Browns Range Rare Earths Project

2025 Annual Environmental Report

for

Prescribed Premises Licence L9009/2016/1

March 2026

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1.0 Introduction

This 2025 Annual Environmental Report (AER) has been submitted by Northern Minerals Limited (NTU) for the Browns Range Rare Earths Project (the Project) to the Department of Water and Environmental Regulation (DWER). The AER has been lodged to comply with the Project's Prescribed Premises Licence L9009/2016/1 (the Licence) Condition 30, which states:

> *"The licence holder must submit to the CEO an Annual Environmental Report (AER) which contains the information listed in Table 18 in the format or form specified in Table 18 within 90 calendar days after the end of the Annual period."*

This AER covers the Annual Period from the 1 January 2025 to 31 December 2025 (the reporting period). The information required to comply with the Licence condition 30 Table 18 has been presented within this AER at the sections specified in Table 1.

1.1 Project background

NTU has 100% ownership of the Project which is located 160 km south-east of Halls Creek in the Kimberly region of Western Australia (WA) and adjacent to the WA and Northern Territory border (Figure 1). NTU has adopted a staged development approach for the Project, which is targeting rare earth dominant xenotime mineralisation to become a leading supplier of Dysprosium (Dy) and Terbium (Tb).

Stage 1 refers to the construction of the Project's infrastructure, pilot plant and campaign mining operations. These activities commenced on the 20 June 2017 following receipt of Works Approval W6007/2016/1 on 13 March 2017, Ministerial Statement 986 (issued 20 October 2014), granting of mining tenement M80/627 (granted 17 June 2014 [replaced with M80/650 on 9 September 2025]) and miscellaneous lease L80/76 (issued 14 January 2014), implementation of the Co-existence Agreement with the Jaru Traditional Owners in June 2014 and granting of requisite State mining approvals in August 2015. The Project layout is illustrated in Figure 2. The monitoring bore locations are presented in Figure 3.

Conventional open pit mining was undertaken between June 2017 to November 2017 with no further mining since this time. Permitting of the pilot plant was completed on 11 July 2018 following granting of the Licence. The pilot plant was approximately a 10% scale of a proposed full-scale plant comprising of both beneficiation and hydrometallurgical circuits to produce a total rare earth oxide (TREO) concentrate.

1.2 Project status

The pilot plant stage was operated for three years then put into care and maintenance (C&M) in April 2022. A Definitive Feasibility Study (DFS) was completed in 2025 and released to the market in September 2025. NTU are targeting final investment decision in 2026 for the full-scale project.

1.3 Report Content Requirements Under L9009/2016/1

Monitoring and statutory environmental reporting have been undertaken during the reporting period to align with the Licence. Results presented in this AER are summarised in 1.

Table 1: Annual Environmental Report information requirements for L9009/2016/1

Commitment	Parameter	Section	Summary of Findings / Assessment Outcomes
	Summary of any failure or malfunction of any pollution control equipment and any environmental incidents that have occurred during the annual period and any action taken.	2.0	• Since the site was placed into C&M, there has been a reduction in incidents.
Condition 10	Annual water balance	3.0	• A Tailings Storage Facility (TSF) water balance was completed in 2025. • Currently, the TSF has sufficient capacity to contain tailings and the full range of design rainfall events (i.e.100-year ARI 72-hour event, PMP 72-hour event, 100-year Wet year, 10-year ARI Wet Season, with the 100-year ARI 72-hour event superimposed) including associated stormwater volumes. • The TSF water balance results to date (2018-present) indicate a suitable storage capacity and freeboard during operations (2018-2022) and C&M (2022-present).
Condition 19 Table 10	Waste inputs	4.0	• Waste disposed into the landfill has not exceeded the License annual limit of 499 tonnes. • Waste disposed to landfill has reduced since the site was placed into C&M.
Condition 20 Table 11	Volumes discharged	5.0	• During 2025, water from the TSF, evaporation pond (EP), Event Ponds and sediment retention ponds (SRP) didn't overtop. • Recorded water volumes have reduced since the site was placed into C&M in 2022. • As the site is in C&M, the recorded volumes of water in the water retention structures are generated from rainwater.
Condition 21 Table 12	Ambient groundwater monitoring results	6.0	• An assessment was completed of the 2025 analytes against historical results. • Most results remain within historical ranges. • The assessment found no evidence of site activities or land uses impacting the groundwater.
Condition 22 Table 13	Water quality monitoring results	7.0	• No water from the Event Ponds were used for dust suppression. • No water from the Event Ponds overflowed. • An assessment of analytical results is not triggered as there was no release of water to the environment from the Event Ponds.
Condition 23 Table 14	Monitoring of radionuclides		
Condition 24 Table 15	Vegetation condition monitoring results	8.0	• The Project is required to monitor vegetation within 100 m of the Gambit waste rock landform (WRL) and run of mine (ROM) SRP spillway discharge point. • The assessment concluded "There is no evidence to suggest Gambit WRL / ROM Sediment Retention Pond spillway discharge releases are causing detriment to the monitored vegetation"
Condition 28	Complaints summary	9.0	• No complaints relevant to the License were received during the 2025 reporting period.

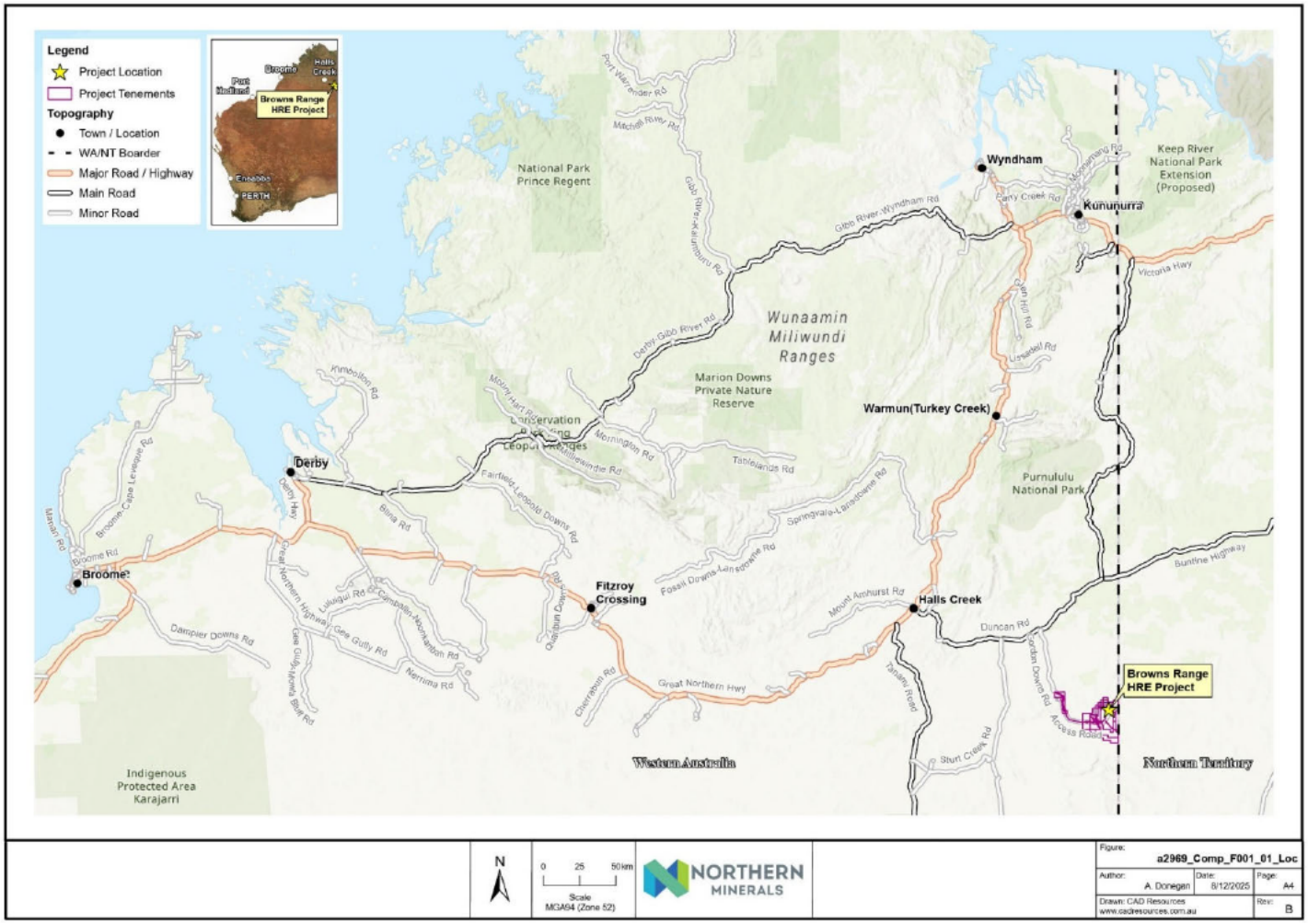


Figure 1: Browns Range Rare Earths Project Location

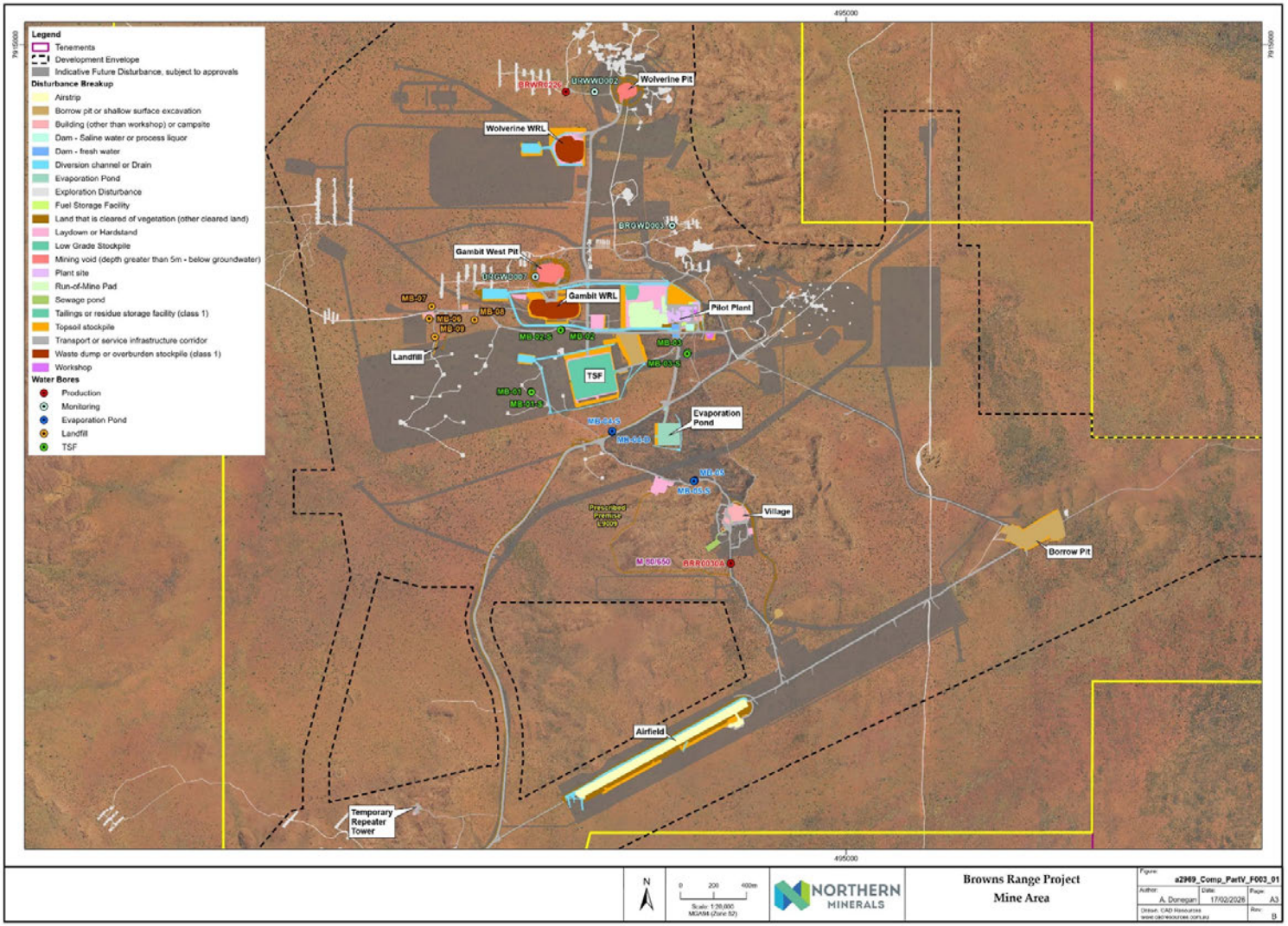


Figure 2: Browns Range Rare Earths Project Layout

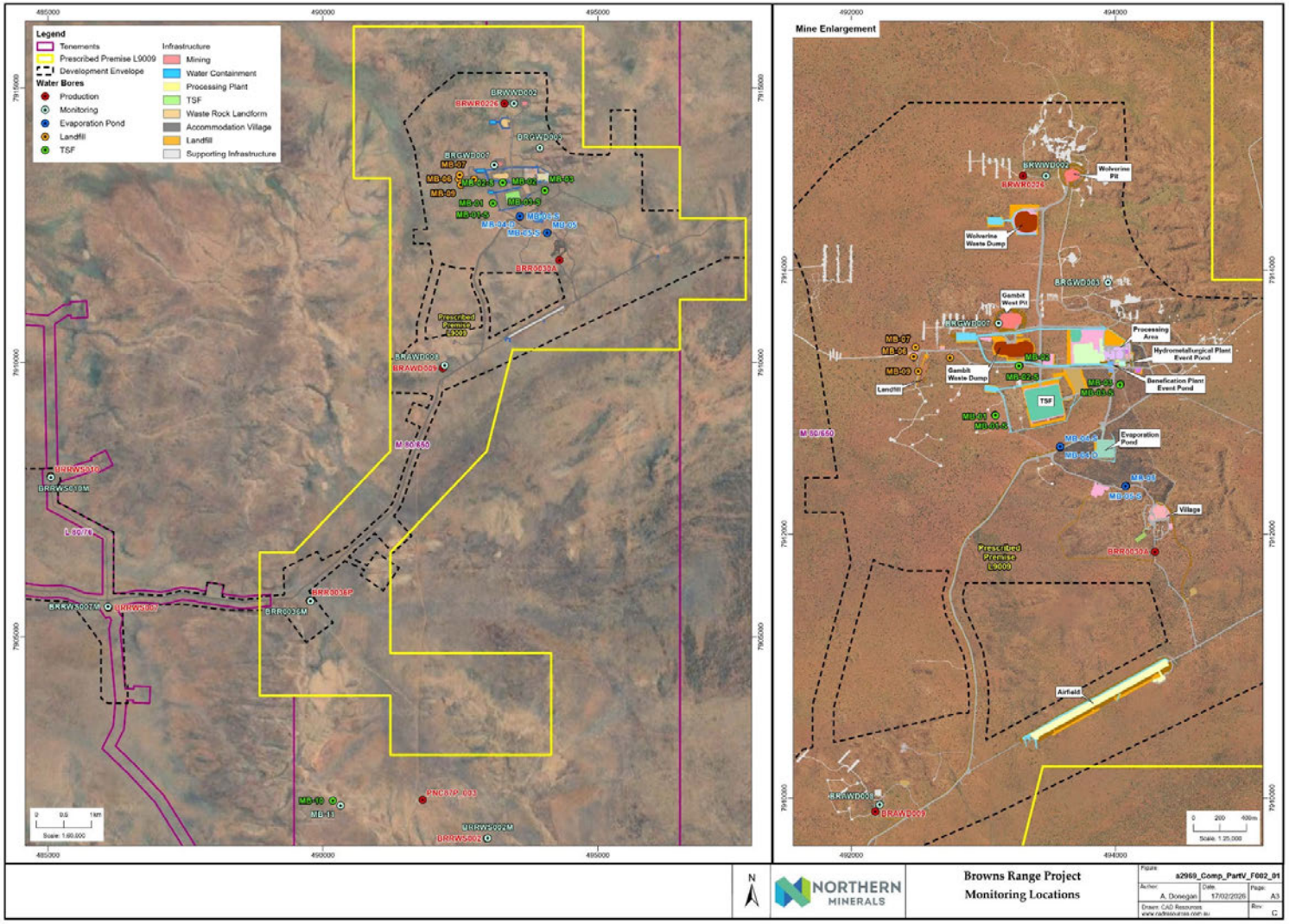


Figure 3: Browns Range Rare Earths Project Monitoring Locations.

2.0 Incidents

An extract of NTU's incident reporting system (Safety, Training, Environment Management – STEMS) environmental incidents relevant to L9009 during the 2025 reporting period are presented in Table 2.

Table 2: Summary of environmental incidents

Date	STEMS ID	L9009/2016/1 Incidents and Remedial Actions (2025)
28 Apr 2025	2736	Inappropriate disposal of ~2kl of drillers liquid waste into the TSF. Investigation outcome: Based on the safety data sheets (SDS) and product information the liquid waste would have been mostly inert (water, rock) with some driller fluid which appears to be non-hazardous and therefore unlikely to pose a risk to the TSF liner. Liquid waste is mostly water with drill cuttings (rock) with a small amount of drilling fluids (SDSs attached) • SDS. BIO-GUM ULTRA: BIO GUM ULTRA is non-toxic completely biodegradable. • SDS. PAC R ULTRA: Non-hazardous. Environmentally friendly. • SDS. DRILL DET ULTRA: Non-hazardous. Environmentally acceptable The driller waste is unlikely to pose a risk to the TSF integrity (liner) or be incompatible with the permitted waste placed in the TSF. Therefore, the actual risk to TSF infrastructure or the environment is low to nil. The event hasn't caused material damage to the environment or infrastructure, nor will it be likely in the future. Corrective actions completed: • Report on the incident in the next NTU Monthly Report • Revise the NTU Waste Management Plan • Inform staff of the event and learnings
25 Aug 2025	2758	An unplanned fire occurred in the landfill cell . The fire was relatively small and quickly extinguished. There was no observed impact on fauna, vegetation or infrastructure. Bulka bags of rubbish had been taken to the landfill and placed in the cell. When a second lot of bags were taken to the landfill approximately half an hour later the first set of bags were on fire. There was no danger or damage caused by the fire. The fire didn't extend beyond the landfill cell. The fire was extinguished by a load of sand put over the fire. The cause of the fire wasn't conclusive but suspected to be from the disposal of potentially ignitable refuse (i.e. vape, lighter, etc.). The incident was internally communicated with a reminder of what waste can and can't be disposed of in the landfill.
21 Mar 2025	2724	2024 AER - Non-conformances with L9009/2016(1) • 6 non-conformances with L9009/2016(1) were identified during the 2024 AER compliance assessment. • All events were reported to DWER in the 2024 AER. • Each event was investigated with no material environmental impact identified. • Corrective and preventative actions were raised and implemented.

3.0 Tailings Storage Facility annual water balance

As per Licence L9009/2016/1 condition 10, NTU is required to complete an annual water balance for the TSF. This assessment was conducted during the reporting period by Knight Piesold (KP). The report is provided in Appendix 6.

NTU consider the risk of the TSF overtopping is low to negligible based on the key points below (this reasoning was reported and further explained in the 2023 and 2024 AACRs).

- Whilst in C&M the TSF freeboard is consistent at 3.5m.
- Annual rainfall average is approximately 500mm, median evaporation is estimated to be 2,900mm. This represents significant net evaporation.
- No tailings have been deposited in the TSF since 2022. Sufficient capacity remains to contain an extreme rainfall event.

- The TSF water balance results to date indicate a significant storage capacity and freeboard during C&M (summarised below).

The TSF Water Balance modelling completed by KP concludes:

- The calibrated water balance model demonstrates a strong correlation with the monitoring data provided by NTU (Chart 1).
- The TSF has sufficient capacity to contain tailings and the full range of design rainfall events (i.e.100-year Average Recurrence Interval (ARI) 72-hour event, Probability Maximum Interval (PMP) 72-hour event, 100-year Wet year, 10-year ARI Wet Season, with the 100-year ARI 72-hour event superimposed) including associated stormwater volumes.
- Short-duration, high-intensity rainfall events present the most critical scenario for stormwater containment, compared with longer-duration wet sequences.
- The TSF operates as a water-negative facility and does not accumulate water under the average or design wet conditions assessed. The supernatant pond is predicted to return to zero after a single dry season, except following a Probable Maximum Flood (PMF) event, which would require two dry seasons.
- No spillway discharge is anticipated from the Pilot TSF under either average climatic conditions or the wet scenarios evaluated.
- Given the project's current care-and-maintenance status and the substantial freeboard indicated by water balance modelling under both average and wet conditions (i.e.100-year ARI 72-hour event, PMP 72-hour event, 100-year Wet year, 10-year ARI Wet Season, with the 100-year ARI 72-hour event superimposed), the requirement for annual water balance updates is unlikely to provide additional risk mitigation. The TSF maintains a stable, low-risk configuration with no predicted containment issues.

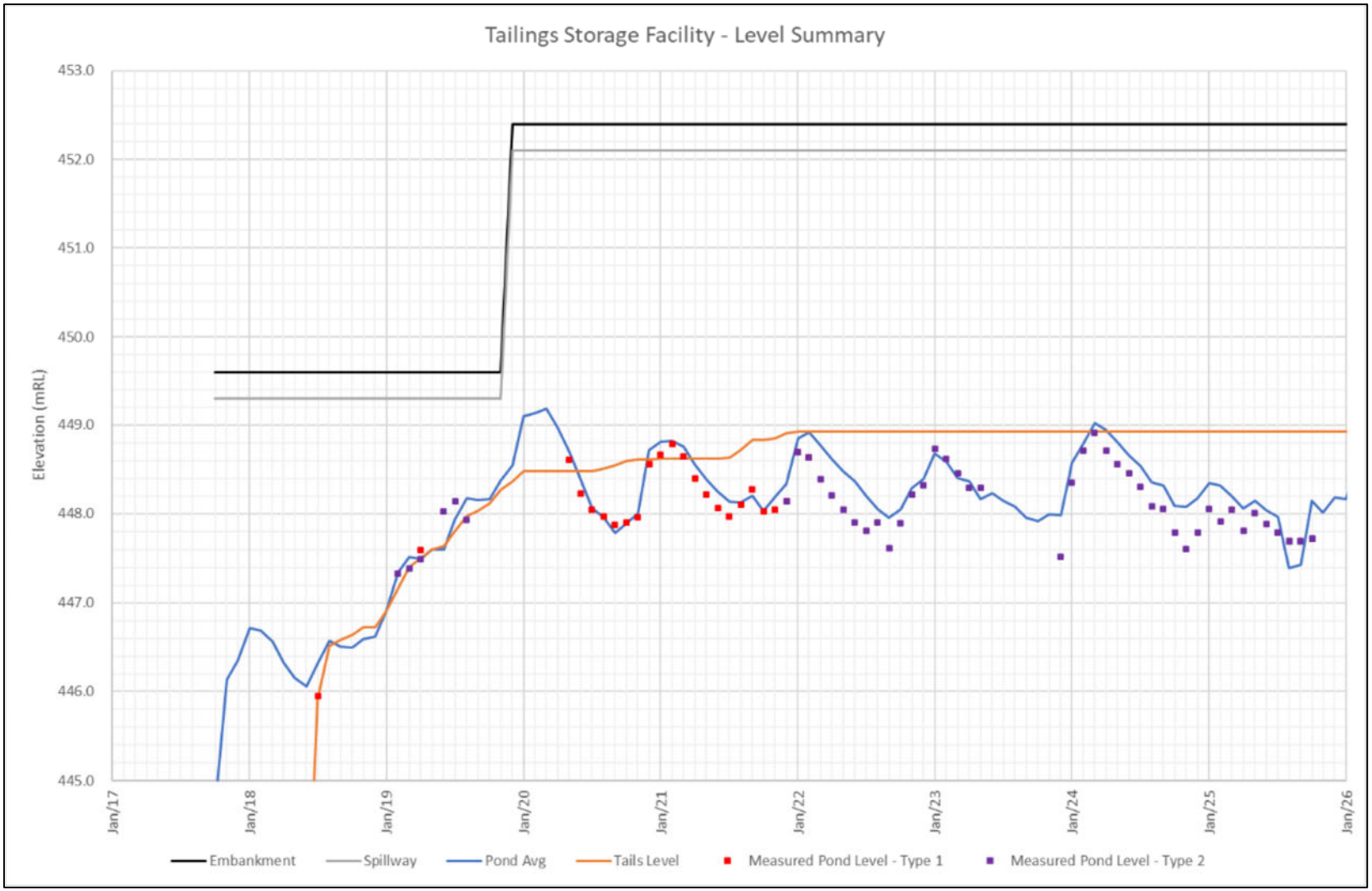


Chart 1 Browns Range Rare Earths Project TSF water balance

4.0 Landfill

The Project's landfill was commissioned following the issue of Registration R2457/2017/1 on 23 October 2017. This registration was subsequently replaced by the License on 13 July 2018 and is now subject to waste type and ambient water quality monitoring conditions. As per the Licence condition 19, NTU is required to monitor waste inputs. Since the Project went into C&M in April 2022, less people are at site and limited volumes of waste were produced. Waste inputs into the landfill during the reporting period is presented in Table 3, with monthly totals presented in Chart 2.

Table 3: Waste inputs to landfill facility

Month	Putrescible Waste (m^3)	Inert Waste Type 1 (m^3)	Inert Waste Type 2 (m^3)	Clean Fill (m^3)	Hydrocarbon Waste (m^3)	Total (m^3)	Total (t^1)
Jan	9	0	0	0	0	9	2.7
Feb	10	0	0	0	0	10	3
Mar	8	0	0	0	0	8	2.4
Apr	8	0	0.1	0	0	8.1	2.43
May	17	3	0	0	0	20	6
Jun	11	5	0	0	0	16	4.8
Jul	17	0	0	0	0	17	5.1
Aug	6	11	0	0	0	17	5.1
Sep	8	14	0	0	0	22	6.6
Oct	4	0	0	0	0	4	1.2
Nov	11	0	0.5	0	0	11.5	3.45
Dec	7	0.7	0.1	0	0	7.85	2.355
Total	116	33.75	0.7	0	0	150.45	45.135
						L9009 Annual Limit	**499**

[1] 0.3t/m3 conversion factor

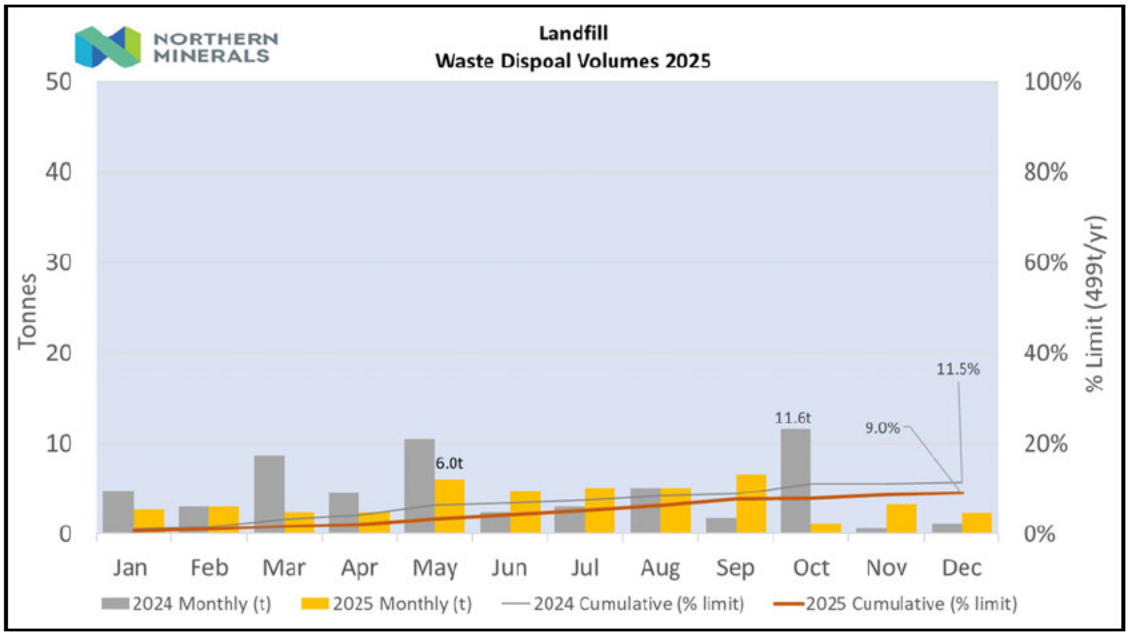


Chart 2: Landfill Waste Disposal Volumes

5.0 Process Monitoring - Volumes Transferred and Released

As per Licence condition 20, NTU is required to record volumes (m^3) transferred into the EP, TSF and Event Ponds. This is summarised in Chart 3. A detailed listing of 2025 transferred volumes is provided in Table 4. As the site is in C&M, the recorded volumes are generated from rainwater.

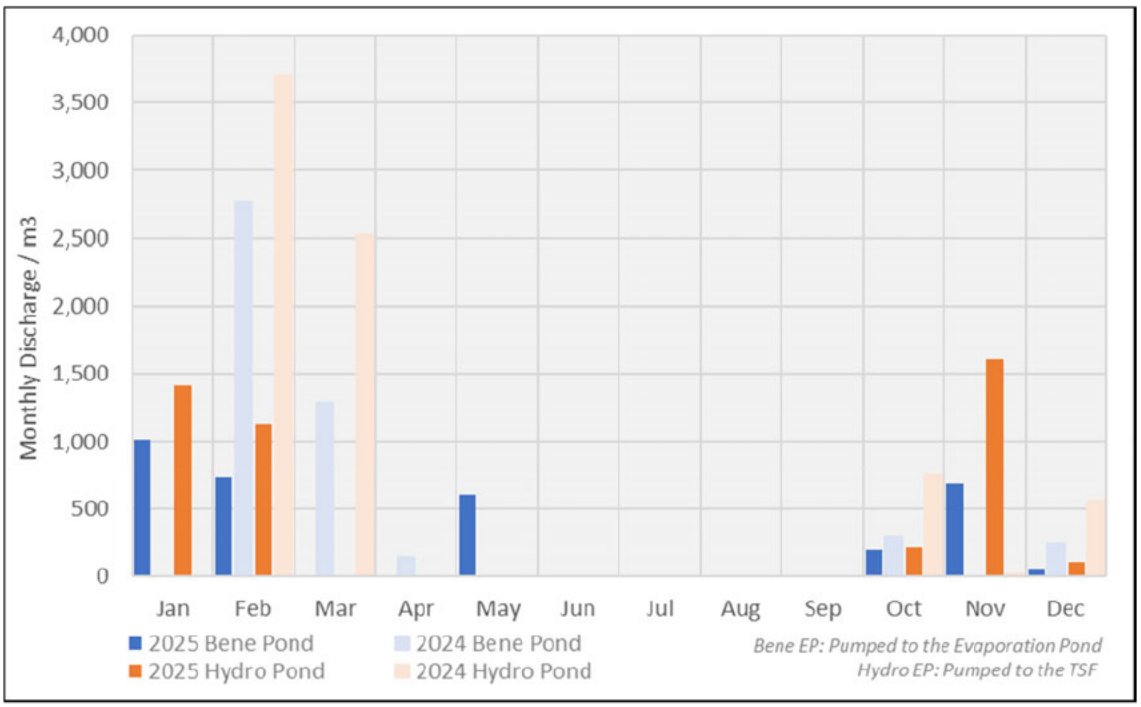


Chart 3: Event Ponds - Transfer of Water

Table 4: Process Volume Monitoring

Stream/Facility (m^3)		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Volume discharged to Evaporation Pond[1]	EP	1,010	733	0	0	607	0	0	0	0	201	684	51	3,085
Volume of tailings discharged to TSF	TSF	0	0	0	0	0	0	0	0	0	0	0	0	0
Volume of WWTP sludge discharged into the TSF	TSF	0	0	0	0	0	0	0	0	0	0	0	0	0
Volume of water discharged to the Gambit WRL / ROM Sediment Retention Pond	Event Ponds	0	0	0	0	0	0	0	0	0	0	0	0	0
Volume of water discharged via dust suppression	Event Ponds	0	0	0	0	0	0	0	0	0	0	0	0	0
Volume of poor- quality Event Pond water discharged into the EP	Event Ponds	0	0	0	0	0	0	0	0	0	0	0	0	0
Volume of excess pond water discharged into the EP/TSF for operational needs required for wet season readiness.	Event Ponds	0	0	0	0	0	0	0	0	0	201 [1] 219 [2]	0	0	420
Volume of Event Pond maintenance (dredged) sludge and water discharged to the TSF [2]	Event Ponds	1,417	1,127	0	0	0	0	0	0	0	0	1,612	108	4,264
Volume of poor- quality Event Pond water# discharged into the TSF	Event Ponds	0	0	0	0	0	0	0	0	0	0	0	0	0

[1] Beneficiation Event Pond is pumped to the Evaporation Pond
[2] Hydrometallurgical Event Pond is pumped to the TSF

6.0 Ambient Groundwater Monitoring Results

The Project's monitoring bores were installed between December 2016 to May 2017 in accordance with Works Approvals for the TSF, EP (W6007/2016/1) and landfill (W5337/2015/1). A total of five paired monitoring bores (MB) (a shallow [S] and a deep bore [D]) were associated with:

- TSF — Three pairs — MB01S, MB01D, MB02S, MB02D, MB03S and MB03D;
- EP — Two pairs — MB04S, MB04D, MB05S and MB05D; and
- Landfill — MB06 to MB09.

Bore locations are presented in Figure 3. Monitoring bore specifications and their associated features are provided in Table 5. The table also provides a listing of monitored analytes which are used as early indicators (or markers) of possible influence from site activities/land uses on the groundwater. Whilst all analytical results are reviewed against historical results, these key indicators are assessed in more detail by presentation of results in graphs and assessment of trends (as presented in the following sub-sections).

As per the Licence L9009/2016/1 requirements, monthly (TSF and EP) and quarterly (landfill) monitoring included measuring Standing Water Level (SWL) and collecting general field parameters (pH, electrical conductivity [EC], TDS, alkalinity and acidity) in addition to bi-annual full suite laboratory analysis as required. Groundwater monitoring analytical result tables are provided in Appendix 1A to C. Laboratory reports and Chains of Custody (CoC) are available on request.

The following interpretations are based on a review of varying analyte trends. Ongoing monitoring will confirm if anomalous results are isolated, as has been the case with historical anomalies.

Table 5: Overview of the Project's Monitoring Bores and Key Indicators

ID	Relative location	Associated Feature	Depth (m)	Monitored Key Indicators / Markers	Section
MB01S	Down-gradient	TSF	10	• **Sodium (Na)**: Pilot Plant process additive – Na in Soda Ash • **Iron (Fe)**: Pilot Plant process additive – Fe in Ferric Sulfate • **Gadolinium (Gd)**: Rare Earth • **SWL**: Standard groundwater condition marker • **pH**: Standard groundwater condition marker • **TDS**: Standard groundwater condition marker	6.1
MB01D			40		
MB02S			10		
MB02D			40		
MB03S	Up-gradient		10		
MB03D			40		
MB04S	Down-gradient	Evaporation Pond	10	• **Na**: Pilot Plant process additive – Soda Ash • **Fe**: Pilot Plant process additive – Ferric Sulfate • **SWL**: Standard groundwater condition marker • **pH**: Standard groundwater condition marker • **TDS**: Standard groundwater condition marker	6.2
MB04D			40		
MB05S	Up-gradient		12		
MB05			40		
MB06	Down-gradient	Landfill Facility	40	• **Zinc (Zn)**: Marker for a metal rich waste • **Total Phosphorus (P)**: Marker for a nutrient rich waste • **TRH** $^{(>C10-C40)}$: Marker for a hydrocarbon rich waste • **SWL**: Standard groundwater condition marker • **pH**: Standard groundwater condition marker • **TDS**: Standard groundwater condition marker	6.3
MB07			40		
MB08	Up-gradient		40		
MB09	Down-gradient		30		

6.1 Tailings Storage Facility bores (MB01-MB03)

The Project's TSF is a HDPE lined single cell with a disturbance footprint of 6.89 ha. Stage 1 of the TSF was commissioned in Q2 2018 with the Stage 2 embankment completed in Q1 2020 to a final elevation of RL453 m, leaving considerable storage capacity (~80,000 m^3 to the spillway) and freeboard availability during C&M.

The following charts present a long-term dataset to allow for detection of significant or meaningful changes in water quality over time. The following lists TSF key indicator charts presented. Table 6 provides an assessment of TSF monitoring bore analytical results.

TSF Key Indicator	Chart
SWL	Chart 4
pH	Chart 5
TDS	Chart 6
Na	Chart 7
Fe	Chart 8
Gd	Chart 9

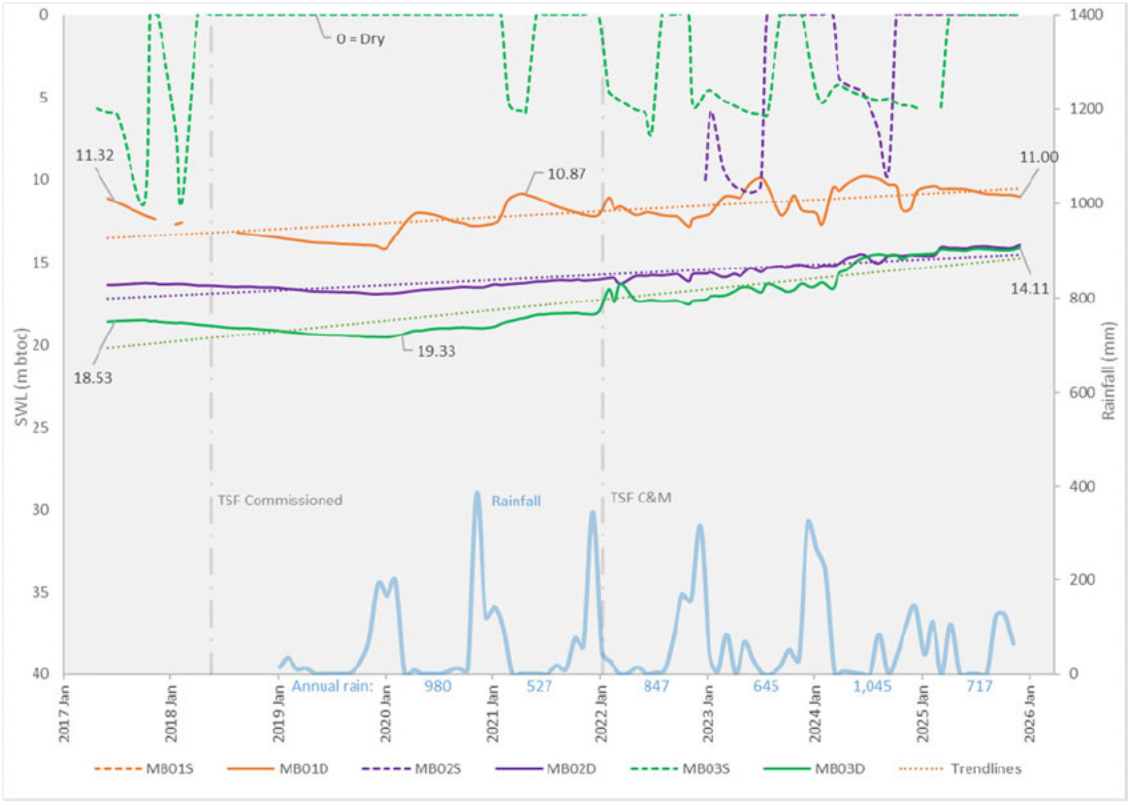


Chart 4: TSF monitoring bores (MB01-MB03) – SWL

Chart 5: TSF monitoring bores (MB01-MB03) – pH

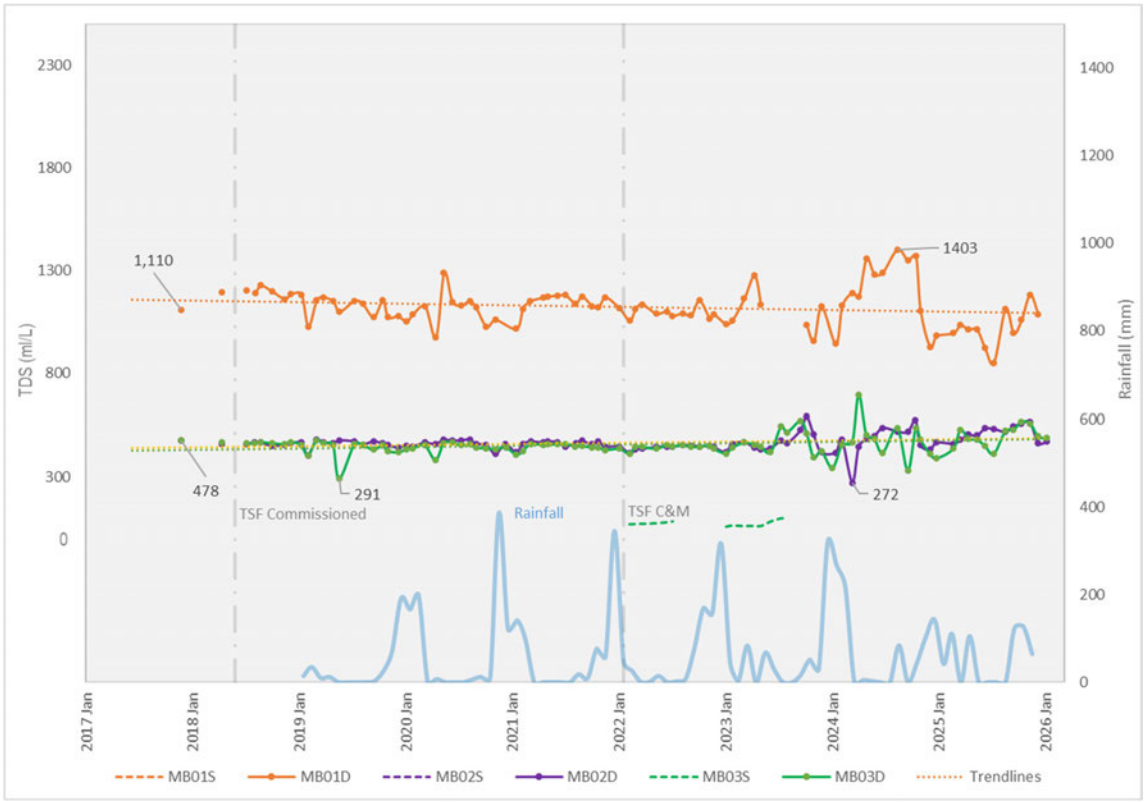


Chart 6: TSF monitoring bores (MB01-MB03) – TDS

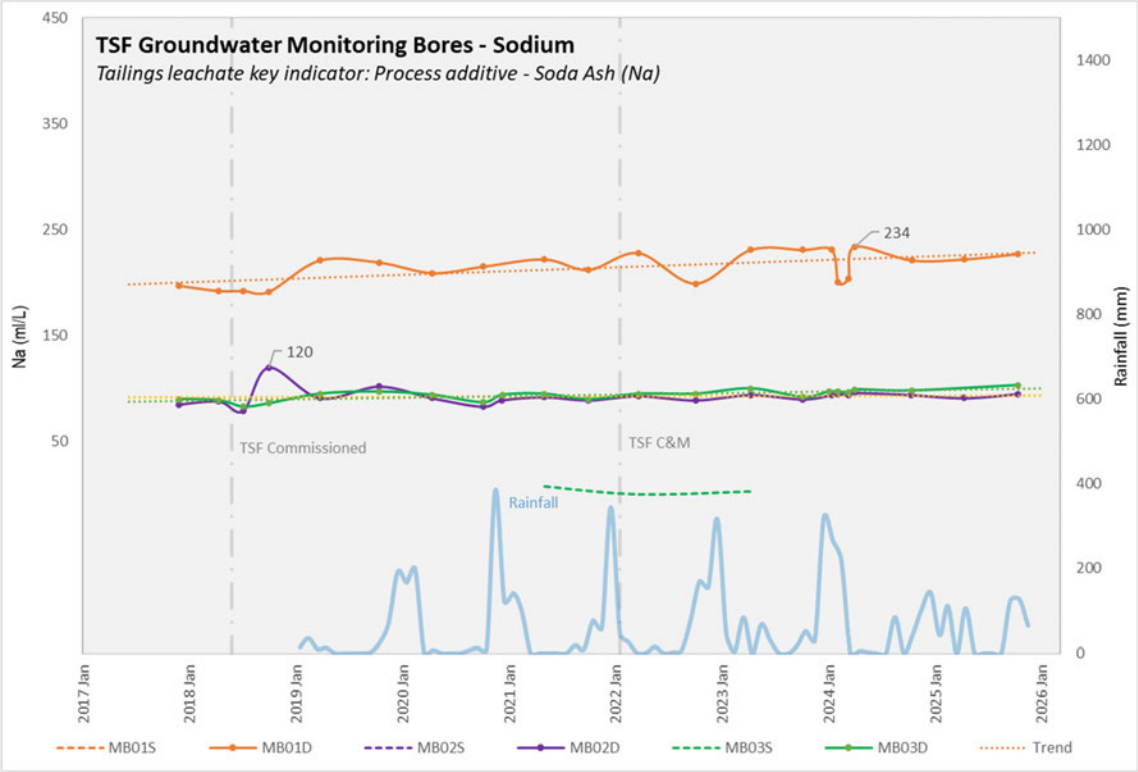


Chart 7: TSF monitoring bores (MB01-MB03) – Na

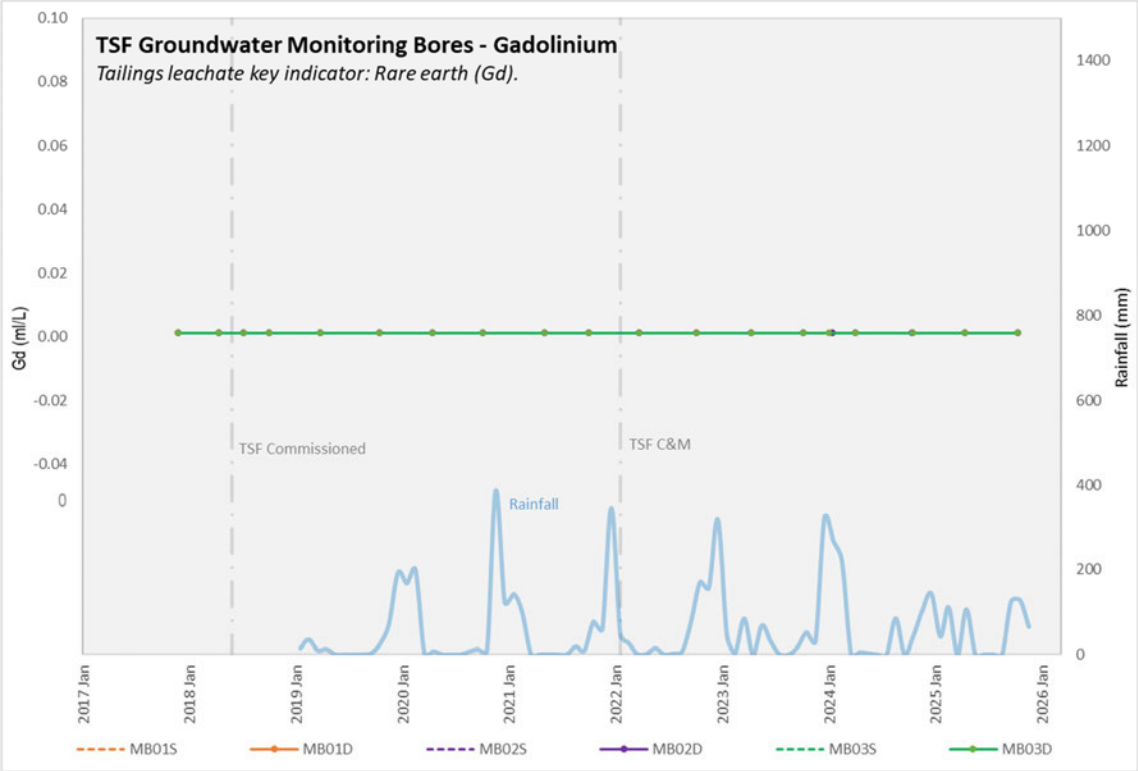


Chart 8: TSF monitoring bores (MB01-MB03) – Gd

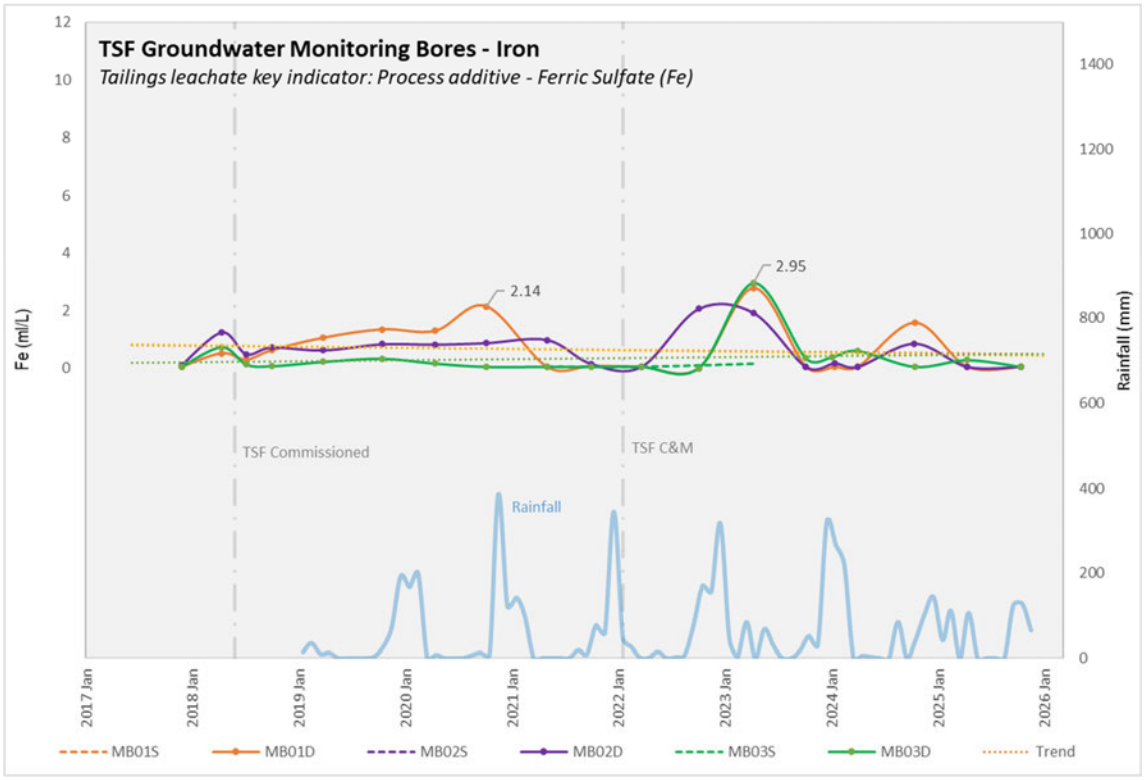


Chart 9: TSF monitoring bores (MB01-MB03) – Fe

Table 6: TSF Monitoring Bores – Assessment of Analytical Results

Key Indicator		Summary
SWL	Chart 4	• SWL's measured in the deep bores have remained steady throughout 2025 (11.00 – 14.11 meters below top of casing [m btoc]). • The SWL long term trendlines are steady to slightly increasing. • SWL trendlines across the greater groundwater bore network shows a similar trend (as reported to DWER-Water in the 2025 Annual Groundwater Monitoring Report [GWL177451]). This increase is likely attributed to above average rainfall over the past few years. Chart 4 presents the last six years of annual rainfall totals. Each year exceeds the average annual rainfall of 449 mm (1970 to 2018. Source 'Scientific Information for Landowners' [SILO], climate statistics). • It's noted during the operation of the TSF, depths to groundwater increased. In the event of a TSF leak, depths to groundwater would be expected to decrease.
pH	Chart 5	• pH measurements in 2025 ranged between slightly acidic (6.51) to slightly alkaline (7.99) and as a guide results are within ANZECC Short Term Irrigation guidelines (6.0-8.5). • In recent years there has been an increase in pH variability. This is likely to be a result of an aging multiprobe (measures pH). A new multiprobe was purchased in January 2026 which January results are presented in the Chart and show a reduction in variability. • The long-term pH trend is neutral to slightly reducing or increasing depending on the bore. Overall, all bores average generally a neutral pH and neutral trend.
TDS	Chart 6	• TDS measurements in 2025 ranged between 309 mg/L to 1183 mg/L. • TDS measurements since 2018 are generally fresh (TDS <1000 mg/L) to slightly brackish. The long-term TDS trends are generally neutral. • Measurements from MB01D are slightly brackish and significantly higher from all other bores (freshwater). This is likely due to variability in groundwater conditions as the difference is consistent since 2018 and apparent prior to the TFS commissioning. • The range in TDS values generally correlates with low TDS concentrations in shallow bores and higher TDS concentrations in deeper bores. This indicates rainfall infiltration and progressive dilution whilst moving downward through the aquifer might be an influencing factor. • In recent years there has been an increase in TDS variability. This is likely to be a result of an aging multiprobe (measures TDS). A new multiprobe was purchased in January 2026 which January results are presented in the Chart and show a reduction in variability.
Na	Chart 7	• Na measurements in 2025 ranged between 227mg/L to 91 mg/L. • The long-term trends are generally neutral to slightly increasing. • Measurements from MB01D are significantly higher from all other bores. This is likely due to variability in groundwater characteristics as the difference is consistent since 2018 and apparent prior to the TFS commissioning.
Gd	Chart 8	• Gd has not been detected above laboratory limits of reporting (LOR) in any bore since sampling commenced in 2018.
Fe	Chart 9	• Fe measurements in 2025 ranged from LOR (<0.005) to 0.28 mg/L. • Historically there has been higher concentrations of Fe detected which also include pre TSF commissioning. • The long-term trends are generally neutral.
Conclusion		• If the event of a significant TSF leak, an increase in SWL, pH, TDS, Na, Gd and/or Fe would likely be detected in nearby bores. Based on the above assessment of TSF key indicators, this is not evident during the reporting period. • An assessment of the remaining 2025 analytes against historical minimum and maximum concentrations was completed (presented in Appendix 1A). Most results remain within historical ranges. Some spikes have been recorded; however, these are isolated and return to normal ranges.

6.2 Evaporation Pond bores (MB04-MB05)

The HDPE lined EP was commissioned in Q2 2018 and has two paired monitoring bores (MB04S, MB04D, MB05S and MB05D) located around the facility (Figure 3).

During 2025 water was pumped from the Beneficiation Pond to the EP (refer to Section 5). The groundwater analytical result tables are provided in Appendix 1B.

The following charts present a long-term dataset to allow for detection of significant or meaningful changes in water quality over time. The following lists EP key indicator charts. Table 7 provides an assessment of EP monitoring bore analytical results.

EP Key Indicators	Chart
SWL	Chart 10
pH	Chart 11
TDS	Chart 12
Na	Chart 13
Fe	Chart 14

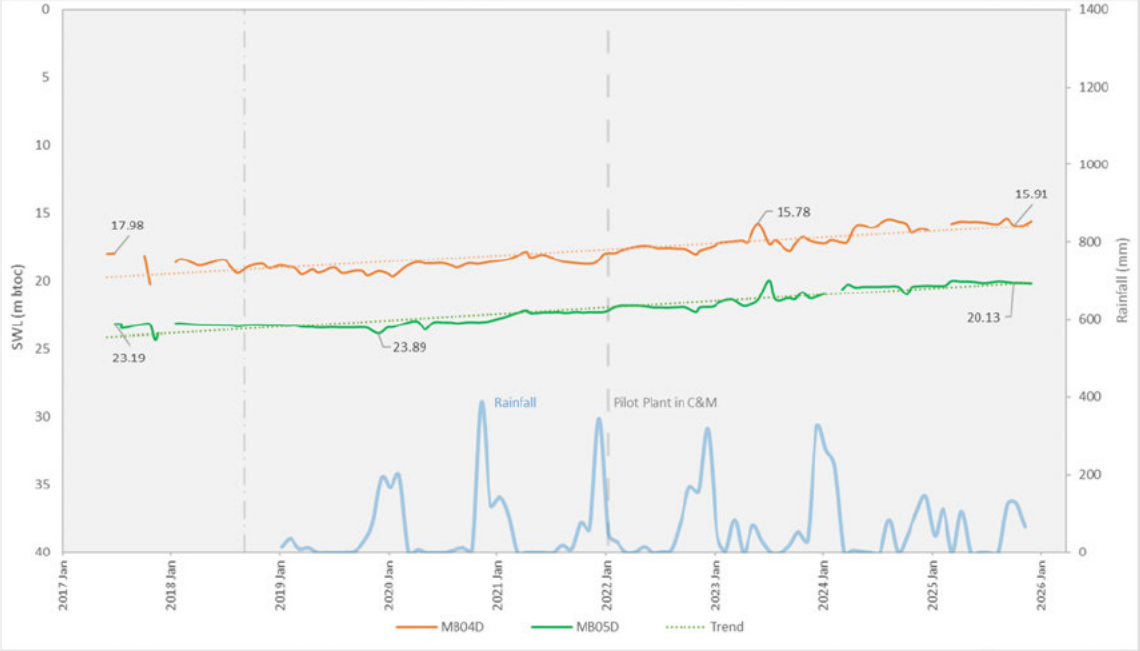


Chart 10: EP monitoring bores (MB04-MB05) – SWL

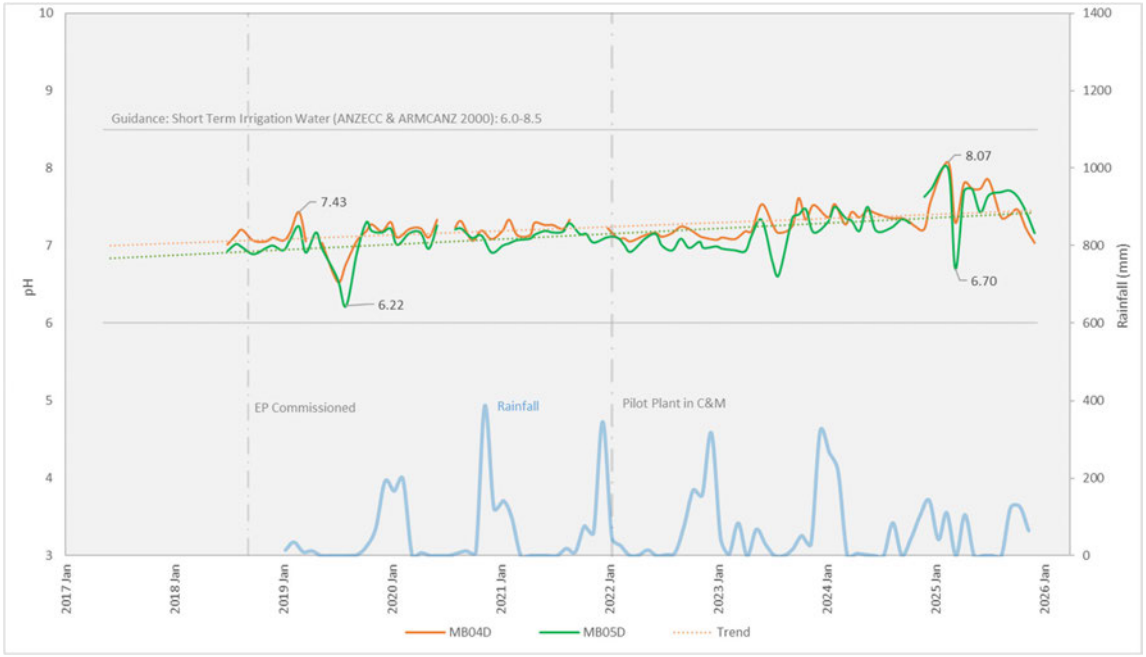


Chart 11: EP monitoring bores (MB04-MB05) – pH

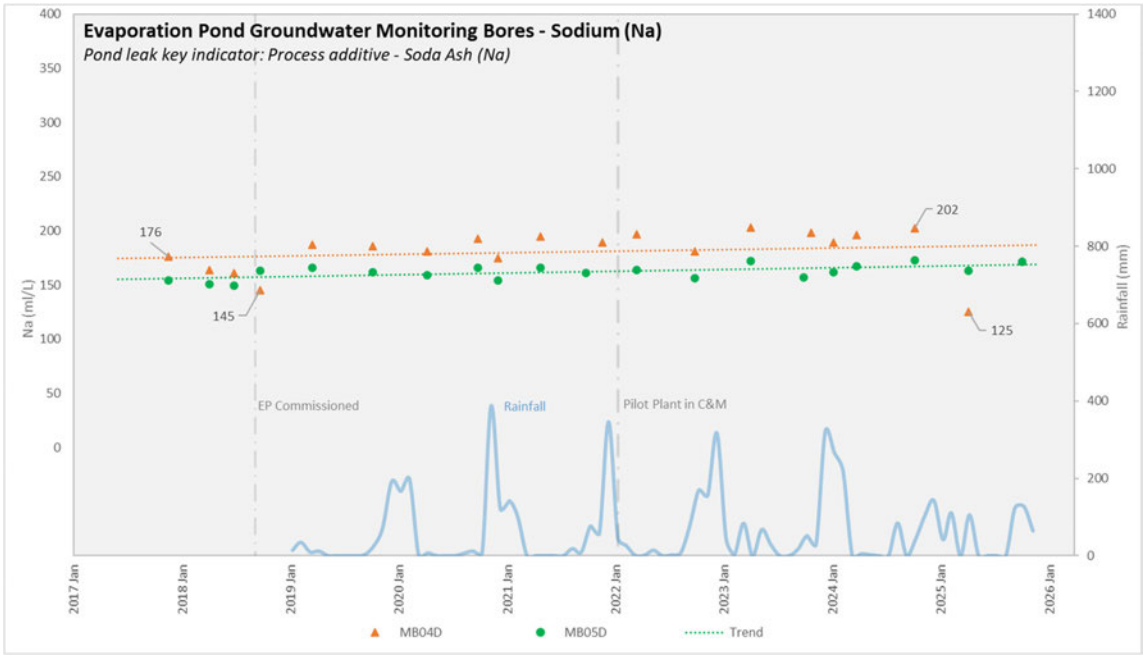


Chart 12: EP monitoring bores (MB04-MB05) – TDS

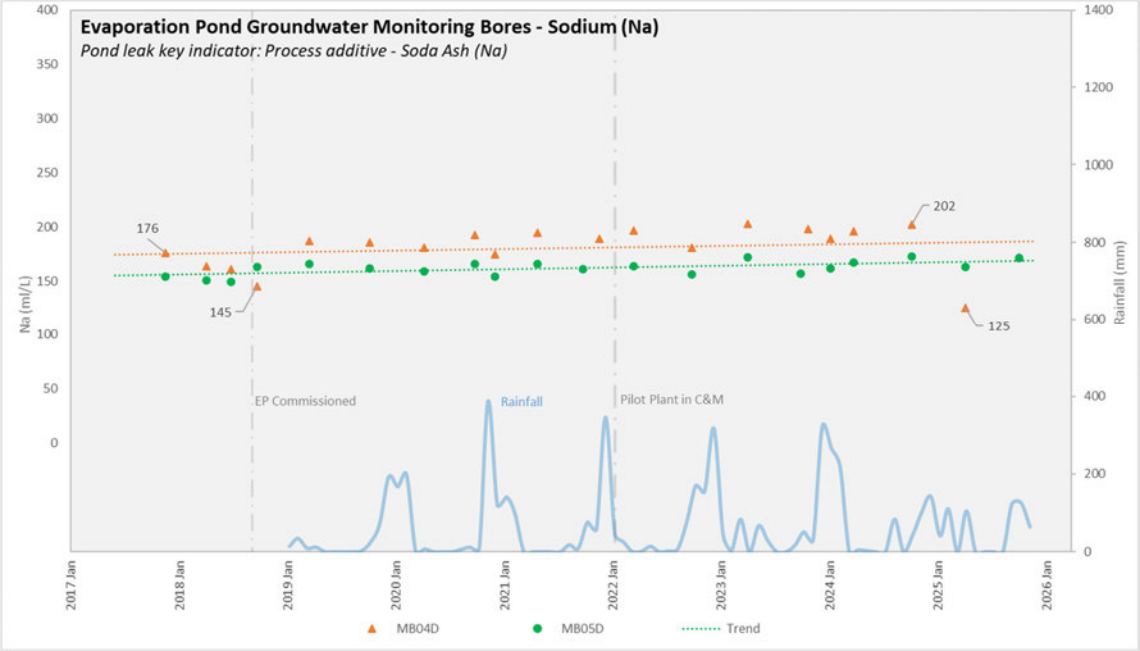


Chart 13: EP monitoring bores (MB04-MB05) – Na

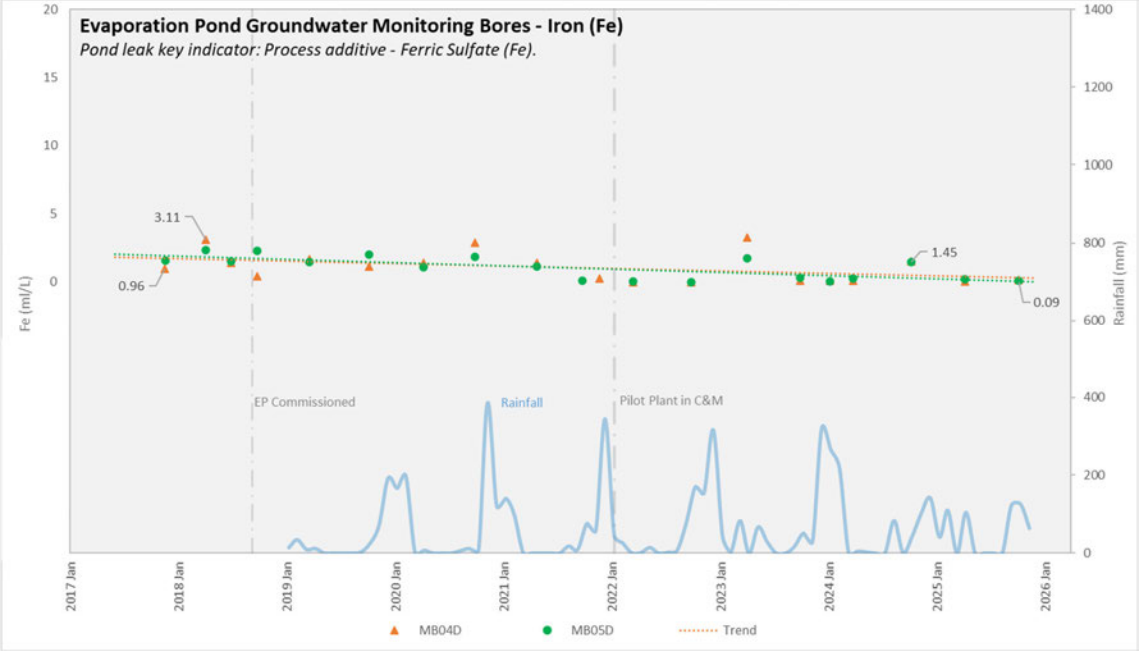


Chart 14: EP monitoring bores (MB04-MB05) – Fe

Table 7: EP Monitoring Bores – Assessment of Analytical Results

Key Indicator		Summary
SWL	Chart 10	• SWL's measured in the deep bores have remained steady throughout 2025 (15.91 – 20.13 m btoc). • The SWL long term trendlines are steady to slightly increasing. • SWL trendlines across the greater groundwater bore network shows a similar trend (as reported to DWER-Water in the 2025 Annual Groundwater Monitoring Report [GWL177451]). This increase is likely attributed to above average rainfall over the past few years. Chart 4 presents the last six years of annual rainfall totals. Each year exceeds the average annual rainfall of 449 mm (1970 to 2018. Source: SILO climate statistics).
pH	Chart 11	• pH measurements in 2025 ranged between slightly acidic (6.70) to slightly alkaline (8.07) and as a guide results are within ANZECC Short Term Irrigation guidelines (6.0-8.5). • In recent years there has been an increase in pH variability. This is likely to be a result of an aging multiprobe (measures pH). A new multiprobe was purchased in January 2026 which January results are presented in the chart and show a reduction in variability. • The long-term pH trend is neutral to slightly increasing depending on the bore. There is little difference between pH concentrations before and after the EP commissioning.
TDS	Chart 12	• TDS measurements in 2025 ranged between 537 mg/L to 863 mg/L. • TDS measurements since 2018 are generally fresh (TDS <1000 mg/L). The long-term TDS trends are generally neutral. • In recent years there has been an increase in TDS variability. This is likely to be a result of an aging multiprobe (measures TDS). A new multiprobe was purchased in January 2026. Future groundwater monitoring will verify if the new probe reduces the variability.
Na	Chart 13	• Na measurements in 2025 ranged between 125mg/L to 171 mg/L. • The long-term trends are generally neutral. • There is little difference between Na concentrations before and after the EP commissioning.
Fe	Chart 14	• Fe measurements in 2025 ranged from 0.09 mg/L to 0.2 mg/L. • The long-term trends are generally neutral to slightly reducing. • There is little difference between Fe concentrations before and after the EP commissioning.
Conclusion		• If the event of a significant EP leak, an increase in SWL, pH, TDS, Na and/or Fe would likely be detected in nearby bores. Based on the above assessment of EP key indicators, this is not evident during the reporting period. • An assessment of the remaining 2025 analytes against historical minimum and maximum concentrations was completed (presented in Appendix 1B). Most results remain within historical ranges. Some spikes have been recorded; however, these are isolated and return to normal ranges.

6.3 Landfill bores (MB06-MB09)

Works Approval W5837/2015/1 commitments required NTU to install three monitoring bores and collect a single set of baseline monitoring samples prior to commissioning the landfill. NTU installed four monitoring bores (MB06, MB07, MB08 and MB09) (Figure 3) and completed the baseline sampling in April 2017.

The landfill was used during the reporting period. No liquid waste is permitted to be disposed of into the landfill. The 2025 groundwater quality analytical tables are provided in Appendix 1C.

Charts present a long-term dataset to allow for detection of significant or meaningful changes in water quality over time. The following lists landfill key indicator charts presented. Table 8 provides an assessment of landfill monitoring bore analytical results.

Landfill Key Indicators	Chart
SWL	Chart 15
pH	Chart 16
TDS	Chart 17
Zn	Chart 18
TRH (>C10-C40)	Chart 19
P	Chart 20

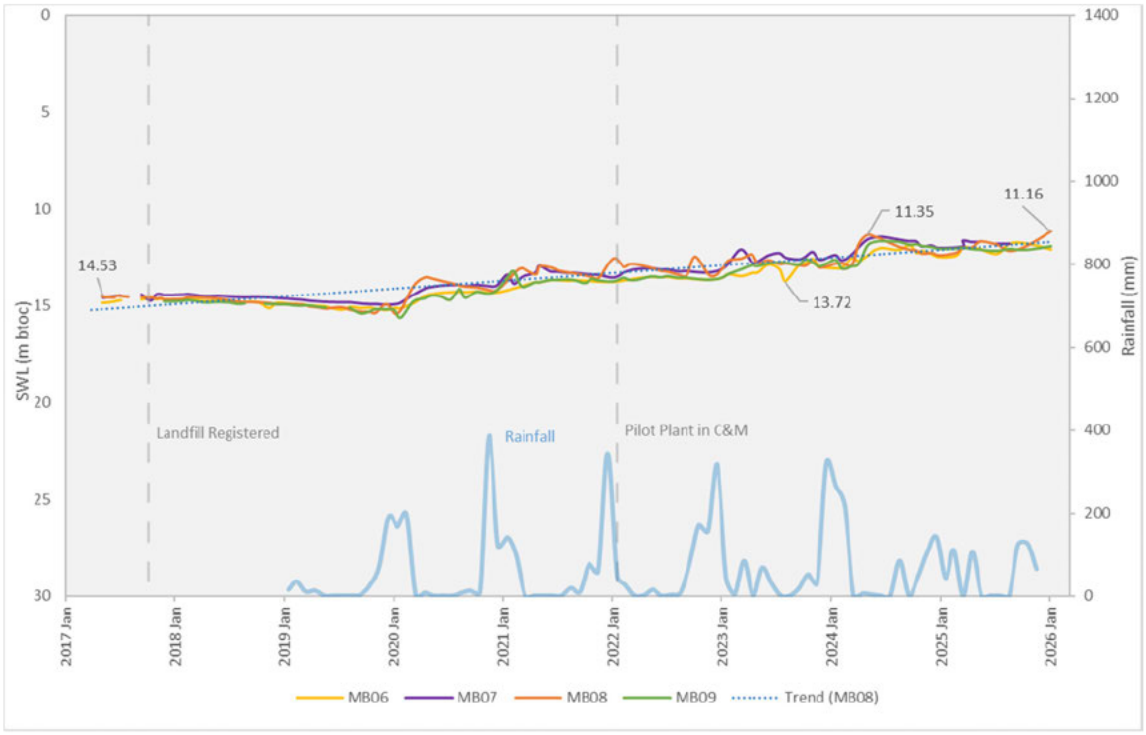


Chart 15: Landfill monitoring bores (MB06-MB09) – SWL

Chart 16: Landfill monitoring bores (MB06-MB09) – pH

Chart 17: Landfill monitoring bores (MB06-MB09) – TDS

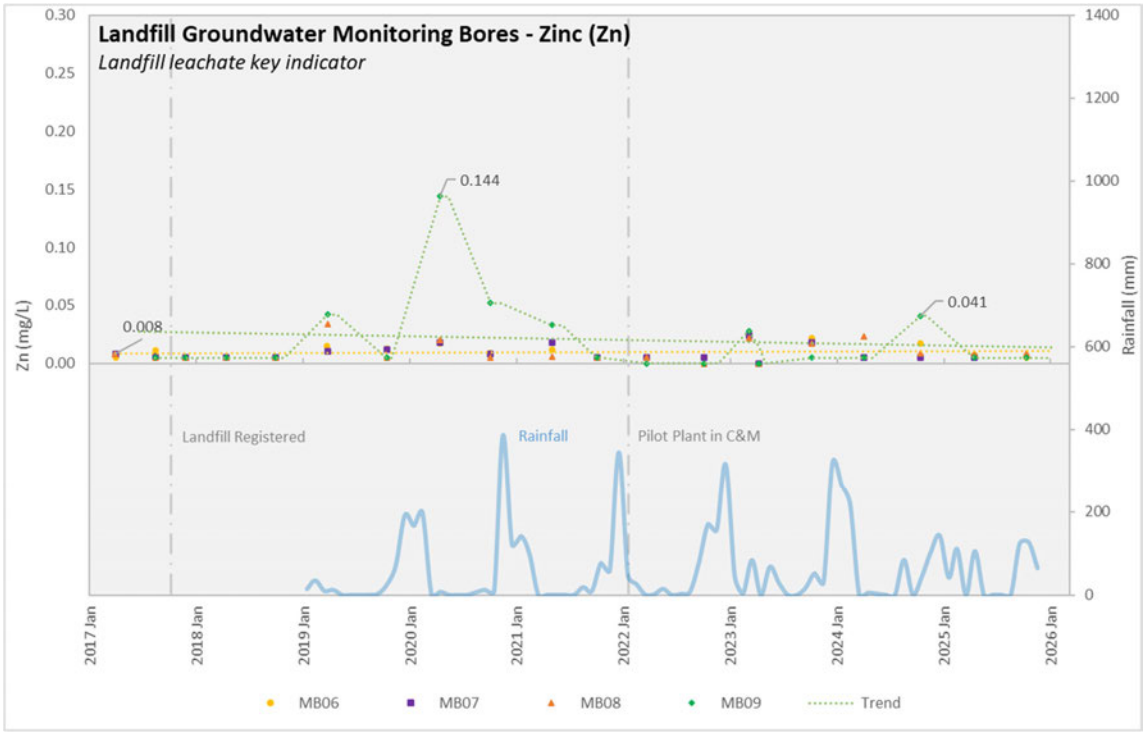


Chart 18: Landfill monitoring bores (MB06-MB09) – Zn

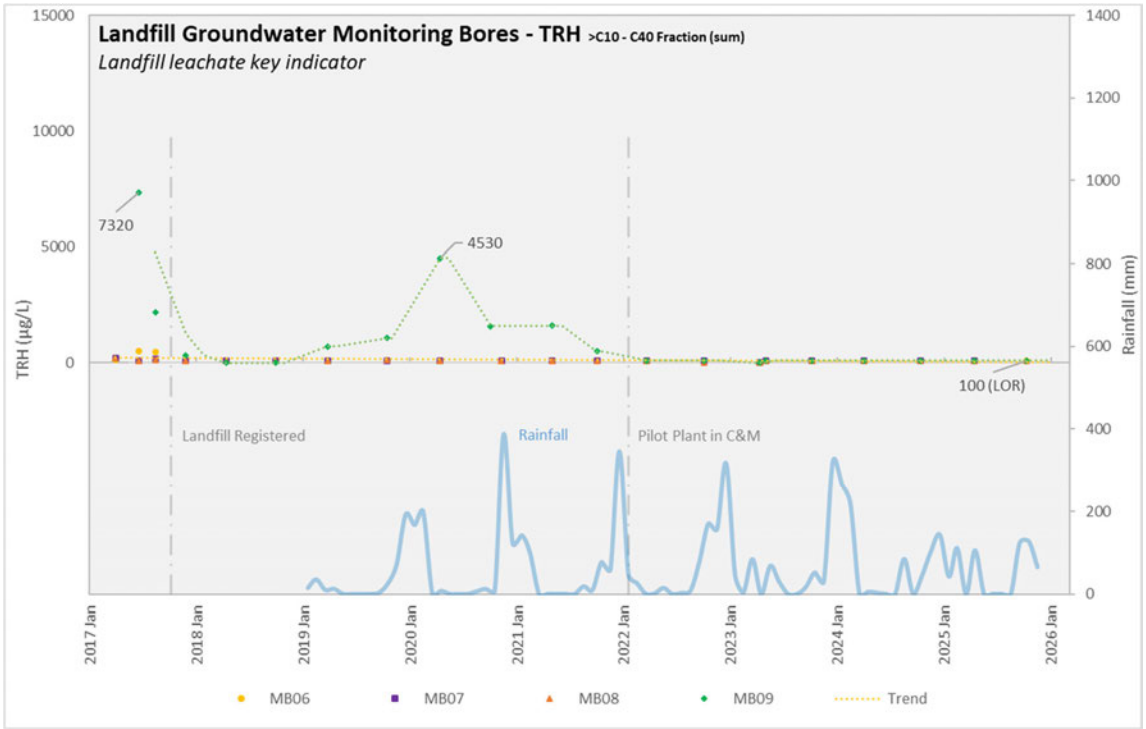


Chart 19: Landfill monitoring bores (MB06-MB09) – TRH

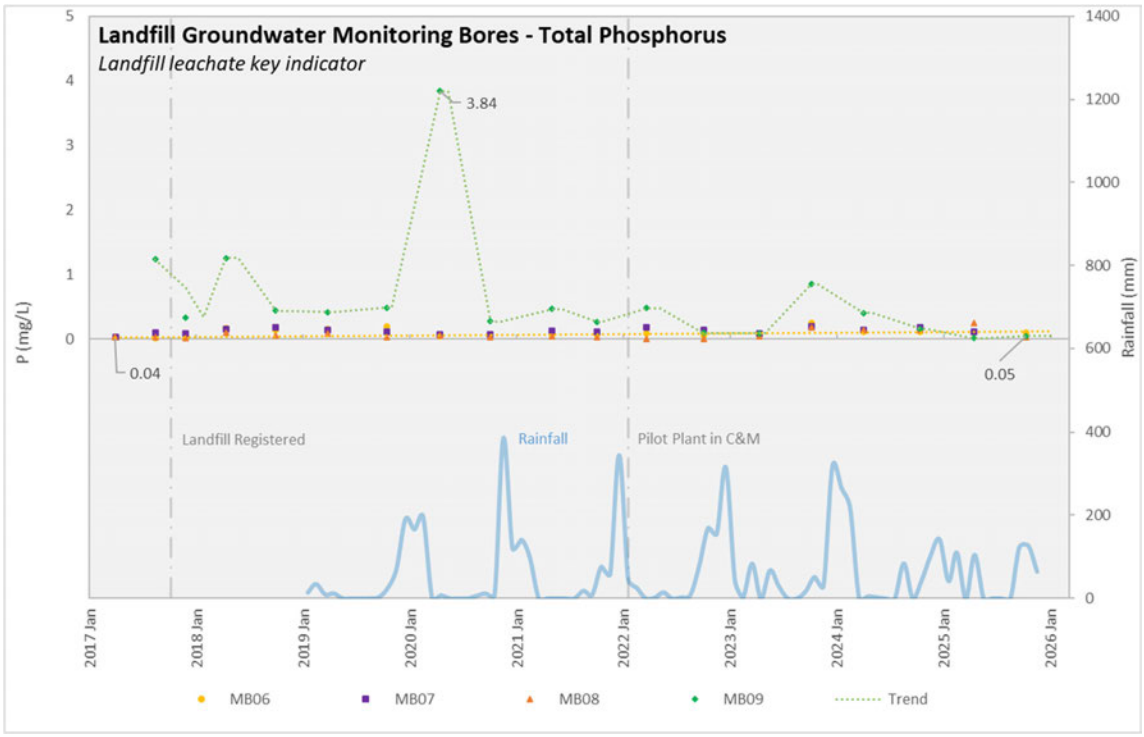


Chart 20: Landfill monitoring bores (MB06-MB09) – Total P

Table 8: Landfill Monitoring Bores – Assessment of Analytical Results

Key Indicator		Summary
SWL	Chart 15	• SWL's measured in the deep bores have remained steady throughout 2025 (11.16 – 12.26 m btoc). The SWL long term trendlines are slightly increasing. • SWL trendlines across the greater groundwater bore network shows a similar trend (as reported to DWER-Water in the 2025 Annual Groundwater Monitoring Report [GWL177451]). This increase is likely attributed to above average rainfall over the past few years. Chart 4 presents the last six years of annual rainfall totals. Each year exceeds the average annual rainfall of 449 mm (1970 to 2018. Source: SILO climate statistics).
pH	Chart 16	• pH measurements in 2025 ranged between slightly acidic (6.70) to slightly alkaline (8.21) and as a guide, results are within ANZECC Short Term Irrigation guidelines (6.0-8.5). • In recent years there has been an increase in pH variability. This is likely to be a result of an aging multiprobe (measures pH). A new multiprobe was purchased in January 2026. Future groundwater monitoring will verify if the new probe reduces the variability. • The long-term pH trend is neutral to slightly increasing. There is little difference between pH concentrations before and after the landfill registration and operation.
TDS	Chart 17	• TDS measurements in 2025 ranged between 712 mg/L to 2350 mg/L. The long-term TDS trends are generally neutral to slightly reducing. • Measurements from MB06 and MB07 are brackish (>1000 mg/L) in comparison with MB08 and MB09 which is currently freshwater (<1000 mg/L). This is likely due to variability in groundwater conditions as the difference is consistent since 2018 and also apparent prior to the landfill registration and operation. • In recent years there has been an increase in TDS variability. This is likely to be a result of an aging multiprobe (measures TDS). A new multiprobe was purchased in January 2026. Future groundwater monitoring will verify if the new probe reduces the variability.
Zn	Chart 18	• Zn measurements in 2025 ranged at or marginally above LOR (<0.005 mg/L). The long-term trends are generally neutral to reducing. • There is little difference between 2025 Zn concentrations and concentrations before the landfill registration. • Its noted in 2020 to 2021, Zn concentrations were elevated (up to 0.144 mg/L) at MB09 (vs 0.02 mg/L recorded in other bores). This 'spike' returned to near LOR concentrations (<0.005 mg/L) in 2022. A similar spike occurred around the same time for a few other analytes (i.e. Total P and TRH $^{>C10-40}$). The cause of the spike is unknown, however as the contractions increased and decreased relatively quickly, the source was short lived and not reflective of longer-term gross impact. Based on these characteristics, the source could have been from bore contamination during sampling.
TRH ($^{>C10-40}$)	Chart 19	• TRH $^{>C10-40}$ measurements since 2022 have remained at laboratory LOR (<100 µg/L). The long-term trends are neutral. • It's noted at MB09, TRH concentrations were detected prior to the landfill registration/operation and in 2020 to 2021. Like the Zn spike (discussed above), the cause is unknown. As TRH was detected before the landfill operation and shortly after the bore installation, it's possible the bore was contaminated with TRH during the bore installation. However, since 2022 TRH has bioremediated/naturally attenuated and no longer is detected.
Total P	Chart 20	• Total P measurements in 2025 ranged marginally above laboratory LOR (<0.001 mg/L). The long-term trends are generally neutral to reducing. • It's noted at MB09, Total P concentrations were detected prior to the landfill registration/operation and in 2020. Like the Zn and TRH spikes (discussed above), the cause is unknown. As Total P was detected before the landfill operation and shortly after the bore installation, it's possible the bore was contaminated during the bore installation. Total P at MB09 has reduced to marginal concentrations above laboratory LOR in 2025.
Conclusion		• If the event of the landfill generating leachate at concentrations which could cause a significant groundwater plume, a prolonged and significant change in pH, TDS, Zn, TRH and /or Total P would likely be detected in nearby bores. Based on the above assessment of key indicators, this is not evident during the reporting period. • An assessment of the remaining 2025 analytes against historical minimum and maximum concentrations was completed (presented in Appendix 1C). Most results remain within historical ranges. Some spikes have been recorded; however, these are isolated and return to normal ranges.

7.0 Beneficiation and Hydrometallurgical Event Ponds

As per Licence L9009/2016/1 - Condition 22 - Table 13 (Event Ponds water quality), NTU is required to sample the HDPE-lined Beneficiation and Hydrometallurgical Event Ponds under a wide range of scenarios. Condition 22 - Table 13 requirements and completed sampling are summarised in Table 9**Error! Reference source not found.**.

The Event Ponds were pumped down to as low as possible in November 2024 and November 2025 to maximise holding capacity as part of wet season preparations. During the 2025 reporting period:

- No water from Event Ponds was used for dust suppression.
- No water from the Event Ponds overflowed.

Table 9: Summary of Event Ponds Sampling Requirements.

L9009/2016/1 - Condition 22 - Table 13 Commitments	Relevance to 2025 Sample Program
1. **Sample at least monthly during:** a. **the wet season; and**	**Yes** - Sampled Jan 2025. - Dry/insufficient water from Feb to Nov 2025. - Sampled Nov and Dec 2025.
b. **dust suppression activities, if Event Pond water is utilised for dust suppression as determined by condition 6.**	**NA** No Event Ponds water in 2025 was used for dust depression
2. **Sample at least once prior to disposal to the Gambit WRL / ROM SRP as determined by condition 6.**	**NA** No water from the event ponds overflowed.
3. **Sample each Event Pond once during the wet season when capacity first reaches at least 80 per cent (if safe and practicable).**	**Yes** Sampled Nov 2025
4. **Within six hours of discharge commencing, sample once at one sampling point which is located downstream of the event pond spillway but upstream of the Gambit WRL / ROM Sediment Retention Pond (if safe and practicable).**	**NA** (as item 2)
5. **Sample at least daily for the duration of the discharge event at a sample point located downstream of the event pond spillway but upstream of the Gambit WRL / ROM Sediment Retention Pond (if safe and practicable).**	**NA** (as item 2)
6. **Samples must be taken monthly during the wet season.**	**Yes** (as item 1a)
7. **Samples must be taken monthly during dust suppression activities, if Event Pond water is utilised for dust suppression (as determined by condition 6).**	**NA** (as item 1b)
8. **Samples must be taken within 72 hours prior to each disposal event to the Gambit WRL / ROM Sediment Retention Pond as determined by condition 6.**	**NA** (as item 2)

Event Pond water analytical results tables are provided in Appendix 2A (Bene Event Pond) and Appendix 2B (Hydro Event Pond). An assessment of the results is not triggered as there was no release of water to the environment from the Event Ponds. Laboratory reports and CoC are available on request.

8.0 Vegetation Condition Monitoring

As per Licence L9009/2016/1 - Condition 24 - Table 15, the Project is required to monitor vegetation within 100 m of the Gambit WRL and ROM SRP spillway discharge point. The 2022 programme represented the baseline photo-monitoring with four sites established on the 2 April 2022 in upstream and downstream locations of the Gambit WRL and ROM SRP spillway discharge point (Figure 3).

Vegetation photo-monitoring was completed by NTU Superintendent - Environmental Compliance in April 2025. The assessment concluded "Vegetation is denser (since the last assessment in April 2024) with no significant signs of stress or death. There is no evidence to suggest Gambit WRL / ROM Sediment Retention Pond spillway discharge releases are causing detriment to the monitored vegetation". The assessment is provided in Appendix 3.

9.0 Complaints Summary

No complaints relating to the License were received during the 2025 reporting period.

10.0 Licence Review and Annual Audit Compliance Report

NTU completed a 2025 internal review of compliance against Licence L9009/2016/01 conditions. A copy of the 2025 internal audit is provided in Appendix 4 and the associated 2025 AACR presented as Appendix 5.

Overall, NTU's 2025 compliance with L9009/2016/01 conditions was high. In summary:

Conditions	%	Count
Compliant	78.8%	26
Not Compliant	12.1%	4
Not Applicable	9.1%	3
	100%	33

Three (3) non-compliances with L9009/2016/1 conditions were identified. No non-compliances are considered to have caused material or significant environmental impact. The non compliances are summarised below.

1. Landfill Fire	• An unplanned fire occurred in the landfill cell on 25 August 2025. • The fire was relatively small and quickly extinguished. • There was no danger or damage caused by the fire. • The fire didn't extend beyond the landfill cell. • The fire was extinguished by smothering with a load of sand. • There was no observed impact to fauna, vegetation or infrastructure.
2. Inappropriate disposal liquid waste	• On 28 April 2025, approximately 2kL of drillers liquid waste liquid was disposed of in the TSF which isn't permitted under L9009/2016/1. • Based on the SDS and product information, the fluid is mostly inert (water, rock) with some driller fluid which appears to be non-hazardous. • The fluid is unlikely to pose a risk to the TSF integrity (liner) or be incompatible with the permitted wastes placed in the TSF. Therefore, the actual risk to TSF infrastructure or the environment is low to nil.

3. Monitoring Water	• 99% of surface water and groundwater monitoring was completed.
	• 1324 parameters were required to be tested:
	  ○ 1321 analytes were tested
	  ○ 3 analyte tests not completed / accidently missed.
	• NTU appreciate a compliance assessment of 100% completion is required to confirm compliance. Whilst NTU consider 99% compliance sufficient to confirm compliance; to be transparent this has been reported as a non-compliance.
	• NTU contacted DWER regarding reporting of these minor nonconformances. DWER responded (email 30/03/2026, DWER Jarrod Abrahams) "Please continue to flag non-compliances with monitoring requirements as part of completing and submitting your annual reports

	(AER/AACR's). While the compliance matters appear to be minor, technically they should be flagged."

Each incident has been investigated and corrective/preventative actions raised to minimise the chance of reoccurrence. Further detail of corrective and/or preventative actions allocated to each non-conformance is provided in Appendix 6: AACR.

11.0 Third party monitoring report

Monitoring was completed in-house in 2025 except for the TSF Water Balance which was completed by Knight Pieshold. The report is available on request, in accordance with condition 31(b).

Appendix 1A

TSF monitoring bores – analytical results 2025

(MB01S, MB01D, MB02S, MB02D, MB03S and MB03D)

NORTHERN MINERALS

Monitoring Bore: MB01S
TSF

Analyte		Units	LOR	2025
Field paramaters	Standing Water Level (SWL)	mbTOC	0.01	Bore dry since 26/06/2017
	Field pH	pH Unit	0.01	
	Field Temp (related to pH probe)	°C	0.0	
	Field EC	µS/cm	1	
	Field ORP	mV	0.01	
	TDS (standard conversion [0.65] from EC)	mg/L	0.1	
	Total Acidity	mg/L		
	Total Alkalinity	mg/L		
General	Bicarbonate Alkalinity as CaCO3	mg/L	1	
	Total Alkalinity as CaCO3	mg/L	1	
	Total Acidity as CaCO3	mg/L	1	
Major Components	Sulfate as SO4 - Turbidimetric	mg/L	1	
	Chloride	mg/L	1	
	Calcium	mg/L	1	
	Magnesium	mg/L	1	
	Sodium	mg/L	1	
	Potassium	mg/L	1	
Dissolved Metals	Aluminium	mg/L	0.01	
	Arsenic	mg/L	0.001	
	Beryllium	mg/L	0.001	
	Barium	mg/L	0.001	
	Cadmium	mg/L	0.0001	
	Chromium	mg/L	0.001	
	Cobalt	mg/L	0.001	
	Copper	mg/L	0.001	
	Gadolinium	mg/L	0.001	
	Lead	mg/L	0.001	
	Manganese	mg/L	0.001	
	Molybdenum	mg/L	0.001	
	Nickel	mg/L	0.001	
	Thallium	mg/L	0.001	
	Thorium	mg/L	0.001	
	Tin	mg/L	0.001	
	Uranium	mg/L	0.001	
	Vanadium	mg/L	0.01	
	Zinc	mg/L	0.005	
	Boron	mg/L	0.05	
	Iron	mg/L	0.05	
	Mercury	mg/L	0.0001	
	Selenium	µg/L	0.2	

NORTHERN MINERALS

Monitoring Bore: MB01D
TSF

Analyte		Units	LOR	Min (<2025)	Max (<2025)	2025											
						8/01/2025	6/03/2025	30/03/2025	26/04/2025	25/05/2025	22/06/2025	22/07/2025	31/08/2025	28/09/2025	25/10/2025	23/11/2025	21/12/2025
Field parameters	Standing Water Level (SWL) *	mbTOC	0.01	9.78	14.20	10.64	10.37	10.53	10.51	10.53	10.55	10.67	10.83	10.85	10.89	10.89	11.00
	Field pH *	pH Unit	0.01	6.63	7.95	7.74	7.65	7.44	7.21	7.24	7.47	7.43	7.32	7.34	7.31	7.15	7.28
	Field Temp (related to pH probe)	°C	0.0	23.8	42.0		34.5										
	Field EC	µS/cm	1	1429	2157.9	1512	1533	1594	1561	1573	1421	1311	1692	1532	1631	1821	1676
	Field ORP	mV	0.01	-237	138	10.8	-136.5	-119	-145	-133	-136	-101	-69	-73	-63	-73	-77
	TDS (conversion [0.65] from EC) *	mg/L	0.1	928.85	1402.635	983	996	1036	1013	1015	924	852	1114	996	1060	1184	1089
	Total Acidity	mg/L		0	0	ref. laboratory analysis											
	Total Alkalinity	mg/L		25.8	32.9												
General	Bicarbonate Alkalinity as CaCO3	mg/L	1	307	536				434						383		
	Total Alkalinity as CaCO3	mg/L	1	307	536	440	419	anomaly 22	434	435	442	430	402	375	383	398	403
	Total Acidity as CaCO3	mg/L	1	1	39	36	19	3	23	16	41	11	6	16	5	16	*1*
Major Components	Sulfate as SO4 - Turbidimetric	mg/L	1	1	79				2						*1*		
	Chloride	mg/L	1	295	372				349						344		
	Calcium	mg/L	1	28	40				33						31		
	Magnesium	mg/L	1	38	50				42						44		
	Sodium (Na) *	mg/L	1	191	234				222						227		
	Potassium	mg/L	1	53	76				62						64		
Dissolved Metals	Aluminium	mg/L	0.01	0.01	0.06				*0.01*						*0.01*		
	Arsenic	mg/L	0.001	0.001	0.006				0.002						0.002		
	Beryllium	mg/L	0.001	0.001	0.001				*0.001*						*0.001*		
	Barium	mg/L	0.001	0.368	0.685				0.564						0.555		
	Cadmium	mg/L	0.0001	0.0001	0.0001				*0.0001*						*0.0001*		
	Chromium	mg/L	0.001	0.001	0.001				*0.001*						*0.001*		
	Cobalt	mg/L	0.001	0.001	0.001				*0.001*						*0.001*		
	Copper	mg/L	0.001	0.001	0.001				*0.001*						*0.001*		
	Gadolinium (Gd) *	mg/L	0.001	0.001	0.001				*0.001*						*0.001*		
	Lead	mg/L	0.001	0.001	0.001				*0.001*						*0.001*		
	Nickel	mg/L	0.001	0.106	1.02				0.095						0.081		
	Nickel	mg/L	0.001	0.001	0.004				0.002						0.003		
	Nickel	mg/L	0.001	0.001	0.005				*0.001*						*0.001*		
	Thallium	mg/L	0.001	0.001	0.001				*0.001*						*0.001*		
	Thorium	mg/L	0.001	0.001	0.001				*0.001*						*0.001*		
	Tin	mg/L	0.001	0.001	0.001				*0.001*						*0.001*		
	Uranium	mg/L	0.001	0.001	0.001				*0.001*						*0.001*		
	Vanadium	mg/L	0.01	0.01	0.01				*0.01*						*0.001*		
	Zinc	mg/L	0.005	0.005	0.026				*0.005*						*0.005*		
	Boron	mg/L	0.05	0.71	0.93				0.89						0.72		
	Iron (Fe) *	mg/L	0.05	0.05	2.76				*0.05*						*0.05*		
	Mercury	mg/L	0.0001	0.000005	0.011				*0.0001*						*0.0001*		
	Selenium	µg/L	0.2	0.01	0.2				*0.2*						*0.01*		

Legend

L9009-2016-1 monitoring commitment - met (feature included from 2022)

L9009-2016-1 monitoring commitment - not met (feature included from 2022)

Anomaly (Justification in cell comment. Value removed to allow to be graphed)

Grey and italic *LOR (< removed to allow to be graphed)*

* *Tailings leachate key indicator (graphed): Process additive - Soda Ash (Na) Ferric Sulfate (Fe). Rare Earth*

NORTHERN MINERALS

Monitoring Bore: MB02S
TSF

Analyte		Units	LOR	2025
Field Paramaters	Standing Water Level (SWL) *	mbTOC	0.01	DRY
	Field pH *	pH Unit	0.01	
	Field Temp (related to pH probe)	°C	0.01	
	Field EC	µS/cm	1	
	Field ORP	mV	0.01	
	TDS (conversion [0.65] from EC) *	mg/L	0.1	
Major Components	Bicarbonate Alkalinity as CaCO3	mg/L	1	
	Sulfate as SO4 - Turbidimetric	mg/L	1	
	Chloride	mg/L	1	
	Calcium	mg/L	1	
	Magnesium	mg/L	1	
	Sodium (Na) *	mg/L	1	
	Potassium	mg/L	1	
Dissolved Metals	Aluminium	mg/L	0.01	
	Arsenic	mg/L	0.001	
	Beryllium	mg/L	0.001	
	Barium	mg/L	0.001	
	Cadmium	mg/L	0.0001	
	Chromium	mg/L	0.001	
	Cobalt	mg/L	0.001	
	Copper	mg/L	0.001	
	Gadolinium (Gd) *	mg/L	0.001	
	Lead	mg/L	0.001	
	Manganese	mg/L	0.001	
	Molybdenum	mg/L	0.001	
	Nickel	mg/L	0.001	
	Thallium	mg/L	0.001	
	Thorium	mg/L	0.001	
	Tin	mg/L	0.001	
	Uranium	mg/L	0.001	
	Vanadium	mg/L	0.01	
	Zinc	mg/L	0.005	
	Boron	mg/L	0.05	
	Iron (Fe) *	mg/L	0.05	
	Mercury	mg/L	0.0001	
	Selenium	µg/L	0.2	

NORTHERN MINERALS

Monitoring Bore: MB02D
TSF

Analyte		Units	LOR	Min (<2025)	Max (<2025)	2025											
						8/01/2025	6/03/2025	30/03/2025	26/04/2025	25/05/2025	22/06/2025	22/07/2025	31/08/2025	28/09/2025	25/10/2025	23/11/2025	21/12/2025
Field Parameters	Standing Water Level (SWL) *	mbTOC	0.01	14.52	16.89	14.58	14.57	14.09	14.12	14.13	14.16	14.05	14.04	14.09	14.11	14.13	13.95
	Field pH *	pH Unit	0.01	6.38	8.08	6.85	7.35	7.42	6.51	6.63	6.73	6.79	6.68	6.62	6.73	7.11	7.05
	Field EC	µS/cm	1	418	912	718	710	737	800	790	823	821	815	839	861	873	715
	Field ORP	mV	0	-167	140	-31.9	18	-118	-108	-100	-99	-88	-34	-11	-1	-12	-24
	TDS (conversion [0.65] from EC) *	mg/L	0.1	271.7	592.8	466.7	461.5	479	505	501	534.95	533.65	520	545.35	559.65	567.45	464.75
	Total Acidity	mg/L		0	0	ref. laboratory analysis											
	Total Alkalinity	mg/L		0.0	0.0												
General	Bicarbonate Alkalinity as CaCO3	mg/L	1	211	282				258						235		
	Total Alkalinity as CaCO3	mg/L	1	211	285	260	260	250	258	254	265	251	240	242	235	240	249
	Total Acidity as CaCO3	mg/L	1	1	30	24	13	4	14	10	28	9	5	14	4	12	*1*
Major Components	Sulfate as SO4 - Turbidimetric	mg/L	1	2	16				*1*						4		
	Chloride	mg/L	1	61	81				64						62		
	Calcium	mg/L	1	11	22				18						18		
	Magnesium	mg/L	1	14	24				18						19		
	Sodium (Na) *	mg/L	1	79	120				91						95		
	Potassium	mg/L	1	0.4	32				23						23		
	Fluoride	mg/L	0.1	0.4	24												
Dissolved Metals	Aluminium	mg/L	0.01	0.01	0.1				*0.01*						*0.01*		
	Arsenic	mg/L	0.001	0.002	0.004				0.001						0.002		
	Barium	mg/L	0.001	0.299	0.422				*0.001*						0.341		
	Beryllium	mg/L	0.001	0.001	0.001				0.338						*0.001*		
	Cadmium	mg/L	0.001	0.0001	0.0001				*0.0001*						*0.0001*		
	Chromium	mg/L	0.001	0.001	0.002				*0.001*						*0.001*		
	Cobalt	mg/L	0.001	0.001	0.001				*0.001*						*0.001*		
	Copper	mg/L	0.001	0.001	0.007				*0.001*						*0.001*		
	Gadolinium (Gd) *	mg/L	0.001	0.001	0.001				*0.001*						*0.001*		
	Lead	mg/L	0.001	0.001	0.001				*0.001*						*0.001*		
	Manganese	mg/L	0.001	0.992	1.6				1.00						0.943		
	Molybdenum	mg/L	0.001	0.001	0.004				0.002						0.001		
	Nickel	mg/L	0.001	0.001	0.009				*0.001*						*0.001*		
	Selenium	µg/L	0.2	0.01	0.2				*0.2*						*0.01*		
	Thorium	mg/L	0.001	0.001	0.001				*0.001*						*0.001*		
	Thallium	mg/L	0.001	0.001	0.001				*0.001*						*0.001*		
	Tin	mg/L	0.001	0.001	0.002				*0.001*						*0.001*		
	Uranium	mg/L	0.001	0.001	0.001				*0.001*						*0.001*		
	Vanadium	mg/L	0.01	0.01	0.01				*0.01*						*0.01*		
	Zinc	mg/L	0.005	0.005	0.025				*0.005*						*0.005*		
	Boron	mg/L	0.05	0.36	0.51				0.49						0.38		
	Iron (Fe) *	mg/L	0.05	0.05	2.05				0.05						*0.05*		
	Mercury	mg/L	0.00001	0.000005	0.005				*0.0001*						*0.0001*		

Legend

	L9009-2016-1 monitoring commitment - met (feature included from 2022)
	L9009-2016-1 monitoring commitment - not met (feature included from 2022)
	Anomaly (Justification in cell comment. Value removed to allow to be graphed)
Grey and italic	*LOR (< removed to allow to be graphed)*
*	*Tailings leachate key indicator (graphed): Process additive - Soda Ash (Na) Ferric Sulfate (Fe). Rare Earth (Gd).*

NORTHERN MINERALS

Monitoring Bore: MB03S
TSF

				2025											
Analyte		Units	LOR	8/01/2025	6/03/2025	30/03/2025	26/04/2025	25/05/2025	22/06/2025	22/07/2025	31/08/2025	28/09/2025	25/10/2025	23/11/2025	21/12/2025
Field Parameters	Standing Water Level (SWL) *	mbTOC	0.01	5.70	anomaly 9.29	5.63	Blocked	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry
	Field pH *	pH Unit	0.01	7.64	7.52	6.59									
	Field EC	µS/cm	1	83.1	76.7	143									
	Field ORP	mV	0.01	16.6	42.8	127									
	TDS (conversion [0.65] from EC) *	mg/L	0.1	54	50	96									
	Total Acidity	mg/L		ref. laboratory analysis											
	Total Alkalinity	mg/L													
General	Total Alkalinity as CaCO3	mg/L	1	40	33	42									
	Acidity as CaCO3	mg/L	1	19	16	5									
	Sulfate as SO4 - Turbidimetric	mg/L	1												
Major Components	Chloride	mg/L	1												
	Calcium	mg/L	1												
	Magnesium	mg/L	1												
	Sodium (Na) *	mg/L	1												
	Potassium	mg/L	1												
	Fluoride	mg/L	0.1												
Dissolved Metals	Aluminium	mg/L	0.01												
	Arsenic	mg/L	0.001												
	Beryllium	mg/L	0.001												
	Barium	mg/L	0.001												
	Cadmium	mg/L	0.0001												
	Cerium	mg/L	0.001												
	Chromium	mg/L	0.001												
	Cobalt	mg/L	0.001												
	Copper	mg/L	0.001												
	Gadolinium (Gd) *	mg/L	0.001												
	Lead	mg/L	0.001												
	Manganese	mg/L	0.001												
	Molybdenum	mg/L	0.001												
	Nickel	mg/L	0.001												
	Selenium	µg/L	0.2												
	Thorium	mg/L	0.001												
	Tin	mg/L	0.001												
	Uranium	mg/L	0.001												
	Vanadium	mg/L	0.01												
	Zinc	mg/L	0.005												
	Boron	mg/L	0.05												
	Iron (Fe) *	mg/L	0.05												
	Mercury	mg/L	0.0001												

Legend

	L9009-2016-1 monitoring commitment - met (feature included from 2022)
	L9009-2016-1 monitoring commitment - not met (feature included from 2022)
	Anomaly (Justification in cell comment. Value removed to allow to be graphed)
Grey and italic	*LOR (< removed to allow to be graphed)*
*	*Tailings leachate key indicator (graphed): Process additive - Soda Ash (Na) Ferric Sulfate (Fe). Rare Earth*

NORTHERN MINERALS

Monitoring Bore: MB03D
TSF

Analyte		Units	LOR	Min (<2025)	Max (<2025)	2025											
						8/01/2025	6/03/2025	30/03/2025	26/04/2025	25/05/2025	22/06/2025	22/07/2025	31/08/2025	28/09/2025	25/10/2025	23/11/2025	21/12/2025
Field Paramaters	Standing Water Level (SWL) *	mbTOC	0.01	14.51	19.51	14.52	14.44	14.21	14.24	14.26	14.29	14.17	14.20	14.24	14.26	14.25	14.11
	Field pH *	pH Unit	0.01	6.42	8.15	7.56	7.76	7.45	7.91	7.93	7.99	7.63	7.40	7.43	7.91	7.63	7.05
	Field EC	µS/cm	1	447	1072	601	673	800	755	757	692	633	789	813	873	862	764
	Field ORP	mV	0.01	-141	226	86.2	78.6	116	98	103	103	107	63	67	73	62	61
	TDS (conversion [0.65] from EC) *	mg/L	0.1	290.55	696.8	390.65	437.45	530	484	481	449.8	411.45	522	528.45	567.45	560.3	496.6
	Total Acidity	mg/L		0	0	ref. laboratory analysis											
	Total Alkalinity	mg/L		0	0												
General	Bicarbonate Alkalinity as CaCO3	mg/L	1	1	248				394						201		
	Total Alkalinity as CaCO3	mg/L	1	174	253	209	203	201	394	210	214	207	200	194	201	193	297
	Total Acidity as CaCO3	mg/L	1	0.8	19	17	11	3	14	8	19	8	2	11	3	8	*1*
Major Components	Sulfate as SO4 - Turbidimetric	mg/L	1	1	12				*1*						11		
	Chloride	mg/L	1	75	112				187						85		
	Calcium	mg/L	1	11	18				15						15		
	Magnesium	mg/L	1	13	19				22						16		
	Sodium (Na) *	mg/L	1	83	100										103		
	Potassium	mg/L	1	17	29				48						25		
	Fluoride	mg/L	0.1	0.6	29												
Dissolved Metals	Aluminium	mg/L	0.01	0.01	0.11				*0.01*						*0.01*		
	Arsenic	mg/L	0.001	0.001	0.009				0.006						0.002		
	Barium	mg/L	0.001	0.374	0.96				0.464						0.426		
	Beryllium	mg/L	0.001	0.001	0.001				*0.001*						*0.001*		
	Cadmium	mg/L	0.0001	0.0001	0.0001				*0.0001*						*0.0001*		
	Chromium	mg/L	0.001	0.001	0.001				*0.001*						*0.001*		
	Cobalt	mg/L	0.001	0.001	0.001				*0.001*						*0.001*		
	Copper	mg/L	0.001	0.001	0.002				*0.001*						*0.001*		
	Gadolinium (Gd) *	mg/L	0.001	0.001	0.001				*0.001*						*0.001*		
	Lead	mg/L	0.001	0.001	0.001				*0.001*						*0.001*		
	Manganese	mg/L	0.001	0.003	0.452				0.024						*0.001*		
	Molybdenum	mg/L	0.001	0.002	0.004				0.009						0.002		
	Nickel	mg/L	0.001	0.001	0.004				0.098						*0.001*		
	Selenium	µg/L	0.2	0.01	0.6				*0.2*						*0.01*		
	Thallium	mg/L	0.001	0.001	0.001				*0.001*						*0.001*		
	Thorium	mg/L	0.001	0.001	0.001				*0.001*						*0.001*		
	Tin	mg/L	0.001	0.001	0.002				*0.001*						*0.001*		
	Uranium	mg/L	0.001	0.001	0.001				*0.001*						0.002		
	Vanadium	mg/L	0.01	0.01	0.01				*0.01*						0.01		
	Zinc	mg/L	0.005	0.005	0.045				0.012						0.007		
	Boron	mg/L	0.05	0.38	0.55				0.76						0.48		
	Iron (Fe) *	mg/L	0.05	0.05	2.95				0.28						*0.05*		
	Mercury	mg/L	0.00001	0.000005	0.005				*0.0001*						*0.0001*		

Legend

L9009-2016-1 monitoring commitment - met (feature included from 2022)

L9009-2016-1 monitoring commitment - not met (feature included from 2022)

Anomaly (Justification in cell comment. Value removed to allow to be graphed)

Grey and italic — *LOR (< removed to allow to be graphed)*

* *Tailings leachate key indicator (graphed): Process additive - Soda Ash (Na) Ferric Sulfate (Fe). Rare Earth*

Appendix 1B

Evaporation Pond monitoring bores – analytical results 2025

(MB04S, MB04D, MB05S and MB05D)

NORTHERN MINERALS

Monitoring Bore: MB04S
Evaporation Pond

Analyte		Units	LOR	2025
Field Paramater	Standing Water Level (SWL) *	mbTOC	0.01	
	Field pH *	pH Unit	0.01	
	Field EC	µS/cm	1	
	TDS (conversion [0.65] from EC) *	mg/L	0.1	
Major Components	Bicarbonate Alkalinity as CaCO3	mg/L	1	Dry since 26/06/2017
	Sulfate as SO4 - Turbidimetric	mg/L	1	
	Chloride	mg/L	1	
	Calcium	mg/L	1	
	Magnesium	mg/L	1	
	Sodium (Na) *	mg/L	1	
	Potassium	mg/L	1	
Dissolved Metals	Aluminium	mg/L	0.01	
	Arsenic	mg/L	0.001	
	Barium	mg/L	0.001	
	Beryllium	mg/L	0.001	
	Cadmium	mg/L	0.0001	
	Chromium	mg/L	0.001	
	Cobalt	mg/L	0.001	
	Copper	mg/L	0.001	
	Lead	mg/L	0.001	
	Manganese	mg/L	0.001	
	Molybdenum	mg/L	0.001	
	Nickel	mg/L	0.001	
	Thorium	mg/L	0.001	
	Tin	mg/L	0.001	
	Uranium	mg/L	0.001	
	Vanadium	mg/L	0.01	
	Zinc	mg/L	0.005	
	Boron	mg/L	0.05	
	Iron *	mg/L	0.05	

NORTHERN MINERALS

Monitoring Bore: MB04D
Evaporation Pond

Analyte		Units	LOR	Min (<2025)	Max (<2025)	2025											
						8/01/2025	6/03/2025	30/03/2025	28/04/2025	25/05/2025	22/06/2025	20/07/2025	31/08/2025	28/09/2025	25/10/2025	23/11/2025	21/12/2025
Field Paramater	Standing Water Level (SWL) *	mbTOC	0.01	15.50	20.26	16.31	anomany 10.25	15.81	15.64	15.67	15.66	15.72	15.83	15.43	15.91	15.94	15.62
	Field pH *	pH Unit	0.01	6.53	7.61	7.59	8.07	7.29	7.80	7.73	7.73	7.84	7.36	7.39	7.46	7.21	7.03
	Field EC	µS/cm	1	751	1487	1077.00	1135.00										
	TDS (conversion [0.65] from EC) *	mg/L	0.1	488.15	966.225	700.05	737.75	856.00	742.00	729.00	749.00	756.00	835.00	873.00	881.00	863.00	841.00
Major Components	Bicarbonate Alkalinity as CaCO3	mg/L	1	372	432				274.00						264.00		
	Sulfate as SO4 - Turbidimetric	mg/L	1	1	4				8.00						3.00		
	Chloride	mg/L	1	161	208				152.00						147.00		
	Calcium	mg/L	1	12	18				16.00						13.00		
	Magnesium	mg/L	1	18	30				2.00						18.00		
	Sodium (Na) *	mg/L	1	145	203				125.00						172.00		
	Potassium	mg/L	1	0.6	60				41.00						16.00		
Dissolved Metals	Aluminium	mg/L	0.01	0.01	0.05				*0.010*						*0.010*		
	Arsenic	mg/L	0.001	0.005	0.009				0.002						0.002		
	Barium	mg/L	0.001	0.368	0.581				0.429						0.224		
	Beryllium	mg/L	0.001	0.001	0.001				*0.001*						*0.001*		
	Cadmium	mg/L	0.0001	0.0001	0.0001				*0.000*						*0.000*		
	Chromium	mg/L	0.001	0.001	0.001				*0.001*						*0.001*		
	Cobalt	mg/L	0.001	0.001	0.003				*0.001*						*0.001*		
	Copper	mg/L	0.001	0.001	0.001				*0.001*						*0.001*		
	Lead	mg/L	0.001	0.001	0.001				*0.001*						*0.001*		
	Manganese	mg/L	0.001	0.023	0.136				*0.001*						0.202		
	Molybdenum	mg/L	0.001	0.002	0.007				0.002						0.003		
	Nickel	mg/L	0.001	0.01	0.085				*0.001*						*0.001*		
	Thorium	mg/L	0.001	0.001	0.001				*0.001*						*0.001*		
	Tin	mg/L	0.001	0.001	0.001				*0.001*						*0.001*		
	Uranium	mg/L	0.001	0.001	0.001				0.001						*0.001*		
	Vanadium	mg/L	0.01	0.01	0.01				0.010						*0.010*		
	Zinc	mg/L	0.005	0.005	0.021				0.008						*0.005*		
	Boron	mg/L	0.05	0.42	0.76				0.470						0.470		
	Iron *	mg/L	0.05	0.07	3.28				*0.050*						0.140		

Legend

L9009-2016-1 monitoring commitment - met (feature included from 2022)

L9009-2016-1 monitoring commitment - not met (feature included from 2022)

Anomaly (Justification in cell comment. Value removed to allow to be graphed)

Grey and italic — *LOR (< removed to allow to be graphed)*

* — *Pond leak key indicator (graphed): Process additive - Soda Ash (Na) Ferric Sulfate (Fe).*

NORTHERN MINERALS

Monitoring Bore: MB05S
Evaporation Pond

Analyte		Units	LOR	2025
Field Paramater	Standing Water Level (SWL) *	mbTOC	0.01	
	Field pH *	pH Unit	0.01	
	Field EC	µS/cm	1	
	TDS (conversion [0.65] from EC) *	mg/L	0.1	
Major Components	Bicarbonate Alkalinity as CaCO3	mg/L	1	Dry since 18/05/2017
	Sulfate as SO4 - Turbidimetric	mg/L	1	
	Chloride	mg/L	1	
	Calcium	mg/L	1	
	Magnesium	mg/L	1	
	Sodium (Na) *	mg/L	1	
	Potassium	mg/L	1	
Dissolved Metals	Aluminium	mg/L	0.01	
	Arsenic	mg/L	0.001	
	Barium	mg/L	0.001	
	Beryllium	mg/L	0.001	
	Cadmium	mg/L	0.0001	
	Chromium	mg/L	0.001	
	Cobalt	mg/L	0.001	
	Copper	mg/L	0.001	
	Lead	mg/L	0.001	
	Manganese	mg/L	0.001	
	Molybdenum	mg/L	0.001	
	Nickel	mg/L	0.001	
	Thorium	mg/L	0.001	
	Tin	mg/L	0.001	
	Uranium	mg/L	0.001	
	Vanadium	mg/L	0.01	
	Zinc	mg/L	0.005	
	Boron	mg/L	0.05	
	Iron *	mg/L	0.05	

NORTHERN MINERALS

Monitoring Bore: MB05D
Evaporation Pond

Analyte		Units	LOR	Min (<2025)	Max (<2025)	2025											
						8/01/2025	6/03/2025	30/03/2025	28/04/2025	25/05/2025	22/06/2025	20/07/2025	31/08/2025	28/09/2025	25/10/2025	23/11/2025	21/12/2025
Field Paramaters	Standing Water Level (SWL) *	mbTOC	0.01	19.96	24.31	20.35	20.35	20.00	20.04	20.04	20.09	20.15	20.03	20.07	20.13	20.14	20.17
	Field pH *	pH Unit	0.01	6.22	7.63	7.73	7.99	6.70	7.70	7.73	7.43	7.65	7.69	7.71	7.63	7.43	7.16
	Field EC	µS/cm	1	574	1270	886	882										
	TDS (conversion [0.65] from EC) *	mg/L	0.1	546	825.5	575.90	573.30	723.00	593.00	599.00	621.00		712.00	731.00	751.00	757.00	701.00
Major Components	Bicarbonate Alkalinity as CaCO3	mg/L	1	212	349				275						264		
	Sulfate as SO4 - Turbidimetric	mg/L	1	1	30				5						4		
	Chloride	mg/L	1	150	184				172						149		
	Calcium	mg/L	1	12	16				13						12		
	Magnesium	mg/L	1	14	24				17						18		
	Sodium (Na) *	mg/L	1	149	173				163						171		
	Fluoride	mg/L	0.1	0.8	1												
	Potassium	mg/L	1	11	36				16						16		
Dissolved Metals	Aluminium	mg/L	0.01	0.01	0.04				*0.01*						*0.01*		
	Arsenic	mg/L	0.001	0.001	0.006				0.002						0.002		
	Barium	mg/L	0.001	0.124	0.328				0.217						0.224		
	Beryllium	mg/L	0.001	0.001	0.001				*0.001*						*0.001*		
	Cadmium	mg/L	0.0001	0.0001	0.0001				*0.0001*						*0.0001*		
	Chromium	mg/L	0.001	0.001	0.001				*0.001*						*0.001*		
	Cobalt	mg/L	0.001	0.001	0.001				*0.001*						*0.001*		
	Copper	mg/L	0.001	0.001	0.001				*0.001*						*0.001*		
	Lead	mg/L	0.001	0.001	0.001				*0.001*						*0.001*		
	Manganese	mg/L	0.001	0.224	1.04				0.221						0.202		
	Molybdenum	mg/L	0.001	0.001	0.01				0.003						0.003		
	Nickel	mg/L	0.001	0.001	0.004				0.001						*0.001*		
	Thorium	mg/L	0.001	0.001	0.001				*0.001*						*0.001*		
	Tin	mg/L	0.001	0.001	0.001				*0.001*						*0.001*		
	Uranium	mg/L	0.001	0.001	0.012				*0.001*						*0.001*		
	Vanadium	mg/L	0.01	0.01	0.01				*0.01*						*0.01*		
	Zinc	mg/L	0.005	0.005	0.024				*0.005*						*0.005*		
	Boron	mg/L	0.05	0.41	1.21				0.42						0.47		
	Iron (Fe) *	mg/L	0.05	0.05	2.32				0.2						0.09		

Legend

	L9009-2016-1 monitoring commitment - met (feature included from 2022)
	L9009-2016-1 monitoring commitment - not met (feature included from 2022)
	Anomaly (Justification in cell comment. Value removed to allow to be graphed)
Grey and italic	*LOR (< removed to allow to be graphed)*
*	*Pond leak key indicator (graphed): Process additive - Soda Ash (Na) Ferric Sulfate (Fe).*

Appendix 1C

Landfill monitoring bores – analytical results 2025

(MB06, MB07, MB08 and MB09)

NORTHERN MINERALS

Monitoring Bore: MB06
Landfill

						2025							
Anaylyte		Unit	LoR	Min (<2025)	Max (<2025)	8/01/2025	6/03/2025	30/03/2025	28/04/2025	25/05/2025	20/07/2025	31/08/2025	25/10/2025
Field paramaters	Standing Water Level (SWL) *	mbTOC	0.01	15.2	15.2	12.46	12.40	11.97	12.03	12.04	12.30	11.78	11.76
	Field pH *	pH Unit	0.01	6.21	7.98	7.30	7.83	7.99	7.71	7.63	7.61	7.19	7.23
	Field EC	µS/cm	1	2901	4917.5	3101.00	2731.00	2593.00	3177.00	3021.00	2926.00	3590.00	2910.00
	TDS (conversion [0.65] from EC) *	mg/L	0.1	1885.65	3196.375	2015.65	1775.15	1685.45	2068.00	1963.65	1901.90	2390.00	1891.50
Major Components	Sulfate as SO4 - Turbidimetric	mg/L	1	6	290				238.00				254.00
	Chloride	mg/L	1	745	1060				860.00				871.00
	Potassium	mg/L	1	74	102				93.00				92.00
	Fluoride	mg/L	0.1	0.6	1.4				0.80				0.80
Other Parameters	Biochemical Oxygen Demand	mg/L	2	2	103				*2.00*				*2.00*
Dissolved Metals	Aluminium	mg/L	0.01	0.01	0.03				*0.01*				*0.01*
	Arsenic	mg/L	0.001	0.001	0.007				*0.001*				*0.001*
	Cadmium	mg/L	0.0001	0.0001	0.0002				*0.0001*				*0.0001*
	Chromium	mg/L	0.001	0.001	0.002				0.001				*0.001*
	Copper	mg/L	0.001	0.001	0.003				0.001				*0.001*
	Lead	mg/L	0.001	0.001	0.001				*0.001*				*0.001*
	Manganese	mg/L	0.001	0.117	1.68				*0.001*				0.694
	Nickel	mg/L	0.001	0.001	0.005				0.002				0.005
	Zinc *	mg/L	0.005	0.005	0.025				0.007				*0.005*
	Iron	mg/L	0.05	0.05	2.16				*0.05*				*0.05*
	Mercury	mg/L	0.0001	0.000005	0.005				*0.0001*				*0.0001*
Nutrients	Nitrite as N	mg/L	0.01	0.01	0.26				*0.01*				*0.01*
	Nitrate as N	mg/L	0.01	0.01	0.1				0.35				0.07
	Nitrite + Nitrate as N	mg/L	0.01	0.01	0.12				0.35				0.07
	Total Nitrogen as N	mg/L	0.1	0.2	1.2				0.6				0.6
	Total Phosphorus as P *	mg/L	0.01	0.02	0.26				0.1				0.1
	Reactive Phosphorus as P	mg/L	0.01	0.01	0.36				0.28				0.21
TRH	C6 - C10 Fraction	µg/L	20	20	1060				*20*				*20*
	C6 - C10 Fraction minus BTEX (F1)	µg/L	20	20	1060				*20*				*20*
	>C10 - C16 Fraction	µg/L	100	100	120				*100*				*100*
	>C16 - C34 Fraction	µg/L	100	100	510				*100*				*100*
	>C34 - C40 Fraction	µg/L	100	100	100				*100*				*100*
	>C10 - C40 Fraction (sum) *	µg/L	100	100	510				*100*				*100*
	>C10 - C16 Fraction minus Naphthalene (F2)	µg/L	100	100	120				*100*				*100*

Legend

L9009-2016-1 monitoring commitment - met (feature included from 2022)

L9009-2016-1 monitoring commitment - not met (feature included from 2022)

Anomaly (Justification in cell comment. Value removed to allow to be graphed)

Grey and italic — *LOR (< removed to allow to be graphed)*

* — *Landfill leachate key indicator (graphed)*

NORTHERN MINERALS

Monitoring Bore: MB07
Landfill

Analyte		Unit	LoR	Min (<2025)	Max (<2025)	2025							
						8/01/2025	30/03/2025	30/03/2025	28/04/2025	25/05/2025	20/07/2025	31/08/2025	25/10/2025
Field paramaters	Standing Water Level (SWL) *	mbTOC	0.01	11.43	14.92	12.00	11.92	11.62	11.69	11.68	11.78	11.78	11.79
	Field pH *	pH Unit	0.01	6.29	8.37	7.55	7.80	7.38	7.51	8.01	7.78	7.19	7.33
	Field EC	µS/cm	1	2410	4891	3055.00	2843.00	3160.00	3442.00	3216.00	3156.00	3710.00	3614.00
	TDS (conversion [0.65] from EC) *	mg/L	0.1	1566.5	3179.215	1985.75	1847.95	2050.00	2236.00	2090.40	2051.40	2350.00	2349.10
Major Components	Chloride	mg/L	1	336	836				834.00				904.00
	Sulfate as SO4 - Turbidimetric	mg/L	1	10	248				185.00				270.00
	Potassium	mg/L	1	41	120				120.00				119.00
	Fluoride	mg/L	0.1	0.6	1				0.90				1.00
Other Parameters	Biochemical Oxygen Demand	mg/L	2	2	155				2.00				2.00
Dissolved Metals	Aluminium	mg/L	0.01	0.01	0.02				*0.10*				*0.10*
	Arsenic	mg/L	0.001	0.001	0.006				*0.00*				*0.00*
	Cadmium	mg/L	0.0001	0.0001	0.0001				*0.00*				*0.00*
	Chromium	mg/L	0.001	0.001	0.001				*0.00*				*0.00*
	Copper	mg/L	0.001	0.001	0.002				*0.00*				*0.00*
	Lead	mg/L	0.001	0.001	0.001				*0.00*				*0.00*
	Manganese	mg/L	0.001	0.032	0.615				*0.00*				*0.057*
	Nickel	mg/L	0.001	0.001	0.001				0.001				*0.00*
	Zinc *	mg/L	0.005	0.005	0.024				*0.01*				*0.01*
	Iron	mg/L	0.05	0.05	1.05				*0.05*				*0.05*
	Mercury	mg/L	0.0001	0.000005	0.005				*0.00*				*0.00*
Nutrients	Nitrite as N	mg/L	0.01	0.01	0.01				*0.01*				*0.01*
	Nitrate as N	mg/L	0.01	0.01	0.05				0.02				*0.01*
	Nitrite + Nitrate as N	mg/L	0.01	0.01	0.05				0.02				*0.01*
	Total Nitrogen as N	mg/L	0.1	0.2	1.6				0.90				2.10
	Total Phosphorus as P *	mg/L	0.01	0.03	0.2				0.12				0.13
	Reactive Phosphorus as P	mg/L	0.01	0.01	0.54				0.31				*0.01*
TRH	C6 - C10 Fraction	µg/L	20	20	1900				*20.00*				*20.00*
	C6 - C10 Fraction minus BTEX (F1)	µg/L	20	20	1900				*20.00*				*20.00*
	>C10 - C16 Fraction	µg/L	100	100	190				*100.00*				*100.00*
	>C16 - C34 Fraction	µg/L	100	100	160				*100.00*				*100.00*
	>C34 - C40 Fraction	µg/L	100	100	100				*100.00*				*100.00*
	>C10 - C40 Fraction (sum) *	µg/L	100	100	190				*100.00*				*100.00*
	>C10 - C16 Fraction minus Naphthalene (F2)	µg/L	100	100	190				*100.00*				*100.00*

Legend

	L9009-2016-1 monitoring commitment - met (feature included from 2022)
	L9009-2016-1 monitoring commitment - not met (feature included from 2022)
	Anomaly (Justification in cell comment. Value removed to allow to be graphed)
Grey and italic	*LOR (< removed to allow to be graphed)*
*	*Landfill leachate key indicator (graphed)*

NORTHERN MINERALS

Monitoring Bore: MB08
Landfill

Analyte		Unit	LoR	Min (<2025)	Max (<2025)	2025							
						8/01/2025	6/03/2025	30/03/2025	28/04/2025	25/05/2025	20/07/2025	31/08/2025	25/10/2025
Field paramaters	Standing Water Level (SWL) *	mbTOC	0.01	11.35	15.39	12.38	12.26	12.00	11.98	11.68	11.84	12.16	11.93
	Field pH *	pH Unit	0.01	6.25	8.21	7.21	7.85	7.35	8.06	8.01	8.21	7.04	7.63
	Field EC	µS/cm	1	789	1609	1156	1138	1196	1127	1096	1136	1365	1264
	TDS (conversion [0.65] from EC) *	mg/L	0.1	512.85	1045.85	751.4	739.7	777	727	712.40	738.40	902	821.6
Major Components	Chloride	mg/L	1	123	336				262				233
	Fluoride	mg/L	0.1	0.4	0.7				0.6				0.6
	Sulfate as SO4 - Turbidimetric	mg/L	1	11	125				93				74
	Potassium	mg/L	1	17	40				32				32
Other Parameters	Biochemical Oxygen Demand	mg/L	2	2	85				*2*				*2*
Dissolved Metals	Aluminium	mg/L	0.01	0.01	0.03				*0.01*				*0.01*
	Arsenic	mg/L	0.001	0.001	0.006				0.001				*0.001*
	Cadmium	mg/L	0.0001	0.0001	0.0001				*0.0001*				*0.0001*
	Chromium	mg/L	0.001	0.001	0.001				*0.001*				*0.001*
	Copper	mg/L	0.001	0.001	0.001				*0.001*				*0.001*
	Lead	mg/L	0.001	0.001	0.001				*0.001*				*0.001*
	Manganese	mg/L	0.001	0.131	1.08				0.132				0.088
	Nickel	mg/L	0.001	0.001	0.005				0.008				0.003
	Zinc *	mg/L	0.005	0.005	0.034				0.008				0.009
	Iron	mg/L	0.05	0.05	1.15				*0.05*				*0.05*
	Mercury	mg/L	0.0001	0.000005	0.005				*0.0001*				*0.0001*
Nutrients	Ammonia as N	mg/L	0.01	0.01	0.21				0.02				0.13
	Nitrite as N	mg/L	0.01	0.01	0.06				*0.01*				*0.01*
	Nitrate as N	mg/L	0.01	0.01	0.12				0.02				0.13
	Nitrite + Nitrate as N	mg/L	0.01	0.01	0.18				0.02				0.13
	Total Nitrogen as N	mg/L	0.1	0.1	0.8				0.2				0.4
	Total Phosphorus as P *	mg/L	0.01	0.02	0.18				0.26				0.03
	Reactive Phosphorus as P	mg/L	0.01	0.01	0.44				*0.1*				*0.1*
TRH	C6 - C10 Fraction	µg/L	20	20	850				*20*				*20.00*
	C6 - C10 Fraction minus BTEX (F1)	µg/L	20	20	850				*20*				*20.00*
	>C10 - C16 Fraction	µg/L	100	100	200				*100*				*100.00*
	>C16 - C34 Fraction	µg/L	100	100	140				*100*				*100.00*
	>C34 - C40 Fraction	µg/L	100	100	100				*100*				*100.00*
	>C10 - C40 Fraction (sum) *	µg/L	100	100	200				*100*				*100.00*
	>C10 - C16 Fraction minus Naphthalene (F2)	µg/L	100	100	200				*100*				*100.00*

Legend

	L9009-2016-1 monitoring commitment - met (feature included from 2022)
	L9009-2016-1 monitoring commitment - not met (feature included from 2022)
	Anomaly (Justification in cell comment. Value removed to allow to be graphed)
Grey and italic	*LOR (< removed to allow to be graphed)*
*	*Landfill leachate key indicator (graphed)*

NORTHERN MINERALS

Monitoring Bore: MB09
Landfill

Analyte		Unit	LoR	Min (<2025)	Max (<2025)	2025							
						8/01/2025	6/03/2025	30/03/2025	28/04/2025	25/05/2025	20/07/2025	31/08/2025	25/10/2025
Field paramaters	Standing Water Level (SWL) *	mbTOC	0.01	11.69	15.61	12.08	12.06	12.02	12.09	12.12	12.18	12.08	12.13
	Field pH *	pH Unit	0.01	6.47	7.36	7.64	7.77	7.73	7.62	7.63	7.84	7.13	7.45
	Field Temp (related to pH probe)	°C	0.0	23.5	35.8								
	Field EC	µS/cm	1	233	2570	1351	1405	1525	1498	1491	1490	1685	1503
	TDS (conversion [0.65] from EC) *	mg/L	0.1	151.45	1670.5	878	913	996	973	969.15	968.50	1077	976.95
Major Component	Chloride	mg/L	1	44	527				357				347
	Sulfate as SO4 - Turbidimetric	mg/L	1	19	144				105				106
	Potassium	mg/L	1	18	74				42				43
	Fluoride	mg/L	0.1	0.2	0.5				0.4				0.5
Other Parameters	Biochemical Oxygen Demand	mg/L	2	2	17				*2*				*2*
Dissolved Metals	Aluminium	mg/L	0.01	0.01	0.01				*0.01*				*0.01*
	Arsenic	mg/L	0.001	0.001	0.004				*0.001*				*0.001*
	Cadmium	mg/L	0.0001	0.0001	0.0001				*0.0001*				*0.0001*
	Chromium	mg/L	0.001	0.001	0.001				*0.001*				*0.001*
	Copper	mg/L	0.001	0.001	0.002				*0.001*				*0.001*
	Lead	mg/L	0.001	0.001	0.001				*0.001*				*0.001*
	Manganese	mg/L	0.001	0.001	2.83				0.094				*0.001*
	Nickel	mg/L	0.001	0.001	0.018				*0.001*				*0.001*
	Zinc *	mg/L	0.005	0.005	0.144				*0.005*				*0.005*
	Iron	mg/L	0.05	0.05	0.64				*0.05*				*0.05*
	Mercury	mg/L	0.0001	0.000005	0.005				*0.0001*				*0.0001*
Nutrients	Ammonia as N	mg/L	0.01	0.01	0.14				0.04				0.11
	Nitrite as N	mg/L	0.01	0.01	0.01				*0.01*				*0.01*
	Nitrate as N	mg/L	0.01	0.01	12.7				0.9				0.46
	Nitrite + Nitrate as N	mg/L	0.01	0.01	12.7				0.9				0.46
	Total Nitrogen as N	mg/L	0.1	0.2	15				1.1				0.9
	Total Phosphorus as P *	mg/L	0.01	0.09	3.84				0.02				0.05
	Reactive Phosphorus as P	mg/L	0.01	0.01	0.5				*0.1*				*0.1*
TRH	C6 - C10 Fraction	µg/L	20	20	20				*20*				*20.00*
	C6 - C10 Fraction minus BTEX (F1)	µg/L	20	20	20				*20*				*20.00*
	>C10 - C16 Fraction	µg/L	100	100	100				*100*				*100.00*
	>C16 - C34 Fraction	µg/L	100	100	3960				*100*				*100.00*
	>C34 - C40 Fraction	µg/L	100	100	3360				*100*				*100.00*
	>C10 - C40 Fraction (sum) *	µg/L	100	100	7320				*100*				*100.00*
	>C10 - C16 Fraction minus Naphthalene (F2)	µg/L	100	100	100				*100*				*100.00*

Legend

	L9009-2016-1 monitoring commitment - met (feature included from 2022)
	L9009-2016-1 monitoring commitment - not met (feature included from 2022)
	Anomaly (Justification in cell comment. Value removed to allow to be graphed)
Grey and italic	*LOR (< removed to allow to be graphed)*
*	*Landfill leachate key indicator (graphed)*

NORTHERN MINERALS

Appendix 2A

Benefication Event Pond – analytical results 2025

NORTHERN MINERALS

Beneficiation Event Pond
Spot Water Sample

Analyte		Units	LOR	Assessment Criteria	9/01/2025 Not Discharging	28/02/2025	18/11/2025	23/11/2025 Not Discharging	21/12/2025 Not Discharging (5%)	18/01/2026
Field Readings	Field pH	pH units	0.01	Triggered IF overflow to SRP	7.96	Maintained low levels / dry during wet season. Insufficient water to sample. Unable to sample.	Pumped dry in readiness for wet season. Unable to sample.	7.84	8.68	Dry
	Field Electrical Conductivity (EC)	µS/cm	1		202.8			924	127.6	
	Field ORP	mV	1							
	Total Acidity	mg/L	1		ref. lab analysis			ref. lab analysis	ref. lab analysis	
	Total Alkalinity	mg/L	1		ref. lab analysis			ref. lab analysis	ref. lab analysis	
	Field TDS	°C	0.1		132			601	83	
General Suite	pH	pH units	0.01							
	EC	µS/cm	1							
	Total Dissolved Solids (Calc from EC)	mg/L								
	Total Hardness as CaCO3		1							
Alkalinity	Hydroxide Alkalinity as CaCO3 (HCO3)	mg/L	1		<1			<1	<1	
	Carbonate Alkalinity as CaCO3 (CO3)	mg/L	1		<1			<1	<1	
	Bicarbonate Alkalinity as CaCO3	mg/L	1		79			34	47	
	Total Alkalinity as CaCO3	mg/L	1		79			34	47	
	Acidity as CaCO3							<1	<1	
Major Components	Sulphate as SO4	mg/L	1		12			5	9	
	Chloride	mg/L	1		4			3	4	
	Calcium	mg/L	1		21			6	9	
	Magnesium	mg/L	1		6			1	3	
	Sodium	mg/L	1		11			10	12	
	Potassium	mg/L	1		5			2	3	
	Phosphorus	mg/L	1		0.29			0.11	0.09	
	Fluoride	mg/L	1		0.2			<0.1	<0.1	
Metals (filtered)	Aluminium (filtered)	mg/L	0.01		<0.01			0.03	0.06	
	Arsenic (filtered)	mg/L	0.001		0.002			<0.001	<0.001	
	Beryllium (filtered)	mg/L	0.001		<0.001			<0.001	<0.001	
	Barium (filtered)	mg/L	0.001		0.184			0.041	0.064	
	Cadmium (filtered)	mg/L	0.0001		<0.0001			<0.0001	<0.0001	
	Chromium (filtered)	mg/L	0.001		<0.001			<0.001	<0.001	
	Cobalt (filtered)	mg/L	0.001		<0.001			<0.001	<0.001	
	Copper (filtered)	mg/L	0.001		<0.001			0.001	<0.001	
	Gadolinium (filtered)	mg/L	0.001		<0.001			<0.001	<0.001	
	Lead (filtered)	mg/L	0.001		<0.001			<0.001	<0.001	
	Manganese (filtered)	mg/L	0.001		0.327			0.004	0.004	
	Molybdenum (filtered)	mg/L	0.001		0.001			0.001	<0.001	
	Nickel (filtered)	mg/L	0.001		0.002			<0.001	<0.001	
	Selenium (filtered) µg/L	µg/L	0.1		<0.2			0.3	0.2	
	Thorium (filtered)	mg/L	0.001		<0.001			<0.001	<0.001	
	Uranium (filtered)	mg/L	0.001		0.002			<0.001	<0.001	
	Vanadium (filtered)	mg/L	0.01		<0.01			<0.01	<0.01	
	Zinc (filtered)	mg/L	0.005		0.024			<0.005	<0.005	
	Iron (filtered)	mg/L	0.05		0.15			0.27	0.35	
	Mercury (filtered) µg/L	µg/L	0.005		<0.005			<0.005	<0.005	
TRH (NEPM 2013 Fractions)	C6 - C10 Fraction	µg/L	20		<20			<20	<20	
	C6 - C10 Fraction minus BTEX (F1)	µg/L	20		<20			<20	<20	
	>C10 - C16 Fraction	µg/L	100		<100			<100	<100	
	>C16 - C34 Fraction	µg/L	100		<100			<100	<100	
	>C34 - C40 Fraction	µg/L	100		<100			<100	<100	
	>C10 - C40 Fraction (sum)	µg/L	100		<100			<100	<100	
	>C10 - C16 Fraction minus Naphthalene (F2)	µg/L	100		<100			<100	<100	
BTEXN	Benzene	µg/L	1		<1			<1	<1	
	Toluene	µg/L	2		<2			<2	<2	
	Ethylbenzene	µg/L	2		<2			<2	<2	
	meta- & para-Xylene	µg/L	2		<2			<2	<2	
	ortho-Xylene	µg/L	2		<2			<2	<2	
	Total Xylenes	µg/L	2		<2			<2	<2	
	Sum of BTEX	µg/L	1		<1			<1	<1	
Radionuclides (total)	Gross alpha	Bq/L	0.05	0.5 (if triggered, analyse Radium	<0.05			<0.05	**0.46**	
	Gross beta	Bq/L	0.1	226 and 228)	<0.10			<0.10	<0.10	
	Radium 226	Bq/L	0.01	5 [1]	0.02			<0.01	<0.055	
	Radium 228	Bq/L	0.08	2 [1]	<0.08			<0.08	<0.087	

Legend

L9009-2016-1 monitoring commitment - met

L9009-2016-1 monitoring commitment - not met

[1] *ANZECC 2000: Trigger value for irrigation water.*

Exceeds trigger

NORTHERN MINERALS

Appendix 2B

Hydrometallurgical Event Pond – analytical results 2025

NORTHERN MINERALS

Hydrometallurgical Event Pond
Spot Water Sample

Analyte		Units	LOR	Assessment Criteria	9/01/2025 Not Discharging	28/02/2025	18/11/2025	23/11/2025 Not Discharging (10%)	21/12/2025 Not Discharging (5%)	18/01/2026
Field Readings	Field pH	pH units	0.01	Triggered IF overflow to SRP	7.67	Maintained low levels / dry during wet season. Insufficient water to sample. Unable to sample.	Pumped dry in readiness for wet season. Unable to sample.	5.61	8.86	Dry
	Field Electrical Conductivity (EC)	µS/cm	1		1178			1734	786	
	Field ORP	mV	1					-		
	Total Acidity	mg/L	1		ref. lab analysis			ref. lab analysis	ref. lab analysis	
	Total Alkalinity	mg/L	1		ref. lab analysis			ref. lab analysis	ref. lab analysis	
	Field TDS	°C	0.1		766			1127	511	
	Field Temp (ORP meter)	°C	0.1							
General Suite	pH	pH units	0.01							
	EC	µS/cm	1							
	TDS (Calc from EC)	mg/L								
	Total Hardness as CaCO3	mg/L	1							
Alkalinity	Hydroxide Alkalinity as CaCO3 (HCO3)	mg/L	1		<1			<1	<1	
	Carbonate Alkalinity as CaCO3 (CO3)	mg/L	1		<1			<1	2	
	Bicarbonate Alkalinity as CaCO3	mg/L	1		46			20	35	
	Total Alkalinity as CaCO3	mg/L	1		46			20	38	
	Total Acidity as CaCO3	mg/L	1					3	2	
Major Components	Sulphate as SO4	mg/L	1		894			164	359	
	Chloride	mg/L	1		5			2	4	
	Calcium	mg/L	1		180			47	94	
	Magnesium	mg/L	1		132			13	41	
	Sodium	mg/L	1		24			6	17	
	Potassium	mg/L	1		5			2	4	
	Phosphorus	mg/L	1		0.03			<0.01	0.03	
	Fluoride	mg/L	1		0.1			<0.1	<0.1	
Metals (dissolved)	Aluminium	mg/L	0.01		<0.01			<0.01	<0.01	
	Arsenic	mg/L	0.001		0.001			<0.001	<0.001	
	Beryllium	mg/L	0.001		<0.001			<0.001	<0.001	
	Barium	mg/L	0.001		**0.059**			0.032	0.037	
	Cadmium	mg/L	0.0001		<0.0001			<0.0001	<0.0001	
	Chromium	mg/L	0.001		<0.001			<0.001	<0.001	
	Cobalt	mg/L	0.001		<0.001			<0.001	<0.001	
	Copper	mg/L	0.001		0.001			<0.001	<0.001	
	Gadolinium	mg/L	0.001		0.002			0.008	<0.001	
	Lead	mg/L	0.001		<0.001			<0.001	<0.001	
	Manganese	mg/L	0.001		0.008			0.034	0.003	
	Molybdenum	mg/L	0.001		0.064			0.004	0.013	
	Nickel	mg/L	0.001		0.001			0.004	<0.001	
	Selenium (µg/L)	µg/L	0.2		0.6			0.7	0.2	
	Thorium	mg/L	0.001		<0.001			<0.001	<0.001	
	Uranium	**mg/L**	**0.001**		0.072			0.004	0.016	
	Vanadium	mg/L	0.01		<0.01			<0.01	<0.01	
	Zinc	mg/L	0.005		0.011			0.016	0.015	
	Iron	mg/L	0.05		<0.05			<0.05	<0.05	
	Mercury (µg/L)	µg/L	0.005		<0.005			<0.005	<0.005	
TRH (NEPM 2013 Fractions)	C6 - C10 Fraction	µg/L	20		<20			<20	<20	
	C6 - C10 Fraction minus BTEX (F1)	µg/L	20		<20			<20	<20	
	>C10 - C16 Fraction	µg/L	100		<100			<100	<100	
	>C16 - C34 Fraction	µg/L	100		<100			<100	<100	
	>C34 - C40 Fraction	µg/L	100		<100			<100	<100	
	>C10 - C40 Fraction (sum)	µg/L	100		<100			<100	<100	
	>C10 - C16 Fraction minus Naphthalene (F2)	µg/L	100		<100			<100	<100	
BTEXN	Benzene	µg/L	1		<1			<1	<1	
	Toluene	µg/L	2		<2			<2	<2	
	Ethylbenzene	µg/L	2		<2			<2	<2	
	meta- & para-Xylene	µg/L	2		<2			<2	<2	
	ortho-Xylene	µg/L	2		<2			<2	<2	
	Total Xylenes	µg/L	2		<2			<2	<2	
	Sum of BTEX	µg/L	1		<1			<1	<1	
	Naphthalene	µg/L	5		<5			<5	<5	
Radionuclides (total)	Gross alpha	Bq/L	0.05	0.5 (if triggered, analyse Radium 226 and 228)	**0.62**			**0.27**	**0.49**	
	Gross beta	Bq/L	0.1		**1.1**			**0.16**	<0.10	
	Radium-226	Bq/L	0.01	5 [1]	0.08			0.04	<0.039	
	Radium-228	Bq/L	0.08	2 [1]	<0.08			<0.08	<0.052	

Legend

L9009-2016-1 monitoring commitment - met

L9009-2016-1 monitoring commitment - not met

[1] *ANZECC 2000: Trigger value for irrigation water.*

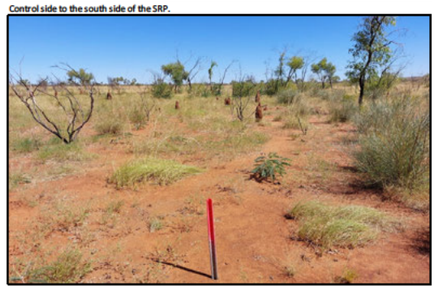
Exceeds trigger

NORTHERN MINERALS

Appendix 3

2025 Vegetation Conidtion Monitoring

Annual Vegetation Condition Assessment:
Gambit WRL / ROM Sediment Retention Pond
Spillway discharge release point.

		2022 April	2023	2024 April	2025 April
VM1	Looking toward overflow (~130m) from access track.				
VM2	Looking away from overflow from access track.				
VM3	Directly downstream of SRP (~10m).				
VM4 (control)	Control side to the south side of the SRP.				
		2021-2022 Comparison: Unable to complete as monitoring started 2022.	**2022-2023 Comparison:** Unable to complete as monitoring missed in 2023.	**2022-2024 Comparison:** Vegetation is denser with no significant signs of stress or death. There is no evidence to suggest Gambit WRL / ROM Sediment Retention Pond spillway discharge releases are causing detriment to the monitored vegetation (Adam D, 18/04/2024). **Note:** VM4 was unable to be located in the initial survey (April). However, after further investigation the peg was found in June (image above).	**2024-2025 Comparison:** Vegetation is denser with no significant signs of stress or death. There is no evidence to suggest Gambit WRL / ROM Sediment Retention Pond spillway discharge releases are causing detriment to the monitored vegetation (Adam D, 25/05/2025). **Note:** VM2 2025 image shows significant vegetation growth in comparison with the VM2 2024 image. This is also seen generally through the 2025 images and could be a result of a significant wet season in 2024/2025 (>1000mm in 2024, vs <700mm/yr average) where the SRP overflowed to this monitored area. Based on the reference to the large tree in the background seen in all images, the location of the images appears to be correct and in the general area. However its possible the 2024 location is not the same as 2022 and 2025 images. Nerveless, the imagery indicates the area has had significant growth from 2024 to 2025.

NORTHERN MINERALS

Appendix 4

2025 Annual Audit of L9009/2016/1

Northern Minerals Limited
2025 ENVIRONMENTAL AUDIT L9009/2016/1

Count	Condition	Audit Element	**Compliant** (C) **Positive Observation** (PO) **Opportunity for Improvement** (OFI) **Minor Non-Compliance** (Minor NC) **Non-Compliance** (NC)	Findings
2	1	The licence holder shall immediately recover, or remove and dispose of spills of wastewater, process liquors, tailings, chemicals or hydrocarbons outside an engineered containment system.	Compliant	No spills were reported in STEMS during the reporting period which spilt outside of a containment system.
3	2	The licence holder shall record and investigate the exceedance of any descriptive or numerical limit in this section	Compliant	This has been undertaken during the 2025 reporting period and has been presented the accompanying 2025 AER.
4	3	The licence holder shall ensure that where waste produced on the Premises are not taken off-site for lawful use or disposal, they are managed according to the requirements in Table 1.	Non Compliant	Ref. IDs 11 and 15
5	**3**	**Table 1: Management of waste**		
6	3	No more than 499 tonnes per annual period of all waste types cumulatively shall be disposed of by landfilling.	Compliant	Ref. ID 3
7	3	Disposal of waste by landfilling shall only take place within the Landfill shown on the Landfill Facility Map in Schedule 1.	Compliant	Waste to be disposed onsite was disposed within the site Landfill as identified in L9009/2016/1.
8	3	Waste shall be placed in a defined trench or within an area enclosed by earthen windrows.	Compliant	All generated putrescible waste was disposed of in the landfill trench.
9	3	The tipping area of the Landfill shall not be greater than 2 m above ground level in height.	Compliant	Tipping area level with ground.
10	3	The separation distance between the base of the landfill and the highest groundwater level shall not be less than 3 m.	Compliant	Separation greater than 3 m from water table. Trench ~3 m deep, water table shallowest is ~10m bgl. Which means ~7m separation form waste to groundwater.
11	3	Maintain a minimum distance of at least 100 m between the previously filled areas of the landfill and the active tipping area and any surface water body	Compliant	NTU interpret this commitment to mean: previously filled areas of the landfill and the active tipping area being at least 100m from any surface water body. NTU is compliant, as no surface water body is within 100m of the landfill. NTU sought clarification from DWER on this ambiguity in the form of voice messages and an email (NTU [redacted] to info@dwer.wa.gov.au. 27/03/2026). DWER responded (email: DWER [redacted]. 30/03/2026) clarifying our interpretation as correct. DWER verbally noted that amendment of the license for this minor change wasn't necessary as the email correspondence from DWER could be referred to. DWER's preference would be to complete the amendment when there are more substantial changes proposed (i.e. full scale project).
12	3	A fence or other physical barrier shall be maintained around the active landfill area which is an effective barrier to cattle, horses and stock.	Compliant	Landfill is fenced
13	3	Undertake fortnightly inspections of the landfill fence or other physical barrier and ensure any damage to the fence is repaired within 14 days.	Compliant	Inspections were complete every 2 weeks during 2025.
14	3	Ensure that wind-blown waste is contained within the boundary of the landfill and that wind-blown waste is returned to the tipping area on at least a monthly basis.	Compliant	Waste is typically disposed of in bulka bags which limits windblown waste generation. The landfill is fenced which helps contain and possible windblown rubbish. Any windblown rubbish is return to the trench during inspections which are complete fortnightly.
15	3	Ensure that no waste is burnt on the Premises. Ensure that any unauthorised fire at the Landfill is promptly extinguished.	Non Compliant	A unplanned fire occurred in the landfill cell on the 25 August 2025. The fire was relatively small and quickly extinguished. There was no observed impact to fauna, vegetation or infrastructure. Bulka bags of rubbish had been taken to the landfill and placed in the cell. When a second lot of bags were taken to the landfill approximately half an hour later the first set of bags were on fire. There was no danger or damage caused by the fire. The fire didn't extend beyond the landfill cell. The fire was extinguished by a load of sand put over the fire. The incident was entered into the NTU management system (STEMS) as event 2758. The cause wasn't conclusive but suspected to be from the disposal of a potentially ignitable refuse (i.e. vape, lighter, etc). The incident was internally communicated with a reminder of what waste can and can't be disposed of in the landfill.

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Count	Condition	Audit Element	**Compliant** (C) **Positive Observation** (PO) **Opportunity for Improvement** (OFI) **Minor Non-Compliance** (Minor NC) **Non-Compliance** (NC)	Findings
16	3	Tyres2 and plastic pallets - No more than 50 tyres and 5 tonnes of plastic pellets shall be disposed of by landfilling. Batches must be separated from each other by at least 100 mm of soil.	Compliant	5 tyres were disposed of in the landfill in 2025.
17	4	The licence holder shall ensure that cover is applied and maintained on landfilled wastes in accordance with Table 2 and that sufficient stockpiles of cover are maintained on site at all times.	Compliant	Waste is covered regularly. No incidents of waste not being covered within the required timeframes was reported in 2024.
18	**4**	**Table 2: Cover requirements**		
19	4	Putrescible Waste and Inert Waste Type 2 (plastic pallets) covered with 300mm of Inert Waste Type 1 or soil Fortnightly	Compliant	Landfill trench covered at least fortnightly during operational activities, which has reduced slightly during care and maintenance with less rubbish been generated. The Landfill Waste Disposal Form provides prompts of cover requirements.
20	4	Inert Waste Type 2 (tyres) covered with 500mm of Inert Waste Type 1 or soil By the end of the working day in which the waste was deposited	Compliant	Tyres were disposed of in the landfill in the 2025 reporting period. The Landfill Waste Disposal Form provides prompts of cover requirements.
21	5	The licence holder shall ensure that waste material is only stored and/or treated within vessels or compounds provided within the infrastructure detailed in Table 3.	Non Compliant	28 April 2025: Inappropriate disposal of ~2kl of drillers liquid waste into the TSF. STEMS (ID 2736). Investigation outcome: Based on the SDS and product information the liquid waste would have been mostly inert (water, rock) with some driller fluid which appears to be non-hazardous and therefore unlikely to pose a risk to the TSF liner. Liquid waste is mostly water with drill cuttings (rock) with a small amount of drilling fluids (SDS attached) - SDS. BIO-GUM ULTRA: BIO GUM ULTRA is non-toxic completely biodegradable. - SDS. PAC R ULTRA: Non-hazardous. Environmentally friendly. - SDS. DRILL DET ULTRA: Non-hazardous. Environmentally acceptable The driller waste is unlikely to pose a risk to the TSF integrity (liner) or be incompatible with the permitted wastes placed in the TSF. Therefore, the actual risk to TSF infrastructure or the environment is low to nil. The event hasn't caused material damage to the environment or infrastructure nor will it likely in the future. Corrective actions completed: - Report the incident in the next NTU Monthly Report - Revise the NTU Waste Management Plan - Inform staff of the event and learnings
22	**5**	**Table 3: Containment Infrastructure**		
23	5	Contains: *combined tailings from the beneficiation and hydrometallurgical processing facilities. * Pilot Plant Wastewater Treatment Plant sludge. * Event Pond Dredge sediment and water. * Emergency transfer of poor-quality Event Pond water which may pose a risk to the environment if released#	Non Compliant	Ref. ID 21: Driller fluid disposed into TSF
24	5	HDPE geomembrane liner with permeability of 1 x 10^{-9} m/s	Compliant	HDPE liner installed as detailed in the construction report.
25	5	Minimum top of spillway freeboard of 500 mm maintained	Compliant	Freeboard of ~4m is maintained. Limited water is present in the TSF as the site is in care and maintenance (C&M).TSF is inspected daily by C&M staff.
26	5	TSF Stage 2 embankment – final elevation of Relative Level 453 m	Compliant	Compliant as detailed in the construction report.
27	5	Delivered into the TSF by the tailings delivery pipeline.	Compliant	Nil tailings were deposited during the reporting period. During operations, tailings were disposed via the pipeline.
28	5	Contains: *Raffinate from the hydrometallurgical plant *Event Pond excess water (from annual wet season readiness activities). *Emergency transfer of poor-quality Event Pond water which may pose a risk to the environment if released#	Compliant	Evaporation pond only received water from the Event Ponds.
29	5	HDPE geomembrane liner with permeability of 1 x 10^{-9} m/s	Compliant	HDPE liner installed as detailed in the construction report.

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Count	Condition	Audit Element	**Compliant** (C) **Positive Observation** (PO) **Opportunity for Improvement** (OFI) **Minor Non-Compliance** (Minor NC) **Non-Compliance** (NC)	Findings
30	5	Maintain operational freeboard of no less than 300 mm	Compliant	Freeboard maintained and checked by C&M staff regularly.
31	5	Delivered to the Evaporation Pond by the raffinate pipeline or mine-water transfer pipeline.	Compliant	Delivery method hasn't changed since constructed.
32	5	Contains: *Potentially contaminated stormwater from the beneficiation and hydrometallurgical processing facilities. * Spillage from the beneficiation and hydrometallurgical processing facilities.	Compliant	The Event ponds capture any overflow from significant rainfall events or spillage from the beneficiation and hydrometallurgical areas.
33	5	HDPE geomembrane liner with permeability of 1 x 10^{-9} m/s	Compliant	HDPE lined as detailed in the construction report
34	6	The licence holder shall ensure that the Beneficiation Plant Event Pond and Hydrometallurgical Plant Event Pond are both emptied to maximum 0.5 m from the bottom of the ponds by 1 December each calendar year. The licence holder must dispose of event pond water using only the locations and the order, and to the requirements, defined in Table 4.	Compliant	The ponds are emptied to maximum 0.5 m from the bottom of the ponds before wet season each year. 2,296 m3 of water was removed from the EPs in November 2025 for this purpose.
35	**6**	**Table 4: Disposal locations for event pond water prior to wet season**		
36	6	1) Re-use in the processing plant	Compliant	The site is in C&M. No water was reused in the processing plant.
37	6	2) Dust suppression * Only used on disturbed areas within the premises boundary * applied with a low-pressure device * applied at a rate that will minimise runoff from disturbed areas * must meet the criteria in Condition 13 (Table 8) - sampled as per condition 22 and condition 23	Compliant	Event Pond water was not used for dust suppression during the reporting period.
38	6	3) Disposal to the Evaporation Pond. Discharge into the Evaporation Pond via the raffinate or mine water transfer pipeline	Compliant	Ref. ID 31
39	6	4) Disposal to the TSF. Discharge into the TSF via the tailings hopper and tailings pipeline.	Compliant	Hydrometallurgical Event Pond water was pumped to the TSF in 2025. As the site is in C&M, the water is rainwater which collects in the Hydrometallurgical Plant which reports to the Hydrometallurgical Event Pond.
40	6	5) Discharge to Gambit WRL / ROM Sediment Retention Pond	Compliant	No water from the Event Ponds was released to the SRP in 2025.
41	7	The licence holder shall ensure that all pipelines containing tailings, tailings return water and hydrometallurgical raffinate are either: (a) equipped with operating telemetry systems and pressure sensors to allow detection of leaks and failures; or (b) equipped with flow switches in the event of a pipe failure; or (c) provided with secondary containment with sufficient volume to contain 12 hours of discharge.	Compliant	A 2024 TSF geotechnical external audit was complete and assessed compliance against this condition (among other conditions). The majority of the pipeline was compliant. The audit recommended that the TSF bunding be extended to the embankment crest to prevent uncontrolled discharge and to direct outflow into the catch pits. This action has been complete. Therefore the condition is considered to be compliant.
42	8	The licence holder shall: (a) undertake inspections as detailed in Table 5; (b) where any inspection identifies that an appropriate level of environmental protection is not being maintained, take corrective action to mitigate adverse environmental consequences as soon as practicable; and (c) maintain a record of all inspections and corrective actions undertaken	Compliant	1) Care and maintenance personnel undertake a daily C&M inspection of site infrastructure. 2) A *Surface Water Management System - Post Wet Season Inspection* was complete in May 2025.
43	**8**	**Table 5: Inspection of infrastructure**		
44	8	Visual integrity of Tailings delivery pipeline, Evaporation pond delivery pipeline and TSF return water lines once each 12-hour period during operation	Not Applicable	Site not operational

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Count	Condition	Audit Element	**Compliant** (C) **Positive Observation** (PO) **Opportunity for Improvement** (OFI) **Minor Non-Compliance** (Minor NC) **Non-Compliance** (NC)	Findings
45	8	Daily: * Tailings deposition Visual * Tailings Storage Facility (TSF) pond Visual to confirm size and location of the pond * TSF freeboard and Evaporation Pond freeboard Visual to confirm required freeboard is available * TSF underdrainage sump and pump outflow Visual * Beneficiation Plant Event Pond and Hydrometallurgical Plant Event Pond Visual estimate of remaining capacity.	Compliant	Ref. ID 45. Findings 1.
46	8	Weekly: * TSF downstream embankment toe Visual * Evaporation pond embankments Visual integrity	Compliant	Ref. ID 45. Findings 1.
47	8	Once post wet season: * Gambit WRL / ROM Sediment Retention Pond spillway integrity - Visual integrity * From the Gambit WRL / ROM Sediment Retention Pond spillway to 100 m downstream of the spillway - Visual to detect signs of erosion	Compliant	Ref. ID 45. Findings 2.
48	9	The licence holder shall ensure the limits specified in Table 6 are not exceeded.	Compliant	Limits not exceeded. Ref. ID 2 and 3
49	**9**	**Table 6: Production or design capacity**		
50	9	Category 5: Processing or beneficiation of metallic or non-metallic ore 131,490 tonnes per annual period	Compliant	Limit not exceeded. Ref. ID 2
51	9	Category 89: Putrescible landfill site, 499 tonnes per annual period	Compliant	Limit not exceeded. Ref. ID 3
52	10	The licence holder shall undertake an annual water balance for the TSF. The water balance shall as a minimum consider and include the following: (a) site rainfall; (b) evaporation; (c) tailings return water recovery volumes; (d) seepage recovery volumes; and (e) volumes of tailings deposited.	Compliant	A TSF Water Balance was complete by Knight Piesold (KP) in November 2025 and provided to DWER on the 4 December 2025 (compliance@dwer.wa.gov.au. Licence L9009/2016/1 - Letter of Non-compliance). NTU consider the risk of the TSF overtopping is low to negligible. The Project's entire TSF water balance results to date indicate a significant storage capacity and freeboard during C&M.
53	11	The licence holder must construct the infrastructure listed in Table 7 in accordance with: (a) the corresponding design and construction requirement; and (b) at the corresponding infrastructure location.	Compliant	Works Approval 'Construction report' submitted to DWER 11/04/2018 and was signed by suitably qualified professional engineer and a person authorised to represent the licence holder.

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<table>
<tr><th>Count</th><th>Condition</th><th>Audit Element</th><th>Compliant (C)
Positive Observation (PO)
Opportunity for Improvement (OFI)
Minor Non-Compliance (Minor NC)
Non-Compliance (NC)</th><th>Findings</th></tr>
<tr><td>54</td><td>11</td><td>Table 7: Design and construction requirements</td><td></td><td></td></tr>
<tr><td>55</td><td>11</td><td>1. Crushed ore bin fed directly from the existing primary crusher via crusher discharge conveyor.
2. Stacker conveyor to transfer ore directly from the primary crusher to the bypass stockpile in the event the XRT ore sorter is offline. And to transfer sorted ore materials and sludge from the washing screen and clarifier to the bypass stockpile.
3. Classification screen, including dust suppression sprays to control dust generated from fines, at the point it discharges from the screen and travels via conveyor to the select stockpile.
4. Stacker conveyor from the classification screen to the oversized stockpile for oversized material to be recycled back through the existing crushing circuit.
5. Washing screen and clarifier to remove sludge fines (sludge co-deposited with sorted select material to the select stockpile for processing).
6. Wash water storage tank.
7. XRT ore sorter to sort ore prior to reporting to the existing SAG mill feed bin.
8. Conveyors to transport sorted and unsorted ore between each stage.
9. Dust mitigation measures to control dust generated from materials transferred via conveyors to encompass the following:
• Enclosed or wet conveyance of fines material.
• Misting dust suppression system on the crushed ore bin.
• Washing step to remove fine material from select and rejects streams.</td><td>Compliant</td><td>Ref. ID 56</td></tr>
<tr><td>56</td><td>11</td><td>Located partially on ROM pad and pilot plant area; the active Fines (Select) Stockpiles located away from the edges of the ROM pad. Schedule 1, Figure 4.</td><td>Compliant</td><td>Ref. ID 56</td></tr>
<tr><td>57</td><td>12</td><td>The licence holder shall operate the ore sorter circuit outlined in Table 7 in accordance with the conditions of this Licence, following submission of the compliance documents required under condition 29.</td><td>Not Applicable</td><td>Site is in C&M, not operations.</td></tr>
<tr><td>58</td><td>13</td><td>The licence holder is authorised to use Beneficiation Plant Event Pond water and Hydrometallurgical Plant Event Pond water for dust suppression in accordance with the water quality limits in Table 8 and the discharge requirements in Table 9.</td><td>Compliant</td><td>No Beneficiation or Hydrometallurgical Event Pond water was used for dust suppression in the reporting period.</td></tr>
<tr><td>59</td><td>13</td><td>Table 8: Water quality limits for dust suppression</td><td></td><td></td></tr>
<tr><td>60</td><td>13</td><td><table>
<tr><th>Parameter</th><th>Limit</th><th>Units</th><th>Permitted use</th></tr>
<tr><td>Total Dissolved Solids</td><td>10,000</td><td>mg/L</td><td rowspan="2">Haul/access roads, process plant, active mining areas, areas cleared for approved construction.</td></tr>
<tr><td>pH</td><td>Between 5.5 to 9</td><td>pH units</td></tr>
<tr><td>Total Dissolved Solids</td><td>5,000</td><td>mg/L</td><td rowspan="2">Can be used on any disturbed area.</td></tr>
<tr><td>pH</td><td>Between 5.5 to 9</td><td>pH units</td></tr>
</table></td><td>Compliant</td><td>Ref. ID 61</td></tr>
<tr><td>61</td><td>13</td><td>Table 9: Water sources for dust suppression</td><td></td><td></td></tr>
<tr><td>62</td><td>13</td><td>Within the prescribed premises boundary:
- on disturbed areas within the premises boundary
- applied with a low-pressure device
- applied at a rate that will minimise runoff from disturbed areas
- must meet the criteria in condition 13
- sampled as per condition 22 and 23.
Disposal Point location: Schedule 1: Maps, Figure 1.</td><td>Compliant</td><td>Ref. ID 61</td></tr>
<tr><td>63</td><td>14</td><td>The licence holder is authorised to allow stormwater from the Beneficiation Plant Event Pond and Hydrometallurgical Plant Event Pond to discharge to the environment via an existing engineered drain which reports to the Gambit WRL / ROM Sediment Retention Pond, and then to the receiving environment via the Sediment Retention Pond spillway.</td><td>Compliant</td><td>No water from the Event Ponds was discharged to the Gambit WRL/ROM Sediment Retention Pond during the reporting period.</td></tr>
</table>

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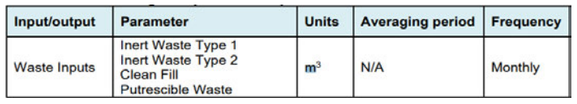
Count	Condition	Audit Element	**Compliant** (C) **Positive Observation** (PO) **Opportunity for Improvement** (OFI) **Minor Non-Compliance** (Minor NC) **Non-Compliance** (NC)	Findings
64	**15**	**General Monitoring**		
65	15	The licence holder shall ensure that: (a) all water samples are collected and preserved in accordance with AS/NZS 5667.1; (b) all groundwater sampling is conducted in accordance with AS/NZS 5667.11; 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.	Compliant	Water monitoring undertaken as per condition.
66	16	The licence holder shall ensure that: (a) monthly monitoring is undertaken at least 15 days apart; (b) quarterly monitoring is undertaken at least 45 days apart; and (c) six monthly monitoring is undertaken at least 5 months apart.	Compliant	Groundwater monitoring was undertaken as per L9009/2016/01 timing requirements.
67	17	The licence holder shall ensure that all monitoring equipment used on the premises to comply with the conditions of this Licence is calibrated in accordance with the manufacturer's specifications.	Compliant	Multi meter probe (pH, EC, temperature, etc) is calibrated before each monitoring event. Calibration record-sheets are filled out and kept for record. Some unavoidable multi probe faults have occurred, which resulted in ordering a new multiprobe in 2025. This is noted and considered in the assessment of the analytical data in this years report. It is believed there remains sufficient collected data over the reporting period to ascertain groundwater characteristics.
68	18	The licence holder shall, where the requirements for calibration cannot be practicably met, or a discrepancy exists in the interpretation of the requirements, bring these issues to the attention of the CEO accompanied with a report comprising details of any modifications to the methods.	Not Applicable	Calibration method not changed from the 2024 reporting period. No changes are known / proposed.
69	**19**	**Monitoring of inputs and outputs**		
70	19	The licence holder shall undertake the monitoring in Table 10 according to the specifications in Table 10.	Compliant	Landfill waste volumes collated monthly and tracked in the NTU Compliance schedule. Waste volumes provided in the 2025 AER.
71	**19**	**Table 10: Monitoring of inputs and outputs**		
72	19	 **Input/output** | **Parameter** | **Units** | **Averaging period** | **Frequency** Waste Inputs | Inert Waste Type 1 Inert Waste Type 2 Clean Fill Putrescible Waste | m^3 | N/A | Monthly	Compliant	Ref. ID 73.
73	20	The licence holder shall undertake the monitoring in Table 11 according to the specifications in Table 11.	Compliant	Processing volumes NA as site is in C&M since 20 April 2022. Volumes discharged during the reporting period have been provided in the 2025 AER and are recorded by C&M staff onsite.

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<table>
<tr><th>Count</th><th>Condition</th><th>Audit Element</th><th>Compliant (C)
Positive Observation (PO)
Opportunity for Improvement (OFI)
Minor Non-Compliance (Minor NC)
Non-Compliance (NC)</th><th>Findings</th></tr>
<tr><td>74</td><td>20</td><td>Table 11: Process monitoring</td><td></td><td></td></tr>
<tr><td>75</td><td>20</td><td>
<table>
<tr><th>Monitoring point[1]</th><th>Parameter</th><th>Units</th><th>Frequency</th><th>Method</th></tr>
<tr><td>Evaporation pond</td><td>Volume discharged to pond</td><td rowspan="2">m³</td><td rowspan="2">Cumulative monthly total</td><td rowspan="2">None specified</td></tr>
<tr><td>TSF</td><td>Volume of tailings discharged to TSF</td></tr>
<tr><td></td><td>Volume of WWTP sludge discharged into the TSF</td><td>m³</td><td>Cumulative monthly total</td><td>None specified</td></tr>
</table>
</td><td>Compliant</td><td>ref ID 76.</td></tr>
<tr><td>76</td><td>20</td><td>
<table>
<tr><td rowspan="6">Beneficiation Plant Event Pond and Hydrometallurgical Plant Event Pond</td><td>Volume of water discharged to the Gambit WRL / ROM Sediment Retention Pond</td><td>m³</td><td>Cumulative monthly total</td><td>None specified</td></tr>
<tr><td>Volume of water discharged via dust suppression</td><td>m³</td><td>Cumulative monthly total</td><td>None specified</td></tr>
<tr><td>Volume of poor-quality Event Pond water# discharged into the Evaporation Pond</td><td>m³</td><td>Cumulative daily total, during each discharge event</td><td>None specified</td></tr>
<tr><td>Volume of excess pond water discharged into the Evaporation Pond for operational needs required for wet season readiness.</td><td>m³</td><td>Cumulative daily total, during each discharge event</td><td>None specified</td></tr>
<tr><td>Volume of Event Pond maintenance (dredged) sludge and water discharged to the TSF</td><td>m³</td><td>Cumulative daily total during each discharge event</td><td>None specified</td></tr>
<tr><td>Volume of poor-quality Event Pond water# discharged into the TSF</td><td>m³</td><td>Cumulative daily total during each discharge event</td><td>None specified</td></tr>
</table>
</td><td>Compliant</td><td>ref ID 76.</td></tr>
<tr><td>77</td><td>21</td><td>The licence holder shall undertake the monitoring in Table 12 according to the specifications in Table 12.</td><td>Minor Non-compliance</td><td>~99.9% of groundwater field screening and laboratory analysis was completed (978 parameters to be tested. 1 missed [TDS, MB05D. July 2025]).

It is considered a 99% complete dataset is sufficient to represent the groundwater characteristics and condition.

NTU appreciate a compliance assessment of 100% completion is required to confirm compliance. NTU consider 99.9% sampling completion is sufficient to detect potential impacts and confirm compliance; to be transparent this has been reported as a minor non-compliance.

NTU contacted DWER regarding reporting of these minor nonconformances. DWER responded (email 30/03/2026, DWER Jarrod Abrahams) "Please continue to flag non-compliances with monitoring requirements as part of completing and submitting your annual reports (AER/AACR's). While the compliance matters appear to be minor, technically they should be flagged."

Appendix 1 and 2 present the analytical results tables. The tables also include a compliance assessment of analytical testing results against conditions of L9009.</td></tr>
</table>

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Count	Condition	Audit Element	**Compliant** (C) **Positive Observation** (PO) **Opportunity for Improvement** (OFI) **Minor Non-Compliance** (Minor NC) **Non-Compliance** (NC)	Findings
78	**21**	**Table 12: Monitoring of ambient groundwater quality**		
79	21	<table><tr><th>Monitoring point[1]</th><th>Parameter</th><th>Units</th><th>Averaging period</th><th>Frequency</th></tr><tr><td rowspan="8">Tailings Storage Facility MB01S, MB01D, MB02S, MB02D, MB03 and MB03S</td><td>Standing water level[2]</td><td>mbgl</td><td rowspan="6">Spot sample</td><td rowspan="6">Monthly</td></tr><tr><td>pH[2]</td><td>pH units</td></tr><tr><td>Total Dissolved Solids[2]</td><td>mg/L</td></tr><tr><td>Electrical Conductivity[2]</td><td>µS/cm</td></tr><tr><td>Redox potential[2]</td><td>Volts</td></tr><tr><td>Total Acidity and Total Alkalinity[2]</td><td>mg/L</td></tr><tr><td>Major cations and anions sodium, potassium, calcium, magnesium, chloride, sulfate, bicarbonate</td><td rowspan="2">mg/L</td><td rowspan="2">Spot sample</td><td rowspan="2">Six monthly or immediately if monthly monitoring detects increase of background groundwater levels and/or water quality</td></tr><tr><td>Metals, metalloids and non-metals aluminium, arsenic, barium, beryllium, boron, cadmium, chromium, cobalt, copper, gadolinium, iron, lead, manganese, molybdenum, mercury, nickel, thorium, selenium, thallium, tin, uranium, vanadium, zinc</td></tr></table>	Compliant	Ref ID 80.
80	21	<table><tr><td rowspan="4">Evaporation Pond MB04S, MB04D, MB05 and MB05S</td><td>Standing water level[2]</td><td>mbgl</td><td rowspan="3">Spot sample</td><td>Monthly</td></tr><tr><td>pH[2]</td><td>pH units</td><td>Monthly</td></tr><tr><td>Total Dissolved Solids[2]</td><td>mg/L</td><td>Monthly</td></tr><tr><td>Major cations and anions sodium, potassium, calcium, magnesium, chloride, sulfate, bicarbonate</td><td rowspan="2">mg/L</td><td rowspan="2">Spot sample</td><td rowspan="2">Six monthly or immediately if monthly monitoring detects increase of background groundwater levels and/or water quality</td></tr><tr><td>Metals, metalloids and non-metals aluminium, arsenic, barium, beryllium, boron, cadmium, chromium, cobalt, copper, iron, lead, manganese, molybdenum, nickel, thorium, tin, uranium, vanadium, zinc</td></tr></table>	Minor Non-compliance	Ref ID 80.
81	21	<table><tr><td rowspan="10">Landfill MB06, MB07, MB08 and MB09</td><td>Standing water level[2]</td><td>mbgl</td><td rowspan="10">Spot sample</td><td rowspan="10">Six monthly</td></tr><tr><td>pH[2]</td><td>pH units</td></tr><tr><td>Electrical Conductivity[2]</td><td>µS/cm</td></tr><tr><td>Total Dissolved Solids[2]</td><td rowspan="7">mg/L</td></tr><tr><td>Biochemical oxygen demand</td></tr><tr><td>Total recoverable hydrocarbons</td></tr><tr><td>chloride, fluoride, potassium, sulfate</td></tr><tr><td>total nitrogen, nitrate-nitrogen, nitrite-nitrogen, ammonia-nitrogen, total phosphorus, phosphate</td></tr><tr><td>dissolved aluminium, arsenic, cadmium, chromium, copper, iron, lead, manganese, mercury, nickel, zinc</td></tr><tr><td colspan="5">Note 1: As shown in Schedule 1: Maps, Figure 2 Note 2: In-field non-NATA accredited analysis permitted</td></tr></table>	Compliant	Ref ID 80.

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Count	Condition	Audit Element	**Compliant** (C) **Positive Observation** (PO) **Opportunity for Improvement** (OFI) **Minor Non-Compliance** (Minor NC) **Non-Compliance** (NC)	Findings
82	22	The licence holder shall undertake the monitoring in Table 13 according to the specifications in Table 13 for release of captured water into the environment.	Minor Non-compliance	~99.4% of surface water field screening and laboratory analysis was complete (346 parameters to be tested. 2 missed [Alkalinity]). It is considered a 99% complete dataset is sufficient to represent the water characteristics and condition. NTU appreciate a compliance assessment of 100% completion is required to confirm compliance. NTU consider 99% sampling completion is sufficient to detect potential impacts and confirm compliance; to be transparent this has been reported as a minor non-compliance. NTU contacted DWER regarding reporting of these minor nonconformances. DWER responded (email 30/03/2026, DWER [redacted] "Please continue to flag non-compliances with monitoring requirements as part of completing and submitting your annual reports (AER/AACR's). While the compliance matters appear to be minor, technically they should be flagged." Appendix 1 and 2 present the analytical results tables. The tables also include a compliance assessment of analytical testing results against conditions of L9009.
83	**22**	**Table 13: Monitoring of water quality – Pilot Plant Event Pond**		
84	22	Sample at least monthly during: 1) the wet season; and 2) dust suppression activities, if Event Pond water is utilised for dust suppression as determined by condition 6. Sample at least once prior to disposal to the Gambit WRL / ROM Sediment Retention Pond as determined by condition 6. Sample each Event Pond once during the wet season when capacity first reaches at least 80 per cent (if safe and practicable). Within six hours of discharge commencing, sample once at one sampling point which is located downstream of the event pond spillway but upstream of the Gambit WRL / ROM Sediment Retention Pond (if safe and practicable). Sample at least daily for the duration of the discharge event at a sample point located downstream of the event pond spillway but upstream of the Gambit WRL / ROM Sediment Retention Pond (if safe and practicable).	Compliant	Appendix 1 and 2 present the analytical results tables. The tables also include a compliance assessment of analytical testing results against conditions of L9009.
85	22	pH[2] — pH units — Spot sample Electrical Conductivity[2] — µS/cm — Spot sample Total Dissolved Solids[2] — mg/L — Spot sample Total Reportable Hydrocarbons (TRH) — µg/L — Spot sample BTEX — µg/L — Spot sample Total Acidity and Total Alkalinity[2] — mg/L — Spot sample Uranium, thorium — Bq/L — Spot sample gross-alpha, gross-beta — Bq/L — Spot sample phosphorus ions, fluoride ions, sodium, potassium, calcium, magnesium, chloride, sulfate, bicarbonate — mg/L — Spot sample aluminium, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, gadolinium, iron, lead, manganese, molybdenum, mercury, nickel, thorium, selenium, uranium, vanadium, zinc — mg/L — Spot sample	Minor Non-compliance	Ref ID 85.

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<table>
<tr><th>Count</th><th>Condition</th><th>Audit Element</th><th>Compliant (C)
Positive Observation (PO)
Opportunity for Improvement (OFI)
Minor Non-Compliance (Minor NC)
Non-Compliance (NC)</th><th>Findings</th></tr>
<tr><td>86</td><td>23</td><td>If the concentration of gross-alpha or gross-beta from the monitoring required by Table 13 exceed 0.5 Bq/L1 then the licence holder shall undertake the monitoring in Table 14, according to the specifications in Table 14.
(Note 1: methodology to consider contribution of potassium-40, as per the ANZECC & ARMCANZ (2000) methodology recommended in Section 9.2.8.3 ‘Derivation of guideline values’.</td><td>Compliant</td><td>Gross alpha reading exceeded 0.5 Bq/L at the 2025 Hydrometallurgical Event Pond in Jan 2025 and radionuclides analysis was undertaken during the same sample event.

Further discussed in 2025 AER Section 7</td></tr>
<tr><td>87</td><td>23</td><td>Table 14: Monitoring of radionuclides</td><td></td><td></td></tr>
<tr><td>88</td><td>23</td><td><table><tr><th>Monitoring point[1]</th><th>Parameter</th><th>Units</th><th>Averaging period</th><th>Frequency</th></tr><tr><td>Beneficiation Plant Event Pond and Hydrometallurgical Plant Event Pond</td><td>Radium-226
Radium-228</td><td>Bq/L</td><td>Spot sample</td><td>Immediately, or within 48hrs of the results obtained by condition 22 identifying that the trigger level of 0.5Bq/L of gross alpha or gross-beta has been exceeded.</td></tr></table></td><td>Compliant</td><td>Ref ID 90.</td></tr>
<tr><td>89</td><td>24</td><td>The licence holder shall undertake the monitoring in Table 15 according to the specifications in Table 15.</td><td>Compliant</td><td>A vegetation condition assessment was complete in April 2025. The assessment concluded: Vegetation is denser with no significant signs of stress or death. There is no evidence to suggest Gambit WRL / ROM Sediment Retention Pond spillway discharge releases are causing detriment to the monitored vegetation</td></tr>
<tr><td>90</td><td>24</td><td>Table 15: Monitoring of vegetation quality</td><td></td><td></td></tr>
<tr><td>91</td><td>24</td><td><table><tr><th>Monitoring location[1]</th><th>Parameter</th><th>Requirements</th><th>Method</th><th>Frequency</th></tr><tr><td>Vegetation condition within 100 m of the Gambit WRL / ROM Sediment Retention Pond spillway discharge release point</td><td>Vegetation condition for evidence of contaminants deposited on soil and/or stressed vegetation</td><td>The licence holder shall:
a. take photographic images annually from the same four (4) fixed monitoring points[2];
b. provide a general environmental description of the site; and
c. record any changes to vegetation health or composition.</td><td>Visual inspection and photographs</td><td>Annual, within 2 months of the end of the wet season</td></tr></table></td><td>Compliant</td><td>Ref. ID 93.</td></tr>
<tr><td>92</td><td>25</td><td>The licence holder shall undertake the monitoring in Table 16 and Table 17 according to the specifications in Table 16 and Table 17, respectively</td><td>Not Applicable</td><td>Ref. ID 66. No water was released from Event Ponds.</td></tr>
</table>

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Count	Condition	Audit Element	**Compliant** (C) **Positive Observation** (PO) **Opportunity for Improvement** (OFI) **Minor Non-Compliance** (Minor NC) **Non-Compliance** (NC)	Findings
93	**25**	**Table 16: Monitoring of water quality downstream of Gambit WRL / ROM Sediment Retention Pond spillway**		
94	25	Collect and analyse Gambit WRL / ROM Sediment Retention Pond spillway discharge On each occasion that the SRP is discharging, and the 'Requirements' specified in this Table are met when: 1) the Event Ponds are also discharging at the same time as the Gambit WRL/ ROM Sediment Retention Pond spillway; or 2) the Event Ponds have discharged in the 24-hour period preceding a discharge occurring from the .Gambit WRL/ ROM Sediment Retention Pond spillway.	Compliant	Ref. ID 96.
95	25	Single stage Rising Stage Sampler (RSS) positioned at maximum 30 cm above ground	Compliant	RSS's are positioned at maximum 30 cm above ground.
96	25	<table><tr><td>radium-226, radium-228,</td><td>Bq/L</td><td>If the concentration of gross-alpha or gross-beta from the monitoring required by Table 13 has exceeded 0.5 Bq/L[1] in any of the previous two (2) Event Pond samples taken for condition 22</td><td>Single stage Rising Stage Sampler (RSS) positioned so as to capture spillway discharge</td></tr></table>	Not Applicable	Ref. ID 66. No water was released from Event Ponds.
97	25	SRP discharge samples must be collected within 48hrs of the discharge event occurring. Samples must be preserved and sent to a NATA accredited laboratory for analysis as soon as practicable within the recommended sample holding time.	Not Applicable	Ref. ID 66. No water was released from Event Ponds.
98	**25**	**Table 17: Monitoring of soil quality downstream of Gambit WRL/ ROM Sediment Retention Pond spillway**		
99	25	<table><tr><th>Monitoring location[1]</th><th>Parameter</th><th>Units</th><th>Requirements</th><th>Method</th><th>Frequency</th></tr><tr><td rowspan="4">Surface soil downstream of Gambit WRL / ROM Sediment Retention Pond spillway</td><td>pH[2]</td><td>pH units</td><td rowspan="4">If any of the water quality Parameters tested as part of the monitoring required by Table 16 exceed the ANZECC & ARMCANZ (2000) Guidelines for short term irrigation values, then surface soil sampling in the Gambit WRL / ROM Sediment Retention Pond spillway discharge zone is required.</td><td rowspan="4">Sample surface soil at depths <10 cm and between 10 to 20 cm.</td><td rowspan="4">Annual, within 2 months of the end of the wet season if water quality downstream of Gambit WRL / ROM Sediment Retention Pond in the preceding wet season exceeds ANZECC & ARMCANZ (2000) Guidelines for short term irrigation values</td></tr><tr><td>Electrical Conductivity[2]</td><td>µS/cm</td></tr><tr><td>Total Reportable Hydrocarbons (TRH)</td><td>µg/kg (dry wt)</td></tr><tr><td>phosphorus, fluoride, sodium, potassium, calcium, magnesium, chloride, sulfate, bicarbonate (calcium carbonate) aluminium, arsenic, beryllium, cadmium, chromium, cobalt, copper, iron, lead, manganese, molybdenum, mercury, nickel, thorium, selenium, uranium, vanadium, zinc</td><td>mg/kg (dry wt)</td></tr><tr><td>uranium, thorium, gross-alpha, gross-beta</td><td>Bq/g</td></tr></table>	Not Applicable	Ref. ID 66. No water was released from Event Ponds.
100	25	<table><tr><td>radium-226, radium-228,</td><td>Bq/L</td><td>If the concentration of gross-alpha or gross-beta from the monitoring required by Table 13 exceeds 0.5 Bq/L[1]</td><td>Sample surface soil at depths <10 cm and between 10 to 20 cm.</td><td>Within 2 weeks of a discharge event occurring from the Gambit WRL/ ROM Sediment Retention Pond spillway</td></tr><tr><td colspan="5">Note 1: As shown in Schedule 1: Maps, Figure 5 Note 2: In-field non-NATA accredited analysis permitted</td></tr></table>	Not Applicable	Ref. ID 66. No water was released from Event Ponds.

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Count	Condition	Audit Element	**Compliant** (C) **Positive Observation** (PO) **Opportunity for Improvement** (OFI) **Minor Non-Compliance** (Minor NC) **Non-Compliance** (NC)	Findings
101	**26**	**Records**		
102	26	The licence holder must maintain accurate and auditable books including the following records, information, reports, and data required by this licence: (a) the calculation of fees payable in respect of this licence; (b) the works conducted in accordance with condition 11 of this licence; (c) any maintenance of infrastructure that is performed in the course of complying with conditions 3 to 8 of this licence; (d) monitoring programmes undertaken in accordance with conditions 15 to 25 of this licence; and (e) complaints received under condition 28 of this licence.	Compliant	Records kept on NTU server.
103	27	All information and records required by the licence shall: (a) be legible; (b) if amended, be amended in such a way that the original and subsequent amendments remain legible or are capable of retrieval; (c) be retained by the licence holder for the duration of the licence; and (d) be available to be produced to an inspector or the CEO as required.	Compliant	Records kept on NTU server.
104	28	The licence holder must record the following information in relation to complaints received by the licence holder (whether received directly from a complainant or forwarded to them by the Department or another party) about any alleged emissions from the premises: (a) the name and contact details of the complainant, (if provided); (b) the time and date of the complaint; (c) the complete details of the complaint and any other concerns or other issues raised; and (d) the complete details and dates of any action taken by the licence holder to investigate or respond to any complaint.	Compliant	Records kept on NTU server.
105	**29**	**Reporting**		
106	29	The licence holder must: (a) undertake an audit of their compliance with the conditions of this licence during the preceding annual period; and (b) prepare and submit to the CEO by no later than 90 days after the end of that annual period an Annual Audit Compliance Report in the approved form.	Compliant	This document provides the basis of a audit of compliance with the conditions of this licence. The Project's 2024 AER for L9009/1026/01 was submitted by march 2025.
107	30	The licence holder must submit to the CEO an Annual Environmental Report (AER) which contains the information listed in Table 18 in the format or form specified in Table 18 within 90 calendar days after the end of the Annual Period.	Compliant	Ref. ID 111.
108	**30**	**Table 18: Annual Environmental Report**		
109	30	Summary of any failure or malfunction of any pollution control equipment and any environmental incidents that have occurred during the annual period and any action taken	Compliant	2025 AER: Section 2
110	30	Condition 10 - Annual water balance	Compliant	2025 AER: Section 3
111	30	Condition 19-Table 10 - Waste inputs	Compliant	2025 AER: Section 4
112	30	Condition 20- Table 11 - Volumes discharged	Compliant	2025 AER: Section 5
113	30	Condition 21-Table 12 - Ambient groundwater monitoring results	Compliant	2025 AER: Section 6 and 7
114	30	Condition 22 - Table 13 - Water quality monitoring results	Compliant	2025 AER: Section 6 and 7
115	30	Condition 23-Table 14 - Monitoring of radionuclides	Compliant	2025 AER: Section 6 and 7
116	30	Condition 24-Table 15 - Vegetation condition monitoring results	Compliant	2025 AER: Section 8
117	30	Condition 25-Table 16 - Gambit WRL / ROM Sediment Retention Pond spillway discharge monitoring results	Not Applicable	ref. ID 103.
118	30	Condition 25- Table 17 - Gambit WRL / ROM Sediment Retention Pond downstream spillway discharge zone soil monitoring results (if required)	Not Applicable	ref. ID 103.

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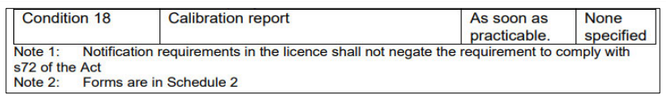
Count	Condition	Audit Element	**Compliant** (C) **Positive Observation** (PO) **Opportunity for Improvement** (OFI) **Minor Non-Compliance** (Minor NC) **Non-Compliance** (NC)	Findings
119	30	Condition 28 - Complaints summary	Compliant	2024 AER: Section 9
120	31	The licence holder shall ensure that the Annual Environmental Report also contains: (a) an assessment of the information contained within the report against all previous monitoring results; (b) a list of any original monitoring reports submitted to the licence holder from third parties for the annual period and make these reports available on request; and (c) where monitoring for gross-alpha and gross-beta radiation has been undertaken in accordance with the conditions of the licence, a short report is included in the AER evaluating the collated data, the risk posed to human health and the environment and the result of any investigation(s) undertaken to determine the source of the contamination.	Compliant	2024 AER: Section 6 and 7 and data & analysis in Appendix 1 and 2.
121	32	The licence holder shall ensure that the parameters listed in Table 19 are notified to the CEO in accordance with the notification requirements of Table 19.	Compliant	ref. IDs 127-129
122	**32**	**Table 19: Notification requirements**		
123	32	Condition 2 - Breach of any limit specified in the Licence - Part A: No later than 5pm of the next usual working day. - N1 Form	Compliant	No 'limits' were exceeded during the reporting period.
124	32	Condition 11 - The licence holder must: • undertake an audit of compliance with the requirements of condition 11; and • prepare and submit to the CEO an audit report on whether or not that compliance has been met. The report must: • be certified by a suitably qualified professional engineer that each item of infrastructure listed in Table 7 meets the corresponding specifications and at the locations set out in Table 7 and has been constructed with no material defects; • where an item of infrastructure has been certified as not being located or constructed, or does not comply with the corresponding requirements, the licence holder must correct the non-compliant or defective works prior to re-certifying, or provide to the CEO a description of, and explanation for, any departures from the requirements specified in Table 7 that do not require relocation or rectification and do not constitute a material defect along with the report; • be signed by a person authorised to represent the licence holder and contains the printed name and position of that person within the company.	Compliant	Construction report submitted to DWER 11/04/2018 and was signed by suitably qualified professional engineer and a person authorised to represent the licence holder.
125	32		Not Applicable	ref. ID 71.
126	33	The licence holder shall ensure that the specified actions listed in Table 20 are provided to the CEO in accordance with the requirements of Table 20.	Compliant	A draft TARP was submitted with the Licence amendment which was approved on the 29th October 2021. The final TARP was provided with the 2021 AER.
127	**33**	**Table 20: Specified actions**		
128	33	Trigger-Action Response-Plan (TARP) - Prepare and submit to the CEO a TARP for the Beneficiation Plant Event Pond and Hydrometallurgical Plant Event Pond for the purpose of managing water quality for re-use disposal or discharge by 30 September 2021.	Compliant	ref. ID 130.

NORTHERN MINERALS

Appendix 5

2025 Annual Audit Compliance Report for L9009/2016/1

Government of **Western Australia**
Department of **Water and Environmental Regulation**

Annual Audit Compliance Report Form

Environmental Protection Act 1986, Part V Division 3

Once completed, please submit this form either via email to info@dwer.wa.gov.au, or to the below postal address:

Department of Water and Environmental Regulation
Locked Bag 10
Joondalup DC WA 6919

Section A – Licence details			
Licence number:	L9009/2016/01	Licence file number:	DER2016/002134-1
Licence holder name:	Northern Minerals Limited		
Trading as:	Northern Minerals Limited		
ACN:	119 966 353		
Registered business address:	40 Kings Part Road, West Perth, WA 6005		
Reporting period:	01/01/2025 **to** 31/12/2025		

Section B – Statement of compliance with licence conditions

Did you comply with all of your licence conditions during the reporting period? (please tick the appropriate box)

☐ Yes – please complete:
- section C;
- section D (if required); and
- sign the declaration in Section F.

☒ No – please complete:
- section C;
- section D (if required);
- section E; and
- sign the declaration in Section F.

Section C – Statement of actual production

Provide the actual production quantity for this reporting period. Supporting documentation is to be attached.

Prescribed premises category	**Actual production quantity**
Category 5 – Processing or beneficiation of metallic or non-metallic ore; Assessed production capacity 131,490 tonnes per Annual Period.	Zero tonnes were processed during the reporting period as the Project has been in care and maintenance since 20 April 2022.
89 – Putrescible landfill site; Assessed production capacity 499 tonnes per Annual Period.	150.45 m^3 of (uncompacted) waste disposed to landfill. Assuming volume reduced following compaction, it's estimated that 45.13 tonnes (compacted) were disposed to landfill.

Section D – Statement of actual Part 2 waste discharge quantity	
Provide the actual Part 2 waste discharge quantity for this reporting period. Supporting documentation is to be attached.	
Prescribed premises category	**Actual Part 2 waste discharge quantity**
Tailings Storage Facility (TSF)	Zero tails solids or slurry was discharged to the TSF as the Project has been in care and maintenance since 20 April 2022.
Evaporation Pond (EP) Raffinate	Zero raffinate was discharged to the EP as the Project has been in care and maintenance since 20 April 2022.

Section E – Details of non-compliance with licence condition			
Please use a separate page for each condition with which the licence holder was non-compliant at a time during the reporting period.			
Condition no:	3	Date(s) of non-compliance:	25 August 2025
Details of non-compliance:			
Condition 3: The licence holder shall ensure that where waste produced on the Premises are not taken off-site for lawful use or disposal, they are managed according to the requirements in Table 1. Table 1: Ensure that no waste is burnt on the Premises. An unplanned fire occurred in the landfill cell on the 25 August 2025. The fire was relatively small and quickly extinguished. There was no observed impact to fauna, vegetation or infrastructure. Bulka bags of rubbish had been taken to the landfill and placed in the cell. When a second lot of bags were taken to the landfill approximately half an hour later the first set of bags were on fire. There was no danger or damage caused by the fire. The fire didn't extend beyond the landfill cell. The fire was extinguished by a load of sand put over the fire.			
What was the actual (or suspected) environmental impact of the non-compliance? **NOTE** – please attach maps or diagrams to provide insight into the precise location of where the non-compliance took place.			
It was considered that limited / negligible environmental risk is associated with this non-compliance.			
Cause (or suspected cause) of non-compliance:			
The incident was entered into the NTU management system (STEMS) as event 2758 and investigated. The cause wasn't conclusive but suspected to be from the disposal of a potentially ignitable refuse (i.e. vape, lighter, etc.).			
Action taken to mitigate any adverse effects of non-compliance and prevent recurrence of the non-compliance:			
The fire was extinguished by a load of sand put over the fire. The incident was internally communicated with a reminder of what waste can be disposed of in the landfill.			
Was this non-compliance previously reported to DWER?			
☒ No ☐ Yes, and			
☐ Reported to DWER verbally		Date: / /	
☐ Reported to DWER in writing		Date: / /	

Section E – Details of non-compliance with licence condition			
Please use a separate page for each condition with which the licence holder was non-compliant at a time during the reporting period.			
Condition no:	5	Date(s) of non-compliance:	28 April 2025
Details of non-compliance:			
Condition 5: The licence holder shall ensure that waste material is only stored and/or treated within vessels or compounds provided within the infrastructure detailed in Table 3. *Table 3:* *a) TSF can contain:* • *Combined tailings from the beneficiation and hydrometallurgical processing facilities.* • *Pilot Plant Wastewater Treatment Plant sludge.* • *Event Pond Dredge sediment and water.* • *Emergency transfer of poor-quality Event Pond water which may pose a risk to the environment if released.* Non-conformance: Approximately 2kL of drillers liquid waste was disposed of in the TSF which isn't permitted under L9009/2016/1 - Condition 5 - Table 3.			
What was the actual (or suspected) environmental impact of the non-compliance? **NOTE** – please attach maps or diagrams to provide insight into the precise location of where the non-compliance took place.			
No impact on the environment.			
Cause (or suspected cause) of non-compliance:			
Human Error			
Action taken to mitigate any adverse effects of non-compliance and prevent recurrence of the non-compliance:			
• An incident was raised in STEMS, event ID 2736. • Review of waste material Safety Data Sheets (SDS): o Based on the SDS and product information the liquid waste would have been mostly inert (water, rock) with some driller fluid which appears to be non-hazardous and therefore unlikely to pose a risk to the TSF liner. o Liquid waste is mostly water with drill cuttings (rock) with a small amount of drilling fluids (SDSs available on request) - SDS. BIO-GUM ULTRA: BIO GUM ULTRA is non-toxic completely biodegradable. - SDS. PAC R ULTRA: Non-hazardous. Environmentally friendly. - SDS. DRILL DET ULTRA: Non-hazardous. Environmentally acceptable o The driller waste is unlikely to pose a risk to the TSF integrity (liner) or be incompatible with the permitted wastes placed in the TSF. Therefore, the actual risk to TSF infrastructure or the environment is low to nil. o The event hasn't caused material damage to the environment or infrastructure nor is it likely in the future. • The NTU Waste Management Standard (NML-ENV-STA-0280) was revised and republished. • The incident was communicated internally to raise awareness and understanding.			
Was this non-compliance previously reported to DWER?			

Section E – Details of non-compliance with licence condition	
☒ No ☐ Yes, and	
☐ Reported to DWER verbally	Date: / /
☐ Reported to DWER in writing	Date:

Section E – Details of non-compliance with licence condition			
Please use a separate page for each condition with which the licence holder was non-compliant at a time during the reporting period.			
Condition no:	21	Date(s) of non-compliance:	July 2025
Details of non-compliance:			
Condition 21: The licence holder shall undertake monitoring in Table 12 according to the specifications in Table 12: Monitoring of ambient groundwater quality ~99.9% of groundwater field screening and laboratory analysis were completed as per Table 12. Of the 978 parameters to be tested, 1 was missed [TDS, MB05D. July 2025]). It is considered a 99% complete dataset is sufficient to represent the groundwater characteristics and condition. NTU appreciate a compliance assessment of 100% completion is required to confirm compliance. NTU consider 99.9% compliance sufficient to detect potential discharge/emission and confirm compliance; to be transparent this has been reported as a minor non-compliance.			
What was the actual (or suspected) environmental impact of the non-compliance? **NOTE** – please attach maps or diagrams to provide insight into the precise location of where the non-compliance took place.			
No impact to environment			
Cause (or suspected cause) of non-compliance:			
Administrative / scheduling error			
Action taken to mitigate any adverse effects of non-compliance and prevent recurrence of the non-compliance:			
The groundwater field sheets and Chain of Custody (CoC) sheets were revised. Staff responsible for or involved in the monitoring were informed of the missed analytes and revised sheets. NTU contacted DWER (email 27/03/2026) regarding reporting of these minor nonconformances. DWER responded (email 30/03/2026, DWER Jarrod Abrahams) "Please continue to flag non-compliances with monitoring requirements as part of completing and submitting your annual reports (AER/AACR's). While the compliance matters appear to be minor, technically they should be flagged."			
Was this non-compliance previously reported to DWER?			
☐ No ☒ Yes, and			
☐ Reported to DWER verbally	Date: / /		
☒ Reported to DWER in writing	Date: 27/03/2026 (email as noted above)		

Section E – Details of non-compliance with licence condition			
Please use a separate page for each condition with which the licence holder was non-compliant at a time during the reporting period.			
Condition no:	22	Date(s) of non-compliance:	2025
Details of non-compliance:			
Condition 22: The licence holder shall undertake the monitoring in Table 13 according to the specifications in Table 13. Table 13: Monitoring of water quality – Pilot Plant Event Pond ~99.4% of surface water field screening and laboratory analysis was completed (346 parameters to be tested. 2 missed [Alkalinity]). It is considered a 99% complete dataset is sufficient to represent the water characteristics and condition. It is considered a 99% complete dataset is sufficient to represent the groundwater characteristics and condition. NTU appreciate a compliance assessment of 100% completion is required to confirm compliance. NTU consider 99% compliance sufficient to detect potential discharge/emission and confirm compliance; to be transparent this has been reported as a minor non-compliance.			
What was the actual (or suspected) environmental impact of the non-compliance? **NOTE** – please attach maps or diagrams to provide insight into the precise location of where the non-compliance took place.			
No impact to environment			
Cause (or suspected cause) of non-compliance:			
Administrative / scheduling error			
Action taken to mitigate any adverse effects of non-compliance and prevent recurrence of the non-compliance:			
The surface water field sheets and CoC sheets were revised. Staff responsible for or involved in the monitoring were informed of the missed analytes and revised sheets. NTU contacted DWER (email 27/03/2026) regarding reporting of these minor nonconformances. DWER responded (email 30/03/2026, DWER Jarrod Abrahams) "Please continue to flag non-compliances with monitoring requirements as part of completing and submitting your annual reports (AER/AACR's). While the compliance matters appear to be minor, technically they should be flagged."			
Was this non-compliance previously reported to DWER?			
☐ No ☒ Yes, and			
☐ Reported to DWER verbally		Date: / /	
☒ Reported to DWER in writing		Date: 27/03/2026 (email as noted above)	

Section F – Declaration

I / We declare that the information in this Annual Audit Compliance Report is true and correct and is not false or misleading in a material particular[1].

I / We consent to the Annual Audit Compliance Report being published on the Department of Water and Environmental Regulation's (DWER) website.

[redacted]

Date:	31 / 03 / 2026	Date:	
Seal (if signing under seal):			

[1] It is an offence under section 112 of the *Environmental Protection Act 1986* for a person to give information on this form that to their knowledge is false or misleading in a material particular.

[2] AACRs can only be signed by the licence holder or an authorised person with the legal authority to sign on behalf of the licence holder.

NORTHERN MINERALS

Appendix 6

2025 TSF Water Balance Modelling For L9009/2016/1

MEMORANDUM

To:	Northern Minerals Limited	**Date:**	28 November 2025
Attn:	[redacted]	**Our Ref:**	[redacted]
		KP File Ref.:	[redacted]
cc:	[redacted]	**From:**	[redacted]

RE: WOLVERINE RARE EARTHS PROJECT – PILOT TAILINGS STORAGE FACILITY WATER BALANCE MODELLING (2025) REV 1

EXECUTIVE SUMMARY

As requested by Northern Minerals Limited (NML), Knight Piésold (KP) has completed water balance modelling for the existing Pilot Tailings Storage Facility (TSF) at the Browns Range Rare Earths Project (Browns Range), which is also known as the Wolverine Rare Earths Project (Wolverine).

The Browns Range TSF was constructed in October 2017, and was operated until March 2022, after which the project was placed on care and maintenance. A water balance model was developed by others and was maintained until the project was placed on care and maintenance in February 2022. This model was used to provide some inputs in the water balance model, in addition to the TSF monitoring records provided by NML. This data was utilised to calibrate the water balance model and allow for comparison against the values predicted by the model.

The model was developed from 2017 onwards and covers commissioning, operation and, the care and maintenance period. The model has been developed to allow comparison with monitoring data and enable predictions regarding the future water management performance of the facility.

After calibration, the model was used to provide an annual summary for the 2025 calendar year for the TSF in regards to rainfall, evaporation, tailings return water recovery volumes, seepage recovery volumes and volumes of tailings deposited into the facility as required by the project licence (L9009/2016).

The water balance model was then run for average and design wet conditions extending to and including 2030 to provide a forecast of the expected performance of the Pilot TSF. The forecast was based on the facility remaining on care and maintenance during the modelling period.

Key findings from the modelling are as follows:

- The calibrated water balance model demonstrates a strong correlation with the monitoring data provided by NML.
- The TSF has sufficient capacity to contain tailings and the full range of design rainfall events (i.e.100-year ARI 72-hour event, PMP 72-hour event, 100-year Wet year, 10-year ARI Wet Season, with the 100-year ARI 72-hour event superimposed) including associated stormwater volumes.

- Short-duration, high-intensity rainfall events present the most critical scenario for stormwater containment, compared with longer-duration wet sequences.
- The TSF operates as a water-negative facility and does not accumulate water under the average or design wet conditions assessed. The supernatant pond is predicted to return to zero after a single dry season, except following a PMF event, which would require two dry seasons.
- No spillway discharge is anticipated from the Pilot TSF under either average climatic conditions or the wet scenarios evaluated.
- Given the project's current care-and-maintenance status and the substantial freeboard indicated by water balance modelling under both average and wet conditions (i.e.100-year ARI 72-hour event, PMP 72-hour event, 100-year Wet year, 10-year ARI Wet Season, with the 100-year ARI 72-hour event superimposed), the requirement for annual water balance updates is unlikely to provide additional risk mitigation. The TSF maintains a stable, low-risk configuration with no predicted containment issues. However, due to the potential for cyclonic or extreme rainfall events, it is recommended that water balance reviews be undertaken following significant rainfall (greater than 100-year ARI 72-hour precipitation), exceedance of freeboard monitoring triggers, or other notable deviations from expected conditions. This event-based approach ensures the model remains current while avoiding unnecessary annual updates.

This memorandum supersedes KP memorandum (Ref. PE25-01476) issued 21 November 2025.

1. INTRODUCTION

A deterministic monthly water balance model for the Browns Range Rare Earths Project Pilot Tailings Storage Facility (TSF) has been developed. The model has utilised the monitoring records provided by NML; these data include the following documentation received via email on 14 November 2025:

i. Precipitation Data titled "*BR_Rainfall.xls*".
ii. Surface Water Management Plan titled "*EVAP_1667882-003-M-Rev0 - Browns Range Project Climate Summary Section Update (unsecured).pdf*".
iii. Previous water balance model developed by others, titled "*PRO0001S-GN-CA-000-002 TSF WATER BALANCE_Working Copy_Unlocked_Feb 2022.xls*".
iv. Hydrometallurgical Pond dewatering volumes from excel file titled "*Water – Surface – Event Ponds.xls*".
v. TSF monitoring data from excel file titled "*Water – Surface – TSF.xls*".

The water balance modelling was completed to comply with the project DWER Part V licence (L9009/2016). The specific licence requirement is as follows:

The licence holder shall undertake an annual water balance for the TSF. The water balance shall as a minimum consider and include the following:

(a) site rainfall;
(b) evaporation;
(c) tailings return water recovery volumes;
(d) seepage recovery volumes; and
(e) volumes of tailings deposited.

The water balance developed for the Pilot TSF is presented herein, including the modelling assumptions, logic, inputs and results.

2. MODELLING PARAMETERS

2.1 OBJECTIVES

The primary objectives of the water balance modelling are summarised below:

- Calibrate the model using existing monitoring data for the facility.
- Provide a summary of the TSF 2025 performance with respect to the licence requirements.
- Determine supernatant pond volumes within the TSF under average climatic conditions throughout operation.
- Determine supernatant pond volumes within the TSF for design wet rainfall sequences and storm events, check TSF storm water storage capacity and confirm the suitability of the current TSF design philosophy.
- Assess risk factors for water balance modelling.

2.2 MODEL PARAMETERS AND ASSUMPTIONS

2.2.1 General

A deterministic water balance for the Pilot TSF was completed utilising a monthly time step. Historical monitoring records for the facility were utilised to calibrate the model and design values were used to forecast the facility behaviour. Tailings behaviour parameters were incorporated into the model using available tailings testing and monitoring data for the facility. The water balance model set up is discussed in more detail in the following sections.

2.2.2 Tailings Storage Facility (TSF) – Pilot TSF

For the water management model, the following inputs into the TSF were included:

- Water in the slurry from the process plant.
- Rainfall runoff from the tailings and supernatant pond surface and surrounding catchments.
- Water discharge from the hydrometallurgical pond.

Outputs from the TSF included:

- Evaporation losses.
- Seepage losses.
- Water returned to the plant as process make-up water (via the decant system).

The block model for the Pilot TSF is provided below in Figure 2.1.

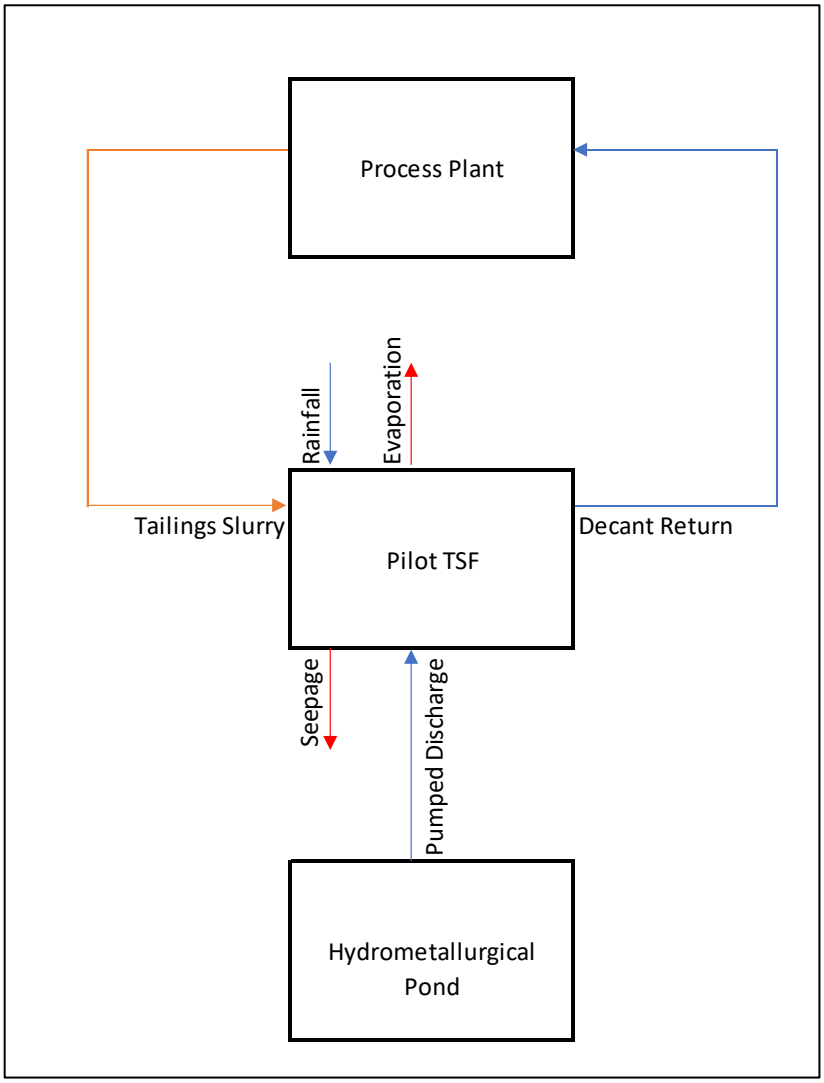


Figure 2.1: Pilot TSF block model

2.3 MODELLING SCENARIOS

2.3.1 General

For water management modelling, various design rainfall conditions were included for selected operational years. The following rainfall sequences were modelled:

- Average conditions.
- 100-year Average Recurrence Interval (ARI), 12-month wet rainfall sequence.
- 100-year ARI, 72-hour storm event (magnitude 327 mm).
- 1 in 10-year recurrence interval wet season (90-day duration), with 100% runoff and no evaporation, with the 1 in 100-year recurrence interval, 72-hour duration storm event superimposed.
- Probable Maximum Precipitation (PMP), 72-hour storm event (magnitude 1,910 mm).

When design rainfall sequences were modelled in a selected year, it was assumed that average climatic conditions occurred prior to, and subsequent to, the design sequence.

2.3.2 Climate Data

Historical climate data for the project were provided by NML for the purpose of the assessment. The data provided for the assessment included the following:

i. Monthly precipitation data obtained from the site climate station between December 2012 to October 2025 taken from the excel file titled "*BR_Rainfall.xls*".
ii. Monthly evaporation data taken from the excel file titled *"PRO0001S-GN-CA-000-002 TSF WATER BALANCE_Working Copy_Unlocked_Feb 2022.xls"* between March 2019 to December 2022.

These historical monitoring data were utilised in the assessment where available.

In periods where historical data were unavailable design values as described below were utilised in the assessment. It is noted that SILO evaporation data were utilised between October 2017 to March 2019 to fill data gaps in the historical site records.

Average and design wet/dry monthly rainfall and evaporation values were used in the modelling, as documented in the Baseline Climatology Assessment (Ref. 1). Monthly rainfall and pan evaporation values are provided in Table 2.1.

Table 2.1: Design rainfall and evaporation annual sequences

Month	Average Rainfall (mm)	1 in 100 ARI Wet Annual Rainfall (mm)	1 in 100 ARI Dry Annual Rainfall (mm)	Average Pan Evap. (mm)
January	59	216.2	29.7	268
February	229.3	452.6	50.7	218
March	18.1	227.5	0.4	237
April	1.1	0.0	11.7	221
May	0.1	0.0	21.3	184
June	0.0	0.1	0.0	154
July	0.0	0.0	6.4	171
August	0.0	0.1	0.0	216
September	2.3	0.7	0.0	265
October	14.8	70.8	0.3	308
November	9.2	41.8	2.5	302
December	101.0	149.0	24.1	283
TOTAL	434.9	1,158.8	147.1	2,827

Design storm events from the baseline climatology assessment are provided in Table 2.2. The design storm event of a 1 in 100-year recurrence interval, 72-hour duration storm event has a rainfall depth of 327 mm.

Table 2.2: Storm events (24-hour and 72-hour duration)

Duration (hours)	100-yr ARI	1,000-yr ARI	PMP
24	213	300	1,050
72	327	481	1,910

The design wet season was modelled as a 90-day duration rainfall sequence (the period in which 70% of the annual rainfall occurs on average, as defined by ANCOLD (Ref. 2)). This sequence is summarised in Table 2.3.

Table 2.3: Design wet season rainfall sequence

Month	Wet Season Scenarios (mm)				
	100-yr ARI	50-yr ARI	20-yr ARI	10-yr ARI	5-yr ARI
Dec	133.9	126.7	115.1	104.3	90.9
Jan	224.0	211.9	192.5	174.4	151.9
Feb	537.0	508.1	461.6	418.1	364.3
TOTAL	894.9	846.8	769.2	696.7	607.0

As part of the water balance modelling the Lake Pan factors were adjusted to calibrate the model to the available monitoring data. The adopted values are presented below in Table 2.4.

Table 2.4: Lake Evaporation Factors

Month	Lake Pan Factor
January	0.72
February	0.74
March	0.74
April	0.75
May	0.77
June	0.78
July	0.78
August	0.76
September	0.72
October	0.69
November	0.69
December	0.71

2.4 CATCHMENT AND RUNOFF ESTIMATION

Catchment and runoff characteristics used in the water balance modelling are shown in Table 2.5. Runoff coefficients shown in Table 2.5 were determined based on similar regional project experience and calibration with monitoring data.

Table 2.5: Catchment characteristics

Parameter	Value
TSF Catchment Area [1]	
- Stage 1	4.1 ha
- Stage 2	4.4 ha
TSF Storage Curve[1]	Figure 2.2
Runoff Coefficients (Long-term)	
Undisturbed (external to basins) (Avg/Wet/Dry)	5% / 8% / 3%
Cleared areas	30%
HDPE Liner	90%
Tailings beach	80%
Ponds	100%
Runoff Coefficients (Short-term event)[2]	
Undisturbed (external to basins)	15%
Cleared areas	50%
HDPE Liner	100%
Tailings beach	85%
Ponds	100%

1 Based on as built drawings and survey records provided with TSF Construction Reports (Ref. 7 and 8).
2 For 1% Annual Exceedance Probability (AEP) event.
3 Probable Maximum Precipitation (PMF) event and ANCOLD wet season uses 100% runoff.

2.5 TAILINGS CHARACTERISTICS

Modelling parameters for the tailings were adopted based on tailings physical testing completed by KP on a tailings sample provided for the Pilot TSF design (Ref. 9) or based on actual historical monitoring records (Ref. 10).

For the Pilot TSF water balance model, tailings testing results were utilised to provide representative parameters. Tailings parameters used in the water balance modelling are summarised in Table 2.6.

Table 2.6: Tailings characteristics

Parameter	Value
Tailings % Solids[1] (w/w)	
- Range	1% to 40%
- Average	21%
In Situ Density (minimum) [2]	0.901 t/m^3
Water Released [3]	36%
Solid Specific Gravity [3]	2.67
Tailings Permeability [3]	1x10^{-8} m/s

1 Based on historical monitoring records provided by NML (refer Section 1).
2 Based on tailings density estimates generated by KP (Ref. 10).
3 Based on physical tailings testing completed by KP as part of the Pilot TSF design (Ref. 9).

2.6 PROCESS PARAMETERS

The historical processing schedule was provided by NML. The values are summarised below in Table 2.7.

Table 2.7: Processing schedule summary

Parameter	Value
Operation Date - Start - End	 July 2018 February 2022
Total Tonnage	48,646 t
Throughput - Range - Average	 0 to 4,045 tpm 1,106 tpm

The project is currently on care and maintenance; therefore, no tailings deposition has occurred in the Pilot TSF after February 2022.

2.7 ADDITIONAL PARAMETERS

Additional modelling parameters used are listed in Table 2.8. The following commissioning dates were used in the modelling:

- Process plant commissioning date of July 2018, as provided by NML.
- The Pilot TSF commissioning date (for storage) was July 2018, as provided by NML.
- Deposition ceased within the Pilot TSF on March 2022, as provided by NML.

Table 2.8: Additional modelling parameters

Parameter	Value
TSF	
Commissioning date (storage) [1]	01 October 2017
Commissioning date (operation)[2]	01 July 2018
Tailings beach slope[4]	50H:1V
Minimum operating pond volume	0 m^3
Tailings permeability[3]	1 x 10^{-8} m/s
TSF basin permeability (HDPE liner)[3]	1 x 10^{-11} m/s
Plant Site Parameters	
Commissioning Date	01 July 2018
Tailings Production Data (historical averages)	
Tailings % Solids	21%
Average Throughput (dry tonnes)	1,106 tpm
Total tonnage	48,646 t
General Parameters	
Evaporation pan factor (pond)[3]	Refer Table 2.4
Evaporation pan factor (beach)[3]	0.90
Underdrainage Sump Pumping - Range - Average	 0 to 238 m^3/month 40 m^3/month
Hydrometallurgical Pond Pumping - Range - Average	 0 to 3,693 m^3/month 387 m^3/month

1 Based on Stage 1 construction report (Ref. 7). | 2 Based on processing data provided by NML (refer Section 1).
3 Calibrated parameter. | 4 Measured from beach survey.

3. WATER BALANCE MODELLING RESULTS

3.1 MODEL CALIBRATION

Monitoring data for the Pilot TSF was provided by NML and incorporated into the model. The following data were provided by NML for use in the calibration of the model:

i. Precipitation data.
ii. Evaporation data.
iii. Tailings throughput data.
iv. Tailings percent solids data.
v. Underdrainage sump dewatering rates.
vi. Decant return rates.
vii. Pond level data.

The following values were adjusted to calibrate the model against the actual monitored pond level data provided by NML:

i. Tailings Permeability.
ii. Basin Permeability.
iii. Lake Evaporation factors.

A plot of the predicted pond level over time and the actual monitored level are provided below in Figure 3.1. The values predicted by the model showed a good correlation with monitored pond level data, and aligned closely with the peak, troughs and seasonal trends seen in the pond level monitoring data. Ongoing monitoring within the Pilot TSF should be continued to verify the modelling results and improve confidence in the model predictions.

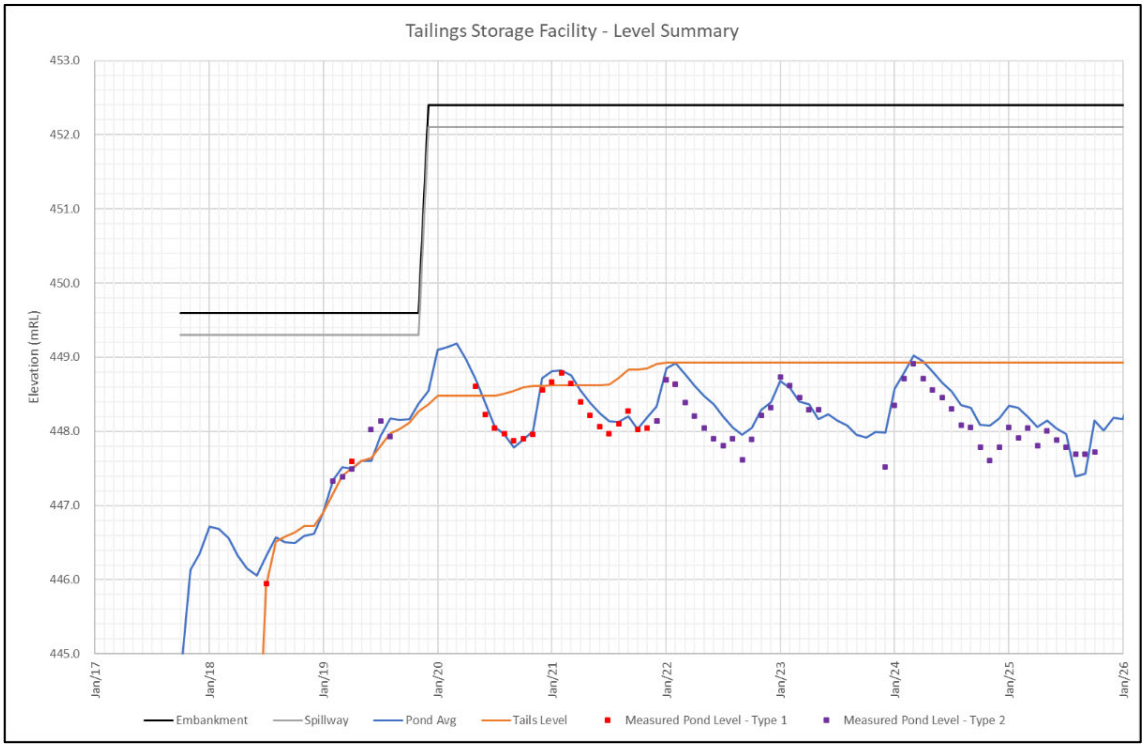


Figure 3.1: Model predictions vs Actual pond levels (historical)

The modelling indicated that significant storm water capacity is available within the TSF, due to the Stage 2 raise being completed, but not operated. The available storm water capacity within the TSF is discussed further within Section 3.4.

3.2 2025 REPORTING PERIOD

A summary of the water balance modelling results for the Pilot TSF was completed for the 2025 calendar year (i.e. January 2025 to December 2025). It is noted that complete monthly monitoring data were only available up to the end of October 2025, therefore design values have been adopted for November and December 2025.

A summary of the climate data for the 2025 calendar year is provided in Table 3.1.

Table 3.1: Climate Data Summary (2025)

Value	Actual	Design	Difference
Precipitation (mm)[1]	547	564	-17
Pan Evaporation (mm)[2]	2,827	2,827	0

1 Design values used for November and December.
2 Design values used for entire year as no site data is available.

The climate data are similar to design values for the facility, although the actual rainfall is slightly lower than design.

The monthly results from the water balance modelling for the 2025 reporting period are summarised in Table T.1 appended to this memorandum.

A plot of the predicted pond level for 2025 and the actual monitored level are provided below in Figure 3.2. The model showed good correlation with the monitored pond levels during the reporting period.

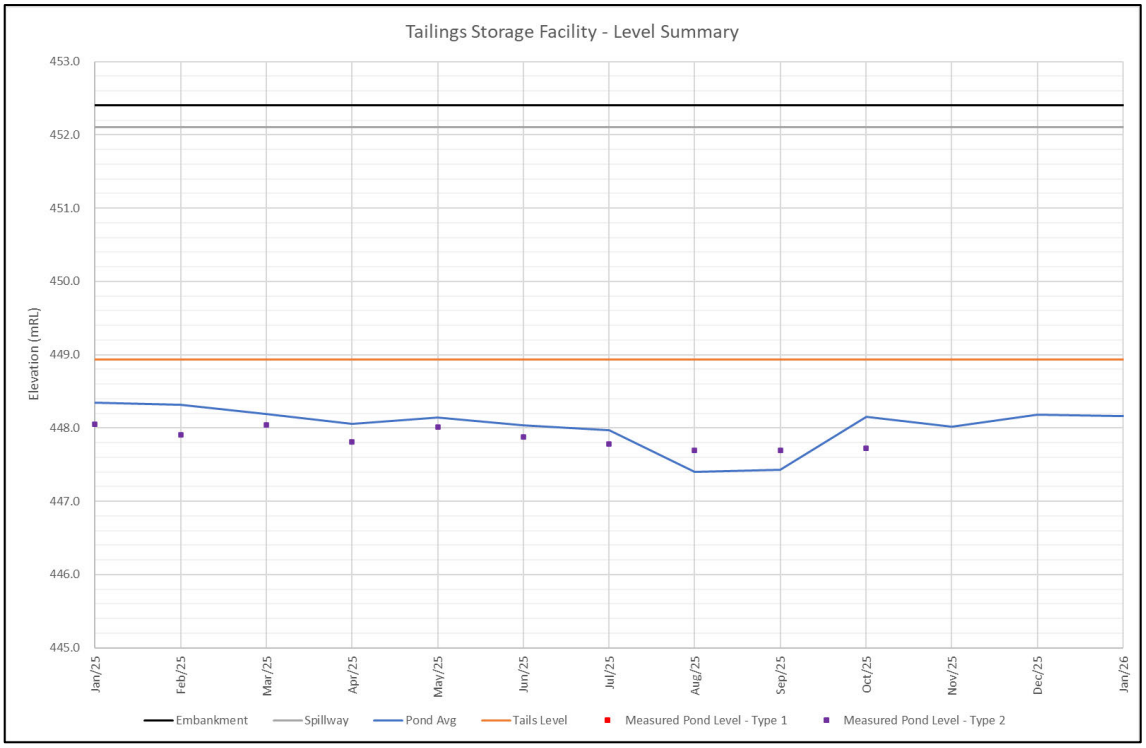


Figure 3.2: Model predictions vs Actual pond levels (2025 calendar year)

3.3 AVERAGE CONDITIONS FORECAST

Water Balance modelling using average climatic conditions allows general trends in the behaviour of the Pilot TSF to be determined. The modelling results for the Pilot TSF under average climatic conditions up to and including 2030 are plotted on figures 3.3 and 3.4 below.

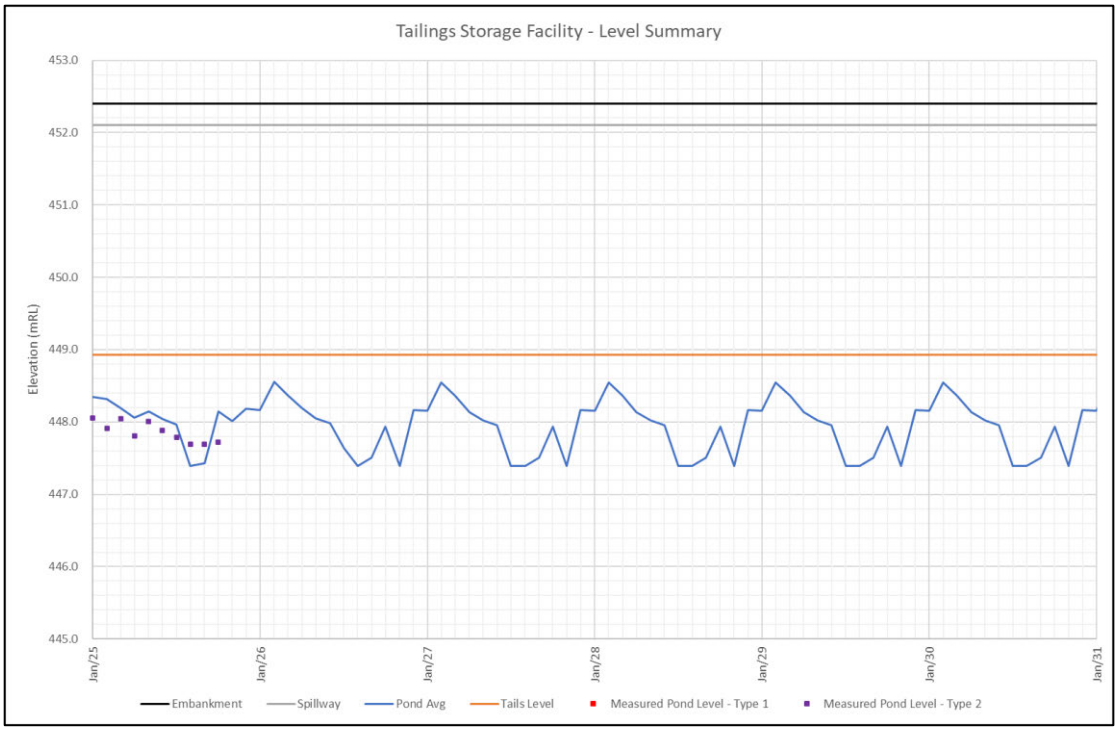


Figure 3.3: Pond level forecast (average conditions)

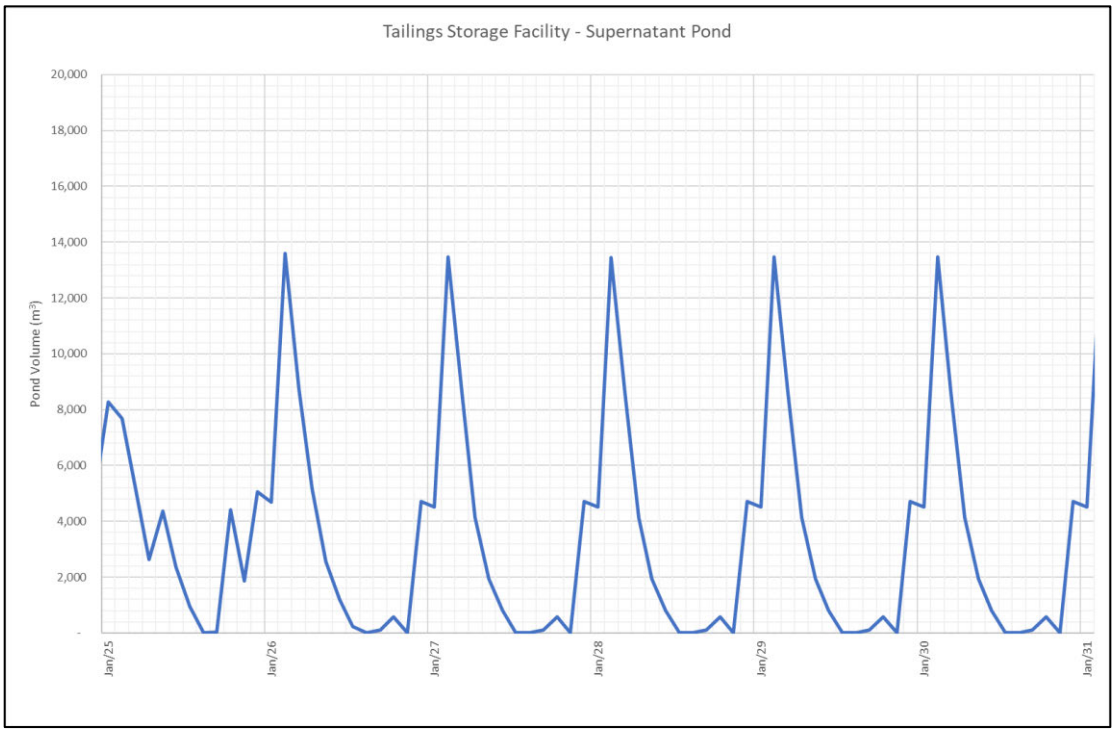


Figure 3.4: Pond volume forecast (average conditions)

Observations from the average conditions modelling are summarised below for the Pilot TSF:

- The supernatant pond within the Pilot TSF follows a seasonal trend, where the pond volume peaks at 13,000 m^3 in February each year (at the end of the wet season) and will reduce to zero volume in the subsequent dry season.
- The TSF is water negative and does not accumulate water under design average conditions.
- The TSF has significant stormwater capacity (117,000 m^3) and freeboard (minimum 3.5 m to spillway invert level) under design average conditions.

3.4 WET CONDITIONS FORECAST

The model was calibrated with the monitoring data collected during operations and, the care and maintenance period, as shown in Figure 3.1. The model was then used to predict the performance of the TSF into the future following wet rainfall sequences.

Modelling of design wet rainfall sequences and storm events were completed for each year between 2026 to 2030. The design cases were based on the requirements of DEMIRS (Ref. 5), ANCOLD 2019 (Ref. 2) and GISTM 2020 (Ref. 4). The design cases considered were:

- 100-year Average Recurrence Interval (ARI), 12-month wet rainfall sequence.
- 100-year ARI, 72-hour storm event (magnitude 327 mm).
- 1 in 10-year recurrence interval wet season (90-day duration), with 100% runoff and no evaporation, with the 1 in 100-year recurrence interval, 72-hour duration storm event superimposed.
- Probable Maximum Flood (PMF), 72-hour storm event (magnitude 1,910 mm), with 100% runoff.

For all scenarios, average climatic conditions were modelled prior to and following the design events. In addition, the supernatant pond volume prior to design events is based on the assumption that the TSF is managed appropriately.

Wet conditions modelling results for the TSF are presented in figures 3.5 to 3.6.

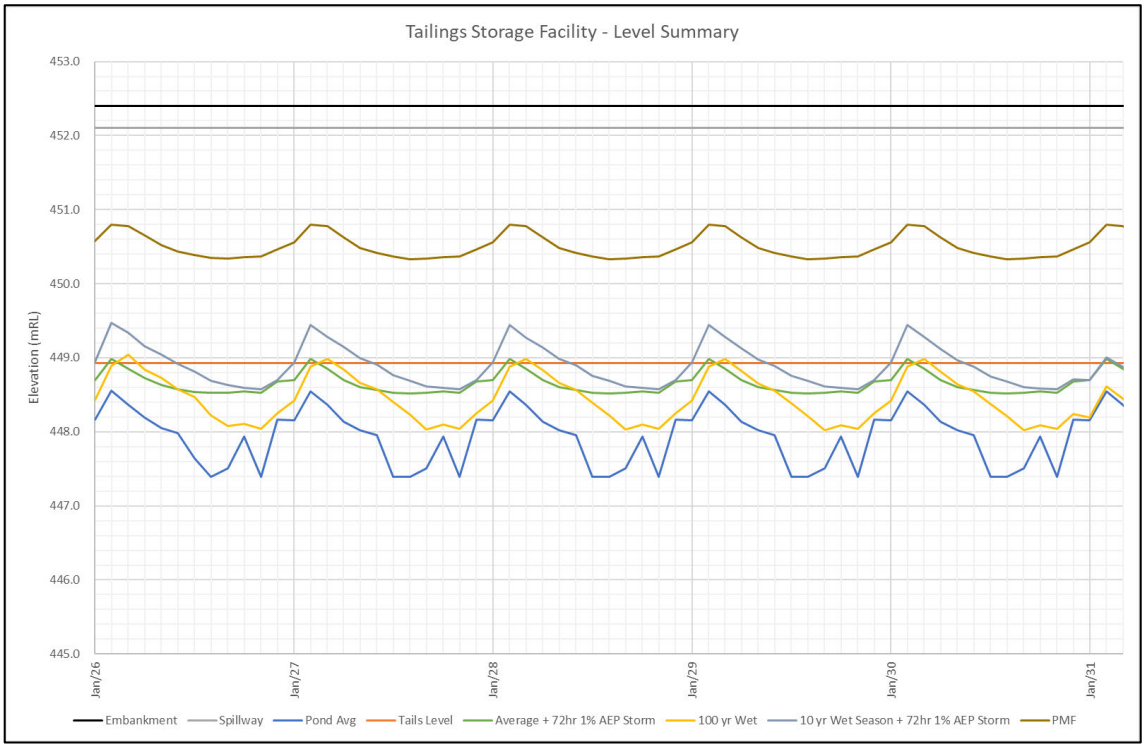


Figure 3.5: Pond level forecast (wet conditions)

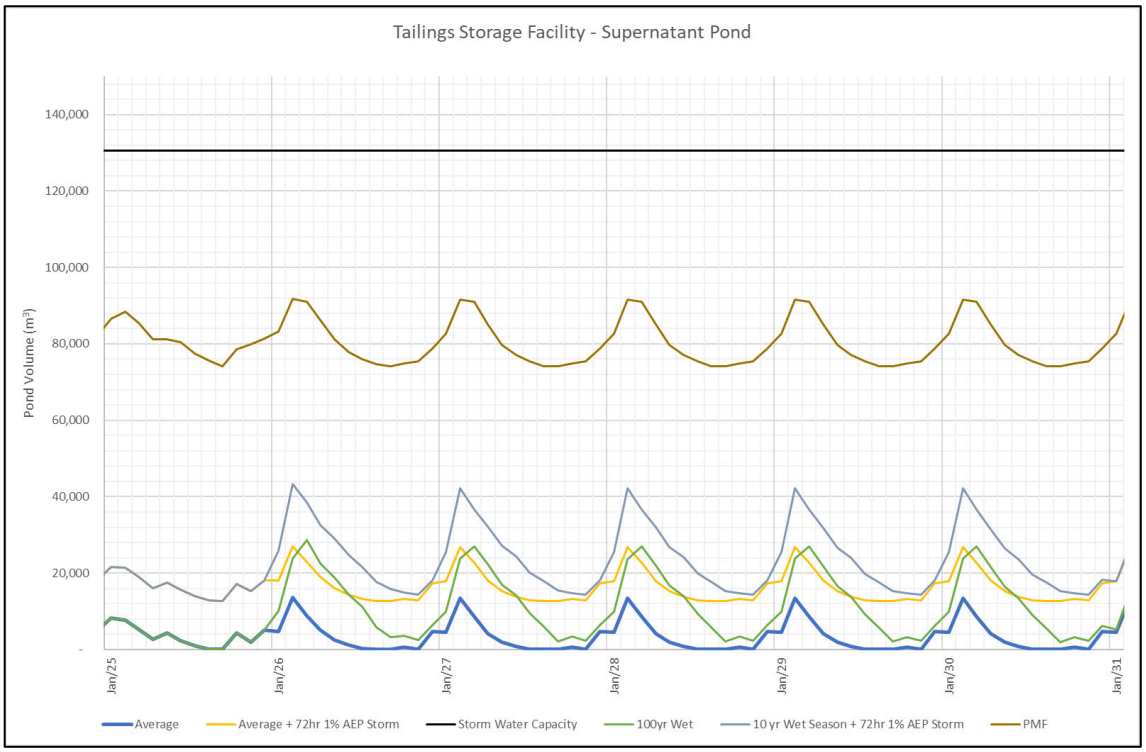


Figure 3.6: Pond volume forecast (wet conditions)

Key observations from the wet conditions modelling are as follows for the Pilot TSF:

- The TSF is designed to hold the tailings plus the design rainfall conditions and thus has sufficient storm water storage capacity for all design storm events and rainfall sequences.
- Probable Maximum Flood conditions resulted in the largest supernatant pond (92,000 m^3), of all cases considered. This represents the largest short term duration event which is expected to occur at Browns Range. The Pilot TSF was able to contain this event whilst maintaining significant freeboard (1.3 m to the spillway invert level). It will take two dry seasons for the supernatant pond to return to normal operating conditions (i.e. zero pond during dry season) following the PMF event.
- Following long term 100-year wet conditions the pond will have a larger peak (27,000 m^3) compared to average conditions; however, the pond will be removed entirely by evaporation over the subsequent dry season. Based on this, short-term events such as the PMF event are considered more critical from a storm water perspective, as opposed to long term wet conditions.
- No discharge via the emergency spillway is expected under the considered design wet conditions.
- The TSF is water negative and does not accumulate water under the design wet conditions considered, as the supernatant pond will return to zero after a single dry season, except following the PMF event where two dry seasons would be required.

4. LICENCE CONDITIONS

The current project licence requires that an update of the Pilot TSF water balance model is completed each year. It is understood that this requirement was specified during the operational period of the Pilot TSF.

Based on the current operating status of the project (care and maintenance) and the outcomes of the water balance modelling, the requirement for annual update may not be warranted given the current risk profile of the facility. The facility is currently on care and maintenance and is operating with significant surplus freeboard. Water balance modelling undertaken for both average and wet climatic conditions indicates that the TSF maintains significant additional storage capacity throughout the assessment period, with no predicted risks to containment. Given this stable configuration and the low likelihood of material changes in inflows under this configuration, annual updates may not provide meaningful additional risk mitigation.

Notwithstanding the above, it is recognised that the site is located in a region where cyclonic activity and associated extreme rainfall events can occur. With this in mind, undertaking a water balance review following any significant rainfall events (greater than 100-year ARI 72hr precipitation), exceedance of freeboard monitoring triggers, or notable deviation from expected climatic or operational conditions would be appropriate. This event-based review approach would ensure that the water balance remains current and reflective of site conditions, while eliminating annual updates during periods where the facility remains in a low-risk, care-and-maintenance condition.

5. CONCLUSIONS

Based on the modelling undertaken, the following conclusions can be drawn for the Pilot TSF:

- The calibrated water balance model demonstrates a strong correlation with the monitoring data provided by NML.
- The TSF has sufficient capacity to contain tailings and the full range of design rainfall events (i.e.100-year ARI 72-hour event, PMP 72-hour event, 100-year Wet year, 10-year ARI Wet Season, with the 100-year ARI 72-hour event superimposed), including associated stormwater volumes.
- Short-duration, high-intensity rainfall events present the most critical scenario for stormwater containment, compared with longer-duration wet sequences.
- The TSF operates as a water-negative facility and does not accumulate water under the average or design wet conditions assessed. The supernatant pond is predicted to return to zero after a single dry season, except following a PMF event, which would require two dry seasons.
- No spillway discharge is anticipated from the Pilot TSF under either average climatic conditions or the wet scenarios evaluated.
- Given the project's current care-and-maintenance status and the substantial freeboard indicated by water balance modelling under both average and wet conditions (i.e.100-year ARI 72-hour event, PMP 72-hour event, 100-year Wet year, 10-year ARI Wet Season, with the 100-year ARI 72-hour event superimposed), the requirement for annual water balance updates is unlikely to provide additional risk mitigation. The TSF maintains a stable, low-risk configuration with no predicted containment issues. However, due to the potential for cyclonic or extreme rainfall events, it is recommended that water balance reviews be undertaken following significant rainfall (greater than 100-year ARI 72-hour precipitation), exceedance of freeboard monitoring triggers, or other notable deviations from expected conditions. This event-based approach will ensure that the model remains current while avoiding unnecessary annual updates.

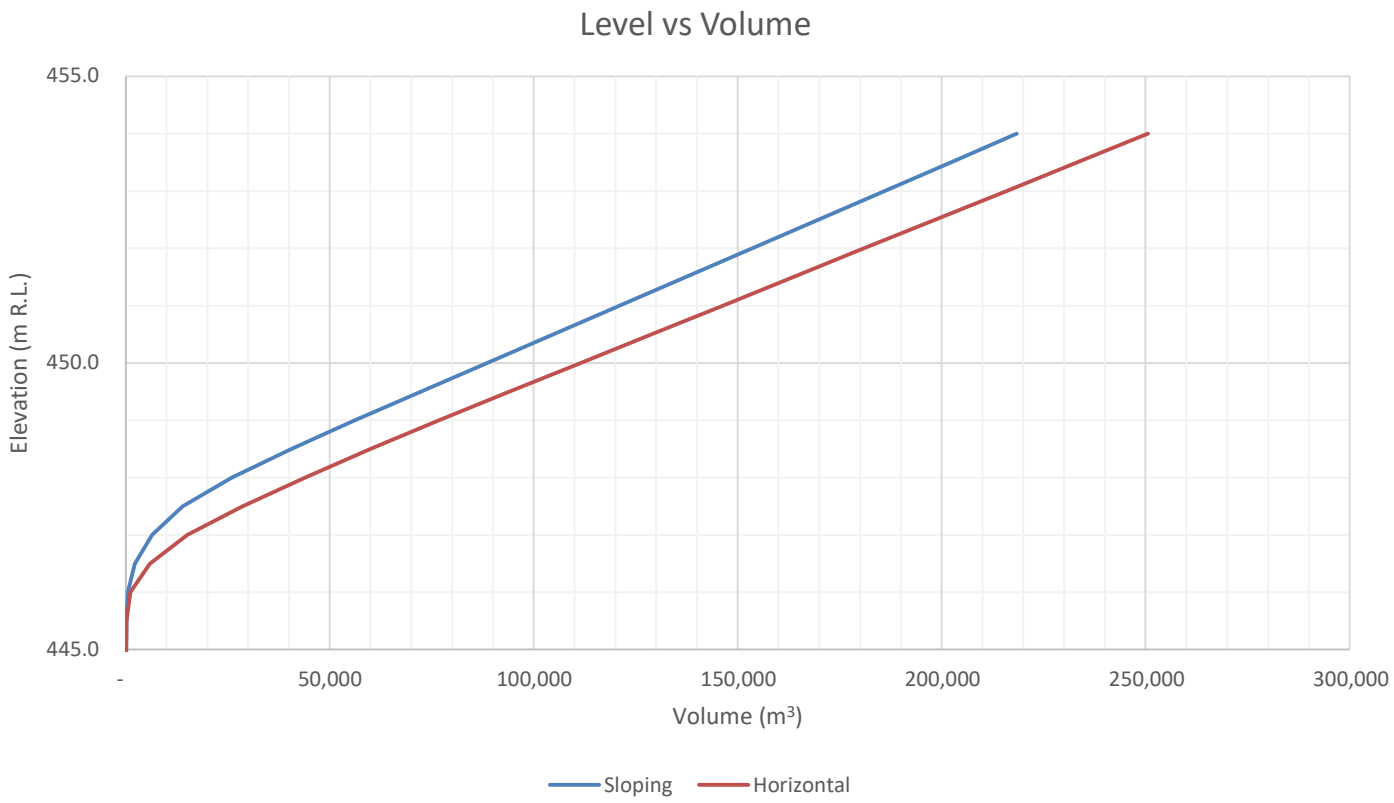
We trust this is sufficient information for your current requirements. If you have any questions please contact us.

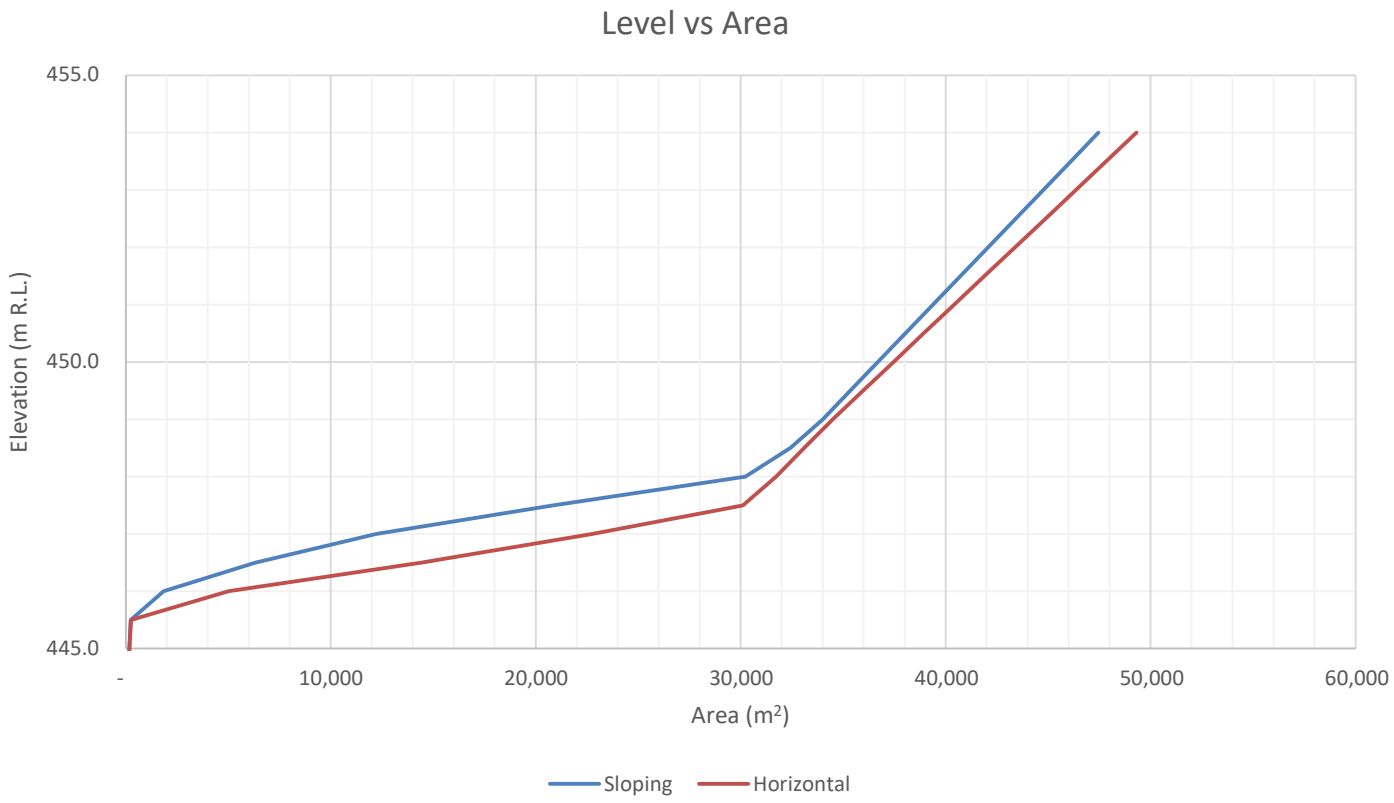
Yours faithfully

REFERENCES

1. Knight Piésold Pty Ltd, "*Browns Range Project – Design Climatology Rev 1*", Memorandum Ref. PE23-00742, July 2023.
2. Australian National Committee on Large Dams (ANCOLD), *"Guidelines on Tailings Dams, Planning, Design, Construction, Operation and Closure"* Revision 1, July 2019.
3. Australian National Committee on Large Dams (ANCOLD), *"Guidelines on the Consequence Categories for Dams"*, October 2012.
4. Global Tailings Review, *"Global Industry Standard on Tailings Management"*, August 2020.
5. DMIRS (was DMP), *"Code of Practise – Tailings storage facilities in Western Australia"*, 2013.
6. DMIRS (was DMP), *"Guide to the Preparation of a design report for tailings storage facilities (TSFs)"*, August 2015.
7. Knight Piésold Pty Ltd, "*Browns Range Project – Pilot Plant – Tailings Storage Facility, Evaporation Pond and Miscellaneous Stage 1 Construction Report"* Report Ref. PE801-00241/09 Rev 1, April 2018.
8. Knight Piésold Pty Ltd, "*Browns Range Project – Pilot Plant – Tailings Storage Facility Stage 2 Construction Report",* Report Ref. PE801-00241/15 Rev 2, October 2020.
9. Knight Piésold Pty Ltd, "*Browns Range Project – Pilot Plant – Tailings Storage Facility and Evaporation Pond Permitting Design Report*", Report Ref. PE801-00241/05 Rev 0, June 2016.
10. Knight Piésold Pty Ltd, "*Wolverine Rare Earths Project – Tailing Storage Facility, Evaporation Pond and Waste Landform 2024 Annual Audit Report",* Report Ref. PE801-00241/29 Rev 0, July 2024.

FIGURES


Level vs Volume
455.0
450.0
445.0
Elevation (m R.L.)
-
50,000
100,000
150,000
200,000
250,000
300,000
Volume (m³)
Sloping
Horizontal


Level vs Area
455.0
450.0
445.0
Elevation (m R.L.)
-
10,000
20,000
30,000
40,000
50,000
60,000
Area (m²)
Sloping
Horizontal

TABLE

Table T.1: Water Balance Summary (2025)

Date		Units	01/2025	02/2025	03/2025	04/2025	05/2025	06/2025	07/2025	08/2025	09/2025	10/2025	11/2025	12/2025
Rainfall		mm	146	42	4	0	88	0	0	0	1	123	12	131
Pan Evaporation		mm	268	218	237	221	184	154	171	216	265	308	302	283
Avg Facility Density Profile		t/m3	0.901	0.901	0.901	0.901	0.901	0.901	0.901	0.901	0.901	0.901	0.901	0.901
Incremental Tails		t	-	-	-	-	-	-	-	-	-	-	-	-
Cumulative tailings		t	48,646	48,646	48,646	48,646	48,646	48,646	48,646	48,646	48,646	48,646	48,646	48,646
Cumulative volume		m3	54,000	54,000	54,000	54,000	54,000	54,000	54,000	54,000	54,000	54,000	54,000	54,000
Percent Solids		(w/w)	-	-	-	-	-	-	-	-	-	-	-	-
Water in Slurry		m3	-	-	-	-	-	-	-	-	-	-	-	-
Tails Level		mRL	448.9	448.9	448.9	448.9	448.9	448.9	448.9	448.9	448.9	448.9	448.9	448.9
Water in	Rainfall Total	m3	6,398	1,824	184	-	3,841	-	-	-	44	5,411	522	5,740
	Rainfall Runoff	m3	5,701	1,692	170	-	3,328	-	-	-	36	4,461	462	4,924
	Water Pumped from Hydro Pond	m3	561	1,417	1,127	-	-	-	-	-	-	-	219	
	Supernatant release	m3	-	-	-	-	-	-	-	-	-	-	-	-
	Consolidation Release	m3	1	2	19	12	-	-	-	-	-	-	-	-
	Water Released from UD Sump	m3	1	2	19	12	-	-	-	-	-	-	-	-
Water Out	Basin Seepage	m3	0.9	0.82	0.9	0.88	0.9	0.88	0.9	0.9	0.88	0.9	0.88	0.9
	Tailings Seepage	m3	-	-	-	-	254	354	237	146	-	8	357	205
	Pond Evaporation	m3	2,882	3,698	3,778	2,606	1,344	1,639	1,181	804	-	64	2,873	1,539
	Beach Evaporation	m3	455	213	261	359	402	279	384	551	806	928	544	665
	Available Decant	m3	8,280	7,692	5,229	2,634	4,362	2,369	950	-	35	4,423	1,873	5,052
	Actual Decant	m3	-	-	-	-	-	-	-	-	-	-	-	-
	Spillway outflow from TSF	m3	-	-	-	-	-	-	-	-	-	-	-	-
Pond Volume		m3	8,280	7,692	5,229	2,634	4,362	2,369	950	-	35	4,423	1,873	5,052