Government of Western Australia
Department of Environment Regulation

Licence

Environmental Protection Act 1986, Part V

Licensee: Kalgoorlie Consolidated Gold Mines Pty Ltd

Licence: L6420/1988/14

Registered office: Kalgoorlie Consolidated Gold Mines Pty Ltd
Black Street
KALGOORLIE WA 6430

ACN: 009 377 619

Premises address: Tenements G26/15, G26/44-68, G26/70-71, G26/73–78, G26/82-86, G26/99-107, G26/138-145, G26/149, G26/159, G26/160, G26/165, G26/166, L26/267, M26/46, M26/78, M26/86, M26/95, M26/267-268, M26/294, M26/308, M26/326, M26/359, M26/377, M26/383, M26/405, M26/448, M26/451 and M26/715
KALGOORLIE WA 6430

Issue date: Thursday, 25 September 2014

Commencement date: Monday, 29 September 2014

Expiry date: Sunday, 28 September 2025

Prescribed premises category
Schedule 1 of the *Environmental Protection Regulations 1987*

Category number	Category description	Category production or design capacity	Approved Premises production or design capacity
5	Processing or beneficiation of metallic or non-metallic ore	50 000 tonnes or more per year	13 350 000 tonnes per year
54	Sewage facility	100m^3 or more per day	110m^3 per day
63	Class 1 inert landfill site	500 tonnes or more per year	15 000 tonnes per year

Conditions
This Licence is subject to the conditions set out in the attached pages.

Date signed: 25 November 2016
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Alana Kidd
Manager Licensing – Resource Industries
Officer delegated under section 20
of the *Environmental Protection Act 1986*

Contents

Introduction

This Introduction is not part of the Licence conditions.

DER's industry licensing role
The Department of Environment Regulation (DER) is a government department for the state of Western Australia in the portfolio of the Minister for Environment. DER's purpose is to advise on and implement strategies for a healthy environment for the benefit of all current and future Western Australians.

DER has responsibilities under Part V of the *Environmental Protection Act 1986* (the Act) for the licensing of prescribed premises. Through this process DER regulates to prevent, control and abate pollution and environmental harm to conserve and protect the environment. DER also monitors and audits compliance with works approvals and licence conditions, takes enforcement action as appropriate and develops and implements licensing and industry regulation policy.

Licence requirements
This Licence is issued under Part V of the Act. Conditions contained within the Licence relate to the prevention, reduction or control of emissions and discharges to the environment and to the monitoring and reporting of them.

Where other statutory instruments impose obligations on the Premises/Licensee the intention is not to replicate them in the licence conditions. You should therefore ensure that you are aware of all your statutory obligations under the Act and any other statutory instrument. Legislation can be accessed through the State Law Publisher website using the following link:
http://www.slp.wa.gov.au/legislation/statutes.nsf/default.html

For your Premises relevant statutory instruments include but are not limited to obligations under the:

- *Environmental Protection (Unauthorised Discharges) Regulations 2004* – these Regulations make it an offence to discharge certain materials such as contaminated stormwater into the environment other than in the circumstances set out in the Regulations.

- *Environmental Protection (Controlled Waste) Regulations 2004* - these Regulations place obligations on you if you produce, accept, transport or dispose of controlled waste.

- *Environmental Protection (Noise) Regulations 1997* – these Regulations require noise emissions from the Premises to comply with the assigned noise levels set out in the Regulations.

You must comply with your licence. Non-compliance with your licence is an offence and strict penalties exist for those who do not comply.

Licence holders are also reminded of the requirements of section 53 of the Act which places restrictions on making certain changes to prescribed premises unless the changes are in accordance with a works approval, licence, closure notice or environmental protection notice.

Licence fees
If you have a licence that is issued for more than one year, you are required to pay an annual licence fee prior to the anniversary date of issue of your licence. Non payment of annual licence fees will result in your licence ceasing to have effect meaning that it will no longer be valid and you will need to apply for a new licence for your Premises.

Ministerial conditions
If your Premises has been assessed under Part IV of the Act you may have had conditions imposed by the Minister for Environment. You are required to comply with any conditions imposed by the Minister.

Premises description and Licence summary
Kalgoorlie Consolidated Gold Mines Pty Ltd (KCGM) Fimiston Operations processes gold-bearing ore recovered from the Fimiston Open Pit by crushing, grinding, froth flotation, Carbon in Leach and gold recovery. The projected mine life extends to 2029. The Premises borders the Kalgoorlie township and the nearest residence is 400 m away.

The Fimiston Operation has been subject to several appeals including those lodged in response to the 2007 recommendations of the Environmental Protection Agency (EPA) to approve the Golden Pike Cutback of the Fimiston Pit and additional tailing storage facility (TSF) capacity. The then Minister for Environment handed down the decision on appeals (Statement 782 dated 29 January 2009) which include a number of recommendations for inclusion in the Part V licence, in relation to managing seepage from the Tailings Storage Facilities (TSFs).

KCGM's Fimiston Operations are located on Mining Tenements G26/15, G26/44-78, G26/82-86, G26/99-107, G26/138-150, G26/159, G26/160, G26/165, G26/166, L26/267, M26/39, M26/46, M26/83, M26/86, M26/95, M26/155, M26/266-268, M26/294, M26/308, M26/326, M26/359, M26/373, M26/377, M26/383, M26/405, M26/451, M26/454 and M26/715.

The Fimiston Operations consists of:
- Fimiston Open Pit;
- Fimiston Processing Plant;
- Fimiston I Tailings Storage Facility (TSF);
- Fimiston II TSF;
- Kaltails TSF;
- Hydrogen peroxide dosing station; and
- Wastewater treatment plant.

Fimiston Operations are situated within the area of the Environmental Protection (Goldfields Residential Areas) (Sulphur Dioxide) Policy 1992, however it has been determined that the operations do not significantly contribute to SO_2 emissions in the region. KCGM's Gidji Roaster was a dominant emitter of SO_2 within the Kalgoorlie-Boulder residential air shed until closure of the roasters in 2015 following the installation of a second ultra fine grinding mill. Processing at Gidji is managed under a separate licence – L5946/1988/13.

The site is prescribed for the treatment of ore but the activity of open pit mining is not a prescribed activity. The proximity of the mine to the community however triggers many concerns regarding the

impact of noise, dust and mercury emissions. These have been addressed by Part IV of the EP Act and managed via the Ministerial Statement mentioned above.

September 2015 Amendment
The licence was amended to include category 54, to authorise operation of an existing wastewater treatment plant. The omission was identified through a DER compliance inspection.

A number of administrative errors were corrected in the amendment. Emission points to air from gold processing were added. One groundwater monitoring bore was removed from the compliance monitoring network for Kaltails TSF, following submission of hydrogeological advice.

April 2016 Amendment
The licence has been amended to authorise an increase in the height of the embankments of the Fimiston II TSF in stages to a final height of 60 m (Cells A/B, C and D), following a change to the approved proposal (Attachment 3 of Ministerial Statement 782) granted under Part IV of the Act on 17 June 2015.

Administrative changes have also been made to Table 4.2.1 and errors corrected in Map of Monitoring Locations 3 and Table 2 in Schedule 1. Redundant vegetation monitoring sites have been removed from Table 3 of Schedule 1.

Category 63 has been added to the licence to allow for operation of a class 1 landfill within the Fimiston waste rock dump. Approximately 10 000 tonnes per annum of type 1 construction and demolition waste and 5 000 tonnes per annum of type 2 waste (used tyres) are to be disposed of to the landfill.

The Prescribed Premises boundary has also been expanded to include tenements that cover the Fimiston waste rock dump.

November 2016 Amendment
The licence has been amended to remove the vegetation monitoring conditions, as a result of a submission by the Licensee. Refer to the Decision Document for the supporting information in relation to this change.

The licence amendment also authorises disposal of hydrocarbon contaminated waste into the Paringa TSF, which provides for encapsulation of waste consistent with management of a Class III waste.

Administrative amendments have also been made to the Licence, to modify the Premises boundary so as to provide a contiguous boundary connecting the Fimiston II TSF to the larger Premises area and also to include the Eastern Waste Rock Dump as a potential site for a future landfill if required. Corrections have been made to the instrument log, to the listing of groundwater bores in Table 2 and the map of groundwater monitoring locations corrected. DER has also made administrative amendments consistent with DER's *Guidance Statement: Setting Conditions* (October 2015).

The licences and works approvals issued for the Premises since 24 December 2008 are:

Instrument log		
Instrument	**Issued**	**Description**
L6240/1988/12	01/10/2008	Licence re-issue
W4487/2008/1	24/12/2008	Fimiston II TSF at KCGM
W4515/2008/1	06/04/2009	Fimiston Plant and Tailings Disposal
W4613/2009/1	18/03/2010	Kaltails TSF
W4752/2010/1	29/08/2010	Fimiston II TSF Third Lift
W4879/2011/1	06/05/2011	Fimiston I TSF

L6240/1988/13	24/11/2011	Licence re-issue
W5582/2014/1	27/03/2014	Works approval to authorise Fimiston II TSF embankment raise (3 m height increase to a maximum of 41 m)
W5775/2014/1	23/01/2015	Works approval to authorise Fimiston II TSF embankment raise (3 m height increase to a maximum of 44 m)
L6420/1988/14	25/09/2014	Licence re-issue, conversion to new format including corrections to administrative errors in the vegetation and bore monitoring list, an updated Prescribed Premises boundary map and conditions 1.3.6 & 1.3.7 relating to managing the bioremediation cells
L6420/1988/14	17/09/2015	Licence amendment to include category 54
L6420/1988/14	05/04/2016	Licence amendment to authorise progressive embankment raises to Fimiston II TSF and addition of category 63 to construct and operate a Class 1 inert landfill within the Fimiston Waste Rock Dump
L6420/1988/14	25/11/2016	Licence amendment to remove vegetation monitoring requirements following Licensee submission. Authorisation to dispose of hydrocarbon contaminated waste to Paringa TSF. Administrative changes requested by the Licensee and additional administrative changes made by DER.

Severance

It is the intent of these Licence conditions that they shall operate so that, if a condition or a part of a condition is beyond the power of this Licence to impose, or is otherwise *ultra vires* or invalid, that condition or part of a condition shall be severed and the remainder of these conditions shall nevertheless be valid to the extent that they are within the power of this Licence to impose and are not otherwise *ultra vires* or invalid.

END OF INTRODUCTION

Licence conditions

1 General

1.1 Interpretation

1.1.1 In the Licence, definitions from the *Environmental Protection Act 1986* apply unless the contrary intention appears.

1.1.2 For the purposes of this Licence, unless the contrary intention appears:

'Act' means the *Environmental Protection Act 1986;*

***'*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;

'annual period' means the inclusive period from 1 January until 31 December in the same year;

'AS/NZS 5667.1' means the Australian Standard AS/NZS 5667.1 *Water Quality – Sampling – Guidance of the Design of sampling programs, sampling techniques and the preservation and handling of samples;*

'AS/NZS 5667.11' means the Australian Standard AS/NZS 5667.11 *Water Quality – Sampling – Guidance on sampling of groundwaters;*

'averaging period' means the time over which a limit is measured or a monitoring result is obtained;

'CEO' means Chief Executive Officer of the Department of Environment Regulation;

'CEO' for the purpose of correspondence means;
Chief Executive Officer
Department Div.3 Pt V EP Act
Locked Bag 33 CLOISTERS SQUARE
Perth WA 6850
info@der.wa.gov.au

'Clean Fill' has the meaning defined in Landfill Definitions;

'CN-FREE' means free cyanide;

'CN-TOTAL' means total cyanide;

'compliance bores' means those monitoring bores listed in Schedule 1 Table 1 and at the locations depicted in Maps of monitoring locations 2 - 4;

'Department' means the department established under s.35 of the Public Sector Management Act 1994 and designated as responsible for the administration of Division 3 Part V of the Environmental Protection Act 1986;

'environmentally hazardous material' means material (either solid or liquid raw materials, materials in the process of manufacture, manufactured products, products used in the manufacturing process,

by-products and waste) which if discharged into the environment from or within the premises may cause pollution or environmental harm;

'Eastern Borefield' means the bore network that is constructed around Fimiston I and Fimiston II tailings storage facilities and comprises all of the Production and Monitoring Bores;

'EC' means electrical conductivity;

'freeboard' means the distance between the maximum water surface elevations and the top of retaining banks or structures at their lowest point;

'FSGMP' means the document "Kalgoorlie Consolidated Gold Mines Fimiston Operations Seepage and Groundwater Management Plan" dated 26 September 2008, as submitted to the CEO and including annual revisions of that document approved by the CEO;

'Inert Waste Type 1' has the meaning defined in Landfill Definitions;

'Inert Waste Type 2' has the meaning defined in Landfill Definitions;

'KSGMP' means the document "Kalgoorlie Consolidated Gold Mines Kaltails Seepage and Groundwater Management Plan" dated 16 February 2011, as submitted to the CEO and including annual revisions of that document approved by the CEO;

'Landfill Definitions' means the document titled "Landfill Waste Classification and Waste Definition 1996" published by the Chief Executive Officer of the Department of Environment as amended from time to time;

'Licence' means this Licence numbered L6420/1988/14 and issued under the Act;

'Licensee' means the person or organisation named as Licensee on page 1 of the Licence;

'mbgl' means metres below ground level';

'NATA' means the National Association of Testing Authorities, Australia;

'NATA accredited' means in relation to the analysis of a sample that the laboratory is NATA accredited for the specified analysis at the time of the analysis;

'Premises' means the area defined in the Premises Map in Schedule 1 and listed as the Premises address on page 1 of the Licence;

'quarterly' means the 4 inclusive periods from 1 January to 31 March, 1 April to 30 June, 1 July to 30 September, 1 October to 31 December in the same year;

'Schedule 1' means Schedule 1 of this Licence unless otherwise stated;

'Schedule 2' means Schedule 2 of this Licence unless otherwise stated;

'spot sample' means a discrete sample representative at the time and place at which the sample is taken;

'SWL' means standing water level;

'usual working day' means 0800 – 1700 hours, Monday to Friday excluding public holidays in Western Australia;

'TDS' means total dissolved solids;

'TSF' means tailings storage facility; and

'WADCN' means weak acid dissociable cyanide.

1.1.3 Any reference to an Australian or other standard in the Licence means the relevant parts of the standard in force from time to time during the term of this Licence.

1.1.4 Any reference to a guideline or code of practice in the Licence means the version of that guideline or code of practice in force from time to time, and shall include any amendments or replacements to that guideline or code of practice made during the term of this Licence.

1.2 General conditions

1.2.1 The Licensee shall immediately recover, or remove and dispose of spills of environmentally hazardous materials which occur outside an engineered containment system.

1.3 Premises operation

1.3.1 The Licensee shall ensure that waste material is only stored and/or treated within vessels or compounds provided with the infrastructure detailed in Table 1.3.1.

Table 1.3.1: Containment infrastructure

Storage vessel or compound	Material	Requirements
Fimiston I TSF	Liquid and slurry wastes	Sand / Clay base
Fimiston II TSF		Sand / Clay base
Kaltails TSF		Sand / Clay base
All saline water dams	Saline water	HDPE lined
Paringa Facility	Discharge of treated effluent from the Fimiston waste water treatment plant	Consolidated tailings
	Hydrocarbon contaminated sediment and/or waste rock	
Return water dams located at Kaltails and Fimiston	Any substance containing saline, alkaline or cyanide constituents resulting from activities on the Premises	HDPE lined

1.3.2 The Licensee shall ensure that all pipelines containing environmentally hazardous substances are either:
(a) equipped with automatic cut-outs in the event of a pipe failure; or
(b) provided with secondary containment sufficient to contain any spill for a period equal to the time between routine inspections.

1.3.3 The Licensee shall maintain a minimum top of embankment freeboard of 300 mm in all TSFs on the Premises.

1.3.4 The Licensee shall:
(a) undertake inspections as detailed in Table 1.3.2;
(b) where any inspection identifies that an appropriate level of environmental protection is not being maintained, take corrective action to mitigate adverse environmental consequences as soon as practicable; and
(c) maintain a record of all inspections undertaken.

Table 1.3.2: Inspection of infrastructure		
Scope of inspection	**Type of inspection**	**Frequency of inspection[1]**
Tailings delivery lines	Visual integrity	Daily
Return water lines		
Tailings deposition	Visual	
Ponding on the surface of the TSF	Visual to confirm size and location of the pond	
Internal embankment freeboard	Visual to confirm required freeboard capacity is available	
External wall of the TSF	Visual integrity	

Note 1: If circumstances at the scheduled time of inspection are identified as immediately hazardous to personnel the inspection should be undertaken as soon as practicable and the reason(s) recorded.

1.3.5 The Licensee shall implement the FSGMP and the KSGMP. The FSGMP and the KSGMP may be amended on approval from the CEO to improve management of seepage from KCGM's TSFs. In circumstances where the details and commitments in the FSGMP and/or the KSGMP are inconsistent with conditions of this Licence, the conditions of this Licence shall prevail.

1.3.6 The Licensee shall employ a suitably qualified professional to conduct an audit of the FSGMP and the KSGMP each year. The audit shall include but not be limited to:
(a) the Licensee's progress towards existing targets and milestones;
(b) whether the objectives in the FSGMP and the KSGMP are being achieved and are still appropriate; and
(c) a statement of the independence of the auditor, including experience and qualifications.

1.3.7 The Licensee is authorised to construct embankment raises and operate the Fimiston II TSF until the end of Stage 2 to the heights as listed in Table 1.3.3 below:

Table 1.3.3: Fimiston II TSF Construction & Operating Heights			
Stages	**TSF Cell**	**Construction Height (m)**	**Operating Height (m)**
Stage 1	AB	45	45
	C	47	47
	D	45	45
Stage 2	AB	48	48
	C	50	50
	D	48	48
Stage 3	AB	51	Not permitted at this time.
	C	53	
	D	51	
Stage 4	AB	54	
	C	56	
	D	54	
Stage 5	AB	57	
	C	59	
	D	57	
Stage 6	AB	60	
	C	60	
	D	60	

1.3.8 The Licensee shall construct the embankment raises to the Fimiston II TSF in accordance with the documentation detailed in Table 1.3.4:

Table 1.3.4: Construction Requirements[1]

Document	Parts	Date of Document
Ramboll Environ (2015) Fimiston II Tailings Storage Facility Height Increase – Mining Proposal	All	September 2015

Note 1: Where the details and commitments of the documents listed in condition 1.3.7 are inconsistent with any other condition of this Licence, the conditions of this Licence shall prevail.

1.3.9 The Licensee shall ensure that where wastes produced on the Licensee's Prescribed Premises (including Premises licenced by L5946/1988/13) are not taken to third party Premises for lawful use or disposal, they are managed in accordance with the requirements in Table 1.3.5.

Table 1.3.5: Management of waste

Waste type	Management strategy	Requirements
Inert Waste Type 1 Inert Waste Type 2 Clean Fill	Receipt, handling and disposal of waste by landfilling	<u>All waste types</u> • No more than 15 000 tonnes per year of all waste types cumulatively shall be disposed of by landfilling. • Disposal of waste by landfilling shall only take place within the landfill area shown on the Premises Map in Schedule 1; • Waste shall be placed in a defined trench or within an area defined by earthen bunds; and • The active tipping area shall be restricted to a maximum linear length of 30 metres. • Construction, operation and decommissioning of landfill cells can occur within the defined landfill area providing there is no waste within: o 100 m of any surface water body; and o 3 m of the highest level of the water table aquifer.
Hydrocarbon contaminated waste (sediment and waste rock)	Disposal to designated bunded zones (A and B) on Paringa TSF as shown in Schedule 1	• No more than 8 000 tonnes per year; and • Disposal areas (zones) to be fully bunded to contain incident rainfall.

1.3.10 The Licensee shall ensure that cover is applied and maintained on landfilled wastes in accordance with Table 1.3.6 and that sufficient stockpiles of cover are maintained on site at all times.

Table 1.3.6: Cover requirements[1]			
Waste Type	**Material**	**Depth**	**Timescales**
All waste	Inert and incombustible material	1000mm	Within three months of the final waste load in each defined bay.

Note 1: Additional requirements for final cover of tyres are set out in Part 6 of the *Environmental Protection Regulations 1987.*

1.3.11 The Licensee shall implement security measures at the landfill area to prevent unauthorised access to the site.

1.3.12 The Licensee shall take measures to ensure that no windblown waste escapes from the landfill area and that windblown waste is collected on at least a monthly basis and returned to the active tipping area.

2 Emissions

2.1 General

2.1.1 The Licensee shall record and investigate the exceedance of any descriptive or numerical limit specified in any part of section 2 of this Licence.

2.2 Point source emissions to air

2.2.1 The Licensee shall ensure that where waste is emitted to air from the emission points in Table 2.2.1 and identified on the map of emission points in Schedule 1, it is done so in accordance with the conditions of this Licence.

Table 2.2.1: Emission points to air			
Emission point reference and location on map of emission points	**Emission Point**	**Emission point height (m)**	**Source, including any abatement**
A1	Carbon Regeneration Kiln 3 Stack	19 m	Kiln 3[1]
	Carbon Regeneration Kiln 4 Stack	19 m	Kiln 4[1]
A2	Gold Room Furnace Stack	15.3 m	Furnace stack[1]

Note 1: The abatement processes for these offgases are currently being improved via Works Approval W5532/2013/1.

3 Monitoring

3.1 General monitoring

3.1.1 The Licensee shall ensure that:
(a) all groundwater sampling is conducted in accordance with AS/NZS 5667.11;
(b) all laboratory samples are submitted to and tested by a laboratory with current NATA accreditation for the parameters being measured unless indicated otherwise in the relevant table; and
(c) all water samples are collected and preserved in accordance with AS/NZS 5667.1.

3.1.2 The Licensee shall ensure that:
(a) monthly monitoring is undertaken at least 15 days apart;
(b) quarterly monitoring is undertaken at least 45 days apart;
(c) six monthly monitoring is undertaken at least 5 months apart; and
(d) annual monitoring is undertaken at least 9 months apart.

3.1.3 The Licensee shall record production or throughput data and any other process parameters relevant to any non-continuous or continuous emissions monitoring system (CEMS) undertaken.

3.1.4 The Licensee shall ensure that all monitoring equipment used on the Premises to comply with the conditions of this Licence is calibrated in accordance with the manufacturer's specifications or any relevant and effective internal management system.

3.1.5 The Licensee shall, where the requirements for calibration cannot be practicably met, or a discrepancy exists in the interpretation of the requirements, bring these issues to the attention of the CEO accompanied with a report comprising details of any modifications to the methods.

3.2 Monitoring of inputs and outputs

3.2.1 The Licensee shall undertake the monitoring in Table 3.2.1 according to the specifications in that table.

Table 3.2.1: Monitoring of inputs and outputs

Input/Output	Parameter	Units	Averaging period	Frequency
Wastewater discharge from Wastewater Treatment Plant	5 day Biochemical Oxygen Demand	mg/L	Spot sample	Quarterly
	Total Suspended Solids	mg/L		
	pH[1]	-		
	Total Nitrogen	mg/L		
	Total Phosphorus	mg/L		
	E. coli	cfu/100mL		

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

3.3 Ambient environmental quality monitoring

3.3.1 The Licensee shall undertake the monitoring specified in Table 3.3.1 according to the specifications in that table and record and investigate results that do not meet any limit specified.

Table 3.3.1: Monitoring of ambient groundwater quality

Monitoring point reference for compliance bores[2]	Parameter	Limit	Units	Averaging period	Frequency
Eastern Borefield Compliance Monitoring Bores	SWL	>4	mbgl	Spot sample	Quarterly
Kaltails Zone A Compliance Monitoring Bores	SWL	>4	mbgl		Quarterly
Kaltails Zone B Compliance Monitoring Bores	SWL	>1	mbgl		Quarterly

Monitoring point reference for all monitoring sites [3,4]	Parameter	Limit	Units	Averaging period	Frequency
Eastern Borefield Dams and Trenches	EC	-	mS/cm	Spot sample	Quarterly
	pH[5]	-	-		Quarterly
	TDS, CN-FREE, WADCN, CN-TOTAL	-	mg/L		Annually
Kaltails Dams and Trenches	pH[5]	-	-		Quarterly
	EC	-	mS/cm		Quarterly
	TDS, CN-FREE, WADCN, CN-TOTAL	-	mg/L		Annually
Eastern Borefield Monitoring Bores	pH[5], EC (mS/cm), TDS, CN-FREE, WADCN, CN-TOTAL	-	Refer to Note 1		Quarterly
Kaltails TSF Monitoring Bores	pH[5], EC (mS/cm), TDS, CN-FREE, WADCN, CN-TOTAL	-	Refer to Note 1		Quarterly

Note 1 Units are mg/L apart from pH and unless otherwise stated
Note 2 As listed in Table 1 of Schedule 1
Note 3 As listed in Table 2 of Schedule 1
Note 4 Location of monitoring sites are shown in Map of monitoring locations 2 & 3 in Schedule 1
Note 5 In-field non-NATA accredited analysis permitted.

3.3.2 The Licensee shall take the relevant management action in the case of an event in Table 3.3.2.

Table 3.3.2: Management actions

Emission point reference for compliance bores[1]	Event/ action reference	Event	Management action
Eastern Borefield Compliance Monitoring Bores	EA1	Groundwater level <4 mbgl	Increase pumping capacity within 6 months
		Groundwater level >4 mbgl and <6 mbgl	Increase pumping capacity within 9 months
Kaltails Zone A Compliance Monitoring Bores	EA2	Groundwater level <4 mbgl	Increase pumping capacity within 6 months
		Groundwater level >4 mbgl and <6 mbgl	Increase pumping capacity within 9 months
Kaltails Zone B Compliance Monitoring Bores	EA3	Groundwater level <1 mbgl	Increase pumping capacity within 6 months
		Groundwater level >1 mbgl and <2 mbgl	Increase pumping capacity within 9 months
All Compliance Monitoring Bores	EA4	Groundwater quality results of greater than 0.50 mg/L WADCN	The licensee shall within nine (9) months of becoming aware of the event increase groundwater recovery capacity in the vicinity of the bore(s).

Note 1 - As listed in Table 1 of Schedule 1

3.3.3 The Licensee shall, when advised by the CEO, take measures to further reduce groundwater levels to protect native vegetation.

4 Information

4.1 Records

4.1.1 All information and records required by the Licence shall:
- (a) be legible;
- (b) if amended, be amended in such a way that the original and subsequent amendments remain legible or are capable of retrieval;
- (c) except for records listed in 4.1.1(d) be retained for at least 6 years from the date the records were made or until the expiry of the Licence or any subsequent licence; and
- (d) for those following records, be retained until the expiry of the Licence and any subsequent licence:
  - (i) off-site environmental effects; or
  - (ii) matters which affect the condition of the land or waters.

4.1.2 The Licensee shall ensure that:
- (a) any person left in charge of the Premises is aware of the conditions of the Licence and has access at all times to the Licence or copies thereof; and
- (b) any person who performs tasks on the Premises is informed of all of the conditions of the Licence that relate to the tasks which that person is performing.

4.1.3 The Licensee shall complete an Annual Audit Compliance Report indicating the extent to which the Licensee has complied with the conditions of the Licence, and any previous licence issued under Part V of the Act for the Premises for the previous annual period.

4.1.4 The Licensee shall implement a complaints management system that as a minimum records the number and details of complaints received concerning the environmental impact of the activities undertaken at the Premises and any action taken in response to the complaint.

4.2 Reporting

4.2.1 The Licensee shall submit to the CEO an Annual Environmental Report by 31 March after the end of the annual period. The report shall contain the information listed in Table 4.2.1 in the format or form specified in that table.

Table 4.2.1: Annual Environmental Report

Condition or table (if relevant)	Parameter	Format or form[1]
-	Any failure or malfunction of any pollution control equipment or any incident, which has caused, is causing or may cause pollution.	None specified
-	Production throughputs for the annual period for each Premises category (category 5 and 54)	None specified
1.3.5	Audit Report of FSGMP and KSGMP	None specified
3.3.1	Summary of quarterly monitoring data results including key findings and proposed remedial actions as required.	None specified
4.1.3	Compliance	AACR
4.1.4	Complaints summary	None specified

Note 1: Forms are in Schedule 2

4.2.2 The Licensee shall submit the information in Table 4.2.2 to the CEO according to the specifications in that table.

Table 4.2.2: Non-annual reporting requirements				
Condition or table (if relevant)	**Parameter**	**Reporting period**	**Reporting date (after end of the reporting period)**	**Format or form**
Table 3.3.1	Groundwater monitoring results	Quarterly	46 calendar days	None specified

4.2.3 The Licensee shall submit a compliance document to the CEO following the construction of each stage of the works as listed in Table 1.3.3.

4.2.4 The compliance document shall:
(a) certify that the works were constructed in accordance with the conditions of this Licence;
(b) be signed by a person authorised to represent the Licence Holder and contain the printed name and position of that person within the company.

4.3 Notification

4.3.1 The Licensee shall ensure that the parameters listed in Table 4.3.1 are notified to the CEO in accordance with the notification requirements of the table.

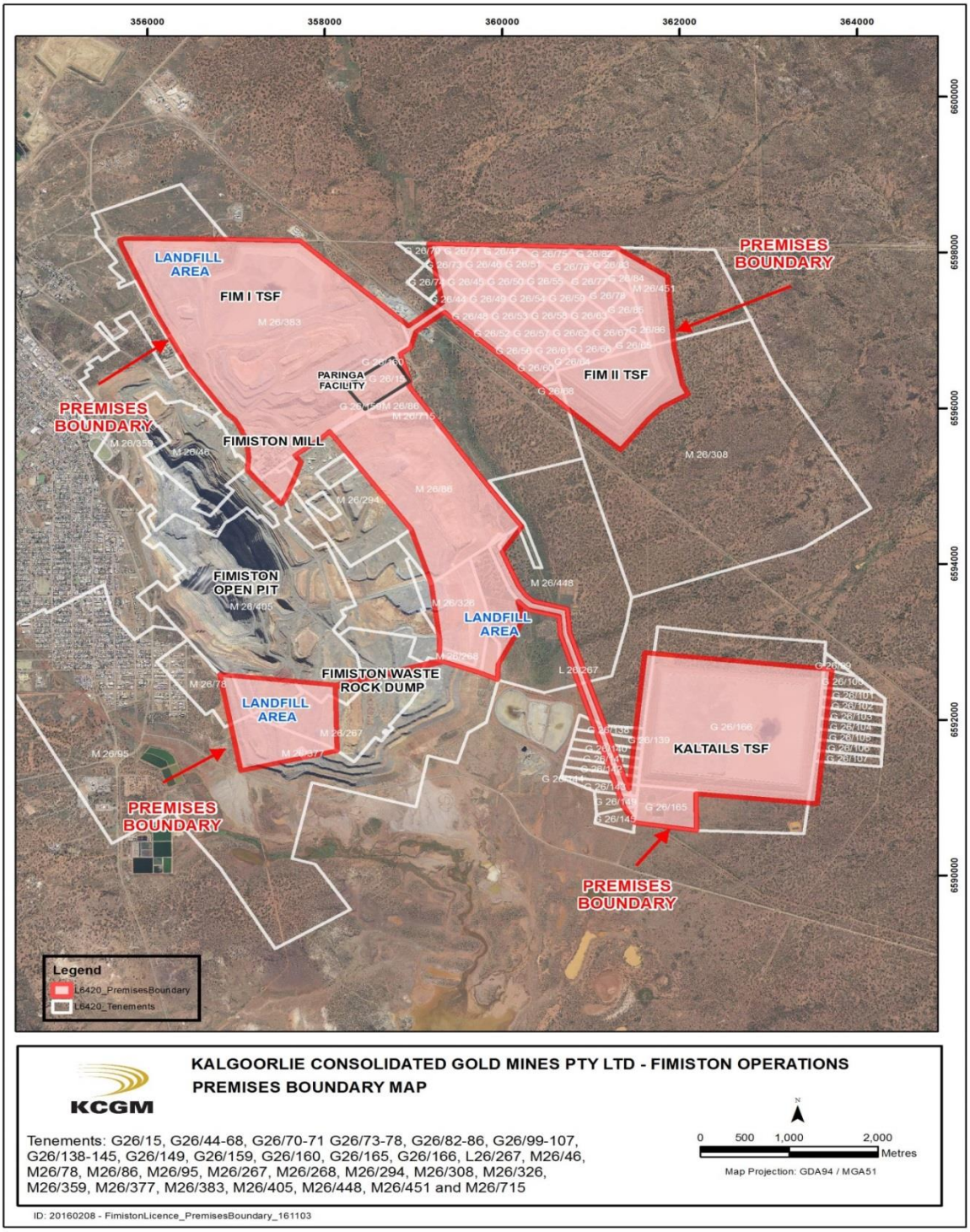
Table 4.3.1: Notification requirements			
Condition or table (if relevant)	**Parameter**	**Notification requirement[1]**	**Format or form[2]**
2.1.1	Breach of any limit specified in the Licence	Part A: In writing within 24 hours of becoming aware of any exceedances Part B: Within 7 days of becoming aware of the exceedance.	N1
3.1.5	Calibration report	As soon as practicable.	None specified

Note 1: Notification requirements in the Licence shall not negate the requirement to comply with s72 of the Act
Note 2: Forms are in Schedule 2

Schedule 1: Maps

Premises map

The Premises is shown in the map below. The red line depicts the Premises boundary.



Map of waste disposal zones within the Paringa Facility

The areas subject to Zone A and Zone B defined in Table 1.3.5 are shown below.

Map of emission points

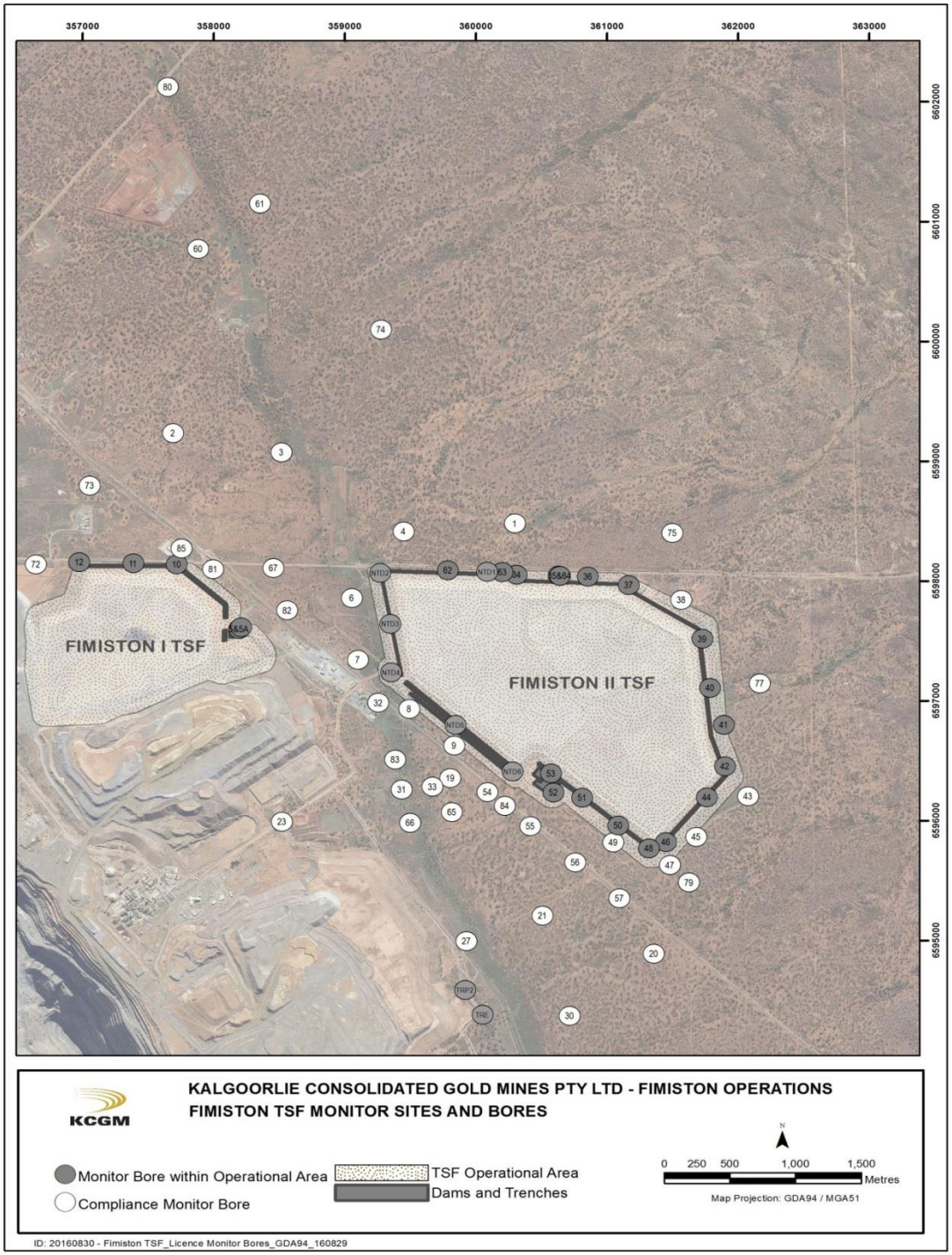
The locations of the emission points defined in Table 2.2.1 are shown below.

Map of monitoring locations 1

The location of the monitoring point at Paringa Facility defined in Table 3.2.1 is shown below.

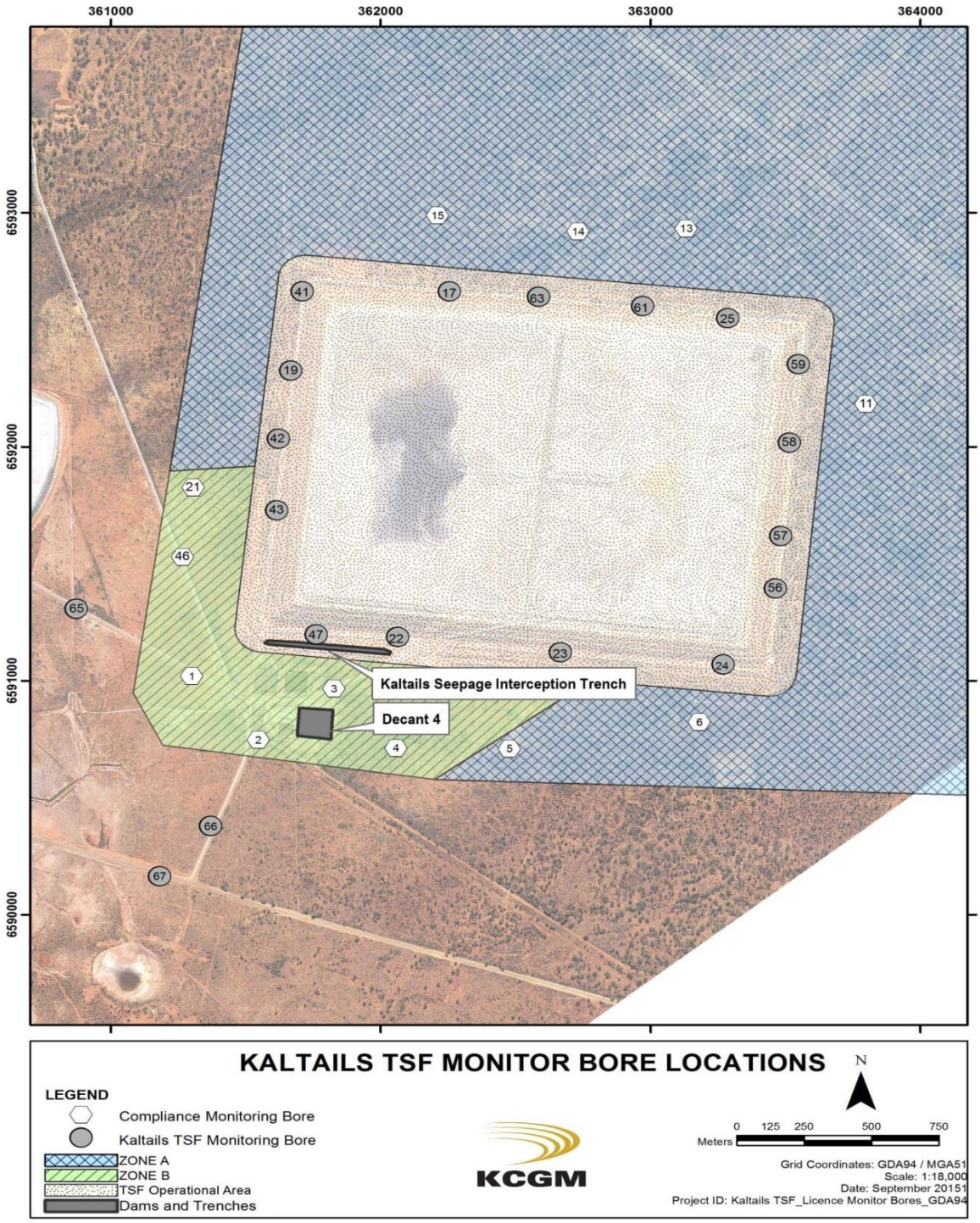
Map of monitoring locations 2

The locations of the ambient groundwater monitoring points defined in Table 3.3.1 and Table 1 and Table 2 of Schedule 1 as Eastern Borefield Monitoring Bores are shown below. The Eastern Borefield Compliance Monitoring Bores are shown in white on the map.



Map of monitoring locations 3

The locations of the ambient groundwater monitoring points defined in Table 3.3.1 and Table 1 and Table 2 of Schedule 1 as Kaltails Zone A Monitoring Bores and Kaltails Zone B Monitoring Bores, are shown below as Kaltails TSF Monitoring Bores and Compliance Bores. Compliance bores are shown in white.



Maps of monitoring locations - Tables

Table 1: Compliance bores							
Eastern Borefield Compliance Monitoring Bores							
MB F1	MB F9		MB F43	MB F57	MB F72	MB F79	TRE
MB F2		MB F27	MB F45	MB F60	MB F73	MB F80	TRP 2
MB F3	MB F19	MB F30	MB F47	MB F61	MB F74	MB F81	
MB F4	MB F20	MB F31	MB F49	MB F65	MB F75	MB F82	
MB F6	MB F21	MB F32	MB F54	MB F66		MB F83	
MB F7	MB F23	MB F33	MB F55	MB F67	MB F77	MB F84	
MB F8		MB F38	MB F56			MB F85	
Kaltails Zone A Compliance Monitoring Bores							
MB K05		MB K11			MB K14		
MB K06		MB K13			MB K15		
Kaltails Zone B Compliance Monitoring Bores							
MB K01		MB K03			MB K21		
MB K02		MB K04			MB K46		

Table 2: All groundwater monitoring sites								
Eastern Borefield Dams And Trenches								
Decant 1	Decant 3	Fimiston I Nth Trench	Fimiston II Sth Trench					
Kaltails Dams and Trenches								
Decant 4	Kaltails Seepage Interception Trench							
Eastern Borefield Monitoring Bores								
MB F1	MB F10	MB F27	MB F39	MB F49	MB F61	MB F74	MB F84	TRP 2
MB F2	MB F11	MB F30	MB F40	MB F50	MB F62	MB F75	MB F85	
MB F3	MB F12	MB F31	MB F41	MB F51	MB F63			
MB F4		MB F32	MB F42	MB F52	MB F64	MB F77	NTD 1	
MB F5	MB F19	MB F33	MB F43	MB F53	MB F65		NTD 2	
MB F5A	MB F20	MB F34	MB F44	MB F54	MB F66	MB F79	NTD 3	
MB F6	MB F21	MB F35	MB F45	MB F55	MB F67	MB F80	NTD 4	
MB F7	MB F23	MB F36	MB F46	MB F56		MB F81	NTD 5	
MB F8		MB F37	MB F47	MB F57	MB F72	MB F82	NTD 6	
MB F9		MB F38	MB F48	MB F60	MB F73	MB F83	TRE	
Kaltails TSF Monitoring Bores								
MB K01	MB K05	MB K14	MB K21	MB K25	MB K46	MB K56	MB K61	MB K67
MB K02	MB K06	MB K15	MB K22	MB K41	MB K47	MB K57	MB K63	
MB K03	MB K11	MB K17	MB K23	MB K42		MB K58	MB K65	
MB K04	MB K13	MB K19	MB K24	MB K43		MB K59	MB K66	

Schedule 2: Reporting & notification forms

These forms are provided for the proponent to report monitoring and other data required by the Licence. They can be requested in an electronic format.

Licence: L6420/1988/14 Licensee: Kalgoorlie Consolidated Gold Mines Pty Ltd
Form: N1 Date of breach:

Notification of detection of the breach of a limit

These pages outline the information that the operator must provide.
Units of measurement used in information supplied under Part A and B requirements shall be appropriate to the circumstances of the emission. Where appropriate, a comparison should be made of actual emissions and authorised emission limits.

Part A

Licence Number	
Name of operator	
Location of Premises	
Time and date of the detection	
Notification requirements for the breach of a limit	
Emission point reference/ source	
Parameter(s)	
Limit	
Measured value	
Date and time of monitoring	
Measures taken, or intended to be taken, to stop the emission	

Part B

Any more accurate information on the matters for notification under Part A.	
Measures taken, or intended to be taken, to prevent a recurrence of the incident.	
Measures taken, or intended to be taken, to rectify, limit or prevent any pollution of the environment which has been or may be caused by the emission.	
The dates of any previous N1 notifications for the Premises in the preceding 24 months.	
Name	
Post	
Signature on behalf of Kalgoorlie Consolidated Gold Mines Pty Ltd	
Date	

Government of Western Australia
Department of Environment Regulation

Decision Document

Environmental Protection Act 1986, Part V

Licensee: Kalgoorlie Consolidated Gold Mines Pty Ltd

Licence: L6420/1988/14

Registered office: Kalgoorlie Consolidated Gold Mines Pty Ltd
Black Street
KALGOORLIE WA 6430

ACN: 009 377 619

Premises address: Tenements G26/15, G26/44-68, G26/70-71, G26/73–78, G26/82-86, G26/99-107, G26/138-145, G26/149, G26/159, G26/160, G26/165, G26/166, L26/267, M26/46, M26/78, M26/86, M26/95, M26/267-268, M26/294, M26/308, M26/326, M26/359, M26/377, M26/383, M26/405, M26/448, M26/451, and M26/715
KALGOORLIE WA 6430

Issue date: Thursday, 25 September 2014

Commencement date: Monday, 29 September 2014

Expiry date: Sunday, 28 September 2025

Decision

Based on the assessment detailed in this document the Department of Environment Regulation (DER), has decided to issue an amended licence. DER considers that in reaching this decision, it has taken into account all relevant considerations and legal requirements and that the Licence and its conditions will ensure that an appropriate level of environmental protection is provided.

Decision Document prepared by: Louise Lavery
Senior Licensing Officer

Decision Document authorised by: Alana Kidd
Delegated Officer

Contents

1 Purpose of this Document

This decision document explains how DER has assessed and determined the application and provides a record of DER's decision-making process and how relevant factors have been taken into account. Stakeholders should note that this document is limited to DER's assessment and decision making under Part V of the *Environmental Protection Act 1986.* Other approvals may be required for the proposal, and it is the proponent's responsibility to ensure they have all relevant approvals for their Premises.

2 Administrative summary

Administrative details		
Application type	Works Approval ☐ New Licence ☐ Licence amendment ☒ Works Approval amendment ☐	
Activities that cause the premises to become prescribed premises	**Category number(s)**	**Assessed design capacity**
	5	13 500 000 tonnes per year
	54	110m^3/day
	63	15 000 tonnes per year
Application verified Application fee paid	Date: N/A Date: N/A	
Works Approval has been complied with Compliance Certificate received	Yes☐ No☐ N/A☒ Yes☐ No☐ N/A☒	
Commercial-in-confidence claim	Yes☐ No☒	
Commercial-in-confidence claim outcome	N/A	

Is the proposal a Major Resource Project?	Yes☒ No☐	
Was the proposal referred to the Environmental Protection Authority (EPA) under Part IV of the *Environmental Protection Act 1986*?	Yes☒ No☐	Referral decision No: Managed under Part V ☐ Assessed under Part IV ☒
Is the proposal subject to Ministerial Conditions?	Yes☒ No☐	Ministerial statement No:782 EPA Report No:1273
Does the proposal involve a discharge of waste into a designated area (as defined in section 57 of the *Environmental Protection Act 1986*)?	Yes☐ No☒ Department of Water consulted Yes ☐ No ☒	
Is the Premises within an Environmental Protection Policy (EPP) Area Yes☒ No☐ Goldfields (Sulfur Dioxide) EPP		
Is the Premises subject to any EPP requirements? Yes☐ No☒		

3 Executive summary of proposal and assessment

Kalgoorlie Consolidated Gold Mines Ltd (KCGM) operates the Fimiston Open pit, Mt Charlotte underground mine, Fimiston mill and Gidji roaster on behalf of joint venture (JV) owners Barrick Australia Pacific Ltd (Barrick) and Newmont Asia Pacific Ltd (Newmont).

The Fimiston mill processes ore from the Fimiston open pit and also recovers gold from loaded carbon from the Gidji roaster. The Fimiston mill consists of crushing, grinding, flotation, carbon-in-leach (CIL) and gold recovery circuits.

The KCGM processing facility is a prescribed premises under Schedule 1 of the *Environmental Protection Regulations 1987* and operates under L6420/1988/14. The processing plant has a licensed throughput capacity of 13,350,000 tonnes of gold ore per year.

KCGM's Fimiston Operations are located on Mining Tenements G26/15, G26/44-78, G26/82-86, G26/99-107, G26/138-150, G26/159, G26/160, G26/165, G26/166, L26/267, M26/39, M26/46, M26/83, M26/86, M26/95, M26/155, M26/266-268, M26/294, M26/308, M26/326, M26/359, M26/373, M26/377, M26/383, M26/405, M26/451, M26/454 and M26/715. The facility is located immediately to the east of the City of Kalgoorlie-Boulder.

The Fimiston Operations consists of:

- Fimiston Open Pit;
- Fimiston Mill;
- Fimiston I Tailings Storage Facility (TSF);
- Fimiston II TSF;
- Kaltails TSF;
- Hydrogen peroxide dosing station; and
- Wastewater treatment plant.

As a result of compliance inspection on 18 and 19 of March 2014, it was noted that the bioremediation area was located outside of the Premises boundary, as defined under schedule 1 of the Licence. A proponent intiated amendment was carried out to include the bioremediation pad within the Premises boundary.

September 2015 Amendment

A further DER Compliance Inspection of February 2015 has identified that the bioremediation pad is no longer in use, any potential or contaminated soil is transported offsite to a licensed waste operator and that the land subject to the historical bioremediation pad (Paringa TSF) has been reported under the *Contaminated Sites Act 2003.* Consequently Table 1.3.1 has been updated, and conditions 1.3.7 and 1.3.8 removed from the Licence.

Category 54 has been added to the Licence, as the Compliance Inspection also identified that there was an operating wastewater treatment plant discharging treated effluent to the Paringa Facility. Table 1.3.1 has also been updated to reflect the status of the Paringa TSF as a containment facility for wastewater discharge and a monitoring condition has been added to the Licence as condition 3.2.1 to ensure that the quality of the effluent discharged is as per the supporting information submitted to DER.

April 2016 Amendment

The licence has been amended to authorise an increase in the height of the embankments of the Fimiston II TSF in stages to a final height of 60 m (Cells A/B, C and D), following a change to the approved proposal (Attachment 3 of Ministerial Statement 782) granted under Part IV of the Act on 17 June 2015.

Administrative changes have also been made to Table 4.2.1 and errors corrected in Map of Monitoring Locations 3 and Table 2 in Schedule 1. Redundant vegetation monitoring sites have been removed from Table 3 of Schedule 1.

Category 63 has been added to the licence to allow for operation of a class 1 landfill within the Fimiston waste rock dump. Approximately 10 000 tonnes per annum of type 1 construction and demolition waste and 5 000 tonnes per annum of type 2 waste (used tyres) are to be disposed of to the landfill.

The Prescribed Premises boundary has also been expanded to include tenements that cover the Fimiston waste rock dump.

November 2016 Amendment

The licence has been amended to remove the vegetation monitoring conditions, as a result of a submission by the Licensee. Refer to the Table 4 of this document for the supporting information in relation to this change.

The licence amendment also authorises disposal of hydrocarbon contaminated waste into the Paringa TSF, which provides for encapsulation of waste consistent with management of a Class III waste.

Administrative amendments have also been made to the Licence, to modify the Premises boundary so as to provide a contiguous boundary connecting the Fimiston II TSF to the larger Premises area and also to include the Eastern Waste Rock Dump as a potential site for a future landfill if required. Corrections have been made to the instrument log, to the listing of groundwater bores in Table 2 and the map of groundwater monitoring locations corrected. DER has also made administrative amendments consistent with DER's *Guidance Statement: Setting Conditions* (October 2015).

4 Decision table

All applications are assessed in line with the *Environmental Protection Act 1986*, the *Environmental Protection Regulations 1987* and DER's Operational Procedure on Assessing Emissions and Discharges from Prescribed Premises. Where other references have been used in making the decision they are detailed in the decision document.

DECISION TABLE			
Works Approval / Licence section	**Condition number W = Works Approval L= Licence**	**Justification (including risk description & decision methodology where relevant)**	**Reference documents**
General conditions	Former condition L1.1.5 Former condition L1.2.1 Former condition L1.2.3	**November 2016 Amendment** DER has reviewed standard condition L1.1.5: *"Nothing in the Licence shall be taken to authorise any emission that is not mentioned in the Licence, where the emission amounts to:* *(a) pollution;* *(b) unreasonable emission;* *(c) discharge of waste in circumstances likely to cause pollution; or* *(d) being contrary to any written law."* and determined it is an explanatory statement designed to provide clarification on the operation of the Licence, and as such is not enforceable. DER has now removed this condition from the Licence. Former condition L1.2.1: *"The Licensee shall operate and maintain all pollution control and monitoring equipment to the manufacturer's specification or any relevant and effective internal management system. "* has been removed from the Licence as the pollution control and monitoring equipment that is subject to this condition is not specified and the internal management system is subject to a subjective test of being "effective". Consequently the condition is considered not enforceable as it is not clear. Former condition L1.2.3:	General provisions of the *Environmental Protection Act 1986* DER (2015) *Guidance Statement: Setting Conditions,* October 2015

DECISION TABLE			
Works Approval / Licence section	**Condition number W = Works Approval L= Licence**	**Justification (including risk description & decision methodology where relevant)**	**Reference documents**
		"The Licensee shall implement all practical measures to prevent stormwater run-off becoming contaminated by the activities on the Premises." has been removed from the Licence as the condition does not specify clearly which stormwater infrastructure is to be utilised or maintained and does not clearly specify which management actions are required to determine compliance with this condition. Existing provisions under the *Environmental Protection Act 1986* are considered to adequately regulate discharges to the environment potentially arising from contaminated stormwater.	
	L1.3.1	**April 2016 Amendment** **Normal operation** The February 2015 DER Compliance Inspection identified that the bioremediation pad at the Paringa TSF is not in use; from April – November 2016 all contaminated and potentially contaminated soils are now removed offsite to a licensed waste operator and and that the land subject to the historical bioremediation pad has been reported under the *Contaminated Sites Act 2003.* Consequently previous conditions L1.3.7 and L1.3.8 were removed from the Licence in the September 2015 amendment. Table 1.3.1 in condition L1.3.1 was also updated in September 2015 to delete the reference to the bioremediation pad. **November 2016 Amendment** Note the detail above has subsequently been amended – refer to text in Premises Operation section following.	General provisions of the *Environmental Protection Act 1986.*
Premises	L1.3.1 and L3.2.1	DER's assessment and decision making is included as Appendix A.	Application

DECISION TABLE			
Works Approval / Licence section	**Condition number W = Works Approval L= Licence**	**Justification (including risk description & decision methodology where relevant)**	**Reference documents**
operation			supporting documentation
	L1.3.2 – L1.3.6	No changes are proposed for these conditions as a result of the amendment.	N/A
	L1.3.7, L1.3.8	DER's assessment and decision making is included as Appendix B.	Application supporting documentation
	L1.3.9 – 1.3.12	Premises operation conditions have been applied to the amended Licence to regulate the operation of the landfill. These conditions include requirements for the types of waste permitted, trench size and location, covering regularity, security and recovering of windblown waste. These conditions mirror the requirements of the *Environmental Protection (Rural Landfill) Regulations 2002*.	Application supporting documentation *Environmental Protection (Rural Landfill) Regulations 2002*. General provisions of the *Environmental Protection Act 1986*.
	L1.3.1, L1.3.9 L1.3.11, 1.3.12	**November 2016 Amendment** Conditions L1.3.1 and L1.3.9 have been amended to authorise deposition of the hydrocarbon waste to the Paringa TSF. DER's assessment and decision making is included as Appendix C. DER has made changes to the wording in both of these conditions to improve their enforceability, in line with the *Guidance Statement: Setting Conditions.*	Application supporting documentation DER (2015) *Guidance Statement: Setting Conditions,* October 2015
Emissions	L2.1.1	Descriptive limits will be set through the licence and therefore condition regarding	N/A

DECISION TABLE			
Works Approval / Licence section	**Condition number W = Works Approval L= Licence**	**Justification (including risk description & decision methodology where relevant)**	**Reference documents**
general		recording and investigation of exceedances of limits has been included.	
Point source emissions to air including monitoring	L2.2.1	The September 2015 amendment identified that there are three existing point source emissions to air that were previously not on the Licence: emissions through stacks from the carbon regeneration kilns 3 and 4 and emissions through a stack from the gold furnace. The Emissions Reduction Project (ERP) is currently in progress at Fimiston to install and commission offgas treatment for all these emission points, and to also add a new carbon regeneration kiln '5' and associated emission point. This work is currently being completed subject to Works Approval W5532/2013/1. Once the work is completed, then Table 2.2.1 will be updated and monitoring will be specified under a new condition in section 3 of the Licence.	Schedule 4 of *NSW Protection of the Environment Operations (Clean Air) Regulations* 2010 Application supporting documentation Works Approval W5532/2013/1
Point source emissions to surface water including monitoring	N/A	No point source emissions to surface water occur at the Premises and no conditions are included in this section.	N/A
Point source emissions to groundwater including monitoring	N/A	No point source emissions to groundwater occur at the Premises and no conditions are included in this section.	N/A
Emissions to land including monitoring	N/A	No significant emissions to land occur at the Premises and there are no conditions in this section.	N/A
Fugitive emissions	N/A	Air quality conditions, including dust monitoring, are specified for the Premises under a Part IV *Environmental Protection Act 1986* approval.	Ministerial Statement 782

DECISION TABLE			
Works Approval / Licence section	**Condition number W = Works Approval L= Licence**	**Justification (including risk description & decision methodology where relevant)**	**Reference documents**
			Condition 7
Odour	N/A	No significant odour emissions occur at the Premises and there are no conditions included in this section.	N/A
Noise	N/A	Noise conditions are specified for the Premises under a Part IV *Environmental Protection Act 1986* approval.	Ministerial Statement 782 Conditions 8 and 9
Monitoring general	L3.1.1 - L3.1.5	These conditions provide general requirements for conduct of the monitoring programs and related equipment in section 3 of the Licence. These conditions are unchanged from previous Licence, with the exception of an administrative correction to include reference to AS 5667.	General provisions of the *Environmental Protection Act 1986*
Monitoring of inputs and outputs	L3.2.1	DER's assessment and decision making is included as Appendix A.	Application supporting documentation
Process monitoring	N/A	No process monitoring conditions are specified.	N/A
Ambient quality monitoring	L3.3.1, L3.3.2, L3.3.3, Schedule 1.	**Normal Operations** KCGM is required to carry out ground water sampling of the monitoring bores for Standing Water Level (SWL), pH, Total dissolved solids (TDS), Electrical conductivity (EC), Cyanide-free(CN-free), Cyanide-WAD, Cyanide-total under the existing Licence (L6420/1988/14). KCGM has an extensive groundwater management and monitoring program in place which comprises 86 monitoring bores and 129 production or recovery bores around its Fimiston TSFs. Seepage recovery also includes four interception trenches from which water is collected and transferred to the processing plant. At the Kaltails TSF there are 33 monitoring bores, and 22 recovery bores. Current seepage recovery at the Fimiston TSFs is working well, with standing water levels in bores stabilising or deepening.	Memo dated 4/9/15 from KCGM to DER

DECISION TABLE			
Works Approval / Licence section	**Condition number W = Works Approval L= Licence**	**Justification (including risk description & decision methodology where relevant)**	**Reference documents**
		September 2015 Amendment A number of administrative changes have been made to this condition and the accompanying maps and Table 1 and 2 in Schedule 1 to improve clarity. As the reference to production bores was removed in the September 2014 licence re-issue, the accompanying maps will also be deleted from the Licence as part of this amendment. One change has been made to the compliance monitoring bore network for Kaltails TSF to remove MBK51 following advice received from KCGM. This is in response to hydrogeological advice obtained by KCGM that MBK51 was producing anomalous data inconsistent with other monitoring bores. It was noted that this bore is slotted at depth in the palaeochannel sand system and not in the ferricrete system where seepage is located, and hence its removal would not materially effect the ability of monitoring network to monitor seepage. **April 2016 Amendment** An administrative error identified by KCGM in relation to the map for Kaltails TSF monitoring bores (Map of monitoring locations 3) and corresponding Table 2 has been corrected. **November 2016 Amendment** A correction has been made to list of groundwater monitoring bores in Table 2 to remove the reference MB F18 and MB F69, consistent with changes first authorised in September 2014 and to have consistency with Table 1. The map of monitoring locations 2, showing the Eastern Borefield Monitoring Bores has been replaced so as to include MB F80 on the map.	KCGM (2016) *Memo to DER*: *Attachment 3A - Licence Amendment Application Form,* 12 August 2016.

DECISION TABLE			
Works Approval / Licence section	**Condition number W = Works Approval L= Licence**	**Justification (including risk description & decision methodology where relevant)**	**Reference documents**
	Previous condition L3.3.4	**November 2016 Amendment** KCGM has commissioned two reviews of the vegetation monitoring program, conducted as previously required by condition L3.3.4 and consequently requested removal of the monitoring requirement. The objective of the vegetation monitoring program was to provide an additional annual check of the effectiveness of the Fimiston and Kaltails Seepage and Groundwater Management Plans in managing the groundwater levels to prevent impacts to vegetation, by monitoring vegetation health at a number of photopoints adjacent to and further away from the Fimiston and Kaltails TSFs. Each monitoring program also employed a number of control points as a reference for assessing impact. Phoenix Environmental's review of monitoring data from 1999 – 2014 (Fimiston) and 2005 – 2014 (Kaltails) indicated that 'the records did not identify any evidence of stress or death of vegetation which could be attributed to a rising water table, and indeed there had been little change to vegetation over the monitoring period.' Given the use of the targets and limits for groundwater levels for the Fimiston and Kaltails Seepage and Groundwater Management Plans, and the quarterly groundwater monitoring employed through the plans, Phoenix concluded that this represented an effective control for managing impacts to groundwater, and vegetation monitoring was unnecessary. Big Dog Hydrogeology (2016) reviewed Phoenix Environmental's report in light of the existing groundwater monitoring and management plans and data on groundwater levels over the monitoring period from 2007 to 2014. Big Dog Hydrogeology noted that in locations where the groundwater levels had approached the limits, no impacts to vegetation were recorded, concluding the existing limits were appropriate in managing potential impacts to vegetation. Big Dog Hydrogeology also noted that there is now sufficient vegetation monitoring data available to provide verification that	Big Dog Hydrogeology Pty Ltd (2016) Memo to J Cameron, KCGM 'Recommendations for vegetation monitoring around the Fimiston and Kaltails TSFs, 29 July 2016 Phoenix Environmental Sciences Pty Ltd (2016) *Review of TSF vegetation monitoring programme for the KCGM Super Pit,* unpublished report for KCGM, June 2016

DECISION TABLE			
Works Approval / Licence section	**Condition number W = Works Approval L= Licence**	**Justification (including risk description & decision methodology where relevant)**	**Reference documents**
		the groundwater monitoring and management programs were effective in preventing potential impacts to vegetation. Further, Big Dog Hydrogeology noted that the vegetation monitoring program was a reactive monitoring program, only assessing impact after it had occurred. Vegetation monitoring would not allow potential impacts to be identified in advance. This is in contrast to the existing groundwater monitoring program. DER has reviewed the submission and agrees with the conclusions made by the two reviews. DER considers the existing management and monitoring of groundwater effective in preventing impacts to vegetation. Accordingly DER has removed condition L3.3.4 from the Licence.	
Meteorological monitoring	N/A	No meteorological conditions are required for the Licence.	N/A
Improvements	N/A	No improvement conditions are specified.	N/A
Information & Schedule 2	L4.1 – L4.3	**April 2016 Amendment** DER has added conditions (L4.2.3 & L4.2.4) in regard to the submission of a compliance document for each stage of the Fimiston II embankment construction works.	N/A
	L4.1.3 Removal of AACR template	**November 2016 Amendment** Following DER review of the Annual Audit Compliance Report (AACR) procedure, the template for an AACR has been updated and is now available via DER's public website: der.wa.gov.au. Consequently the template is not included in the Licence and has been removed.	
Licence Duration	N/A	**29 April 2016 Amendment Notice**	Sections 59(1)(k) and s59B(9) of the

DECISION TABLE			
Works Approval / Licence section	**Condition number W = Works Approval L= Licence**	**Justification (including risk description & decision methodology where relevant)**	**Reference documents**
		The duration of the licence was extended to 28 September 2025 on April 29 2016 by amendment notice, to align with the Premises' mining tenement expiry dates.	*Environmental Protection Act 1986*

5 Advertisement and consultation table

Date	Event	Comments received/Notes	How comments were taken into consideration
14/03/2016	Proponent sent a copy of draft instrument	Administrative edits requested. Edit to text in Table 1.3.5 and 1.3.6 in regard to landfill conditions suggested. Suggested removal of text in condition 4.2.3 to allow for ongoing commissioning works consistent with condition 1.3.7. Updated Premises map supplied. Correction made to the number of groundwater monitoring and production bores.	All comments adopted and Premises map updated.
14/03/2016	Draft instrument sent to: • Office of the Environmental Protection Authority • Department of Mines and Petroleum • Williamstown Residents' Committee • City of Kalgoorlie-Boulder	No comments received.	
21/11/2016	Licensee sent a copy of draft instrument	Correction required to reference in Schedule 1 map showing the hydrocarbon waste disposal location.	Change made. Edit also made to condition 1.2.1 to improve clarity.

6 Risk Assessment

Note: This matrix is taken from the DER Corporate Policy Statement No. 07 - Operational Risk Management

Table 1: Emissions Risk Matrix

Likelihood	Consequence				
	Insignificant	Minor	Moderate	Major	Severe
Almost Certain	Moderate	High	High	Extreme	Extreme
Likely	Moderate	Moderate	High	High	Extreme
Possible	Low	Moderate	Moderate	High	Extreme
Unlikely	Low	Moderate	Moderate	Moderate	High
Rare	Low	Low	Moderate	Moderate	High

Appendix A

Premises Operation – Effluent Discharge to Containment Infrastructure

Normal Operations

Emission Description
Emission: Discharge of treated effluent to Paringa Facility, a historic TSF
Impact: A baseline analysis of the treated effluent water quality was provided in the application supporting document as summarised below:

Baseline Water Quality Results	
Parameters	**Discharge Point on WWTP**
5 day Biochemical Oxygen Demand (BOD)	<2 mg/L
Total Suspended Solids	<5 mg/L
Total Nitrogen	20.7 mg/L
Total Phosphorus	16.5 mg/L
E. coli (cfu/100mL)	2 cfu/100mL

In comparison with the Department of Water's Water Quality Protection Note 22 (WQPN 22) 'Irrigation with nutrient-rich wastewater' the phosphorus concentration above in is excess of the recommended amount (16.5 mg/L as compared to 7.5 mg/L). It is noted that the criteria in WQPN 22 is recommended in relation to preventing eutrophication risk. As the effluent is being discharged to a disturbed site (a historic tailings facility) it is considered that this level of protection is not relevant.
It is noted that the BOD level in the discharge is very low. WQPN 22 uses a BOD of 150mg/L limit as a concentration in which further treatment (chemical or biological stabilisation) should be used.

Controls: The wastewater treatment plant has been designed in accordance with AS/NZ 1546.3 and wastewater is treated by a five stage process including:

- Primary solids separation and anaerobic decomposition;
- Aerobic decomposition and oxidation;
- Secondary solids separation and recycle/waste;
- A chlorine disinfection system; and
- Treated effluent pump out.

Minimal infiltration to the TSF is expected due to the annual evaporation rates of approximately 2500 mm per annum. In the highly unlikely event that infiltration through the tailings occurs (via a preferred pathway) any leachate would be captured by the active seepage recovery system in place for the Fimiston TSFs. Seepage is returned to the process water system and recycled through to the Processing Plant.

Risk Assessment
Consequence: Insignificant
Likelihood: Rare
Risk rating: Low

No regulatory controls are proposed for normal operations.

Abnormal Operations

Emission Description
Emission: Discharge of effluent not treated as design to the Paringa (TSF) Facility from poorly performing wastewater treatment plant
Impact: Impact to avifauna if they drink the effluent from poor water quality. Potential for contaminated surface water runoff during large precipitation events (at least 100mm in a 72 hour period).
Controls: The annual evaporation rate for Kalgoorlie is approximately 2500 mm so effluent is likely to evaporate quickly. The Paringa Facility is a historic TSF, approximately 33 years old and was decommissioned in 1987. The deposition to a tailings facility represents a discharge to a contaminated site and hence soil contamination is not a concern. In the eventuality of a large rainfall event, dilution of the effluent will likely reduce any potential impact.

Risk Assessment
Consequence: Insignificant
Likelihood: Unlikely
Risk rating: Low

Regulatory Controls
Quarterly monitoring of the effluent discharge at the Paringa Facility has been prescribed as condition L3.2.1 as a check to ensure that the wastewater treatment facility is operating as designed.

Residual Risk
Consequence: Insignificant
Likelihood: Unlikely
Risk Rating: Low

Appendix B

Premises Operation – Fimiston II Tailings Storage Facility (TSF)

Operation of the Fimiston II TSF, along with operation of the Fimiston I TSF and adjacent Kaltails TSF has resulted in seepage of tailings liquor to the groundwater underlying these facilities, over a long period of time. Consequently localised mounding of groundwater has occurred, raising the standing water levels (SWLs) of groundwater and altering the groundwater quality by increasing its metal concentrations and introducing cyanide into the groundwater.

KCGM, in cooperation with DER, has managed this impact by firstly monitoring the ambient groundwater levels and quality in the groundwater, developing a Seepage and Groundwater Management Plan for the Fimiston TSFs and a separate Seepage and Groundwater Management Plan for Kaltails TSF and then by implementing management strategies as detailed in the Management Plans. As this licence amendment is in relation to increasing the embankment heights for Fimiston II TSF, discussion below is restricted to consideration of this TSF alone.

History

Fimiston II TSF was commissioned in 1991. Initially it comprised an above ground paddock style TSF of two cells A and B. These were later merged to form one cell 'A/B' and two additional cells C and D were added in 1994. The original Notices of Intent (NOI) issued by the then Department of Consumer Employment Protection (now Department of Mines and Petroleum (DMP)) allowed the height of the embankments to 30m for A/B and cell D and to 32 m for Cell C. In 2005 an Addendum to the Notice of Intent was submitted, with the former Department of Industry and Resources (current DMP) allowing an increase in height of embankments to 45m for cell A/B, 44m for cell C and 42.2m for cell D.

The 2005 NOI was referred to the EPA for assessment and the EPA chose not to assess but instead decided the proposal could be managed under Part V of the *Environmental Protection Act 1986*. This decision was the subject of ten appeals and subsequently the first lift (embankment raise) was limited to 3m in height and subject to a Works Approval, with each 3m lift to be subject to a Works Approval.

Groundwater monitoring conducted under the Premises' Part V Licence L6420/1988 detected mounding under the TSFs and also changes to groundwater quality.

In 2004 the then Department of Environment (current DER) requested KCGM complete a Seepage and Groundwater Management Plan for the Fimiston TSFs. This became the Fimiston Seepage and Groundwater Management Plan (FSGMP) as referred to in the Premises' Licence. Under the plan KCGM operates four seepage interception drains to collect seepage from the toe of the Fimiston II TSF and direct seepage to the collection ponds. A series of production bores are operated to dewater the aquifer in what is referred to as the Eastern Borefield and thus lower the standing water levels (SWLs) in the underlying groundwater, as measured in the Premises groundwater monitoring bore network. KCGM has 81 monitoring bores in operation, in addition to 129 production bores for groundwater abstraction.

The FGSMP is a requirement of the Premises' Licence, in addition to annual independent auditing of its performance.

In 2014 KCGM sought amendment of its Ministerial Statement 782 under section 45c of the *Environmental Protection Act 1986* to remove the 45m height restriction on the Fimiston II TSF and increase the height to a total of 60m. The amendment was granted in 17 June 2015, with the authorised extent of the proposal as listed in Table 2 of Attachment 3 to the Ministerial Statement 782

being amended to remove the height restriction, with the note that this aspect is regulated under Part V of the Act (through this Licence).

Normal Operations

Emission Description

Emission: Seepage of tailings liquor from Fimiston II TSF. Tailings liquor has approximate total cyanide concentrations of between 20 mg/L – 60 mg/L with WAD CN concentrations of ~2 – 10 mg/L (Golder Associates 2005).

Impact: Increase in SWLs of groundwater in excess of 4 mbgl such that there is a recordable impact to vegetation health, from groundwater inundation in the root zone (waterlogging).

The seepage assessment conducted for the proposed embankment raise to 60m indicated that there is expected to be a slight progressive increase in the seepage rate for each cell with the increase in height (Golder Associates 2014).

Specifically the model for Cell AB indicated that at the maximum crest height of 405m AHD (60 m) in 2024, water flux (that is, change in seepage) through the base of the TSF will progressively increase to approximately 20% greater than expected for the current licenced height of 45m. For Cell C the model shows that the average maximum water fluxes through the base of the TSF at the final height of 409.5 AHD (60m) in 2024 will be consistent with those previously predicted and no significant change in seepage is anticipated. For Cell D, however, limited geological borehole information was available to complete the model, so estimates of seepage were based on Cells AB and C. The Cell D rate of seepage is expected to slightly increase over its life to 2024 (Golder Associates 2014).

Controls: KCGM has developed and implemented a Fimiston Seepage and Groundwater Management Plan (FSGMP), active since 2004 and subject to annual review as a condition of Licence L6420/1988/14 (see below). Seepage control measures include four interception trenches to recover seepage from the toe of the facility, and installation and operation of 129 groundwater production bores to abstract groundwater in an area adjacent to Fimiston II TSF, known as the Eastern Borefield. Availability of the production bores overall must be above 90% per month according to targets set in the FSGMP.

The FSGMP also references the internal target to maintain the supernatant pond size to less than 15% of the area of each of the cells in order to minimise the hydraulic pressure that can contribute to seepage. This pond size is estimated in a daily visual inspection and also with fortnightly surveys. KCGM also conducts annual vegetation monitoring of areas that could be subject to impacts from rising groundwater levels. This is conducted for KCGM using photographic monitoring and Landscape Function Analysis, which compares vegetation health to a comparable analogue site (control site) so as to detect changes that may be due to influences other than climate.

Performance over the five year period from 2010 to 2014 has shown that KCGM has met targets for utilisation of the production bores, achieved groundwater quality limits as prescribed by the Licence and met requirements to maintain the groundwater levels in excess of 6 mbgl for the area outside of the operational area of the TSFs. A small number of exceedances of the 6 mbgl target have been recorded during this period, but always rectified, with either additional production bores installed and operated or pumping capacities (total amount of groundwater abstracted) in production bores increased (ENVIRON 2014). No exceedances of the 4 mbgl limit imposed by Licence condition L3.3.1 have been recorded during the last two audit periods.

Recent (over the period from quarter 4 2013 to quarter 4 2014) WAD CN levels recorded in groundwater monitoring bores typically range from <0.04 mg/L (below detectable level) to 0.10 mg/L.

For the period 2010 to 2014, no impacts to vegetation have been recorded as a result of groundwater changes. Any changes in health were consistent with changes to analogue sites.

Golder Associates (2014) has indicated that whilst there is a slight increase in the rate of seepage of expected over the life of the embankment raises to a final height of 60m (in 2024), the FSGMP will be able to manage this seepage increase, with the installation of additional production bores as required. The Licensee has given a commitment to continue to operate in accordance with its FSGMP and to increase the number of groundwater production bores where required to maintain the groundwater levels to above 6 mbgl outside the Operating Area of the TSF (Ramboll 2015).

Risk Assessment
Consequence: Moderate
Likelihood: Unlikely; past experience of the use of the FSGMP, combined the annual audit of its performance has proven that seepage recovery is well managed and responsive to changes in groundwater levels.
Risk Rating: Moderate

Regulatory Controls

Under the Premises' Licence L6420/1988/14, the FSGMP is required by condition L1.3.5. An independent audit of the performance of the FSGMP is required by condition L1.3.6. This audit is also required to make recommendations on whether the objectives under the FSGMP are appropriate.

The groundwater monitoring program to assess groundwater levels and groundwater quality is specified by condition L3.3.1. In the event of adverse groundwater monitoring results, management actions are prescribed by condition L3.3.2. Licence condition L3.3.2 also allows the CEO to require the Licensee to take further measures to reduce groundwater levels if required.

Annual vegetation monitoring of the adjacent vegetation is required by condition L3.3.3.

Residual Risk
Consequence: Minor
Likelihood: Unlikely
Risk Rating: Moderate

By applying regulatory controls DER is satisfied that that the risk has been reduced to an acceptable level.

References

Golder Associates (2005) *Addendum to Notice of Intent: Proposed Increase in Storage Capacity of the Fimiston II Tailings Storage Facility at KCGM*, September 2005

ENVIRON (2014) *Fimiston II TSF Embankment Raise Works Approval Application (for W5775/2015/1)*, November 2014

KCGM (2014) *Fimiston Seepage and Groundwater Management Plan*, October 2014 (included as Appendix A to Ramboll Environ 2015)

Peter Clifton and Associates (2014) *Annual Audit Fimiston I and Fimiston II Tailings Storage Facilities Seepage and Groundwater Management Plan*, prepared for Kalgoorlie Consolidated Gold Mines, July 2014

Ramboll Environ (2015) *Fimiston II Tailings Storage Facility Height Increase – Mining Proposal*, September 2015

Emergency Operation

Emission Description
Emission: Release of supernatant liquors or tailings from Fimiston II TSF from overtopping during high rainfall event.
Impact: Tailings solids and liquors containing elevated metals and cyanide released to land and potentially to the adjacent ephemeral creek which drains to Hannan's Lake, located to the south of the Premises. Estimated total cyanide concentration in tailings is ~20 mg/L – 60 mg/L with WAD CN concentrations of ~2 -10 mg/L (Golder Associates, 2005). Potential impact to avifauna from cyanide contamination. Potential to also impact adjacent vegetation and contaminate Hannan's Lake.
Controls: KCGM's TSF Operating Manual imposes a limit for the supernatant pond size to a maximum of 15% of the total surface area of the TSF cell. The freeboard assessment conducted by Golder Associates (2014) indicated that the Fimiston II TSF design at the final height, provides sufficient freeboard to meet the requirements of either:

- 1:1000 Annual Exceedence Probability (AEP) 72 hour duration flood; or
- a 12 hour Probable Maximum Precipitation (PMP) event;

providing the maximum operating pond is kept to the internal 15% limit: equating to 1.51m for cell AB, 1.46 m cell C and 1.39m cell D (Golder Associates, 2014). The freeboard calculation also takes a conservative approach in that the calculation assumes that all precipitation is converted to run-off, with no infiltration and the decant facility is not operating during the rainfall event.

A series of 6 hourly, daily and weekly periodic inspections of the Fimiston II TSF will be conducted by KCGM as detailed in section 8.6 of Golder Associates (2014). The 6 hourly check will include checks of the embankment integrity and the tailings level versus the embankment crest. An annual operational review of the TSF will be carried out by a suitably qualified engineer in accordance with the Department of Minerals and Energy's (now DMP) *Guidelines on the safe design and operating standards for tailings storage* (1999).

Risk Assessment
Consequence: Major
Likelihood: Rare; capacity for a 12 hour PMP event has been allowed for in the design.
Risk Rating: Moderate

Regulatory Controls
Existing licence conditions L1.3.3 (minimum freeboard) and L1.3.4 (requirement to conduct daily visual inspect freeboard and pond sizes of tailings cells) are included on the Licence.

Residual Risk Assessment
Consequence: Major
Likelihood: Rare
Risk Rating: Moderate

References

Australian National Committee on Large Dams (ANCOLD) (2012) *Guidelines on Tailings Dams: Planning, Design, Construction, Operation and Closure*, May 2012.

Department of Minerals and Energy (1999) *Guidelines on the safe design and operating standards for tailings storage*. Department of Minerals and Energy, Western Australia.

Department of Mines and Petroleum (2013) *Tailings Storage Facilities in Western Australia – Code of Practice*, 2013.

Golder Associates (2005) *Addendum to Notice of Intent: Proposed Increase in Storage Capacity of the Fimiston II Tailings Storage Facility at KCGM*, September 2005

Golder Associates (2014) *Fimiston II TSF Height Increase – Tailings Management and Design Analyses*, February 2014

Ramboll Environ (2015) *Fimiston II Tailings Storage Facility Height Increase – Mining Proposal*, September 2015

Appendix C

Premises Operation – Hydrocarbon contaminated waste disposal to Containment Infrastructure

The Licensee is proposing to dispose of hydrocarbon contaminated rock and sediment from washdown bays to two bunded areas on top of the Paringa TSF. Previously this area was used for hydrocarbon bioremediation; however the Licensee has determined that there are not suitable conditions for bioremediation, due to a lack of topsoil, non-saline water and difficulty in remediating waste hard rock material (KCGM 2016). Even in the event that some bioremediation was successful, the waste material would not be reused and would ultimately require disposal.

Approximately 7 000 tonnes per annum requires disposal, of which an estimated 10% is waste rock and 90% sediment material collected from wash bays. Laboratory analysis has determined the material's chemistry is consistent with a Class III waste, according to the Landfill Definitions. Class III waste would otherwise require disposal at Class III landfill, which has a liner and provision for capture of leachate. The proposed disposal site, Paringa Facility, is a historic TSF, approximately 33 years old, decommissioned in 1987. Underlying the disposal zones is six metres of tailings, (consolidated sandy clay/silty clay tailings) which will act as a liner to capture any leachate. Hydraulic conductivity of the tailings of these decommissioned facilities is typically in the order of 1×10^{-8} to 1×10^{-9} m/s.

The two bunded areas for disposal, Zone A and Zone B, are as shown in the Figure below. Any incident rainfall will be captured within the zones by a built up windrow surrounding each zone.

Normal Operations

Emission Description
Emission: Disposal of hydrocarbon contaminated rock and sediment to Paringa Facility, a decommissioned TSF.
Impact: Contamination of groundwater with hydrocarbons. The groundwater underlying Paringa is located 10 – 20 m below the surface and is acidic and hypersaline (KCGM 2016).

Controls: The deposition to a tailings facility represents a discharge to an already contaminated site and hence soil contamination is not a concern. The underlying consolidated tailings would restrict passage of any leachate.

During operations the groundwater itself is also subject to active management and recovery through the Fimiston Seepage and Groundwater Management Plan. It is a possibility that if any leachate was able to migrate through 6m of tailings to the underlying groundwater it may ultimately be recovered through production bores. At closure the site is currently scheduled to be encapsulated via an extension of the adjacent Northeast Waste Rock Landform, so any residual hydrocarbons would not be subject to ongoing rainfall infiltration (KCGM 2016).

Risk Assessment
Consequence: Insignificant, the receiving groundwater quality is poor.
Likelihood: Rare, leachate would have to travel through 6m of consolidated clay silty tailings and then a further 10 – 20m to reach groundwater.
Risk rating: Low

No regulatory controls are proposed for normal operations.

Emergency Operations

Emission Description
Emission: Release of hydrocarbon contaminated stormwater to native vegetation adjacent to the Paringa Facility during a storm event.
Impact: Localised soil contamination and potential harm to vegetation.
Controls: Bunding in the form of a pushed up windrow to contain rainfall will surround each disposal site. The annual evaporation rate for Kalgoorlie is approximately 2500 mm reducing the risk that the disposal zones would have stormwater stored prior to a large rainfall event.

At closure the site is currently planned to be encapsulated via an extension of the adjacent Northeast Waste Rock Landform, so any residual hydrocarbons would not be subject to ongoing rainfall infiltration (KCGM 2016).

Risk Assessment
Consequence: Minor, large rainfall will dilute the hydrocarbon concentration and will also inundate the surrounding vegetation. The quality of the adjacent vegetation is poor, and subject to ongoing disturbance from mining operations.
Likelihood: Rare
Risk rating: Low

Regulatory Controls
Condition 1.3.9 has been amended to authorise the hydrocarbon waste disposal to the Paringa TSF in quantities consistent with the application and requiring the disposal sites to be bunded to contain rainfall.

Residual Risk
Consequence: Minor
Likelihood: Rare
Risk Rating: Low

References

KCGM (2016) *Memo to DER*: *Attachment 3A - Licence Amendment Application Form,* 12 August 2016.