Quantum Critical Metals Targets Critical Minerals Recovery from Mica

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In a recent InvestorNews interview, host Peter Clausi spoke with Marcy Kiesman, CEO and Director of Quantum Critical Metals Corp. (TSXV: LEAP | OTCQB: ATOXF), about the Company's efforts to recover gallium, rubidium, cesium and other critical minerals from mica.

Mica is often discarded into tailings because its light, flaky structure makes it difficult to handle and potentially harmful to the surrounding environment. Quantum believes that mica containing the right geochemical characteristics could instead become a valuable source of critical minerals used in cellphones, semiconductors, aerospace, defense and advanced electronics.

"Somebody else's junk is my treasure," Kiesman told Clausi.

Quantum's flagship NMX East Project is located in Québec's Eeyou Istchee James Bay region, near Nemaska Lithium's Whabouchi Project and Power Metallic Mines Inc.'s (TSXV: PNPN | OTCQB: PNPNF) Nisk-Lion-Tiger polymetallic discoveries. The project also benefits from access to the Route du Nord and nearby Hydro-Québec infrastructure.

"It's a pretty enriched area," Kiesman said. "We've got some great access. We've got the Route du Nord running through the project, and we've got a Hydro-Québec power station nearby."

The Company has identified gallium and rubidium associated with mica at NMX East. Mica represents approximately 10% of the rock

examined to date, with portions of the drill core containing large, compressed sheets of the mineral.

Quantum previously demonstrated approximately 55% rubidium recovery and is now working with the University of British Columbia to improve its results. The testing involves adjusting temperature and other processing conditions to determine the most effective method for recovering the targeted metals.

Rather than relying on a conventional mill, Quantum is developing a hydrometallurgical process in which the mica is placed into a solution and the metals are extracted. Laboratory testing has already demonstrated that the process can recover metals from the material.

“We’ve proved at the bench scale that we can remove the metals,” Kiesman said. “What we want to do with the pilot is work on a bigger scale, with more material, so people can see that it can be done with larger volumes.”

Quantum is also evaluating mica sourced from third parties. The Company has received samples from India and Madagascar, with additional material expected from Finland, as mining companies explore whether critical minerals can be recovered from their existing waste streams.

The longer-term objective is to develop small, modular processing systems that could be installed directly at mine sites. This could create opportunities for processing partnerships, technology licensing or site-specific installations without requiring a large centralized facility. With metallurgical testing continuing and preparations underway for pilot-scale work, Quantum is seeking to demonstrate that a material commonly treated as waste can become a new source of some of the world’s most strategically important critical minerals.

To access the complete interview, click here

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