

## **Nechalacho Prospecting Delivers Ultra-High-Grade TREO**

### **Three New Regional Targets Identified**

### **Three Central Zone Targets Advanced**

#### **Highlights:**

- **High-grade mineralisation identified across three new regional targets with peak grab samples of 168,035ppm TREO (minimum\*) and 15,521ppm Nb<sub>2</sub>O<sub>5</sub>.**
- **High-grade mineralization confirmed across central R, S and Cressy Ridge Zones, with peak grab samples of 109,592ppm TREO (minimum\*), 61,465ppm Y<sub>2</sub>O<sub>3</sub> and 6,638ppm Nb<sub>2</sub>O<sub>5</sub>.**
- **12 samples contain 25% or more (up to 86.1%) HREO as a percentage of TREO.**
- **These samples represent the first substantial surface heavy rare earths assay results, subject to further studies may lead to improved project economics.**
- **The results show a district-scale mineralised footprint of the Nechalacho Project beyond the currently defined 192.7Mt Tardiff deposit.**
- **The Company believes these results have the potential to enhance the value profile outlined in the July 2025 Scoping Study for the Tardiff deposit, which delivered a post-tax NPV<sub>8%</sub> of US\$445 million and was based solely on the Tardiff deposit.**

Vital Metals Limited (**ASX: VML**) (“**VML**” or “**the Company**”) is pleased to report outstanding high-grade heavy and light rare earth and niobium results from grab samples across its 100%-owned Nechalacho Rare Earths and Niobium Project (above 150m Relative Level (RL), approx. 100 meters from surface topography) located 100km southeast of Yellowknife, Northwest Territories, Canada. The Nechalacho Rare Earths and Niobium Project consists of both Mineral Claims held 100%, and Mineral Leases held above 150m RL. The grab samples are selective by nature and may not represent the overall grade or extent of mineralisation.

The ICP-MS analysis confirmed widespread high-grade light and heavy rare earth mineralisation across prospecting areas 1029A / 1034B, 1201A / BF1 and 359A / 537A, as well as central zones R-Zone, S-Zone and Cressy Ridge, highlighting the potential to expand and upgrade the mineralised footprint beyond the current 192.7Mt Mineral Resource Estimate (**MRE**) at the Tardiff deposit.

The results form part of the Company’s strategy for resource expansion and optimisation ahead of a Pre-Feasibility Study targeted for February 2027. The Management and Board believe this represents potential district-scale heavy and light rare earths and niobium across Nechalacho.

\* Sample was a second time overlimit and awaiting forthcoming further results from ALS. Refer Appendix A for details of oxides included in TREO.



**Managing Director and CEO Lisa Riley said:** *“These results highlight the regional potential of Nechalacho, at a site where a defined Mineral Resource at Tardiff has already delivered a post-tax NPV<sub>8%</sub> of US\$445 million in our July 2025 Scoping Study. We are building around an already large and economically-robust deposit. The strong grades and heavy rare earth enrichment identified through this regional sampling reinforces our belief that Nechalacho represents a much broader mineralised system with significant upside.”*

*“This work directly supports our strategy to expand and upgrade our resource footprint beyond the existing resource base through further field work and drilling. We expect to drill our first holes at Cressy Ridge, R and S zones during this drill program that is just getting underway as we speak.”*

## **Results Target Expansion of Resources beyond Existing US\$445M Tardiff Deposit Ahead of Pre-Feasibility Study**

The results reinforce Nechalacho’s emerging multi-commodity profile and supports the Company’s strategy to build additional scale and value around what is already considered a world-class rare earth deposit. Importantly, these results form part of Vital’s staged development strategy to systematically grow its resource potential.

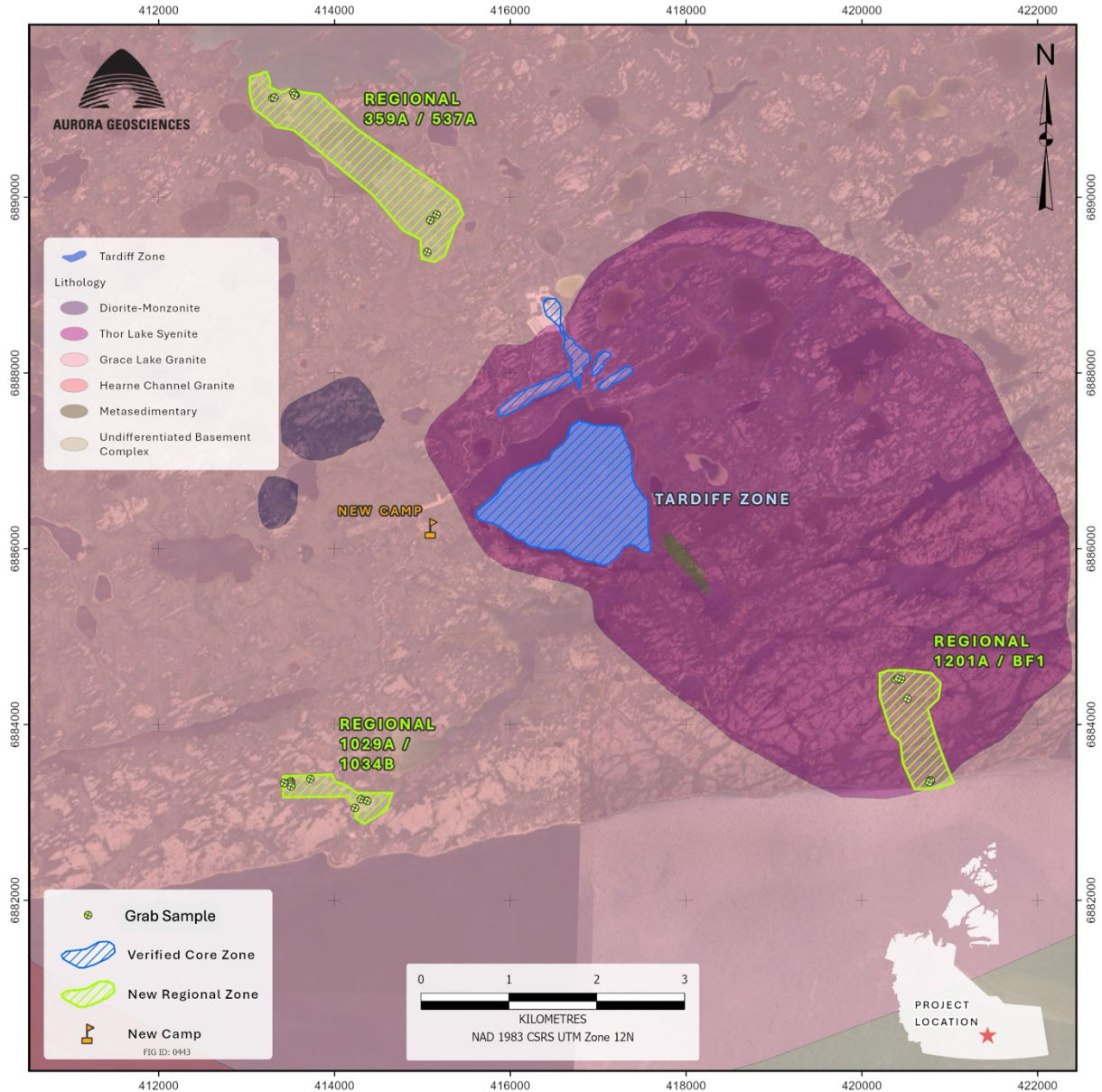
These results have driven VML to commit to drilling 1000m of exploration holes across R-Zone, S-Zone and Cressy Ridge in its winter drill program getting underway currently. Regional targets need further work to be made drill ready and will see significant workup in the spring and summer. This exploration approach is designed to strengthen VML’s understanding of the geological model underpinning the July 2025 Scoping Study and enhance the long-term value proposition of the project.

The Scoping Study delivered robust financial outcomes, including a pre-tax NPV<sub>8%</sub> of US\$776 million and 32% IRR, a post-tax NPV<sub>8%</sub> of US\$445 million and 25.5% IRR, and a payback period of 39 months. The Tardiff deposit currently hosts a Total Mineral Resource of 192.7 million tonnes at 1.3% TREO and 0.3% Nb<sub>2</sub>O<sub>5</sub>, containing 2.5 million tonnes of TREO, 636,000 tonnes of NdPr and 578,000 tonnes of niobium.

## **Overview of Work Recently Conducted**

Regional prospecting was designed primarily around a suite of samples collected by Thomas Mumford for his PhD research<sup>1</sup>, as well as a single NWT Geological Survey sample. Whole rock analyses completed in the Nechalacho area by Mumford were used in elucidating the formation of the Blatchford Lake Intrusive Complex, and a number of these samples were noted to have reported significantly anomalous amounts of REE. In all cases the original sample area was located, sampled, and then proximal areas were prospected with a handheld scintillometer and sampled. All grab samples are in-situ, from outcrop. All samples were submitted to ALS laboratories in Canada for ICP analysis. The results have been converted to oxide parts per million (ppm) using the accepted stoichiometric oxide conversion factors<sup>2</sup>.

**Figure 1.** Geology of the Nechalacho Project with new regional targets indicated relative to the Tardiff zone. These new regional targets are not located within the current MRE footprint.



## 1029A and 1034B Prospecting Area

This area is located 4km southwest of Tardiff in exceptionally homogenous and unassuming Grace Lake Granite (GLG) with some courser-grained to pegmatitic phases. Scintillometer prospecting led to areas reporting 3 to 4 times background radioactivity and an area 200m east of 1029A yielded the most enriched results of the regional program. A single sample (F009416) reports overlimit on the second pass of analyses with a minimum 168,035ppm TREO and will be reported shortly once returned from the lab.



**Table 1.** Results of Sample Program in areas 1029A and 1034B

Assy Number	Prospecting Area	La2O3 ppm	CeO2 ppm	Pr6O11 ppm	Nd2O3 ppm	Sm2O3 ppm	Eu2O3 ppm	Gd2O3 ppm	Tb2O3 ppm	Dy2O3 ppm	Ho2O3 ppm	Er2O3 ppm	Tm2O3 ppm	Yb2O3 ppm	Lu2O3 ppm	Y2O3 ppm	Sc2O3 ppm	TREO ppm
F009401	1034B	272	590	72	275	54	4	46	8	44	9	24	3	20	3	192	0	1615
F009402	1034B	247	543	67	254	47	4	38	6	29	5	14	2	10	1	165	0	1433
F009403	1034B	167	334	40	152	29	2	25	3	18	3	8	1	7	1	111	0	901
F009404	1034B	270	570	70	273	53	4	44	6	33	6	17	2	13	2	197	0	1561
F009405	1034B	348	794	97	359	69	6	56	9	47	9	22	3	14	2	222	1	2057
F009406	1034B	207	463	57	217	44	3	39	7	39	8	20	3	16	2	187	0	1310
F009415	1029A	147	354	42	161	31	2	24	4	21	4	11	2	9	2	116	1	929
F009416	1029A	49491	>50000	>5000	>50000	>5000	729	>5000	383	876	68	99	8	32	7	1340	1	168035
F009417	1029A	239	770	98	374	82	11	113	23	161	32	94	14	89	12	740	0	2853
F009418	1029A	20172	36975	3975	12714	1171	72	669	65	272	37	77	7	29	3	1499	0	77735
F009470	1029A	122	327	38	154	33	3	27	4	20	4	9	1	7	1	100	0	849
F009471	1029A	375	808	85	320	56	4	42	6	33	6	15	2	12	2	152	0	1919

\* Shaded areas indicate pending additional over limit analysis

### 1201A and BF1 Prospecting Area

Located approximately 4km southeast of Tardiff, the transect started at a Mumford sample 1201A and moved south to the Northwest Territories Geological Survey (NTGS) BF1. Both sample sites were anomalous in REE, with sample BF1 listing the presence of fluorite. All samples returned enriched REE results, particularly sample F009430 which reported 29,474ppm TREO.

Importantly, both these areas occur in what was previously considered not prospective and homogenous GLG and Thor Lake Syenite (TLS). The above findings indicate that large swaths of the southern project area host further mineralized zones and therefore represent potential high-volume targets.

**Table 2.** Results of Sample Program in areas 1201A and BF1

Assy Number	Prospecting Area	La2O3 ppm	CeO2 ppm	Pr6O11 ppm	Nd2O3 ppm	Sm2O3 ppm	Eu2O3 ppm	Gd2O3 ppm	Tb2O3 ppm	Dy2O3 ppm	Ho2O3 ppm	Er2O3 ppm	Tm2O3 ppm	Yb2O3 ppm	Lu2O3 ppm	Y2O3 ppm	Sc2O3 ppm	TREO ppm
F009429	1201A	222	483	56	206	35	5	28	4	20	4	10	1	7	1	100	0	1182
F009430	1201A	5465	13082	1691	6287	895	111	595	63	275	37	76	8	35	4	848	0	29474
F009431	1201A	1185	2715	321	1201	200	26	144	17	83	14	32	4	21	3	353	0	6320
F009432	1201A	158	396	45	160	38	6	41	9	61	14	40	5	26	3	419	17	1437
F009433	BF1	132	323	38	134	32	5	42	9	58	12	33	4	26	4	358	0	1210
F009434	BF1	305	739	89	337	78	13	85	15	89	18	44	5	25	3	524	4	2373
F009435	BF1	789	1769	201	714	141	22	148	27	172	35	88	9	43	4	879	3	5043

### 359A and 537A Prospecting Area

These samples are located northwest of the North T pit. Both outcrops are crosscut by a large, 320° trending, diabase dyke with indications of a similar trending fault at 359A.

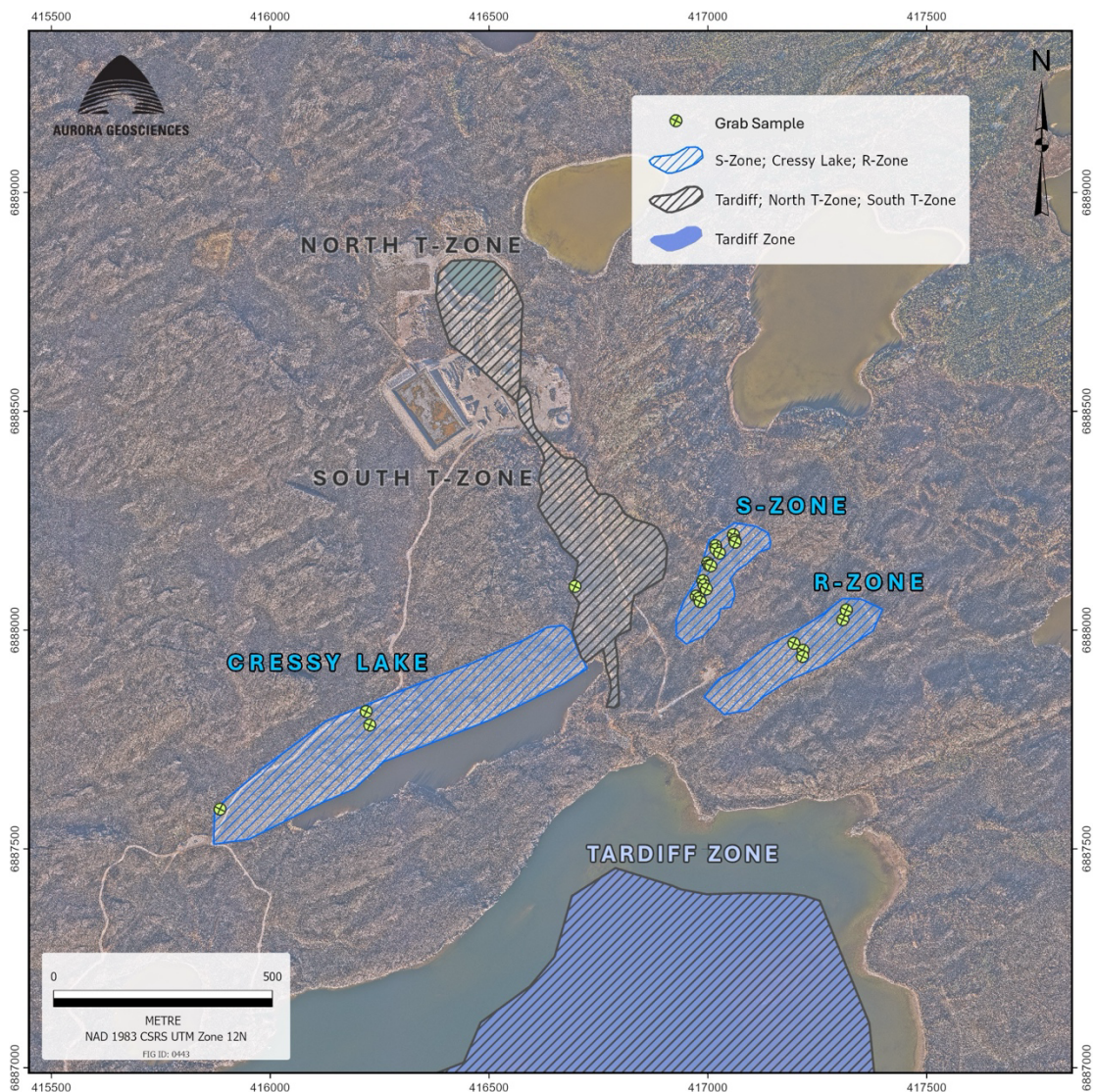
Both areas yielded samples enriched in LREO and Nb<sub>2</sub>O<sub>5</sub> including F009455 returning 15,521ppm Nb<sub>2</sub>O<sub>5</sub>. Samples followed structural features in the area such as dykes, faults and enriched veins all trending 320°. This observation supports a relationship between mineralization and structure as demonstrated at North T. These results therefore warrant significant further investigation.

**Table 3.** Results of Sample Program in areas 359A and 537A

Assy Number	Prospecting Area	La2O3 ppm	CeO2 ppm	Pr6O11 ppm	Nd2O3 ppm	Sm2O3 ppm	Eu2O3 ppm	Gd2O3 ppm	Tb2O3 ppm	Dy2O3 ppm	Ho2O3 ppm	Er2O3 ppm	Tm2O3 ppm	Yb2O3 ppm	Lu2O3 ppm	Y2O3 ppm	Sc2O3 ppm	TREO ppm
F009436	359A	123	285	34	124	24	3	19	2	12	2	5	1	4	1	47	0	685
F009437	359A	190	502	56	181	26	3	18	3	15	3	7	1	6	1	90	0	1102
F009438	359A	231	539	62	220	41	5	34	5	24	5	11	1	8	1	131	2	1320
F009439	359A	200	478	55	197	38	5	31	4	24	5	12	2	9	1	123	0	1183
F009451	537A	25	57	7	30	7	2	9	1	8	2	5	1	4	1	50	70	278
F009452	537A	35	80	10	43	10	3	11	2	11	2	7	1	6	1	66	56	345
F009453	537A	195	409	47	171	27	2	21	3	14	2	6	1	5	1	69	0	971
F009454	537A	317	752	79	250	34	4	24	4	20	4	11	2	11	2	119	0	1630
F009455	537A	907	2322	226	653	57	6	34	5	26	5	12	2	10	1	179	0	4444
F009456	537A	140	312	37	139	25	2	22	3	17	3	8	1	6	1	85	0	802

The Tardiff Zone and the late-stage North T intrusion, have been the focus at Nechalacho since the 1980s as the most enriched and volumetrically significant zones of REE mineralisation. The South T, R- and S-Zones lie between Tardiff and North T. The bulk of the South T Zone is considered correlative to the North T Zone and was drilled in the late 1970s with limited success.

**Figure 2.** The general Nechalacho area, with North T, South T and the R- and S-Zones indicated. These North T, South T, R- and S-Zones are not located within the current MRE footprint.





These zones were last systematically explored in the 1980s with scintillometer surveys, detailed mapping and grab sampling, while the S-Zone was trenched with 16 trenches across 250m of strike on an assumed steeply dipping, pegmatitic body. Outside these areas no focused regional exploration has been undertaken.

## S-Zone

The S-Zone is described as an anastomosing vertical pegmatite. There are 16 historical trenches trending 340° across the structure which varies in width from 5 to 10 metres. Representative grab samples were collected from 4 of these trenches.

All samples were enriched in REO, particularly Nd<sub>2</sub>O<sub>3</sub> and Sm<sub>2</sub>O<sub>3</sub>, as well as the highest Nb<sub>2</sub>O<sub>5</sub> mineralization identified in this program with all samples averaging 2,155ppm and up to 6,638ppm Nb<sub>2</sub>O<sub>5</sub>

**Table 4.** Results of Sample Program in the S-Zone

Assy Number	Prospecting Area	La2O3 ppm	CeO2 ppm	Pr6O11 ppm	Nd2O3 ppm	Sm2O3 ppm	Eu2O3 ppm	Gd2O3 ppm	Tb2O3 ppm	Dy2O3 ppm	Ho2O3 ppm	Er2O3 ppm	Tm2O3 ppm	Yb2O3 ppm	Lu2O3 ppm	Y2O3 ppm	Sc2O3 ppm	TREO ppm
F009449	S zone 85-2a	116	285	33	128	24	4	20	3	16	3	9	2	13	2	93	1	753
F009450	S zone 85-2a	409	1040	123	479	134	20	157	22	111	16	36	4	17	2	466	0	3036
F009457	S zone 85-2a	174	400	50	194	35	5	28	3	16	3	6	1	6	1	88	1	1011
F009458	S zone 85-5	1794	4398	565	2321	463	48	288	20	51	5	8	1	5	1	141	1	10109
F009459	S zone 85-5	398	1081	126	470	97	11	65	5	13	1	3	0	3	0	41	1	2314
F009460	S zone 85-5	104	306	32	134	30	4	25	4	21	4	9	1	8	1	121	2	806
F009461	S zone 85-7	1876	4385	553	2152	368	36	205	17	46	5	8	1	6	1	116	1	9776
F009462	S zone 85-7	1121	3415	466	2076	465	54	324	22	57	5	54	1	9	2	114	0	8186
F009463	S zone 85-7	96	236	28	114	22	3	16	2	13	2	7	1	6	1	91	1	639
F009464	S zone 85-9	112	275	33	132	24	3	20	3	16	3	8	1	6	1	127	0	764
F009465	S zone 85-9	664	1450	166	678	135	13	82	9	37	5	12	1	10	2	157	2	3423
F009466	S zone 85-9	120	316	36	157	31	4	24	4	19	3	9	1	9	2	138	2	875
F009467	S zone 85-11	418	957	106	423	76	8	44	5	20	3	8	1	11	2	106	1	2188
F009468	S zone 85-11	595	1603	187	742	150	18	150	23	118	18	38	4	22	3	485	14	4169
F009469	S zone 85-11	56	136	16	63	13	2	11	2	10	2	6	1	6	1	67	39	431

## R-Zone

The R-Zone is defined by an outcropping northeast trending ridge bound to the south by an obvious fault. It is between 400m and 1,000m in length and is under-prospected. The R-Zone is composed of syenite of the TLS. Exceptional values of Gd<sub>2</sub>O<sub>3</sub> (>5,000ppm overlimit and 2,109ppm), Ho<sub>2</sub>O<sub>3</sub> (2,463ppm), Y<sub>2</sub>O<sub>3</sub> (61,465ppm) and TREO (109,592ppm minimum) have been received as well as enhanced HREO enrichment.

**Table 5.** Results of Sample Program in the R-Zone

Assy Number	Prospecting Area	La2O3 ppm	CeO2 ppm	Pr6O11 ppm	Nd2O3 ppm	Sm2O3 ppm	Eu2O3 ppm	Gd2O3 ppm	Tb2O3 ppm	Dy2O3 ppm	Ho2O3 ppm	Er2O3 ppm	Tm2O3 ppm	Yb2O3 ppm	Lu2O3 ppm	Y2O3 ppm	Sc2O3 ppm	TREO ppm
F009444	R zone	276	640	67	216	25	3	20	4	32	7	17	2	10	1	156	2	1477
F009445	R zone	3026	8673	1365	7278	4221	811	>5000	2601	>5000	2463	5111	482	1924	172	61465	0	109592
F009446	R zone	6157	14434	1873	7733	1699	222	2109	387	2249	360	772	80	348	35	10426	0	48884
F009447	R zone	76	192	22	87	16	3	14	2	11	2	5	1	5	1	62	1	500
F009448	R zone	48	114	13	48	9	1	8	1	6	1	3	0	2	0	31	0	287

\* Shaded areas indicate pending additional over limit analysis

## Cressy Ridge

Cressy Ridge is the westerly extension of the R Zone ridge in the GLG. This area is considered prospective for late-stage pegmatite and REE alteration. All samples from this area returned significantly enriched REE and Nb, as well as enhanced HREO enrichment.



**Table 5.** Results of Sample Program at Cressy Ridge

Assy Number	Prospecting Area	La2O3 ppm	CeO2 ppm	Pr6O11 ppm	Nd2O3 ppm	Sm2O3 ppm	Eu2O3 ppm	Gd2O3 ppm	Tb2O3 ppm	Dy2O3 ppm	Ho2O3 ppm	Er2O3 ppm	Tm2O3 ppm	Yb2O3 ppm	Lu2O3 ppm	Y2O3 ppm	Sc2O3 ppm	TREO ppm
F009440	Cressy	122	322	36	131	26	5	22	3	16	3	8	1	7	1	78	1	781
F009441	Cressy	88	324	51	248	165	47	709	195	1326	223	534	56	272	33	7455	0	11725
F009442	Cressy	117	289	36	145	65	17	255	66	445	78	183	21	110	14	2641	0	4482
F009443	Cressy	3073	8734	1125	4502	1034	142	1210	162	715	97	186	19	88	10	2305	0	23402

Dr Pete Siegfried, corporate advisor and rare-earth expert, expressed enthusiasm and stated that these are some of the highest REE values reported world-wide, and that the next steps should be focused towards determining mineralogy, chemical and mineralisation associations through use of chondrite normalised curves and mapping the lateral extent of these findings. Furthermore, the realisation that this very limited exploration of the much larger areas underlain by granite and syenite reveals exciting new avenues for further work in the area.

### Next Steps

The more advanced areas of exploration (Cressy Ridge, R- and S-zones) will receive their first drill holes during our winter drill program starting this week and running until early April 2026. On the basis of those results we will decide how much further drilling will be merited next winter 2027.

The three new regional target areas of 1029A (and 1034B), and 1201A (and BF1), and 359A (and 537A) will be further explored on surface during the summer field season of 2026 for June-September and we hope to gather enough information to advance to drilling some of those prospects next winter 2027.

This announcement has been approved by the Board of Vital Metals Limited.

### Contact

Lisa Riley  
**Interim Chair, Managing Director and CEO**  
 Vital Metals Limited  
 Phone: +1 (581) 624 4833  
 Email: [lriley@vitalmetals.com](mailto:lriley@vitalmetals.com)

### About Vital Metals

Vital Metals Limited (ASX: VML) is developing the large Nechalacho Rare Earth Project in Canada's Northwest Territories. Nechalacho has the potential to underpin a significant rare earths supply chain for North America with responsibly sourced critical minerals for the green economy transformation.

### Competent Persons Statement:

The information reported that relates to the recent sampling work is based on information compiled by Mr Jonathan Victor Hill, a Competent Person, who is a registered Fellow of the Australasian Institute of Mining and Metallurgy (FAusIMM), a Recognised Professional Organisation (RPO) of the ASX.

Mr Hill has sufficient experience relevant for reporting REE mineralisation and the type of deposit under review and qualifies as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'.



Mr Hill consents to the inclusion of this information in the form and context in which it appears.

### ASX Listing Rule Information

This announcement contains information relating to Mineral Resource Estimates in respect of the Nechalacho Project extracted from an ASX market announcement reported previously and published on the ASX platform on 20 January 2025 "*MRE Delivers 56% Increase in Measured and Indicated Resource*". The Company confirms that it is not aware of any new information or data that materially affects the information included in the original market announcement and that all material assumptions and technical parameters underpinning the estimates in the original market announcement continue to apply and have not materially changed. The Mineral Resource Estimate of 192.7Mt @ 1.3% TREO comprises 144.1 Mt @ 1.31% TREO Inferred, 41.0Mt @ 1.29% TREO Indicated and 7.6Mt @ 1.48% TREO Measured.

This announcement contains information relating to the Company's Scoping Study extracted from an ASX market announcement reported previously in accordance with the 2012 edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves" ("2012 JORC Code") and published on the ASX platform on 28 July 2025 "*Scoping Study Delivers Robust Economics and Upside Potential*". The Company confirms that all the material assumptions underpinning the production target and the forecast financial information derived from the production target in the original ASX announcement continue to apply and have not materially changed.

### Forward Looking Statement:

This release may include forward-looking statements, which may be identified by words such as "expects", "anticipates", "believes", "projects", "plans", and similar expressions. These forward-looking statements are based on Vital Metals expectations and beliefs concerning future events. Forward looking statements are necessarily subject to risks, uncertainties and other factors, many of which are outside the control of Vital Metals and which could cause actual results to differ materially from such statements. There can be no assurance that forward-looking statements will prove to be correct. Vital Metals makes no undertaking to subsequently update or revise the forward-looking statements made in this release, to reflect the circumstances or events after the date of that release.

**Cautionary statement – Scoping Study and forecast financial information:** The Scoping Study results presented in this announcement are **preliminary** and are intended to provide an **order-of-magnitude** indication of potential project viability. The production target and forecast financial information are based on **Mineral Resources** (and may include **Inferred Mineral Resources**), and there is **no certainty** that further exploration and technical work will result in the estimation of Ore Reserves or that the production target will be realised. The outcomes are subject to a range of assumptions and risks (including commodity prices, metallurgical performance, capital and operating costs, permitting and approvals, financing and execution), and **future studies (including the planned PFS)** are required to confirm the results.

### REFERENCES

1. Mumford, T., 2013. Petrology of the Blatchford Lake Intrusive Suite, Northwest Territories, Canada (Doctoral dissertation, Carleton University)
2. All assay results are reported to Vital in parts per million (ppm). Geological staff then convert the parts per million to ppm oxides using the below element to stoichiometric oxide conversion factors. La<sub>2</sub>O<sub>3</sub> 1.1728, CeO<sub>2</sub> 1.2284, Pr<sub>6</sub>O<sub>11</sub> 1.2082, Nd<sub>2</sub>O<sub>3</sub> 1.1664, Sm<sub>2</sub>O<sub>3</sub> 1.1596, Eu<sub>2</sub>O<sub>3</sub> 1.1579, Gd<sub>2</sub>O<sub>3</sub> 1.1526, Tb<sub>2</sub>O<sub>3</sub> 1.1510, Dy<sub>2</sub>O<sub>3</sub> 1.1477, Ho<sub>2</sub>O<sub>3</sub> 1.1455, Er<sub>2</sub>O<sub>3</sub> 1.1435, Tm<sub>2</sub>O<sub>3</sub> 1.1421, Yb<sub>2</sub>O<sub>3</sub> 1.1387, Lu<sub>2</sub>O<sub>3</sub> 1.1371, Sc<sub>2</sub>O<sub>3</sub> 1.5338, Y<sub>2</sub>O<sub>3</sub> 1.2699, Nb<sub>2</sub>O<sub>5</sub> 1.4305, Ta<sub>2</sub>O<sub>5</sub> 1.2211, Ga<sub>2</sub>O<sub>3</sub> 1.3442, ThO<sub>2</sub> 1.1379, U<sub>3</sub>O<sub>8</sub> 1.1792, ZrO<sub>2</sub> 1.3508

## APPENDIX A - Assay Results

\* F009416 and F00945 TREO is calculated with the minimum ppm value for the overlimit

\*\* Coordinates are in UTM Zone 12N WGS84

\*\*\* Values below detection limit for Sc (<0.5ppm) were zeroed

Assay #	Area	Easting	Northing	Light Rare Earth Oxides (LREO)							Heavy Rare Earth Oxides (HREO)									HREE	HREO/TREO %	TREO ppm
				La2O3	CeO2	Pr6O11	Nd2O3	Sm2O3	Eu2O3	Gd2O3	Tb2O3	Dy2O3	Ho2O3	Er2O3	Tm2O3	Yb2O3	Lu2O3	Y2O3	Sc2O3			
				ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm			
<b>1029A and 1034B Prospecting Area</b>																						
F009401	1034B	413561	6883327	272	590	72	275	54	4	46	8	44	9	24	3	20	3	192	0	302	18.71%	1615
F009402	1034B	413564	6883309	247	543	67	254	47	4	38	6	29	5	14	2	10	1	165	0	233	16.24%	1433
F009403	1034B	413565	6883291	167	334	40	152	29	2	25	3	18	3	8	1	7	1	111	0	153	16.95%	901
F009404	1034B	413565	6883267	270	570	70	273	53	4	44	6	33	6	17	2	13	2	197	0	277	17.78%	1561
F009405	1034B	413585	6883308	348	794	97	359	69	6	56	9	47	9	22	3	14	2	222	1	328	15.95%	2057
F009406	1034B	413585	6883354	207	463	57	217	44	3	39	7	39	8	20	3	16	2	187	0	280	21.39%	1310
F009415	1029A	413592	6883026	147	354	42	161	31	2	24	4	21	4	11	2	9	2	116	1	169	18.20%	929
F009416	1029A	414358	6883124	49491	>50000	>5000	>50000	>5000	729	>5000	383	876	68	99	8	32	7	1340	1	2814	1.67%	168035
F009417	1029A	414428	6883110	239	770	98	374	82	11	113	23	161	32	94	14	89	12	740	0	1165	40.84%	2853
F009418	1029A	414432	6883105	20172	36975	3975	12714	1171	72	669	65	272	37	77	7	29	3	1499	0	1989	2.56%	77735
F009470	1029A west	413502	6882484	122	327	38	154	33	3	27	4	20	4	9	1	7	1	100	0	146	17.19%	849
F009471	1029A west	414048	6882859	375	808	85	320	56	4	42	6	33	6	15	2	12	2	152	0	228	11.91%	1919
<b>1201A and BF1 Prospecting Area</b>																						
F009429	1201A	420507	6884490	222	483	56	206	35	5	28	4	20	4	10	1	7	1	100	0	147	12.44%	1182
F009430	1201A	420450	6884484	5465	13082	1691	6287	895	111	595	63	275	37	76	8	35	4	848	0	1347	4.57%	29474
F009431	1201A	420475	6884499	1185	2715	321	1201	200	26	144	17	83	14	32	4	21	3	353	0	528	8.35%	6320
F009432	1201A	420580	6884268	158	396	45	160	38	6	41	9	61	14	40	5	26	3	419	17	593	41.30%	1437
F009433	BF1	420836	6883340	132	323	38	134	32	5	42	9	58	12	33	4	26	4	358	0	504	41.64%	1210
F009434	BF1	420846	6883334	305	739	89	337	78	13	85	15	89	18	44	5	25	3	524	4	727	30.62%	2373
F009435	BF1	420825	6883319	789	1769	201	714	141	22	148	27	172	35	88	9	43	4	879	3	1260	24.98%	5043



Assay #	Area	Easting	Northing	Light Rare Earth Oxides (LREO)							Heavy Rare Earth Oxides (HREO)							HREE	HREO/TREO	TREO		
				La2O3	CeO2	Pr6O11	Nd2O3	Sm2O3	Eu2O3	Gd2O3	Tb2O3	Dy2O3	Ho2O3	Er2O3	Tm2O3	Yb2O3	Lu2O3				Y2O3	Sc2O3
				ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm				ppm	ppm
<b>359A and 537A Prospecting Area</b>																						
F009436	359A	415114	6889349	123	285	34	124	24	3	19	2	12	2	5	1	4	1	47	0	73	10.72%	685
F009437	359A	415148	6889711	190	502	56	181	26	3	18	3	15	3	7	1	6	1	90	0	125	11.35%	1102
F009438	359A	415148	6889713	231	539	62	220	41	5	34	5	24	5	11	1	8	1	131	2	187	14.15%	1320
F009439	359A	415219	6889778	200	478	55	197	38	5	31	4	24	5	12	2	9	1	123	0	179	15.14%	1183
F009451	537A	413351	6891102	25	57	7	30	7	2	9	1	8	2	5	1	4	1	50	70	142	50.90%	278
F009452	537A	413374	6891106	35	80	10	43	10	3	11	2	11	2	7	1	6	1	66	56	151	43.86%	345
F009453	537A	413608	6891135	195	409	47	171	27	2	21	3	14	2	6	1	5	1	69	0	100	10.29%	971
F009454	537A	413616	6891136	317	752	79	250	34	4	24	4	20	4	11	2	11	2	119	0	172	10.55%	1630
F009455	537A	413588	6891162	907	2322	226	653	57	6	34	5	26	5	12	2	10	1	179	0	239	5.38%	4444
F009456	537A	413604	6891131	140	312	37	139	25	2	22	3	17	3	8	1	6	1	85	0	125	15.58%	802
<b>Cressy Ridge</b>																						
F009440	Cressy	415945	6887565	122	322	36	131	26	5	22	3	16	3	8	1	7	1	78	1	118	15.12%	781
F009441	Cressy	416279	6887788	88	324	51	248	165	47	709	195	1326	223	534	56	272	33	7455	0	10092	86.08%	11725
F009442	Cressy	416287	6887757	117	289	36	145	65	17	255	66	445	78	183	21	110	14	2641	0	3560	79.42%	4482
F009443	Cressy	416756	6888074	3073	8734	1125	4502	1034	142	1210	162	715	97	186	19	88	10	2305	0	3581	15.30%	23402
<b>R Zone</b>																						
F009444	R zone	417256	6887944	276	640	67	216	25	3	20	4	32	7	17	2	10	1	156	2	231	15.66%	1477
F009445	R zone	417277	6887928	3026	8673	1365	7278	4221	811	>5000	2601	>5000	2463	5111	482	1924	172	61465	0	74218	67.72%	109592
F009446	R zone	417276	6887914	6157	14434	1873	7733	1699	222	2109	387	2249	360	772	80	348	35	10426	0	14657	29.98%	48884
F009447	R zone	417368	6887998	76	192	22	87	16	3	14	2	11	2	5	1	5	1	62	1	90	17.97%	500
F009448	R zone	417376	6888020	48	114	13	48	9	1	8	1	6	1	3	0	2	0	31	0	45	15.80%	287



Assay #	Area	Easting	Northing	Light Rare Earth Oxides (LREO)							Heavy Rare Earth Oxides (HREO)									HREE	HREO/TREO	TREO
				La2O3	CeO2	Pr6O11	Nd2O3	Sm2O3	Eu2O3	Gd2O3	Tb2O3	Dy2O3	Ho2O3	Er2O3	Tm2O3	Yb2O3	Lu2O3	Y2O3	Sc2O3			
				ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm			
<b>S Zone</b>																						
F009449	S zone 85-2a	417118	6888192	116	285	33	128	24	4	20	3	16	3	9	2	13	2	93	1	142	18.84%	753
F009450	S zone 85-2a	417121	6888180	409	1040	123	479	134	20	157	22	111	16	36	4	17	2	466	0	674	22.19%	3036
F009457	S zone 85-2a	417122	6888175	174	400	50	194	35	5	28	3	16	3	6	1	6	1	88	1	124	12.32%	1011
F009458	S zone 85-5	417077	6888167	1794	4398	565	2321	463	48	288	20	51	5	8	1	5	1	141	1	232	2.29%	10109
F009459	S zone 85-5	417078	6888159	398	1081	126	470	97	11	65	5	13	1	3	0	3	0	41	1	67	2.90%	2314
F009460	S zone 85-5	417086	6888150	104	306	32	134	30	4	25	4	21	4	9	1	8	1	121	2	171	21.18%	806
F009461	S zone 85-7	417059	6888128	1876	4385	553	2152	368	36	205	17	46	5	8	1	6	1	116	1	201	2.05%	9776
F009462	S zone 85-7	417062	6888122	1121	3415	466	2076	465	54	324	22	57	5	54	1	9	2	114	0	264	3.22%	8186
F009463	S zone 85-7	417066	6888121	96	236	28	114	22	3	16	2	13	2	7	1	6	1	91	1	124	19.42%	639
F009464	S zone 85-9	417048	6888087	112	275	33	132	24	3	20	3	16	3	8	1	6	1	127	0	166	21.70%	764
F009465	S zone 85-9	417051	6888077	664	1450	166	678	135	13	82	9	37	5	12	1	10	2	157	2	236	6.89%	3423
F009466	S zone 85-9	417056	6888068	120	316	36	157	31	4	24	4	19	3	9	1	9	2	138	2	187	21.33%	875
F009467	S zone 85-11	417033	6888052	418	957	106	423	76	8	44	5	20	3	8	1	11	2	106	1	157	7.18%	2188
F009468	S zone 85-11	417039	6888047	595	1603	187	742	150	18	150	23	118	18	38	4	22	3	485	14	725	17.38%	4169
F009469	S zone 85-11	417042	6888039	56	136	16	63	13	2	11	2	10	2	6	1	6	1	67	39	134	30.98%	431



## APPENDIX A - Assay Results (continued)

Assay #	Area	Easting	Northing	Nb <sub>2</sub> O <sub>5</sub>	Ta <sub>2</sub> O <sub>5</sub>	Ga <sub>2</sub> O <sub>3</sub>	ThO <sub>2</sub>	U <sub>3</sub> O <sub>8</sub>	ZrO <sub>2</sub>
				ppm	ppm	ppm	ppm	ppm	ppm
<b>1029A and 1034B Prospecting Area</b>									
F009401	1034B	413561	6883327	358	19	81	38	9	3188
F009402	1034B	413564	6883309	302	16	78	48	8	2182
F009403	1034B	413565	6883291	222	14	80	24	7	2418
F009404	1034B	413565	6883267	268	12	79	42	8	2107
F009405	1034B	413585	6883308	339	15	75	106	8	1129
F009406	1034B	413585	6883354	363	17	73	98	11	2918
F009415	1029A	413592	6883026	280	16	68	28	8	1776
F009416	1029A	414358	6883124	335	13	149	1906	14	6970
F009417	1029A	414428	6883110	3819	271	52	171	154	65784
F009418	1029A	414432	6883105	185	10	73	307	7	1364
F009470	1029A west	413502	6882484	232	11	70	25	5	1479
F009471	1029A west	414048	6882859	401	18	66	52	10	1305
<b>1201A and BF1 Prospecting Area</b>									
F009429	1201A	420507	6884490	195	10	85	19	4	1391
F009430	1201A	420450	6884484	904	47	135	157	28	7578
F009431	1201A	420475	6884499	431	24	100	47	9	3485
F009432	1201A	420580	6884268	90	3	38	842	5	435
F009433	BF1	420836	6883340	887	40	92	86	20	4944
F009434	BF1	420846	6883334	508	24	87	69	12	2850
F009435	BF1	420825	6883319	628	24	94	140	16	1085



Assay #	Area	Easting	Northing	Nb <sub>2</sub> O <sub>5</sub>	Ta <sub>2</sub> O <sub>5</sub>	Ga <sub>2</sub> O <sub>3</sub>	ThO <sub>2</sub>	U <sub>3</sub> O <sub>8</sub>	ZrO <sub>2</sub>
<b>359A and 537A Prospecting Area</b>									
F009436	359A	415114	6889349	199	10	76	15	4	1201
F009437	359A	415148	6889711	4978	77	58	209	78	5241
F009438	359A	415148	6889713	443	16	77	47	10	1299
F009439	359A	415219	6889778	296	12	73	35	8	1911
F009451	537A	413351	6891102	25	1	30	4	1	235
F009452	537A	413374	6891106	33	1	32	5	1	317
F009453	537A	413608	6891135	167	9	72	21	4	843
F009454	537A	413616	6891136	3419	75	64	394	59	2533
F009455	537A	413588	6891162	15521	377	47	1445	197	9793
F009456	537A	413604	6891131	198	10	69	28	4	1079
<b>Cressy Ridge</b>									
F009440	Cressy	415945	6887565	211	9	85	17	4	1293
F009441	Cressy	416279	6887788	486	27	89	3846	7	3944
F009442	Cressy	416287	6887757	202	6	79	2685	5	2783
F009443	Cressy	416756	6888074	695	4	66	5564	2	716
<b>R Zone</b>									
F009444	R zone	417256	6887944	5536	36	382	16	133	594
F009445	R zone	417277	6887928	173	2	331	>5000	52	1999
F009446	R zone	417276	6887914	268	2	249	>5000	19	3134
F009447	R zone	417368	6887998	160	5	88	18	3	638
F009448	R zone	417376	6888020	194	6	122	22	2	886



Assay #	Area	Easting	Northing	Nb <sub>2</sub> O <sub>5</sub>	Ta <sub>2</sub> O <sub>5</sub>	Ga <sub>2</sub> O <sub>3</sub>	ThO <sub>2</sub>	U <sub>3</sub> O <sub>8</sub>	ZrO <sub>2</sub>
<b>S Zone</b>									
F009449	S zone 85-2a	417118	6888192	192	9	90	16	3	1432
F009450	S zone 85-2a	417121	6888180	6123	31	571	371	216	108
F009457	S zone 85-2a	417122	6888175	180	7	94	22	3	785
F009458	S zone 85-5	417077	6888167	4778	31	274	254	79	486
F009459	S zone 85-5	417078	6888159	6638	34	667	73	202	324
F009460	S zone 85-5	417086	6888150	272	6	167	54	4	696
F009461	S zone 85-7	417059	6888128	878	9	116	102	12	528
F009462	S zone 85-7	417062	6888122	4950	35	433	291	69	365
F009463	S zone 85-7	417066	6888121	168	5	97	32	4	674
F009464	S zone 85-9	417048	6888087	126	5	82	27	2	597
F009465	S zone 85-9	417051	6888077	2596	13	96	373	31	512
F009466	S zone 85-9	417056	6888068	167	7	89	37	3	905
F009467	S zone 85-11	417033	6888052	662	8	230	95	12	694
F009468	S zone 85-11	417039	6888047	4349	19	134	330	110	500
F009469	S zone 85-11	417042	6888039	240	5	74	16	4	459



## APPENDIX B - JORC Code, 2012 Edition – Table 1 report template

### Section 1 Sampling Techniques and Data

(Criteria in this section apply to all succeeding sections.)

Criteria	JORC Code explanation	Commentary
<b>Sampling techniques</b>	<ul style="list-style-type: none"> <li><i>Nature and quality of sampling (eg cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.</i></li> <li><i>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</i></li> <li><i>Aspects of the determination of mineralisation that are Material to the Public Report.</i></li> <li><i>In cases where ‘industry standard’ work has been done this would be relatively simple (eg ‘reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay’). In</i></li> </ul>	<ul style="list-style-type: none"> <li>53 samples were collected from fresh outcrop. The sample site was guided by the presence of unweathered clean rock, and a handheld scintillometer used to focus the sample site.</li> <li>In almost all cases the rocks sampled were deemed to be representative of the entire outcrop, and approximately 3 kg of material collected using geological pick and hammer.</li> </ul>



Criteria	JORC Code explanation	Commentary
	<p><i>other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (eg submarine nodules) may warrant disclosure of detailed information.</i></p>	
<p><b>Drilling techniques</b></p>	<ul style="list-style-type: none"> <li>• <i>Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).</i></li> </ul>	<ul style="list-style-type: none"> <li>• Not applicable. This report is for outcrop sampling. No drilling has been undertaken.</li> </ul>
<p><b>Drill sample recovery</b></p>	<ul style="list-style-type: none"> <li>• <i>Method of recording and assessing core and chip sample recoveries and results assessed.</i></li> <li>• <i>Measures taken to maximise sample recovery and ensure representative nature of the samples.</i></li> <li>• <i>Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Not applicable. This report is for outcrop sampling. No drilling has been undertaken.</li> </ul>
<p><b>Logging</b></p>	<ul style="list-style-type: none"> <li>• <i>Whether core and chip samples have been geologically and geotechnically logged to a</i></li> </ul>	<ul style="list-style-type: none"> <li>• Program did not involve any drilling, core or RC. Grab samples</li> </ul>

Criteria	JORC Code explanation	Commentary
	<p><i>level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.</i></p> <ul style="list-style-type: none"> <li><i>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</i></li> <li><i>The total length and percentage of the relevant intersections logged.</i></li> </ul>	<p>were described qualitatively.</p>
<p><b>Sub-sampling techniques and sample preparation</b></p>	<ul style="list-style-type: none"> <li><i>If core, whether cut or sawn and whether quarter, half or all core taken.</i></li> <li><i>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</i></li> <li><i>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</i></li> <li><i>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</i></li> <li><i>Measures taken to ensure that the sampling is representative of the in situ material collected,</i></li> </ul>	<ul style="list-style-type: none"> <li>All 53 samples were collected from fresh outcrop. Approximately 3 kg was collected at each sample site. Any possible weathered material was removed prior to bagging.</li> <li>Most of the rock outcrops are fairly uniform in appearance and are fresh and coarse grained.</li> </ul>



Criteria	JORC Code explanation	Commentary
	<p><i>including for instance results for field duplicate/second-half sampling.</i></p> <ul style="list-style-type: none"> <li><i>Whether sample sizes are appropriate to the grain size of the material being sampled.</i></li> </ul>	
<p><b>Quality of assay data and laboratory tests</b></p>	<ul style="list-style-type: none"> <li><i>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</i></li> <li><i>For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.</i></li> <li><i>Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.</i></li> </ul>	<ul style="list-style-type: none"> <li>All samples were submitted to ALS in Canada for package ME-MS81. This involves 4-acid digestion followed by ICP-MS finish.</li> <li>As ME-MS81 is an REE specific fusion ICP package, a number of the first round of sample results reported a number of overlimit results. Accordingly, a 2nd round using package ME-MS81h (the ore grade version of the former) was then requested for these overlimit samples. The 2nd round results have been reported upon, with 3 samples still reporting overlimits which will be addressed by further ICP and XRF analyses.</li> <li>Internal QAQC is applied by the laboratory and extends to standards AMIS0304, AMIS0684, OREAS 752b and SY-5. Blanks and duplicates were inserted at the appropriate intervals.</li> </ul>
<p><b>Verification of sampling and assaying</b></p>	<ul style="list-style-type: none"> <li><i>The verification of significant intersections by either independent or alternative company personnel.</i></li> </ul>	<ul style="list-style-type: none"> <li>All analytical results are reported to Vital as element value and in ppm. Vital converts these values into oxide values using the following stoichiometric conversion values:</li> </ul>



Criteria	JORC Code explanation	Commentary
	<ul style="list-style-type: none"> <li><i>The use of twinned holes.</i></li> <li><i>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</i></li> <li><i>Discuss any adjustment to assay data.</i></li> </ul>	stoichiometric oxide conversion factors. La <sub>2</sub> O <sub>3</sub> 1.1728, CeO <sub>2</sub> 1.2284, Pr <sub>6</sub> O <sub>11</sub> 1.2082, Nd <sub>2</sub> O <sub>3</sub> 1.1664, Sm <sub>2</sub> O <sub>3</sub> 1.1596, Eu <sub>2</sub> O <sub>3</sub> 1.1579, Gd <sub>2</sub> O <sub>3</sub> 1.1526, Tb <sub>2</sub> O <sub>3</sub> 1.1510, Dy <sub>2</sub> O <sub>3</sub> 1.1477, Ho <sub>2</sub> O <sub>3</sub> 1.1455, Er <sub>2</sub> O <sub>3</sub> 1.1435, Tm <sub>2</sub> O <sub>3</sub> 1.1421, Yb <sub>2</sub> O <sub>3</sub> 1.1387, Lu <sub>2</sub> O <sub>3</sub> 1.1371, Sc <sub>2</sub> O <sub>3</sub> 1.5338, Y <sub>2</sub> O <sub>3</sub> 1.2699, Nb <sub>2</sub> O <sub>5</sub> 1.4305, Ta <sub>2</sub> O <sub>5</sub> 1.2211, ZrO <sub>2</sub> 1.5308, U <sub>3</sub> O <sub>8</sub> 1.1792, ThO <sub>2</sub> 1.1379, Ga <sub>2</sub> O <sub>3</sub> 1.3442
<b>Location of data points</b>	<ul style="list-style-type: none"> <li><i>Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.</i></li> <li><i>Specification of the grid system used.</i></li> <li><i>Quality and adequacy of topographic control.</i></li> </ul>	<ul style="list-style-type: none"> <li>All sample positions have been recorded by handheld Garmin GPS units (estimated +/- 3m accuracy). All positions reported within WGS84 as UTM co-ordinates, Zone 12N.</li> </ul>
<b>Data spacing and distribution</b>	<ul style="list-style-type: none"> <li><i>Data spacing for reporting of Exploration Results.</i></li> <li><i>Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.</i></li> <li><i>Whether sample compositing has been</i></li> </ul>	<ul style="list-style-type: none"> <li>No data spacing as these represent random grab sample sites.</li> </ul>



Criteria	JORC Code explanation	Commentary
	<i>applied.</i>	
<b>Orientation of data in relation to geological structure</b>	<ul style="list-style-type: none"> <li><i>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</i></li> <li><i>If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.</i></li> </ul>	<ul style="list-style-type: none"> <li>Grab samples were predominantly sampled from massive granite or syenite, and selected based on scintillometer response.</li> <li>Structures, such as faults and trends were observed in the field, while grab sampling was guided by scintillometer response. As the grab samples were singular and not channel, nor drill, no structural bias was introduced. No attempt was made to cross-cut or parallel any identified structures.</li> <li>Samples from the S-Zone were collected from historical trenches which were excavated at 60 to 90 degrees over a vertical structure with trend. Again, trenches were not continuously sampled, only representative grab samples along the trenches for verification. Trenches selected were evenly spaced over the area of interest, and gram sample sites based on historical assays.</li> </ul>
<b>Sample security</b>	<ul style="list-style-type: none"> <li><i>The measures taken to ensure sample security.</i></li> </ul>	<ul style="list-style-type: none"> <li>Chain of custody has been applied, with the samples documented on arrival at the laboratory.</li> </ul>
<b>Audits or reviews</b>	<ul style="list-style-type: none"> <li><i>The results of any audits or reviews of sampling techniques and data.</i></li> </ul>	<ul style="list-style-type: none"> <li>Initial review indicated a number of over limit samples, which were then resubmitted for further analysis.</li> </ul>



## Section 2 Reporting of Exploration Results

(Criteria listed in the preceding section also apply to this section.)

Criteria	JORC Code explanation	Commentary
<p><b>Mineral tenement and land tenure status</b></p>	<ul style="list-style-type: none"> <li><i>Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.</i></li> <li><i>The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.</i></li> </ul>	<ul style="list-style-type: none"> <li>The Nechalacho Project is located in the Northwest Territories, Canada, approximately 100 km east-southeast of Yellowknife, centred on coordinates 416,400 m E / 6,887,000 m N or 112° 36' 6" W / 62° 6' 20" N.</li> <li>Mineral Leases NT-3178, NT-3179, NT- 3265, NT-3266, NT-3267, NT-5534, NT-5535, and NT-5561 are described on the NWT's Mining Recorder's Office Mineral Tenure Web Map as being actively held by Avalon Advanced Materials Inc. (50%), and Nechalacho Resources Corp (50%), a subsidiary of Vital Metals, with expiration dates ranging from May 21, 2027 and October 24, 2039.</li> <li>On June 24, 2019, Avalon announced that it had entered into a definitive agreement with Vital Metals to transfer ownership of the near-surface mineral resources on the above Mineral Leases (above 150 m RL) and it will retain a 3% net smelter royalty, which Avalon has agreed to waive for the first five years of commercial production or in perpetuity for a \$2.0 M payment within eight years of the transaction (see Avalon's News Release NR 19-04 dated 24 June 2019). This agreement was later announced to be finalized (Avalon News Release dated 30 October 2019), and the information presented is limited to above the 150 m elevation boundary. On February 6, 2020, the completion of a co- ownership</li> </ul>



Criteria	JORC Code explanation	Commentary
		<p>agreement was announced, under which Nechalacho Resources Corp. acquired ownership of the near-surface resources on the above Mineral Leases and a jointly-owned special purpose vehicle to hold and manage the permits and authorizations to operate at the site was created (see Avalon News Release NR 20-01).</p> <ul style="list-style-type: none"> <li>• A 2.5% Net Smelter Return (NSR) royalty to J. Daniel Murphy applies to the Thor Lake property which is capped at an escalating amount indexed to the rate of inflation. Nechalacho Resources has been granted the option to purchase Avalon's option in this third party-owned royalty for a payment of \$1.5 million provided that, upon exercising the option, Nechalacho Resources extinguishes this royalty.</li> <li>• In November 2024 three new mineral claims were staked. M11875 to M11877 measure 11.50km<sup>2</sup> (1,150ha), 7.61km<sup>2</sup> (761ha) and 5.95km<sup>2</sup> (595ha) and are 100% owned by Vital Metal's Canadian subsidiary, Nechalacho Resources Corp.</li> <li>• Operating licenses in the Northwest Territories are subject to the approvals by provincial and environmental regulators and require consultation with local communities.</li> </ul>
<p><b>Exploration done by other parties</b></p>	<ul style="list-style-type: none"> <li>• <i>Acknowledgment and appraisal of exploration by other parties.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Past exploration in the area has been focused on the Nechalacho Layered Suite (NLS) as well as the North T prospect. Very little regional sampling has been conducted.</li> </ul>



Criteria	JORC Code explanation	Commentary
<b>Geology</b>	<ul style="list-style-type: none"> <li>• <i>Deposit type, geological setting and style of mineralisation.</i></li> </ul>	<ul style="list-style-type: none"> <li>• The Upper Zone is a polymetallic (REE, Nb, Zr) deposit hosted by the Thor Lake Syenite. It is a large layered magmatic deposit with overprinting alteration.</li> <li>• REO mineralization in the Lake Zone is layered in separate zones of light rare earths at the top of the deposit (Upper Zone) and a mixture of light and heavy REO mineralisation in the lower part of the deposit (Basal Zone).</li> </ul>
<b>Drill hole Information</b>	<ul style="list-style-type: none"> <li>• <i>A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes:</i> <ul style="list-style-type: none"> <li>○ <i>easting and northing of the drill hole collar</i></li> <li>○ <i>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</i></li> <li>○ <i>dip and azimuth of the hole</i></li> <li>○ <i>down hole length and interception depth</i></li> <li>○ <i>hole length.</i></li> </ul> </li> <li>• <i>If the exclusion of this information is justified on the basis that the information is not</i></li> </ul>	<ul style="list-style-type: none"> <li>• No drilling has been undertaken.</li> <li>• All grab samples collected have been presented with their respective UTM coordinates.</li> </ul>

Criteria	JORC Code explanation	Commentary
	<p><i>Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.</i></p>	
<p><b>Data aggregation methods</b></p>	<ul style="list-style-type: none"> <li><i>In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated.</i></li> <li><i>Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.</i></li> <li><i>The assumptions used for any reporting of metal equivalent values should be clearly stated.</i></li> </ul>	<ul style="list-style-type: none"> <li>No data aggregation has been undertaken</li> <li>Conversions to oxide using established correction factors have been done and totals calculated.</li> </ul>
<p><b>Relationship between mineralisation widths and intercept</b></p>	<ul style="list-style-type: none"> <li><i>These relationships are particularly important in the reporting of Exploration Results.</i></li> <li><i>If the geometry of the mineralisation with respect to the drill hole angle is known, its</i></li> </ul>	<ul style="list-style-type: none"> <li>Not relevant to the grab samples taken, no intercepts reported.</li> </ul>

Criteria	JORC Code explanation	Commentary
<b>lengths</b>	<p><i>nature should be reported.</i></p> <ul style="list-style-type: none"> <li><i>If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known').</i></li> </ul>	
<b>Diagrams</b>	<ul style="list-style-type: none"> <li><i>Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.</i></li> </ul>	<ul style="list-style-type: none"> <li>Plan view of grab sample locations are provided in the main body of the report.</li> </ul>
<b>Balanced reporting</b>	<ul style="list-style-type: none"> <li><i>Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.</i></li> </ul>	<ul style="list-style-type: none"> <li>All results and sample location details have been reported in the Appendix A above</li> </ul>
<b>Other substantive exploration data</b>	<ul style="list-style-type: none"> <li><i>Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and</i></li> </ul>	<ul style="list-style-type: none"> <li>Not applicable as no other exploration data is available.</li> </ul>



Criteria	JORC Code explanation	Commentary
	<p><i>rock characteristics; potential deleterious or contaminating substances.</i></p>	
<p><b>Further work</b></p>	<ul style="list-style-type: none"> <li>• <i>The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).</i></li> <li>• <i>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</i></li> </ul>	<p>Planned work includes:</p> <ul style="list-style-type: none"> <li>○ Relative to this release, further investigation of these sample areas is warranted. This will be guided by an airborne radiometric survey to be completed in May.</li> <li>○ Samples from the R, S and Cressy zones may be followed up immediately with upcoming drilling.</li> </ul>