
NEWS RELEASE

MIRARCO Secures Grant Money to Complete Pilot Testing BacTech Environmental Bioleaching IP for Nickel-Cobalt Recovery from Tailings

TORONTO, ON, August 14, 2023 – [BacTech Environmental Corporation](#) (CSE: **BAC**, OTC: **BCCEF**, FSE: **0BT1**) (“BacTech” or the “Company”), a commercially proven environmental technology company delivering eco-friendly bioleaching and remediation solutions for precious metal and critical mineral recovery, is pleased to announce industry partner MIRARCO Mining Innovation will receive \$280,000 in grant money through the Mining Innovation Commercialization Accelerator (MICA) Network, a program focused on developing initiatives for the commercialization of mining technology to increase productivity and sustainability within the mining sector.

The funding will be used to help develop and complete pilot testing of BacTech’s novel bioleaching process relevant to the treatment of pyrrhotite to advance the recovery of Nickel and Cobalt battery metals. Pyrrhotite is a very volatile sulphide mineral containing nickel and cobalt values that oxidizes rapidly and produces large amounts of Iron and Sulphur components as by-products which are typically considered as wastes. Pyrrhotite tailings used in testing will be provided to MIRARCO by industry partner Vale.

Dr. Nadia Mykytczuk, a leader in biomining technology, member of BacTech’s advisory board and President and CEO of MIRARCO Mining Innovation, is leading the development and building of a bioleach pilot plant to be located in Sudbury, Canada. Working closely with BacTech’s scientific team, the plant is for the testing of various bioleaching processes like the Company’s proposed approach for pyrrhotite treatment.

“Focusing on ‘Made in Canada’ scientific solutions for waste mine management makes sense, and bioleaching is well positioned to complement modern mining practices and help extract critical minerals from waste,” said Dr. Nadia Mykytczuk. “Partnerships with industry are important in accelerating the scale-up and commercialization of these types of technologies and the MICA grant will help deliver on these goals.”

About BacTech Environmental Corporation

BacTech Environmental Corporation is a company that specializes in environmental technology. We use a process called bioleaching to recover metals like gold, silver, cobalt, nickel, and copper, while also safely removing harmful contaminants like arsenic. This process is eco-friendly and uses naturally occurring bacteria that are safe for both humans and the environment. By using our proprietary method of bioleaching, we are able to neutralize toxic concentrates and tailings while also creating profitable opportunities. The company is publicly traded on several stock exchanges, including the CSE, OTCQB, and Frankfurt Stock Exchange.

About the Tenguel – Ponce Enriquez Bioleaching Project

BacTech is planning to build a new owner-operated bioleaching facility in Tenguel, Ecuador, in a region where arsenic is associated with sulphide gold ore (Arsenopyrite). The Company's plan is to build a 50 tpd bioleach plant capable of treating high gold/arsenic material. A 50 tpd plant, processing feed of 1.75 ounces of gold per tonne, similar to feeds available to the Company from local miners, would produce approximately 31,000 ounces per year. Plant designs are modular and can be expanded without affecting ongoing production. The total concentrate market in the Ponce Enriquez area is estimated to be between 200 and 250 tonnes per day, allowing for increased throughput potential with a larger plant. BacTech has signed an agreement with the government to build a Phase 2 plant that would see the addition of 150-200 tpd of capacity capable of producing in excess of 100,000 ounces per annum.

Key economic highlights, assuming a base gold price @ \$1,600 per ounce:

- Pre-tax NPV (Net Present Value with 5% discount rate) of \$60.7M
- Pre-tax IRR (Internal Rate of Return) of 57.9%
- Annual Gold Production of 30, 900 ounces
- Capital Cost of \$17.0M
- Bioleach Operating Cost of \$212 per tonne
- Pre-tax Earnings Prior to Employee Bonus – \$10.9M annually
- Estimated local employee bonus pool – \$1.64M

In total, there are over 100 small mines operating in the area. BacTech continues to investigate the prospects of establishing additional modern bioleaching facilities across other areas of Ecuador, Peru, and Colombia. Where possible, the Company will partner with national and local governments, non-governmental organizations (NGOs) and others to assist with the funding of these projects and ensure that they meet the Company's high expectations not only for environmental standards, but also for the highest standards in all ESG considerations.

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Special Note Regarding Forward-Looking Statements

This news release contains “forward-looking information”, which may include, but is not limited to, statements with respect to future tailings sites, sampling or other investigations of tailing sites, the Company’s ability to make use of infrastructure around tailings sites or operating performance of the Company and its projects. Often, but not always, forward-looking statements can be identified using words such as “plans”, “expects”, “is expected”, “budget”, “scheduled”, “estimates”, “forecasts”, “intends”, “anticipates”, or believes” or variations (including negative variations) of such words and phrases, or state that certain actions, events or results “may”, “could”, “would”, “might” or “will” be taken, occur or be achieved. Forward-looking statements involve known and unknown risks, uncertainties and other factors which may cause the actual results, performance, or achievements of the Company to be materially different from any future results, performance or achievements expressed or implied by the forward-looking statements. Forward-looking statements contained herein are made as of the date of this news release and the Company disclaims, other than as required by law, any obligation to update any forward-looking statements whether because of new information, results, future events, circumstances, or if management’s estimates or opinions should change, or otherwise. There can be no assurance that forward-looking statements will prove to be accurate, as actual results and future events could differ materially from those anticipated in such statements. Accordingly, the reader is cautioned not to place undue reliance on forward-looking statements.

The Canadian Securities Exchange (CSE) has not reviewed and does not accept responsibility for the adequacy or the accuracy of the contents of this release.

This press release does not constitute an offer to sell or a solicitation of an offer to buy any of the shares, nor is it a solicitation of interest from a prospective investor.