



Works approval number	W6391/2020/1
Works approval holder	Simcoa Operations Pty Ltd
ACN	009 064 653
Registered business address	973 Marriott Road WELLESLEY WA 6000
DWER file number	DER2020/000164
Duration	07/08/2020 to 06/08/2025
Date of issue	07/08/2020
Date of amendment	6/08/2021
Premises details	Moorra Quartzite Mine M70/191, G70/91, G70/92, G70/93, M70/1292 MOORA, WA 6512. As defined by the coordinates in Schedule 2

Prescribed premises category description (Schedule 1, <i>Environmental Protection Regulations 1987</i>)	Assessed production capacity
Category 6: Mine dewatering: premises on which water is extracted and discharged into the environment to allow mining of ore.	250,000 tonnes per year

This works approval is granted to the works approval holder, subject to the attached conditions, on 06 August 2021, by:

Alana Kidd

**MANAGER, RESOURCE INDUSTRIES
REGULATORY SERVICES**

Officer delegated under section 20 of the Environmental Protection Act 1986

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 means the version of the standard, guideline or code of practice in force at the time of granting of this works approval and includes any amendments to the standard, guideline or code of practice which may occur from time to time during the course of the works approval;
- (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/ equipment	Design and construction / installation requirements	Infrastructure location
1.	Dewatering pipeline	<ul style="list-style-type: none">• Pipeline from the pumps to the tank DN140 SDR17 (PE100, PN8)• Pipeline from tank to creek – two DN140 SDR17 (PE100, PN8) in parallel.• Pipelines to be routed along a cleared road;• Above ground pipelines located within windrows/bunding that are able to contain spills between inspections; and• Pipelines buried at road/track crossings.	Approximately as shown in the Figure 2 of Schedule 1. Pipeline alignment may vary slightly.
2.	Water holding tank	<ul style="list-style-type: none">• Has a maximum capacity of 400,000 L; and• Tank to be fitted with a bottom outlet to allow for transfer of dewatering water to a standpipe for reuse.	Located on the Eastern Ridge as shown in figure 2 of Schedule 1.
3.	Standpipe	<ul style="list-style-type: none">• Standpipe to be a portable skid type, of steel construction;• Standpipe to include an isolation valve and water meter; and• Standpipe to be placed on an area of compacted gravel without bunding.	Located on mine access road as shown in figure 2 of Schedule 1.

	Infrastructure/ equipment	Design and construction / installation requirements	Infrastructure location
4.	Dewatering discharge point	Rock pitching installed at pipe outlet to dissipate energy from the discharge.	Kyaka Brook Creek as shown in Figure 2 of Schedule 1.
5.	Flow meter	Installed to measure volumes of dewatering water discharged.	Located on each dewatering pump, discharge to onsite dam, standpipe and Kyaka Brook discharge point.
6.	Pumps	Electro-submersible Grundfos SP95-5 pumps (or similar) to be installed in Main and West Pits.	As shown in figure 2 of Schedule 1.
7.	Generator	Portable diesel fuel generators with auto-start capability.	As shown in figure 2 of Schedule 1.

2. The works approval holder must not depart from the requirements specified in Table 1 except:
- (a) where such departure does not increase risks to public health, public amenity or the environment; and
 - (b) all other conditions in this works approval are still satisfied.

Compliance reporting

3. The works approval holder must within 30 calendar days of the items of infrastructure required by condition 1 for each stage being constructed:
- (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.
4. The Environmental Compliance Report required by condition 3, 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) where a departure from the requirements specified in Table 1 occurs and is of a type allowed by Condition 2, the works approval holder must provide to the CEO a description of, and explanation for the departure;
 - (c) as constructed plans and a detailed site plan for each item of infrastructure or component of infrastructure specified in condition 1; and
 - (d) be signed by a person authorised to represent the works approval holder and contains the printed name and position of that person.

Time limited operations phase

Commencement and duration

5. The works approval holder may only commence time limited operations for an item of infrastructure identified in condition 1 where the Environmental Compliance Report as required by condition 3 has been submitted by the works approval holder for that item of infrastructure.
6. The works approval holder may conduct time limited operations for an item of infrastructure specified in condition 1 (as applicable):
 - (a) for a period not exceeding 180 calendar days from the day the works approval holder meets the requirements of condition 5 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* and only where this occurs prior to 180 calendar days from the day the works approval holder meets the requirements of condition 5 for that item of infrastructure.

Time limited operations requirements and emission limits

7. During time limited operations, the works approval holder must ensure that the emissions specified in Table 2, are discharged only from the corresponding discharge point, for the purpose described, and only at the corresponding discharge point locations.

Table 2: Authorised discharge points

Emission	Discharge point	Purpose	Discharge point location
Dewater from East Pit and West Pit	Onsite water storage dam	Onsite use for ore beneficiation, dust suppression and road watering.	Figure 2 Schedule 1.
	Standpipe	Reuse offsite by local pastoralists and the Shire of Moora.	Figure 2 Schedule 1.
	Kyaka Brook Creek	Surplus dewater discharged into Kyaka Brook Creek.	Figure 2 Schedule 1.

8. During time limited operations, the works approval holder must ensure that the premises infrastructure and equipment listed in Condition 1 and shown in Schedule 1 is maintained and operated in accordance with the corresponding operational requirements set out in Table 3.

Table 3: Infrastructure and equipment requirements during time limited operations

	Site infrastructure and equipment	Operational requirements
1.	Dewater pipelines and pump infrastructure	<ul style="list-style-type: none"> A daily inspection is required for visual integrity and leak detection when in operation; and A written log is required to be maintained for each inspection, with the record of each inspection signed by the person undertaking the inspection.
2.	Kyaka Brook Creek discharge	<ul style="list-style-type: none"> A daily visual inspection is required to monitor for erosion and changes to creek morphology when in operation; A written log is required to be maintained for each inspection, with the record of each inspection signed by the person undertaking the inspection; Dewatering water should only be discharged to Kyaka Brook when surplus to mine, shire and pastoral usage; and Discharge to Kyaka Brook must be undertaken to minimise mounding of the aquifer. Discharge to Kyaka Brook Creek must not exceed 122,000 tonnes per annum.

9. The works approval holder shall immediately recover, or remove and dispose of, spills of mine dewater and environmentally hazardous materials including fuel, oil, or other hydrocarbons, whether inside or outside an engineered containment system.

Monitoring during time limited operations

10. The works approval holder must monitor emissions during time limited operations in accordance with Table 4.

Table 4: Emissions and discharge monitoring during time limited operations

Monitoring location	Parameters	Interval
Production Bores BH1, BH2, In-pit sumps	Cumulative flow meter readings (litres)	Monthly (end of every month)
	Field parameters (pH and EC)	Monthly (end of every month)
	Laboratory parameters <ul style="list-style-type: none"> Electrical conductivity (EC) pH Total dissolved solids (TDS) Calcium (Ca) Sodium (Na) Magnesium Mg) Potassium (K) Sulphate (SO₄) 	Biannually (June and December)

	<ul style="list-style-type: none"> • Chloride (Cl) • Nitrate (NO₃ as NO₃) • Bicarbonate (HCO₃) • Carbonate (CO₃) • Aluminium (Al) • Arsenic (As) • Cadmium (Cd) • Chromium (Cr) • Copper (Cu) • Iron (Fe) • Mercury (Hg) • Manganese (Mn) • Nickel (Ni) • Lead (Pb) • Zinc (Zn) • Silica (SiO₂) • Total Nitrogen (TN) • Total recoverable hydrocarbons (C₆-C₉) • Total recoverable hydrocarbons (C₁₀-C₁₄) • Total recoverable hydrocarbons (C₁₅-C₂₈) • Total recoverable hydrocarbons (C₂₉-C₃₆) 	
Monitoring Bores MB01, MB02, MB03	Water levels (mbgl and m AHD)	Monthly (end of every month)
	EC profiling	Quarterly (March, June, September and December)
Exploration holes M1099, M1735, M1838, M1961	Water levels (mbgl and m AHD)	Quarterly (March, June, September and December)
Discharge location (Kyaka Brook Creek)	Field parameters (pH and EC)	Monthly (when in operation)
	Laboratory parameters <ul style="list-style-type: none"> • Electrical conductivity (EC) • pH • Total dissolved solids (TDS) • Calcium (Ca) • Sodium (Na) • Magnesium (Mg) • Potassium (K) • Sulphate (SO₄) • Chloride (Cl) • Nitrate (NO₃ as NO₃) • Bicarbonate (HCO₃) • Carbonate (CO₃) 	Biannually (June and December when in operation)

	<ul style="list-style-type: none"> • Aluminium (Al) • Arsenic (As) • Cadmium (Cd) • Chromium (Cr) • Copper (Cu) • Iron (Fe) • Mercury (Hg) • Manganese (Mn) • Nickel (Ni) • Lead (Pb) • Zinc (Zn) • Silica (SiO₂) • Total Nitrogen (TN) • Total recoverable hydrocarbons (C₆-C₉) • Total recoverable hydrocarbons (C₁₀-C₁₄) • Total recoverable hydrocarbons (C₁₅-C₂₈) • Total recoverable hydrocarbons (C₂₉-C₃₆) 	
Rain Gauging Station (location as shown in Figure 2)	Rainfall (mm)	Daily

11. The works approval holder must record the results of all monitoring activity undertaken in accordance with condition 10.
12. The works approval holder must ensure that:
 - (a) monitoring is undertaken in each monthly period such that there are at least 15 days in between the days on which samples are taken in successive months;
 - (b) monitoring is undertaken in each quarterly period such that there are at least 45 days in between the days on which samples are taken in successive quarters;

Compliance reporting

13. The works approval holder must submit to the CEO a report on the time limited operations within 30 calendar days of the completion date of time limited operations.
14. The works approval holder must ensure the report required by condition 13 includes the following:
 - (a) a summary of the time limited operations, including timeframes and volume (kilolitres) of water pumped;
 - (b) a summary of monitoring results obtained during time limited operations under condition 10.
 - (c) a review of performance and compliance against the conditions of the works approval; and
 - (d) where the conditions of this works approval have not been met, what measures the works approval holder will take to meet them, and what timeframes will be required to implement those measures.

Records and reporting (general)

15. 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.
16. 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) any maintenance of infrastructure that is performed in the course of complying with condition 8;
 - (c) monitoring programmes undertaken in accordance with condition 10; and
 - (d) complaints received under condition 15.
17. The books specified under condition 16 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 5 have the meanings defined.

Table 5: Definitions

Term	Definition
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
Calendar days	any period of 24 hours starting from midnight.
condition	a condition to which this works approval is subject under section 62 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.
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 Compliance Report	means a report to satisfy the CEO that the conditioned infrastructure has been constructed in accordance with the works approval.
EP Act	<i>Environmental Protection Act 1986</i> (WA).
EP Regulations	<i>Environmental Protection Regulations 1987</i> (WA).
Monthly	means a one-month period commencing from the first day of a month until the last day of that same month.
premises	the premises to which this licence applies, as specified at the front of this licence and as shown on the premises map (Figure 2) in Schedule 1 to this works approval.
prescribed premises	has the same meaning given to that term under the EP Act.
quarterly period	means a three-month period commencing from 1 July, 1 October, 1 January or 1 April of each year.
Six monthly period	means a six-month period commencing from 1 July or 1 January of each year.

Term	Definition
Suitably Qualified Engineer	means a person who: (a) holds a Bachelor of Engineering recognised by the Institute of Engineers; and (b) has a minimum of at least three years of experience working in mining, structural or civil engineering.
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.
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

Figure 1: Map of the prescribed premises boundary.

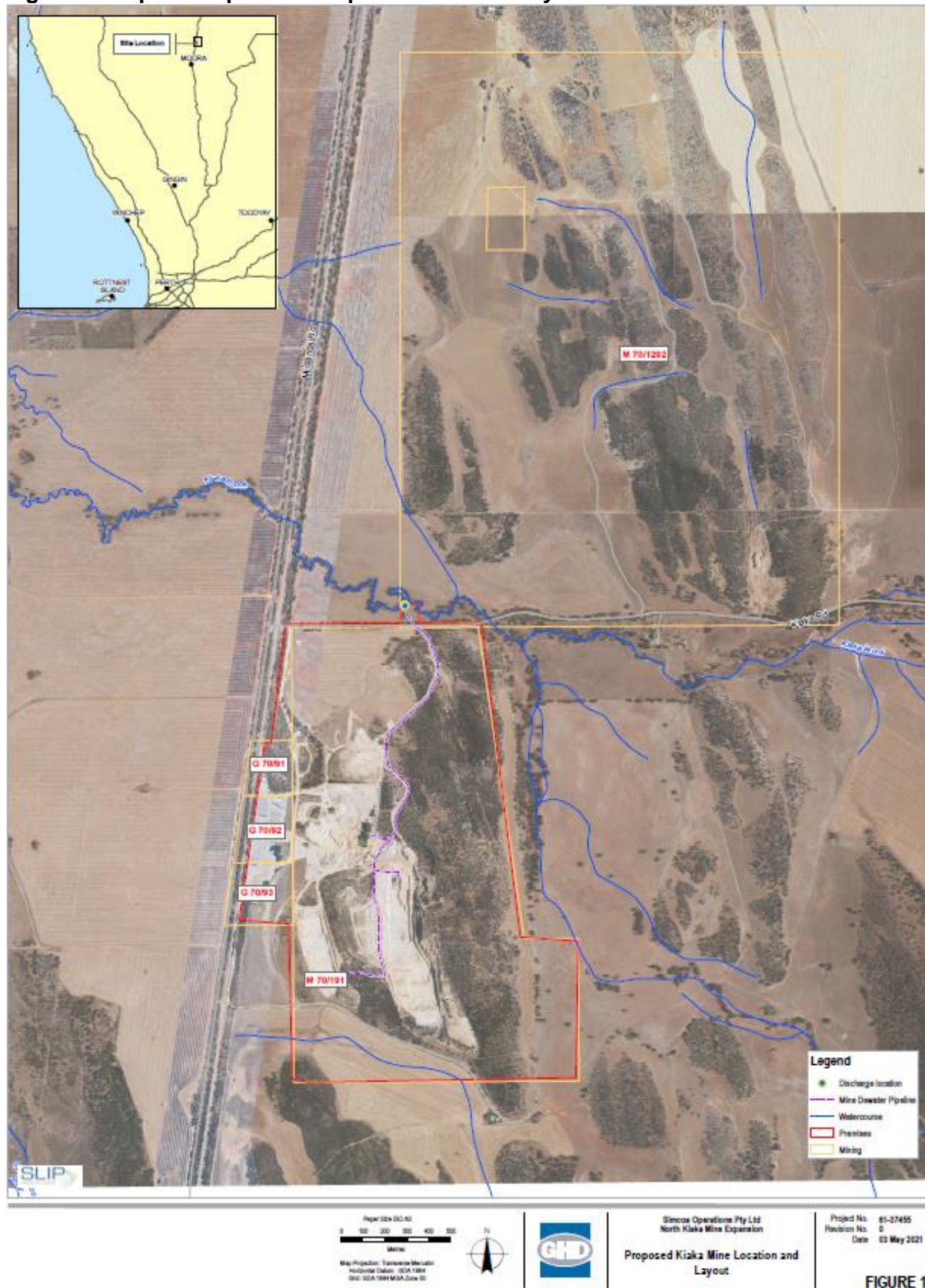
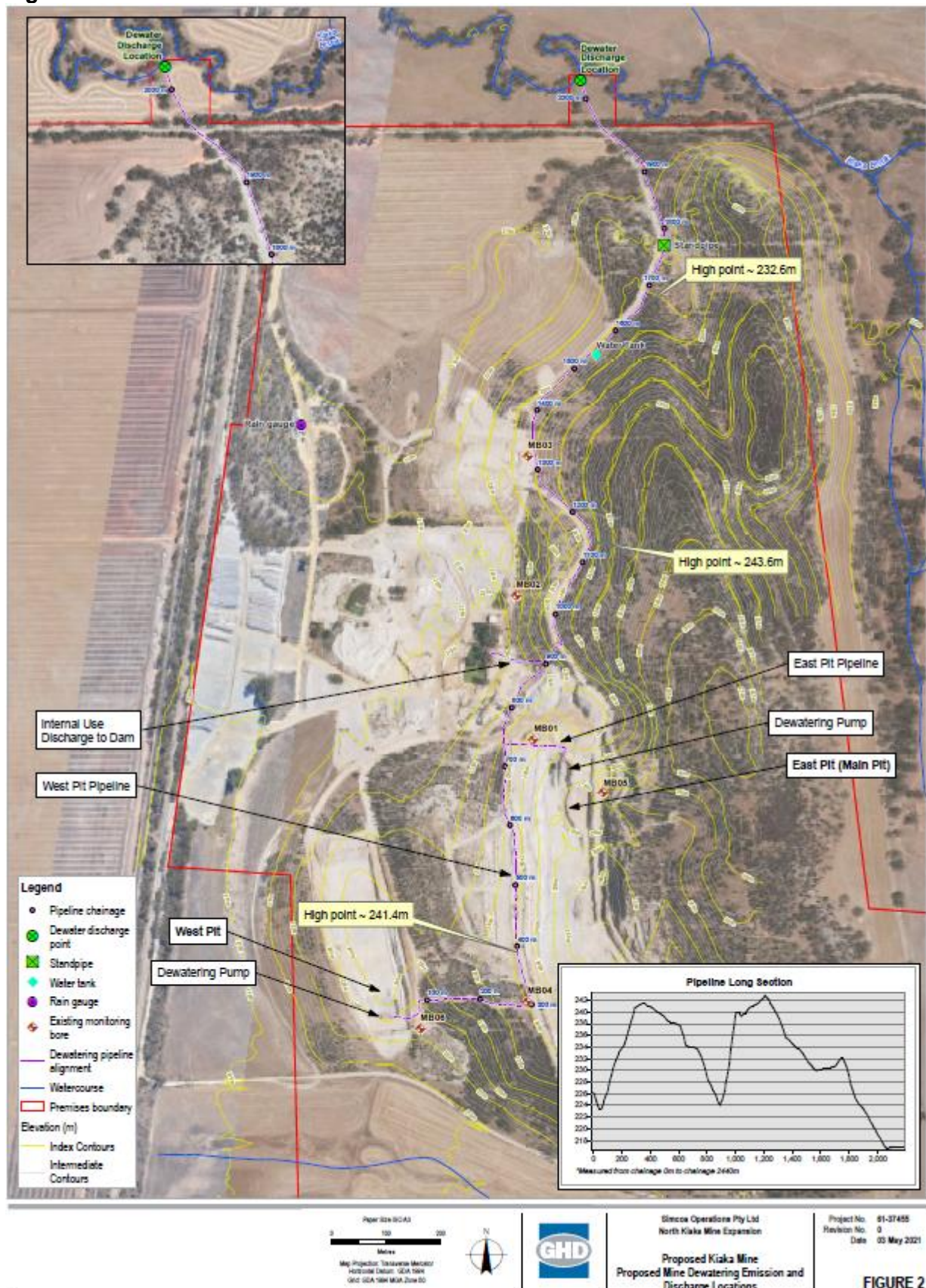


Figure 2: Site Plan



Schedule 2: Co-ordinates

Table 6: Prescribed premises boundary co-ordinates

GDA 1994 MGA Zone 50	
Easting (X)	Northing (Y)
407894.98	6624782.62
408104.53	6623363.81
408351.6	6623364.97
408354.7	6622715.1
407055.59	6622709.12
407052.17	6623425.81
406739.25	6623424.35
406858.16	6624265.82
407048.21	6624266.7
407045.19	6624778.81
407539.98	6624781.03
407539.98	6624891.28
407625.79	6624891.28
407625.25	6624781.5