# NioCorp R&D Effort Identifies Possible Improved Approach to Niobium Extraction for its Elk Creek Project

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CENTENNIAL, Sept. 29, 2020 - NioCorp Developments Ltd. ("NioCorp" or the "Company") (TSX: NB; OTCQX: NIOBF) is pleased to announce that advances by NioCorp's technical team have uncovered a potential alternative process for extracting niobium from the Elk Creek Superalloy Materials Project (the "Project"). If further proven to be technologically and economically feasible at scale for the Project, and if incorporated by NioCorp into the Project's design and construction, the new approach could result in lower up-front capital and operating costs for the Project.

A series of metallurgical tests completed for NioCorp by L3 Process Development ("L3") of West Jordan, Utah, has established carbonation as a potential alternative metallurgical process for the extraction of niobium from ore that NioCorp expects to mine from the Project site, subject to receipt of necessary funding. Carbonation is a relatively clean, environmentally friendly, and sustainable hydrometallurgical process that can potentially be employed to use and recycle carbon dioxide to extract niobium and other elements from ore in a manner similar to extractions with acids such as hydrochloric or sulphuric acid.

During the small-scale testing conducted by L3 on the same representative Elk Creek ore sample used for metallurgical testing on the Company's 2019 Feasibility Study, it was established that a single pass of carbonation leaching could extract 11-26% niobium present in the ore. Multiple passes of carbonation leaching could potentially achieve a cumulatively higher extraction of niobium.

"We are very pleased with the research and development work that L3 has completed in employing a different type of process to extract niobium from Elk Creek ore," said Scott Honan, NioCorp's COO. "Not only was L3 able to complete this work timely and in a very cost-effective manner, but the results point to the potential of this process to extract niobium without also extracting titanium. Achieving a separation between these two elements at the extraction stage has the potential to save capital and operating costs in downstream operations. We look forward to continuing our collaboration with L3 to fully investigate carbonation's potential and evaluate its possible integration into the Elk Creek production flowsheet."

L3 and the Company intend to conduct additional carbonation testing at a larger scale to optimize carbonation operating conditions, confirm reaction kinetics, evaluate total potential extraction for niobium and other elements and complete additional mass balances, as funds become available.

Qualified Persons: Mr. Eric Larochelle, B.Eng., Hydrometallurgy Specialist (L3 Process Development) is an independent Qualified Person in accordance with the requirements of National Instrument (NI) 43-101 and has read and approved the technical information contained in this news release.

NioCorp $NB $NIOBF #Niobium #Scandium #ElkCreek #ScottHonan

For More Information

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About NioCorp

NioCorp is developing a superalloy materials project in Southeast Nebraska that will produce Niobium,

Scandium, and Titanium. Niobium is used to produce superalloys as well as High Strength, Low Alloy ("HSLA") steel, which is a lighter, stronger steel used in automotive, structural, and pipeline applications. Scandium is a superalloy material that can be combined with Aluminum to make alloys with increased strength and improved corrosion resistance. Scandium also is a critical component of advanced solid oxide fuel cells. Titanium is used in various superalloys and is a key component of pigments used in paper, paint and plastics and is also used for aerospace applications, armor and medical implants.

About L3 Process Development

L3 Process Development is a group of highly experienced hands-on engineers and specialists recognized in the development of mining, metallurgy, chemical and industrial projects. L3 thrives in being involved on specialty metals projects from the early process development. L3's core competency is the expertise of its members in developing innovative process flowsheets, new design concepts, through a fast-paced approach in project development through integration of engineering with piloting, demonstration and delivery.

Cautionary Note Regarding Forward-Looking Statements

Certain statements contained in this news release may constitute forward-looking statements, including statements regarding the Company's expectations that the Project will reach production stage if the Company is able to secure project financing and that its research and development effort on niobium extraction could be found to be technologically and economically feasible at scale and, if eventually incorporated by NioCorp into the Project's design and construction, could result in lower up-front capital and operating costs for the Project. Readers are cautioned that such forward-looking statements involve known and unknown risks, uncertainties and other factors that may cause a change in such assumptions and the actual outcomes and estimates to be materially different from those estimated or anticipated future results, achievements or position expressed or implied by those forward-looking statements. Risks, uncertainties and other factors that could cause NioCorp's plans or prospects to change include risks related to the Company's ability to operate as a going concern; risks related to the Company's requirement of significant additional capital; changes in demand for and price of commodities (such as fuel and electricity) and currencies; changes in economic valuations of the Project, such as Net Present Value calculations, changes or disruptions in the securities markets; legislative, political or economic developments; the need to obtain permits and comply with laws and regulations and other regulatory requirements; the possibility that actual results of work may differ from projections/expectations or may not realize the perceived potential of NioCorp's projects; risks of accidents, equipment breakdowns and labor disputes or other unanticipated difficulties or interruptions; the possibility of cost overruns or unanticipated expenses in development programs; operating or technical difficulties in connection with exploration, mining or development activities; the speculative nature of mineral exploration and development, including the risks of diminishing quantities of grades of reserves and resources; and the risks involved in the exploration, development and mining business and the risks set forth in the Company's filings with Canadian securities regulators at www.sedar.com and the SEC at www.sec.gov. NioCorp disclaims any intention or obligation to update or revise any forward-looking statements whether as a result of new information, future events or otherwise.



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