

EVNi NEWS

May 2, 2023

TSX-V: EVNI

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EVNi Clean Nickel™ R&D- Preliminary Results Bioleaching Application for W4 Nickel Sulphides

- W4 sulphides are amenable to bioleaching with extractions of 90.5% for Ni and 90.1% for Co in adaptation stage
- Bench scale amenability testing resulted in Ni, Co, and Cu extractions of 86.0%, 85.2% and 55.5%, respectively
- Testing utilized a locally derived bacteria from the Langmuir area
- Bench Scale Bioleaching Optimization Test Program currently in progress
- Clean Nickel™ R&D kickoff event rescheduled to occur May 24th with Hon. George Pirie, Ontario's Minister of Mines

TORONTO, ON – EV NICKEL INC. (TSX-V: EVNI) (“EVNi” or the “Company”) is pleased to announce the results of a Technical Evaluation of Bioleaching Application on the W4 Sulphide Zone by the Research and Productivity Council (“RPC”) of Fredericton, New Brunswick in 2022. The initial assessment was completed by RPC including the raising of locally occurring bacteria from the Langmuir area and the development of two (2) conceptual flow sheets to process the material including a heap bioleach and tank bioleach process.

The RPC research study was completed on a sample of W4 Sulphide Zone that had a composite grade of 0.78% Ni, 0.02% Co and 0.05% Cu. Extractions achieved by the test work included 86.0% for Ni, 85.2% for Co, 55.5% for Cu and 10.6% for Mg after 12 days of leaching under defined pH and temperature conditions. RPC indicated that the good extraction rates for Ni and Co were very encouraging for the W4 sulphide mineralization regarding the bioleaching potential of the zone. During an adaptation stage for the bacteria, the physical and chemical characteristics were monitored resulting in extractions for Ni, Co and Cu of 90.5%, 90.1% and 36.9%, respectively in an 8 day period.

Based upon the composition of the host ultramafic, acid consumption related to a whole ore heap bioleach scenario (figure 1), was determined to be high due to the magnesium-rich minerals and low sulphide content of the W4 Zone. RPC recommended that the tank bioleaching process (see figure 2), recovering payable metals from a floatation concentrate would be the preferred scenario for the bioleaching of the W4 Sulphide Zone which is expected to have a considerably

lower acid consumption versus the heap bioleaching scenario. By incorporating flotation to upgrade the feed, higher bioleaching efficiency with smaller processing footprint and capital costs could be obtained.

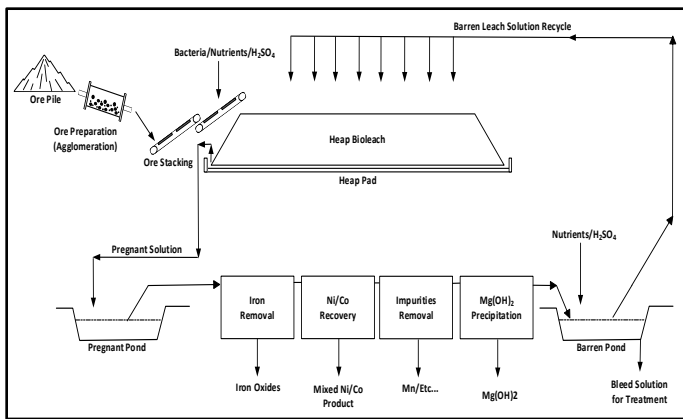


Figure 1: Whole Ore Heap Bioleach (source: RPC)

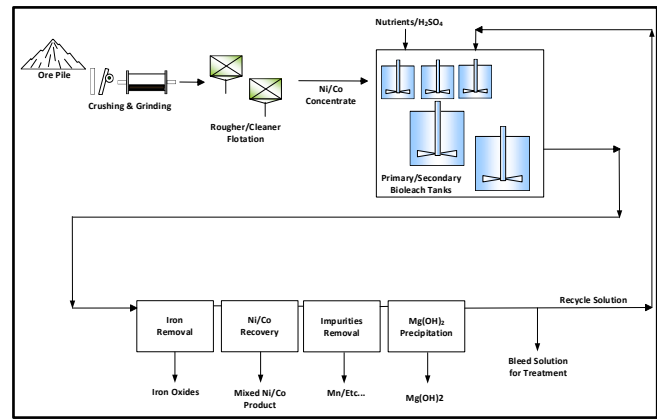


Figure 2: Flotation Concentrate Tank Bioleach (source: RPC)

As part of the bioleaching process, Mg is extracted and can be converted to MgO or Mg(OH)₂ which is capable of capturing and mineralizing CO₂. It was indicated by RPC that the residual Mg minerals in the bioleach residue or flotation tails could also be used for CO₂ sequestration purposes. Further testing to optimize and validate the CO₂ sequestration is required to confirm the opportunities and efficiencies of the process.

Based on these results, EVNI has engaged a research and engineering partner, Oakville, ON-based EPCM Group EPCM Engineering of Oakville, Ontario to provide project management of a Bench Scale Bioleaching Optimization Test Program forming a key component of the Company’s Clean Nickel™ strategy. The foremost objectives of this program will be to evaluate, adapt, and optimize the tank bioleaching process to produce nickel and cobalt battery products, as well as magnesium for potential carbon capture applications with the objective to develop a novel process to recover payable metals from the W4 nickel concentrate. It should be recognized that the nature of this research is experimental and successful results are not a certainty.

“Confirmation that the W4 Zone is amenable to bioleaching was a big step forward for EVNI and its Clean Nickel™ strategy as it represents a low capital and operating cost process,” said Sean Samson, President & CEO. *“Our objective is to develop a bioleaching process that will be more environmental friendly at a much lower carbon intensity, producing end products that would go straight into making clean energy batteries and represent a domestic source of these materials for the recently announced giga factories in southern Ontario. It would also provide EVNI with the ability to avoid using, foreign-owned Smelters to process our concentrates capturing more of the value chain and developing a potentially revolutionizing technology to the mineral processing industry in Ontario.”*

Clean Nickel™ R&D Kickoff Event

The Kickoff event has been rescheduled for May 24th EV Nickel management will be meeting at EPCM’s headquarters in Oakville with Ontario’s Minister of Mines, Hon. George Pirie and the MPP for Oakville, Stephen Crawford. The group will review and discuss in greater detail the workplan related to the province’s \$500K investment in the Company’s Clean Nickel R&D through its Critical Metals Innovation Fund (see news release dated March 6, 2023).

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 Qualified Person for the Mineral Resource Estimate reported herein and as defined by NI 43-101, is Mr. Simon Mortimer, FAIG #7795, Principal Geoscientist at Atticus Geoscience Consulting S.A.C., working with Caracle Creek International Consulting Inc.

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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