

Ucore Updates On its RapidSX Rare Earth Element Demo Plant

written by Raj Shah | January 26, 2023

- The Kingston, Ontario, RapidSX™ Demonstration Plant (“Demo Plant”) commissioning process is underway, once commissioned the plant is designed to demonstrate:
 - the techno-economic advantages of the RapidSX™ technology platform
 - processing tens of tonnes of heavy and light mixed rare earth element concentrates
 - running thousands of semi-continuous run-time hours
 - producing high-purity NdPr, praseodymium, neodymium, terbium, and dysprosium rare earth elements for early OEM product qualification trials

January 26, 2023 ([Source](#)) – [Ucore Rare Metals Inc.](#) (TSXV: UCU) (OTCQX: UURAF) (“Ucore” or the “Company”) is pleased to provide an update on the commissioning process for its RapidSX™ Demonstration Plant (“Demo Plant”) for the separation of heavy and light rare earth elements (“REEs”). The Demo Plant is located within Ucore’s 5,000 square foot RapidSX™ Commercialization and Demonstration Facility (“CDF”) in Kingston, Ontario, and is run by its laboratory partner, [Kingston Process Metallurgy Inc.](#) (“KPM”).



Figure 1 – Close-up Partial Views of Ucore’s RapidSX™ REE Separation Demo Plant in Kingston, Ontario

To view an enhanced version of Figure 1, please visit:

https://images.newsfilecorp.com/files/1119/152581_ucorefig1.jpg.

Commissioning of the Demo Plant is underway. Once commissioned, the Demo Plant is designed to demonstrate the techno-economic advantages, scale-up, and commercial durability of the RapidSX™ technology platform by processing tens of tonnes of North American-friendly sources of mixed rare earth chemical concentrates in a simulated production environment. The planned output products are high-purity NdPr, praseodymium, neodymium, terbium, and dysprosium REEs, to be incorporated into the early stages of original equipment manufacturers’ (“OEM”) qualification trials.

Simultaneously, Ucore, its engineering partner, [Mech-Chem Associates, Inc.](#) (“Mech-Chem”), and KPM are developing the full-scale engineering for the Company’s first Strategic Metals

Complex (“**SMC**”). The SMC is a planned REE separation and rare earth oxide production plant slated to commence construction in the [US State of Louisiana](#) this year. It is scheduled to initially process 2,000 tonnes of total rare earth oxides (“**TREO**”) by the end of 2024, increasing to 5,000 tonnes in 2026.

“We are extremely pleased with the work at the CDF in concert with our partners, KPM, Mech-Chem, and a host of other supporting contractors and vendors. As we work toward near-term commercial deployment of the RapidSX™ rare earth element separation technology in North America,” stated **Mike Schrider**, P.E., Ucore’s VP and COO. *“Implementing the Demo Plant commissioning process is a huge milestone for the team, and this is scheduled to be followed by a series of heavy and light rare earth element process demonstrations separating tens of tonnes of mixed rare earth concentrates over thousands of hours of facility run-time.”*

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About Ucore Rare Metals Inc.

Ucore is focused on rare- and critical-metal resources, extraction, beneficiation, and separation technologies with the potential for production, growth, and scalability. Ucore has an effective 100% ownership stake in the Bokan-Dotson Ridge Rare Earth Element Project in Southeast Alaska, USA. Ucore’s vision and plan is to become a leading advanced technology company, providing best-in-class metal separation products and services to the mining and mineral extraction industry.

Through strategic partnerships, this plan includes disrupting the People’s Republic of China’s control of the North American REE supply chain through the near-term development of a heavy and light rare-earth processing facility in the US State of Louisiana, subsequent SMCs in Alaska and Canada and the longer-

term development of Ucore's heavy-rare-earth-element mineral-resource property at Bokan Mountain on Prince of Wales Island, Alaska. Ucore is listed on the TSXV under the trading symbol "UCU" and in the United States on the OTC Markets' OTCQX® Best Market under the ticker symbol "UURAF."

For further information, please visit www.ucore.com/corporateupdate.

About RapidSX™ Technology

Innovation Metals Corp. ("IMC") developed the RapidSX™ separation technology platform with early-stage assistance from the United States Department of Defense ("US DoD"), later resulting in the production of commercial-grade, separated rare-earth elements at the pilot scale. RapidSX™ combines the time-proven chemistry of conventional solvent extraction ("SX") with a new column-based platform, which significantly reduces time to completion and plant footprint, as well as potentially lowering capital and operating costs. SX is the international rare-earth element ("REE") industry's standard commercial separation technology and is currently used by 100% of all REE producers worldwide for bulk commercial separation of both heavy and light REEs. Utilizing similar chemistry to conventional SX, RapidSX™ is not a "new" technology but represents a significant improvement on the well-established, well-understood, proven conventional SX separation technology preferred by REE producers.

Forward-Looking Statements

This press release includes certain statements that may be deemed "forward-looking statements." All statements in this release (other than statements of historical facts) that address future business development, technological development and/or acquisition activities (including any related required

financings), timelines, events, or developments that the Company is pursuing are forward-looking statements. Although the Company believes the expectations expressed in such forward-looking statements are based on reasonable assumptions, such statements are not guarantees of future performance or results, and actual results or developments may differ materially from those in forward-looking statements.

Regarding the disclosure in the press release above, including in the "About Ucore Rare Metals Inc." section, the Company has assumed that it will be able to procure or retain additional partners and/or suppliers, in addition to Innovation Metals Corp. ("IMC"), as suppliers for Ucore's expected future Strategic Metals Complexes ("SMCs"). Ucore has also assumed that sufficient external funding will be found to complete the Demo Plant commissioning and demonstration schedule and also later prepare a new National Instrument 43-101 ("NI 43-101") technical report that demonstrates that the Bokan Mountain Rare Earth Element project ("Bokan") is feasible and economically viable for the production of both REE and co-product metals and the then prevailing market prices based upon assumed customer offtake agreements. Ucore has also assumed that sufficient external funding will be secured to continue the development of the specific engineering plans for the SMCs and their construction. Factors that could cause actual results to differ materially from those in forward-looking statements include, without limitation: IMC failing to protect its intellectual property rights in RapidSX™; RapidSX™ failing to demonstrate commercial viability in large commercial-scale applications; Ucore not being able to procure additional key partners or suppliers for the SMCs; Ucore not being able to raise sufficient funds to fund the specific design and construction of the SMCs and/or the continued development of RapidSX™; adverse capital-market conditions; unexpected due-diligence findings; the

emergence of alternative superior metallurgy and metal-separation technologies; the inability of Ucore and/or IMC to retain its key staff members; a change in the legislation in Louisiana or Alaska and/or in the support expressed by the Alaska Industrial Development and Export Authority ("AIDEA") regarding the development of Bokan; the availability and procurement of any required interim and/or long-term financing that may be required; and general economic, market or business conditions.

Neither the TSXV nor its Regulation Services Provider (as that term is defined by the TSXV) accept responsibility for the adequacy or accuracy of this release.

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