Government of Western Australia
Department of Water and Environmental Regulation

Amendment Report

Application for Licence Amendment

Part V Division 3 of the *Environmental Protection Act 1986*

Licence Number	L5529/1988/12
Licence Holder	Mt. Magnet Gold Pty Ltd
ACN	008 669 556
File Number	DER2016/001228-1
Premises	Mt. Magnet Gold L58/20, M58/4, M58/5, M58/8, M58/11 (partial), M58/30, M58/47 (partial), M58/60 (partial), M58/64, M58/79, M58/81 (partial), M58/119 (partial), M58/121, M58/130, M58/136, M58/143, M58/157, M58/172, M58/173 (partial), M58/179 (partial), M58/181, M58/185, M58/186, M58/187, M58/191, M58/192 (partial), M58/193, M58/194 (partial), M58/198, M58/202, M58/205, M58/208, M58/231, M58/232, M58/233, M58/234, M58/236 (partial), M58/241, M58/248, M58/273, M58/285, M58/286 and M58/304
Date of Report	12 December 2024
Decision	Revised licence granted

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1. Decision summary

Existing Licence L5529/1988/12 is held by Mount Magnet Gold Pty Ltd (Licence Holder) for the Mount Magnet Gold (MMG) (the Premises), located at mining tenements L58/20, M58/4, M58/5, M58/8, M58/11 (partial), M58/30, M58/47 (partial), M58/60 (partial), M58/64, M58/79, M58/81 (partial), M58/119 (partial), M58/121, M58/130, M58/136, M58/143, M58/157, M58/172, M58/173 (partial), M58/179 (partial), M58/181, M58/185, M58/186, M58/187, M58/191, M58/192 (partial), M58/193, M58/194 (partial), M58/198, M58/202, M58/205, M58/208, M58/231, M58/232, M58/233, M58/234, M58/236 (partial), M58/241, M58/248, M58/273, M58/285, M58/286 and M58/304.

This Amendment Report documents the assessment of potential risks to the environment and public health from proposed changes to the emissions and discharges during the operation of the Premises. As a result of this assessment, Revised Licence L5529/1988/12 has been granted.

2. Scope of assessment

2.1 Regulatory framework

In completing the assessment documented in this Amendment Report, the department has considered and given due regard to its Regulatory Framework and relevant policy documents which are available at https://dwer.wa.gov.au/regulatory-documents.

2.2 Amendment summary

On 3 April 2024, the Licence Holder submitted an application to the department to amend Licence L5529/1988/12 under section 59 and 59B of the *Environmental Protection Act 1986* (EP Act). The premises relates to the category 5, 6, 12, 57 and 64 assessed production capacity under Schedule 1 of the *Environmental Protection Regulations 1987* (EP Regulations) which are defined in licence L5529/1988/12.

The following amendments are being sought:

- addition of new Category 12: Screening etc. of material. This includes the construction conditions for the category as they have not been previously authorised under a works approval.
- include Category 57: Used tyre storage (general). Used tyres have previously been stored at the premises but have not been included as a category on the licence as the number did not exceed the threshold of 100 tyres. If mining operations do not allow for proper burial, tyres will be disposed of in landfills or active waste rock landforms.
- an adjustment to the boundary of the prescribed premises
- amendments to monitoring conditions; and
- inclusion of all pits as dewatering and discharge points.

No changes to the aspects of the Existing Licence relating to Category 64 have been requested by the Licence Holder.

Table 1 below outlines the proposed changes to the Existing Licence.

Table 1: Proposed design or throughput capacity changes

Category	Current throughput capacity	Proposed throughput capacity	Description of proposed amendment
Category 5: Processing or beneficiation of	2,400,000 tonnes per annual period	2,400,000 tonnes per annual period	Please refer Table 2

metallic or non-metallic ore			
Category 6: Mine dewatering	3,100,000 tonnes per annual period	3,100,000 tonnes per annual period	Please refer Table 3
Category 12: Screening etc. of material (New category)	N/A	200,000 tonnes per annual period	There is currently no crushing and screening category on the existing Licence. The department has evaluated category 12 as a new category because there was no prior risk assessment or works approval for this category. As a result, the construction will be authorised under the existing licence. Please refer Table 6 for the risk assessment done for category 12. The licence holder has asked that this category be included to enable for the option to conduct mobile operations as needed to provide road base or stemming for drill and blast activities.
Category 57: Used tyre storage (general) (New category)	N/A (Currently 100 tyres included as the inert waste type 2 under category 64)	500 used tyres	Used tyres have previously been stored at the premises but have not been included as a category on the licence as the number did not exceed the threshold of 100 tyres.
Category 64: Class II putrescible landfill site	10,000 tonnes per annual period	10,000 tonnes per annual period	No Change to the production or design capacity.

2.3 Category 5 activities

The Technical Report – EP Licence Conditions, Checkers TSF1 & 2 (MWES, 2023a) considered environmental risks from rising seepage at CTSF1&2 from the fractured rock aquifer through natural conduits within the weathered rock profile, as potentially locally impacting vegetation and soil structures; and the areas with highest groundwater pressure are well mapped by existing monitoring bores, and it can be demonstrated that there is minimal deep-rooted vegetation located within 100m boundary of the four bores that are requested to be amended.

Eight monitoring bores were installed in accordance with table 3.4.1 of the Licence namely T2MB02, T2MB03, T2MB04, T2MB05, T2MB06, T2MB07 and T2MB08. In general, water levels are relatively stable with little variation throughout the 2021-2022 reporting period. Table 2 below outlines the proposed changes to the category 5 in the Existing Licence.

Table 2: Category 5 amendments proposed to be incorporated into amended licence

Condition	Proposed update to condition	Licence Holder's Justification
1.3.8	Table 1.3.4 Continuous seepage recovery from bores T2RB08, T2RB09, T2RB10, T2RB11 and T2RB12 On-going maintenance of seepage recovery bores to operate at their maximum capacity.	Continuous seepage recovery is problematic due to low bore yields caused by low permeability in underlying fractured rock aquifers. These low permeabilities mean that continuous pumping is not possible.

	Remove 'On-going maintenance of seepage recovery bores to operate at their maximum capacity'. New condition: Seepage recovery bores T2RB08, T2B09, T2RB10, T2RB11 and T2RB12 are maintained to recover any liquid matter resulting from seepage.	
1.3.9	Table 1.3.5 Inspection Infrastructure Remove 'chemical storage areas' and 'processing plant' from inspection of infrastructure and 'weekly' inspection frequency.	Inspections of chemical storage areas and the processing plant are captured as part of routine work inspections in accordance with the Work Health & Safety Act 2020. The processing plant is subject to a number of integrity inspections carried out and recorded by appropriately authorised structural engineers. Furthermore, the environmental risk of a spillage in this area is low especially when considered that any spillage from chemical storage or the processing plant would report to the embankment of TSF1.
1.3.9	Table 1.3.5 Inspection Infrastructure Daily inspection to pipelines when operational. Daily ---------- When operational	It is considered unnecessary to inspect and maintain records of pipelines that are not operational. The word "operational" is defined by the licence holder as pipelines that are equipped with pumping infrastructure. Due to the nature of dewatering activities, many dewatering routes undergo periods of intermittent use dependent on operational requirements.
1.3.9	Row 6: TSF embankment freeboard – visual inspection to confirm required freeboard capacity is available. Freeboard markers shall be installed within each pit to allow visual measurement of the freeboard height. Removal requirement to have a visual freeboard marker on Checkers TSF.	The licence holder suggests the technologies such as telemetry, alarms and automatic shutoffs, alongside drones for monitoring can offer precise and instantaneous measurements that will alert operators to any potential overtopping well before it occurs
3.4.1	Table 3.4.1 T2MB09 – Parameter: Nitrate Remove the 50 mg/L Nitrate threshold on T2MB09.	Reason: T2MB09 is located between the operations and the P2 Genga PDWSA. Since 2016/2017, the mean background levels of groundwater at the P2 Genga PDWSA, as shown on the Australian Drinking Water Map, have consistently been higher than 65 mg/L. As a result, T2MB09 monitoring may cause exceedances to be noted in the Annual Audit Compliance Report (AACR), which represents background levels and is unrelated to the influence of MMG activities. Thus, the licence holder requested to avoid the unnecessary administrative burden to assist the reporting consistence.

3.4.1	Table 3.4.1 Remove 4 mbgl limit for bores T2MB03, T2MB04, T2MB05, and T2MB06.	T2MB03, T2MB04, T2MB05 and T2MB06, that are located immediately adjacent to the southern embankment of Checkers TSF2. A map in page 25 of the supporting document showed the disturbance area and the four bores plotted with 100 m radii to demonstrate that there is minimal deep-rooted vegetation located within 100m boundary of the four bores that are requested to be amended to remove the 4mbgl limit: T2MB03, T2MB04, T2MB05 and T2MB06. MMG considers the likelihood of deep-rooted vegetation being affected by a groundwater to be rare, and consequence to be minor, which overall rates the environmental risk to be low. However, the monitoring bores T2MB02, T2MB07 and T2MB08 are retained, which are more likely to show a true groundwater level as they are located further away from the peak of the potentiometric surface.
		Correct the typo in the unit of Standing Water Level (SWL) to mbgl in row 2.
3.4.1	Table 3.4.1 Monitoring of ambient groundwater quality	Removal of antimony, manganese and iron from the parameters of "Monitoring wells southwest of windbag pit and south of Hesperus pit, as required by Condition 1.3.11". Reason: Removing these three parameters aligns the analysis requirements with all other monitoring bores.

2.4 Category 6 activities

The licence holder engaged hydrogeology experts MWES Consulting to review the proposed changes to the Category 6 operations on the licence.

Hydraulic barriers were mapped to demonstrate the flow of groundwater from pits that are discharge points for dewater will flow toward the hydraulic barriers and not through them. The hydraulic barriers are the areas of groundwater depression. Within the Mt Magnet operations, the groundwater depressions are expected to draw water to areas away from the Public Drinking Water Source Areas (PDWSA) as described in Table 5.

Table 3 below outlines the proposed changes to the category 6 in the Existing Licence. The changes to dewatering sources and discharge points are:

Table 3: Category 6 amendments proposed to be incorporated into amended licence

Condition	Proposed update to condition	Licence Holder's Justification
1.3.8	Table 1.3.4 Remove Stellar, Reno, Vegas, Brownhill and Windbag Pits from the licence. Retain Blackcat South, Ruby Queen, Hesperus, Saturn, Titan, Boomer,	Stellar, Reno, Vegas, Brownhill and Windbag Pits are used to harvest stormwater. There are no plans to use these pits for Category 6 dewatering activities and, therefore, they are not required to be included on the licence.

	Franks Tower and Milky Way pits as emission/dewater discharge points.	
1.3.8	Table 1.3.4 Remove “pit lake level to be maintained below the surrounding groundwater level” Retain with “A minimum freeboard of 2 m is maintained in order to accommodate an extreme rainfall event” for all transfer pits.	Transfer pits are used as an abstraction source and a discharge point. Amending the licence to maintain a 2 m freeboard will standardise conditions for all pit lakes on the licence.
1.3.8	Table 1.3.4 Remove “pit lake level to be maintained below the surrounding groundwater level” Retain with “A minimum freeboard of 2 m is maintained in order to accommodate an extreme rainfall event” for all transfer pits.	Transfer pits are used as an abstraction source and a discharge point. Amending the licence to maintain a 2 m freeboard will standardise conditions for all pit lakes on the licence.
1.3.8	Table 1.3.5 Rows 7 – 10: Franks Tower pit, Ruby Queen pit, Blackcat South pit and Milky Way pit. Amend to: “daily visual inspection of freeboard capacity is required whilst dewatering activities into pits are active.” To remove the requirement for freeboard markers on pits.	Reason: No increase to water level is expected when dewatering operations are not active, hence it is considered redundant to conduct and record daily visual inspections unless discharge into the pits is occurring.
1.3.8	Table 1.3.5 Inspection Infrastructure Remove ‘Freeboard markers shall be installed within each pit to allow visual measurement of the freeboard height’	Reason: It is highlighted that Black Cat South and Milky Way pits are 67.5 and 93.8 metres below surface level respectively and having freeboard markers on these pits offers no benefit. Licence Holder suggested only two pits have this issue. All pits listed in this licence as dewatering discharge points are in the same aquifer system.
1.3.8	Table 1.3.5 Inspection of infrastructure Row 11: Remove Pump Integrity of Stellar pit.	Reason: Recording daily inspections of pump integrity on Stellar pit is considered unwarranted and superfluous, as Stellar pit may not even be equipped with a pump depending on operational requirements.
1.3.11 and 1.3.12	Table 1.3.7 Remove Table 1.3.7 and condition 1.3.12	Monitoring bore is no longer required, as there is no plan to discharge to Windbag Pit.
2.2.1	Table 2.2.1 Remove restrictions and simplify such that water sourced from within the	All pits listed in this licence as dewatering discharge points are in the same aquifer system.

	prescribed premises can go into authorised discharge points.	All approved discharge pits are authorised to receive water sourced from within the prescribed premises.
3.2.1	Table 3.2.1 – Row 1 and 2 Remove row 1 completely and Milky Way pit and Franks Tower pit added into row 2. Add Silver and Bismuth to Major Component Analysis (MCA) to all monitoring locations align with Groundwater Operating Strategy requirements in row 2. Remove Brown Hill pit, Windbag pit, Reno pit, Vegas pit and Stellar pit from row 2 and 3.	Milky Way pit discharge point accepts groundwater from the same aquifer system and therefore, it is requested to ensure all pits of the same risk level have consistent analyses requirement pits. Ensuring consistency of MCA will assist in promoting compliance with conditions of all licences and instruments by allowing a consistent approach to groundwater monitoring.
3.2.1	Table 3.2.1 – Row 3 Remove Brown Hill pit, Windbag pit, Reno pit, Vegas pit and Stellar pit from row 3 and added Milky Way pit to the row 3. Amend Row 3 frequency to “monthly totalised volume in kL (or m^3)”.	Milky Way pit discharge point accepts groundwater from the same aquifer system as all other transfer or discharge pits and does not present a higher risk of influencing groundwater analysis. Therefore, the Licence Holder is requested to ensure all pits of the same risk level have consistent analyses requirement pits, rather than Milky Way being the only pit in the same aquifer system to require quarterly full analysis. Continuous volumetric flow rate (Row 3) only indicates the current volume flowing through the pipeline at that time.

2.5 Addition of new Category 12 - Screening etc. of material

The Licence Holder has requested that Category 12 – screening etc. of material be added to the licence to allow 200,000 tonnes per annual period as a new category. The department has evaluated category 12 as a new category because there was no prior risk assessment or Works Approval for this category. As a result, the construction will be authorised under the existing licence L5529/1988/12.

The crusher and screening unit will be mobilized to the site and deploy for campaigns as needed to process stockpiled materials. MMG suggests establishing the mobile crusher and screening campaigns to provide road base and hardstand material for project development. All crushed / screened materials will be used within the prescribed premises boundary. The placement of the mobile crusher and screening plant within the prescribed premises boundary will be determined prior to mobilization because campaign locations are contingent upon the mining operations being carried out and necessitate the ability to relocate the unit as needed.

Throughput rates have been estimated at approximately 200,000 tonnes per annual period. The use of the mobile crushing and screening plant equipment will be dependent on the demand. The typical crushing and screening plant that is anticipated to be used has an approximate capacity of 475 tonnes per hour, but actual throughput will be dependent on MMG’s requirements and the volume of stockpiled material.

A summary of the operational procedure for the site is outlined below:

- Mobile crushing and screening equipment deployment will involve unloading the machine from transport, driving it at walking speed to various locations adjacent where material is required.
- Stockpiled waste rock material will be fed via front end loader into a feeding hopper. This will be crushed by a jaw crusher and fed via conveyor to an adjacent screening unit.
- Crushed material will go through a secondary impact crusher before going through a vibrating screen.
- Materials will be separated into various sizes from approximately 5 mm to 300 mm.

Because it is a mobile plant, it may be brought to the site for brief campaigns when needed and then will move off site or to other locations within the prescribed premises boundary. Figure 1 shows the locations of mobile and crushing plant except the 1 km buffer region of Mount Magnet town.

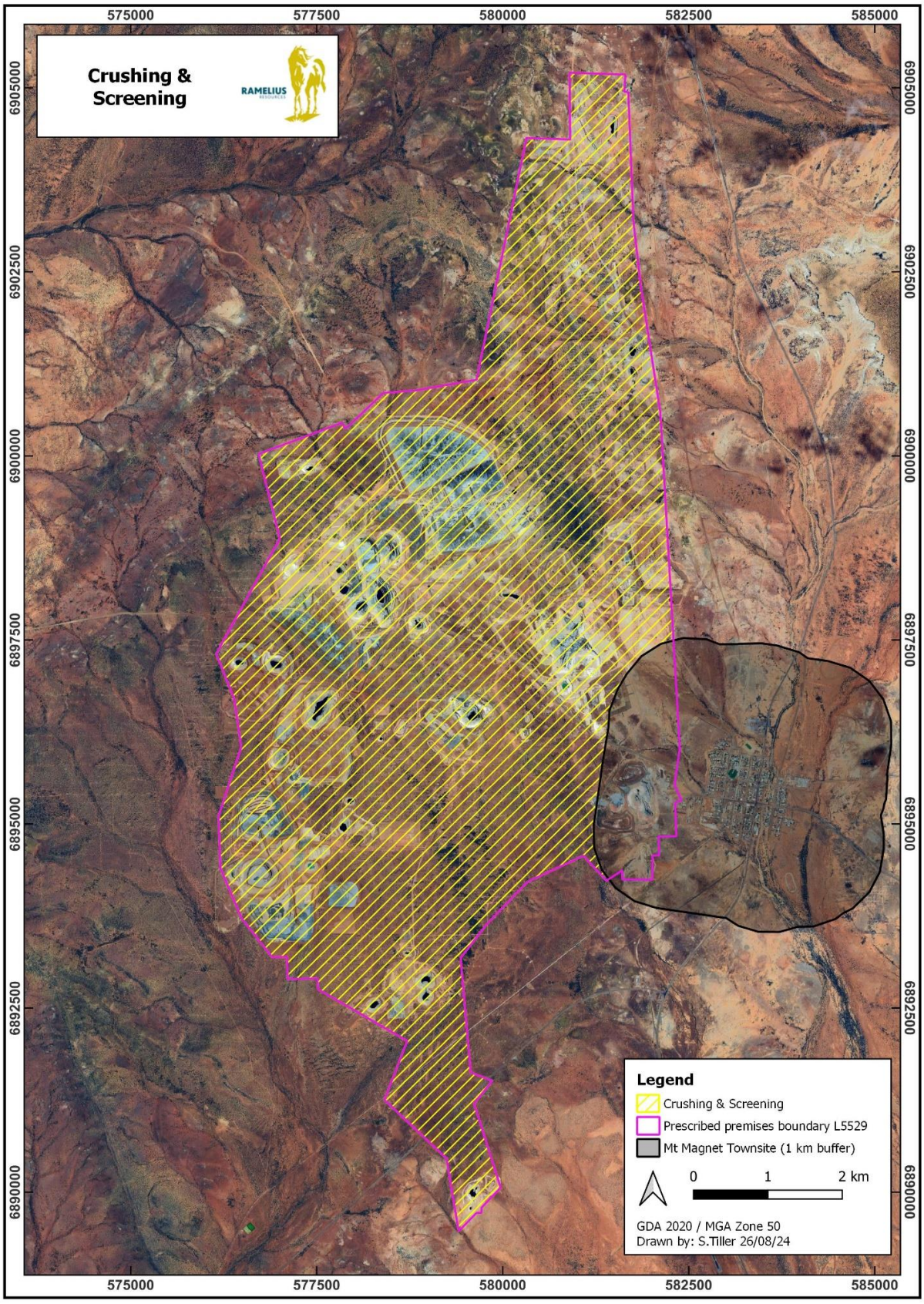

Figure 1: Mobile campaign of category 12 activities

2.6 Addition of new Category 57 – Used tyre storage

The Licence Holder has requested that Category 57 – Used tyre storage be added to the licence to allow the storage of a maximum 500 tyres. When tyres need to be disposed of, active waste rock formations are the preferred location. If mining operations make proper burial difficult, tyres will also be disposed of in landfills. After being buried, tyres will be covered in batches with at least 500 mm of inert waste rock, and the positions of the buried tyres will be noted in the GIS database of MMG.

Tyres will be stored in various locations, depending on operational activities. Areas will include the heavy haulage and light vehicle workshop at Black Cat, Galaxy Underground heavy vehicle workshop, and Eridanus and Boomer open pit workshops as shown in Figure 2. The category 57 – Used tyre storage (general) to allow licenced storage of up to 500 tyres at Mount Magnet operations under this amendment.

Figure 2: Locations of landfill and tyre storage

3. Risk assessment

The department assesses the risks of emissions from prescribed premises and identifies the potential source, pathway and impact to receptors in accordance with the *Guideline: Risk assessments* (DWER 2020).

To establish a Risk Event there must be an emission, a receptor which may be exposed to that emission through an identified actual or likely pathway, and a potential adverse effect to the receptor from exposure to that emission.

3.1 Source-pathways and receptors

3.1.1 Emissions and controls

The key emissions and associated actual or likely pathway during premises operation which have been considered in this Amendment Report are detailed in Table 4 below. Table 4 also details the proposed control measures the Licence Holder has proposed to assist in controlling these emissions, where necessary.

Table 4: Licence Holder controls

Emission	Sources	Potential pathways	Proposed controls
Category 6: Mine dewatering (Operation)			
Mine dewater	Dewatering to emission points	Seepage	No additional controls proposed by the Licence Holder. Conditions associated with L5529/1988/12 ensure freeboard of 2 m is maintained and that pit lake levels are maintained below the surrounding groundwater level. These assist in ensuring that impact on native vegetation is minimised and assist in reducing groundwater mounding. Monitoring bore installed in proximity to each dewatering discharge point. Groundwater cannot pass through hydraulic barriers to continue towards the Genga Borefield and associated PDWSA.
		Overtopping of discharge point with surface runoff	
	Movement of the dewater in pipelines	Pipeline leakages	No additional controls proposed by the Licence Holder. Conditions associated with L5529/1988/12 ensure that dewatering pipelines are inspected daily. Pipelines containing environmentally hazardous substances are either: a) equipped with telemetry systems and pressure sensors along pipelines to allow the detection of leaks and failures; b) equipped with automatic cut-outs in the event of a pipe failure; or c) provided with secondary containment sufficient to contain any spill for a period equal to the time between routine inspections.
Category 12: Screening etc. of material - Installation and Mobilisation of equipment			

Emission	Sources	Potential pathways	Proposed controls
Noise	Placement and mobilisation of crushing and screening plant Trucks and other vehicle movements - including reversing alarms	Air/windborne pathway	• No controls proposed.
Dust	Placement and mobilisation of crushing and screening plant Trucks and other vehicle movements (including reversing alarms)		• Visual dust monitoring • Use of watercarts to provide dust suppression • Mobile machinery to remain on established tracks • Activities to cease if controls implemented are not deemed effective (RRL 2024)
Category 12: Screening etc. of material – Operation			
Noise	Crushing and screening of material Unloading, loading and storage of material Trucks and other vehicle movements (including reversing alarms)	Air/windborne pathway	• No controls proposed.
Dust	Crushing and screening of material Unloading, loading, storage of material Transporting material via trucks on roads Stockpiles of both unprocessed and processed material		• Visual dust monitoring • Use of watercarts to provide dust suppression • Mobile machinery to remain on established tracks • Activities to cease if controls implemented are not deemed effective (RRL 2024)
Stormwater contaminated with sediment		Overland run-off, direct discharge or infiltration	• Equipment pre-started and used in line with manufacturer's specifications • Spill kits available or nearby to areas where there is a risk of hydrocarbon spill (RRL 2024)
Surface water contaminated with hydrocarbons	Machinery malfunction Refuelling of vehicles and equipment	Overland run-off, direct discharge or infiltration	
Category 57 Used tyre storage (General) – Operation			
Smoke from potential fire and drainage emissions	Storage of up to 500 used tyres in containers on the	Air / windborne pathway	• No controls proposed.

Emission	Sources	Potential pathways	Proposed controls
(firefighting water – leachate) from tyre fire	premises.	Direct discharge/ Overland runoff via stormwater	

3.1.2 Receptors

In accordance with the *Guideline: Risk assessments* (DWER 2020), the Delegated Officer has excluded employees, visitors and contractors of the Licence Holder's from its assessment. Protection of these parties often involves different exposure risks and prevention strategies, and is provided for under other state legislation.

Table 5 below provides a summary of potential human and environmental receptors that may be impacted as a result of activities upon or emission and discharges from the prescribed premises *(Guideline: Environmental siting* (DWER 2020)).

Table 5: Sensitive human and environmental receptors and distance from prescribed activity

Human receptors	Distance from prescribed activity
Aboriginal Sites and Heritage Places	Aboriginal sites are in the premises boundary and distributed all over the premises. This amendment is basically considered for the category 12, 57 and emission points. Screening and crushing activities – It's a mobile plant. Applicant did not mention the area to operate the infrastructure. Used tyre storage – 2 of 7 tyre storage sites lie with the aboriginal sites. Aboriginal communities and town reserves do not lie with the premises boundary.
Town of Mount Magnet	Approximately 1 km buffer to east of the new prescribed premises boundary.
Environmental receptors	**Distance from prescribed activity**
Public Drinking Water Source Area (PDWSA) (P1 and P2)	Mount Magnet Water Reserve – Mt. Magnet Water Reserve, directly adjacent to mining operations. Proclaimed under the *Country Areas Water Supply Act 1947* (CAWS Act) and consists of the Genga and Lennonville water reserves. PDWSA to north, east & south (Mount Magnet Water Reserves). P1 area 3 km south of Milky Way pit; and 2.6 km south of Eridanus pit. P2 area is 1.7 km west of Milky Way pit; and 130 m west of Lone Pine pit.
Groundwater East Murchison Groundwater Area (*Rights in Water and Irrigation Act 1914*)	Standing groundwater level limit of 4 mbgl in bores T2MB02 to T2MB08.
Threatened Ecological Communities (TEC's)	Partly lies with the premises from south-east. Approximately 1.6 km Northwest of the premises.
Minor tributary of the Salt River	Several minor non-perennial watercourses run north-south through the premises. The closest is a seasonal minor creek 200 m east of Milky Way pit. Constructed diversions are present around northern part of the tailings storage facility and several pits.

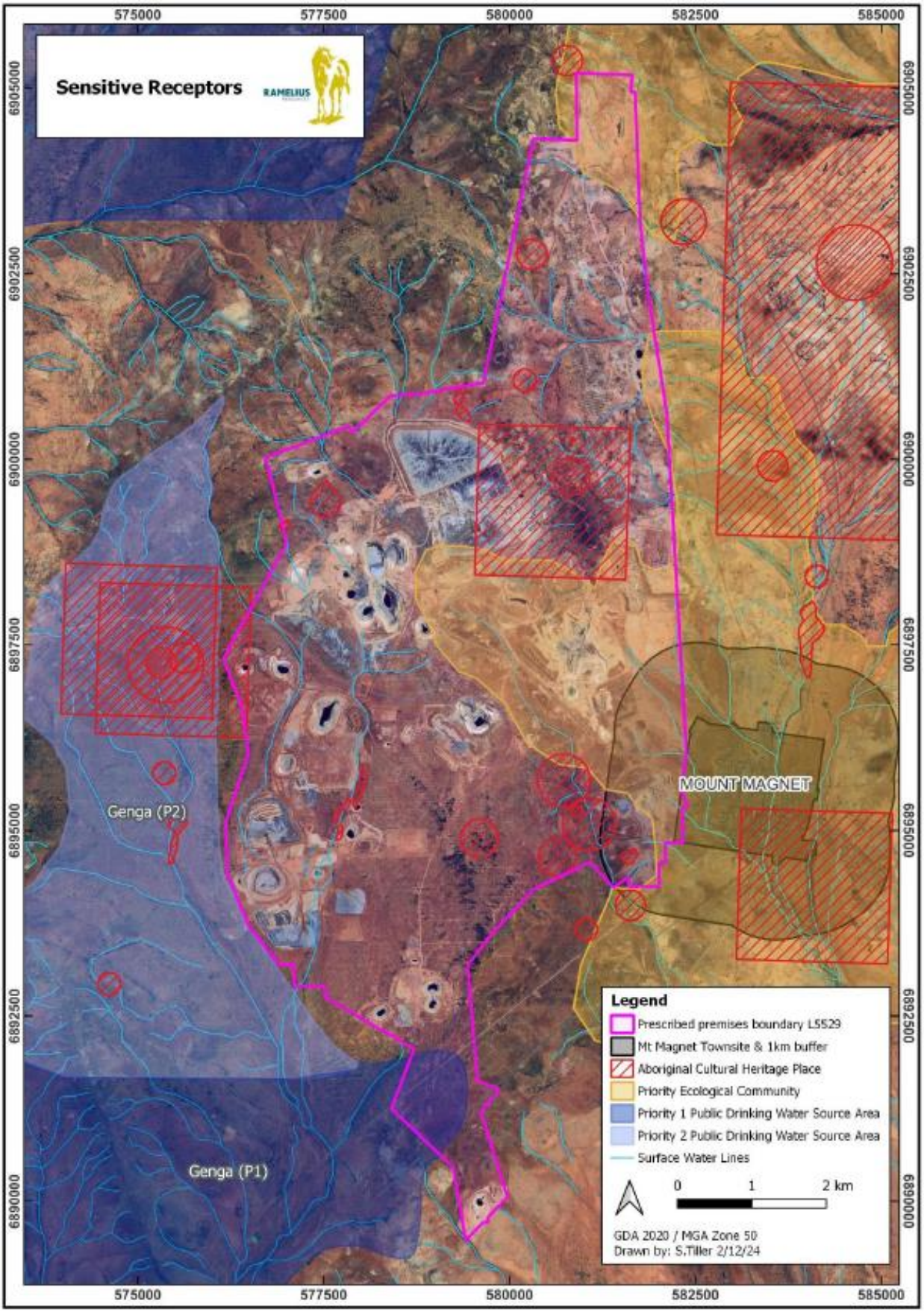

Figure 3: Distance to sensitive receptors

3.2 Risk ratings

Risk ratings have been assessed in accordance with the *Guideline: Risk Assessments* (DWER 2020) for those emission sources which are proposed to change and takes into account potential source-pathway and receptor linkages as identified in Section 3.1. Where linkages are incomplete they have not been considered further in the risk assessment.

Where the Licence Holder has proposed mitigation measures/controls (as detailed in Section 3.1.1), these have been considered when determining the final risk rating. Where the Delegated Officer considers the Licence Holder's proposed controls to be critical to maintaining an acceptable level of risk, these will be incorporated into the licence as regulatory controls.

Additional regulatory controls may be imposed where the Licence Holder's controls are not deemed sufficient. Where this is the case the need for additional controls will be documented and justified in Table 6.

The Revised Licence L5529/1988/12 that accompanies this Amendment Report authorises emissions associated with the operation of the Premises i.e. category 5,6,12 and 57 activities.

The conditions in the Revised Licence have been determined in accordance with *Guidance Statement: Setting Conditions* (DER 2015).

Table 6. Risk assessment of potential emissions and discharges from the Premises during installation, and operation

Risk Event					Risk rating[1] C = consequence L = likelihood	Licence Holder's controls sufficient?	Conditions[2] licence	Justification for additional regulatory controls
Source/Activities	**Potential emission**	**Potential pathways and impact**	**Receptors**	**Licence Holder's controls**				
Category 6: Mine dewatering (Operation)								
Dewatering to emission points	Mine dewater	Seepage through groundwater causing contamination to PDWSA	Public drinking water source protected area - mainly Genga borefield.	Refer to Section 3.1.1	C = Minor L =Rare **Low Risk**	Existing Licence conditions (L5529/1988/12) considered sufficient.	1.3.9: Inspection of infrastructure 2.2.1: Point source emissions to groundwater 3.2.1: Monitoring of point source emissions to groundwater	These conditions are currently considered sufficient to address risk associated with the mine dewater. The risk level is determined by considering the hydraulic barriers. Groundwater cannot pass through these barriers and cannot continue towards the Genga Borefield and associated PDWSA. Point source emission to groundwater monitoring is also included in the licence.
		Overtopping of discharge point causing: • Damage to Aboriginal heritage	Aboriginal heritage sites Groundwater	Refer to Section 3.1.1	C = Minor L = Rare **Low Risk**	Existing Licence conditions (L5529/1988/12) considered sufficient.	1.3.8: Containment infrastructure 1.3.9: Inspection of infrastructure 2.2.1: Point source emissions to	These conditions are currently considered sufficient to address risk associated with the mine dewater.

Risk Event					Risk rating[1] C = consequence L = likelihood	Licence Holder's controls sufficient?	Conditions[2] licence	Justification for additional regulatory controls
Source/Activities	**Potential emission**	**Potential pathways and impact**	**Receptors**	**Licence Holder's controls**				
		• Groundwater					groundwater 3.2.1: Monitoring of point source emissions to groundwater	
Movement of the dewater in pipelines		Pipeline leakages resulting in discharge to land/soils and groundwater	Aboriginal heritage sites Groundwater causing contamination to PDWSA mainly Genga borefield	Refer to Section 3.1.1	C = Minor L = Rare **Low Risk**	Existing Licence conditions (L5529/1988/12) considered sufficient.	1.3.7 - All pipelines equipped with telemetry systems, automatic cutouts, and secondary containment 1.3.9: Inspection of infrastructure 2.2.1: Point source emissions to groundwater	Existing Licence controls are considered sufficient to mitigate risk associated with pipeline rupture.
Category 12: Screening etc. of material - Installation and Mobilisation of equipment (Construction)								
Placement and mobilisation of crushing and screening plant Trucks and other vehicle movement (including reversing alarms)	Noise	Air/windborne pathway causing impacts to human health and amenity	Residential dwellings in Town of Mt. Magnet – 1 km buffer	Refer to Section 3.1.1	C = Minor L = Unlikely **Medium Risk**	No controls proposed	N/A	The Delegated Officer considers that noise emissions from the activities are unlikely to cause impacts to nearby receptors due to the distance, noting that the premises is under the *Environmental Protection (Noise) Regulations 1997*.

Risk Event					Risk rating[1] C = consequence L = likelihood	Licence Holder's controls sufficient?	Conditions[2] licence	Justification for additional regulatory controls
Source/Activities	**Potential emission**	**Potential pathways and impact**	**Receptors**	**Licence Holder's controls**				
Placement and mobilisation of crushing and screening plant Trucks and other vehicle movement	Dust	Air / windborne pathway causing impacts to human health and amenity, dust deposition onto vegetation causing deteriorated health	Residential dwellings in Town of Mt. Magnet - 1 km buffer TEC's	Refer to Section 3.1.1	C = Minor L = Unlikely **Medium Risk**	Y	Condition 1.4: Construction requirements and compliance reporting	N/A
Category 12: Screening etc. of material - Operation								
Crushing and screening of material Unloading, loading and storage of material Trucks and other vehicle movements (including reversing alarms)	Noise	Air / windborne pathway causing impacts to human health and amenity	Residential dwellings in Town of Mt. Magnet - 1 km buffer	Refer to Section 3.1.1	C = Moderate L = Unlikely **Medium Risk**	No controls proposed	N/A	The Delegated Officer considers that noise emissions from the activities are unlikely to cause impacts to nearby receptors due to the distance, noting that the premises is under the *Environmental Protection (Noise) Regulations 1997.*
Crushing and screening of material Unloading, loading and storage of material Transporting material via trucks on road	Dust		Residential dwellings in Town of Mt. Magnet - 1 km buffer TEC's Minor tributary of the Salt River	Refer to Section 3.1.1	C = Moderate L = Possible **Medium Risk**	Y	Condition 1.5: Operational requirements	N/A

Risk Event					Risk rating[1] C = consequence L = likelihood	Licence Holder's controls sufficient?	Conditions[2] licence	Justification for additional regulatory controls
Source/Activities	**Potential emission**	**Potential pathways and impact**	**Receptors**	**Licence Holder's controls**				
Stockpiles of both unprocessed and processed materials	Stormwater contaminated with sediment	Overland run-off, direct discharge or infiltration through soils causing degradation and contamination of surface water and groundwater quality.	Minor tributary of the Salt River Groundwater	Refer to Section 3.1.1	C = Minor L = Unlikely **Medium Risk**	Y	Condition 1.5: Operational requirements	N/A
Machinery malfunction Refueling of vehicles and equipment	Surface water contaminated with hydrocarbons	Overland run-off, direct discharge or infiltration through soils causing degradation and contamination of surface water, groundwater quality and associated vegetation.	Minor tributary of the Salt River Groundwater TEC's	Refer to Section 3.1.1	C = Minor L = Unlikely **Medium Risk**	Y	Condition 1.5: Operational requirements	N/A
Category 57 Used tyre storage (General) - Operation								
Storage of up to 500 used tyres in containers on the premises.	Smoke from potential fire	Air / windborne pathway with potential combustion of tyres may include VOCs, PAHs, dioxins, ash, NOx and CO_2	Residential dwellings in Town of Mt. Magnet - 1 km buffer	Refer to Section 3.1.1	C = Moderate L = Unlikely **Medium Risk**	N	1.3: Premises operation **1.3.2: Waste acceptance** 1.3.4: Waste processing 1.3.5: Waste cover requirements **1.3.7: No waste burn on site** **1.3.8: Notification**	These conditions are currently considered sufficient to address risk associated with the fire smoke and drainage emissions.
	Drainage emissions (firefighting water - leachate)	Discharges to land from fire control activities which may include liquid	Minor tributary of the Salt River					

Risk Event					Risk rating[1] C = consequence L = likelihood	Licence Holder's controls sufficient?	Conditions[2] licence	Justification for additional regulatory controls
Source/Activities	**Potential emission**	**Potential pathways and impact**	**Receptors**	**Licence Holder's controls**				
	from tyre fire	emissions containing hydrocarbon, metals and PM.	Groundwater				**to CEO about the fire or any incident**	

Note 1: Consequence ratings, likelihood ratings and risk descriptions are detailed in the *Guideline: Risk assessments* (DWER 2020).

Note 2: Proposed Licence Holder's controls are depicted by standard text. **Bold and underline text** depicts additional regulatory controls imposed by department.

4. Consultation

Table 7 provides a summary of the consultation undertaken by the department.

Table 7: Consultation

Consultation method	Comments received	Department response
Application advertised on the department's website on 6 August 2024	None received	N/A
Application advertised on The West Australian newspaper on 12 August 2024	None received	N/A
Licence Holder was provided with draft amendment on 29 November 2024	The department has requested the confirmation for the mining tenement L58/20 be included in this instrument, as it expires 26 November 2024. The Licence Holder stated that an extension / renewal of term was lodged with the Department of Energy, Mines, Industry Regulation and Safety (DEMIRS) on 1 November 2024 requesting a period of 5 years.	The proposed changes have been accepted by the Delegated Officer based on the justification provided.
	The department has requested the suitable map that is showing the table 4 receptors in the Amendment Report. The Licence Holder provided the updated map.	Noted and accepted.
	The Licence Holder requested the details regarding pits containing dewatering effluent be more clearly shown in tables 1.3.4, 1.3.5 and 2.2.1. Previously details replicated across several rows.	Noted and accepted.
	The Licence Holder requested to remove the subscript "5" for Standing Water Level (SWL) for T2MB09 and HWB01 (Hesperus pit monitoring bore) is shown as 'm bgl[5] in table 3.4.1 units in the licence.	Noted and accepted.

5. Conclusion

Based on the assessment in this Amendment Report, the Delegated Officer has determined that a Revised Licence will be granted, subject to conditions commensurate with the determined controls and necessary for administration and reporting requirements.

5.1 Summary of amendments

Table 8 provides a summary of the proposed amendments and will act as record of implemented

changes. All proposed changes have been incorporated into the Revised Licence as part of the amendment process.

Table 8: Summary of licence amendments

Condition no.	Proposed amendments
Cover page	Added the 29 new mining tenements on to the licence.
Cover page	Added two new categories as category 12 and 57.
1.1.1	Added two new definitions according to the new conditions.
1.3.2, Table 1.3.1	Changed 100 used tyres to 500 used tyres as per this amendment. Added two new conditions for the tyre storing and tyre separation distance.
1.3.7	Added a new condition to ensure that no waste is burnt on the premises.
1.3.8	Added a new condition to the CEO notification.
1.3.10 1.3.11	See the Table 2 and 3: Amendments proposed to be incorporated into amended licence.
Old conditions 1.3.11 and 1.3.12	Deleted these two conditions due to the Windbag Pit removal.
1.4.1 to 1.4.3	Added three new conditions for design and construction / installation requirements for category 12.
1.5.1	Adeed a new condition to operational requirements for category 12.
2.2.1	See the Table 2: Amendments proposed to be incorporated into amended licence.
3.2.1 3.4.1	See the Table 2: Amendments proposed to be incorporated into amended licence.
Figure 1	Added a new revised figure that depicts the prescribed premises boundary.
Figures 2 to 16	Deleted all these figures due to the infrastructure removed from the licence.
New figures 2 to 6	Added new revised five figures including all infrastructure depicted throughout the licence.

References

1. Astill Consultants (AL) 2024, For Ramelius, L5529/1988/12 Licence Amendment Supporting Document V.1, Perth, Western Australia.
2. Department of Environment Regulation (DER) 2015, *Guidance Statement: Setting Conditions*, Perth, Western Australia.
3. Department of Water and Environmental Regulation (DWER) 2020, *Guideline: Environmental Siting*, Perth, Western Australia.
4. DWER 2020, *Guideline: Risk Assessments*, Perth, Western Australia.
5. Ramelius Resources Ltd (RRL) 2024, Re: Application for An Amendment to Licence L5529/1988/12 under The *Environmental Protection Act 1986* – Request for Further

Information, email correspondence dated 20 June 2024.