Government of Western Australia
Department of Environment Regulation

Works Approval

Environmental Protection Act 1986, Part V

Works Approval Holder: Lake Austin Mining Pty Ltd

Works Approval Number: W5214/2012/1

Registered office: 40 Murray Road North,
WELSHPOOL WA 6106

ACN: 607 635 192

Premises address: White Well Gold Project
Mining Tenement M20/54
CUE WA 6640
As depicted in Schedule 1

Issue date: Friday, 31 August 2012

Commencement date: Friday, 31 August 2012

Expiry date: Thursday, 30 August 2018

The following category/s from the *Environmental Protection Regulations 1987* cause this Premises to be a prescribed premises for the purposes of the *Environmental Protection Act 1986*:

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	2,400,000 tonnes per annual period
89	Putrescible landfill	More than 20 but less than 5 000 tonnes per year	25 tonnes per annual period.

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

Date signed: 28 April 2015
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Alana Kidd
Manager Licensing – Resource Industries
Officer delegated under section 20
of the *Environmental Protection Act 1986*

Works Approval Conditions

1 General

1.1 Interpretation

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

1.1.2 In the Works Approval, unless the contrary intention appears:

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

'annual period' means the inclusive period from 31 August until 30 August in the following year;

'**APHA'** means the American Public Health Association: *Standard Methods for the Examination of Water and Wastewater*;

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

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

'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

'Commissioning' means the process of operation and testing that verifies the works and all relevant systems, plant, machinery and equipment have been installed and are performing in accordance with the design specification set out in the works approval application;

'mbgl' means metres below ground level;

'mg/L' means milligrams per litre;

'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 Works Approval;

'Schedule 1' means Schedule 1 of this Works Approval unless otherwise stated;

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

'WAD Cyanide' means cyanide species liberated at moderate pH of 4.5;

'Works Approval' means this Works Approval numbered W5214/2012/1 and issued under the *Act;* and

'Works Approval Holder' means the person or organisation named as the Works Approval Holder on page 1 of the Works Approval.

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

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

1.2 General conditions

1.2.1 The Works Approval Holder shall construct the works in accordance with the documentation detailed in Table 1.2.1:

Table 1.2.1: Construction Requirements[1]

Document	Parts	Date of Document
Works Apporval Application Form, Lake Austin Mining Pty Ltd	All, including attachments	6 November 2015
Lake Austin Mining Pty Ltd, White Well Gold Project Tenement M20/54 Mining Proposal, January 2016, DOC.NO.WW-J-RP-002_A.	All	January 2016
White Well Project – Application for Amendment to Works Aprooval, Response to Queries from DER of 16/02/2016, Jon Lilly, Lake Austin Mining Pty Ltd.	All	17 Febuary 2016
White Well Project – Application for Amendment to Works Approval, Response to Queries from DER of 01/03/2016, Jon Lilly, Lake Austin Mining Pty Ltd.	All	3 March 2016
White Well Project – Application for Amendment to Works Approval, Response to Quesries from DER of 08/03/2016, Jon Lilly, Lake Austin Mining Pty Ltd.	All	9 March 2016
Email correspondence titled; W5214 amendment - 21 day comments from proponent, 13/04/2016 9:06AM, Jon Lilly Project Manager White Well Gold Project.	All	13 April 2016

Note 1: Where the details and commitments of the documents listed in condition 1.2.1 are inconsistent with any other condition of this works approval, the conditions of this works approval shall prevail.

1.2.2 The Works Approval Holder shall commission the works for a period not exceeding three months.

2 Monitoring

2.1.1 The Works Approval Holder shall ensure that:
(a) all wastewater sampling is conducted in accordance with AS/NZS 5667.11;
(b) groundwater samples for the monitoring of WAD Cyanide are collected and preserved in accordance with APHA; and

(c) 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.

2.1.2 The Works Approval Holder shall undertake the monitoring specified in Table 2.1.1, and identified in Schedule 1, prior to the works commissioning period.

Table 2.1.1: Monitoring of ambient groundwater quality

Monitoring point reference	Parameter	Units	Averaging period	Frequency
Monitoring bores TSFMB1, TSFMB2, TSFMB3 & TSFMB4	Arsenic	mg/L	Spot sample	Prior to the commissioning period
	Cadmium			
	Chromium			
	Copper			
	Lead			
	Selenium			
	Sulphate			
	Total acidity			
	Zinc			
	Total Dissolved Solids			
	WAD cyanide			
	pH[1]	Not specified		
	Standing water level (SWL)[2].	mbgl		

Note 1: In-situ, non-NATA accredited analysis permitted.
Note 2: To be determined prior to collection of water samples.

3 Improvements

3.1.1 The Works Approval Holder shall complete the improvements in Table 3.1.1 by the date of completion in Table 3.1.1.

Table 3.1.1: Improvement program

Improvement reference	Improvement	Date of completion
IR1	The Works Approval Holder shall, at least one month prior to commencing commissioning, submit a commissioning plan to the CEO. The commissioning plan shall include details relating to: (a) the commissioning stages and expected timescales for commissioning; (b) expected emissions and discharges during commissioning and the environmental implications of the emissions; (c) how emissions and discharges will be managed during commissioning; (d) the monitoring that will be undertaken during the commissioning period; (e) how accidents or malfunctions will be managed; (f) start up and shut down procedures; and (g) reporting proposals including accidents, malfunctions and reporting against the commissioning plan. Commissioning shall be carried out in accordance with the commissioning plan.	At least one month prior to commencing commissioning

4 Information

4.1 Reporting

4.1.1 The Works Approval Holder shall submit a compliance document to the CEO, following the construction of the works and prior to commissioning of the same.

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

4.1.3 The Works Approval Holder shall submit a commissioning report for the works, to the CEO within 1 month of the completion of commissioning.

4.2 Notification

4.2.1 The Works Approval Holder shall ensure that the parameters listed in Table 4.2.1 are notified to the CEO and are in accordance with the notification requirements of the table.

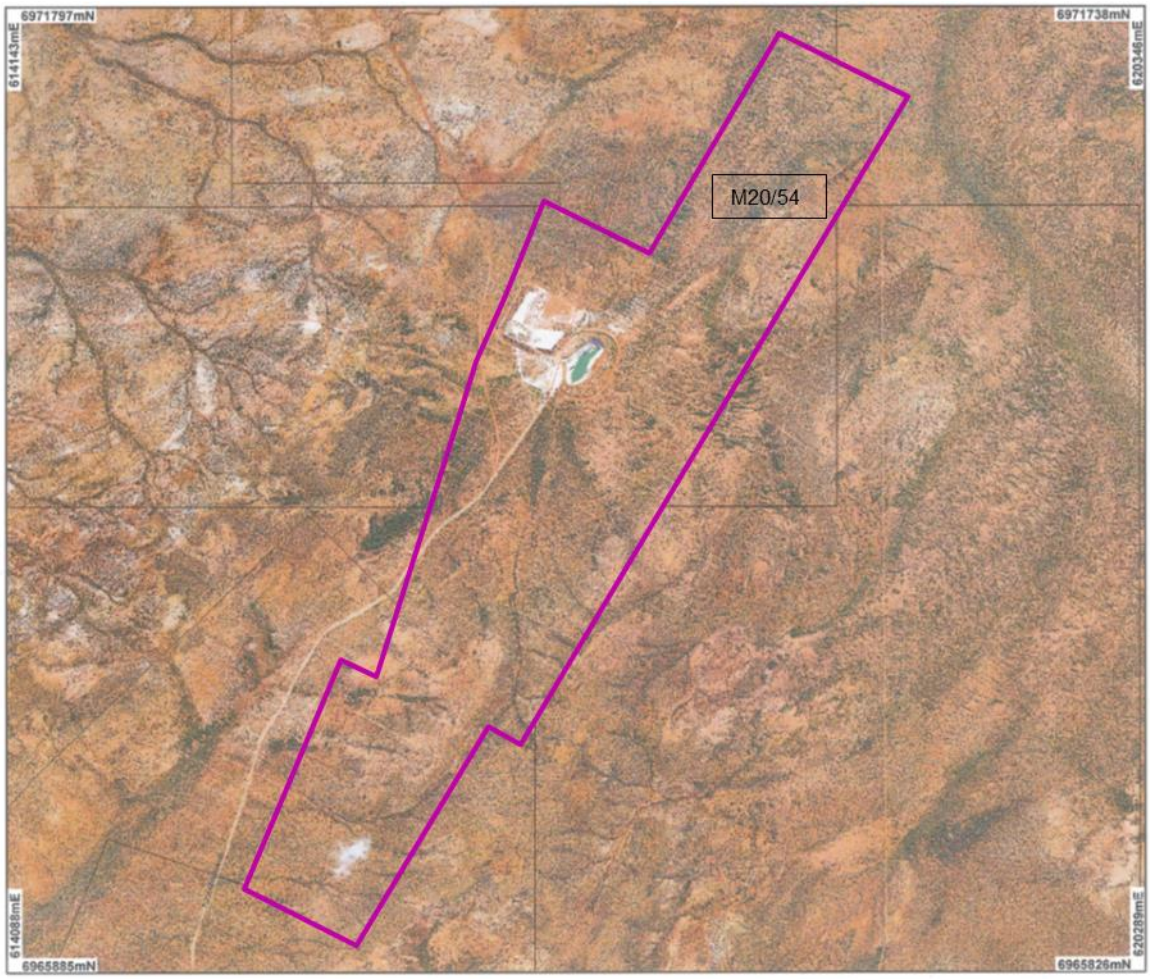
Table 4.2.1: Notification requirements

Condition or table (if relevant)	Parameter	Notification requirement	Format or form
1.2.2	Commencement of commissioning	7 days prior to start	None specified
	Completion of commissioning	7 days after completion	
Table 2.1.1	A summary of the monitoring results recorded under condition 2.1.2	Within 30 days from the receipt of the monitoring results.	

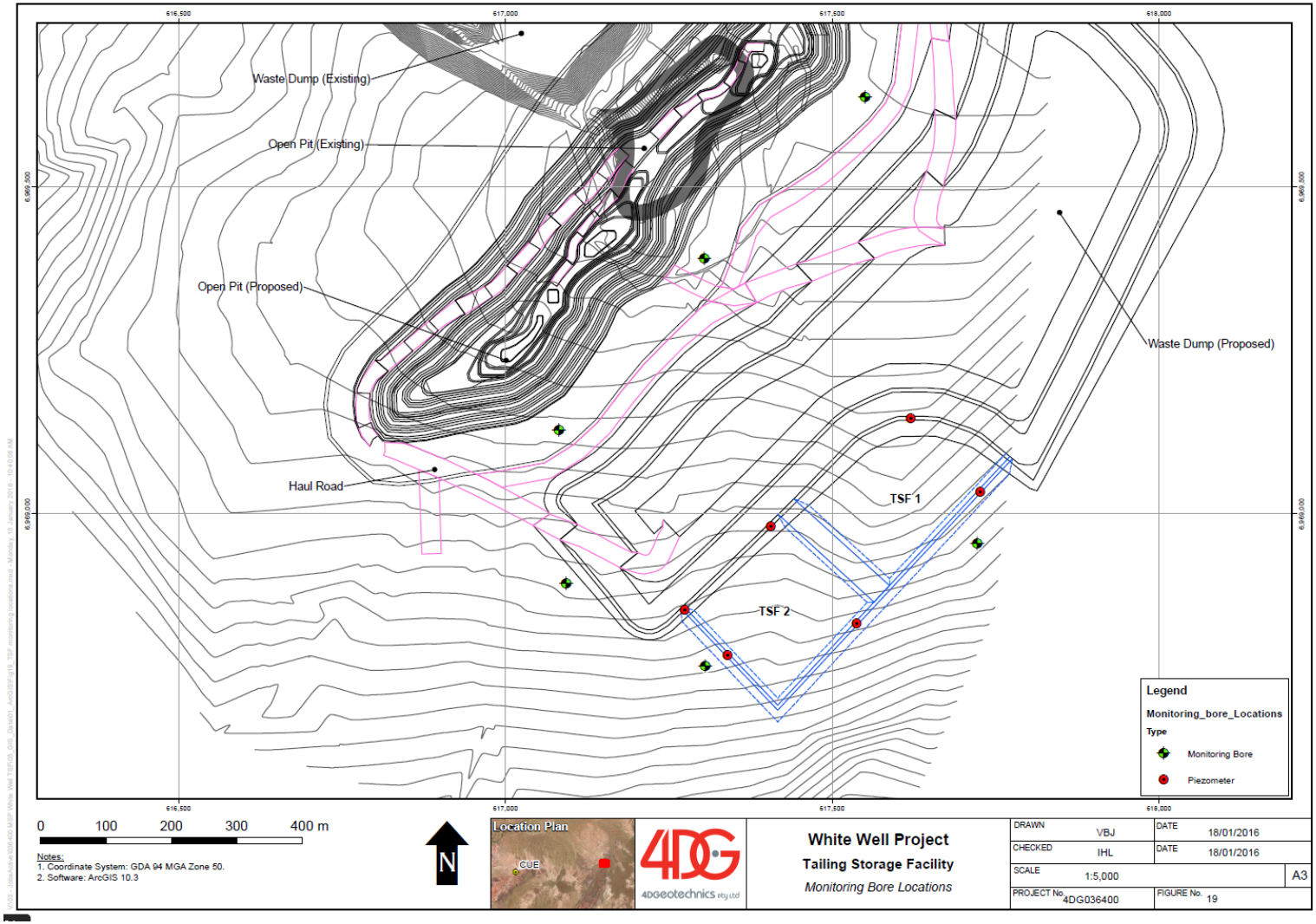
Schedule 1: Maps

Premises map

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



Ambient groundwater monitoring bore locations



Government of Western Australia
Department of Environment Regulation

Decision Document

Environmental Protection Act 1986, Part V

Proponent: Lake Austin Mining Pty Ltd

Works Approval: W5214/2012/1

Registered office:	40 Murray Road North WELSHPOOL WA 6106
ACN:	607 635 192
Premises address:	White Well Gold Project Mining Tenement M20/54 CUE WA 6640
Issue date:	Friday, 31 August 2012
Commencement date:	Friday, 31 August 2012
Expiry date:	Thursday, 30 August 2018

Decision

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

Decision Document prepared by:	Christine Pustkuchen 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 – Processing or beneficiation of metallic or non-metallic ore.	2,400,000 tonnes per annual period.
	89 – Putrescible landfill site	25 tonnes per annual period.
Application verified Application fee paid	Date: 18/11/2015 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		
Is the proposal a Major Resource Project?	Yes☒ No☐	
Was the proposal referred to the Environmental	Yes☐ No☒	Referral decision No:

Protection Authority (EPA) under Part IV of the *Environmental Protection Act 1986*?		Managed under Part V ☐ Assessed under Part IV ☐
Is the proposal subject to Ministerial Conditions?	Yes☐ No☒	Ministerial statement No: EPA Report No:
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☒ If Yes include details of which EPP(s) here.		
Is the Premises subject to any EPP requirements? Yes☐ No☒ If Yes, include details here, e.g. Site is subject to SO_2 requirements of Kwinana EPP.		

3 Executive summary of proposal and assessment

The White Well Project (the Project) is located on Mining Tenement M20/54 within the Shire of Cue. The Project is remote with the nearest sensitive premises being Yarraquin Station homestead approximately 18 kilometres (km) south of the Project and the Town of Cue which is approximately 40 km west of the Project.

W5124/2012/1 is currently held by Defector Mining Limited (trading as Mutiny Gold Limited). As of 4th September 2015 Lake Austin Mining Pty Ltd (LAM) has acquired the White Well Project (the Project) and now has legal access to the project and mining lease M20/54. As a result LAM has requested that the works approval be transferred to them and amended.

The Works Approval was issued to Defector Mining Limited for the construction of a crushing, screening, wet milling and processing plant, Tailings Storage Facility (TSF) and TSF discharge and return pipelines. The design capacity of the original Project was 900,000 tonnes per annum.

The works approval has been transferred to LAM as part of this amendment. The nature of the operations proposed to be carried out by LAM are the same as those proposed by Defector Mining Limited, with the following amendments proposed for approval:

- Total quantity of ore to be processed estimated at 3.4 million tonnes over a period of 16 - 18 months. A design capacity of 2.4 million tonnes per annum (from original design capacity 900,000 tonnes per annum).
- The TSF is proposed to be re-located to abut the south eastern embankment of the proposed new waste dump. The TSF will consist of two cells with an initial height of 5 meters (m). Two lifts (of 5 m each) is proposed to reach a maximum design height of 15m. Subsequent construction of upper lifts on the TSF will be scheduled according to the operational requirements. A centreline construction method will be used.
- Change in the location of the process plant, ROM Pad and associated infrastructure to the south and west of the waste dump. 2.4Mtpa wet scrubbing plant and a 300ktpa ball mill and CIP/CIL plant is proposed.
- The requirement for an accommodation camp has been removed. All personnel working at the site are proposed to be accommodated at an existing camp in the town of Cue and transported to and from site using buses and light vehicles.
- Category 89 will be added to the works approval as LAM are seeking permission to bury waste within the proposed waste rock dump (scrap timber, minor scrap steel and plastics, cardboard and paper).

Where conditions have been added or removed from the existing Works Approval these are justified in Section 4. The Works Approval Holder does not currently hold a Licence for the Project and is advised to apply to DER prior to the completion of commissioning.

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	W1.1.3 W1.1.4	**Construction** No changes are required to be made to the general conditions section of the works approval as part of this amendment. **Operation** Please see emissions to land section for assessment of spills and leaks and management of contaminated stormwater.	Application supporting documentation
Premises operation	W – no conditions L- conditions	**Construction** No conditions relating to premises operation are required to be added to the works approval as part of this amendment. Condition 1.3.1 has been removed from the works approval as LAM has stated within their application that pipelines will be contained within earthen bunds and will have scour pits and sumps periodically located along the pipeline route to contain any spillage from leaks or pipe breakages. Pipelines will also be inspected daily. Therefore condition 1.3.1 is unnecessary and has been removed from the works approval. **Operation** See Appendix 1 - Emissions to land for DER's assessment. It is recommended that conditions relating to waste containment, TSF pipelines, TSF operation (freeboard, inspections) and TSF seepage management be included in the licence.	Application supporting documentation
Emissions general	W – no conditions	**Construction** No conditions relating to emissions general are required to be added to the works	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**
	Licence - conditions	approval as part of this amendment. **Operation** Limits may be set through conditions in the licence and therefore a condition regarding recording and investigation of exceedances of limits may be included in this section.	
Point source emissions to air including monitoring	W – no conditions L - conditions	**Construction** No conditions relating to point source emissions to air are required to be added to the works approval as part of this amendment. **Operation** Carbon regeneration and gold smelting processes are expected to occur on site during operation. Conditions identifying air emissions points (stacks) and monitoring of these points may be placed on the licence.	Application supporting documentation
Point source emissions to surface water including monitoring	N/A	**Construction and Operation** No point source emissions to surface water are expected during construction or operation of the Project. No specified conditions relating to these emissions are required to be added to the works approval as part of this amendment. Surface drainage flows in a north easterly direction and there are no lakes in the vicinity of the project.	Application supporting documentation
Point source emissions to groundwater including monitoring	N/A	**Construction and Operation** No point source emissions to groundwater are expected during construction or operation of the Project. No specified conditions relating to these emissions are required to be added to the works approval as part of this amendment. Groundwater depth in the area is approximately 25 metres below ground level (mbgl). The closest station well is Gidgee Well, located 3.6km northeast of White Well.	Application supporting documentation
Emissions to land including monitoring	W – no conditions	**Construction** No emissions to land are expected during construction of the Project. No conditions relating to emission to land have been added to the works approval as part of this amendment.	Application supporting documentation

DECISION TABLE			
Works Approval / Licence section	**Condition number W = Works Approval L= Licence**	**Justification (including risk description & decision methodology where relevant)**	**Reference documents**
	L – conditions proposed.	**Operation** Emission description *Emission:* Release of hydrocarbons and chemicals into the environment due to containment leaks or spills (including contaminated stormwater). *Impact:* contamination of soil or surface water leading to death of fauna and flora. *Controls:* LAM has stated within their application supporting documents that; • All waste oil and hydrocarbon contaminated materials will be contained within bunded facilities and will be removed by a licensed contractor; • Spill response equipment will be stored on each maintenance/service vehicle during operation activities. If an inadvertent spillage of hydrocarbon occurs, the spill will be contained as much as possible by the use of the spill response equipment; • Hydrocarbon contaminated soil will be disposed of in the site bioremediation facility located on a foundation of kaolin clay waste material within the waste rock dump; • All dangerous goods will be stored and licensed under the Dangerous Goods Act (2004) and Regulations (2007); • Chemicals stored within the plant will be stored in specifically designed bunded areas, with signage and fencing (if required); • The wash-down facility located in the mine yard will be equipped with an oil interceptor and; • The mining contractor's workshop will equipped to store minor chemicals and waste oil in self-bunded containers. There are no nearby surface water features. Risk Assessment *Consequence:* Insignificant *Likelihood*: Unlikely	*Environmental Protection (Unauthorised Discharges) Regulations 2004* General Provisions of the *Environmental Protection Act 1986*

DECISION TABLE			
Works Approval / Licence section	**Condition number W = Works Approval L= Licence**	**Justification (including risk description & decision methodology where relevant)**	**Reference documents**
		Risk Rating: Low Regulatory Controls This risk is Low therefore no conditions regarding the management of hydrocarbons or contaminated stormwater are required to be added to the licence. The *Environmental Protection (Unauthorised Discharges) Regulations 2004* and the general provisions of the *Environmental Protection Act 1986* apply. Residual Risk *Consequence*: Insignificant *Likelihood:* Unlikely *Residual Risk Rating:* Low Emission description *Emission:* Release of solid waste into the environment (landfilling at waste rock dump). *Impact:* Possible contamination of soil or surface water (through landfill leachate and windblown waste) leading to death of fauna and flora. There are no nearby surface water features. Some wastes (approximately 25tpa) will be disposed of within the waste rock dump, this waste is mainly 'inert' however will include scrap timber, minor scrap steel and plastics, cardboard and paper. All landfill areas will be located within the footprint of the mine waste dump. Appropriate sized landfills areas (active landfill area will be no more than 30 m in length) will be designated on each successive lift on the waste dump (three in total, one in operation at a given time). By the end of the mine life (approximately 22 months) all landfill areas will be inundated by the mine rock dump. *Controls*: LAM has stated within their application that:	

DECISION TABLE			
Works Approval / Licence section	**Condition number W = Works Approval L= Licence**	**Justification (including risk description & decision methodology where relevant)**	**Reference documents**
		• The landfill area will be covered on a monthly basis with a layer of inert oxide mine waste rock; • Landfill will be greater than 100 metres from any surface water body; • The landfill will be greater than 3 metres from the groundwater table (groundwater is approximately 20-25 mbgl); • Where appropriate landfill areas will be fenced to prevent livestock access • Landfill areas will be located to ensure adequate stormwater diversion and minimise the washing or blowing away of waste; • Landfill will be regularly inspected and windblown waste collected and returned to the landfill face; • No burning of waste will occur onsite; • Domestic solid waste (putrescible, approximately 10 tonnes per annum (tpa)) will be taken to the Cue Rubbish Tip; • All waste oil and hydrocarbon contaminated materials such as hydraulic hoses and fuel filters will be removed by a licensed contractor; and • Scrap metal, tyres, batteries and other recyclables will be stored in a designated area prior to collection from site by a licensed contractor. <u>Risk Assessment</u> *Consequence:* Insignificant *Likelihood*: Unlikely *Risk Rating:* Low <u>Regulatory Controls</u> The risk to the environment from the burial of wastes at the waste rock dump is low. This is due to the type of waste being buried (metal, plastics and timber) it is unlikely that contaminated leachate will be generated. Conditions will be placed on the licence to restrict what type of waste may be buried within the waste rock dump. Windblown waste may be an issue due to the type of wastes being buried (paper, cardboard).	

DECISION TABLE			
Works Approval / Licence section	**Condition number W = Works Approval L= Licence**	**Justification (including risk description & decision methodology where relevant)**	**Reference documents**
		Conditions requiring regular retrieval of windblown waste and the covering of waste may be included on the licence. Residual Risk *Consequence*: Insignificant *Likelihood:* Unlikely *Residual Risk Rating:* Low Assessment of emissions to land associated with TSF is located in Appendix A.	
Fugitive emissions		**Construction and Operation** Emission description *Emission:* Fugitive dust from earthmoving activities and vehicle movement during construction. Fugitive dust from crushing and the transfer of materials, the TSF and vehicle movement during operation. *Impact:* Fugitive dust can impact human health and amenity. Elevated particulate concentrations in ambient air can impact on native vegetation by smothering leaves. *Controls:* • Dust generated from roads and haul roads will be minimised via road watering with a water truck; • Water of medium salinity will be used for dust suppression, minimising risk to vegetation; and • Dry sections of the process plant that pose a dusting risk will operate with dust suppression via dust extraction systems or water sprays. Risk Assessment *Consequence:* Insignificant *Likelihood*: Unlikely *Risk Rating:* Low	Application supporting documentation

DECISION TABLE			
Works Approval / Licence section	**Condition number W = Works Approval L= Licence**	**Justification (including risk description & decision methodology where relevant)**	**Reference documents**
		The nearest sensitive receptor is Yarraquin Station Homestead which is approximately 18 kms south of the Project. No threatened or priority flora or Fauna are known to occur within the White Well area. A threatened species of bird has been located at Tuckabianna approximately 12 km southwest of Project area. <u>Regulatory Controls</u> This risk is Low therefore no conditions for fugitive dust are required to be added to the licence. The Provisions of the *Environmental Protection Act 1986* and the *Environmental Protection (Unauthorised Discharges) Regulations 2004* apply. <u>Residual Risk</u> *Consequence*: Insignificant *Likelihood:* Unlikely *Residual Risk Rating:* Low	
Odour	N/A.	**Construction and Operation** No odour emissions are expected during construction, commissioning or operation of the project. No specified conditions relating to odour have been added to the works approval as a part of this amendment.	N/A.
Noise	N/A.	**Construction and Operation** <u>Emission Description</u> *Emission*: Noise generated by earthmoving activities and vehicle movement during construction and noise generated by processing equipment, mining activities and vehicles during operation. *Impact:* Noise can reduce the amenity value for nearby land-users. *Controls:* Separation distance - The nearest sensitive receptor is Yarraquin Station	Application supporting documentation *Environmental Protection (Noise) Regulations 1997*

DECISION TABLE			
Works Approval / Licence section	**Condition number W = Works Approval L= Licence**	**Justification (including risk description & decision methodology where relevant)**	**Reference documents**
		Homestead which is approximately 18 kms south of the Project. Current land use in the area is mining and pastoral activities. LAM has stated within their application that noise reduction engineering practices and Personal Protective Equipment use will be enforced. Risk Assessment *Consequence:* Insignificant *Likelihood*: unlikely *Risk Rating:* Low Regulatory Controls The risk of noise is Low. No noise conditions are required to be added to the Licence. The *Environmental Protection (Noise) Regulations 1997* will apply. Residual Risk *Consequence*: Insignificant *Likelihood:* Unlikely *Residual Risk Rating:* Low	
Monitoring general	W2.1.1 and W2.1.2	No changes have been made to the monitoring general section of the works approval as part of this amendment.	N/A.
Monitoring of inputs and outputs	N/A.	No specified conditions relating to monitoring of inputs and outputs are required to be added to the works approval as part of this amendment.	N/A.
Process monitoring	N/A.	No specified conditions relating to process monitoring are required to be added to the works approval as part of this amendment.	N/A.
Ambient quality	W 2.1.1 and W2.1.2	**Construction** LAM proposes to install 4 monitoring bores around the TSF to monitor for changes in	

DECISION TABLE			
Works Approval / Licence section	**Condition number W = Works Approval L= Licence**	**Justification (including risk description & decision methodology where relevant)**	**Reference documents**
monitoring		groundwater quality. LAM has not provided any information in regards to baseline groundwater quality as part of their application to amend the works approval. To ensure this information is acquired, condition 2.1.2 has been retained on the works approval to ensure LAM undertake water quality sampling of the 4 monitoring bores prior to commissioning of the TSF. No other changes have been made to this section of the works approval. **Operation** Conditions for routine ambient monitoring of groundwater monitoring bores located at the tailings storage facility are proposed for the Licence.	
Meteorological monitoring	N/A.	No specified conditions relating to meteorological monitoring are required to be added to the works approval as part of this amendment.	N/A.
Improvements	W3.1.1	**Construction** No changes have been made to the improvement section of the works approval as part of this amendment. As no commissioning plan was submitted as supporting information by LAM condition 3.1.1 has been retained on the works apporval to ensure that DER is provided with information on: • expected discharges and environmental implications of the emissions during commissioning of the Project; • how emissions and discharges will be managed during commissioning; and • Monitoring, management and procedures to be implemented during commissioning. The commissioning plan is to be submitted at least one month prior to the commencement of commissioning.	Application supporting documentation.

DECISION TABLE			
Works Approval / Licence section	**Condition number W = Works Approval L= Licence**	**Justification (including risk description & decision methodology where relevant)**	**Reference documents**
		Operation Reporting and notification conditions are proposed for the Licence.	
Information	W4.1.1, W4.1.2 W4.1.3, W4.2.1	**Construction** No changes have been made to the information section of the works approval as part of this amendment. See improvement section. **Operation** Reporting and notification conditions are proposed for the Licence.	N/A.
Works Approval Duration	N/A.	No changes are proposed to the works approval duration.	N/A.

5 Advertisement and consultation table

Date	Event	Comments received/Notes	How comments were taken into consideration
04/04/2016	Application referred to interested parties listed: Department of Mines and Petroleum	DER's executive summary of the proposal states that the tailings storage facility will be constructed using the downstream method. The Mining Proposal that has been submitted to DMP indicates that the centreline construction method will be used; - To avoid regulatory duplication and overlap, DMP advised DER that it intends to impose the following tenement conditions with respect to the tailings storage facility: *1. The construction of any tailings storage embankment shall be supervised by an engineering or geotechnical specialist;* *2. The construction details of any tailings storage embankment shall be documented by an engineering or geotechnical specialist and confirm that the construction satisfies the design intent. The construction document shall include the records of all construction quality control testing, the basis of any method specification adopted, and any significant modifications to the original design together with the reasons why the modifications were necessary. The construction document shall also present as-built drawings for the embankment earthworks and pipework. A copy of the construction document shall be submitted to DMP for its records;* *3. The tailings storage facility shall be checked on a routine daily basis by site personnel during periods of deposition to ensure that the facility is functioning as per the design intent;* *4. An engineering or geotechnical specialist shall audit and review the active tailings storage facility on an annual basis. The specialist shall review past performance, validate the design, examine tailings management, and review the results of monitoring. Any deficiencies noted in the audit and review report*	- The proposed method of construction of the TSF has been updated. - All other comments have been noted.

Date	Event	Comments received/Notes	How comments were taken into consideration
		shall be suitably addressed and improved. The audit and review report shall be submitted to DMP and should be accompanied by a recent survey pick-up of the facility and an updated tailings storage data sheet. *5. At the time of decommissioning of the tailings storage facility and prior to rehabilitation, a further review report by a geotechnical or engineering specialist shall be submitted to DMP. This report should review the status of the structure and its contained tailings, examine and address the implications of the physical and chemical characteristics of the materials, and present and review the results of all monitoring. The rehabilitation stabilisation works proposed and any on-going remedial requirements should also be addressed.* - Once approved, the mining proposal and mine closure plan documents will also be added as tenement conditions. All management measures outlined by Lake Austin Mining Pty Ltd will become legally binding. - DMP generally supports DER's proposed licence conditions.	
04/04/2016	Application referred to interested parties listed: Department of Water	The DoW reviewed the Works Approval Amendment and provides no comment to the DER for consideration. DoW provided a response to DER which was submitted to the Department of Mines and Petroleum (DMP) on the Mining Proposal and Mine Closure Plan for the White Well Gold Project. DoW requested for DER to consider the DoW's advice to DMP on issue of the Operating Licence for the project, and where appropriate, make provision to ensure water resources are protected through conditional approval. DoW also requested the draft Operating Licence be referred for comment, once available.	Comment has been noted.
04/04/2016	Proponent sent a copy of draft	Comments received:	The design capacity has been update to 2.4

<table>
<tr><th>Date</th><th>Event</th><th>Comments received/Notes</th><th>How comments were taken into consideration</th></tr>
<tr><td></td><td>instrument</td><td>1. Lake Austin Mining Pty Ltd (LAM) identified an opportunity to install a higher capacity scrubbing plant for the initial stage of the White Well ore processing. As a result, LAM requested amendments to the works approval documents as described in the table below.

<table>
<tr><th>Document / Location</th><th>Proposed Amendment</th></tr>
<tr><td>Works Approval: Page 1 of 8, Table, “Approved premises production or design capacity”</td><td>1,800,000 tonnes should be amended to 2,400,000 tonnes per annual period</td></tr>
<tr><td>Decision Document: Page 3 of 18, Section 3, 4th paragraph, first dot point</td><td>1.8 million tonnes should be amended to 2.4 million tonnes per annum</td></tr>
<tr><td>Decision Document: Page 3 of 18, Section 3, 4th paragraph, 3rd dot point</td><td>1.8Mtpa should be amended to 2.4Mtpa.</td></tr>
</table>

2. LAM advised that since the initial application, LAM has carried out further geotechnical work in January 2016 on the proposed White Well tailings storage facility (TSF), with assistance from 4D Geotechnics. This included preliminary review of the monitoring bore and piezometer locations and construction methods aligned to the revised TSF location and design.

As a result of this study, it was proposed to update the diagram on page 8 of the Works Approval. It is proposed that final locations will be determined at the detailed design stage prior to construction and commissioning.
LAM also requested to amend the last sentence</td><td>Mtpa from 1.8 Mtpa. Further clarification from proponent indicates that the total ore to be processed is approximately 3.4 Mt over 16-18 months. This amount is only slightly higher than the original amount to be processed during the life of the mine (original 3.3 Mt over 22 months).

Emissions and discharges are not expected to signingicantly increase as a result of these changes and therefore the assessment has remained the same.

No other infastructure will be required to change due to this slight increase in capacity.

The proponent has confirmed that the capacity of the TSF will remain the same and is not required to be expanded due to this change.</td></tr>
</table>

Date	Event	Comments received/Notes	How comments were taken into consideration
		in Section 3, page 3 of 18, 2nd dot point with: "A centreline construction method will be used".	

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

Emissions to Land

Emission Risk Assessment – Normal Operation of TSF

Emission Description

Emission: Deposition of tailings in the TSF. Seepage of tailings pore water potentially containing elevated elements of environmental concern and/or in excess of known baseline concentrations.

Impact: Seepage from the TSF entering the groundwater system causing mounding and potential groundwater contamination.

Background information

Groundwater in the area is approximately 25 metres below ground level. Permeability is low or effectively absent outside zones of high permeability from fracturing and weathering and as such the aquifers in the area are linear, regionally disconnected and of limited extent. Groundwater salinity in the area ranges from 200 to 4090 mg/L Total Dissolved Solids (TDS). The eastern boundary of the current Cue Water Reserve is located approximately 17 km southwest of the Project. Land use activities within the reserve are regulated and include water abstraction for the town water supply.

Groundwater in the area is also currently used for stock purposes. These supplies are unlicensed and normally drawn from shallow bores and wells. The volume of groundwater drawn for stock is small. Gidgee Well is located approximately 3.6 km northeast of the White Well pit. No other stock bores are located within a 5 km radius of the pit.

Controls: LAM has stated the following within their application supporting documents:

- 4 groundwater monitoring bores will be installed surrounding the TSF to monitor groundwater quality. Bore locations have been selected to intercept northwest regional groundwater flow (TSFMB1 and TSFMB2) and between the TSF and mine pit (TSFMB3 and TSFMB4);
- 7 piezometers will be installed within the embankment walls of the TSF to monitor seepage.
- The floor of the TSF will be lined with a compacted 2 metre thick clay liner (oxide Kaolin waste material) to minimise seepage; and
- Decant water will be returned to a process pond located at the plant to ensure the decant pond size is minimised (and therefore reducing hydraulic pressure and ultimately seepage).

Risk Assessment

Consequence: Minor
Likelihood: Possible
Risk Rating: Moderate

Regulatory controls

As the risk rating is moderate groundwater monitoring conditions will placed on the licence to ensure quarterly monitoring of groundwater quality around the TSF is conducted. Conditions requiring monitoring results to be reported in an annual environmental report along with an assessment and comparison against previous year's data will also be added to the licence. This will allow DER to monitor the impact of the TSF on groundwater within the area.

Limits relating to WAD cyanide levels within the groundwater may also be added to the licence.

Residual Risk

Consequence: Insignificant
Likelihood: Possible

Residual Risk Rating: Low

Operation – Emergency Operation

Emission Description

Emission: Failure of either tailings delivery pipelines from the process plant to the TSF releasing tailings to land or overflow from the TSF following a one in one hundred 72 hour rainfall event.

Impact: Soil contamination with tailings solids containing heavy metals and cyanide. Potential impact to avifauna from cyanide ingestion if liquor spills are not cleaned up as they occur. Destruction of vegetation by smothering from tailings overflow.

Controls: LAM has stated the following within their application:

- Tailings pipelines (HDPE class 1C) will be surrounded by earthen bunds;
- Pipelines will have scour pits and sumps periodically located along pipeline routes to contain any spillage from leaks or pipe breakages;
- Pipelines will be inspected for leaks and TSF embankments for slumping or cracking on a daily basis and
- An operational freeboard of 500mm will be maintained on the TSF.

The TSF will be managed under the Lake Austin Mining Pty Ltd White Well Gold Project Tenement M20/54 Tailings Storage Facility Operating Manual, January 2016 (DOC. NO. WW- J-RP-003_A).

Risk Assessment

Consequence: Moderate
Likelihood: Unlikely
Risk Rating: Moderate

Regulatory Controls

As the risk is Moderate conditions relating to TSF pipeline management, containment infrastructure requirements, TSF management (freeboard, supernatant pond) and inspections will be added to the licence.

Residual Risk Assessment

Consequence: Moderate
Likelihood: Rare
Risk Rating: Moderate