

HALIFAX, NOVA SCOTIA--(Marketwired - Mar 6, 2017) - [Ucore Rare Metals Inc.](#) (TSX VENTURE:UCU)(OTCQX:UURAF) ("Ucore" or the "Company") is pleased to report on its joint efforts to monetize rare earth elements and constituent metals from the Alberta oil sands. In 2016, the Company announced that it has partnered with a Major Alberta Oil Sands Producer ("MOSP") in the undertaking, which has received funding from the National Research Council of Canada Industrial Research Assistance Program ("NRC-IRAP") (see Ucore Press Release dated July 18, 2016).

Phase I of the development agenda, now successfully completed, has included initial flow-sheet design work, beginning with input material from a froth treatment plant located at Fort McMurray, AB. Representative samples comprising a tailing slurry and containing REE, Ti, and a range of other valuable metals, were then obtained from the MOSP process flow. Also during Phase I, a Pregnant Leach Solution ("PLS") formulation process was designed by Edwin Bentzen, BSc. of Bentzen & Assoc. of Arvada, CO (the "Bentzen Process"). The Bentzen Process, proprietary to Ucore, has been designed specifically to modify the bitumen PLS for submission to Molecular Recognition Technology (MRT) metals separation.

During Phase II of the development agenda, Ucore has selected Resource Development Inc. (RDi) of Wheat Ridge, Colorado USA, to perform the PLS preparatory work. The output of the RDi initiative will be shipped to IBC Advanced Technologies ("IBC") of American Fork, Utah, for bench scale separation trials. Pending successful completion of bench scale tests, the Company intends to utilize its SuperLig®-One Pilot Plant Facility to test the process on a greater scale.

"The range of metals resident in the Fort McMurray tailing management sites and the ongoing process flow are considerable," said Jim McKenzie, President and CEO of Ucore. "Accessing this locked in non-petroleum value is a priority for the oil sands industry, and processors are looking to derive pre-existing value from the bitumen froth process. With a range of SuperLig® products already developed and cataloged, our objective is to apply this technology not just to REE and titanium, but a variety of other metals of potential value."

Should the economic viability and technical feasibility of the process be established, the Alberta oil sands represent a significant untapped source of rare earth elements and other valuable materials, which are contained in both ongoing process flow and existent tailing management facilities.<sup>1</sup> Although the metal grades in the oil sands are low, the constituent metals are attracted to bitumen and become greatly concentrated during the bitumen extraction process. The Clark Hot Water Process for the extraction of bitumen, for example, has been shown to enrich the concentrations of titanium and zirconium minerals when the froth treatment tailing is subsequently de-sanded and de-watered. The result is an output product consisting of 11.5% TiO<sub>2</sub> and 3.40% ZrO<sub>2</sub>, and recovering about 50% of the TiO<sub>2</sub> and 85% of the ZrO<sub>2</sub> from the oil sands feed.<sup>2</sup> Studies to recover these minerals from the tailing have been in progress some time, with the ultimate goal finalizing a complete metals separation process to produce saleable heavy mineral concentrates from the oil sands tailing.<sup>2</sup> MRT represents a prospectively promising methodology for such metals separations, based on performance metrics such as selectivity, recovery, and purity.

Tailing and the remediation of oil sands operations have been the subject of ongoing increases in regulation, including efforts to both improve upon timelines for the remediation of tailing ponds and slowing the pace of tailing ponds growth. Directive 85, Fluid Tailings Management for Oil Sands Mining Projects was released in July of 2016 and sets out the Alberta Energy Regulator's ("AER") requirements for managing fluid tailing volumes for oil sands projects. The AER has the ability to set thresholds with respect to fluid tailing management plans for given projects. Additionally, the AER has the ability to choose from a range of regulatory and financial tools in the event that these thresholds are exceeded.<sup>3</sup>

Edwin Bentzen, has approved the scientific and technical content of this news release and is the Qualified Person responsible for its accuracy. Mr. Bentzen has served in numerous capacities as Senior Project Manager in the metallurgical industry, including Bentzen and Associates of Arvada, CO, Lyntek Inc. of Lakewood, CO, and Resource Development Inc. of Wheat Ridge, CO. He holds a BSc. and is a registered member of the Society for Mining, Metallurgy & Exploration (SME).

<sup>1</sup> MDA Study, Owen, 1996.

<sup>2</sup> Canadian Metallurgical Quarterly, Oct. 2003.

<sup>3</sup> Directive 85, Fluid Tailings Management for Oil Sands Mining Projects, AER, 2016.

## Background

Ucore Rare Metals is focused on rare metals resources, extraction and beneficiation technologies with near term potential for production, growth and scalability. On March 3, 2015, Ucore announced the right to acquire a controlling ownership interest in the exclusive rights to IBC SuperLig® technology for rare earths and multi-metallic tailings processing applications in North America and associated world markets. The Company has a 100% ownership stake in Bokan-Dotson Ridge ("Bokan"). On March 31, 2014, Ucore announced the unanimous support of the Alaska State Legislature for the investment of up to USD \$145 Million in the Bokan project at the discretion of the Alaska Import Development and Export Agency ("AIDEA").

## Cautionary Notes

*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 exploration drilling, exploration activities, research and development timelines, and events or developments that the Company expects, 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 and actual results or developments may differ materially from those in forward-looking statements. Factors that could cause actual results to differ materially from those in forward-looking statements include exploitation and exploration successes or setbacks, research and develop successes or setbacks, continued availability of financing, and general economic, market or business conditions.*

*MRT is at advanced testing stages and has yet to be proven, at a commercial scale, for the separation of rare earth elements. The Company has not yet released an economic assessment on the use of MRT for the separation of rare earth elements and does not yet have any specific contracts for the processing of rare earths using MRT.*

*Neither the TSX Venture Exchange nor its Regulation Services Provider (as that term is defined by the TSX Venture Exchange) accepts responsibility for the adequacy or accuracy of this release.*

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