

TALON METALS CORPORATE UPDATE: ADVANCING A SECURE DOMESTIC NICKEL SUPPLY TO MEET U.S. GOVERNMENT REQUIREMENTS

Tamarack, Minnesota (April 9, 2024) – Talon Metals Corp. (“**Talon**” or the “**Company**”) (TSX:TLO/OTC:TLOFF), the majority owner and operator of the Tamarack Nickel-Copper-Cobalt Project (“**Tamarack Nickel Project**”) in central Minnesota, the operator of numerous high-grade nickel-copper prospects in the Upper Peninsula of Michigan (“**Michigan UP Projects**”) and the owner of the proposed Battery Minerals Processing Facility (“**BMPF**”) in Mercer County, North Dakota, provides a progress update on the Company’s activities in all jurisdictions where it operates and national policy developments that value and favor domestic supply.

Permitting Update: Underground Mine in Central Minnesota

On June 21, 2023, Talon began the rigorous science-based permitting process in the state of Minnesota by [filing an Environmental Assessment Worksheet \(EAW\) with the Minnesota Department of Natural Resources \(MDNR\)](#) for a small footprint underground mine and rail loading facility near the town of Tamarack in Aitkin County, Minnesota.

In early 2022, Talon made the decision to move mineral processing to an industrial site in a drier environment in Mercer County, North Dakota. This decision was in direct response to concerns in central Minnesota about processing sulfide bearing ore in the water rich environment of the area where the high-grade nickel deposit is located. It also means that the state permitting process has a smaller scope of review, focused just on the environmental impacts of the underground mine and rail loading facility at the Tamarack site.

The environmental review process is proceeding at pace. Talon has received two rounds of comments and suggestions from the relevant state agencies, tribal sovereign governments or tribal organizations who have been invited by the state to participate in the initial process on a government-to-government basis. Talon has responded to the first round of comments and is developing its responses, data and design changes that are responsive to the second round of comments and plans to submit these responses, data and design changes in Q2 of this year.

The iterative nature of the process and the high quality of feedback at this phase of the process allows Talon to respond with factual answers, data or project changes that avoid, further reduce, or mitigate impacts on the environment. Talon is focusing on responsiveness to reduced land disturbance, reduced wetlands impacts, avoidance of contact water and avoidance of exposure of sulfide bearing rock to the atmosphere.

Talon is using a well-known project management approach called “Integrated Project Development” (IPD), in conjunction with local and national US engineering and construction firms, which will facilitate an integrated project management process, and is expected to maintain timelines and prevent or minimize cost overruns.

Henri van Rooyen, CEO of Talon, said the following about the permitting process: “*The permitting process in Minnesota is rigorous, science-based, and starts with the environmental review process that brings together the relevant regulators and tribal sovereign governments to ensure a project is ready for the Environmental Impact Statement (EIS) process. One real benefit of this first stage of the process is*

that it allows the proponent of any project to gain valuable insights from the regulatory agencies and the participating tribal institutions, which can ensure that the proposer has the right data to explain a particular aspect or in some cases can lead to design changes that are direct improvements on previous plans. This may save time in the Environmental Impact Statement drafting phase and is most likely a preview of issues that would come up in the public comment phases of the process.”

Commenting on Talon’s investment in environmental baseline studies and field studies, Talon’s Director of Community and Government Relations, Jessica Johnson said: “*We have invested in having the scientific data to contribute to the Environmental Impact Statement process. We are building Minnesota’s largest network of environmental wells, presently collecting baseline data from 68 wells throughout the surrounding watershed. Out of our team of 15 environmental engineers and scientists, community team members and data scientists, 13 are located locally: This is our backyard too, and we are committed to ensuring our proposals use the latest science and new approaches to protecting the natural environment we all enjoy.”*

Progress on North Dakota Battery Mineral Processing Facility

Talon is also progressing activities in North Dakota to establish the BMPF, of which [US\\$114.8 million is funded by a grant from the US Department of Energy](#) (“DOE Funding”) on a cost-share basis. Talon is currently drawing on the DOE Funding in line with its agreement with the Department of Energy. To date, Talon has applied for US\$453,000 in reimbursable funds from the Department of Energy. Talon is in the final stages of securing an industrial site in Mercer County, North Dakota where the BMPF will be located. The site is a former industrial site with rail infrastructure suitable for Talon’s use and located in an Energy Community census track as per the DOE Energy Communities map tool [IRA Energy Community Tax Credit Bonus \(doe.gov\)](#). Talon is conducting project design activities and working with the Department of Energy on the National Environmental Policy Act (NEPA) review requirements with a federally funded action. Talon has undertaken a cultural survey of the target site, and the Department of Energy has initiated its tribal consultation. Talon has now completed various tests that show that any residual tailings can be stored safely with fly ash and lime, as a cemented dry stack facility.

Harnessing Innovation to Increase Revenue, Compete with China, and Build Public Support

Talon has prioritized using novel technology and new approaches to produce better outcomes. Listening to communities and taking action to change project planning in fundamental ways (moving processing and material management to a drier industrial site is just one example). The Company is also focused on technology that leads to additional mineral recovery in primary targets like nickel, but also recovery of valuable by-products like cobalt, iron and platinum group metals that are all a source of additional revenue and address the needs of society. Not attempting to utilize valuable by-products is irresponsible and not consistent with Talon’s goal of “Full Value Mining” or “Full Resource Utilization”. Through various partnerships, Talon sees the potential opportunity to harness additional minerals from the Tamarack ore body to produce the highest gigawatt per tonne resource.

Key ongoing innovation initiatives, include:

- **Argonne National Laboratory:** Talon is working with Argonne National laboratory to transform and purify extracted iron from tailings and nickel and iron sulphide concentrates into a Lithium-Iron-Phosphate (LFP) material to provide a domestic source of a key ingredient in LFP batteries. If successful, sales of iron phosphate as a precursor to North American LFP battery makers could be a

valuable source of additional revenue for Talon, address US dependency on China for LFP inputs, and increase Talon's ratio of batteries per tonne of rock to one of the top levels of any mine in the world.

- **Columbia University:** Talon is working with top researchers at Columbia University who were awarded funding from the Department of Energy (DOE) to develop novel approaches to refining critical metals concentrate. The process enables additional copper recoveries while improving nickel concentrate grade by removing iron from the nickel concentrate. A new, greater than 30%, nickel concentrate was generated, and the removed iron becomes a key ingredient for the LFP battery process developed by Argonne National Lab (discussed above).
- **Travertine Technologies:** Travertine Technologies is working on a commercial scale process that would economically transform tailings and development rock into various marketable by-products. The process would not only enhance critical metals recovery, such as nickel, cobalt and iron, but also permanently store carbon as calcium and magnesium carbonates.
- **MIRARCO:** MIRARCO (Mining Innovation Rehabilitation and Applied Research Corporation) is working on testing the suitability of integrating a bio-leach process designed to liberate additional nickel, cobalt and iron from high-sulfur tailings. High-sulfur tails are generated during the cleaning process of the nickel concentrates. The high-sulfur tails contain a high concentration of iron and a minor amount of nickel that was previously unrecoverable. The solution from the bio-leach process could be integrated with the broader flowsheet including the Travertine process, enabling additional recovery of nickel, cobalt and iron from the Tamarack Nickel Project, and generating additional carbon storage.
- **Envicore:** Talon is working with Envicore to develop Supplementary Cementitious Materials (SCM) from the tails and development rock that is envisioned to be combined with fly ash. SCMs are materials used as a partial replacement of Portland Cement to improve both fresh and hardened concrete properties and reduce the carbon footprint of concrete. Initial test results indicate that the treated tailings produce an excellent SCM.

Henri van Rooyen, CEO of Talon, commented on Talon's R&D initiatives: "Society has the right to expect the mining industry to obtain every bit of the minerals that are valuable and useful to society. Letting by-products go to waste as happens in many legacy systems is unacceptable. The US national labs, US research universities like Columbia and entrepreneurial companies like Travertine and Envicore are the "secret sauce" that is available to mining companies. Talon intends to take full advantage, for the benefit of society and our shareholders."

Summary: Right Place, Right Time

Talon's goal is to continue to advance the environmental review process for a small footprint underground mine and rail loading facility within the Tamarack Nickel Project area, while simultaneously conducting commensurate pre-feasibility trade-off studies during 2024, to prepare for a feasibility study in unison with its Environmental Impact Statement. With the Department of Defense (DOD) funding, provided through an agreement with the Manufacturing Capability Expansion and Investment Prioritization office, exploration has accelerated significantly with the goal of establishing a US nickel powerhouse across Michigan, Minnesota and North Dakota.

Sean Werger, President of Talon commented: “While we are rapidly advancing permitting and engineering in tandem with our Department of Defense mandate to accelerate US exploration for nickel, we are doing so in a cost-effective way. We want Talon to help the United States build up a secure supply of nickel for clean energy systems and defense platforms. US policy makers on both sides of the aisle realize we cannot allow China to become a “single member OPEC” for critical minerals like nickel.”

QUALIFIED PERSON

Dr. Etienne Diné, Vice President, Geology of Talon, is a Qualified Person within the meaning of NI 43-101. Dr. Diné is satisfied that the analytical and testing procedures used are standard industry operating procedures and methodologies, and he has reviewed, approved and verified the technical information disclosed in this news release, including sampling, analytical and test data underlying the technical information.

ABOUT TALON

Talon is a TSX-listed base metals company in a joint venture with [Rio Tinto](#) on the high-grade [Tamarack Nickel-Copper-Cobalt Project](#) located in central Minnesota. Talon’s shares are also traded in the US over the OTC market under the symbol TLOFF. The Tamarack Nickel Project comprises a large land position (18km of strike length) with additional high-grade intercepts [outside the current resource area](#). Talon has an earn-in right to acquire up to 60% of the Tamarack Nickel Project, and currently owns 51%. Talon is focused on (i) expanding and infilling its current high-grade nickel mineralization resource prepared in accordance with NI 43-101 to shape a mine plan for submission to Minnesota regulators, and (ii) following up on additional high-grade nickel mineralization in the Tamarack Intrusive Complex. [Talon has an agreement with Tesla Inc.](#) to supply it with 75,000 metric tonnes (165 million lbs) of nickel in concentrate (and certain by-products, including cobalt and iron) from the Tamarack Nickel Project over an estimated six-year period once commercial production is achieved. Talon has a [neutrality and workforce development agreement](#) in place with the United Steelworkers union. Talon’s Battery Mineral Processing Facility in Mercer County was [selected by the US Department of Energy](#) for US\$114 million funding grant from the Bipartisan Infrastructure Law and the [US Department of Defense awarded Talon a grant of US\\$20.6 million](#) to support and accelerate Talon’s exploration efforts in both Minnesota and Michigan. Talon has well-qualified experienced exploration, mine development, external affairs and mine permitting teams.

For additional information on Talon, please visit the Company’s website at www.talonmetals.com

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FORWARD-LOOKING STATEMENTS

This news release contains certain “forward-looking statements”. All statements, other than statements of historical fact that address activities, events or developments that the Company believes, expects or anticipates will or may occur in the future are forward-looking statements. These forward-looking statements reflect the current expectations or beliefs of the Company based on information currently available to the Company. Such forward-looking statements include statements relating to the environmental review and permitting process and the timing thereof; the completion of an agreement for an industrial site in Mercer County, North Dakota; the potential for residual tailings to be stored safely as a cemented dry stack facility; the ability to achieve the goal of “Full Value Mining” or “Full Resource Utilization” and the ability for the various innovation initiatives to be commercially realized or utilized by the Company; the potential to attain the highest gigawatt per tonne resource; and the completion of pre-feasibility trade-off studies during 2024. Forward-looking statements are subject to significant risks and uncertainties and other factors that could cause the actual results to differ materially from those discussed in the forward-looking statements, and even if such actual results are realized or substantially realized, there can be no assurance that they will have the expected consequences to, or effects on the Company.

Any forward-looking statement speaks only as of the date on which it is made and, except as may be required by applicable securities laws, the Company disclaims any intent or obligation to update any forward-looking statement, whether as a result of new information, future events or results or otherwise. Although the Company believes that the assumptions inherent in the forward-looking statements are reasonable, forward-looking statements are not guarantees of future performance and accordingly undue reliance should not be put on such statements due to the inherent uncertainty therein.