

**QUARTERLY REPORT
FOR THE PERIOD ENDED 31 DECEMBER 2019**

Highlights:

- Completed of acquisition of Cheetah Resources Pty Ltd to transform Vital into near term REO producer
- Maiden JORC Resource of **94.7MT at 1.46% TREO** at a 0.1% Nd₂O₃ cutoff grade (**25.2% NdPr**) contained in the Upper Zone at Nechalacho Rare Earth Project
- Ore Concentration via low cost X-ray sorting results demonstrate excellent recovery > 35%
- Hydrometallurgical leaching testwork show recovery of 97%
- A supply contract with TOMRA has been signed for the supply of a COM Tertiary XRT sorting machine

Vital Metals Limited (ASX: VML) (**Vital** or the **Company**) is pleased to report on its activities during the December 2019 Quarter.

NECHALACHO RARE EARTHS PROJECT

Vital owns 100% of the mineral rights of the Nechalacho Project above the 150 m elevation level, containing a mineral resource of high grade light rare earths, very close to surface with excellent potential for low cost extraction.

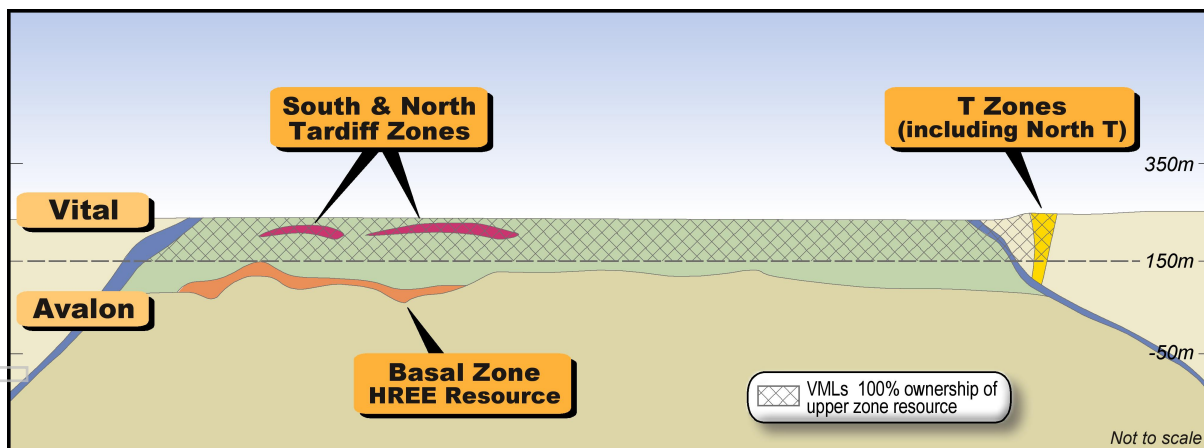


Figure 1. Cross section depicting ownership zones of Nechalacho Rare Earth Project with Vital owing 100% of the Upper Zone Resource depicted in this release and Avalon Advanced Metals owning the Basal Zone (not the subject of this release).

Initial areas of interest for Cheetah are the North T Zone and the high grade Tardiff Zones, which lie within the larger Upper Zone.

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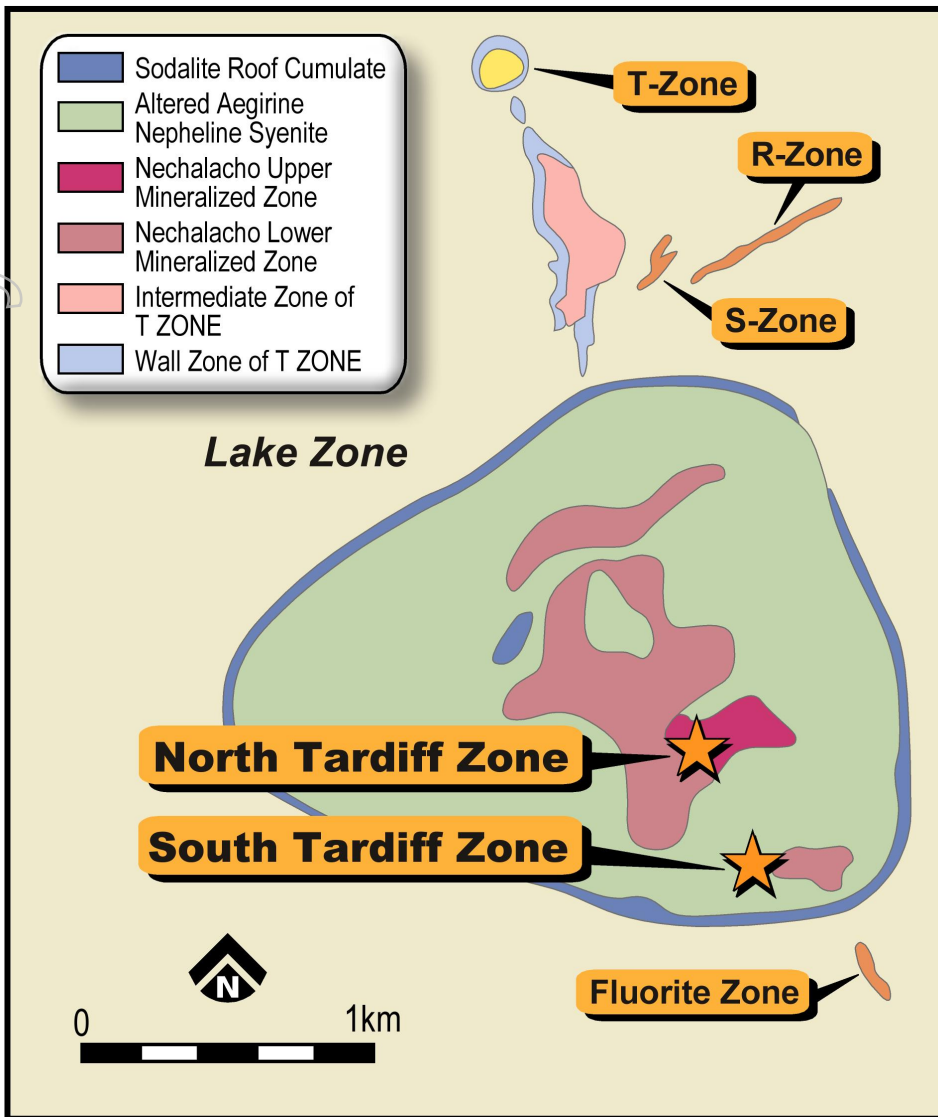


Fig. 2: Location of North T Zone with respect to Upper Zone

Nechalacho Rare Earth Project JORC Resource 94.7Mt @ 1.46% REO

During the quarter an updated resource estimate was prepared for the Upper Zone of the Nechalacho deposit in accordance with the JORC 2012 code following geological re-interpretation and creation of new geological wireframes. The estimate is given in Table 1 at varying cutoff grades. The Upper Zone is estimated to contain combined measured, indicated and inferred mineral resources of **94.7 MT grading 1.46% REO including 0.29% Nd₂O₃** at a cutoff grade of 0.1% Nd₂O₃ above the 150 m elevation level.

Within the Upper Zone, the high grade Tardiff Zones, have been estimated to contain combined measured, indicated and inferred mineral JORC 2012 Resource of **3.19 MT @ 2.4% TREO** using a cutoff grade of 0.3% Nd₂O₃ (Table 2). The Tardiff Zone resources are contained within the Upper Zone resource of the Nechalacho deposit.

Upper Zone JORC Resource Table

Confidence Category	ND203 cutoff grade	Tonnage	REO	LREO	HREO	ND2O3	PR6O11	NdPr:TREO
	%	Mt	%	%	%	%	%	%
Measured	0.3	1.094	2.004	1.817	0.186	0.394	0.106	25.0%
	0.1	2.914	1.468	1.326	0.142	0.288	0.077	24.9%

Indicated	0.3	6.246	1.928	1.762	0.166	0.380	0.102	25.0%
	0.1	14.662	1.508	1.372	0.137	0.295	0.080	24.9%
Inferred	0.3	30.945	1.797	1.637	0.161	0.360	0.094	25.3%
	0.1	77.159	1.456	1.323	0.133	0.291	0.077	25.3%
Measured, Indicated and Inferred	0.3	38.285	1.825	1.662	0.162	0.364	0.096	25.2%
	0.1	94.735	1.464	1.330	0.134	0.291	0.078	25.2%

Table 1: Rare Earth Resources in the Upper Zone, Nechalacho deposit. Mineral Resource Estimation prepared in accordance with JORC 2012 under the supervision of Dr. William Mercer, registered Professional Geoscientist (P. Geo.) in the Northwest Territories and Ontario, Canada, as the Competent Person. The preferred cutoff grade for this resource estimate is preliminary, at pre-scoping study level, as no detailed market, metallurgical or engineering studies have been performed. Only resource blocks located above 150 m elevation are reported.

Tardiff Zone JORC Resource Table

The criteria that were applied to select near-surface high-grade domains as a subset of the whole Upper Zone resources are as follows:

- Clusters of blocks >2% REO with sufficient tonnage and three-dimensional drilling (>3 drill holes) were identified
- Outlines around each of the four clusters of blocks >2% REO were manually digitized, draped on the topography and then extended 50m downwards to create four 3D wireframes
- Blocks within these wireframes were selected and number-coded using vertical needling with integration level 10 on a >50% basis. The selected blocks are located at <50m depth relative to the topography and include all grades enclosed.

Confidence	% Nd2O3 cutoff	Tonnage	TREO	LREO	HREO	ND2O3	PR6O11	NdPr:TRERO
All 4 surface zones <50 m depth outlined by 2% TREO								
Measured	0.3	286,563	2.729	2.518	0.211	0.515	0.144	24.1%
Indicated	0.3	1,611,345	2.429	2.254	0.176	0.457	0.128	24.1%
Inferred	0.3	1,297,073	2.237	2.085	0.152	0.423	0.119	24.2%
Measured + Indicated + Inferred (JORC)	0.3	3,194,982	2.378	2.209	0.169	0.449	0.126	24.2%

Table 2: Tardiff Zones high-grade near-surface subset of the Rare Earth Resources of the Upper Zone, Nechalacho deposit. Mineral Resource Estimation prepared in accordance with JORC 2012 under the supervision of Dr. William Mercer, registered Professional Geoscientist (P. Geo.) in the Northwest Territories and Ontario, Canada, as the Competent Person. The cutoff grade for this resource estimate is preliminary, at pre-scoping study level, as no detailed market, metallurgical or engineering studies have been performed.

A drilling program is scheduled to be completed in February/March 2020 targeting the Tardiff zone with the aim to expand the above high grade zones.

The North T Zone Nechalacho Project Mineral Resources

The North T-Zone of the Nechalacho Rare Earth Project separate deposit located approximately 2km north of the centre of the Upper Zone. The North T Zone contains two distinct zones of REE mineralisation, a Bastnaesite Subzone at surface with an underlying Xenotime Subzone.

A new resource estimate for the Bastnaesite and Xenotime Subzones, based on new geological interpretations and a validated historic database, was prepared according to the 2012 version of the JORC code (Table 3). Although the historic assays have been validated by core duplicates and the drill coverage is considered adequate, due to a lack of QAQC records for the historic assays, the resources have been classed as indicated and inferred. The JORC 2012 mineral resource estimate of the Bastnaesite Subzone of the North T-Zone comprises 60,305T at 1.600% Nd2O3 (Table 3) with a 0.3% Nd2O3 cutoff grade. It is important to note that historical drilling only assayed for Nd, Ce and Y. A resampling program commenced in Q3 2019 assaying historical core for the full suite of rare earth elements with data being incorporated in to a new resource upgrade in 2020.

JORC Resources in Bastnaesite Subzone 1, North T-Zone

Bastnaesite Subzones	Cutoff grade	Tonnage	Nd ₂ O ₃	CeO ₂	Y ₂ O ₃
	Nd ₂ O ₃		%	%	%
Indicated	>0.3%	36,813	1.711	3.615	0.036
Inferred	>0.3%	23,492	1.428	2.612	0.038
Indicated + Inferred	>0.3%	60,305	1.600	3.224	0.037
Xenotime Subzones	Y ₂ O ₃				
Indicated	>0.1%	346,270	Not Estimated	0.156	0.271
Inferred	>0.1%	4,700		0.177	0.224
Indicated + Inferred	>0.1%	350,970		0.156	0.270

Table 3: Rare Earth Resources of the North-T Zone Nechalacho. Mineral Resource Estimation prepared in accordance with JORC 2012 under the supervision of Dr. William Mercer, registered Professional Geoscientist (P. Geo.) in the Northwest Territories and Ontario, Canada, as the Competent Person. The cutoff grade for this resource estimate is preliminary, at pre-scoping study level, as no detailed market, metallurgical or engineering studies have been performed.

Process Testwork

During the December Quarter the Company has successfully completed beneficiation testwork on ore in addition to leaching testwork on concentrate from the North T Deposit. The purpose of this testwork was to confirm the potential of producing a high grade concentrate from simple, low cost ore-sorting and gravity separation plus the ability to produce a mixed rare earth product via traditional rare earth extraction processes. The success of this testwork has confirmed to VML that the Nechalacho Rare Earth Project has the potential to be the next low cost producer of rare earth products.

Beneficiation – Ore Sorting

Ore sorting involves the separation of the bastnaesite mineralisation from the quartz gangue using X-Ray Transmission (XRT) technology. This sensor was deemed suitable due to the significant differences in atomic density between bastnaesite and quartz.



Fig. 3: Ore sample from North T Zone showing red bastnaesite crystals with quartz waste

TOMRA Sorting Mining (TOMRA) engineers conducted a Performance Test at Saskatchewan Research Council (SRC) on three sets of samples to determine whether TOMRA products are capable of sorting bastnaesite from quartz. The material was pre-screened into the size fractions: 8-20mm, 20-30mm and 30-60mm. Oversize was crushed further, while the undersized fraction was retained for gravity testwork.

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The testwork showed that a 36% REO product could be produced from feed containing 10.5% REO at a REO recovery of 70%. Products with REO up to 41% were produced along with REO recoveries up to 87% and upgrade factors up to 5. REO in the waste stream was reduced to 1.7% with corresponding REO loss down to 13%. Figure 5 shows an example of the product and reject produced which shows high bastnaesite proportion (red rocks) reporting to the concentrate and very little in the reject.

In all the tests, the material was fed through a single time with no cleaning or scavenging carrying out on product or reject. Since the ore sorting equipment has a large capacity compared to the throughput for plant requirements, an installed ore sorter will be flexible and used in a number of different modes to produce a high grade bastnaesite product to be transported for downstream processing.

Gravity Testwork on Fines

Spiral testwork and shaking table testwork was undertaken on the fine material. Shaking table testwork proved that an upgrade of over four times to 40% REO product at an REO recovery of 80% could be achieved, producing product and rejects as shown in Figure 6.

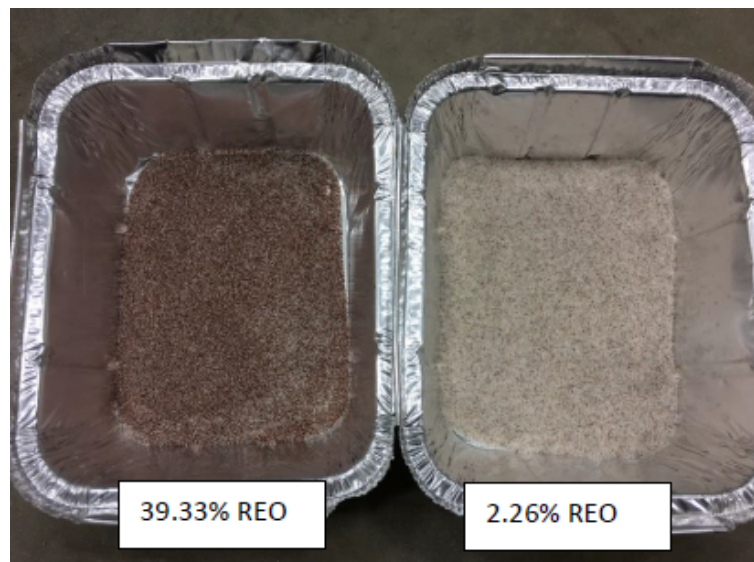


Figure 4 A high grade REO concentrate and corresponding reject sample from one of the shaker table runs.

Leaching Testwork

Vital has successfully completed leaching testwork on high grade concentrate from the North T deposit at its Nechalacho Rare Earth Project. The purpose of this testwork was to confirm the amenability of leaching rare earths contained within concentrate produced by ore sorting via recognised process flowsheets for the treatment of bastnaesite.

High grade bastnaesite samples (~50% REO) were selected from the North T-Zone (shown in Figure 1) of the Nechalacho Rare Earth project, near Yellowknife, Northwest Territories, Canada. The North T zone is the same zone from which samples were used to undertake ore sorting and gravity beneficiation testwork at SRC and as announced on 5th December 2019.

Testwork was conducted on a 90% 'Bastnaesite':10% Quartz to simulate a leach feed anticipated by the product from the ore sorter. Leach feed was thus approximately 45% REO, 20% SiO₂ and 10% CaO.

Leaching processes using Hydrochloric acid and Sulphuric acid have both been tested to find the most suitable and optimal process route. High neodymium leach recoveries (where neodymium is indicative of overall rare earth) up to 97% in sulphuric acid media and up to 93% in hydrochloric acid media were

achieved. Of particular interest is the potential to selectively extract cerium depending on customer requirements.

Leach optimisation and rare earth recovery from the leach liquors testwork is now being undertaken to fully develop the process flowsheet and develop rare earth precipitate specifications.

End of Quarter Developments and Next Steps

The successful completion of beneficiation and leaching testwork demonstrates that it is possible to produce a high grade REO product from the North T Zone ore using simple, low cost processing. This confirmation that the North T Zone is the ideal focus for the establishment of a near term, low cost operation has encouraged Vital to proceed with the development of the North T Deposit as a start-up operation prior to a potential larger, long term operation focussed on the Tardiff Zone resources.

To progress the development of the North T project, Vital signed a number of key development and supply contract following the end of quarter. These were:

- Mining Services Memorandum of Understanding (MOU) with Det'on Cho Nahanni Constructions Ltd as the preferred Mining Services Contractor for the Project
- Aurora Telecom Services Limited appointed to construct an ice road from Yellowknife to the Nechalacho Rare Earth Project to enable mobilisation of plant and equipment
- A supply contract with TOMRA has been signed for the supply of a COM Tertiary XRT sorting machine.

These contracts will enable site establishment works to commence on site in March 2020 with the mobilisation of the ore sorter to site in July 2020.

These commitments provide prospective customers with a greater level of confidence in potential delivery dates to progress offtake negotiations.

Vital will also be focussing on developing final capital and operating cost estimates and development timelines.

WIGU HILL PROJECT

Cheetah has signed a project development and option agreement with Montero Mining & Exploration Ltd ("**Montero**") a TSXV listed entity, to acquire all of the Intellectual Property ("IP") rights of Wigu Hill (BVI) Ltd, a subsidiary company that owns these rights to develop the Wigu Hill Project located near Kisaki in Tanzania. Cheetah will purchase the rare earths IP rights held by Montero for C\$100,000 and fund a C\$500,000 work program within 6 months following the issuance of a mining licence.

Cheetah also has an option to acquire Montero's remaining interests in Wigu Hill (BVI) Limited for a total consideration of C\$1,100,000 ("**Montero Agreement**"). Application for a Mining and Prospecting Licence over the area of the previous Retention Licence has been made by a local Tanzanian company, owned by Tanzanians.

On December 19th 2019, the Mining Commission of Tanzania announced the mechanism for the granting of the mining license would be via a public invitation to tender. It is noted that the introduction of this tender did not affect Vital or the agreement with Montero, as the funding of the work program and final payment of C\$1,100,000 are contingent on Montero being granted a mining licence over the area previously held under a retention licence by a subsidiary of Montero.

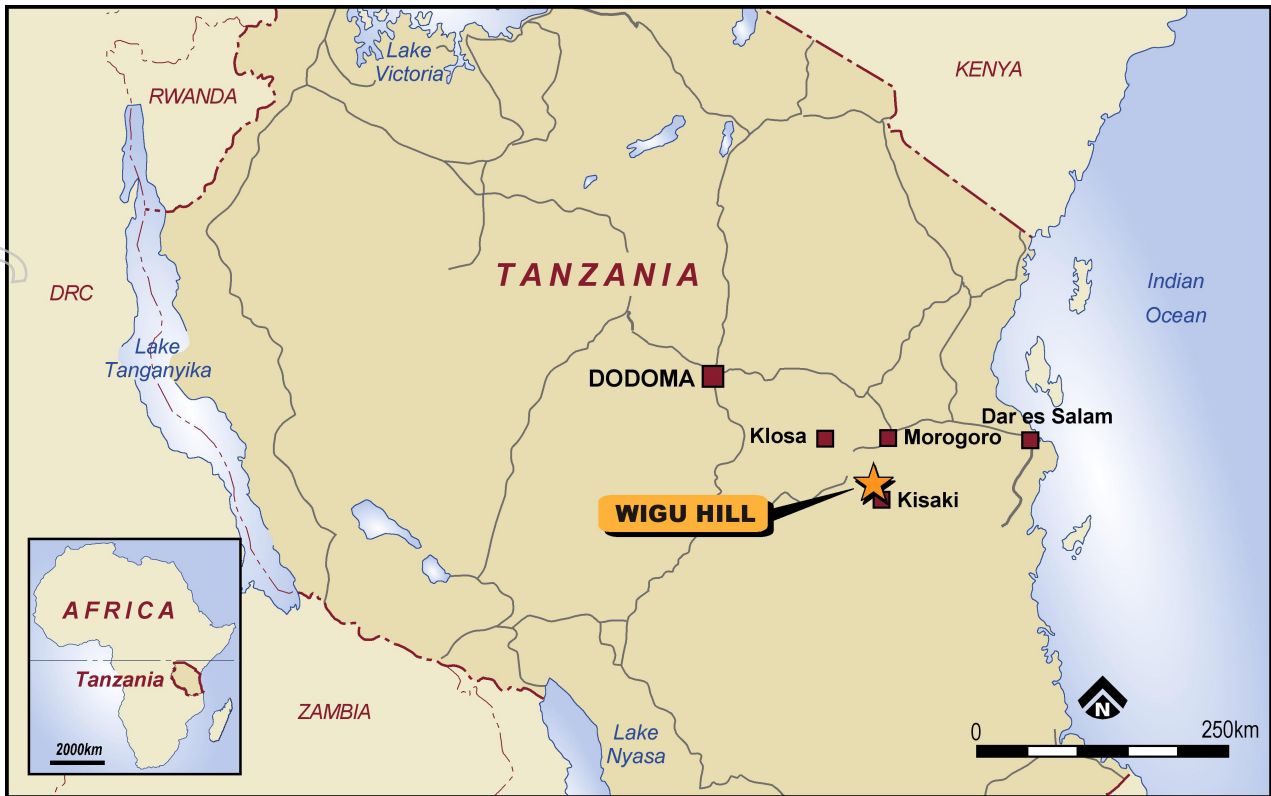


Figure 5: Location of the Wigu Hill Project

Nahouri Gold Project, Burkina Faso

Vital Metals has suspended all exploration activity in Burkina Faso. The Company notes ongoing security concerns in the country and the State of Emergency declared by the Burkina Faso government for several northern provinces, which is in place until January 2020.

Vital will provide shareholders with an update by way of ASX announcement should the situation in Burkina Faso improve and a decision to resume exploration be taken.

Aue Cobalt Project, Germany

The Aue Project is located in the western Erzgebirge area of the German state of Saxony. The permit, comprising an area of 78 sq km is located in the heart of one of Europe's most famous mining regions surrounded by several world class mineral fields. Historical mining and intensive exploration work carried out between from the 1940s and 1980s showed high prospectivity of the Aue permit area for cobalt, tungsten, tin, uranium and silver mineralisation.

During the December quarter there was no exploration activities on the Aue project.

CORPORATE

Completion of the Acquisition of Cheetah Resources and Management Changes

During the quarter, the Company completed the acquisition of Cheetah Resources Pty Ltd, with shareholders approving all resolutions at the General Meeting held on 16 October 2019.

Upon completion of the acquisition of Cheetah, Mr Geoff Atkins and Mr Evan Cranston were appointed to the Board of the Company as Managing Director and Non-Executive Director respectively on the terms and conditions as outlined in the notice of meeting.

In conjunction with the board appointments and as planned, Executive Director Mr Phillip Coulson has stepped into a Non-Executive Director role with the Company.

Post Quarter end, the Company via its wholly owned subsidiary Cheetah Resources, completed the acquisition of the Nechalacho Rare Earths Project from Avalon Advanced Materials Inc.

Cash on hand

As at December 31, 2019 the Company held \$5.38 million in cash and cash equivalents.

ENDS

This announcement has been authorised by the Board of Directors of Vital Metals.

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ABOUT VITAL METALS

Vital Metals Limited (ASX:VML) is an explorer and developer focussing on rare earths, technology metals and gold projects. Our projects are located across a range of jurisdictions in Canada, Africa and Germany.

Nechalacho Rare Earth Project

The Nechalacho project is a high grade, light rare earth (bastnaesite) project located at Nechalacho in the Northwest Territories of Canada and has potential for a start-up operation exploiting high-grade, easily accessible near surface mineralisation. The Nechalacho Rare Earth Project hosts within the Upper Zone, a JORC resource with a combined measured, indicated and inferred mineral resources of **94.7 MT grading 1.46% REO including 0.29% Nd₂O₃**.

Wigu Hill Project

The Company has signed a project development and option agreement with Montero Mining & Exploration Ltd, to acquire and develop the Wigu Hill Project located near Kisaki in Tanzania.

The Wigu Hill project is a light rare earth element deposit and consists of a large carbonite complex with bastnaesite mineralisation with a NI 43-101 Inferred resource estimate of 3.3Mt at 2.6% LREO5 including 510,000t @ 4.4% LREO5 on 2 of 10 possible drill targets.

Nahouri Gold Project – Burkina Faso

The Nahouri Gold Project (100% Vital) is located in southern Burkina Faso. The Project is made up of three contiguous permits; the Nahouri, Kampala and Zeko exploration permits. The Project is located in highly prospective Birimian Greenstone terrain with 400 sq km of contiguous tenements lying on the trend of the Markoye Fault Corridor.

Aue Project – Germany

The Aue Project (100% Vital) is located in the western Erzgebirge area of the German state of Saxony. The permit, comprising an area of 78 sq km is located in the heart of one of Europe's most famous mining regions surrounded by several world class mineral fields. Historical mining and intensive exploration work carried out between from the 1940s and 1980s showed high prospectivity of the Aue permit area for cobalt, tungsten, tin, uranium and silver mineralisation.

Investors should note that the Mineral Resource estimate for the Wigu Hill Rare Earth Project is a foreign estimate and is not reported in accordance with the JORC Code. A competent person has not done sufficient work to classify this foreign estimate as a mineral resource in accordance with the JORC Code and it is uncertain that following further exploration or evaluation work that this foreign estimate will be able to be reported as a mineral resource in accordance with the JORC Code.

The company confirms that it is not aware of any new information or data that materially affects the information included in the original market announcements and, in the case of estimates of Mineral Resources, that all material assumptions and technical parameters underpinning the estimates in the original market announcements continue to apply and have not materially changed. The company confirms that the form and context in which the competent persons findings have not been materially modified from the original announcement.

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Board & Management

Francis Harper
Chairman

Zane Lewis
Executive Director

Phillip Coulson
Non-Executive Director

Geoff Atkins
Managing Director

Evan Cranston
Non-Executive Director

Sebastian Andre
Company Secretary

Appendix A - Schedule of Tenements as at 31 December 2019

Location	Tenement	Status	Interest at beginning of quarter	Interest acquired or disposed	Interest at end of quarter
Canada	Nechalacho	100%*	0%	100%	100%
Burkina Faso	Nahouri	100%	100%	0%	100%
	Kampala	100%	100%	0%	100%
	Zeko	100%	100%	0%	100%
Germany	Aue	100%	100%	0%	100%
Canada	Nechalacho	100%	-	100%	100%

- Vital owns 100% of the mineral rights of the Nechalacho Project above the 150 m elevation level

ASX Listing Rule Information

The company confirms that it is not aware of any new information or data that materially affects the information included in the original market announcements and, in the case of estimates of Mineral Resources, that all material assumptions and technical parameters underpinning the estimates in the original market announcements continue to apply and have not materially changed. The company confirms that the form and context in which the competent persons findings have not been materially modified from the original announcement.

The Company has previously disclosed the foreign estimates in compliance with ASX Listing Rule 5.12 in the announcement dated 25 June 2019 titled "Vital to Transform into Rare Earth Oxide Developer" ("Announcement"). The Company is not in possession of any new information or data relating the foreign estimates that materially impacts on the reliability of the estimates or the Company's ability to verify the foreign estimates in accordance with Appendix 5A (JORC Code). The Company confirms that the supporting information provided in the Announcement continues to apply and has not materially changed.