

**2023 & 2024 Water Licence Annual  
Reports**  
for the  
**Nechalacho Rare Earth Elements Project**  
  
**NWT Rare Earths Ltd.**

Pursuant to Water Licence MV2020L2-0010  
February 14, 2025

## Version History

Revision #	Section(s) Revised	Description of Revision	Issue Date
1	N/A	Document updated to report on 2023 and 2024 activity as required by Water Licence MV2020L2-0010	2025-02-14

## Table of Contents

<b>1</b>	<b>INTRODUCTION AND PROJECT DETAILS .....</b>	<b>1-4</b>
1.1	Background .....	1-4
1.2	Project Description .....	1-4
1.3	Corporate Contact Information .....	1-5
<b>2</b>	<b>WATER LICENCE ACTIVITIES .....</b>	<b>2-5</b>
2.1	Project Activities .....	2-5
2.2	Project Schedule .....	2-5
2.3	Monthly and Annual Water Use .....	2-5
2.4	Meters for Measuring Water Use and Waste Discharge .....	2-6
2.5	Engagement Activities .....	2-6
2.6	Construction Activities .....	2-6
2.7	Maintenance Activities .....	2-6
2.8	Waste Management .....	2-6
2.9	Geochemical Characterization and Management Plan .....	2-6
2.10	Waste Rock .....	2-7
2.11	Erosion and Sediment Management .....	2-7
2.12	Explosives .....	2-7
2.13	Hazardous Material Spills .....	2-7
2.14	Closure and Reclamation .....	2-7
2.15	Surveillance Network Program .....	2-7
2.16	Non-compliance with Water Licence .....	2-7
2.17	Non-compliance Actions .....	2-8
2.18	Other Details Requested by the MVLWB .....	2-8
<b>3</b>	<b>CLOSURE .....</b>	<b>3-8</b>
<b>4</b>	<b>REFERENCES .....</b>	<b>4-8</b>

## LIST OF APPENDICES

Appendix A: ALS Laboratory Reports

# **1 INTRODUCTION AND PROJECT DETAILS**

## **1.1 Background**

NWT Rare Earths Ltd. (NWT Rare Earths) is jointly owned by Nechalacho Resources Corp. (“Nechalacho”) and Avalon Advanced Materials Inc. (“Avalon”) and is engaged in the exploration and development of rare mineral deposits in Canada, including at the Nechalacho Rare Earth Elements Project (the Project). In December 2024, Cheetah Resources formalized a name change to Nechalacho Resources.

This Water Licence Annual Report is provided to the Mackenzie Valley Land and Water Board in compliance with Water Licence MV2020L2-0010 Part B Item 19, and Schedule 1 Condition 1.

## **1.2 Project Description**

The Project located is near Thor Lake in the Mackenzie Mining District of the Northwest Territories, about 5 km north of the Hearne Channel of Great Slave Lake and approximately 100 km southeast of the city of Yellowknife. The nearest habitation is Blachford Lake Lodge, which is approximately 6 kilometers northwest of the Project. There is snowmachine trail that passes through the Project area.

NWT Rare Earths is undertaking a demonstration project at the North T-Zone location, which includes a small scale open-cast surface operation, stockpiles, ore sorting plant and equipment storage area. The open-cast pit was operated in 2021, and with additional sorting of the crushed material into a concentrate. The sorted concentrate was transported off-site, either via barge to Hay River or ice road to Yellowknife. Waste rock and ore sorter rejects were stored on site. No mine operations at North T-Zone as occurred since 2021.

The Project uses the existing exploration camp at Thor Lake. The Property is remote but accessible year-round by float/ski/wheeled planes and helicopters from Yellowknife and seasonally by barge from Yellowknife or Hay River or ice road from Yellowknife.

The existing exploration camp is located on the northwest shore of Thor Lake and operates under Land Use Permit MV2018C0011. The camp consists of twenty wood frame canvas tents and a few small wood frame buildings. Additional facilities associated with this camp include a wood frame building with generators, outhouse, fuel storage area, incinerator, toilet facility and a waste storage area. Potable water is obtained from Thor Lake.

The scope of Water Licence MV2020L2-0010 includes the following activities, many of which have not yet been initiated, as indicated below:

- a) Withdrawal and use of water from Thor Lake;
- b) Construction of the portal (not initiated);
- c) Construction of sediment control structures (not yet required);
- d) Quarrying of materials from specified locations and crushing;
- e) Bulk fuel storage;
- f) Use and storage of explosives (not required in 2022);

- g) Construction and operation of a camp (not initiated, continuing to use the exploration camp authorized under MV2018C0011);
- h) Construction and operation of site services infrastructure such as water lines, electrical distribution, site roads, airstrip, sewage treatment, incinerator, and material sorting facilities (not initiated);
- i) Progressive Reclamation and associated Closure and Reclamation activities (not initiated).

## **1.3 Corporate Contact Information**

### **Corporate Contact**

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## **2 WATER LICENCE ACTIVITIES**

This section provides the information required of the Annual Water Licence Report, MV2020L2-0010 Schedule 1 Part 1.

### **2.1 Project Activities**

Construction of the T-Zone pit commenced in May 2021, and ore extraction began in June 2021, and was completed in late 2021. In July 2021, a TOMRA Ore Sorter was commissioned to separate waste rock from ore.

In the summer of 2022, ore concentrate was transported off-site by barge to Hay River, enroute to the Rare Earths Extraction Plant at the Saskatchewan Research Council, Saskatoon.

Exploratory drilling was also completed within the Nechalacho mineral claims and leases.

### **2.2 Project Schedule**

No further development of the T-Zone pit occurred in 2023 and 2024. Exploratory drilling will continue within the Nechalacho mineral claims and leases. NWT Rare Earths plans to continue demonstration extraction and sorting of mineralized rock from the T-Zone in future years to support of the company's goals to study and develop the Tardiff Project within the property.

### **2.3 Monthly and Annual Water Use**

For 2023 Camp water use from Thor Lake is estimated at approximately 45 cubic metres per month up to the evacuation of the site in August, with a total of 315 cubic metres per year.

For 2024, the camp was used for short periods of time to perform maintenance and exploration activities, it is estimated that a total of 94 cubic metres of water use from Thor Lake and potable water was shipped in for use while camp facilities were undergoing maintenance.

## **2.4 Meters for Measuring Water Use and Waste Discharge**

Volume of waste discharge is not a requirement of the Water Licence.

## **2.5 Engagement Activities**

NWT Rare Earths continued to actively engage with affected parties in the Northwest Territories throughout 2023 and 2024. Traditional Knowledge

## **2.6 Construction Activities**

No new construction activities were undertaken in 2023 or 2024.

## **2.7 Maintenance Activities**

In August of 2023 the camp facility and project site were evacuated due to the wildfire threat, the site continued to be under threat well into the late fall of that year.

As a result of the evacuation, the camp required maintenance work to address wildlife damage in the kitchen facility and some living quarters. Restoration work occurred in the spring of 2024, with the site being occupied from March 23 to June 12, 2024 and again September 8 -19<sup>th</sup>, 2024 in support of exploration activities.

## **2.8 Waste Management**

Waste was managed under land use permit MV2018C0011. Kitchen and burnable domestic wastes were incinerated on site. Hazardous materials and non-burnable items were returned to Yellowknife for disposal. Recyclable items were returned to Yellowknife for recycling. Greywater and sewage are discharged to a sump near the camp. No changes to the Waste Management Plan were required.

## **2.9 Geochemical Characterization and Management Plan**

T-Zone waste rock and ore sorter rejects were visually monitored for visible sulphides, as per the Geochemical Characterization and Management Plan. All observations indicated less than 0.5% visible sulphides, and as such no testing is required and this material may be used for construction. Small amounts of ore sorter rejects were used to fill potholes in the site roads.

## **2.10 Waste Rock**

No waste rock was produced in 2023 or 2024.

## **2.11 Erosion and Sediment Management**

As there was no expansion of the Project footprint in 2023 or 2024, the likelihood of erosion was low. No active erosion or sediment management was required.

## **2.12 Explosives**

All explosive materials onsite were safely detonated in the fall of 2023 to address safety risks and regulatory compliance once the wildfire risk was no longer a threat.

## **2.13 Hazardous Material Spills**

There were no spills of hazardous materials in 2023 and 2024 that exceeded the reportable quantities defined in the Spill Contingency Planning and Reporting Regulations.

## **2.14 Closure and Reclamation**

No closure or reclamation activities were undertaken in 2023 or 2024.

## **2.15 Surveillance Network Program**

SNP 1 (Sewage Treatment Plant Effluent) was not activated as the Sewage Treatment Plant has not been constructed.

SNP 2 (Seepage collection from the Waste Rock Storage Facility) was monitored for seepage, but there was no evident seepage or in sufficient amounts to sample in 2023 or 2024.

SNP 3 (Dewatering of the Water Settling Pond) the settling pond was not dewatered in 2023 or 2024, as such no sampling was required. A SNP Report was filed July 31, 2023 to address non-compliance in 2022 and is available on the registry. All concentrations were below criteria, with Cyanide, Zinc and TSS were below detection limits.

SNP 4 (Outlet of Drizzle Lake) was voluntarily monitored and reported on in the July 31, 2023 SNP Report, no material issues were identified. As the demonstration project was not active in 2024, not sampling occurred.

## **2.16 Non-compliance with Water Licence**

There was one documented inspection specific to the Water Licence which occurred on July 5, 2024. The annual report for 2023 was not completed as required

## **2.17 Non-compliance Actions**

NWT Rare Earths proposes the following actions to address non-compliance in the 2023 Annual Report process:

1. Provide a two-year annual Water Licence report to include both 2023 and 2024.

## **2.18 Other Details Requested by the MVLWB**

No additional requests were received from the MVLWB.

## **3 CLOSURE**

We trust that this report was prepared to the satisfaction of the Mackenzie Valley Land and Water Board. If you have any questions, please don't hesitate to contact Steven Woolfenden, Vice-President of Sustainability at [swoolfenden@vitalmetals.com](mailto:swoolfenden@vitalmetals.com).

## **4 REFERENCES**

GNWT (Government of the Northwest Territories). 2024. NWT Rare Earths Ltd - Inspection Report - July 5 2024 - Jul30\_24.pdf [https://lwb-registry-867.s3.ca-central-1.amazonaws.com/Documents/MV2020L2-0010/NWT%20Rare%20Earths%20Ltd%20-%20Inspection%20Report%20-%20July%205%202024%20-%20Jul30\\_24.pdf](https://lwb-registry-867.s3.ca-central-1.amazonaws.com/Documents/MV2020L2-0010/NWT%20Rare%20Earths%20Ltd%20-%20Inspection%20Report%20-%20July%205%202024%20-%20Jul30_24.pdf)