Vital Metals new Rare Earths Extraction Plant planned adjacent to SRC's Separation Plant

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Vital Metals on track to become a rare earths carbonate producer in 2021

In news out today rare earths carbonate developer Vital Metals Limited (ASX: VML) ('Vital'), through its 100% owned subsidiary Cheetah Resources, has signed a binding Term Sheet with the Saskatchewan Research Council ('SRC') to negotiate definitive agreements for the construction and operation of a Rare Earth Extraction Plant to produce a mixed rare earth carbonate product. The capital cost estimate of the Rare Earth Extraction Plant is A$5.25m.

The Rare Earth Extraction Plant is planned to be located adjacent to a recently announced Rare Earth Separation Plant in Saskatchewan, Canada, and could provide a rare earth carbonate feedstock to produce a commercial grade separated rare earth oxide. The proximity makes it natural for SRC's Separation Plant to be a potential customer of Vital/Cheetah's mixed rare earth carbonate product from their planned Extraction Plant.

Vital Metals' Managing Director Geoff Atkins comments

"The signing of this Term Sheet with SRC marks an important milestone for Vital and the development of the Nechalacho Project," said Vital Metals' Managing Director Geoff Atkins.

“Whilst the Definitive Agreements continue to be finalised in line with the Term Sheet, the Company is excited about the prospect of the construction and operation of a rare earth demonstration extraction plant, as well as it being co-located with SRC’s recently announced rare earth separation plant. Being the only rare earth project in Canada with near term production capability, co-located with Canada’s only Separation Facility, provides Vital the opportunity to be a cornerstone of the North America Critical Minerals Strategy.”

Vital Metals low CapEx strategy to become a rare earths carbonate producer in Canada

Traditionally rare earth miners would look to build a huge plant to make a rare earths end product, however Vital Metals has a different strategy to reach production quicker and with a much lower CapEx, as well as supporting a much needed **non-China rare earths supply chain**.

Vital is an explorer and developer with highly prospective mineral projects, focusing on their world-class rare earth Nechalacho Project in Canada. **Their strategy is to be the largest independent supplier of clean mixed rare earth feedstock outside of China**, with a goal to produce a minimum 5,000 tonnes of contained rare earth oxide (REO) by 2025. A key component to the plan is a much smaller scale plant with an extremely low CapEx of just A$20m to produce rare earth carbonate. Subject to the various hurdles such as funding, Vital Metals hopes to begin production at their Nechalacho Project in 2021. Once in production, Vital’s strategy is to generate low cost near-term cash flow to fund the development of large-scale operations.

Vital Metals Nechalacho Project and Stage 1 strategy

Source

Vital owns two world class rare earth projects – Nechalacho in Canada with ~95mt at 1.46% TREO, and Wigu Hill in Tanzania with 3.3mt at 2.6% TREO.

The Nechalacho Project (Canada)

The Nechalacho Project is a rare earth project located in Northwest Territories, Canada. The current resource estimate is 94.7mt at 1.46% REO (measured, indicated and inferred). The North T Zone at Nechalacho hosts a high-grade resource of 101,000 tonnes at 9.01% LREO (2.2% NdPr). Vital is targeting production of rare earth oxide in 2021 with early production from the North T starter pit.

More than $120 million has been spent by previous owners on drilling, permitting and project development at Nechalacho, which includes a 40-person camp and airstrip. The Project is **fully permitted for a 600kt mining and ore sorting operation** and is 100km from Yellowknife. The local infrastructure is well established with access to the Canadian National Railway at Hay River. Access to the site is via barge in summer and ice road in winter.

The metallurgy is a simple process involving a 35%+ initial beneficiation via ore sorting and 97% recovery into solution via hydrochloric acid using an industry standard process.

Vital has already completed detailed engineering for the ore sorting plant, defined capital and operating costs, and begun site preparation works. Off-take negotiations are reported to be progressing well with a number of non-China buyers.

Vital Metals next steps and map showing the Tardiff Zones

Source: company presentation

Management is highly experienced. For example, Managing Director Geoff Atkins has 25 years of project and corporate development experience, including four years as Corporate Planning Manager at Lynas Corporation where he oversaw the strategic planning process and the development of the Mt Weld Concentration Plant and Lynas Advance Materials Plant in Malaysia.

Today's news from Vital suggests that, assuming progress continues successfully, the SRC will support Vital in its construction and operation of their Nechalacho Project. Subject to execution of definitive agreements, processing operations are planned to start in the third quarter of 2021.

The current market cap of Vital Metals is A$52m.