



## Application for Licence Amendment

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

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<b>Licence Number</b>	L9009/2016/1
<b>Licence Holder</b>	Northern Minerals Limited
<b>ACN</b>	119 966 353
<b>File Number</b>	DER2016/002134-1~5
<b>Premises</b>	Browns Range Rare Earths Project Mining Tenement M80/627 STURT CREEK WA 6770
<b>Date of Report</b>	29 October 2021
<b>Decision</b>	Revised licence granted

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REGULATORY SERVICES

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

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## 1. Decision summary

Licence L9009/2016/1 is held by Northern Minerals Limited (Licence Holder) for the Browns Range Rare Earths Project Pilot Plant (the Premises), located on Mining Tenement M80/627.

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, Amended Licence L9009/2016/1 will be granted.

The Amended Licence issued supersedes the existing Licence previously granted in relation to the Premises.

## 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 12 January 2021, the Licence Holder submitted an application to the department to amend Licence L9009/2016/1 under section 59 and 59B of the *Environmental Protection Act 1986* (EP Act). The amendment application comprised four separate amendments, of which three were previously submitted, assessed and approved under the licence amendment granted 16 July 2021.

‘Amendment 4’ in the application documentation is the application relevant to this assessment. This application seeks the amendments set out in Sections 2.2.1 and 2.2.2 to the operation of the Evaporation Pond and Tailings Storage Facility (TSF) currently operating on the premises, regarding proposed new discharges into the facilities.

The proposed discharges are considered by the Licence Holder to be required under certain scenarios and will be managed under controlled conditions to manage the risk to as low as reasonably practicable. The proposed Event Pond disposals also form part of a disposal hierarchy developed for emptying the water in the Event Ponds (to 0.5 m) prior to the wet season, being:

- Option 1 – reuse in the process (currently authorised under L9009/2016/1)
- Option 2 – dust suppression (currently authorised under L9009/2016/1)
- Option 3 – dispose to Evaporation Pond
- Option 4 – disposal to TSF
- Option 5 – actively pumped to the SRP and to the environment via the SRP spillway (currently authorised under L9009/2016/1)

This amendment is limited only to changes to Category 5 activities from the Existing Licence. No changes to the aspects of the existing Licence relating to Category 89 have been requested by the Licence Holder. In addition, no changes to the previously assessed throughputs for Category 5 and 89 are required for this Amendment.

### 2.2.1 New inputs to the Evaporation Pond

The following new inputs to the Evaporation Pond are proposed in this amendment application:

- Annual Maintenance works – Event Pond emptying  
In the event that the contents of the Event Pond cannot be consumed via operational uses as per the Event Pond disposal hierarchy prior to the wet season, it is proposed to transfer excess Event Pond Water to the Evaporation Pond; and
- Emergency transfers of poor-quality Event Pond water  
'Poor-quality Event Pond water' is the term used to describe pond water affected by a major spill, or other occurrence in the Plant that has significantly and deleteriously impacted water quality in one or both Event ponds.

In the event of a major spill or other occurrence in the Plant that could significantly and negatively impact water quality in one or both ponds, it is proposed to transfer the poor-quality water from the Event Pond to the Evaporation Pond, to prevent the discharge of this poor-quality water to the environment.

The Evaporation Pond is designed to receive and evaporate surplus raffinate water discharged from the plant and rainfall runoff. The pond consists of a 16ML capacity single cell evaporation pond, with a compacted soil base, a 1.5mm thick HDPE geomembrane liner and permeability of less than  $1 \times 10^{-9}$  m/s. The pond has been designed for average conditions and allowing for a 300mm depth below the spillway invert to store runoff from a 1 in 100-year 72 hour storm event, or the height required to store a 1 in 100 wet year rainfall condition to determine the spillway invert (Knight Piesold Consulting, 2016). A 300m deep spillway has been provided to the embankment crest (Knight Piesold Consulting, 2016).

The raffinate is discharged into the pond at a rate of approximately  $3\text{m}^3/\text{hr}$  or  $18,000\text{m}^3/\text{year}$ . The raffinate comprises approximately 48.4g/L of dissolved salts, with 97% of these salts comprising sodium sulphate, potassium sulphate and magnesium sulphate (Northern Minerals Limited, 2016b).

Event Pond water disposal to 0.5 m from the bottom of the Event Ponds prior to wet season is a part of the existing licence conditions and is required to ensure the liner is not dislodged from the pond area and to provide sufficient capacity for a wet season first flush run-off event (i.e runoff from the first 1 in 20 Average Recurrence Interval 24hr storm event of the wet season). The disposal location was not defined in historic licences issued. A maximum of 4.4 ML could be present in the Event Ponds to be disposed prior to the wet season.

The proposed additional inputs to the pond could affect the water balance of the Evaporation Pond and contribute to a risk of overtopping. The Stage 2 TSF and Evaporation Pond Operations Manual, revised March 2021 (Knight Piesold Consulting, 2021), provides a number of management measures to identify any potential risks of overtopping of the pond, and provide mitigating actions to address this. This includes, but is not limited to:

- Visual markings of the operational freeboard levels (in 0.5m increments) on the HDPE geomembrane for quick visual reference and monitoring;
- Monthly water balance model used and maintained on site;
- Trigger-Action-Response Plan (TARP) used to manage and monitor discharges from the Event Ponds; and
- Completion of a risk assessment by the Facility Manager and Engineer of Reporting prior to undertaking any discharges into the pond.

Existing regulatory controls on the licence include the requirement to maintain and monitor a 300mm operational freeboard on the Evaporation Pond. Given the management and mitigation measures provided for in the Operations Manual and proposed licence holder controls, the existing regulatory freeboard requirement is considered suitable to manage the potential impacts from increased discharge volumes going into the pond and preventing overtopping from occurring.

As the exact volumes of the discharges to be made to the Evaporation Pond are not known, the inclusion of a requirement to monitor the volumes being discharged into the pond is considered suitable in order for the department to review the actual discharge volumes and identify any water balance concerns.

### 2.2.2 New input to the Tailings Storage Facility (TSF)

The following new inputs to the TSF are proposed in this amendment application:

- **Wastewater treatment plant sludge**  
The wastewater treatment plant produces two wastes – raffinate (brine) and sludge waste (settler sludge). The raffinate will continue to be disposed of to the Evaporation Pond, however this amendment seeks to allow the disposal of the settler sludge to the TSF. Prior to disposal to the TSF the settler sludge would be directed to the tailings hopper and mixed with other tailings. The anticipated disposal volume is approx. 4,200m<sup>3</sup> per year, and represents 4% of the maximum rate that combined tailings is pumped. The settler sludge is not anticipated to change the geotechnical characteristics of the tailing deposits. In addition, disposal of the sludge to the TSF is considered the most appropriate method for disposal to ensure that very low concentrations of radionuclides that may precipitate during initial flocculation stage are returned to the TSF.
- **Annual maintenance – dredging and poor-quality Event Pond water**  
**Dredging and emptying of Event ponds**  
Whilst the ponds on site will be managed to minimise solids entering the ponds, dredging of sediment will be required from time to time to maintain pond capacity. Given the potentially hazardous nature of the sediment, the lined TSF is considered to be the best location for disposal of this material to avoid direct discharges to the environment  
  
Excess water would be recovered and reused where possible, such that the transfer of water to the TSF would only occur under strictly controlled and risk assessed conditions. Sediment would be pumped into the TSF via the tailings hopper and tailings pipeline as a low density slurry.  
  
The maximum volume of pond sediment proposed to be disposed of to the TSF is approximately 1,350m<sup>3</sup> per year of the 66,000 tonnes per annum total tailings throughput.
- **Emergency transfers of poor-quality Event Pond water**  
The amendment application also requests approval for the TSF to receive poor-quality water from the Event Ponds in the event of a major spill or other occurrence in the Plant that may cause significant and deleterious impacts to water quality in the ponds. It is proposed that where there are significant concerns regarding emissions of poor-quality pond water, the Event Pond water can be transferred to the TSF.

The potential impacts from the additional waste streams to the Tailings Storage Facility include changes to the geotechnical characteristics of the deposited materials and consolidation, loss of capacity requiring earlier staging rises and an exceedance of freeboard requirements

resulting in discharges to land.

Whilst the density of the proposed dredged material is lower than the density of the tailings, the discharges are not considered likely to result in a notable impact on water recovery or longer-term tailings consolidation in the TSF due to the infrequent nature of the transfers and the small overall volume.

In addition, the Stage 2 TSF and Evaporation Pond Operations Manual, revised March 2021 (Knight Piesold Consulting, 2021), provides a number of management measures to identify any potential risks of overtopping or seepage of the facility and provides mitigating actions to address this. This includes, but is not limited to:

- Management and monitoring of the TSF's low permeability soil liner and HDPE geomembrane liner to reduce seepage (via the basin underdrainage system);
- Basin underdrainage system to reduce pressure head acting on the composite basin liner, reduce seepage, increase tailings densities, and improve the geotechnical stability of the facility;
- Collection sump to recover water from the underdrainage system and pump this back to the TSF;
- Operational freeboard of 500mm, with visual markings of the operational freeboard levels on the HDPE geomembrane for quick visual reference and monitoring;
- Monthly water balance model used and maintained on site;
- Rotation of deposition points to the TSF for more even distribution of tailings and to achieve optimum beaching;
- Trigger-Action-Response Plan (TARP) used to manage and monitor discharges from the Event Ponds into the TSF;
- Completion of a risk assessment by the Facility Manager and Engineer of Reporting prior to any discharges into the TSF; and
- Mine-affected run-off containment channels built around the TSF at the northern and southern boundaries to redirect any mine-affected stormwater within the TSF catchment to the downstream sediment retention pond.

These management measures and the requirement to maintain a minimum 500mm freeboard within the TSF should ensure that the risk of the TSF overtopping remains low.

The potential for seepage to occur from the additional discharges into the TSF is also considered to remain low as the TSF is lined and comprises an underdrainage recovery system. In addition, depth to groundwater on the premises is approximately 14 metres below ground level, therefore the risk of seepage from the proposed discharges impacting nearby soils or vegetation is also considered to be low.

Notwithstanding the above, the exact volumes of the discharges are not yet known and there is some uncertainty about the volumes required to be discharged to the TSF for wet season preparation from the Event Ponds and during transfers of mine-affected water events. The inclusion of a requirement to monitor the volumes being discharged into the TSF is considered suitable in order for the department to review the actual discharge volumes being made to the TSF and identify any potential water balance concerns.

### 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 1. Table 1 also details the proposed control measures the Licence Holder has proposed to assist in controlling these emissions, where necessary.

**Table 1: Licence Holder controls**

Emission	Sources	Potential pathways	Proposed controls
New minor waste streams to the TSF: WWTP sludge, Event Pond sludge/water (from maintenance activities) and poor-quality Event Pond water	TSF discharge (exceedance of freeboard requirements)	Direct discharge to land Overland runoff and stormwater	TSF designed in accordance with ANCOLD requirements and approved under Works Approval W6007. Minimum top of spillway freeboard of 500mm maintained. Facility water balance monitored monthly. Daily facility inspections by operators for evidence of seepage, freeboard levels, underdrainage system operability. TSF and Evaporation Pond Operating Manual, March 2021 (Knight Piesold Consulting, March 2021).
New minor waste streams to the Evaporation Pond: Excess Event Pond water and poor-quality Event Pond water	Evaporation Pond discharge (Exceedance of freeboard requirements)	Direct discharge to land Overland runoff and stormwater	Evaporation Pond constructed in accordance with Works Approval W6007. Operational freeboard of not less than 300mm maintained. Facility water balance monitored monthly. Daily facility inspections by operators for evidence of seepage and to check freeboard levels. TSF and Evaporation Pond Operating Manual, March 202 (Knight Piesold Consulting, March 2021).

Emission	Sources	Potential pathways	Proposed controls
Seepage new minor waste streams to the TSF:  WWTP sludge, Event Pond sludge/water (from maintenance activities) and poor-quality Event Pond water	TSF	Groundwater	Underdrainage network and recovery sump  Cut off trench around upstream perimeter embankment to minimise seepage through embankment.  Existing groundwater monitoring bores located up and downstream of facility.  Facility water balance monitored monthly.  Daily facility inspections by operators for evidence of seepage, freeboard levels, underdrainage system operability.  TSF and Evaporation Pond Operating Manual, March 2021 (Knight Piesold Consulting, March 2021)

### 3.1.2 Receptors

Table 2 below provides a summary of potential nearby receptors.

A review of the premises' location identified the nearest potential human receptor to be the Kundat Djaru (Ringer Soak) settlement, located approximately 33km west of the Premises' boundary. Given the distance to this settlement, it is not considered to be a potential human receptor to the proposal being assessed under this amendment application.

In accordance with the *Guideline: Risk assessments* (DWER 2020), the Delegated Officer has also 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 provided for under other State legislation.

**Table 2: Nearby sensitive environmental receptor from prescribed activity**

Environmental receptors	Distance from prescribed activity
<u>Threatened Fauna</u> <ul style="list-style-type: none"> <li>- <i>Leggadina lakedownensis</i> (Northern short-tailed mouse)(Priority 4)</li> <li>- <i>Macrotis lagotis</i> (Bilby)(Vulnerable)</li> <li>- <i>Charadrius veredus</i> (Oriental Plover)</li> </ul>	A number of occurrences of threatened fauna have been recorded within the Premises boundary.
Watercourses	Several relatively small ephemeral watercourses drain the mine area in a westerly direction joining the Sturt Creek approx. 140km upstream of Lake Gregory. No permanent or semi-permanent water bodies are located in the vicinity of the mine area (Golder Associates 2014).
Groundwater <i>RIWI Act 1914 Area - Canning-Kimberley Groundwater Area</i>	Depth to groundwater is approximately 14 metres below ground level.  Groundwater in the area is fresh to slightly brackish, with a near-neutral pH and very low concentrations of dissolved metals.



## 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), 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 3.

The Amended Licence L9009/2016/1 that accompanies this Amendment Report authorises emissions associated with the operation of the Premises.

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

**Table 3: Risk assessment of potential emissions and discharges from the Premises during operation**

Risk Event					Risk rating <sup>1</sup> C = consequence L = likelihood	Licence Holder's controls sufficient?	Conditions <sup>2</sup> of licence	Justification for additional regulatory controls
Source/Activities	Potential emission	Potential pathways and impact	Receptors	Licence Holder's controls				
Additional minor waste stream deposits into the Tailings Storage Facility (WWTP sludge, Event Pond sludge/water (from maintenance activities) and poor-quality Event Pond water)	Tailings, WWTP sludge, poor-quality Event Pond water or supernatant water	TSP discharge/pond topping causing direct discharge to land and contamination of soil/water	Soil  Nearby surface water receptors  Vegetation	See Section 4.1	C = Moderate L = Rare <b>Medium risk</b>	No	Condition 5 (Table 3) Condition 6 (Table 4) <b>Condition 20 (Table 11)</b>	Existing freeboard requirements on the licence provide for the prevention of discharge events from the TSF. However as there is uncertainty about the exact volumes proposed to be discharged to the TSF from these new waste streams, additional regulatory controls to monitor the volumes discharged to the TSF are considered suitable to identify any potential impacts to the premises' water balance.
		Seepage into the ground causing soil and groundwater contamination	Soil  Groundwater	See Section 4.1	C = Minor L = Rare <b>Low risk</b>	Yes	Condition 5 (Table 3) Condition 6 (Table 4)	N/A

Risk Event					Risk rating <sup>1</sup> C = consequence L = likelihood	Licence Holder's controls sufficient?	Conditions <sup>2</sup> of licence	Justification for additional regulatory controls
Source/Activities	Potential emission	Potential pathways and impact	Receptors	Licence Holder's controls				
Additional material discharged into the Evaporation Pond (Event Pond water and poor-quality Event Pond water)	Raffinate, mine-affected water, Event Pond water	Pond discharge/pond overtopping causing direct discharge to land and contamination of soil/water	Soil Nearby surface water receptors Vegetation	See Section 4.1	C = Moderate L = Rare <b>Medium risk</b>	No	Condition 5 (Table 3) Condition 6 (Table 4) <b><u>Condition 20 (Table 11)</u></b>	Existing freeboard requirements on the licence provide for prevention of discharge events from the Pond. However as there is uncertainty about the exact volumes proposed to be discharged to the Pond from these new waste streams, additional regulatory controls to monitor the volumes discharged to the Evaporation Pond are considered suitable to identify any potential impacts to the premises' water balance.

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 4 provides a summary of the consultation undertaken by the department.

**Table 4: Consultation**

Consultation method	Comments received	Department response
Department of Mines, Industry Regulation and Safety (DMIRS) advised of proposal on 12/02/2021 (DWER Record A1980124)	DMIRS provided a response on 22 April 2021. The response advised that the proposed discharges to the TSF and Evaporation Pond were considered to be the best management outcomes for the materials proposed to allow them to be contained. (DWER Record A2028540)	Noted.
Licence Holder was provided with draft amendment on 23 September 2021 (DWER Record A2047580).	The Licence Holder responded to the draft licence on 18/10/2021 (DWER Record DWERDT517201).  Comments can be found in Appendix 1.	Refer to Appendix 1.

## 5. Conclusion

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

### 5.1 Summary of amendments

The amended licence finalises changes from the consolidation of the licence into the new template, with the renumbering of conditions and tables into a clearer numerical order.

Table 5 provides a summary of the proposed amendments to the licence from the assessment of the proposal and will act as record of implemented changes. All proposed changes have been incorporated into the Amended Licence as part of the amendment process.

**Table 5: Summary of licence amendments**

Condition no.	Proposed amendments
Condition 5 Table 3	Inclusion of new waste streams into the Containment Infrastructure table, as required.
Condition 6 Table 4	Inclusion of new disposal locations into the table for the Event Pond water prior to the wet season.
Condition 20 Table 11	Addition of process monitoring to monitor the volumes of the proposed discharges into the TSF and Evaporation Pond.

## References

1. Department of Environment Regulation (DER) 2015, *Guidance Statement: Setting Conditions*, Perth, Western Australia.
2. Department of Water and Environmental Regulation (DWER) 2020, *Guideline: Environmental Siting*, Perth, Western Australia.
3. DWER 2020, *Guideline: Risk Assessments*, Perth, Western Australia.
4. Golder Associates 2014, Browns Range Project – Surface Water Management and Flood Study, Report Number 137646059-001-R-Rev1, Perth, Western Australia.
5. Knight Piesold Consulting Pty Limited (2016) Browns Range Project Pilot Plant – Tailings Storage Facility and Evaporation Pond Permitting Design Report PE801-00241/05) Rev 2, June 2016 (DWER Record A1185511).
6. Knight Piesold Consulting Pty Limited (2021) *Northern Minerals Limited, Browns Range Project, Tailings Storage Facility (Stage 2) and Evaporation Pond Operating Manual, March 2021*, Document Number PE801-00241/16, Revision 1, Perth, Western Australia (DWER Record A2034083).

## Appendix 1: Summary of Licence Holder's comments on risk assessment and draft conditions

Condition	Summary of Licence Holder's comment	Department's response
Condition 5	<p>The Licence Holder has requested the following changes to Table 3: Containment infrastructure</p> <ol style="list-style-type: none"> <li>1) removal of 'Accommodation Village' for the WWTP, as the WWTP does not come from this facility.</li> <li>2) removal of Note 1 as this is not required.</li> <li>3) Amend wording of 'dredge sediment and water' to 'dredge slurry'.</li> <li>4) amending the wording of 'mine-affected water' in Row 1 of the TSF material to 'poor quality Event Pond water which may pose a risk to the environment if released'.</li> <li>5) removal of 'maintenance' in relation to the wet season for Evaporation Pond material, and replacement with wet season 'readiness'</li> <li>6) amending the wording of 'mine-affected water' in Row 2 of the Evaporation Pond material to 'poor quality Event Pond water which may pose a risk to the environment if released'.</li> </ol>	<p>Noted and amended.</p> <p>In relation to comment 1), clarification was sought from the Licence Holder and the infrastructure was revised to 'Pilot Plant Wastewater Treatment Plant' to correctly identify the location of the WWTP.</p> <p>In relation to comment 3), clarification was sought regarding the requested removal of 'water' from the proposed dredging/maintenance source. The Licence Holder confirmed that excess water can form part of the discharge and confirmed this should be retained.</p>
Condition 6	<p>The Licence Holder has requested the following changes to Table 4: Disposal locations for Event Pond water prior to wet season:</p> <ol style="list-style-type: none"> <li>1) amend wording of Row 3 (disposal to Evaporation Pond) from 'Discharge into the Evaporation Pond via the Evaporation Pond pipeline' to Discharge into the Evaporation Pond via the raffinate or mine-water transfer pipeline'.</li> <li>2) amend wording of Row 4, Column 3 to remove limitation of sediment solid discharge to the TSF. The draft licence contained a 1% of annual tailings volume to be discharged as sediment</li> </ol>	<p>Noted and amended.</p>

Condition	Summary of Licence Holder's comment	Department's response
	<p>solids. The Licence Holder has advised that the estimated volume of solid material that may be dredged was provided for the purpose of demonstrating negligible risk, rather than establishing compliance limits. Given the small size of the Event Pond and the Pilot Plant catchment the potential mass of solids that may need to be discharged to the TSF is limited. The risk remains negligible.</p> <p>3) Correct type on Row 4 'Schedule 1: Maps, Figure 2'.</p>	
Condition 20	<p>The Licence Holder has requested an amendment to the wording of Table 11: Process monitoring.</p> <p>1) The Licence Holder has requested that Row 8 (Beneficiation Plant Event Pond and Hydrometallurgical Plant Event Pond), Column 2 is amended to 'Volume of Event Pond maintenance dredging slurry discharged to the TSF'.</p> <p>2) The Licence Holder has requested that Row 9 (Beneficiation Plant Event Pond and Hydrometallurgical Plant Event Pond), Column 2 is amended to 'volume of poor-quality Event Pond water discharged into the TSF'.</p>	<p>As per the response to Condition 5, comment 3), excess water is a potential discharge into the facility, therefore wording will remain as 'dredged sediment and water'.</p> <p>Row 9 amended.</p>
Condition 23	<p>The Licence Holder notes that under 'Frequency' of the table, 'Bq/L' is incorrectly written as 'Bg/L'.</p>	Corrected.
Table 21: Definitions	<p>The Licence Holder has requested:</p> <p>1) the definitions for Bq/L and Bq/g be expressed as plural, rather than singular.</p> <p>2) Freeboard definition be amended to 'means the distance between the maximum surface elevation of contained water or solid material and the top of the retaining banks or structures at their lowest point'.</p>	Corrected and amended.
Figure 5	<p>The Licence Holder notes that the original figure number has been obscured in a manner that detracts from the image quality.</p>	Corrected.





Condition	Summary of Licence Holder's comment	Department's response
	<p>The Licence Holder has also requested amendment to Table 1: Licence Holder controls, and throughout the Report, being:</p> <ol style="list-style-type: none"> <li>1) Reword TSF overflow, to TSF discharge</li> <li>2) Reword Evaporation Pond overflow to Evaporation Pond discharge</li> </ol> <p>The Licence Holder has requested an amendment to Table 2: Distance to sensitive receptors to more accurately describe the Project area in relation to surface water features. The Licence Holder has provided a sentence from the 2014 Golder Associates report 'Browns Range Project – Surface Water Management and Flood Study' to more accurately describe the project area.</p>	<p>Amended.</p> <p>Amended.</p>

## Appendix 2: Application validation summary

SECTION 1: APPLICATION SUMMARY (as updated from validation checklist)				
<b>Application type</b>				
Works approval	<input type="checkbox"/>			
Licence	<input type="checkbox"/>	Relevant works approval number:		None <input type="checkbox"/>
		Has the works approval been complied with?	Yes <input type="checkbox"/> No <input type="checkbox"/>	
		Has time limited operations under the works approval demonstrated acceptable operations?	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>	
		Environmental Compliance Report submitted?	Yes <input type="checkbox"/> No <input type="checkbox"/>	
		Date Report received:		
Renewal	<input type="checkbox"/>	Current licence number:		
Amendment to works approval	<input type="checkbox"/>	Current works approval number:		
Amendment to licence	<input checked="" type="checkbox"/>	Current licence number:	L9009/2016/1	
		Relevant works approval number:		N/A <input type="checkbox"/>
Registration	<input type="checkbox"/>	Current works approval number:		None <input type="checkbox"/>
Date application received	12/01/2021			
<b>Applicant and Premises details</b>				
Applicant name/s (full legal name/s)	Northern Minerals Limited			
Premises name	Browns Range Rare Earth Project			
Premises location	Mining Tenement M80/627			
Local Government Authority	Shire of Halls Creek			
<b>Application documents</b>				
HPCM file reference number:	DER2016/002134-1			
Key application documents (additional to application form):	Attachment 2 – Premises Map Attachment 3B – Proposed Activities Attachment 5 – Other Approvals & Consultation Attachment 6A – Emissions & Discharges			

Scope of application/assessment		
Summary of proposed activities or changes to existing operations.	Formally authorise the discharge of: 1) WWTP sludge, Event Ponds sludge (from annual maintenance) and excess mine affected (poor-quality) water from Event Ponds that cannot be disposed to the environment (i.e. emergency disposal after spill), in addition to the combined tailings to the TSF. 2) excess mine affected (poor-quality) water from Event Ponds that cannot be disposed to the environment (i.e. emergency disposal after spill), proposed discharge to the Evaporation Pond.	
Category number/s (activities that cause the premises to become prescribed premises)		
Table 1: Prescribed premises categories		
Prescribed premises category and description	Assessed production or design capacity	Proposed changes to the production or design capacity (amendments only)
Category 5: Processing or beneficiation of metallic or non-metallic ore	131,490 tonnes per Annual Period	No change in capacity. Changes proposed to inputs into the TSF and Evaporation Pond.
Category 89: Putrescible landfill site	499 tonnes per Annual Period	No change.
Legislative context and other approvals		
Has the applicant referred, or do they intend to refer, their proposal to the EPA under Part IV of the EP Act as a significant proposal?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Referral decision No: Referral decision No: 1973 Assessed under Part IV <input checked="" type="checkbox"/>
Does the applicant hold any existing Part IV Ministerial Statements relevant to the application?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Ministerial statement No: 986 EPA Report No: 1523
Has the proposal been referred and/or assessed under the EPBC Act?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Reference No: 2014/7253 (and a change to proposal 2019/8446)
Has the applicant demonstrated occupancy (proof of occupier status)?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Mining lease / tenement <input type="checkbox"/> Expiry: M80/627 (expires 16 June 2035)
Has the applicant obtained all relevant planning approvals?	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/>	

Has the applicant applied for, or have an existing EP Act clearing permit in relation to this proposal?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	No clearing is proposed.
Has the applicant applied for, or have an existing CAWS Act clearing licence in relation to this proposal?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	No clearing is proposed.
Has the applicant applied for, or have an existing RIWI Act licence or permit in relation to this proposal?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Licence/permit No: GWL 177452(7)
Does the proposal involve a discharge of waste into a designated area (as defined in section 57 of the EP Act)?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Has Regulatory Services (Water) been consulted? Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/>
Is the Premises situated in a Public Drinking Water Source Area (PDWSA)?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Is the Premises subject to any other Acts or subsidiary regulations (e.g. <i>Dangerous Goods Safety Act 2004, Environmental Protection (Controlled Waste) Regulations 2004, State Agreement Act xxxx</i> )	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	<i>Mining Act 1978</i> a revised Mining Proposal and Mine Closure Plan will be submitted to DMIRS
Is the Premises within an Environmental Protection Policy (EPP) Area?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Is the Premises subject to any EPP requirements?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Is the Premises a known or suspected contaminated site under the <i>Contaminated Sites Act 2003</i> ?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Site ID 7616 Classification: Report not substantiated Date of classification: 18/02/2013