

# **Recent Intellectual Property Developments**

## -FOR IMMEDIATE RELEASE-

Montréal, January 20, 2019 – St-Georges Eco-Mining Corp. (CSE: SX) (OTC: SXOOF) (FSE: 85G1) is pleased to report two important technology developments attained by St-Georges' metallurgical team in relation to lithium extraction and ZeU's coders in relation to Random Number Generation on the blockchain. Provisional patents were filed in both cases.

## Lithium Extraction Provisional Patent

St-Georges is presenting a simple, efficient, and economical process for beneficiating lithiumcontaining ores. The lithium values of a fraction of lithium-containing ores are floated from gangue slimes by a froth flotation process wherein an aqueous pulp of the ore is treated with a conditioning reagent, which improves the selectivity of anionic collectors to spodumene and other lithium values. The conditioning reagent is added to and thoroughly mixed with the ore pulp before the pulp is subjected to conventional froth flotation in the presence of an anionic collector as the flotation agent. This method eliminates the need for high-temperature, highpressure vessels and avoids the need of roasting or calcination, thus producing a smaller environmental footprint. This provisional patent was filed under the title '**Method of Mineral Recovery'**.

The Company is planning to conduct further tests in the coming days and will follow with the delivery of a confidential draft report to its partner, Iconic Minerals (TSX-V:ICM), that will cover the phase 1 of the development agreement and encompass some elements of the phase 2 for which testing was accelerated.

## ZeU Crypto Development: A True Random Number Generator, Functional and Trustless.

St-Georges' subsidiary, ZeU Crypto Networks, filed for a provisional patent in relation to a distributed and decentralized method of random number generation. The provisional patent is titled 'A Method For Generating Random Numbers In Blockchain Smart Contracts' and describes a method that leverages decentralization and blockchain spacing to create actual random numbers. Each user locally generates a random seed, signs this random seed with their local private key, and submits their signature to the Random Number Generation (RNG) smart contract for verification. After waiting one block period, the user submits the random seed thus ensuring that the signature and the seed do not appear in the same block. The smart contract verifies the random seed to the signature. Then, once all the random seeds are received, the smart contract calculates the random number with the seed and the block hash of the current block. This method ensures that it is impossible to manipulate the random number seed or the block content.

Initially developed to address issues with gambling applications, the technology will also be deployed for testing with partners to create fundamentally more secure financial transactions. The technology can also be applied wherever impartiality is required: double-blind medical trials, computer-simulated training, random sampling for quality assurance, even a military draft.

"(...) While we live in a world filled with randomness, we have, as of yet, been unable to recreate that randomness within computer systems. When speaking of randomness in computer systems, we really mean pseudo-randomness or the attempt to simulate randomness. This leads to vulnerabilities in cryptography and privacy technology where randomness is crucial to establishing secure channels of communication and in determining the order of such communications. To date, attempts to solve this issue have run into problems with speed, predictability, or centralization. ZeU's development team, always intrigued by a Gordian knot, set about to create a true Random Number Generator (RNG). (...)" Commented Frank Dumas, President & CEO of ZeU and co-inventor of this patent. "The technology might be an interesting contribution to a set of solutions that could fix important issues of the blockchain, like the 51% attacks, that are currently delaying mainstreams adoption of the blockchain technology (...)"

## ON BEHALF OF THE BOARD OF DIRECTORS

"Vilhjalmur Thor Vilhjamsson"

### VILHJALMUR THOR VILHJAMSSON, PRESIDENT & CEO

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