DoW Accepts Ucore's Phase 1 Final Report and RapidSX(TM) Techno-Economic Assessment

written by Raj Shah | April 7, 2026

April 7, 2026 (Source) – **Ucore Rare Metals Inc.** (TSXV: UCU) (OTCQX: UURAF) ("**Ucore**" or the "**Company**") is pleased to announce the acceptance of its final reporting under Phase 1 of its Other Transaction Agreement ("**OTA**" or "**Agreement**") with the US Department of War (the "**Reports**"). The proprietary Reports were submitted to the US Army Contracting Command – Orlando and included both a Final Demonstration Report and a Final Techno-Economic Assessment ("**TEA**"). As per the Company's previous press release dated February 17, 2026, the Reports detail the work conducted at Ucore's RapidSX™ Commercialization and Demonstration Facility ("**CDF**") in Kingston, Ontario, which included direct comparison trials of the patent-pending RapidSX™ technology with conventional solvent extraction ("**CSX**") over thousands of hours.

The acceptance of the final Reports concludes Ucore's successful performance of Phase 1 under the Agreement and triggers the final Phase 1 payment milestone.

The following excerpt summarizes the Key Performance Metrics outlined in the Reports:

"Table 13 – Key Performance Metrics"

Metric	Performance
REE Separation Processing Efficiency	

Metric	Performance
Extraction Rate	On average, 5.4x less mixing time than CSX is needed to achieve target level of extraction
Settling Rate	On average, 1.8x less settling time than CSX is needed for phase disengagement
Recovery	Virtually identical – better than or similar to CSX 13 times out of 14
Purity	Virtually identical – better than or similar to CSX 11 times out of 14
Separation Flexibility	Able to reconfigure stages in SX circuit within hours, allowing separation of different REEs to different target purities with the same equipment
Ontime Flexibility	Able to start and stop the system at will without loss of production equilibrium. RapidSX™ can immediately restart after planned and unplanned shutdown events.
Other Demo Plant Performance Data	
Operating Hours	5,718 hours
Tonnage Processed	1.76 metric tonnes REO equivalent
Separations Applied	7 separations: 5 for heavy REE and 2 for light REE
Footprint	Up to 60% smaller for a process with equal throughput
Economics	
CAPEX	34% reduction in CAPEX
OPEX	Similar: 2.2 $USD/kg of REO feedstock for RapidSX™, a slight decrease from CSX (2.3 $USD/kg)

The **Phase 1 Reports** detail the work completed at the CDF, and provide further support and risk mitigation for the Company's commercialization execution strategy at the Louisiana Strategic Metals Complex ("**Louisiana SMC**") in Alexandria, Louisiana. Because the proprietary Reports contain detailed technical and commercial analysis provided to the DoW, Ucore is limiting this announcement to a high-level summary with selected tables of the findings most relevant to stakeholders on the Company's path to commercial execution in Louisiana.

Commercial Proof of Performance

The Reports, which were generated from millions of data points generated over a 2-year sequence of campaigns, indicate that the rare earth element ("**REE**") product recovery and purity achieved with RapidSX™ were consistently equal to or better than CSX. **It should be noted that this was the expected result given that the chemistry of RapidSX™ and CSX is exactly the same.**

The RapidSX™ advantage is in applying the chemistry much more efficiently, resulting in faster separation steps with a smaller physical equipment footprint. When coupled together, these two attributes yield significant cost and ESG efficiencies across a commercial REE separation facility.

Seven demonstration campaigns were completed as follows, all starting with nearly two tonnes of a heavy mixed rare earth oxide feed source containing both heavy and light REEs:

"Table 6 – Heavy and Light REE Classification of Each Separation"

Separation Number	REEs Separated	Classification	Operating Hours	Start Date	End Date
SX-1	TbDy|TbDyHoY	Heavy REE	540	Dec 18, 2023	Apr 5, 2024
SX-2	Dy|Ho	Heavy REE	3480	Apr 30, 2024	Mar 12, 2025
SX-3	Gd|Tb	Heavy REE	303	Mar 28, 2025	May 6, 2025
SX-4	Tb|Dy	Heavy REE	656	May 7, 2025	Jun 16, 2025
SX-5	Nd|Sm	Light REE	361	Jun 17, 2025	Sep 11, 2025
SX-6	Ce|Pr	Light REE	214	Oct 28, 2025	Nov 21, 2025
SX-7	Sm|SmEuGd|Gd	Heavy REE	172	Dec 18, 2025	Jan 24, 2026
Total	–	2 Light REE 5 Heavy REE	5,717	Dec 18, 2023	Jan 24, 2026

Product Purity and Recovery

The success of each of the above separations was determined by comparing the purity and recovery of each separation to the CSX baseline. The purity and recovery values are the key metrics used to compare separation efficiency. Purity is calculated as

the amount of target REEs out of total REEs. Recovery is calculated based on the losses to the opposite side of the split.

Operational Flexibility & Lower Capital Intensity

The Reports highlight the ability to stop and restart the system without loss of equilibrium, as well as the ability to reconfigure circuit stages within hours to suit different separations and product objectives. This kind of flexibility is especially important in a commercial refinery, where feed variability, and meeting customer specifications in an evolving Western market, all benefit from a platform that is more agile. The Reports also supports the view that RapidSX™ can apply the proven chemistry of solvent extraction in a smaller and more modular equipment arrangement than conventional mixer-settler systems. Lower SX-area capital intensity can improve project economics, support a staged buildout strategy, and allow capital to be deployed more intelligently as the Louisiana SMC grows.

As noted, the success of the DoW demonstration program was as expected; the Company is not commercializing speculative chemistry. Rather, it is implementing a proven solvent extraction chemistry distribution platform while improving the physical delivery of the process.

"*Phase 1 did more than validate a technology platform. It clarified why RapidSX™ matters commercially*," said **Mike Schrider, P.E., Vice-President and Chief Operating Officer of Ucore**. "*For Louisiana, the message is straightforward: across seven demonstration campaigns, RapidSX™ matched conventional solvent extraction on purity, recovery, and product quality, while delivering faster extraction and phase disengagement in a smaller operating footprint. We believe that combination is exactly what the U.S. rare earth supply chain needs.*"

Knowledge Transfer and Copy-and-Paste Deployment

The report emphasizes that continuous improvement, plant learnings, operating protocols, controls development, and sampling discipline are designed to reduce risk for direct knowledge transfer from the Kingston CDF to the Louisiana SMC. The planned coordinated commissioning will shorten the learning curve, strengthen startup discipline, and improve the likelihood of a smoother transition into commercial production.

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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'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 Canada and Alaska and the longer-term development of Ucore's 100% controlled Bokan-Dotson Ridge Rare Heavy REE Project on Prince of Wales Island in Southeast Alaska, USA ("**Bokan**").

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.

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 about government support for Ucore, the Company has assumed that the applicable projects (including each of the associated milestones) will be completed satisfactorily and in accordance with the respective agreements or letters of intent (as applicable) for such government support. For additional risks and uncertainties regarding the Company, its business activities, its ability to qualify for and receive any additional funding from any U.S. or Canadian government, the CDF and the aforementioned projects (generally), see the risk disclosure in the Company's MD&A for Q4-2025 (filed on SEDAR+ on March 18, 2026) (www.sedarplus.ca) as well as the risks described below.

*Regarding the disclosure above 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 SMCs. Ucore has also assumed that sufficient external funding will be found to continue and complete the ongoing research and development work required at the CDF and also later prepare a new National Instrument 43-101*

technical report that demonstrates that 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 and eventual commissioning and operations. 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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