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Annual Audit Compliance Report Form

Environmental Protection Act 1986, Part V Division 3

Once completed, please submit this form either via email to info@dwer.wa.gov.au, or to the below postal address:

Department of Water and Environmental Regulation
Locked Bag 10
Joondalup DC WA 6919

Section A – Licence details			
Licence number:	8676/2012/1	Licence file number:	201002666-3
Licence holder name:	AngloGold Ashanti Australia Limited		
Trading as:	N/A		
ACN:	008 737 424		
Registered business address:	Level 10 140 St Georges Terrace PERTH WA 6000		
Reporting period:	01/01/2019 to 31/12/2019		

Section B – Statement of compliance with licence conditions
Did you comply with all of your licence conditions during the reporting period? (please tick the appropriate box)
<input type="checkbox"/> Yes – please complete: <ul style="list-style-type: none"> • section C; • section D (if required); and • sign the declaration in Section F.
<input checked="" type="checkbox"/> No – please complete: <ul style="list-style-type: none"> • section C; • section D (if required); • section E; and • sign the declaration in Section F.

Section C – Statement of actual production	
Provide the actual production quantity for this reporting period. Supporting documentation is to be attached.	
Prescribed premises category	Actual production quantity
5	8,649,130 tonnes
12	299,604 tonnes
52	48 MW
54	Total throughput 46,203 m ³ Daily average 127 m ³ *
64	11,618.14 tonnes
73	As per approved capacity

Section D – Statement of actual Part 2 waste discharge quantity	
Provide the actual Part 2 waste discharge quantity for this reporting period. Supporting documentation is to be attached.	
Prescribed premises category	Actual Part 2 waste discharge quantity
Tailings	8,649,130 tonnes

Section E – Details of non-compliance with licence condition			
Please use a separate page for each condition with which the licence holder was non-compliant at a time during the reporting period.			
Condition no:	1.2.1 The Licence Holder shall operate and maintain all pollution control and monitoring equipment to the manufacturer's specification or any relevant and effective internal management system.	Date(s) of non-compliance:	Variable across the reporting period
Details of non-compliance:			
Pollution control equipment that was a) not operational, b) failed or c) was not maintained to the standard as intended by this condition includes:			
<ul style="list-style-type: none"> • Dust Scrubbers within the processing plant; <ul style="list-style-type: none"> ○ Dust Scrubbers within the crushing circuit of the processing plant experienced a delayed return to service following equipment failure during Q1 and Q2 of the reporting period. • Process Water Pond liner; <ul style="list-style-type: none"> ○ During the 2018 reporting period, groundwater monitoring results from a monitoring bore immediately adjacent to the Process Water Pond indicated that the integrity of the HDPE liner on the Process Water Pond was potentially compromised. <ul style="list-style-type: none"> ▪ The groundwater monitoring bore (TPMB182) adjacent to the Process Water Pond recorded a maximum result of 0.007 mg/L WAD Cyanide during the 2019 reporting period. • Tailings Storage Facility liner; <ul style="list-style-type: none"> ○ The operation of the TSF has been observed to have a localised impact to groundwater quality and groundwater levels during the reporting period. 			
What was the actual (or suspected) environmental impact of the non-compliance?			
NOTE – please attach maps or diagrams to provide insight into the precise location of where the non-compliance took place.			
DUST SCRUBBERS			
<ul style="list-style-type: none"> • Due to the physical location of this infrastructure within the broader disturbed footprint, there has been no observable impact to any environmental receptors, including vegetation (Figure 1). 			

Section E – Details of non-compliance with licence condition



Figure 1 – Location of Dust Scrubbers within TGM Processing Plant

PROCESS WATER POND LINER

- Localised detection of very low levels of WAD Cyanide in the groundwater environment are not anticipated to have any detrimental impact on the existing saline to hypersaline groundwater regime. There is no known beneficial use of the groundwater in the vicinity of the TGM operation. The Maximum total cyanide concentration reported was 0.16 mg/L which is an order of magnitude below the ICMI generic compliance limit of 1.0 mg/L. As all abstracted water is returned to the plant for re-use in the processing system, there is limited environmental impact associated with these low-level concentrations of cyanide in groundwater.

Section E – Details of non-compliance with licence condition



Figure 2 – Process Water Pond and Monitoring and Recovery Bore Locations

TAILINGS STORAGE FACILITY

- Localised changes in groundwater quality are not considered to have had any detrimental impact to environmental values. The existing groundwater environment is typically saline to hypersaline and has no known beneficial users.
- Groundwater levels surrounding the TSF were observed to rise in localised areas during the reporting period. Increases in groundwater level were not observed to have any impacts on environmental receptors, including vegetation.
 - Monitoring of vegetation condition in proximity to operational areas has not identified any impacts to vegetation health associated with changes in groundwater quality or groundwater levels.

Section E – Details of non-compliance with licence condition



Figure 3 – TSF Monitoring Bore Locations

Cause (or suspected cause) of non-compliance:

DUST SCRUBBERS

- The spare parts held on site were not correct and there was a delay in sourcing the correct components.

PROCESS WATER POND LINER

- Suspected failure in the integrity of both the primary and secondary HDPE pond liners in specific areas of the Process Water Pond.

TAILINGS STORAGE FACILITY

- The cause/s of the localised change in groundwater levels and quality from the TSF have been attributed to the increased hydraulic head within the TSF during the reporting period and suspected failure of the compacted clay liner.

Action taken to mitigate any adverse effects of non-compliance and prevent recurrence of the non-compliance:

DUST SCRUBBERS

Actions completed during 2019 include:

- Review and update of Planned Maintenance tasks for Dust Scrubbers to improve reliability and asset integrity.
- Review of onsite holdings of critical spares for Dust Scrubber components.

These reviews occurred during Q1 and Q2 of 2019, Q3 and Q4 saw a significant increase in Dust Scrubber Reliability.

Section E – Details of non-compliance with licence condition

PROCESS WATER POND LINER

Actions undertaken include:

- Initiated project to take the Process Water Pond offline and inspect the pond liners and complete repairs as required.
- At the time of reporting, the Process Water Pond is currently being dredged and the TGM Projects team are installing the required pipework to enable the pond to be taken offline for repairs.
- Recovery bores installed to the south (TSFRB038) and east of the Process Water Pond (TSFRB022) serve a dual purpose in dewatering the aquifer immediately surrounding the PWP, as well as regional mounding associated with the TSF.
 - Three nested monitoring bores (TSFMB038 S, M, D) were installed adjacent to recovery bore TSFRB038 at the south east corner of the Event Pond. The deeper aquifer has been drawn down by approximately 7 m over the reporting period (TSFMB038 M and D), while the shallow aquifer has been completely dewatered from August 2019 onwards, with TSFMB038S becoming dry. This coincides with a sharp decrease in the total cyanide concentrations reported in TPMB182 which is screened across the shallow and saprolite aquifers.

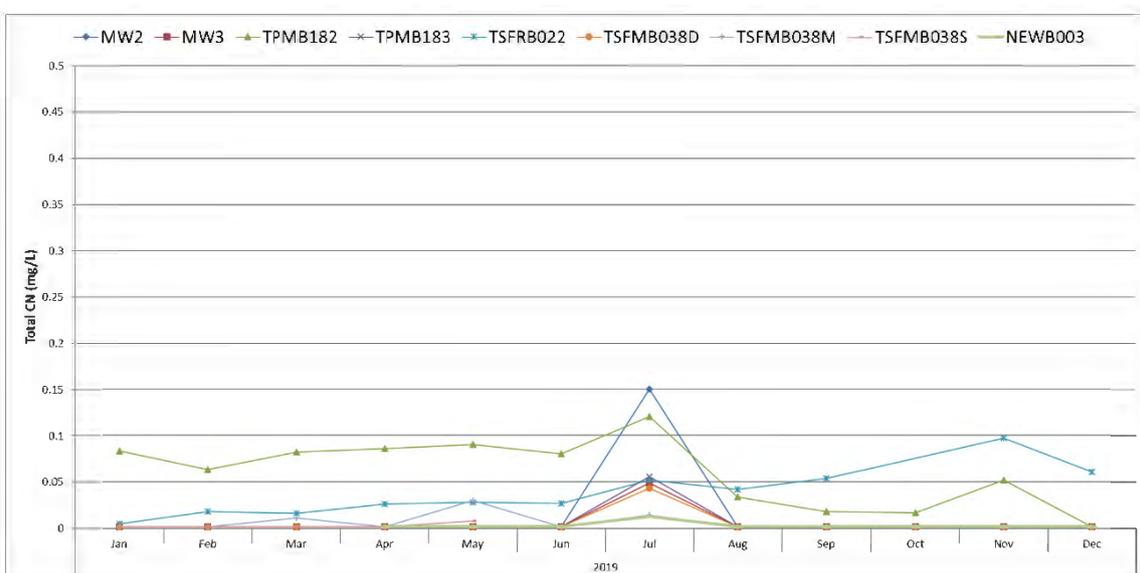


Figure 4 – Total Cyanide in Processing Plant and Recovery Bores

Note: LOR for Total Cyanide is 0.004 mg/L

TAILINGS STORAGE FACILITY

Actions undertaken include:

- Ongoing groundwater monitoring of water levels and water quality around the TSF.
- Ongoing implementation of the Seepage Mitigation Project to install recovery bores in target areas around the perimeter of the TSF. During the reporting period the following changes were made to the TSF recovery bore network:
 - Five additional recovery bores installed on the southern side of TSF;
 - Five additional recovery bores installed on the western side of the TSF;
 - Two additional recovery bores installed on the northern side of the TSF; and
 - Two inefficient recovery bores were also decommissioned.

Was this non-compliance previously reported to DWER?

Yes, and

Reported to DWER verbally

Date: / /

Reported to DWER in writing

Date: 31/03/2019

Please use a separate page for each condition with which the licence holder was non-compliant at a time during the reporting period.			
Condition no:	1.3.6 The Licence Holder shall ensure that tailings, decant water, process plant stormwater and waste water treatment plant (WWTP) effluent are only discharged into containment cells with the relevant infrastructure requirements and at the locations specified in Table 1.3.3 and identified in Schedule 1.	Date(s) of non-compliance:	Various times throughout the reporting period.
Details of non-compliance:			
Throughout the reporting period the following containment devices did not sufficiently contain the material as required by Condition 1.3.6 for the following locations: <ul style="list-style-type: none"> • Process Water Pond liner; and • Tailings Storage Facility. Refer to previous Non-Compliance report for Condition 1.2.1 for details.			
What was the actual (or suspected) environmental impact of the non-compliance? NOTE – please attach maps or diagrams to provide insight into the precise location of where the non-compliance took place.			
Refer to previous Non-Compliance report for Condition 1.2.1 for details.			
Cause (or suspected cause) of non-compliance:			
Refer to previous Non-Compliance report for Condition 1.2.1 for details.			
Action taken to mitigate any adverse effects of non-compliance and prevent recurrence of the non-compliance:			
Refer to previous Non-Compliance report for Condition 1.2.1 for details.			
Was this non-compliance previously reported to DWER?			
<input type="checkbox"/> Yes, and			
<input type="checkbox"/> Reported to DWER verbally		Date: / /	
<input checked="" type="checkbox"/> Reported to DWER in writing		Date: 31/03/2019	

Please use a separate page for each condition with which the licence holder was non-compliant at a time during the reporting period.			
Condition no:	1.3.15 The Licence Holder shall not commence commissioning of the upgraded power station until construction compliance document has been submitted in accordance with condition 4.2.3.	Date(s) of non-compliance:	22/11/2019
Details of non-compliance:			
<p>During the reporting period, the Construction Compliance document was not submitted prior to the commissioning of the two (2) new gas generators as per Condition 1.3.15.</p> <p>Timeline of events:</p> <ul style="list-style-type: none"> • 02 September 2019 - Prescribed Premises Licence Amendment enacted, approving and additional three gas generators/6 MW power generation; • 22 November 2019 - Two new gas generators commenced operation; • 28 November 2019 - Gas badging inspection completed; • 13 January 2020 - The construction compliance document was submitted to DWER within 60 days of construction completion. 			
What was the actual (or suspected) environmental impact of the non-compliance?			
<p>NOTE – please attach maps or diagrams to provide insight into the precise location of where the non-compliance took place.</p> <p>No environmental impact will have occurred due to this non-compliance as the two new generators are the same make and model as those previously installed at the TGM power station. The new generators are expected to demonstrate an equivalent range of emissions discharge and further emissions testing is not proposed.</p> <p>In addition to point source emissions from the new generator exhaust stacks (approximate locations are shown in Figure 5), fugitive noise emissions will occur. However, there are no external receptors near the power station.</p>			
			
<p>Figure 5 – Location of New Gas Generators</p>			

Cause (or suspected cause) of non-compliance:	
Requirements of the Prescribed Premises Licence Amendment were not communicated to the Vendor and not incorporated into the Scope of Work and limitations around commissioning.	
Action taken to mitigate any adverse effects of non-compliance and prevent recurrence of the non-compliance:	
<p>Actions undertaken include:</p> <ul style="list-style-type: none"> An internal investigation is in progress, including discussions as to the mechanism for incorporating the regulatory requirements associated with the installation of the final generator permitted under the current Licence. <p>Actions to be undertaken include:</p> <ul style="list-style-type: none"> Communication of regulatory reporting requirements to be built into future tender packages for the third generator install scope. 	
Was this non-compliance previously reported to DWER?	
<input checked="" type="checkbox"/> Yes, and	
<input type="checkbox"/> Reported to DWER verbally	Date: / /
<input checked="" type="checkbox"/> Reported to DWER in writing	Date: 13/01/2020

Please use a separate page for each condition with which the licence holder was non-compliant at a time during the reporting period.			
Condition no:	3.2.1 The Licence Holder shall undertake the monitoring in Table 3.2.1 according to the specifications in that table and record and investigate results that do not meet any limit specified.	Date(s) of non-compliance:	Q4 2019
Details of non-compliance:			
<p>Ambient groundwater quality monitoring was removed as a Licence condition in 2016. As a result of increased plant throughput assessed for the most recent Licence amendment, quarterly monitoring of ambient groundwater has been reinstated as of September 2019.</p> <p>During the reporting period the following parameters were not monitored as part of the quarterly monitoring suite for Q4 of 2019 as required by Condition 3.2.1:</p> <ul style="list-style-type: none"> • Arsenic • Barium • Boron • Cadmium • Chromium • Cobalt • Copper • Iron • Lead • Manganese • Mercury • Nickel • Zinc <p>In addition to the above analytes, the following parameters were not monitored every quarter of 2019 for certain bores where either a) the bore was dry or b) moisture was detected but the bore did not have sufficient water depth to obtain a sample:</p> <ul style="list-style-type: none"> • pH • Electrical Conductivity • Total Dissolved Solids • Cyanide WAD • Bicarbonate • Nitrate • Sulphate • Chloride • Sulphate chloride ratio • Calcium • Magnesium • Sodium 			

<p>What was the actual (or suspected) environmental impact of the non-compliance?</p> <p>NOTE – please attach maps or diagrams to provide insight into the precise location of where the non-compliance took place.</p>	
<p>Minimal environmental impact has occurred due to this non-compliance as the existing monitoring program implemented by TGM captured most of the parameters specified in the Licence except for copper and sulphate chloride ratio for the monitoring points. For the purposes of this report the sulphate chloride ratio was calculated from the individual sulphate and chloride measurements.</p> <p>Refer to Figure 3 for the TSF Monitoring Bore locations.</p>	
<p>Cause (or suspected cause) of non-compliance:</p>	
<p>The latest revision of the TGM PPL issued in September 2019 included Condition 3.2.1.</p> <ul style="list-style-type: none"> • The prior revision of the Licence did not include any conditions regarding monitoring of ambient groundwater; • During the implementation of the amended regulatory monitoring requirements, all monitoring suites and frequencies were reviewed and updated. An administrative error during Q4 resulted in the existing in-house monthly monitoring suites being requested from the laboratory, rather than the updated quarterly requirements; • Where no sample was taken at TSFMB005S, TSFMB006S, TSFMB007S and TSFMB009S the shallow bores were either dry, or did not have sufficient water depth to collect a sample. 	
<p>Action taken to mitigate any adverse effects of non-compliance and prevent recurrence of the non-compliance:</p>	
<p>Actions undertaken include:</p> <ul style="list-style-type: none"> • Groundwater monitoring suites have been reviewed to ensure that all required parameters are included in the quarterly monitoring for 2020 and this has been communicated to all environmental staff. All previous documentation has been archived to prevent the incorrect documents being utilized. <p>Actions to be undertaken include:</p> <ul style="list-style-type: none"> • Internal monthly reporting to continue and assess compliance against regulatory monitoring requirements. 	
<p>Was this non-compliance previously reported to DWER?</p>	
<p><input type="checkbox"/> Yes, and</p>	
<p><input type="checkbox"/> Reported to DWER verbally</p>	<p>Date: / /</p>
<p><input type="checkbox"/> Reported to DWER in writing</p>	<p>Date: / /</p>

Section F – Declaration

I / We declare that the information in this Annual Audit Compliance Report is true and correct and is not false or misleading in a material particular ¹ .			
I / We consent to the Annual Audit Compliance Report being published on the Department of Water and Environmental Regulation's (DWER) website.			
Signature ² :		Signature:	
Name: (printed)		Name: (printed)	
Position:	General Manager	Position:	
Date:	31/03/2020	Date:	
Seal (if signing under seal):			

¹ It is an offence under section 112 of the *Environmental Protection Act 1986* for a person to give information on this form that to their knowledge is false or misleading in a material particular.

² AACRs can only be signed by the licence holder or an authorised person with the legal authority to sign on behalf of the licence holder.

PART 2 WASTE DISCHARGE QUANTITY

Processing Plant Monthly Throughput 2019

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Monthly Throughput (dry tonnes)	729,702	602,865	764,775	715,093	739,698	671,948	767,202	750,701	733,102	671,719	730,039	772,286

Data sourced from reconciled End of Month Physicals Report.