Licence number L8579/2011/2

Licence holder AngloGold Ashanti Australia Limited

**ACN** 008 737 424

Registered business Level 10, 140 St Georges Terrace

address PERTH WA 6000

**DWER file number** 2012/006902-1

**Licence Duration** 21/07/2014 to 20/07/2029

**Date of issue** 10/07/2014

Date of amendment 12/05/2023

Premises details Sunrise Dam Gold Mine

Via Bindah Road

LAVERTON WA 6440

Mining tenements M39/1116 and L38/176

As defined in Schedule 1

Prescribed premises category description (Schedule 1, Environmental Protection Regulations 1987)	Assessed production / design capacity
Category 05: Processing or beneficiation of metallic or non-metallic ore	5 500 000 tonnes per year
Category 06: Mine dewatering	5 000 000 tonnes per year
Category 52: Electric power generation	48 mega watt
Category 54: Sewage facility	250 m³ per day
Category 57: Used tyre storage (general)	1 000 tyres
Category 64: Class II putrescible landfill site	10 000 tonnes per year

This licence is granted to the Licence Holder, subject to the attached conditions, on 12 May 2023, by:

#### Alana Kidd

#### **MANAGER RESOURCE INDUSTRIES**

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

# **Licence History**

The licences and works approvals issued for the Premises for the 5 licences prior to issue of this Licence are:

Reference number	Date	Summary of changes
L6824/1996/7	17/02/2003	Licence re-issue
L6824/1996/8	07/02/2004	Licence re-issue
L6824/1996/9	07/02/2005	Licence re-issue
W4454/2008/1	06/10/2008	Approval for the expansion of CTD TSF
L6824/1996/10	06/02/2009	Licence re-issue
L8579/2011/1	26/07/2011	New licence after previous licence ceased to exist
W5227/2013/1	10/09/2012	Approval for sewage facility evaporation ponds
W5486/2013/1	14/10/2013	Approval for stage 9 of CTD TSF
W5564/2013/1	27/01/2014	Approval for construction of stormwater and drainage channel
W5578/2014/1	03/03/2014	Approval for the expansion of CTD TSF
L8579/2011/2	10/07/2014	Licence re-issue and conversion to new format
L8579/2011/2	10/09/2015	Amendment to increase capacity of categories 5 and 52 and authorise construction of additional gas generators.
L8579/2011/2	29/04/2016	Department initiated amendment in accordance with section 59(1)(k) of the <i>Environmental Protection Act 1986</i> to amend the duration of the licence date month year.
L8579/2011/2	27/02/2017	Amendment to increase capacity of category 52 and authorise construction of 3 additional gas generators. Change to premises boundary and some administrative changes.
L8579/2011/2	12/09/2017	Amendment notice 1- on 6 July 2017 the Licence Holder requested to the Stage 11 perimeter embankment raise between 07m and 2.5m to the CTD TSF (Centrally Thickened Discharge Tailings Storage Facility).
L8579/2011/2	13/09/2018	Amendment notice 2 - on 21 March 2018 the Licence Holder requested to construct and operate a new sewage evaporation pond. There are currently 7 evaporation ponds utilised at the Premises. Five of these ponds are lined, two are unlined and are only used when the lined

		ponds are at capacity. Also increase the capacity sewage plant throughput from 190 m³ per day to 250 m³ per day.
L8579/2011/2	24/10/2018	Amendment notice 3 - on 21 June 2018 the Licence Holder requested an amendment to increase the category 5 production rate of the existing processing plant by 1 Mtpa to 5.5Mtpa. No changes to the infrastructure are planned nor changes to the existing tailings discharge method and rates.
L8579/2011/2	12/05/2023	Licence amendment to consolidate previous amendment notices, to increase the throughput for Category 64 and to make a number of minor/administrative changes to licence conditions.

## Interpretation

In this licence:

- (a) the words 'including', 'includes' and 'include' in conditions mean "including but not limited to", and similar, as appropriate;
- (b) where any word or phrase is given a defined meaning, any other part of speech or other grammatical form of that word or phrase has a corresponding meaning;
- (c) where tables are used in a condition, each row in a table constitutes a separate condition;
- (d) any reference to an Australian or other standard, guideline, or code of practice in this licence:
  - (i) if dated, refers to that particular version; and
  - (ii) if not dated, refers to the latest version and therefore may be subject to change over time;
- (e) unless specified otherwise, any reference to a section of an Act refers to that section of the EP Act; and
- (f) unless specified otherwise, all definitions are in accordance with the EP Act.

**NOTE:** This licence requires specific conditions to be met but does not provide any implied authorisation for other emissions, discharges, or activities not specified in this licence.

## **Licence conditions**

#### General

- 1. The Licence Holder shall immediately recover, or remove and dispose of spills of environmentally hazardous materials which occur outside an engineered containment system.
- 2. The Licence Holder shall ensure that where wastes produced on the Premises are not taken off-site for lawful use or disposal, they are managed in accordance with the requirements in Table 1.

Table 1: Management of waste			
Waste type	Management strategy	Requirements	
Clean fill <sup>3</sup>		All waste types	
Type 1 inert waste <sup>3</sup>		Disposal of waste by landfilling shall only take place within the landfill area shown on the Premises map in Schedule 1.	
Putrescible waste <sup>3</sup>	Receipt, handling	The separation distance between the base	
Contaminated solid waste	and disposal of waste by landfilling	of the landfill and the highest groundwater level shall be not less than 3 metres. No waste shall be temporarily stored or	
Inert waste Type 2 (tyres and rubber)		landfilled within 35 metres from the boundary of the Premises.	
(tyres and russer)		Must meet the acceptance criteria for a Class II <sup>3</sup> landfill	
	Storage	Not more than 1000 tyres shall be stored at the premises at any one time;	
		Used tyre stacks shall not exceed 100 m <sup>2</sup> in area and 4 metres in height;	
		Used tyres must be stacked on their side walls or if stored on their treads, area baled with a securing device made from a noncombustible material;	
Sewage	Biological and physical treatment	250 m³ per day	
Tailings	Thickening and containment in TSF	Disposal of waste shall only take place within the TSF labelled CTD as shown on the Premises map in Schedule 1.	

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

Note 2: Additional requirements for the acceptance and landfilling of controlled waste (including asbestos and tyres) are set out in the *Environmental Protection (Controlled Waste) Regulations* 2004.

Note 3: Defined in the Landfill Definitions.

3. The Licence Holder shall ensure that cover is applied and maintained on landfilled wastes in accordance with Table 2 and that sufficient stockpiles of cover are maintained on site at all times.

Table 2: Cover requirements		
Waste type	Cover requirements	
Putrescible wastes and Inert Wastes Type 2	To be covered fortnightly with sufficient quantities of Type 1 inert waste, clean fill or other appropriate cover material to prevent the spread of fire and harbouring of disease vectors	
Inert waste type 1	No cover required	

- 4. The Licence Holder shall take all reasonable and practical measures to ensure that no windblown waste escapes from the Premises and that wind-blown waste is collected on at least a weekly basis and returned to the tipping area.
- **5.** The Licence Holder shall ensure that all pipelines containing environmentally hazardous substances are either:
  - (a) equipped with telemetry systems and pressure sensors along pipelines to allow the detection of leaks and failures;
  - (b) equipped with automatic cut-outs in the event of a pipe failure; or
  - (c) provided with secondary containment sufficient to contain any spill for a period equal to the time between inspections.
- **6.** The Licence Holder shall ensure that any saline dewatering effluent shall only be discharged in the following manner:
  - (a) used for dust suppression in a manner that minimises damage to surrounding vegetation; or
  - (b) discharged to Lake Carey in accordance with the conditions in section 2 of this Licence.
- 7. The Licence Holder shall ensure that tailings, decant water and effluent are only discharged into containment cells or ponds with the relevant infrastructure requirements and at the locations specified in Table 3.

Table 3: Containment infrastructure		
Storage vessel or compound	Material	Requirements
WWTP evaporation ponds one, two, three, six, seven and eight	Primary treated sewage	Clay lined or equivalent
WWTP over-flow ponds four and five	Over-flow of primary treated sewage from evaporation ponds	None specified

Process water pond	CTD TSF return water, borefield and mine dewater	Lined with at least 0.5 m of clay with a permeability of <10-9 m/s or equivalent
Water storage ponds/ dewatering ponds	Mine dewater	None specified
CTD TSF	Tailings	Lined with clay to achieve a permeability of at least <10 <sup>-7</sup> m/s or equivalent

- 8. The Licence Holder shall manage all containment infrastructure in Table 3 such that a minimum top of embankment freeboard of 300 mm or a 1 in 100 year/72 hour storm event (whichever is greater) is maintained.
- **9.** The Licence Holder shall manage TSFs such that:
  - a seepage collection and recovery system is provided and used to capture seepage from the TSF;
  - (b) seepage is returned to the TSF or re-used in process; and
  - (c) the stormwater storage pond on the TSF is managed so as to provide capacity for a 1 in 100 year, 72 hour rainfall event.
- **10.** The Licence Holder shall:
  - (a) undertake inspections as detailed in Table 4;
  - (b) where any inspection identifies that an appropriate level of environmental protection is not being maintained, take corrective action to mitigate adverse environmental consequences as soon as practicable;
  - (c) maintain a digital or written log of all inspections undertaken;
  - (d) twice daily inspections to be undertaken within a 24 hour period up to 16 hours apart; and
  - (e) daily inspections to be undertaken within a 24 hour period.

Table 4: Inspection of infrastructure			
Scope of inspection	Type of inspection	Frequency of inspection	
Tailings pipelines	Visual integrity	Twice daily	
Return water lines	Visual integrity	Twice daily	
Embankment freeboard	Visual to confirm required freeboard capacity is available	Daily	
Tailings deposition	Visual assessment of beaching	Daily	
Decant pond and	Visual assessment of pond		
stormwater storage	size and position		
pond		Daily	
Water storage ponds/ dewatering ponds	Visual assessment of freeboard	Daily	

- **11.** The Licence Holder must not depart from the specifications in Column 1 and 2 for the infrastructure in each row of Table 5 except:
  - (a) where such departure is minor in nature and does not materially change or affect the infrastructure; or
  - (b) where such departure improves the functionality of the infrastructure and does not increase risks to public health, public amenity or the environment; and in accordance with all other conditions in this Licence.

Table 5: Works specifications		
Column 1	Column 2	
Infrastructure	Specifications (Design and Construction)	
Sewage evaporation pond eight	HDPE lined to a permeability of 10-9 m/s or less.  Integrity of liner to be tested at completion of construction.  Pond will have storage capacity of 10,400 m³ allowing capacity to store a 1 in 100 year, 72 hour rainfall event.  Located to the southwest of existing ponds as depicted in Figure 1 of the Licence.	

#### **Emissions**

**12.** The Licence Holder shall ensure that where waste is emitted to air from the emission points in Table 6 it is done so in accordance with the conditions of this Licence.

Table 6: Emission points to air			
Emission point reference	Emission Point	Emission point height (m)	Source, including any abatement
A Station – 9 engines	Diesel engine exhaust -	10	Cummins KTA50
Generator #1	stack		G3
Generator #2			
Generator #3			
Generator #4			
Generator #5			
Generator #6			
Generator #7			
Generator #8			
Generator #9			

Table 6: Emission poin	ts to air		
Emission point reference	Emission Point	Emission point height (m)	Source, including any abatement
B Station – 9 engines Generator #10 Generator #11 Generator #12 Generator #13 Generator #14 Generator #15 Generator #16 Generator #17 Generator #18	Gas engine exhaust stack	10	MWM TCG2020 V16K
C Station – 2 engines Generator #22 Generator #23	Diesel engine exhaust – stack	10	TBD620 V16 G3 (x2)
C Station – 4 engines Generator #21 Generator #24 Generator #25 Generator #26	Gas engine exhaust – stack	10	MWM TCG2020 V16K
C Station - 2 engines Generator #19 Generator #20	Gas engine exhaust - stack	13	Cat CG260 - 16
D Station – 3 engines Generator #27 Generator #28 Generator #29	Gas engine exhaust – stack	13	Cat CG260 - 16
Carbon Regen Kiln	Carbon regeneration kiln stack	19	Carbon regeneration kiln
Gold room	Gold furnace stack	8	Gold furnace

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

Table 7: Emission points to surface water		
Emission point reference	Description	Source including abatement
Lake Carey discharge site	Mine dewater discharge from the open pit and underground workings	Mine dewater

### **Monitoring**

- **14.** The Licence Holder shall ensure that:
  - (a) all water samples are collected and preserved in accordance with AS/NZS 5667.1;
  - (b) all surface water sampling is conducted in accordance with AS/NZS 5667.4, AS/NZS 5667.6 or AS/NZS 5667.9 as relevant;
  - (c) all groundwater sampling is conducted in accordance with AS/NZS 5667.11; and
  - (d) all laboratory samples are submitted to and tested by a laboratory with current NATA accreditation for the parameters being measured.
- **15.** The Licence Holder shall ensure that:
  - (a) monthly monitoring is undertaken at least 15 days apart;
  - (b) quarterly monitoring is undertaken at least 45 days apart; and
  - (c) annual monitoring is undertaken at least 9 months apart.
- 16. The Licence Holder shall ensure that all monitoring equipment used on the Premises to comply with the conditions of this Licence is calibrated in accordance with the manufacturer's specifications and the requirements of the Licence.
- 17. The Licence Holder shall, where the requirements for calibration cannot be practicably met, or a discrepancy exists in the interpretation of the requirements, bring these issues to the attention of the CEO accompanied with a report comprising details of any modifications to the methods.
- **18.** The Licence Holder shall undertake the monitoring in 8 according to the specifications in that table.

Table 8: Monitoring of point source emissions to surface water			
Emission point reference	Parameter	Units	Frequency
Water from the mine dewatering program discharged to Lake Carey	Volume	tonnes	Monthly
	рН	-	Quarterly
	Total dissolved solids (TDS), sodium, potassium, calcium, magnesium, chloride, carbonate, bicarbonate, sulfate, nitrate, iron, manganese, strontium	mg/L	

**19.** The Licence Holder shall undertake the monitoring in Table 9 according to the specifications in that table.

Table 9: Process monitoring				
Process description	Parameter	Units	Frequency	Method
Tailings deposition	Volumes of tailings deposited into the TSF	m <sup>3</sup>	Monthly	None specified
	Volumes of water recovered from the TSF	m <sup>3</sup>	Monthly	
	Volumes of seepage recovered	m³	Monthly	

**20.** The Licence Holder shall undertake the monitoring in Table 10 according to the specifications in that table.

Table 10: Monitoring of ambient groundwater quality				
Monitoring point reference and location	Parameter	Units	Averaging period	Frequency
CTD Monitoring bores:	рН	-	Spot	Annually
CTDMB2, CTDMB2A,	SWL	m(AHD)	sample	
CTDMB3, CTDMB17, CTDMB11A-B, CTDMB16, CTDMB24A-B, CTDMB29A-B, CTDMB30A-B, CTDMB31A-C, CTDMB33A-C, CTDMB35A-C, CTDMB35A-C, CTDMB35A-C, CTDMB37A-C, CTDMB38A-C, CTDMB39A-C, CTDMB39A-C, CTDMB41A-C	TDS, WAD-CN, sodium, potassium, calcium, magnesium, arsenic, chromium, copper, lead, manganese, nickel, selenium, boron.	mg/L		

- 21. The Licence Holder shall undertake an annual dewatering discharge report to show that mine dewatering discharges to the receiving environment are not having any adverse environmental impact. The assessment shall include:
  - (a) a site description (aerial photographs etc), including plan showing dewatering discharge point(s);
  - (b) topographical and meteorological data;
  - (c) hydrology catchment, rainfall and evaporation, runoff etc;
  - (d) significance of waterbody/watercourse with respect to flora and fauna;
  - (e) waterbody/watercourse levels as a result of rainfall events (with respect to the seasonality of the waterbody/watercourse);
  - (f) dewater discharge (volume and quality) as compared to runoff into the waterbody/watercourse and water quality (salt and metals) of the receiving waters;
  - (g) the area of the waterbody/watercourse likely to be affected by the dewater discharge and effects on waterbody/watercourse levels resulting from the discharge;
  - (h) the potential for water to flow along/out of the receiving waterbody/ watercourse:

- if dewatering occurs to a creek system (permanent or ephemeral), it will also be necessary to consider the consequences of the alteration of the receiving environment, especially with respect to the impacts on vegetation and existing ecosystems;
- (j) water balance estimates including dewater and non-dewater scenarios (with and without consideration of runoff events);
- (k) chemistry of the waterbody/watercourse including dewater and non-dewater scenarios (with and without consideration of runoff events);
- (I) a comparison between each year's monitoring data and that of all available data from previous years since mining commenced; and
- (m) findings (including trends), conclusions and recommendations.
- **22.** The Licence Holder shall undertake an annual assessment of vegetation within the zone of influence of the CTD TSF. The assessment shall:
  - (a) photograph and record the presence and condition of key vegetation features within the zone of influence;
  - (b) compare the results of the assessment against previous years assessments and identify whether any deterioration in the presence and/or quality of vegetation has taken place; and
  - (c) be undertaken by a person suitably qualified in vegetation identification and sampling

#### Information

#### Records

- 23. All information and records required by the Licence shall:
  - (a) be legible;
  - (b) if amended, be amended in such a way that the original and subsequent amendments remain legible or are capable of retrieval;
  - (c) except for records listed in 23 (d) be retained for at least 6 years from the date the records were made or until the expiry of the Licence or any subsequent licence; and
  - (d) for those following records, be retained until the expiry of the Licence and any subsequent licence:
    - (i) off-site environmental effects; or
    - (ii) matters which affect the condition of the land or waters.
- **24.** The Licence Holder must submit to the CEO an Annual Audit Compliance Report indicating the extent to which the Licence Holder has complied with the conditions in this Licence for the annual period.
- 25. The Licence Holder shall implement a complaints management system that as a minimum records the number and details of complaints received concerning the environmental impact of the activities undertaken at the Premises and any action taken in response to the complaint.

#### Reporting

26. The Licence Holder shall submit to the CEO an Annual Environmental Report within 60 calendar days after the end of the annual period. The report shall contain the information listed in Table 11 in the format or form specified in that table.

Table 11: Annual Environmental Report		
Condition or table (if relevant)	Parameter	Format or form
-	Summary of any failure or malfunction of any pollution control equipment and any environmental incidents that have occurred during the annual period and any action taken	None specified
-	Operating hours for diesel generators	As a percentage of the total operating time for all generators
Table 8	Volume, pH, TDS, sodium, potassium, calcium, magnesium, chloride, carbonate, bicarbonate, sulfate, nitrate, iron, manganese, strontium	None specified
Table 9	Process monitoring	None specified
Table 10	Ambient groundwater monitoring	None specified
Condition 21	Annual dewatering discharge report	None specified
Condition 22	Annual vegetation assessment report	None specified
Condition 24	Compliance (Annual Audit Compliance Report - AACR)	A copy of AACR template is available on Department's website
Condition 25	Complaints summary	None specified

- **27.** The Licence Holder shall ensure that the Annual Environmental Report also contains:
  - (a) an assessment of the information contained within the report against previous monitoring results and Licence limits and/or targets; and
  - (b) a list of any original monitoring reports submitted to the Licence Holder from third parties for the annual period and make these reports available on request.
- **28.** The Licence Holder shall submit a compliance document to the CEO, following the construction of the sewage evaporation pond works as specified in Table 5 and prior to commissioning of the same.
- **29.** The compliance document shall:
  - (a) certify that the works were constructed in accordance with the conditions of the Licence;
  - (b) be signed by a person authorised to represent the Licence Holder and contain the printed name and position of that person within the company.

#### **Notification**

**30.** The Licence Holder shall ensure that the parameters listed in Table 12 are notified to the CEO in accordance with the notification requirements of the table.

Table 12: Notification requirements			
Condition or table (if relevant)	Parameter	Notification requirement <sup>1</sup>	Format or form
N/A	Breach of any limit specified in the Licence	Part A: As soon as practicable but no later than 5pm of the next usual working day.	None specified
		Part B: As soon as practicable	
17	Calibration report	As soon as practicable.	None specified

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

# **Definitions**

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

**Table 13: Definitions** 

Term	Definition
ACN	Australian Company Number
Annual Audit Compliance Report (AACR)	means a report submitted in a format approved by the CEO (relevant guidelines and templates may be available on the Department's website).
annual period	a 12 month period commencing from 1 January until 31 December of the same year.
AS 4323.1	means the Australian Standard AS4323.1 Stationary Source Emissions Method 1: Selection of sampling positions.
AS/NZS 5667.1	means the Australian Standard AS/NZS 5667.1 Water Quality – Sampling – Guidance of the Design of sampling programs, sampling techniques and the preservation and handling of samples.
AS/NZS 5667.4	means the Australian Standard AS/NZS 5667.4 Water Quality – Sampling – Guidance on sampling from lakes, natural and manmade.
AS/NZS 5667.6	means the Australian Standard AS/NZS 5667.6 Water Quality – Sampling – Guidance on sampling of rivers and streams.
AS/NZS 5667.11	means the Australian Standard AS/NZS 5667.11 Water Quality – Sampling – Guidance on sampling of groundwaters.
averaging period	means the time over which a limit is measured or a monitoring result is obtained.
books	has the same meaning given to that term under the EP Act.
CEO	means Chief Executive Officer of the Department.
	"submit to / notify the CEO" (or similar), means either:
	Director General Department administering the <i>Environmental Protection Act</i> 1986 Locked Bag 10 Joondalup DC WA 6919
	or:
	info@dwer.wa.gov.au
commissioning	means the process of operation and testing that verifies the works and all relevant systems, plant, machinery and equipment have been

Term	Definition
	installed and are performing in accordance with the design specification set out in the Licence amendment application.
controlled waste	has the definition in Environmental Protection (Controlled Waste) Regulations 2004.
department	means the department established under section 35 of the <i>Public Sector Management Act 1994</i> (WA) and designated as responsible for the administration of the EP Act, which includes Part V Division 3.
discharge	has the same meaning given to that term under the EP Act.
emission	has the same meaning given to that term under the EP Act.
environmentally hazardous material	means material (either solid or liquid raw materials, materials in the process of manufacture, manufactured products, products used in the manufacturing process, by-products and waste) which if discharged into the environment from or within the premises may cause pollution or environmental harm.
EP Act	Environmental Protection Act 1986 (WA)
EP Regulations	Environmental Protection Regulations 1987 (WA)
freeboard	means the distance between the maximum water surface elevations and the top of retaining banks or structures at their lowest point.
hardstand	means a surface with a permeability of 10 <sup>-9</sup> metres/second or less.
licence	refers to this document, which evidences the grant of a licence by the CEO under section 57 of the EP Act, subject to the specified conditions contained within.
licence holder	refers to the occupier of the premises, being the person specified on the front of the licence as the person to whom this licence has been granted.
NATA	means the National Association of Testing Authorities, Australia.
NATA accredited	means in relation to the analysis of a sample that the laboratory is NATA accredited for the specified analysis at the time of the analysis.
Premises	means the area defined in the Premises Map in Schedule 1 and listed as the Premises address on page 1 of this Licence.
premises	refers to the premises to which this licence applies, as specified at the front of this licence and as shown on the premises map in Schedule 1 to this licence.
prescribed premises	has the same meaning given to that term under the EP Act.

Term	Definition
quarterly	means the 4 inclusive periods from 1 January to 31 March, 1 April to 30 June, 1 July to 30 September and 1 October to 31 December.
	30 durie, 1 dury to 30 deptember and 1 detaber to 31 December.
Schedule 1	means Schedule 1 of this Licence unless otherwise stated.
Schedule 2	means Schedule 2 of this Licence unless otherwise stated.
spot sample	means a discrete sample representative at the time and place at which the sample is taken.
TSF	means tailings storage facility.
waste	has the same meaning given to that term under the EP Act.
WWTP	means wastewater treatment plant.

### **END OF CONDITIONS**

# **Schedule 1: Maps**



Figure 1: Premises map

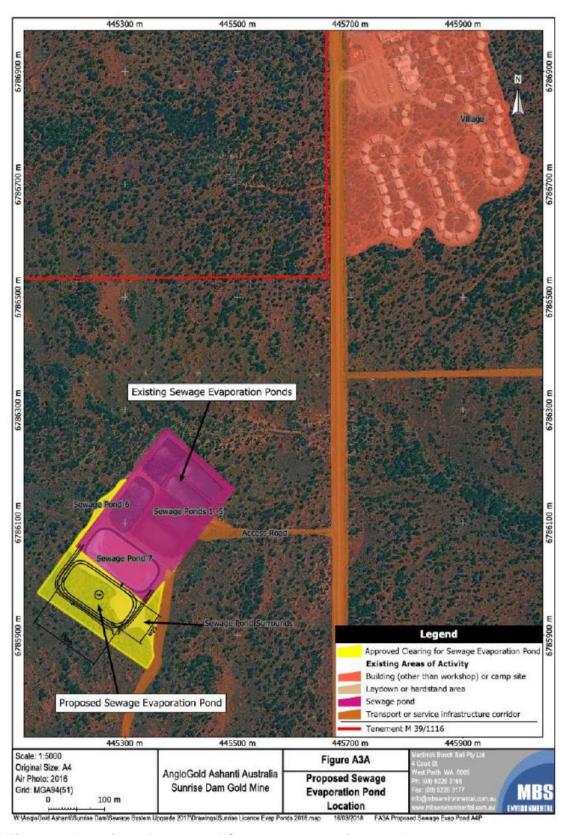


Figure 2: Location of proposed Sewage evaporation pond 8

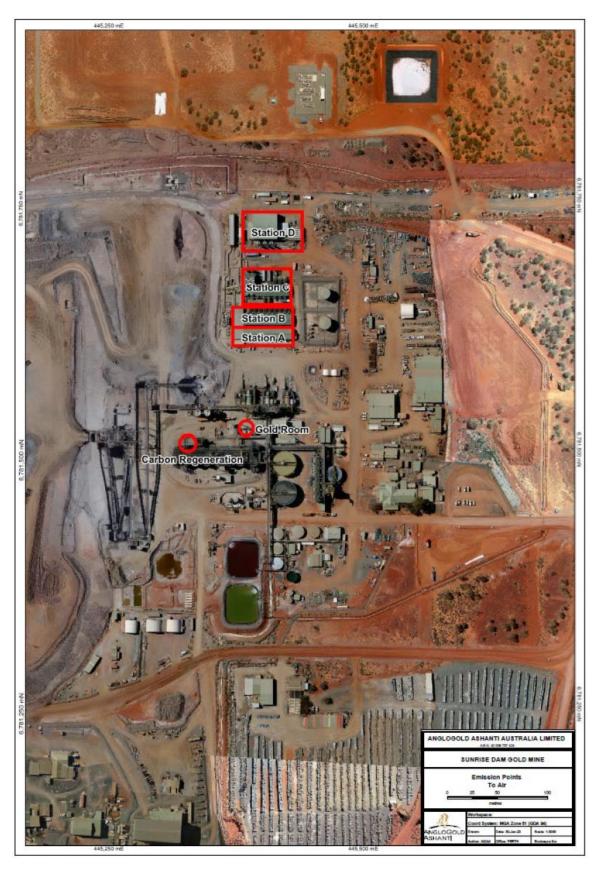


Figure 3: Gold processing air emission points

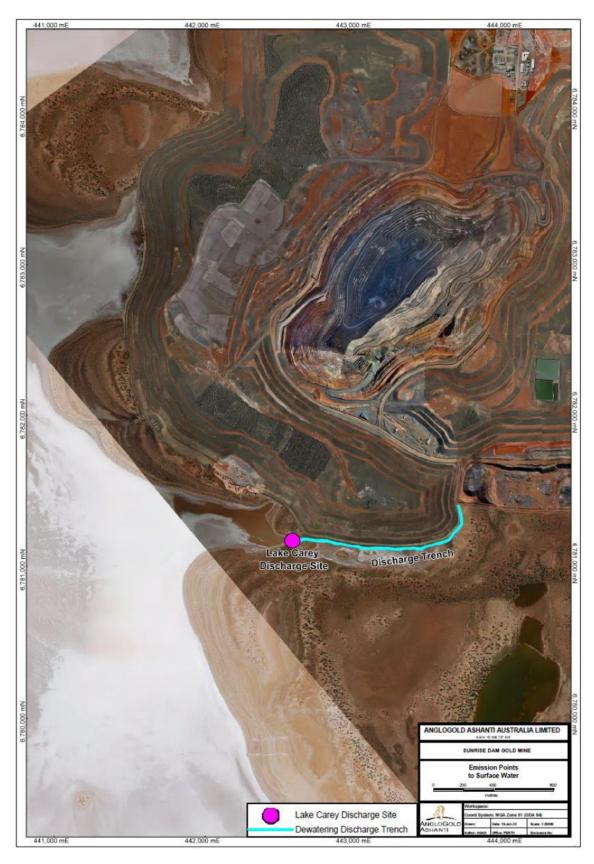


Figure 4: Dewatering discharge to Lake Carey

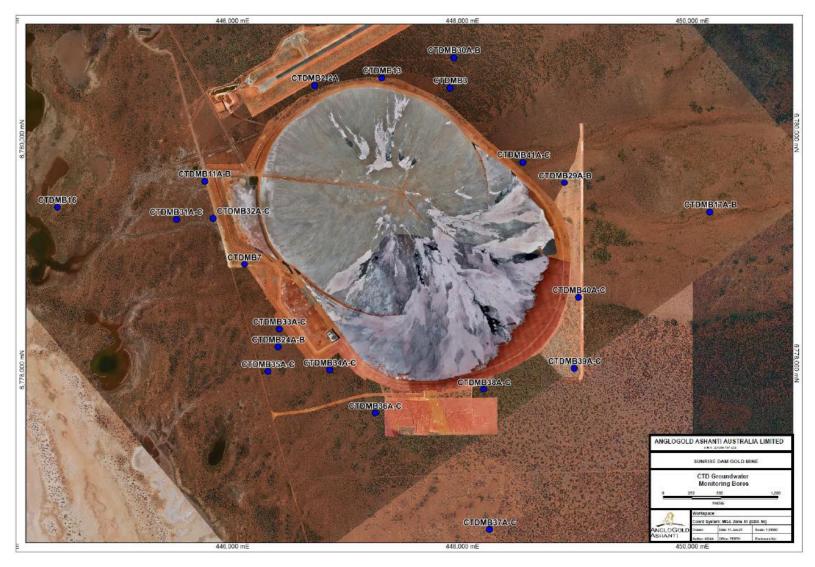


Figure 5: Groundwater monitoring bore locations



Figure 6: Landfill location map