



Works approval number	W6574/2021/1
Works approval holder	AURENNE MIT PTY LTD
ACN	611 002 709
Registered business address	Level 1 10 Ord Street WEST PERTH WA 6005
DWER file number	DER2021/000394
Duration	10 January 2022 to 09 January 2027
Date of issue	10 January 2022
Premises details	Mt Ida Gold Project Wastewater Treatment Plant MENZIES Legal description - Miscellaneous Licence L29/145 & L29/154 As defined by the coordinates in Schedule 2

Prescribed premises category description (Schedule 1, <i>Environmental Protection Regulations 1987</i>)	Assessed design capacity
Category 85: Sewage facility	70 cubic metres per day

This works approval is granted to the works approval holder, subject to the attached conditions, on 10 January 2022, by:

Steve Checker

MANAGER WASTE INDUSTRIES

REGULATORY SERVICES

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

Works approval history

Date	Reference number	Summary of changes
10/01/2022	W6574/2021/1	Works Approval Issued

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 must:
 - (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.

Table 1: Design and construction / installation requirements

Infrastructure	Design and construction / installation requirements	Infrastructure location
Prescribed Activity Category 85		
MAK Water-Activated Sludge Bioreactor (ASBR) Wastewater treatment plant (WWTP)	(a) Constructed as per the specifications in Figure 2 of Schedule 1; (b) Comprising the following: <ul style="list-style-type: none"> • Inlet screen • Sludge tank • Balance tank • Bioreactor tank • Return activated sludge pump • Waste activated sludge pump • Coagulant dosing tank • Hypochlorite dosing unit • Treated effluent tank • Irrigation pump • Spray field irrigation (c) Fenced and appropriately signposted. (d) Stormwater to be prevented from entering the sewage treatment system and storage infrastructure; (e) WWTP to be located on a compacted earthen pad; (f) All sewage storage and treatment tanks, vessels, transfer pipelines and conveyance infrastructure must be impermeable and free of leaks and defects;	As specified in Figure 1 and 2 of Schedule 1.

	Infrastructure	Design and construction / installation requirements	Infrastructure location
		<p>(g) All pipelines will be UPVC, schedule 80 fittings glued/cemented together so as to be impervious and free from leaks;</p> <p>(h) Sumps located at low points along the pipeline route;</p> <p>(i) WWTP must be able to treat up to 70 m³ of sewage waste per day;</p> <p>(j) WWTP must be capable to treat sewage to the following water quality levels:</p> <ul style="list-style-type: none"> • pH 6.5 – 8.5 • BOD < 20 mg/L • TSS < 30 mg/L • TN < 30 mg/L • TP < 16 mg/L • E. coli <10000 cfu/100mL • Residual chlorine 0.2 - 2mg/L <p>(k) Final treated effluent irrigation storage tank capable of storing all wastewater not able to be discharged to the spray irrigation field:</p> <p>(l) A volumetric flow meter must be installed on discharge outlet pipe to monitor volumes discharged to irrigation spray field;</p> <p>(m) Alarm system installed to notify the operator of:</p> <ul style="list-style-type: none"> (i) Pump faults; and (ii) High tank levels <p>(k) No discharge to the environment of hydrocarbons and/or process chemicals shall occur.</p>	
	Irrigation spray field	<p>(a) Area of spray field must be at least 4.3 ha and bunded to ensure no interaction with surface water;</p> <p>(b) Sprinklers must be positioned to ensure even distribution of wastewater;</p> <p>(c) pipelines must be impermeable and free of leaks; and</p> <p>(d) Fence with visible safety signage installed to deter access.</p>	As specified in Figure 1 and 5 of Schedule 1.

Compliance reporting

2. The works approval holder must within 30 calendar days of an item of infrastructure or equipment required by condition 1 being constructed and/or installed:
 - (a) undertake an audit of their compliance with the requirements of condition 1; and
 - (b) prepare and submit to the CEO an Environmental Compliance Report on that compliance.
3. The Environmental Compliance Report required by condition 2(b), must include as a minimum the following:
 - (a) certification by a Qualified Civil or Structural Engineer that the items of infrastructure or component(s) thereof, as specified in condition 1, have been constructed in accordance with the relevant requirements specified in condition 1;
 - (b) as constructed plans and a detailed site plan for each item of infrastructure or component of infrastructure specified in condition 1; and
 - (c) be signed by a person authorised to represent the works approval holder and contains the printed name and position of that person.

Environmental commissioning

4. The works approval holder may only commence environmental commissioning of an item of infrastructure listed in condition 5 once the Environmental Compliance Report has been submitted for that item of infrastructure in accordance with condition 2(b) of this works approval.
5. Any environmental commissioning activities undertaken for an item of infrastructure specified in Table 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 2.

Table 2: Environmental commissioning requirements

Infrastructure	Commissioning requirements	Authorised commissioning duration
Irrigation Spray Field	<ol style="list-style-type: none">a) Not more than 70 m³/day of treated effluent is to be applied per day to the designated irrigation area;b) Irrigation is managed to prevent ponding and pooling of effluent on the ground surface of the irrigation spray field;c) Treated effluent will not be disposed of unless the measured parameters comply with the expected wastewater quality as required above and shown in	A period not exceeding 12 weeks in aggregate.

Infrastructure	Commissioning requirements	Authorised commissioning duration
	Table 1; and d) No treated effluent is permitted to enter any watercourse.	
WWTP and Pipeline	a) Volumetric flow meters are maintained on the WWTP inlet and outlet to the irrigation spray field. b) Sludge is periodically removed from the clarifier and stored in a tank prior to removal by a licensed waste carrier for disposal to a licensed disposal facility. c) Screenings are contained within a sealed lined bin via a chute prior to removal for disposal to a licensed disposal facility. d) Spills of wastewater or chemicals outside of a vessel/container are cleaned up immediately.	

6. During environmental commissioning, the works approval holder must ensure that the emission(s) specified in Table 3, are discharged only from the corresponding discharge points and only at the corresponding discharge point location.

Table 3: Authorised discharge points during commissioning

Emission	Discharge point	Discharge point location
Treated effluent	Sprinklers within the irrigation spray field	Spray field as shown in Figures 1 & 5 of Schedule 1

Monitoring during environmental commissioning

7. The works approval holder must monitor emissions during environmental commissioning in accordance with Table 4.

Table 4: Emissions monitoring during environmental commissioning

Discharge point	Monitoring location	Parameter	Frequency	Averaging Period	Unit
Irrigation spray field	Final effluent to irrigation storage tank	E. coli	Weekly	Spot sample	cfu / 100mL
		BOD ₅	Weekly		mg/L
		TSS	Weekly		mg/L
		Total N	Weekly		mg/L

		Total P	Weekly		mg/L
		pH ¹	Daily or continuous online	n/a	pH units
		Residual chlorine ¹	Daily or continuous online	n/a	mg/L
		Cumulative flow volume	Continuous	n/a	m ³

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

8. For the monitoring activity required by condition 7, the works approval holder must:
 - (a) record the results;
 - (b) handle and preserve all water samples collected during the monitoring of the WWTP in accordance with AS/NZS5667.1:1998; and
 - (c) have analysis conducted by a laboratory with current National Association of Testing Authorities (NATA) accreditation for the parameters specified
9. The works approval holder must submit to the CEO a report on the environmental commissioning within 30 calendar days of the completion date or 30 calendar days before the expiration date of the works approval, whichever is the sooner.
10. The works approval holder must ensure the reports required by condition 9 includes the following:
 - (a) a summary of the commissioning activities undertaken, timeframes and amount of waste and effluent processed;
 - (b) a summary of emission and discharge monitoring results obtained under condition 7;
 - (c) a summary of the environmental performance of all infrastructure as constructed or installed;
 - (d) a review of performance and compliance against the conditions of the works approval; and
 - (e) 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.

Records and reporting

11. 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.
- 12.** 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 condition 1;
 - (b) monitoring programmes undertaken in accordance with condition 7; and
 - (c) complaints received under condition 11.
- 13.** The books specified under condition 12 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 55 have the meanings defined.

Table 5: Definitions

Term	Definition
ARI	Means the average or expected value of the periods between exceedances of a given rainfall total accumulated over a given duration.
AS/NZS5667.1:1998	means the 'Australian Standard AS/NZS 5667.1-1998 Water Quality - Sampling - Guidance of the Design of sampling programs, sampling techniques and the preservation and handling of samples', as amended from time to time.
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 <i>Environmental Protection Act 1986</i> Locked Bag 10 Joondalup DC WA 6919 info@dwer.wa.gov.au
Decision Report	refers to this document.
Delegated Officer	An officer delegated under section 20 of the EP Act.
Department	means the department established under section 35 of the <i>Public Sector Management Act 1994</i> and designated as responsible for the administration of Part V Division 3 of the EP Act.
DWER	Department of Water and Environmental Regulation As of 1 July 2017, the Department of Environment Regulation (DER), the Office of the Environmental Protection Authority (OEPA) and the Department of Water (DoW) amalgamated to form the Department of Water and Environmental Regulation (DWER). DWER was established under section 35 of the <i>Public Sector Management Act 1994</i> and is responsible for the administration of the <i>Environmental Protection Act 1986</i> along with other legislation.
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	A period of time allowing for stabilisation and optimisation of the process following input of raw materials under operating conditions (including emissions) to confirm that emissions meet

Term	Definition
phase	predicted levels prior to ongoing operation.
Environmental Commissioning report	Report on any commissioning activities that have taken place and a demonstration 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	<i>Environmental Protection Act 1986 (WA).</i>
EP Regulations	<i>Environmental Protection Regulations 1987 (WA).</i>
premises	the premises to which this works approval applies, as specified at the front of this works approval 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.
Qualified, Competent Civil or Structural Engineer	means a person who: <ul style="list-style-type: none"> (a) holds a Bachelor's degree recognised by Engineers Australia; and (b) has a minimum of five years of experience working in a supervisory role in civil or structural engineering; and (c) is employed by an independent third party external to the Works Approval Holder's business; or is otherwise approved in writing by the CEO to act in this capacity.
waste	has the same meaning given to that term under the EP Act.
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.

END OF CONDITIONS

Schedule 1: Premises Maps

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

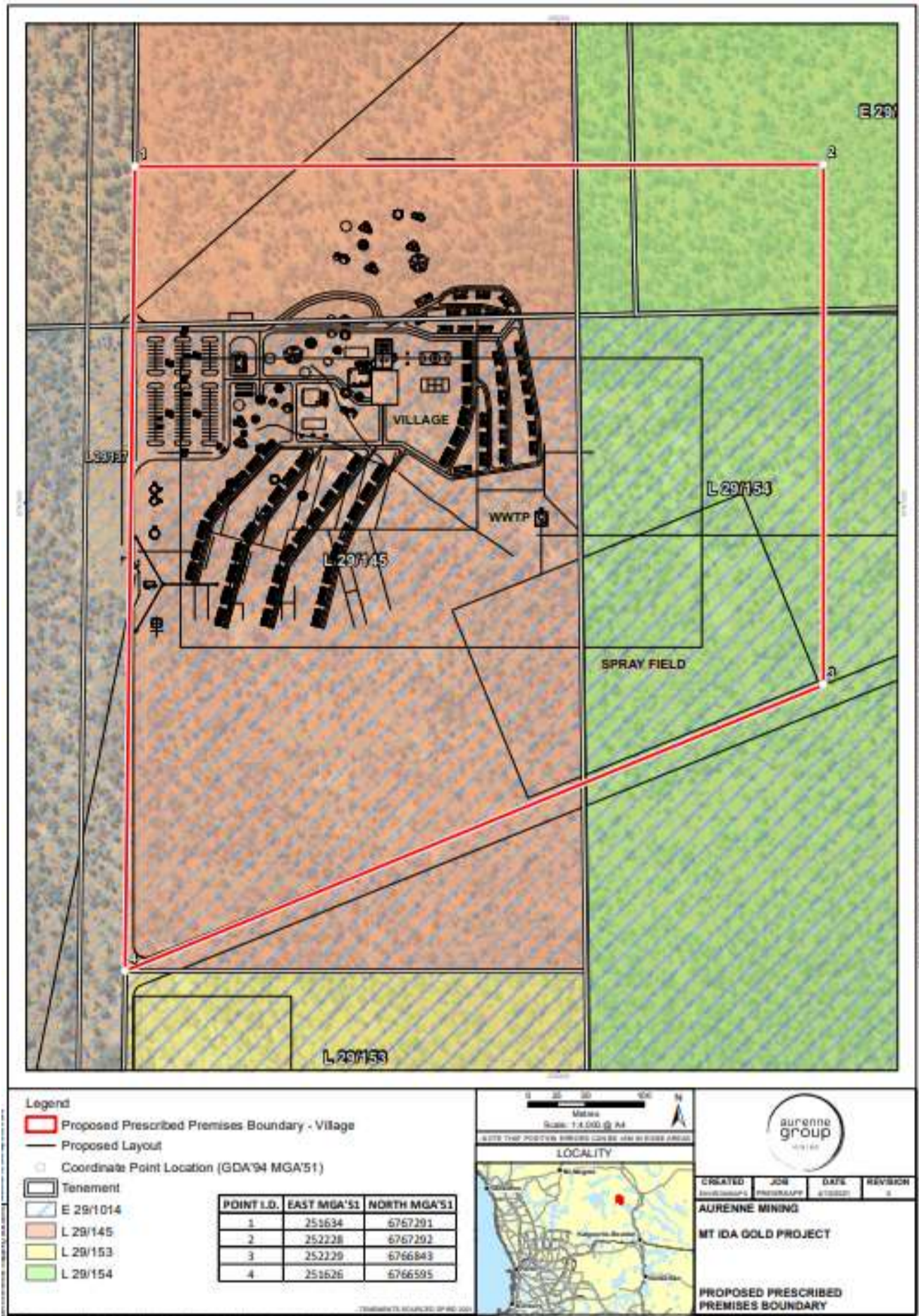


Figure 1: Boundary and overview of the prescribed premises (red line)

Figure provided by the Applicant

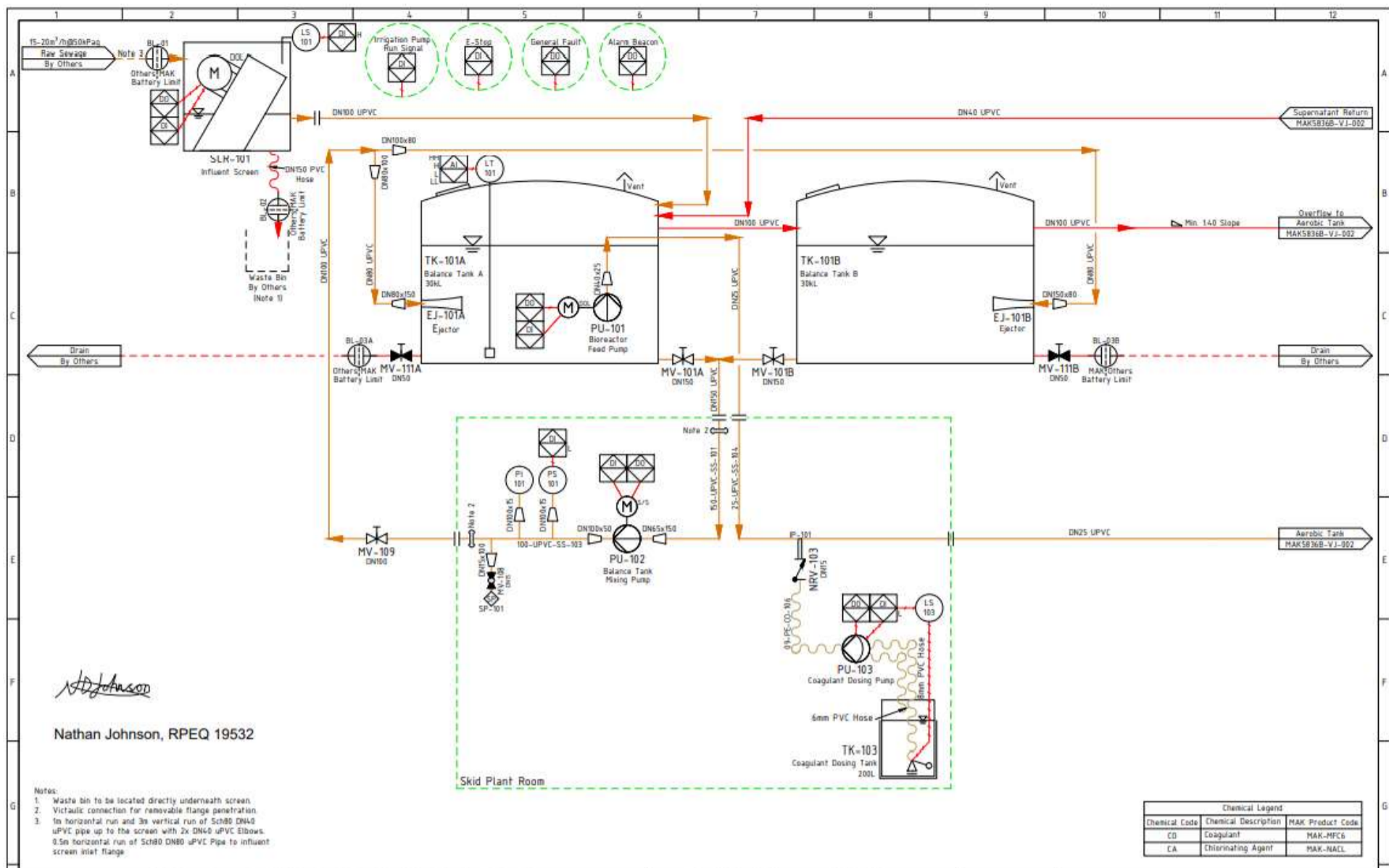


Figure 2: Wastewater Treatment Plant Balance Tanks and Influent Feed Piping and Instrumentation Diagram

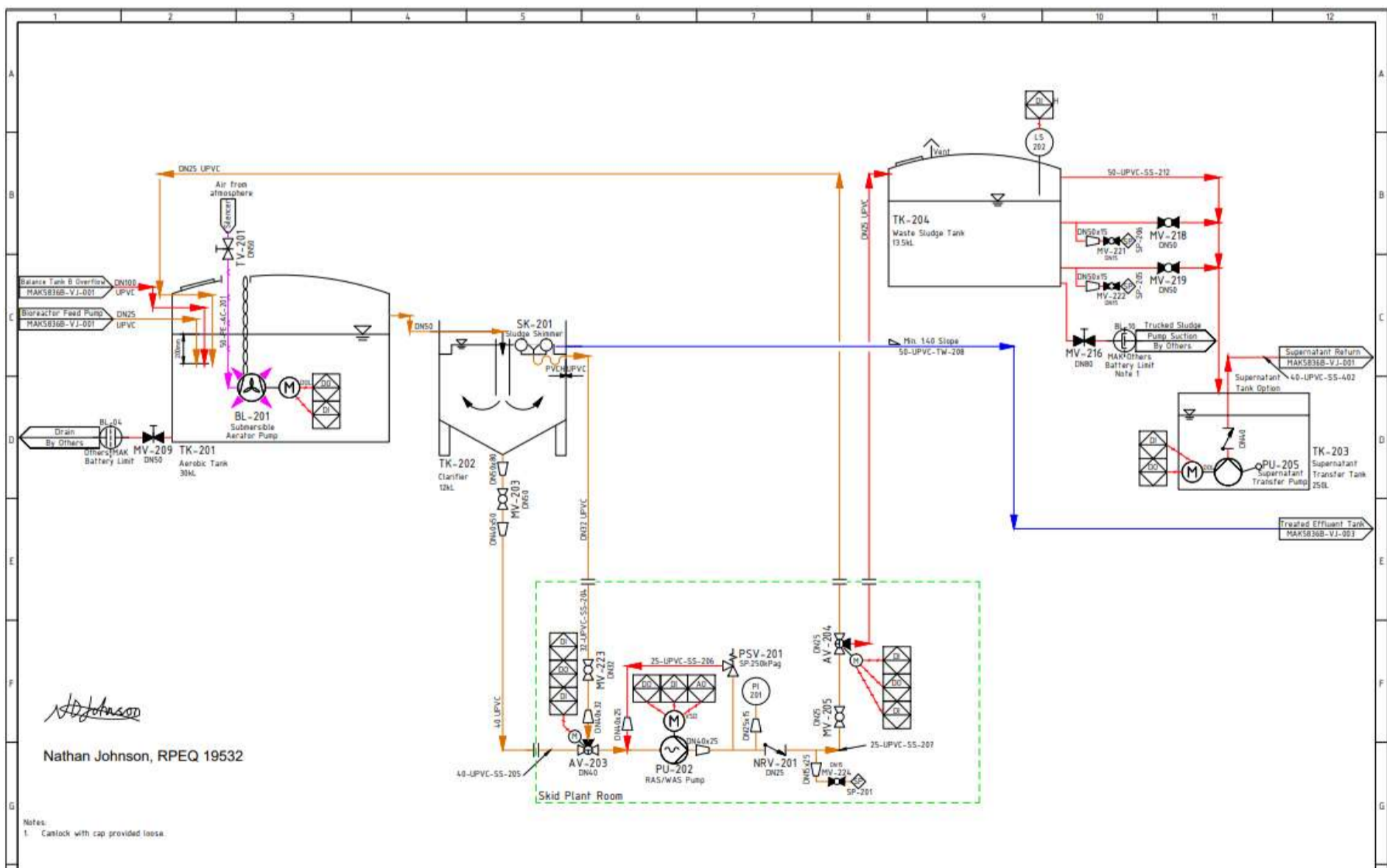


Figure 3: Wastewater Treatment Plant Bioreactor and Sludge Tank Piping and Instrumentation Diagram

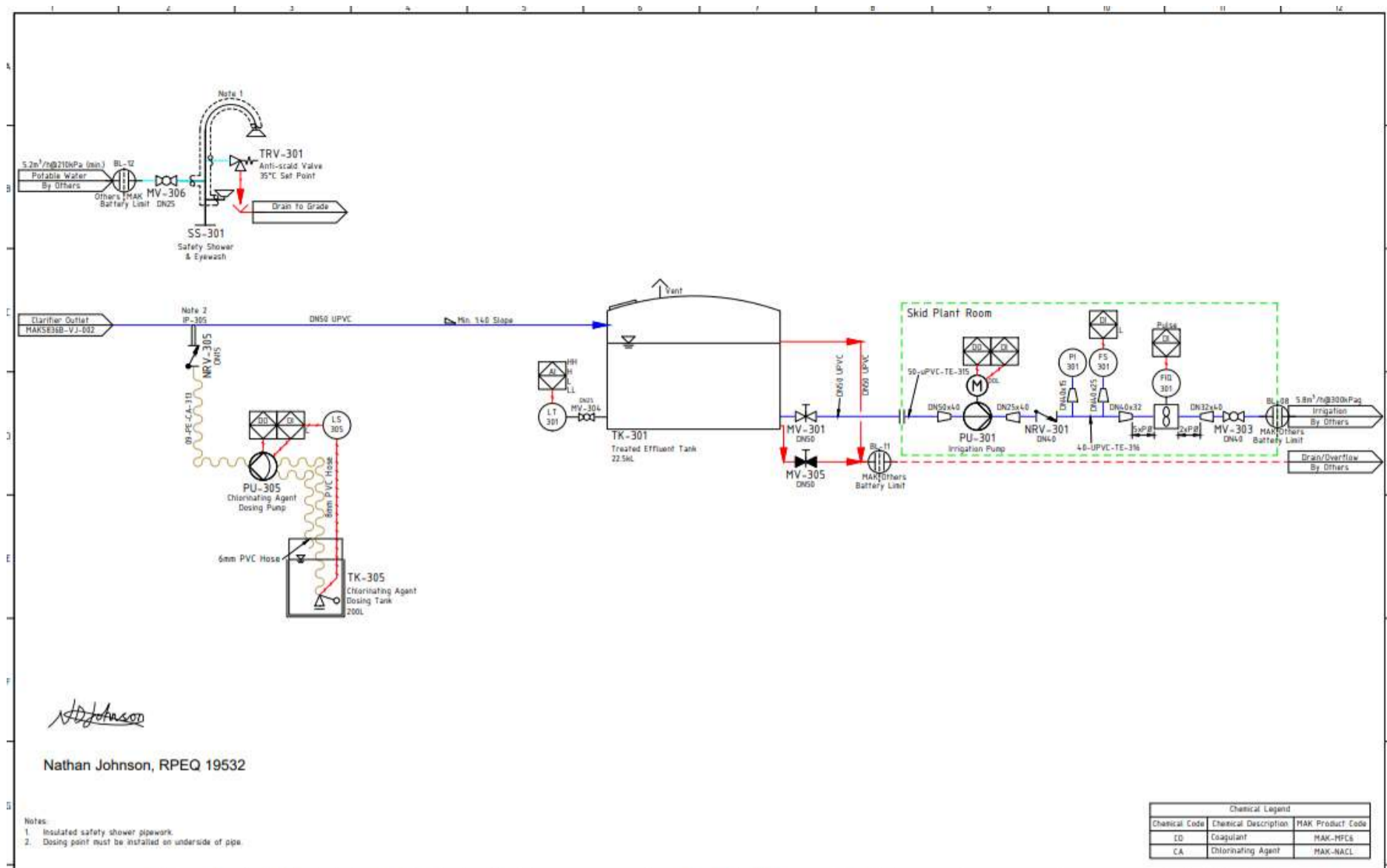


Figure 4: Wastewater Treatment Plant Effluent (Class C) Treatment Piping and Instrumentation Diagram

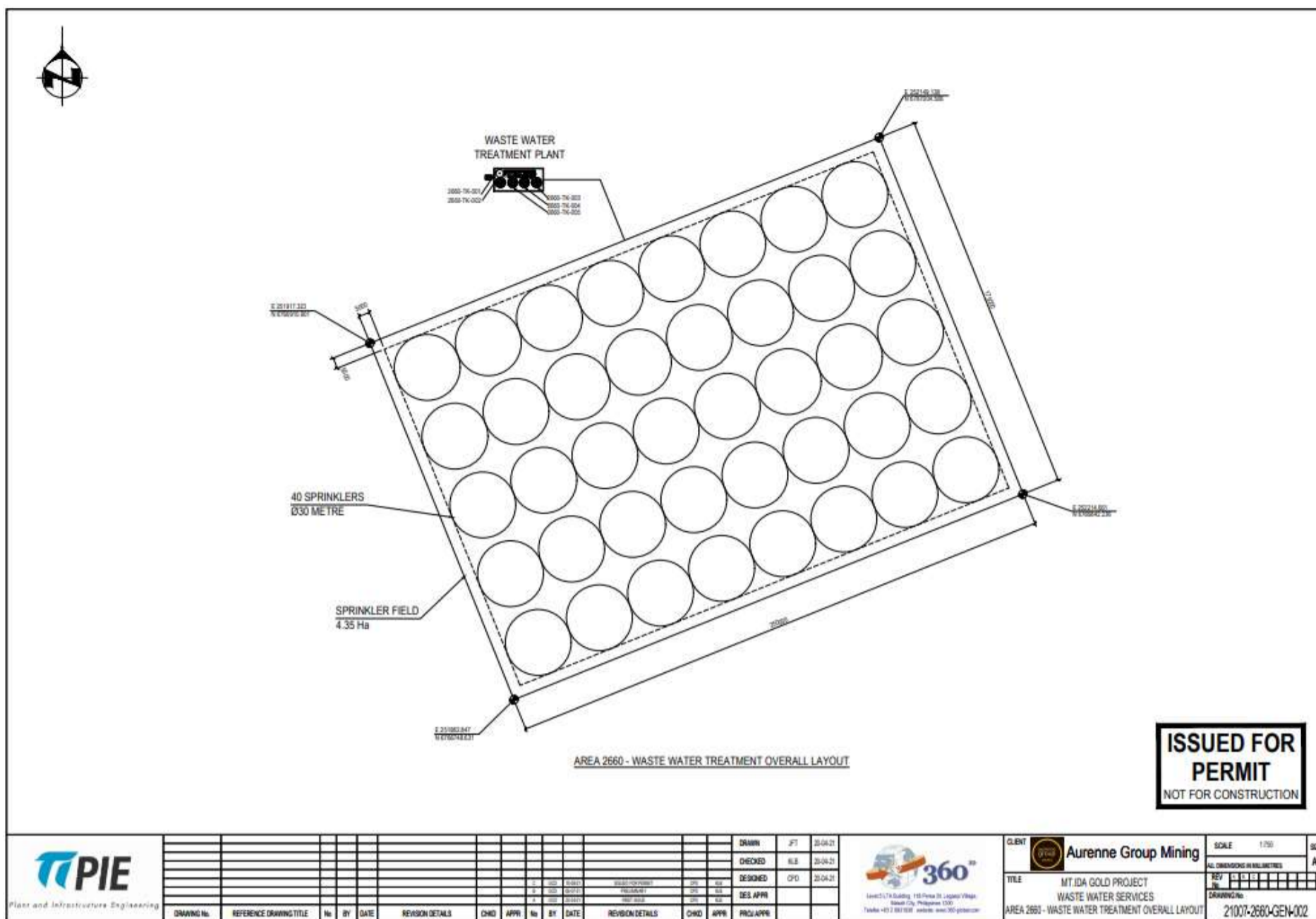


Figure 5: Proposed spray field

Schedule 2: Premises boundary

The premises boundary is defined by the coordinates in Table 6.

Table 6: Premises boundary coordinates

Easting	Northing
251634	6767291
252228	6767292
252229	6766843
251626	6766595