	181218	127.7549	-26.0878	181258	127.7097	-26.039
181179	127.7603	-26.0906	181219	127.7547	-26.0878	181259	127.7087	-26.0341
181180	127.7602	-26.0905	181220	127.7522	-26.0879	181260	127.7087	-26.034
181181	127.76	-26.0904	181221	127.7501	-26.088	181261	127.7087	-26.034
181182	127.7592	-26.0897	181222	127.748	-26.0873	181262	127.7093	-26.0317
181183	127.759	-26.0896	181223	127.7472	-26.087	181263	127.7094	-26.0314
181184	127.7582	-26.0889	181224	127.7443	-26.0861	181264	127.7106	-26.0289
181185	127.7581	-26.0888	181225	127.7434	-26.0858	181265	127.712	-26.0259
181186	127.758	-26.0888	181226	127.743	-26.0857	181266	127.7127	-26.0245
181187	127.7579	-26.0887	181227	127.7429	-26.0856	181267	127.7132	-26.0196
181188	127.7579	-26.0887	181228	127.7427	-26.0856	181268	127.7133	-26.0185
181189	127.7578	-26.0886	181229	127.7398	-26.0848	181269	127.7134	-26.0173
181190	127.7577	-26.0886	181230	127.7382	-26.0844	181270	127.7126	-26.0151
181191	127.7576	-26.0885	181231	127.7355	-26.0837	181271	127.7115	-26.0122
181192	127.7576	-26.0885	181232	127.7339	-26.0832	181272	127.7114	-26.012
181193	127.7575	-26.0884	181233	127.7339	-26.0832	181273	127.7086	-26.0061
181194	127.7574	-26.0884	181234	127.734	-26.0805	181274	127.7085	-26.0058
181195	127.7573	-26.0883	181235	127.7274	-26.0647	181275	127.7077	-26.0012
181196	127.7572	-26.0883	181236	127.7266	-26.0627	181276	127.705	-25.9969
181197	127.7571	-26.0883	181237	127.7261	-26.0613	181277	127.7046	-25.9917
181198	127.757	-26.0882	181238	127.7244	-26.0573	181278	127.7028	-25.99
181199	127.7569	-26.0882	181239	127.724	-26.0563	181279	127.7027	-25.99
181200	127.7568	-26.0881	181240	127.7231	-26.0542	181280	127.7027	-25.99
181201	127.7567	-26.0881	181241	127.7231	-26.0541	181281	127.7026	-25.9895
181202	127.7566	-26.0881	181242	127.7231	-26.0541	181282	127.6996	-25.982
181203	127.7565	-26.088	181243	127.7217	-26.0509	181283	127.699	-25.9804
181204	127.7564	-26.088	181244	127.7186	-26.0508	181284	127.6966	-25.9768
181205	127.7563	-26.088	181245	127.7177	-26.0508	181285	127.6957	-25.9754

ID	Longitude (l)	Latitude (l)	ID	Longitude (l)	Latitude (l)	ID	Longitude (l)	Latitude (l)
181286	127.6924	-25.9721	181326	127.6672	-25.8908	181366	127.651	-25.8755
181287	127.692	-25.9718	181327	127.6671	-25.8906	181367	127.6512	-25.8757
181288	127.6921	-25.9638	181328	127.667	-25.8904	181368	127.6513	-25.8758
181289	127.6871	-25.9581	181329	127.6669	-25.8903	181369	127.6579	-25.8811
181290	127.683	-25.9552	181330	127.6668	-25.8901	181370	127.658	-25.8812
181291	127.6763	-25.9536	181331	127.6668	-25.89	181371	127.6581	-25.8813
181292	127.6726	-25.9507	181332	127.6667	-25.8898	181372	127.6582	-25.8814
181293	127.665	-25.9453	181333	127.6666	-25.8897	181373	127.6583	-25.8815
181294	127.6648	-25.9451	181334	127.665	-25.8876	181374	127.6584	-25.8816
181295	127.6623	-25.9427	181335	127.6648	-25.8872	181375	127.6585	-25.8817
181296	127.6625	-25.9388	181336	127.6603	-25.8809	181376	127.6586	-25.8818
181297	127.662	-25.9241	181337	127.6602	-25.8807	181377	127.6586	-25.8819
181298	127.662	-25.924	181338	127.6601	-25.8806	181378	127.6649	-25.8906
181299	127.6621	-25.9169	181339	127.66	-25.8804	181379	127.6649	-25.8907
181300	127.6621	-25.9167	181340	127.6598	-25.8803	181380	127.665	-25.8908
181301	127.6643	-25.9111	181341	127.6597	-25.8802	181381	127.6651	-25.8909
181302	127.6647	-25.91	181342	127.6596	-25.88	181382	127.6651	-25.891
181303	127.6667	-25.9038	181343	127.6594	-25.8799	181383	127.6652	-25.8911
181304	127.6674	-25.9018	181344	127.6593	-25.8798	181384	127.6652	-25.8913
181305	127.6673	-25.9014	181345	127.6526	-25.8744	181385	127.6653	-25.8914
181306	127.6682	-25.8989	181346	127.6525	-25.8743	181386	127.6653	-25.8915
181307	127.6683	-25.8987	181347	127.6524	-25.8743	181387	127.6654	-25.8916
181308	127.6683	-25.8985	181348	127.6524	-25.8742	181388	127.6654	-25.8917
181309	127.6684	-25.8984	181349	127.6523	-25.8741	181389	127.6654	-25.8918
181310	127.6684	-25.8982	181350	127.6522	-25.874	181390	127.6654	-25.8919
181311	127.6684	-25.898	181351	127.6521	-25.8739	181391	127.6664	-25.8966
181312	127.6684	-25.8978	181352	127.652	-25.8738	181392	127.6664	-25.8968
181313	127.6685	-25.8976	181353	127.6519	-25.8737	181393	127.6664	-25.8969
181314	127.6685	-25.8974	181354	127.6519	-25.8736	181394	127.6665	-25.897
181315	127.6685	-25.8972	181355	127.6518	-25.8735	181395	127.6665	-25.8971
181316	127.6685	-25.8971	181356	127.6507	-25.8717	181396	127.6665	-25.8973
181317	127.6685	-25.8969	181357	127.6489	-25.8726	181397	127.6665	-25.8974
181318	127.6684	-25.8967	181358	127.6501	-25.8744	181398	127.6665	-25.8975
181319	127.6684	-25.8965	181359	127.6502	-25.8745	181399	127.6665	-25.8976
181320	127.6684	-25.8963	181360	127.6503	-25.8747	181400	127.6664	-25.8978
181321	127.6674	-25.8916	181361	127.6504	-25.8748	181401	127.6664	-25.8979
181322	127.6674	-25.8914	181362	127.6505	-25.875	181402	127.6664	-25.898
181323	127.6673	-25.8913	181363	127.6506	-25.8751	181403	127.6664	-25.8981
181324	127.6673	-25.8911	181364	127.6508	-25.8753	181404	127.6663	-25.8982
181325	127.6672	-25.8909	181365	127.6509	-25.8754	181405	127.6663	-25.8984

ID	Longitude (l)	Latitude (l)	ID	Longitude (l)	Latitude (l)	ID	Longitude (l)	Latitude (l)
181406	127.6653	-25.9014	181446	127.7013	-25.9912	181486	127.6909	-26.0507
181407	127.6654	-25.9017	181447	127.7026	-25.9924	181487	127.6857	-26.0506
181408	127.6648	-25.9033	181448	127.703	-25.9971	181488	127.681	-26.0506
181409	127.6627	-25.9095	181449	127.703	-25.9972	181489	127.6784	-26.0506
181410	127.6624	-25.9105	181450	127.7031	-25.9975	181490	127.6763	-26.0506
181411	127.6602	-25.9162	181451	127.7032	-25.9977	181491	127.6729	-26.0506
181412	127.6602	-25.9164	181452	127.7058	-26.0018	181492	127.672	-26.0506
181413	127.6602	-25.9164	181453	127.7066	-26.0062	181493	127.6715	-26.0506
181414	127.6601	-25.9168	181454	127.7067	-26.0067	181494	127.6715	-26.051
181415	127.66	-25.924	181455	127.7096	-26.0127	181495	127.6714	-26.0624
181416	127.66	-25.9241	181456	127.7096	-26.0128	181496	127.6713	-26.0763
181417	127.6605	-25.9388	181457	127.7107	-26.0157	181497	127.6712	-26.0799
181418	127.6603	-25.9429	181458	127.7114	-26.0175	181498	127.6712	-26.0865
181419	127.6603	-25.9432	181459	127.7113	-26.0184	181499	127.6711	-26.0878
181420	127.6603	-25.9434	181460	127.7112	-26.0194	181500	127.6711	-26.0886
181421	127.6604	-25.9436	181461	127.7107	-26.024	181501	127.6711	-26.0948
181422	127.6607	-25.9438	181462	127.7102	-26.0252	181502	127.6711	-26.0973
181423	127.6634	-25.9464	181463	127.7088	-26.0282	181503	127.671	-26.0984
181424	127.6637	-25.9466	181464	127.7075	-26.0308	181504	127.6714	-26.1041
181425	127.6713	-25.9521	181465	127.7074	-26.0312	181505	127.6712	-26.1174
181426	127.6751	-25.955	181466	127.7068	-26.0337	181506	127.6734	-26.1201
181427	127.6752	-25.9551	181467	127.7067	-26.034	181507	127.6792	-26.1241
181428	127.6755	-25.9552	181468	127.7067	-26.0343	181508	127.6842	-26.1265
181429	127.6757	-25.9553	181469	127.7077	-26.0392	181509	127.6855	-26.1272
181430	127.6821	-25.9568	181470	127.7081	-26.0434	181510	127.6872	-26.128
181431	127.6857	-25.9594	181471	127.7067	-26.0458	181511	127.6894	-26.129
181432	127.6901	-25.9644	181472	127.7051	-26.0477	181512	127.6899	-26.1294
181433	127.69	-25.972	181473	127.705	-26.0477	181513	127.6899	-26.1295
181434	127.6901	-25.9723	181474	127.7049	-26.048	181514	127.6899	-26.1295
181435	127.6901	-25.9725	181475	127.7048	-26.0481	181515	127.6909	-26.1316
181436	127.6902	-25.9727	181476	127.7046	-26.0488	181516	127.6911	-26.1321
181437	127.6904	-25.9729	181477	127.7042	-26.0501	181517	127.6922	-26.1344
181438	127.6909	-25.9733	181478	127.7042	-26.0501	181518	127.6922	-26.1344
181439	127.6941	-25.9764	181479	127.7041	-26.0508	181519	127.6923	-26.1347
181440	127.6949	-25.9777	181480	127.7002	-26.0507	181520	127.6924	-26.1348
181441	127.6972	-25.9812	181481	127.6992	-26.0507	181521	127.6925	-26.1351
181442	127.6977	-25.9826	181482	127.6978	-26.0507	181522	127.6926	-26.1352
181443	127.7007	-25.9901	181483	127.695	-26.0507	181523	127.6927	-26.1355
181444	127.7009	-25.9907	181484	127.693	-26.0507	181524	127.6928	-26.1356
181445	127.7011	-25.9909	181485	127.6915	-26.0507	181525	127.693	-26.1358

ID	Longitude (l)	Latitude (l)
181526	127.693	-26.136
181527	127.6931	-26.1361
181528	127.6932	-26.1362
181529	127.6933	-26.1363
181530	127.6934	-26.1366
181531	127.6935	-26.1367
181532	127.6937	-26.1369
181533	127.6938	-26.137
181534	127.694	-26.1373
181535	127.6941	-26.1374
181536	127.6943	-26.1376
181537	127.6943	-26.1377
181538	127.6953	-26.1387
181539	127.6966	-26.1403
181540	127.7007	-26.1448
181541	127.7034	-26.1583
181542	127.7035	-26.1585
181543	127.7035	-26.1586
181544	127.7036	-26.1588
181545	127.7036	-26.1589
181546	127.7037	-26.1591
181547	127.7037	-26.1593
181548	127.709	-26.1717
181549	127.709	-26.1718
181550	127.7091	-26.1719
181551	127.7091	-26.172
181552	127.7092	-26.1721
181553	127.7092	-26.1722
181554	127.7092	-26.1724
181555	127.7092	-26.1725
181556	127.7092	-26.1726
181557	127.7093	-26.1727
181558	127.7093	-26.1729
181559	127.7093	-26.173
181560	127.7093	-26.1731
181561	127.7093	-26.1732
181562	127.7092	-26.1733
181563	127.7092	-26.1735
181564	127.7092	-26.1736
181565	127.7079	-26.1801
181566	127.7079	-26.1802
181567	127.7079	-26.1804
181568	127.7079	-26.1806
181569	127.7079	-26.1808
181570	127.7078	-26.181
181571	127.7079	-26.1812
181572	127.7079	-26.1813
181573	127.7079	-26.1815
181574	127.7079	-26.1817
181575	127.7079	-26.1819
181576	127.708	-26.1821
181577	127.708	-26.1823
181578	127.7081	-26.1824
181579	127.7081	-26.1826
181580	127.7082	-26.1828
181581	127.7083	-26.183
181582	127.7083	-26.1831
181583	127.7121	-26.1911
181584	127.7122	-26.1912
181585	127.7123	-26.1914
181586	127.7124	-26.1916
181587	127.7125	-26.1917
181588	127.7126	-26.1919
181589	127.7127	-26.1921
181590	127.7128	-26.1922
181591	127.7154	-26.1953
181592	127.7085	-26.1952
181593	127.7082	-26.1952
181594	127.7076	-26.1952
181595	127.7071	-26.1954
181596	127.7067	-26.1956
181597	127.7063	-26.1958
181598	127.706	-26.1962
181599	127.7057	-26.1966
181600	127.7056	-26.197
181601	127.7055	-26.1974
181602	127.7056	-26.1979
181603	127.7057	-26.1983
181604	127.7059	-26.1987
181605	127.7063	-26.199
181606	127.7066	-26.1993
181607	127.7071	-26.1995
181608	127.7075	-26.1997
181609	127.7081	-26.1997
181610	127.7145	-26.1998
181611	127.7144	-26.2032
181612	127.7143	-26.2048
181613	127.7143	-26.2057
181614	127.7142	-26.2067
181615	127.7142	-26.208
181616	127.7141	-26.209
181617	127.714	-26.2107
181618	127.714	-26.2122
181619	127.7139	-26.2125
181620	127.7139	-26.2127
181621	127.7138	-26.2161
181622	127.7138	-26.2162
181623	127.7138	-26.2162
181624	127.7138	-26.2176
181625	127.7138	-26.2197
181626	127.7138	-26.2208
181627	127.7113	-26.222
181628	127.7113	-26.2243
181629	127.7102	-26.2243
181630	127.709	-26.2243
181631	127.7054	-26.2243