



**Licence Number** L6079/1988/13

**Licensee** Newcrest Mining Limited

**ACN** 005 683 625

**File Number:** DER2013/001097

**Premises** Telfer Gold Mine  
Mining Tenements M45/6-11, M45/33, M45/203-211,  
M45/249, M45/631-633, M45/709, M45/710, G45/1-4,  
L45/99, L45/100 and L45/106  
TELFER WA 6762

**Date of Amendment** 4 December 2017

## Amendment

The Chief Executive Officer (CEO) of the Department of Water and Environmental Regulation (DWER) has amended the above Licence in accordance with section 59 of the *Environmental Protection Act 1986* (EP Act) as set out in this Amendment Notice. This Amendment Notice constitutes written notice of the amendment in accordance with section 59B(9) of the EP Act.

Date signed: 4 December 2017

**Alana Kidd**

**Manager Licensing – Resource Industry**

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

## Definitions and interpretation

### Definitions

In this Amendment Notice, the terms in Table 1 have the meanings defined.

**Table 1: Definitions**

Term	Definition
AACR	Annual Audit Compliance Report
ACN	Australian Company Number
AER	Annual Environment Report
Amendment Notice	refers to this document
Category/ Categories/ Cat.	categories of Prescribed Premises as set out in Schedule 1 of the EP Regulations
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 33 Cloisters Square PERTH WA 6850 <a href="mailto:info-der@dwer.wa.gov.au">info-der@dwer.wa.gov.au</a>
Delegated Officer	an officer under section 20 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.
DMIRS	Department of Mines, Environmental Regulation and Safety
DWER	Department of Water and Environmental Regulation
EC	Electrical Conductivity
EPA	Environmental Protection Authority
EP Act	<i>Environmental Protection Act 1986 (WA)</i>
EP Regulations	<i>Environmental Protection Regulations 1987 (WA)</i>
Existing Licence	The Licence issued under Part V, Division 3 of the EP Act and in force prior to the commencement of and during this Review
Licensee	Newcrest Mining Limited

m <sup>3</sup>	cubic metres
Meters below ground level	mbgl
Million tonnes per annum	Mtpa
Minister	the Minister responsible for the EP Act and associated Regulations
Occupier	has the same meaning given to that term under the EP Act.
Prescribed Premises	has the same meaning given to that term under the EP Act.
Premises	refers to the premises to which this Decision Report applies, as specified at the front of this Decision Report.
Risk Event	as described in <i>Guidance Statement: Risk Assessment</i>
TDS	Total Dissolved Solids
tpa	tonnes per annum
TSF	Tailings Storage Facility

## Amendment Notice

This amendment is made pursuant to section 59 of the *Environmental Protection Act 1986* (EP Act) to amend the Licence issued under the EP Act for a prescribed premises as set out below. This notice of amendment is given under section 59B(9) of the EP Act.

This notice is limited only to an amendment to the throughputs for Categories 57 and 73, modify the ambient monitoring requirements, include new Categories 6 and 77 and make administrative changes.

The following guidance statements have informed the decisions made on this amendment:

- *Guidance Statement: Decision Making (February 2017)*
- *Guidance Statement: Risk Assessment (February 2017)*
- *Guidance Statement: Environmental Siting (November 2016)*

## Amendment description

On 5 September 2017, Newcrest Mining Limited (Licensee) submitted an application for an amendment to the Telfer Gold Mine (Telfer) Licence L6079/1988/13. The Licence amendment application relates to the following:

- Include new Category 6 (Mine dewatering) for the occasional disposal of pit water from pits 8 and 9 with the dewatering water discharged to disused borrow pits known as Lake 11.
- Increase the throughput at the process plant from 24,000,000 to 26,000,000 tpa.

### Category 6

During 2017, heavy rainfall events identified difficulty in managing excess water during short term contingency events and when parts of the process plant or water management pipelines are shut down for maintenance or from breakdowns. During 2017 excess water was stored in open pits which caused a suspension in open pit mining operations for an extended duration. Under normal operating conditions, no water is discharged to the environment at Telfer as water requirements onsite exceed the amount produced from dewatering the underground mine (net user). Make up water is sourced from production bores.

Lake 11 is made up of a series of disused gravels pits which are no longer used and have been identified as suitable for the disposal of excess water for short periods of time.. The disposal of pit water to Lake 11 is expected to only occur four times a year. A total of up to 940,000 tonnes could be discharged each year if the maximum capacity of Lake 11 (235,000 tonnes) was reached those four times. However, only up to 150,000 tonnes is expected to be discharged at each event.

Telfer previously used Pit 10 to store water however the Licensee identified a strong hydraulic connectivity between this pit and Pit 9 which is in the process of becoming active again. The Licensee considered other options such as pumping excess water to the TSF, to creeks or lakes, evaporation ponds or groundwater injection, however the discharge to Lake 11 was deemed the most suitable option.

There is no new infrastructure required due to the use of existing borefield lines and the Pit 10 pipeline. The only construction requirements are installation of Y pieces where pipelines meet, direction controller and a 'block and bleed' system, and the discharge outlet into Lake 11.

### Paste Plant

The Licensee has applied to include the construction and operation of a paste fill plant and a cemented hydraulic fill (CHF) plant for use in backfilling and stabilising stopes in the Telfer Underground mine utilising tailings material.

The paste fill plant is a mobile plant that uses tailings, cement and water to produce concrete fill product for use underground. The tailings are sourced from the historical TSF 2b. The paste fill plant is unlikely to be used continuously, with the main use being early in stopping surge capacity when demand for paste exceeds the capacity of the CHF plant and as a standby facility for when the process plant has shutdowns.

The CHF plant consists of permanently built infrastructure which includes a cement silo, three tailings storage tanks, pumps, compressors and cyclones. The CHF plant uses a small portion of the floatation tailings stream from the process plant. Fine tailings and water are removed by the cyclones which are then pumped back to the processing plant for reuse as process water. The larger recovered tailings material is mixed with cement and water, and then pumped underground for stabilising stopes.

Both the paste fill and the CHF plants are located within concrete bunded areas with collection sumps to contain any spills. Any collected material is directed to the TSF for disposal.

### Other minor amendments

Increase the capacity of used tyre stored under Category 57 from 30,000 tyres to 40,000 tyres;

- Modify Condition 1.3.7 to allow the burning of waste for emergency response training only;
- Modify Table 1.3.3 by updating the infrastructure requirements at the TSF and the Bioremediation Area;
- Increase the volume of NALCO Scalex CA as defined in Table 1.3.5 from 40,000 litres to 66,000 litres;
- Remove emission stacks A4-A15 from Table 2.2.1 as the generating units were removed from the Premises during 2016;
- Removal of groundwater monitoring bores HB137 and HB247 from Table 3.6.1;
- Remove improvement conditions 1 and 2 from Table 4.1.1 as these were completed in 2016; and
- Minor administrative changes to Table 5.2.1.

Table 2 below outlines the proposed changes to the Licence.

**Table 2: Proposed design or throughput capacity changes**

Category	Current design throughput capacity	Proposed design throughput capacity	Description of proposed amendment
5	24,000,000 tonnes per annual period	<b>26,000,000 tonnes per annual period</b>	Increasing the throughput to 26,000,000 tpa is within the design capacity of the plant with no modifications required. All additional tailings generated will be discharged to the existing tailings storage facility.
6	0 tonnes per annual period	<b>940,000 tonnes per annual period</b>	Disposal of pit water to disused borrow pits
57	30,000 used tyres stored	<b>40,000 used tyres stored</b>	Increase the number of used tyres stored at the Premises

## Other approvals

The Licensee has provided the following information relating to other approvals as outlined in Table 3.

**Table 3: Relevant approvals**

Legislation	Number	Approval
<i>Rights in Water and Irrigation Act 1914</i>	GWL150758	Licence to take water for use at the Premises
<i>Mining Act 1978</i>	Not applicable	A mining proposal is currently being prepared for submission to DMIRS

## Amendment history

Table 4 provides the amendment history for L6079/1988/13

**Table 4: Licence amendments since 8/10/2015**

Instrument	Issued	Amendment
L6079/1988/13	8/10/2015	New Licence and update to new licence format. Addition of Category 63 for an inert landfill
L6079/1988/13	4/02/2016	Amendment to remove improvement condition and replace with management conditions
L6079/1988/13	18/07/2016	Amendment to remove improvement condition and replace with management conditions for tailings water being discharged to the scour pit
L6079/19899/13	4/12/2017	Addition of category 6 for pit water discharge following significant rain, construction and operation of a paste fill plant and a cemented hydraulic fill (CHF) plant for use in backfilling and stabilising stopes in the Telfer Underground mine utilising tailings, slight increase in throughput and other minor amendments

## Location and receptors

Table 5 below lists the relevant sensitive land uses in the vicinity of the Prescribed Premises which may be receptors relevant to the proposed amendment.

**Table 5: Receptors and distance from activity boundary**

Residential and sensitive premises	Distance from Prescribed Premises
The Premises is remote with the nearest sensitive premises being the Punmu Aboriginal Community	100 km from the Premises

Table 6 below lists the relevant environmental receptors in the vicinity of the Prescribed Premises which may be receptors relevant to the proposed amendment.

**Table 6: Environmental receptors and distance from activity boundary**

Environmental receptors	Distance from Prescribed Premises
Surface water - Lake Dora	About 60 km away to the East No nearby RIWI Act Surface Water Areas or Rivers where

	<p>identified on the DWER GIS data base.</p> <p>Surface drainage channels were noted 4km to the west however the DO considers this distance is too great for emissions at the Premises to have any impact.</p>
Groundwater	<p>Current depth to groundwater is 121.83 mbgl (measured 20/05/2017). Pre-mining groundwater was 65 mbgl.</p> <p>Groundwater samples taken near Lake 11 on the 27/02/2016 indicate salinity TDS is 1,920 mg/L, pH was neutral at 7, all heavy metals were below the level of detection with the exception of manganese and zinc however they were still well below standards for drinking water (health) and livestock drinking water levels respectively.</p>
Conservation significant fauna	<p>Considered unlikely due to lack of suitable habitat due to disturbance created by mining and the extraction of gravel from the burrow pits.</p> <p>The Licensee has a Fauna Management Plan (2015) for the assessment of potential impacts to fauna.</p>
Threatened or priority flora	<p>No declared or priority flora in the Lake 11 area.</p> <p>The Licensee has a Flora Management Plan (2015) which includes the assessment of areas (clearance survey) prior to any works to assess for priority or protected flora.</p>

## Risk assessment

Tables 7 and 8 below describe the Risk Events associated with the amendment consistent with the *Guidance Statement: Risk Assessments*. Both tables identify whether the emissions present a material risk to public health or the environment, requiring regulatory controls.

**Table 7: Risk assessment for proposed amendments during construction**

Risk Event					Consequence rating	Likelihood rating	Risk	Reasoning	
Source/Activities	Potential emissions	Potential receptors	Potential pathway	Potential adverse impacts					
Cat 6 Mine dewatering	Minor modifications to mine dewatering infrastructure	<b>Dust:</b> associated with construction activities	Nearest sensitive premises is the Punmu Aboriginal Community located 100 km away	Air	Health and amenity impacts	Slight	Rare	Low	Minimal construction works required for the alteration of existing dewatering pipelines and installation of new discharge outlet into Lake 11.  The DO considers the distance too great to impact offsite receptors.
		<b>Noise:</b> Associated with construction activities	Nearest sensitive premises is the Punmu Aboriginal Community located 100 km away	Air	Health and amenity impacts	Slight	Rare	Low	Premises is isolated with no nearby sensitive premises (closest is 100 km away). Construction noise will be attenuated by distance.  The DO considers the distance too great to impact offsite receptors.
Batching plants	Construct batching plants for paste fill and Cemented Hydraulic Fill (CHF)	<b>Dust:</b> associated with construction activities	Nearest sensitive premises is the Punmu Aboriginal Community located 100 km away	Air	Health and amenity impacts	Slight	Rare	Low	Dust generated at cleared areas for construction purposes will be controlled by the use of water carts.  Premises is isolated with no nearby sensitive receptors (closest is 100 km away).  The DO considers the distance too great to impact offsite receptors.
		<b>Noise:</b> Associated with construction activities	Nearest sensitive premises is the Punmu Aboriginal Community located 100 km away	Air	Health and amenity impacts	Slight	Rare	Low	Premises is isolated with no nearby sensitive premises (closest is 100 km away). Construction noise will be attenuated by distance.



**Table 8: Risk assessment for proposed amendments during operation**

Risk Event					Consequence rating	Likelihood rating	Risk	Reasoning	
Source/Activities	Potential emissions	Potential receptors	Potential pathway	Potential adverse impacts					
<p><b>Cat 5</b> Processing or beneficiation of metallic or non-metallic ore</p>	Increased throughput at the processing plant and increased discharge of tailings	<p><b>Dust:</b> associated with ore handling</p>	Nearest sensitive premises is the Punmu Aboriginal Community located 100 km away	Air	Health and amenity impacts	Slight	Rare	Low	<p>Water sprays are fitted to crushers, along conveyor belts and at material handling and transfer points. A water cart is used around the process plant when required.</p> <p>The Premises is isolated with the nearest sensitive premises located 100 km away.</p> <p>The DO considers the distance too great to impact offsite receptors.</p>
		<p><b>Noise:</b> associated with ore handling</p>	Nearest sensitive premises is the Punmu Aboriginal Community located 100 km away	Air	Health and amenity impacts	Slight	Rare	Low	<p>Operating noise will be attenuated by distance (100km to nearest sensitive premises). Any noise complaints are recorded for investigation and corrective actions. No noise complaints were received during the 2016-2017 reporting period (Telfer 2016-2017 AER).</p> <p>The DO considers the distance too great to impact offsite receptors.</p>
		<p><b>Waste:</b> Increased tailings disposal to the tailings storage facility due to an increase in processing of ore</p>	<p>Groundwater with beneficial use for stock watering (less than 2,000 mg/L TDS in this area)</p> <p>Groundwater is at 120mbgl with pre-mining level at 65mbgl</p>	Seepage of leachate	<p>Contamination of groundwater potentially used for livestock drinking purposes.</p> <p>Adverse impacts to the health and survival of vegetation dependent upon groundwater</p>	Moderate	Possible	Medium	<p>The construction of the batching plant for production of paste fill and CHF is expected to utilise up to 1.5 Mtpa of tailings material. Therefore the increase in throughput at the processing plant is only expected to result in a net increase of 0.5 Mtpa of tailings being discharged into the TSF.</p> <p>The TSF 7 currently has 12 groundwater monitoring bores in place which are sampled monthly for standing water levels and six monthly for groundwater quality in accordance with the Licence. Results are presented in the AER.</p> <p>Generally all monitoring bores are slowly rising in response to seepage via the floor of TSF 7 however the depth to groundwater is still well below ground level, generally greater than 40</p>

									<p>mbgl (Telfer 2016/2017 AER).</p> <p>TDS in all bores shows a general constant trend over the past 5 years. The latest reporting period shows results are consistent with long term trends, with a range between 1,570 mg/L and 2,680 mg/L.</p> <p>Heavy metals are consistently low in all groundwater monitoring bores with the exception of Manganese which is slightly elevated in two monitoring bores, and an increasing trend for Copper and Zinc in one monitoring bore however these levels are well below ANZECC livestock drinking water limits.</p> <p>The nearest surface water is located about 60 km away from the TSF.</p> <p>The Licensee recovers all available water from the TSF through a decant tower for use in the process plant as a result of demand being greater than supply at Telfer. This assists in reducing the rate of seepage at the TSF.</p> <p>Existing licence conditions require the Licensee to manage the TSF so the supernatant pond is minimised.</p>
Cat 6 Mine dewatering	Dewatering of pits 8 and 9 with discharge of the mine dewatering water into disused borrow pits (Lake 11)	<b>Waste:</b> Associated with discharge of dewatering water into disused borrow pits	Groundwater with beneficial use for stock watering (less than 2,000 mg/L TDS in this area)	Infiltration to groundwater	Contamination of groundwater potentially used for livestock drinking purposes.  Adverse impacts to the health and survival of vegetation dependent upon groundwater	Moderate	Rare	Medium	<p>Depth to groundwater is 121.83 mbgl (measured 20/05/2017) and at this depth the dewatering discharge water is not expected to have an impact. Additionally, the dominant material type below Lake 11 comprises of Outer Siltstone which typically has low transmissivity.</p> <p>There are no groundwater dependent springs, soaks or water courses around Telfer.</p> <p>Lake 11 consists of a large open area (120, 600 m<sup>2</sup>) with a calculated storage capacity of 235,000 m<sup>3</sup>. The large surface area and relatively shallow depth of Lake 11 will assist in increasing the evaporation rates. The Licensee</p>

					Potential impact to birds if water is affected				<p>anticipates most discharged water will evaporate with only small amounts infiltrating the underlying soils.</p> <p>Discharge of dewatering effluent is only expected to occur up to four times a year therefore reducing the likelihood of pooling water (and attracting birds).</p> <p>No groundwater dependent vegetation is present in this area.</p> <p>No elevated levels of heavy metals are present in the dewatering discharge water. Copper is higher than the background and has a range of 0.03 to 0.32 mg/L with a mean of 0.12 mg/L for Pit 8 and a range of 0.13 to 0.31 mg/L with a mean of 0.22 mg/L for Pit 9, however these levels are well below the livestock drinking water guideline of 1.0 mg/L for cattle.</p> <p>The Licensee has committed to monitoring at the commencement of each discharge event for major ions, metals and pH and daily field tests for pH and EC.</p>
		<p><b>Waste:</b> Discharge of dewatering water to land due to pipeline failure</p>	Surrounding soils and vegetation	Sheet flow across land	<p>Impacts on vegetation</p> <p>Changes to the surrounding soil composition</p>	Slight	Possible	Low	<p>Dewatering pipelines are located within earthen banded areas and are inspected daily to monitor pipeline integrity, bunds and identify leaks.</p> <p>The dewatering water is considered reasonable quality with salinity described as brackish to slightly saline and no elevated heavy metals.</p> <p>The vegetation in this area is highly disturbed due to mining activities and does not contain any threatened or priority flora.</p>
		<p><b>Waste:</b> Discharge of dewatering water to land due to overtopping of Lake 11</p>	Surrounding soils and vegetation	Sheet flow across land	Surrounding soils and vegetation	Slight	Rare	Low	<p>The Lake 11 area has a capacity to store up to 235,000 kL of water. The Licensee anticipates only up to 150,000 kL is to be discharged into Lake 11 for each discharge event which will provide sufficient freeboard, even during significant rainfall events.</p>

									Earthen bunding is in place which allows for a 1 in 100 year rainfall event.
<b>Cat 57</b> Used tyre storage	Increased storage and disposal of used tyres	<b>Noise:</b> Associated with increased vehicle movement and covering activities	Punmu Aboriginal Community is located 100 km away from the Premises	Air	Health and amenity impacts	Slight	Rare	Low	Operating noise will be attenuated by distance (100km to nearest sensitive premises) and undulating terrain.  Minimal vehicle and plant use at the tyre disposal area during the day.
		<b>Dust:</b> Associated with increased vehicle movement and covering activities	Punmu Aboriginal Community is located 100 km away from the Premises	Air	Health and amenity impacts	Slight	Rare	Low	Minimal vehicle and plant use at the tyre disposal area during the day  The nearest sensitive premises is located 100 km away  Water carts are used on a routine bases to control dust.
		<b>Air Emission:</b> Associated with the accidental burning of used tyres	Punmu Aboriginal Community is located 100 km away from the Premises	Air	Health and amenity impacts	Minor	Rare	Low	The Premises is remote and restricted to the general public.  Existing conditions in the Licence for maintaining suitable fencing to prevent unauthorised access, gates are securely locked when the area is unattended, used tyres are stored in a manner that reduce the spread of fire and used tyres are buried and covered on a regular basis.
		<b>Waste:</b> Contaminated firefighting water associated with a used tyre fire	Surrounding soils and surface waters  Groundwater with beneficial use for stock watering (less than 2,000 mg/L TDS in this area)	Sheet flow across land  Seepage through soil	Contamination of surrounding soils and surface waters  Contamination of groundwater	Slight	Rare	Low	Any contaminated firefighting water is expected to remain within the used tyre storage area and used tyre disposal area.  The nearest surface water is located 60 km away and any contaminated firefighting water is not expected to have an impact at this distance.  Any potential leachate from a used tyre fire is not expected to reach groundwater which is 121.83 mbgl.
<b>Batching Plants</b>	Operation of a paste fill plant and a	<b>Waste:</b> Discharge of tailings to land	Surrounding soils and vegetation	Sheet flow across land	Impacts on vegetation	Moderate	Possible	Medium	All pipelines will be located within containment bunding at least 0.5 m high.

cemented hydraulic fill plant for use in backfilling and stabilising stopes in the Telfer Underground by utilising tailings material	due to pipeline failure	Groundwater with beneficial use for stock watering (less than 2,000 mg/L TDS in this area)		Changes to the surrounding soil composition  Contamination of groundwater				Automated pressure/volume flow sensors will be installed to detect loss of pressure in the pipelines.  Scours pits will be built along the infrastructure corridor to contain spillage during maintenance and in the event of spillage.  All pipelines are inspected at least once per 12 hour shift.  Depth to groundwater is 121.83 mbgl and any spilt material outside of containment infrastructure is not expected to have any impact on groundwater at this depth.
	<b>Waste:</b> Discharge of tailings material to land due to process failure at the batching plants	Surrounding soils and vegetation	Sheet flow across land	Impacts on vegetation  Changes to the surrounding soil composition  Contamination of groundwater	Minor	Possible	Medium	Batching plants will be located within concrete bounded areas.  Sumps will be installed at each plant to capture any spills with the material directed to the TSF for disposal.  Depth to groundwater is 121.83 mbgl and any spilt material outside of the compounds is not expected to have any impact on groundwater at this depth.
	<b>Dust:</b> from the storage of dry tailings	Surrounding soils and vegetation	Air	Impacts on vegetation  Changes to the surrounding soil composition	Minor	Possible	Medium	Size of the stockpile will be limited to one weeks feed for the paste fill plant.  Water sprinklers on the paste fill plant and the dry tailings storage area.  Cyanide levels in the dry tailings are not expected to be high as a result of break down processes in the historical TSF 2b.
	<b>Waste:</b> Drainage water generated by CHF placement underground	Groundwater with beneficial use for stock watering (less than 2,000 mg/L TDS in this area)	Direct interaction with groundwater	Contamination of groundwater	Moderate	Possible	Medium	Drainage water generated by CHF placement is collected by underground sumps and is then pumped to the process plant via the existing water management systems in the Telfer underground for reuse as process water.

## Decision

### Increased throughput for Category 5

The Delegated Officer has determined the key emissions associated with increasing the throughput at the processing plant. Based on the application supporting documentation, the Delegated Officer has determined that the increased throughput at the processing plant presents a medium risk to the environment as a result of the increased discharge of tailings to the TSF, and a low risk to the environment for noise and dust emissions. However, these risks may be acceptable subject to the additional regulatory controls outlined below.

The approved premises production or design capacity for Category 5 has been increased to 26,000,000 tpa. This is an increase of 2,000,000 tpa to account for the increase in throughput at the processing plant and increased discharge of tailings into the TSF.

Condition 1.3.14 of the Licence has been amended to increase the process limit for Category 5 *processing or beneficiation of metallic or non-metallic ore* at the Premises from 24,000,000 tpa up to 26,000,000 tpa.

Conditions currently on the Licence capture operational emissions relating to processing of tailings at the TSF and the monitoring and reporting of ambient groundwater quality at the TSF. The Delegated Officer considers no new conditions or an amendment to these conditions is required.

### Dewatering discharge to Lake 11

The Delegated Officer has determined the key emissions associated with the episodic dewatering discharge to Lake 11. Based on the application supporting documentation, the Delegated Officer has determined that the construction of the dewatering infrastructure presents a low risk to the environment, and operation of the episodic dewatering discharge to Lake 11 presents a medium risk to the environment, however this risk may be acceptable subject to the additional regulatory controls outlined below.

The approved premises production or design capacity for Category 6 of 940,000 tpa has been included on the Licence.

Table 1.3.6 of Condition 1.3.14 of the Licence has been amended to include the process limit for Category 6 mine dewatering discharge to Lake 11. The limit has been set at 235,000 tonnes for each discharge event to coincide with the capacity of Lake 11 and a total combined limit of 940,000 tonnes per annual period.

Condition 2.3.1 has been amended to include the emission point for the discharge of dewatering water to land.

Table 3.3.1 of Condition 3.3.1 has been amended to include the monitoring requirements for the dewatering water discharged to Lake 11. The Licensee has committed to an initial full water quality suite at the commencement of each discharge event and daily field tests for pH and EC. These commitments have been included into Table 3.3.1 as well as the requirement to monitor the cumulative volumes of dewatering water discharged.

Schedule 1 of the Licence has been amended to include a map of the emission point for Lake 11.

### Increase in the number of used tyres stored

The Delegated Officer has determined the key emissions associated with an increase in the number of used tyres stored at Telfer. Based on the application supporting documentation, the Delegated Officer has determined that an increase in the number of used tyres stored from 30,000 to 40,000 presents a low risk to the environment.

The approved premises production or design capacity for Category 57 of 30,000 used tyres

has been amended to 40,000 used tyres.

Table 1.3.1 of Condition 1.3.2 has been amended by increasing the limit of used tyres stored from 30,000 to 40,000.

The Delegated Officer considers no further amendments or new conditions are required for an increase in the number of used tyres stored at Telfer.

### Construction and operation of the Paste Fill and CHF plants

The Delegated Officer has determined the key emissions associated with the construction of the Paste Fill and CHF plants at Telfer. Based on the application supporting documentation, the Delegated Officer has determined that the construction of the Paste Fill and CHF plants presents a low risk to the environment for noise and dust emissions. The Delegated Officer considers these risks can be adequately managed through the provision of the *Environmental Protection Act 1986*.

The Delegated Officer has determined the key emissions associated with the operation of the Paste Fill and CHF plants at Telfer. Based on the application supporting documentation, the Delegated Officer has determined that the operation of the Paste Fill and CHF plants presents a medium risk to the environment as a result of the transport of tailings in pipelines from the TSF to the CHF plant, waste generated at the CHF plant, placement of CHF underground, accidental discharge from the CHF plant or pipelines and storage of dry tailings. However, these risks may be acceptable subject to the additional regulatory controls outlined below.

Condition 1.3.15 has been included as a new condition which sets out the construction requirements for the Paste Fill and Cemented Hydraulic Fill plants.

Condition 1.3.16 has been included as a new condition which sets out the notification requirements for any departures from the construction requirements set out in column 2 of Table 1.3.7.

Condition 1.3.17 and 1.3.18 have been included as new conditions requiring the Licensee to submit a compliance document, within one month of completing the works specified in Table 1.3.7, that certifies the works specified in column 1 of Table 1.3.7, comply with the requirements of column 2 of Table 1.3.7.

Table 1.3.4 has been amended to include the requirement of twice daily inspections of the pipeline infrastructure associated with the CHF plant.

### Other Amendments

The Delegated Officer has also made other administrative changes to the Licence as follows:

- Addition of definitions for 'Anniversary Date', 'Annual Audit Compliance Report', 'Australian Standards', 'Department', and updates to the definition of 'CEO for the purpose of correspondence';
- Amend Condition 1.3.7 to include burning for emergency training purposes only;
- Amend Table 1.3.3 by removing infrastructure requirements that are no longer applicable or have been updated;
- Amend Table 1.3.5 by increasing the amount of stored Antiscalant NALCO Scalex CA from 40,000 to 66,000 litres;
- Amend Table 2.2.1 by deleting emission stacks A4-A15 as these generating units were removed from Telfer at the end of 2016;
- Amend Table 3.6.1 by removing groundwater monitoring bores HB137 which is dry and HB247 which has become heavily silted following flooding;
- Delete Table 4.1.1 as improvement 1 and 2 were completed in 2016;



- Amend Table 5.2.1 to correct minor administrative errors; and
- Update Figures 3, 4, 5 and 10 in Schedule 1.

### Licensee's comments

The Licensee was provided with the draft Amendment Notice on 30 November 2017. Comments received from the Licensee have been considered by the Delegated Officer as shown in Appendix 2.

### Amendment

1. The Licence is amended by the deletion of the text shown in strikethrough below and the insertion of the bold text shown in underline below as appears on the front page of the Licence:

#### **Prescribed premises category**

*Schedule 1 of the Environmental Protection Regulations 1987*

<b>Category number</b>	<b>Category description</b>	<b>Category production or design capacity</b>	<b>Approved Premises production or design capacity</b>
5	<i>Processing or beneficiation of metallic or non-metallic ore: premises on which – (a) metallic or non-metallic ore is crushed, ground, milled or otherwise processed; (b) tailings from metallic or non-metallic ore are reprocessed; or (c) tailings or residue from metallic or non-metallic ore are discharged into a containment cell or dam.</i>	<i>50,000 tonnes or more per year</i>	<del>2426,000,000</del> <i>tonnes per annual period</i>
<b><u>6</u></b>	<b><u>Mine dewatering</u></b>	<b><u>50,000 tonnes or more per annual period</u></b>	<b><u>940,000 tonnes per annual period</u></b>
7	<i>Vat or in situ leaching of metals: premises on which metal is extracted from ore with a chemical solution.</i>	<i>5,000 tonnes or more per year</i>	<i>12,000,000 tonnes per annual period</i>
52	<i>Electrical power generation: premises (other than premises within category 53 or an emergency or standby power generating plant) on which electrical power is generated using a fuel.</i>	<i>20 megawatts or more in aggregate (using natural gas)  10 megawatts or more in aggregate (using a fuel other than natural gas)</i>	<i>158.2 megawatts (natural gas)</i>
54	<i>Sewage facility: premises – (a) on which sewage is treated (excluding septic tanks); or (b) from which treated sewage is discharged onto land or into waters.</i>	<i>100 cubic metres or more per day</i>	<i>907 cubic metres per day</i>
57	<i>Used tyre storage (general): premises other than premises within category 56) on which used tyres are stored.</i>	<i>100 tyres or more</i>	<del>340,000</del> <i>tyres</i>
63	<i>Class I inert landfill site: premises on which</i>	<i>500 tonnes or more per year</i>	<i>2500 tonnes per annual period</i>



	waste (as determined by reference to the waste type set out in the document entitled "Landfill Waste Classification and Waste Definitions 1996" published by the Chief Executive Officer and as amended from time to time) is accepted for burial.		
64	Class II putrescible landfill site: premises on which waste (as determined by reference to the waste type set out in the document entitled "Landfill Waste Classification and Waste Definitions 1996" published by the Chief Executive Officer and as amended from time to time) is accepted for burial.	20 tonnes or more per year	10,000 tonnes per annual period
73	Bulk storage of chemicals, etc.: premises on which acids, alkalis or chemicals that – (a) contain at least one carbon to carbon bond; and (b) are liquid at STP (standard temperature and pressure), are stored.	1,000 cubic metres in aggregate	9,000 cubic metres in aggregate

2. Definitions of the Licence are amended by the deletion of the text shown in strikethrough below and the insertion of the text shown in bold and underline below:

**'Anniversary Date' means 30 June of each year;**

**'Annual Audit Compliance Report' means a report in a format approved by the CEO as presented by the Licensee or as specified by the CEO from time to time and published on the Department's website'**

**'CEO' for the purpose of correspondence means:**

Chief Executive Officer  
Department Administering the Environmental Protection Act 1986  
Locked Bag 33  
CLOISTERS SQUARE WA 6850  
Email: [info@der.wa.gov.au](mailto:info@der.wa.gov.au)

**Department Div.3 Pt. V EP Act**  
**Locked Bag 33 Cloisters Square**  
**Perth WA 6850**  
[info-der@dwer.wa.gov.au](mailto:info-der@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 Division 3 Part V of the EP Act';**

3. Licence condition 1.3.2 Table 1.3.1 is amended by the deletion of the text shown in strikethrough below and the insertion of the bold text shown in underline below:

<b>Table 1.3.1: Management of waste</b>		
<b>Waste type</b>	<b>Management strategy</b>	<b>Requirements</b>
Sewage	Biological, physical and chemical treatment	Accepted through sewer inflow(s) only No more than 907 m <sup>3</sup> /day cumulatively comprising: <ul style="list-style-type: none"> <li>Administration WWTP at or below the treatment capacity of 99 m<sup>3</sup>/day;</li> <li>Village WTTTP at or below the treatment capacity of 463 m<sup>3</sup>/day; and</li> <li>Secondary WWTP (where recommissioned) at or below the treatment capacity of 345 m<sup>3</sup>/day</li> </ul>
Used tyres	Storage	Storage of tyres shall only take place within the tyre storage/burial areas shown on the Landfill Area Map in Schedule 1 (Figure 3). <ul style="list-style-type: none"> <li>Not more than <del>340</del>,000 used tyres shall be stored at the premises at any one time;</li> <li>Used tyre stacks shall not exceed 1000 tyres per stack and 5 m in height; and</li> <li>Used tyre stacks are to be stored no less than 4 m from any other tyre stacks</li> </ul>
Inert Waste Type 1	Receipt, handling and disposal of waste by landfilling	<u>All waste types</u> <ul style="list-style-type: none"> <li>No more than 10,000 tonnes per year of all waste types cumulatively shall be disposed of by landfilling in the Class II Landfill;</li> <li>Disposal of waste by landfilling shall only take place within the landfill areas shown on the Landfill Areas Map in Schedule 1 (Figure 3);</li> <li>Construction, operation and decommissioning of landfill cells can occur within the defined landfill area providing there is no waste within: <ul style="list-style-type: none"> <li>100 m of any surface water body; and</li> <li>3 m of the highest level of the water table aquifer;</li> </ul> </li> <li>Waste shall be placed in a defined trench or within an area enclosed by earthen bunds; and</li> <li>The active tipping face shall be restricted to a maximum vertical height of 3 m.</li> </ul>
Clean Fill and Bioremediated soils as described for Class II Waste within the Landfill Definitions		
Putrescible Waste		
Greenwaste		
Inert Waste Type 2		Burial of tyres shall only take place within the tyre burial areas shown on the Landfill Area Map in Schedule 1 (Figure 3 and Figure 5). <ul style="list-style-type: none"> <li>Tyres shall only be landfilled: <ol style="list-style-type: none"> <li>in batches separated from each other by at least 100mm of soil and each consisting of not more than 40 cubic metres of tyres reduced to pieces; or</li> <li>in batches separated from each other by at least 100mm of soil and each consisting of not more than 1000 whole tyres.</li> </ol> </li> <li>Cell locations where tyres are to be buried will be surveyed and the latitude and longitude recorded.</li> </ul>

Contaminated Solid Waste		Must meet the acceptance criteria for Class I or II landfills as detailed in the Landfill Definitions.
Special Waste Type 1		<ul style="list-style-type: none"> <li>Only to be disposed of into a designated asbestos disposal area within the landfill;</li> <li>Not to be deposited within 2m of the final tipping surface of the landfill; and</li> <li>No works shall be carried out on the landfill that could lead to a release of asbestos fibres.</li> </ul>
Special Waste Type 2		<ul style="list-style-type: none"> <li>Only to be disposed of into a designated biomedical waste disposal area within the landfill;</li> <li>Not to be deposited within 2m of the final tipping surface of the landfill; and</li> <li>No works shall be carried out on the landfill that could lead to biomedical wastes being excavated or uncovered.</li> </ul>
Inert Waste Type 1 – Category 63 landfill		<ul style="list-style-type: none"> <li>No more than 2500 tonnes per year of all waste types cumulatively shall be disposed of by landfilling in the Inert Landfill; and</li> <li>Disposal of waste by landfilling shall only take place within the landfill areas shown on the Landfill Areas Map in Schedule 1 (Figure 4).</li> </ul>

4. The Licence is amended by the insertion of the bold text shown in underline below for Condition 1.3.7:

1.3.7 *The Licensee shall ensure that no waste is burnt on the Premises **except for the purpose of fire fighter training.***

5. The Licence is amended by the deletion of the text shown in strikethrough below and the insertion of the bold text shown in underline below for Condition 1.3.9 Table 1.3.3:

<b>Table 1.3.3: Containment infrastructure</b>		
<b>Containment cell or dam number(s) as depicted in Schedule 1 Figure 6</b>	<b>Material</b>	<b>Infrastructure requirements</b>
TSF 7	Tailings	<del>Constructed from clay material. Embankment cut-off trench 600 mm deep filled with compacted clayey material.</del> Operated to minimise the supernatant pond on the TSF.
Process Pond	Process water	HDPE lined to achieve a permeability of at least $<10^{-9}$ m/s or equivalent. Freeboard monitored with sensors. Minimum freeboard 300mm.
Retention Pond A	Stormwater from Processing Plant catchment	HDPE lined to achieve a permeability of at least $<10^{-9}$ m/s or equivalent. Minimum freeboard 300mm.
Retention Pond B		
Dump Leach Pad 1 (DL1)	Heap leaching material	Constructed to achieve a permeability of at least $<10^{-9}$ m/s or equivalent comprising: <ul style="list-style-type: none"> <li>Compacted clayey material (minimum 200mm);</li> <li>HDPE liner; and</li> <li>Crushed aggregate layer to protect HDPE liner (500mm thick).</li> </ul> Drains within the aggregate layer sized to accommodate a 1 in 50 year 72 hour rainfall event.
Dump Leach Pad 5 (DL5)		
Dump Leach Pad 237 (DL237)		

Pregnant Ponds DL5, DL 237	Pregnant solution	Dump Leach Pads DL5 and DL237 each include a pregnant, barren and recycle pond. Dump Leach Pads DL1, DL5 and DL237 each include a stormwater pond. All HDPE lined to achieve a permeability of at least $<10^{-9}$ m/s or equivalent and have been designed to accommodate a 1 in 50 year 72 hour rainfall event. Minimum freeboard 300mm.
Recycle Ponds DL5, DL 237	Recycle solution	
Barren Ponds DL5, DL 237	Barren solution	
Storm Ponds DL1, DL5, DL 237	Stormwater associated with Dump Leach Pads	
Village WWTP Primary Pond 1 (SF4)	Wastewater	Lined with HDPE to achieve a permeability of at least $<10^{-9}$ m/s or equivalent. Design freeboard capable of accommodating a 1 in 100 year 72 hour event.
Village WWTP Primary Pond 2 (SF5)		
Village WWTP Maturation Pond 1 (SF6)		
Village WWTP Maturation Pond 2 (SF7)		
Village WWTP Evaporation ponds SF2, SF8, SF9, SF10	Treated wastewater	Constructed from compacted clayey material. Design freeboard capable of accommodating a 1 in 100 year 72 hour event.
Sewage sludge drying bed (Main Administration WWTP)	Sewage sludge	Constructed from compacted hardstand material.
Secondary WWTP	Treated wastewater	Constructed from compacted clayey material. Design freeboard capable of accommodating a 1 in 100 year 72 hour event.
Bioremediation Area	Hydrocarbon contaminated soil	<del>Constructed from 3 m thick compacted clayey material and enclosed by bunding.</del> <b><u>Constructed from 1.5 m to 2.5 m thick compacted clayey material and enclosed by bunding</u></b>

6. The Licence is amended by the deletion of the text shown in strikethrough below and the insertion of the bold text shown in underline below for Condition 1.3.13 Table 1.3.5 and Condition 1.3.14 Table 1.3.6:

<b>Table 1.3.5 Storage requirements</b>		
<b>Substance (in liquid form) stored in location depicted in Schedule 1 Figure 8</b>	<b>Authorised storage volume (litres)</b>	<b>Other specific containment requirements</b>
Copper collector RTD-11A	60,000	-
Frothing agent DSF-004	60,000	-
Antiscalant NALCO Scalex CA	<del>6640,000</del>	Specified in IR2
Hydraulic fluid Bartran HV 46	36,000	-
Transmission oil Aufran FD 60	20,000	-
Grease CIT GO RDE 320	20,000	-
Engine Oil BP Vanellus Multifleet	27,000 + 38,000	-
Transmission oil BP Aufran TO-430	45,000	-
Transmission oil BP Aufran TO-450	45,000	-
Engine Oil ICRA-134-EDM's	45,000	-
Engine Oil IC-HFX-304-EDM's	35,000	-

**Table 1.3.6 Production or design capacity limits**

<b>Category<sup>1</sup></b>	<b>Category description<sup>1</sup></b>	<b>Premises production or design capacity limit</b>
5	Processing or beneficiation of metallic or non-metallic ore	<del>264,000,000 tonnes of ore per annual period</del>
<b>6</b>	<b><u>Mine dewatering</u></b>	<b><u>940,000 tonnes per annual period</u></b> <b><u>(235,000 tonne limit for each discharge event)</u></b>
7	Vat or in situ leaching of metals	12,000,000 tonnes of ore per annual period
52	Electrical power generation	158.2 MWe
73	Bulk storage of chemicals	9,000 m <sup>3</sup> in aggregate

7. The Licence is amended by the deletion of the text shown in strikethrough below for Condition 2.2.1 in Table 2.2.1:

**Table 2.2.1: Emission points to air**

<b>Emission point reference and location on Map of emission points</b>	<b>Emission Point</b>	<b>Emission point height (m)</b>	<b>Source, including any abatement</b>
A1	Gas Turbine 1 Stack	20	PPS Turbine 1
A2	Gas Turbine 2 Stack	20	PPS Turbine 2
A3	Gas Turbine 3 Stack	20	PPS Turbine 3
<del>A4–A15</del>	<del>Gas Generators 1–12 Stacks</del>	4.5	<del>PPS Expansion Gas-Generator 1–12</del>
A16	Off-gas released to air via a stack	21	Carbon regeneration
A17	Off-gas released to air via a stack	45	Gold smelting

8. The Licence is amended by the deletion of the text shown in strikethrough below and the insertion of the bold text shown in underline below for Condition 2.3.1 and Table 2.3.1:

2.3.1 ~~The Licensee shall ensure that where waste is emitted to land from the emission points in Table 2.3.1 and identified on the map of emission points in Schedule 1 (Figure 12) it is done so in accordance with the conditions of this Licence.~~

**Table 2.3.1: Emissions to land**

<b>Emission point reference and location on Map of emission points</b>	<b>Description</b>	<b>Source including abatement</b>
L1	Pipe feeding 7.4 ha irrigation area	Treated wastewater from the Administration WWTP.
<b><u>Lake 11</u></b>	<b><u>Discharge outlet from the Passmore pipeline into Lake 11</u></b>	<b><u>Dewatering water from mined pits 8 and 9</u></b>

9. The Licence is amended by the insertion of the bold text shown in underline below for Condition 1.3.12 Table 1.3.4:

**Table 1.3.4: Inspection of infrastructure**

<b>Scope of inspection</b>	<b>Type of inspection</b>	<b>Frequency of inspection</b>
Tailings delivery pipelines	Visual integrity	Twice daily
Tailings decant water return pipelines	Visual integrity	Twice daily
<b><u>Tailings pipeline to the cemented hydraulic fill plant</u></b>	<b><u>Visual integrity</u></b>	<b><u>Twice daily</u></b>
<b><u>Cemented hydraulic fill plant reject pipeline to the tailings storage facility</u></b>	<b><u>Visual integrity</u></b>	<b><u>Twice daily</u></b>

Tailings conduit	Visual integrity	Weekly
Tailings storage facility embankment freeboard	Visual to confirm required freeboard capacity is available	Daily

10. The Licence is amended by the insertion of Condition 1.3.15 and Table 1.3.7, insertion of Conditions 1.3.16, 1.3.17 and 1.3.18 as shown in the bold text in underline below:

**1.3.15 The Licensee must install and undertake the Works for the infrastructure and equipment:**  
**(a) specified in Column 1; and**  
**(b) to the requirements specified in Column 2 of Table 1.3.7 below:**

<b>Table 1.3.7: Construction Requirements</b>	
<b>Column 1</b>	<b>Column 2</b>
<b><u>Infrastructure/Equipment</u></b>	<b><u>Requirements (design and construction)</u></b>
<b><u>Mobile batching plant</u></b>	<p><b><u>Mobile batching plant including the dry tailings storage area to be located within a concrete bunded hardstand which is graded to a collection sump for the recovery of spilt materials</u></b></p> <p><b><u>Water sprinklers are fitted at the dry tailings storage area, feed hopper and conveyors for the control of dust</u></b></p> <p><b><u>Cement silo is fitted with filters or baghouse for the control of dust</u></b></p>
<b><u>Cemented hydraulic fill plant</u></b>	<p><b><u>All infrastructure associated with the cemented hydraulic fill plant is to be located within a concrete bunded hardstand which is graded to a collection sump for the recovery of spilt materials</u></b></p> <p><b><u>All pipelines from the Telfer Process Plant to the cemented hydraulic fill plant, and reject pipelines from the cemented hydraulic fill plant to the Telfer Process Plant are to be:</u></b></p> <ul style="list-style-type: none"> <li>• <b><u>located within corridors which have containment bunding at least 0.5 m high and fitted with scour pits to contain spillage during maintenance and in the event of spillage; and</u></b></li> <li>• <b><u>fitted with automated pressure/volume flow sensors to detect loss of pressure in the pipelines.</u></b></li> </ul>

**1.3.16 If any departures from the specifications in Table 1.3.7 occur, then the Licensee must provide the CEO with a list of departures which are certified as complying with Condition 1.3.15 at the same time as the certifications under Condition 1.3.17.**

**1.3.17 The Licensee must submit a construction compliance document to the CEO, within one month, following the construction of the Works and prior to operating the new works at the premises.**

**1.3.18 The Licensee must ensure the construction compliance document:**  
**(a) is certified by a suitably qualified professional engineer or builder that each item of infrastructure specified in Condition 1.3.15, Table 1.3.7 has been constructed in accordance with the Conditions of the Licence with no material defects; and**  
**(b) be signed by a person authorised to represent the Licensee and contain the printed name and position of that person within the company.**

11. The Licence is amended by the insertion of the bold text in underline below for Condition 3.3.1 Table 3.3.1 as below:

<b>Table 3.3.1: Monitoring of emissions to land</b>				
<b>Emission point reference</b>	<b>Parameter</b>	<b>Units</b>	<b>Averaging Period</b>	<b>Frequency</b>
L1	Biochemical oxygen demand	mg/L	<b>Spot sample</b>	Quarterly
	Total suspended solid	mg/L		
	pH <sup>1</sup>	-		
	Total nitrogen	mg/L		
	Total phosphorus	mg/L		
	E.coli	cfu/100mL		
<b><u>Lake 11</u></b>	<b><u>Volumetric flow rate</u></b>	<b><u>m<sup>3</sup>/day</u></b>	<b><u>Daily</u></b>	<b><u>Continuous during discharge</u></b>
	<b><u>Aluminium</u></b>	<b><u>mg/L</u></b>	<b><u>Spot sample</u></b>	<b><u>At the commencement of each discharge campaign</u></b>
	<b><u>Arsenic</u></b>			
	<b><u>Cadmium</u></b>			
	<b><u>Chlorine</u></b>			
	<b><u>Copper</u></b>			
	<b><u>Iron</u></b>			
	<b><u>Lead</u></b>			
	<b><u>Magnesium</u></b>			
	<b><u>Manganese</u></b>			
	<b><u>Mercury</u></b>			
	<b><u>Molybdenum</u></b>			
	<b><u>Nickel</u></b>			
	<b><u>Potassium</u></b>			
<b><u>Selenium</u></b>				
<b><u>Sodium</u></b>				
<b><u>Total Dissolved Solids</u></b>	<b><u>mg/L</u></b>	<b><u>Spot sample</u></b>	<b><u>At the commencement of each discharge campaign</u></b>	
<b><u>Total recoverable hydrocarbons</u></b>				
<b><u>Zinc</u></b>	<b><u>mg/L</u></b>	<b><u>Spot sample</u></b>	<b><u>At the commencement of each discharge campaign</u></b>	
<b><u>Weak acid dissociable cyanide (CN<sub>WAD</sub>)</u></b>				
<b><u>pH<sup>1</sup></u></b>				
<b><u>Total Dissolved Solids<sup>1</sup></u></b>	<b><u>mg/L</u></b>	<b><u>Spot sample</u></b>	<b><u>Daily during discharge</u></b>	

**Note 1: In-field non-NATA accredited analysis permitted.**

12. The Licence is amended by the deletion of the text shown in strikethrough below for Condition 3.6.1 Table 3.6.1 and section 4 (Improvements) of the Licence:

<b>Table 3.6.1: Monitoring of ambient groundwater quality</b>				
<b>Monitoring point reference as depicted in Schedule 1 Figure 15</b>	<b>Parameter</b>	<b>Units</b>	<b>Averaging period</b>	<b>Frequency</b>
<b><u>TSF No. 7</u></b> <del>HB154, HB246, HB247, HB248, HB249, HB250, HB251, HB266, HB267, HB268, HB269, HB234</del>	Standing water level	m(AHD)	Spot sample	Monthly
<b><u>Dump Leach 5</u></b> <del>HB425, HB421, HB422, HB423</del>				
<b><u>Decommissioned TSFs</u></b> <del>HB468, HB469, HB470,</del>				

HB471, HB458, HB92A, HB461, HB463, HB464, HB465, HB473, HB474, HB46  <u><b>West Dome &amp; Leach Pad</b></u> <u><b>237</b></u> HB431, HB137				
<u><b>TSF No. 7</b></u> HB246, HB247, HB248, HB249, HB250, HB251, HB234, HB254, HB255, HB257, HB258  <u><b>Dump Leach 5</b></u> HB425, HB421, HB422, HB423	Standing water level pH' Total dissolved solids Weak acid dissociable cyanide (CN <sub>WAD</sub> ) Copper Nickel Zinc Aluminium Antimony Arsenic Chromium Cobalt Lead Mercury Iron Manganese Cadmium Selenium Thallium	m(AHD) - mg/L	Spot sample	Six monthly

## 4—Improvements

### 4.1—Improvement program

4.1.1—The Licensee shall complete the improvements in Table 4.1.1 by the date of completion in Table 4.1.1.

4.1.2—The Licensee, for improvements not specifically requiring a written submission, shall write to the CEO stating whether and how the Licensee is compliant with the improvement within one week of the completion date specified in Table 4.1.1.

**Table 4.1.1: Improvement program**

<b>Improvement reference</b>	<b>Improvement</b>	<b>Date of completion</b>
IR1	<del>Upgrade the Nalco Scalex transfer point to meet the requirements of Condition 1.3.13.</del>	<del>31 August 2016</del>
IR2	<del>The Licensee shall submit to the CEO a report, following the completion of permeability testing of the Bioremediation Facility Ponds. The works must be undertaken by a suitably qualified person and the report detailed with reference to Liners for containing pollutants, using engineered soils, WQPN 27, Department of Water, 2006. In the event that testing finds the base and bunding of the facilities are not lined in accordance with WQPN 27, the licensee shall outline the proposed action to either demonstrate that there is an acceptable risk to the environment, or a schedule of the works to be undertaken to rectify the lining of the facilities within a set timeframe.</del>	<del>31 August 2016</del>

13. The Licence is amended by the deletion of the text shown in strikethrough below and



the insertion of the bold text shown in underline below for Condition 5.2.1 Table 5.2.1 and Condition 5.3.1 and Table 5.3.1:

<b>Table 5.2.1: Annual Environmental Report</b>		
<b>Condition or table (if relevant)</b>	<b>Parameter</b>	<b>Format or form<sup>1</sup></b>
-	<i>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</i>	<i>None specified</i>
<i>Table 3.2.1</i>	<i>Monitoring of point source emissions to air</i>	<i>AR1</i>
<i>Table 3.3.1</i>	<i>Monitoring of emissions to land</i>	<i>LR1</i>
<i>Table 3.4.1</i>	<i>Monitoring of inputs and outputs</i>	<i>None specified</i>
<i>Table 3.5.1</i>	<i>Process monitoring</i>	<i>None specified</i>
<i>Table 3.6.1</i>	<i>Monitoring of ambient groundwater quality</i>	<i>None specified</i>
<i>5.1.3</i>	<i>Compliance</i>	<i>Annual Audit- Compliance Report- (AACR)</i>
<b><u>5.1.43</u></b>	<b><u>Complaints summary</u></b>	<i>None specified</i>
-	<i>Status of and actions undertaken in relation to the TSF7 tailings water leak</i>	<i>None specified</i>

<b>Table 5.3.1: Notification requirements</b>			
<b>Condition or table (if relevant)</b>	<b>Parameter</b>	<b>Notification requirement<sup>1</sup></b>	<b>Format or form<sup>2</sup></b>
-	<i>Unauthorised fire</i>	<i>Within 14 days of unauthorised fire.</i>	<i>None specified</i>
-	<i>Breach of any limit specified in the Licence</i>	<i>Part A: As soon as practicable but no later than 5pm of the next usual working day. Part B: As soon as practicable.</i>	<i>N1</i>
<b><u>3.1.54</u></b>	<b><u>Calibration report</u></b>	<i>As soon as practicable.</i>	<i>None specified</i>
-	<i>Production ceasing for an unspecified period of time</i>	<i>As soon as practicable after the decision has been made.</i>	<i>None Specified</i>
-	<i>Production recommencing</i>	<i>At least 28 days prior to production recommencing.</i>	<i>None specified</i>
-	<i>Substantial variations in the volume rate or water quality for TSF7 water leak to scour pit</i>	<i>Within 14 days of receiving results</i>	<i>None specified</i>

14. The Licence is amended by insertion of the map below into **Schedule 1**:

## Map of emission points

The location of the dewatering discharge into Lake 11 defined in Table 2.3.1 is shown below. Monitoring required by Table 3.3.1 to occur at the discharge point.



15. The Licence is amended by the replacement of Figure 3 in Schedule 1 with the following updated map.



Figure 3 – Class II Landfill, Tyre Storage/Burial Areas and Bioremediation



16. The Licence is amended by the replacement of Figure 4 in Schedule 1 with the following updated map.

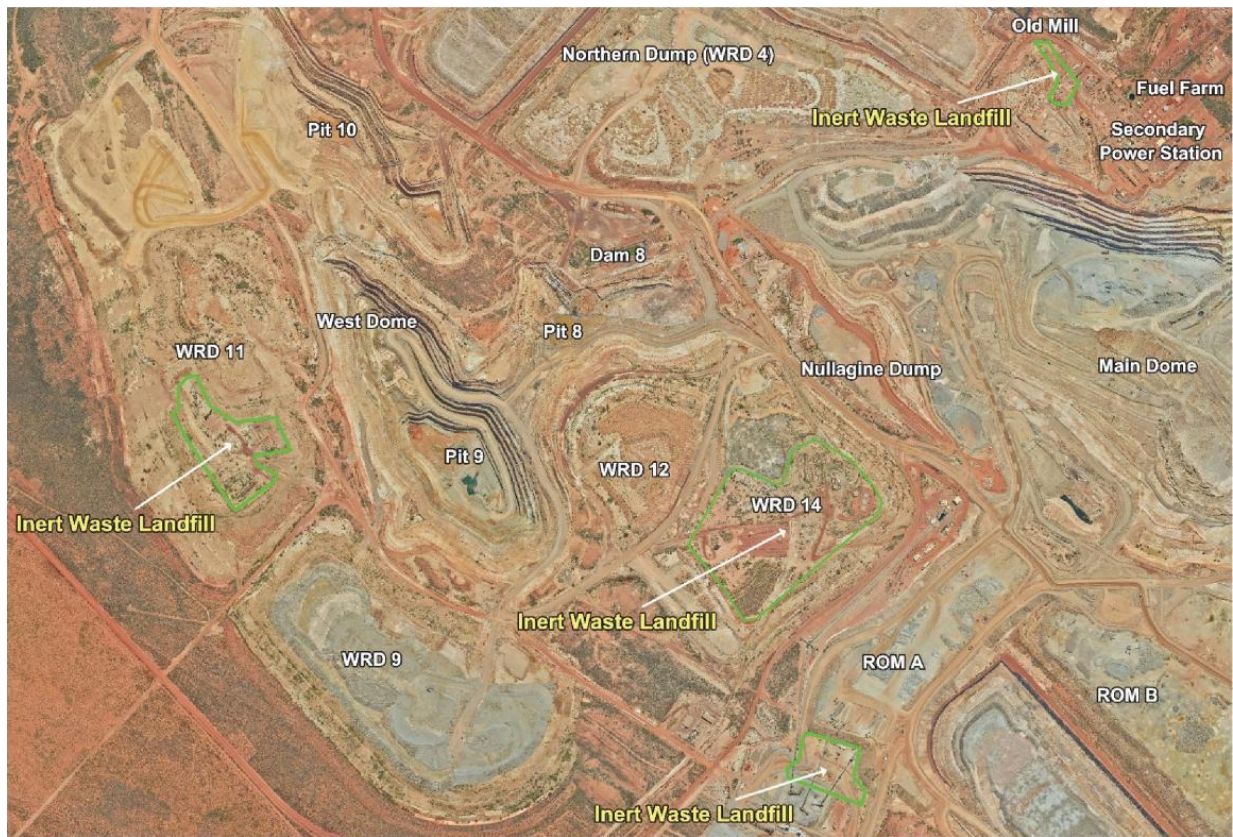


Figure 4 – Inert Waste Landfill Areas

17. The Licence is amended by the replacement of Figure 5 in Schedule 1 with the following updated map.



Figure 5 Replacements – Tyre Burial Areas



18. The Licence is amended by the replacement of Figure 10 in Schedule 1 with the following updated map.



Figure 10 – Primary Power Station Air Emissions Points A1 – A3

## Appendix 1: Key documents

	Document title	In text ref	Availability
1	Licence L6079/1988/13 – Telfer Gold Mine	L6079/1988/13	accessed at <a href="http://www.dwer.wa.gov.au">www.dwer.wa.gov.au</a>
2	Telfer Gold Mine 2016-2017 Annual Environmental Report	Telfer 2016-2017 AER	DWER record A1547388
3	Newcrest Mining Limited. Licence amendment application, 5 September 2017	Licence amendment	DWER record CEO2536/17
4	Additional information provided	-	A1536775, A1560554 and A1560561

## Appendix 2: Summary of Licensee comments

The Licensee was provided with the draft Amendment Notice on 30 November 2017 for review and comment. The Licensee responded on 1 December 2017 waiving the remaining comment period until 21 December 2017. No comments were submitted on the draft Amendment Notice.