



## **BacTech Announces Growth Plans to Expand IP and Commercial Bioleaching Applications Development**

TORONTO, ON., September 22, 2021 – **BacTech Environmental Corporation** (OTC:BCCEF, CSE:BAC) (“BacTech or the Company”), a commercially proven environmental technology company delivering effective biomining metal recovery and eco-friendly remediation solutions, is pleased to announce strategic growth plans to help accelerate the creation of new intellectual property (IP) being developed to pursue different commercial bioleaching opportunities as identified by the Company.

As demand for greater environmental responsibility across the mining and resource sectors increases, interest in using natural bacteria in a wider variety of commercial applications to extract valuable metals is also accelerating. Outside of the gold industry, the Company sees a new generation of metallurgical opportunities emerging, each with significant upside potential.

“I’m very happy with the progress being made with our Ponce Enriquez project in Ecuador, and it’s this confidence that allows me to consider diversification opportunities that are not only potentially lucrative for shareholders, but also best-suited to be tackled by our unique and expanding team of specialized industry experts,” said Ross Orr, President and CEO of BacTech. “In this sense, targeting and expanding into relatively untapped, yet high-demand recovery areas, will allow us to develop projects of considerable value on a global basis across a broad spectrum of metal industries using proprietary green technology. Presently, we’re

evaluating a number of opportunities that are currently deemed ‘uneconomic’ for competing bio-processing and recovery technologies, or simply too great of an environmental risk for traditional processors. It’s an outstanding position for the Company to be in.”

For example, the electric vehicle (EV) battery market is a high-stakes area where both mining companies and auto manufacturers alike have a vested interest in extracting and sourcing valuable metals such as cobalt, nickel, lithium and manganese with minimal environmental impact and favourable process economics. And with EV batteries comprising up to one-third of an electric vehicle’s overall cost, in a market worth tens of billions of dollars, manufacturers will continue to watch, compete for, and keep these metal commodities in high demand for years to come. Mining technologies that are designed to provide economic, environmental, and social benefits to resource companies, customers, and stakeholders, occupy a far better position than those that do not.

“For over two decades BacTech’s intellectual property has focused on the development and commercial implementation of large-scale complex bioreactors for economic treatment of refractory gold concentrates,” said Dr. Paul C. Miller, BacTech Vice President, Technology & Engineering. “We’re one of just a few companies that possess such expertise in which naturally occurring microbes are introduced to a large-scale engineered environment to accelerate metal leaching and provide a favourable economic extraction process in just a few days. Importantly, the expertise and commercial know-how developed by BacTech has included the economic integration of bioleaching into the total metal recovery process. This know-how has kept pace with a portfolio of advances made in other areas of metallurgy which now allows us to assemble unique flowsheets incorporating a suite of novel but commercially proven processing techniques. These advances in other areas of metallurgy, in combination with bioleach processing, may serve to considerably increase scopes of application.

BacTech has always protected its intellectual property through the application of process patents in countries that were deemed necessary. Since bacteria are naturally occurring, the Company cannot apply for any protection on them as

entities but can apply for patents relating to their application. BacTech will continue to advance its base metal bioleach technology and will apply for patents during this expansion plan as appropriate.

“Here in Canada, as well as the rest of the world, we need to focus on scientific solutions and move away from the old ways of doing things,” said BacTech Strategic Advisor, Dr. Nadia Mykytczuk. “Modern mining practices need to incorporate a variety of new tools for mine waste management, and bioleaching is well positioned to advance these efforts. It’s exciting to be part of BacTech’s expansion into new application development which in turn opens the doors to new applications for the Company. The global demand for critical metals like nickel, cobalt, copper and other strategic metals is growing, but ultimately needs to remain part of a sustainable energy future.”

### **About the Ponce Enriquez Bioleaching Project**

BacTech is planning to build its new owner-operated bioleaching facility in Ponce Enriquez, Ecuador, in a region where arsenic is well-known to exist in the gold ore. The Company’s plan is to build a 50 tpd bioleach plant capable of treating high gold/arsenic material. A 50 tpd plant, processing 1.5 ounces of gold per tonne of feed, similar to feeds available to the Company, would produce approximately 26,000 ounces per year. Plant designs are modular and can be expanded without affecting ongoing production.

BacTech continues to investigate the prospects of establishing additional modern mining operations across other areas of Ecuador, Peru, Colombia, and Central America. 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.

### **About BacTech Environmental Corporation**

BacTech is a proven environmental technology company, delivering effective and

eco-friendly biomining and remediation solutions to commercial operations to smartly process and recover preferred metals (gold, silver, cobalt, and copper) and safely remove and transform harmful contaminants like arsenic into benign EPA-approved products for landfill. Tapping into numerous environmental and economic advantages of its proprietary method of bioleaching, BacTech uses naturally occurring bacteria, harmless to both humans and the environment, to neutralize toxic mining sites with high-pay potential. BacTech is publicly traded on the CSE under the symbol “BAC” and on the OTC as “BCCEF”.

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Shares outstanding: 141,342,204

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