Government of Western Australia
Department of Water and Environmental Regulation

Works Approval

Works approval number	W6950/2024/1
Works approval holder	Andy Well Mining Pty Ltd
ACN	158 108 895
Registered business address	Level 2, 46 Ventnor Avenue WEST PERTH WA 6005
DWER file number	DER2024/000335
Duration	07/02/2025 to 06/02/2028
Date of issue	07/02/2025
Premises details	Andy Well Gold Project Mining Tenement M51/870 MEEKATHARRA WA 6642

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	474,045 tonnes per year

This works approval is granted to the works approval holder, subject to the attached conditions, on 07 February 2025, by:

Jarrod Abrahams

Digitally signed by Jarrod Abrahams
Date: 2025.02.07 13:53:02 +08'00'

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

Works approval history

Date	Reference number	Summary of changes
07/02/2025	W6950/2024/1	Works approval granted.

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

Item	Infrastructure	Design and construction / installation requirements	Infrastructure location
1	Suzie IPTSF	a) Designed and constructed to ensure a minimum total freeboard of 0.7 m is always maintained. b) Install 0.7 m survey mark/s on pit wall for assessing total freeboard. c) Single point discharge spigot as depicted in Schedule 1, Figures 2 and 3. d) Perimeter bunding maintained on western side of pit crest.	Schedule 1: Maps, Figure 1 as Suzie Pit
2	Pipelines	a) Pipelines positioned within road alignment connecting the Processing Plant with Suzie Pit. b) Pipeline installed as per Australian standard (AS/NZS 4130:2003- Polyethylene pipes for pressure applications). c) Tailings discharge and return water pipelines contained within a V-drain with regularly installed scour sumps as depicted in Schedule 1, Figure 3. d) Pipelines fitted with alarms and shut off valves for the management of leaks and ruptures. e) Pre-use inspection to identify any faults.	Schedule 1: Maps, Figure 1
3	Decant infrastructure	a) Decant pump located on a floating pontoon or similar structure within central area of the pit as depicted in Schedule 1, Figure 2 'Water Recovery Pump'. b) Minimum design capacity of water recovery system (decant pumps and piping) not less than 70% of the slurry water volume to ensure adequate pit water removal.	Schedule 1: Maps, Figure 1

Compliance reporting

2. The works approval holder must within 60 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, must include as a minimum the following:

(a) certification by a suitably qualified 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.

Construction of groundwater monitoring wells

4. The works approval holder must design, construct, and install groundwater monitoring wells in accordance with the requirements specified in Table 2.

Table 2: Infrastructure requirements – groundwater monitoring wells

Infrastructure	Design, construction, and installation requirements	Monitoring bore locations	Timeframe
Suzie IPTSF groundwater monitoring wells MB01, MB02, MB03, MB04, MB05 and MB06, as depicted in Schedule 1: Figure 2	<u>Well design and construction:</u> Designed and constructed in accordance with ASTM D5092/D5092M-16: Standard practice for design and installation of groundwater monitoring wells Well screens must target the part, or parts, of the aquifer most likely to be affected by contamination[1]. Where temporary/seasonal perched features are present, wells must be nested, and the perched features individually screened.	As depicted in Schedule 1, Figure 2	Must be constructed, developed (purged), and determined to be operational in order to meet the frequency of baseline monitoring as required by condition 6 Table 3 and prior to the commencement of environmental commissioning activities under condition 9
	<u>Logging of borehole:</u> Soil samples must be collected and logged during the installation of the monitoring wells. A record of the geology encountered during drilling must be described and classified in accordance with the Australian Standard Geotechnical Site Investigations AS1726. Any observations of staining / odours or other indications of contamination must be included in the bore logs.		

Infrastructure	Design, construction, and installation requirements	Monitoring bore locations	Timeframe
	Well construction log: Well construction details must be documented within a well construction log to demonstrate compliance with ASTM D5092/D5092M-16. The construction logs shall include elevations of the top of casing position to be used as the reference point for water-level measurement, and the revelations of the ground surface protective installations.		
	Well development: All installed monitoring wells must be developed after drilling to remove fine sand, silt, clay and any drilling mud residues from around the well screen to ensure the hydraulic functioning of the well. A detailed record should be kept of well development activities and included in the well construction log.		
	Installation survey: The vertical (top of casing) and horizontal position of each monitoring well must be surveyed and subsequently mapped by a suitably qualified surveyor.		
	Well network map: A well location map (using aerial image overlay) must be prepared and include the location of all monitoring wells in the monitoring network and their respective identification numbers.		

Note 1: Refer to Section 8 of Schedule B2 of the National Environment Protection (Assessment of Site Contamination) Measure April 2011 for guidance on well screen depth and length.

5. The works approval holder must, within 60 calendar days of the monitoring wells being constructed, submit to the CEO a well construction report evidencing compliance with the requirements of condition 4.

Baseline groundwater monitoring

6. The works approval holder must undertake baseline ambient groundwater monitoring in accordance with Table 3 after the infrastructure required by condition 4 has been constructed and a well construction report as required by condition 5 has been submitted to the CEO.

7. The works approval holder must adhere to the field quality assurance and quality control procedure specified in Schedule 2 of this works approval for the monitoring required by condition 6.

8. All sample analysis must be undertaken by laboratories with current accreditation from the National Association of Testing Authorities (NATA) for the relevant parameters, unless otherwise specified in Table 3.

Table 3: Baseline ambient groundwater monitoring requirements

Monitoring Bore	Parameter	Unit	Frequency	Method
Suzie IPTSF groundwater monitoring wells MB01, MB02, MB03, MB04, MB05 and MB06, as depicted in Schedule 1: Figure 2	Standing Water Level[1]	mbgl	Weekly for a duration of at least 4 weeks, prior to tailings deposition	Spot sample, in accordance with AS/NZS 5667.1 and AS/NZS 5667.11
	Electrical Conductivity[2]	µS/cm		
	pH[2]	-		
	Total Dissolved Solids (TDS) [2]	mg/L		
	Weak Acid Dissociable (WAD) Cyanide (Cn) & Total Cn			
	Total Metals: • Aluminium (Al) • Arsenic (As) • Cadmium (Cd) • Chromium (Cr) • Copper (Cu) • Iron (Fe) • Lead (Pb) • Magnesium (Mg) • Manganese (Mn) • Mercury (Hg) • Nickel (Ni) • Selenium (Se) • Zinc (Zn)			
	Major Ions: • Calcium (Ca) • Chloride (Cl) • Potassium (K) • Sodium (Na)			
	Total Alkalinity			

Note 1: Standing water level shall be determined prior to the collection of other water samples.
Note 2: In-field non-NATA accredited analysis permitted.

Environmental commissioning phase

Environmental commissioning requirements and emission limits

9. The works approval holder may only commence environmental commissioning of an item of infrastructure identified in condition 10 once the Environmental Compliance Report has been submitted for that item of infrastructure in accordance with condition 2 of this works approval.

10. Any environmental commissioning activities undertaken for an item of infrastructure specified in Table 4 may only be carried out:

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

(b) for the corresponding authorised commissioning duration.

Table 4: Environmental commissioning requirements

Infrastructure	Commissioning requirements	Authorised commissioning duration
Suzie IPTSF including associated discharge, decant and pipeline infrastructure	Twice daily (once per 12-hour shift) visual inspection to determine infrastructure is operating as per design and construction/installation requirements in condition 1	12 weeks

Monitoring during environmental commissioning

11. 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 infrastructure specified in Table 4.

12. The works approval holder must ensure the Environmental Commissioning Report required by condition 11 of this works approval includes the following:

(a) a summary of the environmental commissioning activities undertaken, including timeframes and amount of tailings deposited;

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

(i) commissioning of the infrastructure; and

(ii) testing of the infrastructure.

(c) a review of the works approval holder's performance against manufacturer design and specifications; 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

13. The works approval holder may only commence time limited operations for an item of infrastructure identified in condition 15:

(a) where the item of infrastructure is not authorised to undertake environmental commissioning, the Environmental Compliance Report as required by condition 2 has been submitted by the works approval holder for that item of infrastructure; and

(b) where the item of infrastructure is authorised to undertake environmental commissioning under condition 10, the Environmental Commissioning Report for that item of infrastructure as required by condition 11 has been submitted by the works approval holder.

14. The works approval holder may conduct time limited operations for an item of infrastructure specified in condition 15 (as applicable):

(a) for a period not exceeding 180 days from the day the works approval holder meets the requirements of condition 13 for that item of infrastructure; or

(b) until such time as a licence for that item of infrastructure is granted in accordance with Part V of the *Environmental Protection Act 1986*, if one is granted before the end of the period specified in condition 14(a).

Time limited operations requirements

15. During time limited operations, the works approval holder must ensure that the premises infrastructure and equipment listed in Table 5 and located at the corresponding infrastructure location is maintained and operated in accordance with the corresponding operational requirements set out in Table 5.

Table 5: Infrastructure and equipment requirements during time limited operations

Site infrastructure and equipment	Operational requirement	Infrastructure location
Suzie IPTSF including associated discharge, decant and pipeline infrastructure	a) Tailings deposition to occur from a single discharge point. b) Maintain a minimum total freeboard of 0.7 m at all times. c) Removal of decant effluent to commence as soon as a suitable supernatant pond has formed. d) Decant pump maintained in working order to allow continuous operation unless maintenance is being undertaken and/or during process plant shutdowns. e) Maintain perimeter bunding on the western side of the pit to ensure rainfall runoff is directed into natural occurring drainage channels at the premises. f) Twice daily (once per 12-hour shift) visual inspection to determine a minimum total freeboard of 0.7 m is being maintained, and to note the size and location of the supernatant pond. g) Twice daily (once per 12-hour shift) visual inspection to assess for leaks, ruptures or any signs of damage to pipelines. h) Maintain logs of all inspections undertaken. i) Maintain monthly records for volume of tailings discharged and decant recovered.	Schedule 1: Figure 1 and Figure 2

Monitoring during time limited operations and emission limits

16. The works approval holder must monitor emissions during time limited operations in accordance with Table 6.

Table 6: Emissions and discharges monitoring during time limited operations

Discharge point	Monitoring location	Parameter	Frequency	Averaging Period	Unit	Method Sampling and Analysis
Suzie IPTSF	Suzie IPTSF decant	pH	Monthly	Spot sample	pH units	AS/NZS 5667.1
		Conductivity, TDS, major cations and anions, dissolved and total metals, and WAD-CN			mg/L	AS/NZS 5667.10

17. The works approval holder must record the results of all monitoring activity required by condition 16.

18. During time limited operations, the works approval holder must ensure emissions from discharge points listed in Table 7 do not exceed the corresponding limit when monitored in accordance with condition 16.

Table 7: Emissions and discharges limits during time limited operations

Discharge point	Parameter	Limit
Suzie IPTSF	WAD-CN	50 mg/L

19. The works approval holder must monitor the groundwater during time limited operations for concentrations of the identified parameters in accordance with Table 8.

Table 8: Monitoring of ambient concentrations during time limited operations

Monitoring location	Parameters	Unit	Limit	Frequency	Averaging Period	Method Sampling and Analysis
Groundwater monitoring wells specified in condition 4 Table 2	SWL[1,2]	mbgl	5	Monthly or Fortnightly - where SWL is less than 6 mbgl	Spot sample	AS/NZS 5667.1 AS/NZS 5667.11
	Electrical conductivity[2]	µS/cm	-	Quarterly		
	pH[2]	pH units	-			

Monitoring location	Parameters	Unit	Limit	Frequency	Averaging Period	Method Sampling and Analysis
	TDS[2]	mg/L	-			
	WAD-CN		-			
	Arsenic (As)		-			
	Cadmium (Cd)		-			
	Chromium (Cr)		-			
	Cobalt (Co)		-			
	Copper (Cu)		-			
	Iron (Fe)		-			
	Lead (Pb)		-			
	Nickel (Ni)		-			
	Selenium (Se)		-			
	Zinc (Zn)		-			

Note 1: Standing water level shall be determined prior to the collection of other water samples.
Note 2: In-field non-NATA accredited analysis permitted.

20. The works approval holder must record the results of all monitoring activity required by condition 19.

Notification

21. The works approval holder must immediately after becoming aware of any breach of any limit specified in the works approval, notify the CEO in writing of that non-compliance, and include in that notification the following information:

(a) which condition was not complied with and a copy of the corresponding data and previous trigger level data (if applicable);

(b) the time and date when the non-compliance occurred;

(c) if any environmental impact has occurred as a result of the non-compliance and if so, what that impact is and where the impact occurred;

(d) the details and result of any investigation undertaken into the cause of the non-compliance;

(e) what action(s) has been taken and the date on which it was taken to prevent the non-compliance occurring again; and

(f) what action(s) will be taken and the date by which it will be taken to prevent the non-compliance occurring again.

Compliance reporting

22. The works approval holder must submit to the CEO a report on the time limited operations within 60 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.

23. The works approval holder must ensure the report required by condition 22 includes the following:

(a) a summary of the time limited operations, including timeframes and amount of tailings deposited;

(b) a summary of tailings monitoring and ambient groundwater monitoring results obtained during time limited operations under condition 16 Table 6 and condition 19 Table 8;

(c) a summary of environmental performance of all infrastructure as constructed or installed (as applicable), which includes records detailing the:

(i) tailings deposited; and

(ii) tailings density (solid vs water content);

(d) a review of operational performance and compliance against the conditions of the works approval and the Environmental Commissioning Report; 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 water timeframes will be required to implement those measures.

Records and reporting (general)

24. 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.

25. 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 Table 1;

(b) any maintenance of infrastructure that is performed in the course of complying with condition 1 Table 1;

(c) monitoring programmes undertaken in accordance with condition 16 Table 6 and condition 19 Table 8; and

(d) complaints received under condition 24.

26. The books specified under condition 25 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 9 have the meanings defined.

Table 9: Definitions

Term	Definition
ACN	Australian company number.
Australian Standard Geotechnical Site Investigations AS1726	means the Australian Standard AS1762 *Geotechnical site investigations,* as amended from time to time.
AS/NZS 5667.1	means the Australian Standard AS/NZS 5667.1 Water Quality – Sampling – Guidance of the Design of sampling programs, sampling techniques and the preservation and handling of samples.
AS/NZS 5667.10	means the Australian Standard AS/NZS 5667.10 Water Quality – Sampling – Guidance on sampling of waste waters.
AS/NZS 5667.11	means the Australian Standard AS/NZS 5667.11 Water Quality – Sampling – Guidance on sampling of groundwaters.
ASTM D5092/D5092M-16	means the ASTM international standard for *Standard practice for design and installation of groundwater monitoring wells (Designation: ASTM D5092/D5092M-16),* 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 *Environmental Protection Act 1986* Locked Bag 10 Joondalup DC WA 6919 info@dwer.wa.gov.au
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.
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	means a report to satisfy the CEO that the conditioned infrastructure and/or equipment has been constructed and/or installed in accordance

Term	Definition
Compliance Report	with the works approval.
EP Act	*Environmental Protection Act 1986* (WA).
EP Regulations	*Environmental Protection Regulations 1987* (WA).
freeboard	means the distance between the maximum effluent surface elevations and the top of retaining banks or structure.
IPTSF	In-pit tailings storage facility.
mbgl	means metres below ground level.
µS/cm	means Micro Siemens per centimetre.
mg/L	means milligrams per litre.
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.
suitably qualified engineer	means a person who: (a) holds a Bachelor of Engineering degree recognised by the Institute of Engineers; and (b) has a minimum of five years of experience working in the field of engineering; or is otherwise approved in writing by the CEO to act in this capacity.
SWL	means Standing Water Level.
TDS	means Total Dissolved Solids.
TSF	Tailings Storage Facility.
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.
Total freeboard	means a combined operational freeboard and beach freeboard.
WAD-CN	means Weak Acid Dissociable Cyanide.
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: Maps

Premises map

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

Figure 1: Map of the boundary of the prescribed premises

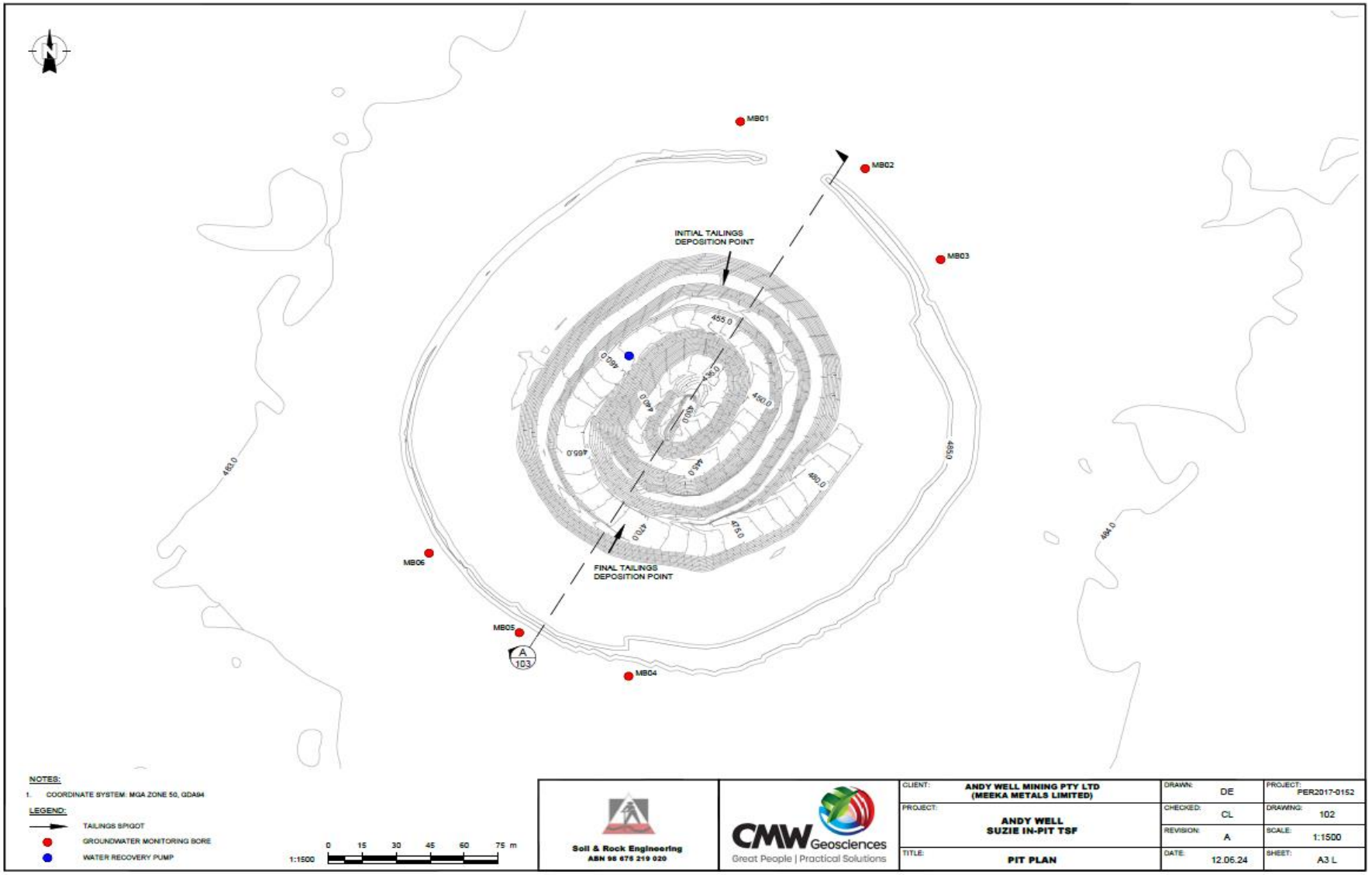

Figure 2: Tailings discharge points and monitoring bore locations

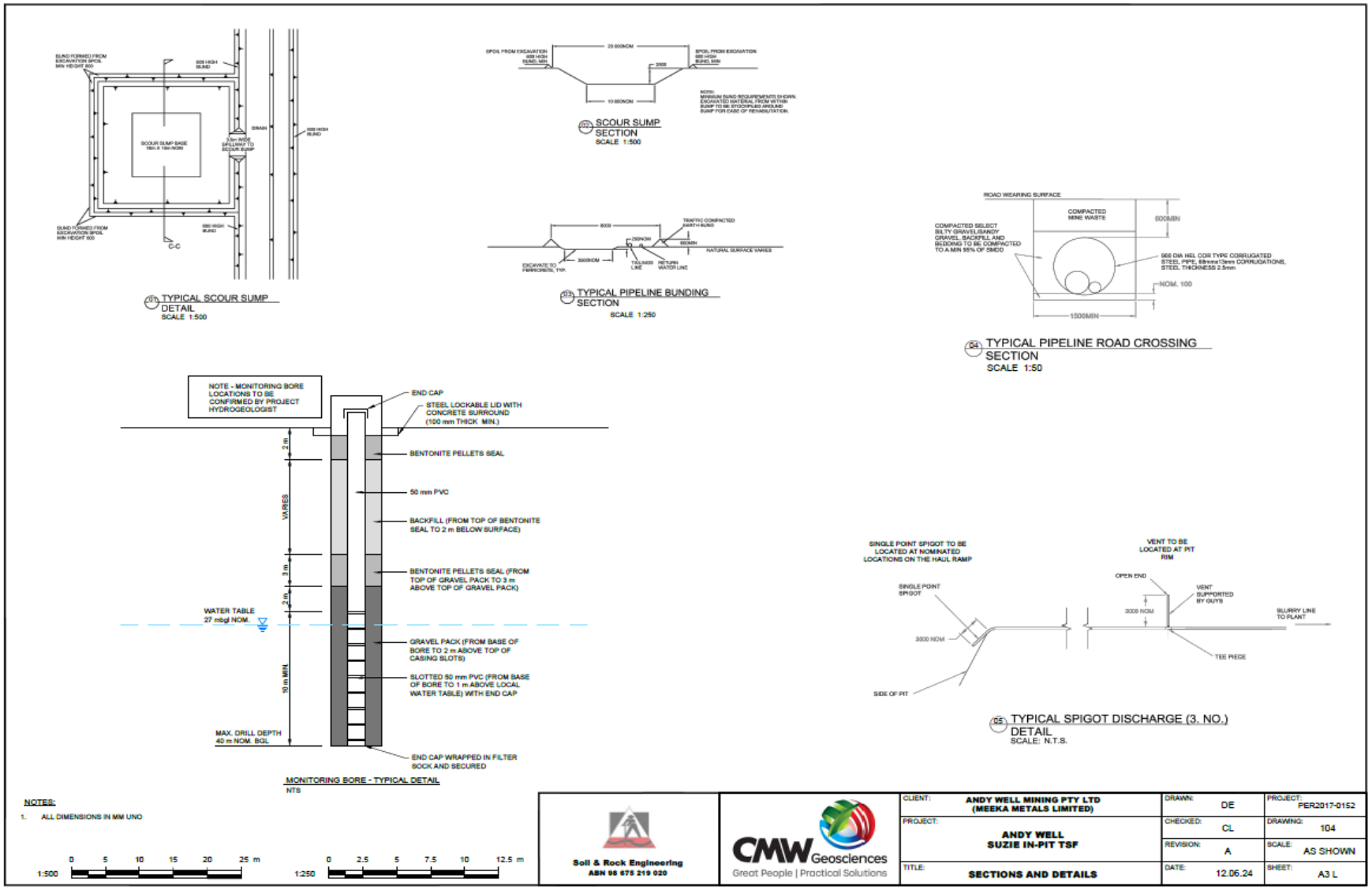

Figure 3: Monitoring bore and tailings discharge infrastructure construction and installation details

Schedule 2

Quality assurance and quality control requirements

The Works Approval holder must adhere to the following field quality assurance and quality control procedures, as specified in Schedule B2 of the National Environmental Protection (Assessment of Site Contamination) Measure 2011 by the National Environmental Council. Requirements are summarised below:

(a) decontamination procedures for the cleaning of tools and sampling equipment before sampling and between samples;

(b) field instrument calibration for instruments used on site;

(c) blind replicate samples and rinsate blanks must be collected in the field and sent to the primary laboratory to determine the precision of the field sampling and laboratory analytical program;

(d) completed field monitoring sheets / sampling logs for each sample collected, showing:

- (i) time of collection;
- (ii) location of collection;
- (iii) initials of sampler;
- (iv) sampling method;
- (v) field analysis results;
- (vi) duplicate type / location (if relevant); and
- (vii) site observations and weather conditions;

(e) chain-of-custody documentation must be completed which details the following information:

- (i) site identification;
- (ii) the sampler;
- (iii) nature of the sample;
- (iv) collection time and date;
- (v) analyses to be performed;
- (vi) sample preservation method;
- (vii) departure time from site;
- (viii) dispatch courier(s); and
- (ix) arrival time at the laboratory