EVNi Clean Nickel(TM) R&D- Bioleaching Successfully Produces End-Product for Battery Plants – Progressing now to Pilot Plant Testing

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- Bioleach Optimization has generated mixed hydroxide precipitate ("MHP")- a direct product for Battery Plants
- W4 ore continues to be amenable to bioleaching and potentially skips the smelter/refinery processes
- Testing utilized a locally derived bacteria from the Shaw Dome area- bred from local water samples
- >90% extraction of Ni and Co over 7 days, now progresses to the continuous testing Pilot Plant Phase
- EV Nickel management will host a live digital event on Wednesday, October 4th at noon ET, to discuss the Clean Nickel ™ R&D. The event will be at https://events.6ix.com/preview/ev-nickel-r-and-d-update-advancing-to-pilot-plant

TORONTO, September 27, 2023 - EV Nickel Inc. (TSXV:EVNI) ("EVNi" or the "Company") is pleased to announce the ongoing results of the Optimization Phase of the Bioleaching Application on its High-Grade W4 Sulphide Zone ("W4"), located in the Shaw Dome Project, just outside Timmins, Ontario (see Figure 1).

Building on the Preliminary Results (see news release dated May 3, 2023), the Optimization Phase has successfully produced Ni and Co mixed hydroxide precipitate ("MHP") and advanced the research to prepare for development of a Pilot Plant, to demonstrate the technology in an operational environment.

"Producing MHP is a very positive result for the bioleaching test program, a key part of EVNI's Clean Nickel™ strategy-this is one of the products the battery and car companies are trying to source," said Sean Samson, President & CEO. "The Tank Bioleach process could allow EVNi to skip sending concentrate to foreign-owned smelters and refiners and produce a finished product for domestic battery plants, from our site. This would have clear commercial and environmental advantages, plus develop a revolutionizing technology for mineral processing in Ontario."

Three cultures were selected for bulking up and adaptation with two adaptation tests prepared using the rougher concentrates and one adaptation test using the cleaner concentrate. The adaptation test programs were complete in August and were monitored to determine the metal concentrations of the leach liquor, pH, temperature, oxidation-reduction potential and bacterial activity. The research has continued with EVNi's technical partners at RPC.

Results of this adaptation program indicated that greater than 90% of the Ni and Co were extracted from the concentrates within a 7 day period during the batch bioleach setup. Measurements of the concentration of Ni, Co, Cu, Fe and Mg were monitored through the process and the resulting solution has been interpreted by RPC as being ideal for Ni and Co recovery and iron removal.

Precipitation tests completed on the leach liquor successfully extracted Ni and Co as a MHP (see Figure 2) and a precipitate of magnesium hydroxide representing potentially saleable products into the battery manufacturing industry and chemical/manufacturing industries. Preliminary results demonstrate that 99.8% of the Ni, 99.9% of the Co and 99.9% of the Mg can be precipitated and captured from the PLS.

The results of the Optimization Phase have been incorporated into the development of the flow sheet design utilizing the process parameters and conditions observed during the program. Given the ongoing success of the test work to date, EVNi will now advance to the Pilot Plant Phase, under the supervision of EPCM Engineering of Oakville, Ontario ("EPCM").

Commercial Opportunity to Change the Current Nickel Value Chain

If successful, the Tank Bioleach scenario could facilitate a small footprint, localized production of a product directly required by the planned battery plants. This potentially avoids the need to send concentrate to foreign-owned smelters and refiners plus cuts down on the distance material currently travels, before reaching the state which the battery plants require- a current challenge for the industry (see Figure 3). The Tank Bioleach scenario could precipitate the end product to match the input specifications of the customers, a huge benefit to the new buyers of nickel.

It should be recognized that the nature of this research is experimental and continued successful results are not a certainty.

About EV Nickel Inc.

EV Nickel's mission is to accelerate the transition to clean energy. It is a Canadian nickel exploration company, focussed on the Shaw Dome Project, south of Timmins, Ontario. The Shaw Dome includes the CarLang Area with more than 10 km of mineralization and where the first 20% contains the A Zone - with a Resource which defined 1.25M Indicated and 1.16M Inferred tonnes of Contained Nickel and the W4 Zone Deposit - the basis of a 2010 historical estimate of 677K tonnes @ 1% Ni, ~15M lbs of Contained Nickel. EV Nickel plans to grow and advance a Clean Nickel™ business, targeting the growing demand from the electric vehicle battery sector. EV Nickel has over 30,000 hectares to explore across the Shaw Dome and has identified >100 km of additional favourable cumulative strike length. The Company is focused on a 2-track strategy: Track 1 - to produce High-Grade Clean Nickel ™ (starting with W4) and Track 2- an integrated Carbon Capture & Storage project with Large-Scale Clean Nickel™ production (starting with CarLang).

The Company acknowledges the financial contributions being provided by the Province of Ontario's Critical Minerals Innovation Fund ("CMIF) and the Government of Canada through the Industrial Research Assistance Program ("IRAP") in assisting with the implementation of EVNI's Clean Nickel™ Research and Development Program.

Qualified Person

The Company's Projects are under the direct technical supervision of Paul Davis, P.Geo., and Vice-President of the Company. Mr. Davis is a Qualified Person as defined by NI 43-101. He has reviewed and approved the technical information in this press release. There are no known factors that could materially affect the reliability of the information verified by Mr. Davis.

Cautionary Note Regarding Forward-Looking Statements:

This press release contains forward-looking information. Such forward-looking statements or information are provided for the purpose of providing information about management's current expectations and plans relating to the future. Readers are cautioned that reliance on such information may not be appropriate for other purposes. Any such forward-looking information may be identified by words such as "anticipate", "proposed", "estimates", "would", "expects", "intends", "plans", "may", "will", and similar expressions. Forward-looking statements or information are based on a number of factors and assumptions which have been used to develop such statements and information, but which may prove to be incorrect. Although EV Nickel believes that the expectations reflected in such forward-looking statements or information are reasonable, undue reliance should not be placed on forward-looking statements because the Company can give no assurance that such expectations will prove to be correct. Factors that could cause actual results to differ materially from those described in such forward-looking information include, but are not limited to, changes in business plans and strategies, market conditions, share price, best use of available cash, the ability of the Company to raise sufficient capital to fund its obligations under various contractual arrangements, to maintain its mineral tenures and concessions in good standing, and to explore and develop its projects and for general working capital purposes, changes in economic conditions or financial markets, the inherent hazards associated with mineral exploration, future prices of metals and other commodities, environmental challenges and risks, the Company's ability to obtain the necessary permits and consents required to explore, drill and develop its projects and if obtained, to obtain such permits and consents in a timely fashion relative to the Company's plans and business objectives, changes in environmental and other

laws or regulations that could have an impact on the Company's operations, compliance with such laws and regulations, the Company's ability to obtain required shareholder or regulatory approvals, dependence on key management personnel, natural disasters and global pandemics, including COVID-19 and general competition in the mining industry. These risks, as well as others, could cause actual results and events to vary significantly. The forward-looking information in this press release reflects the current expectations, assumptions and/or beliefs of EV Nickel based on information currently available to the Company. Any forward-looking information 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 information, whether as a result of new information, future events or results or expressly qualified by this cautionary statement.

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