

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:	L8435/2010/3	Licence file number:	2011/000299-3
Licence holder name:	[REDACTED]		
Trading as:	[REDACTED]		
ACN:	[REDACTED]		
Registered business address:	[REDACTED]		
Reporting period:	01/01/2021 to 31/12/2021		

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	1,661,778 tonnes/year

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
6	7,179,264 kL/year
54	203 m ³ /day
64	3,889 tonnes/year

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:	28	Date(s) of non-compliance:	Multiple
Details of non-compliance:			
Monitoring bore MB13, and MB27 were non-compliant to monitoring scheduled outlined in Table 17 of the licence, with MB13 missing monitoring events in Q2 – Q4 and MB27 missing only Q4; for both water levels and water quality measures.			
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.			
The monitoring wells in question are near other monitoring locations, the results of which are generally considered representative of groundwater conditions of the TSF cells, where levels for all metrics are stable of the monitoring period, therefor the environmental impact of the missed sampling events is considered negligible.			

Cause (or suspected cause) of non-compliance:	
<p>In 2021 the TSF Cell 1 was reinforced with rock waste forming a buttress, as part of the process of construction MB13 was decommissioned due to its location being within the footprint of the buttress. Due to this, MB13 is no longer able to be sampled, and will be recommended for removal from the next revision of the relevant groundwater operating strategy.</p> <p>There were two main factors for the missed monitoring events at MB27; safe access and bore hole visibility. The access to MB27 was unsafe at the time of the monitoring programs for Q4 due to particularly boggy conditions, where surface water pooled from recent rainfall event. The visibility of the bore casing was also an identified issue, where recent maintenance works to the area surrounding the toe of the TSF with a grader had partially buried the casing of MB27, making it very difficult to identify in the field.</p>	
Action taken to mitigate any adverse effects of non-compliance and prevent recurrence of the non-compliance:	
<p>A replacement bore for MB13 was not considered as necessary due to barriers to seepage created by un-fractured bedroom 'cut-of wall' to the east of Cell 1, and proximity to alternative monitoring locations under the current monitoring schedule.</p> <p>Safe access to MB27 has been reinstated, and demarcation put in place to reduce the risk of future inadvertent impacts from track maintenance programs.</p>	
Was this non-compliance previously reported to DWER?	
<input type="checkbox"/> Yes, and	
<input type="checkbox"/> Reported to DWER verbally	Date: / /
<input type="checkbox"/> Reported to DWER in writing	Date:

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:	2	Date(s) of non-compliance:	Indeterminate
Details of non-compliance:			
<p>An internal audit of the Paste plant and Reclaimed Tails Storage Facility (RTSF) found that:</p> <ul style="list-style-type: none"> Perimeter bunding does not meet the 1.5m height requirement stipulated in Table 5: Past Plant and RTSF operation requirements. <p>The bunding is in present around the entire facility, however the height is variable and generally non-compliant with the conditions. The original height of the bunding may have been compliant with these conditions at the time of installation, however pressures of erosion caused by road maintenance practices and environmental conditions have reduced the bunding height over time.</p>			
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>			
There has been no environmental impact as a result of the reduction of these controls, as the bunding is present and the height difference would not increase the effectiveness of			

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.	
the control.	
Cause (or suspected cause) of non-compliance:	
Erosion of bunding over time due to road maintenance practices and environmental conditions.	
Action taken to mitigate any adverse effects of non-compliance and prevent recurrence of the non-compliance:	
An improvement plan to construct or reinstate appropriate bunding conditions to be implemented.	
Was this non-compliance previously reported to DWER?	
<input type="checkbox"/> Yes, and	
<input type="checkbox"/> Reported to DWER verbally	Date: / /
<input type="checkbox"/> Reported to DWER in writing	Date:

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	Date(s) of non-compliance:	11/10/21
Details of non-compliance:			
<p>Following a spill of saline water associated with commissioning of pipeline infrastructure relating to the expansion of the TSF, an incident investigation has identified that;</p> <ul style="list-style-type: none"> The raw water line, combining water from dewatering of the Windich Pit, the Borefield, and excess potable water, running between the processing plant and the Wallaby mine is only partly compliant with the requirements in Condition 1.1. <p>The condition states that: The licence holder shall ensure that all pipelines containing tailings, decant water, dewatering water and effluent are:</p> <ol style="list-style-type: none"> equipped with telemetry systems and pressure systems along pipelines to allow the detection of leaks and failures; equipped with automatic cut-outs in the event of a pipeline failure; or provided with secondary containment sufficient to contain any spill for a period equal to the time between routine inspections. <p>The non-compliance relates to 1(a), where the system has a leak detection system installed, it did however fail to trigger an appropriate alarm. The spill was detected by routine inspection, and an incident response was triggered immediately. An ICAM investigation was completed, with action plans in place to meet future compliance.</p>			

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.	
<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>An assessment was completed by a specialist consultant within 48 hours of the spill to determine the potential environmental impacts of the spill. The report concluded that:</p> <p><i>The risk to the environmental receptors was considered low, due to short residence time of the spill, the moderate sediment salinity, and the high salinity tolerance of the flora taxa. Rainfall events are also expected to further dilute and disperse salts further within the receiving environment.</i></p> <p>The report memo is included as an attachment to the AACR and AER.</p>	
Cause (or suspected cause) of non-compliance:	
Incorrect logic used in programming of leak detection when the Paste Plant was added to the leak detection system, resulting in the alarm not triggering when partial flow received.	
Action taken to mitigate any adverse effects of non-compliance and prevent recurrence of the non-compliance:	
A review of the commissioning process relating to water pipelines has been carried out to further control the risks associated with management of change, and a review of logic used in system programming to account for variable demand patterns.	
Was this non-compliance previously reported to DWER?	
<input checked="" type="checkbox"/> Yes, and	
<input checked="" type="checkbox"/> Reported to DWER verbally	Date: 11 /10/2021
<input checked="" type="checkbox"/> Reported to DWER in writing	Date: 3 /12/2021

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	Date(s) of non-compliance:	Ongoing
Details of non-compliance:			
<p>Related to the previous incident, it was identified that an ongoing technical non-compliance to the leak detection system has been present in the system since installation, relating to the requirements for pressure sensors outlined below.</p> <p>The condition states that: The licence holder shall ensure that all pipelines containing tailings, decant water, dewatering water and effluent are:</p> <ul style="list-style-type: none"> (a) equipped with telemetry systems and pressure systems along pipelines to allow the detection of leaks and failures; (b) equipped with automatic cut-outs in the event of a pipeline failure; or (c) provided with secondary containment sufficient to contain any spill for a period equal to the time between routine inspections. 			

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.	
<p>The leak detection system is primarily measured through flow differentials, with telemetry linked flow meters throughout the water system; where a difference is detected above a set threshold an alarm is sounded and an inspection conducted. The technical non-compliance is that the condition states pressure sensors, which are not in place for the raw water lines or sewerage lines.</p> <p>With a flow system the intent of the leak detection is upheld, however it may be considered a non-compliance to the letter of the condition.</p>	
<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>None, controls in place are considered effective for leak detection.</p>	
<p>Cause (or suspected cause) of non-compliance:</p>	
<p>System design since construction.</p>	
<p>Action taken to mitigate any adverse effects of non-compliance and prevent recurrence of the non-compliance:</p>	
<p>Investigate opportunities for installation of pressure sensors on water lines.</p>	
<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 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:	28	Date(s) of non-compliance:	Multiple
<p>Details of non-compliance:</p>			
<p>Table 3.7.1 requires Production Bore 5 (PB5), located downstream of TSF Cell 3, to be monitored quarterly for standing water level (SWL) and a suite of water quality parameters. All water quality samples were collected and analysed in accordance with licence requirements, however SWL was not recorded quarterly.</p>			
<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>			

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.	
No environmental impact resulted from the absence of monitoring SWL at PB5 in 2021. The production bore was operated effectively throughout the year, and its contribution to the management of seepage is described in Appendix I of the Annual Environmental Report.	
Cause (or suspected cause) of non-compliance:	
The configuration of pump infrastructure and casing at the top of the bore does not enable the lowering of a water level meter to measure SWL.	
Action taken to mitigate any adverse effects of non-compliance and prevent recurrence of the non-compliance:	
Bore will be decommissioned in 2022 as part of the TSF4 project, and replacement production bores will be reviewed for sampling point access.	
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: 28/02/2021

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:		Position:		
Date:		28/02/2022	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.

Supporting Documentation. Further details will be provided upon request.

Prescribed premises category	Actual production quantity
5	1,661,778 tonnes/year

Excerpt from GSM Monthly Book 2021 12 Dec

 GOLD FIELDS			
		YTD Actuals	YTD Plan
PROCESSING Total Processing Tonnes Processed (TP)	TO	1,661,778	1,688,400

Prescribed premises category	Actual production quantity
6	7,179,264 kL/year

Excerpt from GSM 2021 Groundwater Disposal Review. Full report in GSM 2021 Annual Environmental Report.

Discharged Point		Discharge Volume (kL)
Total Abstraction		7,172,347
Lake Carey	Southern Outfall	4,057,354
	Western Outfall	3,121,910
	Total Lake Carey Disposal	7,179,264
Dust Suppression		183,316
Keringal Pit		0
Total Disposal/ Usage		7,362,580
Difference		190,233 (3%)

Prescribed premises category	Actual production quantity
54	203 m ³ /day

Excerpt from GSM 2021 WWTP Sprayfield Tracker

Department of Water and Environmental Regulation

WWTP	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual Total	Combined Daily Discharge (m ³ /day)
WWTP Flow Meter A:	81483	85425	90132	91826	93888	99204	99204	100047	103993	106730	108763	109925		
WWTP Flow Meter B:	65530	68752	71712	77203	81246	83114	88916	94576	96047	97860	100973	102867		
Monthly Disposal A:	8944	3942	4707	1694	2162	5216	0	843	3946	2737	2033	1182	35386	203
Monthly Disposal B:	1219	3222	2660	5491	4043	1868	5802	5660	1471	1613	3313	1894	38556	

Prescribed premises category	Actual production quantity
64	3,889 tonnes/year

Excerpt from GSM 2021 Annual Environmental Report monitoring data and supporting info – Landfill Volumes

Year	2021	
Assumed density	343 kg/m ³	
Landfill	Granny	Wallaby
Area (m ²):	1679	1156
Depth (m)	4	4
Volume (m ³)	6716	4624
Mass (kg)	2303588	1586032
Total Mass (T)	3889.62	