#### **U.S. METALS FROM TAMARACK TO TESLA**

Introducing the Talon Team Who is Revolutionizing Responsible Exploration and Responsible Mining

ICLES IN THE USA

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#### TALON METALS CORP. (TSX:TLO) RIO TINTO (KENNECOTT EXPLORATION COMPANY) JOINT VENTURE MARCH 2022

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Please see the technical report entitled "NI 43-101 Technical Report Updated Preliminary Economic Assessment (PEA) #3 of the Tamarack North Project – Tamarack, Minnesota" with an effective date of January 8, 2021 ("PEA #3") prepared by independent "Qualified Persons" (as that term is defined in National Instrument 43-101 ("NI 43-101")) Leslie Correia (Pr. Eng), Andre-Francois Gravel (P. Eng.), Tim Fletcher (P. Eng.), Daniel Gagnon (P. Eng.), Volodymyr Liskovych (P. Eng.), David Ritchie (P. Eng.), Oliver Peters (P. Eng.), Andrea Martin (P.E.) and Brian Thomas (P. Geo) for information on the QA/QC, data verification, analytical and testing procedures at the Tamarack Project. Copies are available on the Company's website (www.talonmetals.com) or on SEDAR at (www.sedar.com). The laboratory used is ALS Minerals who is independent of the Company. Lengths in this presentation are drill intersections and not necessarily true widths. True widths cannot be consistently calculated for comparison purposes between holes because of the irregular shapes of the mineralized zones. PEA #3 is preliminary in nature. PEA #3 includes inferred mineral resources. Inferred mineral resources are considered too speculative geologically to have economic considerations applied to them that would enable them to be categorized as mineral reserves. There is no certainty that PEA #3 will be realized.

#### Where used in this presentation: NiEq % = Ni%+ Cu% x \$3.00/\$8.00 + Co% x \$25.00/\$8.00 + Pt [g/t]/31.103 x \$1,000/\$8.00/22.04 + Pd [g/t]/31.103 x \$1,000/\$8.00/22.04 + Au [g/t]/31.103 x \$1,300/\$8.00/22.04

Dr. Etienne Dinel, Vice President, Geology of Talon, is a Qualified Person within the meaning of NI 43-101. Dr. Dinel 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 in this presentation, including sampling, analytical and test data underlying the technical information.



#### **Forward-Looking Information**

This presentation contains certain "forward-looking statements". All statements, other than statements of historical fact that address activities, events or developments that Talon 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 Talon based on information currently available to Talon. Such forward-looking statements include, among other things, statements relating to future exploration potential at the Tamarack North Project, including the potential expansion; the Company's supply of Nickel Concentrate to Tesla and the timing thereof; the potential of geophysics to cost-effectively identify drill targets and plans to install fiber optic cables; the Company's planned work program for the Tamarack Project, including potential drill results, drill plan optimization, drilling capacity and number of drill rigs; the expectation of the continuation of mining underground with small tonnage needed to justify developing new zones; the Company's expectations with respect to the electric vehicle and related battery market; the Company's strategy for exploring the remaining 16.5km of the Tamarack Intrusive Complex; the Company's expectations relating to timing of and results of future studies; the Company's expectations of demand for Nickel, supply of nickel and the price of nickel; CO<sub>2</sub> sequestration and the expectation that the Tamarack Project; the Company's expectations concerning the economic viability of the Tamarack Project; the Company's most responsible, lowest environmental footprint nickel concentrates that will be the feedstock for both nickel and Lithium Iron Phosphate (LFP) batteries; the Company's expectations with respect to its financial resources, royalties, and targets, opex, capex, goals, NPV, objectives and plans and the timing associated therewith.

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### When it All Started – May 2019



- On May 2, 2019 we stated our vision at the the Benchmark Minerals Summit:
  - Responsible U.S. nickel production for electric vehicles manufactured in the United States to be produced from America's only known, high-grade, undeveloped Ni-Cu-Co asset on infrastructure
- On January 22, 2022 the White House released a fact sheet: "Securing a Made in America Supply Chain for Critical Minerals"
  - Citing Tesla's intention to source high-grade nickel for EV batteries from Talon Metals' Tamarack Nickel Project
- On the same day, the Department of the Interior and the U.S. Geological Survey added nickel to the U.S. critical minerals list
- This presentation is a celebration of innovations by the Talon team, playing our part in taking back control of American battery material supply chains



Talon CEO and Talon President - April 2019



### Mine More Nickel

#### The transition to electric vehicles requires tremendous new supplies of nickel:

"Please mine more nickel.... Tesla will give you a giant contract for a long period of time if you mine nickel efficiently and in an environmentally sensitive way" (Elon Musk, Jul 2020)

"Nickel is our biggest concern for scaling lithium-ion cell production" (Elon Musk, Feb 2021)

In January 2022, **Talon rose to that challenge** by signing a contract to supply Tesla with 75kt of nickel-in-concentrate over the period 2026-2032. **Tesla selected** <u>only Talon</u> out of all global nickel exploration companies



#### Why is the 2026-2032 period so important?

- New nickel demand for batteries will be in the steepest portion of the exponential growth phase before levelling off post-2030
- This is our last chance to develop a domestic battery supply chain
- Otherwise, new production capacity from China will fill this supply gap and become entrenched for the rest of the 21<sup>st</sup> century





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#### First - We Had to Find Much More Nickel

- Talon became the operator of the Tamarack Intrusive Complex in October 2019
- At that time, the nickel tonnage in the mine plan was simply not enough
- Finding more nickel rapidly over the 11 mile Tamarack Intrusive Complex seemed impossible due to the vast size of the host intrusions:
  - But so was creating an Electric Vehicle company a few years ago



View of the 11-Mile Tamarack Intrusive Complex (TIC) from the south: 3-D Geological model combining gravity and mag survey results

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### **Developing an Exploration Capability**

- The best geological analogy to the Tamarack Intrusive Complex is Talnakh in Russia where depositions of high-grade nickel have been discovered and mined progressively over more than a century
- Talon therefore developed a unique combination of:
  - People;
  - Equipment; and
  - Methods
- To rapidly discover, delineate and develop a series of high-grade nickel depositions along the 11 mile Tamarack Intrusive Complex, while maintaining a single mine design basis:
  - Similar to adding train wagons to the same locomotive using the same railway line and infrastructure



depositions along 11-miles of strike length

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#### **People First - Core Values – Core Business**

- First we developed a set of core values
- Next we defined our core business, which we brought in-house:
  - Our first U.S. team member was George Zugel, Head of Health and Safety

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#### **Borehole Electromagnetic Survey Innovation**

Our team of geophysicists revolutionized borehole electromagnetic surveys (BHEM)

| Description                          | Historical   | Today                            |
|--------------------------------------|--------------|----------------------------------|
| Borehole Electromagnetic Data (BHEM) | Contracted   | In-house team of 7 geophysicists |
| Predictability of high-grade nickel  | 50%          | 95%                              |
| Cost                                 |              | 85% reduction                    |
| Time to guide next drill hole        | Up to 1 week | Same day                         |







### **Continual Drill Plan Optimization**

- Our exploration and engineering teams created a drill plan optimization system that uses drill core to continually:
  - Update our block model to evaluate drill spacing
  - Identify areas in our mine development plan and stopes that require additional data
  - Check that our composite intervals used for metallurgical testing remain representative
  - Assess the financial impact of our past and planned drill decisions
- As logging and assays take up to 3 months, we developed a set of regression equations to estimate grade from sulphide logging
- Grade predictability improved rapidly with more data:
  - Estimated grades are typically +/-5% variance
- This system ensures that we plan our drill holes to derive maximum utility, taking into account geological, mine planning, metallurgical and financial impact



Design each drill hole considering BHEM, drill spacing, mine planning, met testing and financial impact

#### **Revolutionizing Drilling at Tamarack**

- When Covid hit, we bought our first 2 drill rigs. Today, our drill teams operate 3 drill rigs
- The Talon team has revolutionized our drill program:
  - Drilling cost has seen a reduction of 56% compared to 12 months ago due to productivity increases – despite inflation
  - Talon drilled a record 33,273m of core last year with 2.5 rigs and;
  - Intercepted a record 356m of high-grade massive nickel mineralization
    - This is more than the combined 326m of high-grade massive nickel mineralization intercepted over the 17 year life of the project







#### The Result of the Talon's Innovations and Execution: Two New High-Grade Nickel Discoveries

- simultaneously expand and rapidly infill resources.
- We are now able to simultaneously expand and rapidly infill resources, thereby optimizing logistics, which saves time and money
- As a result, we estimate the time from the discovery of CGO-West and CGO-East to indicated resources will be approximately 18 months: Historically, this would have taken 3-4 years



### 1 Mile Done – 10 More to Go

## TALS CORP

- Small (1-2m) intercepts of massive high-grade nickel are critical for making discoveries (Tamarack, CGO West)
- CGO West discovery (13.9m @ 6.7% NiEq) was made by drilling 25m away from a historic intercept of 1.35m guided by BHEM
- Talon has identified other areas where meter scale high grade mineralization has been drilled but not followed up on
  High conductivity
  MT anomalie
- During 2021, Talon collected Magnetotelluric (MT) data that shows conductivity anomalies near historic intercepts
- Talon also collected and modelled more BHEM data in these areas, showing high conductivity off-hole
- 2022 exploration will focus on areas that have overlapping geophysical support and historic high grade drill results



### 1 Mile Done – 10 More to Go (Con't)

- Additionally, during 2021 Talon utilized surface EM techniques that detected high-grade nickel mineralization down to 200 meters from surface:
  - The image to the right shows the CGO-East high-grade nickel mineralization before Talon drilled it
  - Subsequent drilling confirmed the accuracy of the surface EM data interpretation



Plan view showing surface electromagnetic survey prior to drilling of CGO East

#### **1** Mile Done – **10** More to Go (Con't)

- During 2021, Talon also developed methods to rapidly assess the size of potential satellite, high-grade nickel deposits in less time than our present 18month CGO-East and CGO-West record
- For a fraction of the traditional cost, Talon successfully acquired, assembled and tested cross-hole seismic tomography over 70 meters:
  - Drill hole 21TK0368 was drilled after the image was produced from seismic wave velocities between drill holes 21TK0327 and 21TK0323
- In the next iteration, Talon plans to install fiber optic cables that we expect will provide a 3-D image instead of 2-D panels of a high-grade nickel deposit

Cross Hole Tomography was run between drill holes 21TK0327 and 21TK0323 resulting in the orange signature which was later drilled by 21TK0368, confirming MSU.





# Large Deep MT Anomaly: Below the Current Resource Area



- In addition to MT targets being identified in areas where highgrade nickel was previously intercepted, Talon also sees a deep MT anomaly starting at approximately 1 mile below the Tamarack Resource Area
- Modelling continues and is expected to be completed by May 2022



### **Case Study: Eagle East Discovery**

- Satellite deposit discovered ~2km away from the initial Eagle Mine after mining started:
  - Accessed by extending the existing underground mine development
  - No new surface infrastructure or mine openings
  - No change to production capacity
  - Added years to the initial 8year mine life



Eagle to Eagle East



### **Continuation of Mining Underground**

 New high-grade discoveries are not expected to change mine access, throughput or surface infrastructure



 Only small tonnages are needed to justify the cost of underground development to these zones See the Company's press releases dated September 1, 2015, November 21, 2016 and June 21, 2018 and PEA #3 for further technical information

#### Talon Exploration 2.0 During 2022

- Due to improved borehole electromagnetic surveys, continual drill plan optimization and significant improvements in drill productivity, our team is 12 months ahead of schedule:
  - Drilling for feasibility studies is expected to be substantially complete by June 2022
- Talon drill rigs will therefore move to targets outside of the current resource area in June 2022 to explore for high-grade nickel depositions using an improved and expanded tool kit that we developed over the last 18 months:
  - Improved BHEM modelling capability using Provus
  - Improved surface EM
  - Cross-hole seismic tomography
- Additionally, we are expanding our drill capability from 3 Talon operated rigs to 6 Talon operated rigs:
  - This doubles the drill capacity we had available in 2021





#### Nickel Concentrates for Multiple Battery Chemistries? Leapfrogging the Present Supply Chain





- Our nickel concentrates contain nickel, cobalt and iron
- Talon initiated the development and build out of a lab facility to produce high purity nickel and iron powders
- Our dream is to produce the world's most responsible, lowest environmental footprint nickel concentrates that will be the feedstock for both nickel and Lithium Iron Phosphate (LFP) batteries