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IRIS METALS SUCCESSFULLY COMPLETES DOWNSTREAM LITHIUM CONVERSION AND PRODUCTION OF BATTERY GRADE LCE

IRIS Metals Limited (**ASX: IR1**) (“**IRIS**” or “**the Company**”) is pleased to advise it has successfully converted its spodumene concentrate to 99.5% battery grade lithium carbonate. This milestone was achieved using ore entirely sourced from its Beecher Project in South Dakota, USA. The conversion to lithium carbonate was done in the US, using a domestic process and IP, marking a significant new capability in America’s efforts to secure domestic supply chains of critical minerals and IRIS’ role in that.

- This milestone demonstrates IRIS Metals' progression from an exploration company to a near-term producer and supplier of lithium carbonate equivalent (LCE)
- The Beecher project is licensed for production and well advanced towards a maiden mineral resource estimate expected in early 2025
- The conversion to lithium carbonate was done with ReElement, following the successful production of 6% spodumene concentrate (SC6) from IRIS’ Beecher project in South Dakota ([*refer to ASX Announcement dated 9 October 2024*](#))
- ReElement Technologies is a wholly owned subsidiary of American Resources Corporation (NASDAQ: AREC)
- ReElement is advancing from demonstration operations to a commercial-scale critical minerals processing and refining plant
- Following this successful conversion to LCE, IRIS Metals has signed a MOU with ReElement for further bulk testing and development of a commercial scale supply solution for the US market
- This MOU brings the parties closer to IRIS and ReElement becoming the first new near-term domestic suppliers of battery-grade lithium carbonate that can deliver fully Inflation Reduction Act (IRA) compliant lithium units to the growing US market
- The parties are negotiating a potential investment by ReElement in IRIS Metals to strengthen the domestic US lithium carbonate supply

IRIS Metals Chairman, Peter Marks, commented:

"The team at IRIS Metals are thrilled with the new partnership with ReElement. This collaboration is set to transform our concentrate into battery-grade lithium carbonate right here in the US, using homegrown technology and processes. It's a pivotal step that not only elevates IRIS from explorer to near-term producer, but also strengthens our commitment to a fully domestic supply chain."

"IRIS is on track to announce a maiden mineral resource estimate at Beecher and we remain ambitious to expand into a multi-project lithium enterprise in the coming years."

ReElement Chief Executive Officer, Mark Jensen, commented:

"Securing reliable lithium sources is crucial for bolstering our integrated supply chain and aligns with ReElement's commitment to being a leading and sustainable producer of ultra-pure, refined rare earth and critical battery elements. We utilize the most cost effective and environmentally safe methods developed to date, and I'm confident that the MOU with IRIS Metals will establish a strong foundation for our joint efforts to accelerate business growth and seize opportunities that address both the electrified economy and national security needs."



Under the MOU between IRIS Metals and ReElement, the parties aim to convert US-origin SC6 into battery-grade lithium carbonate within the United States, utilising domestic intellectual property and commercial processes operated by ReElement. This development signifies IRIS Metals' progression from an exploration company to a near-term producer and supplier of lithium carbonate equivalent (LCE), leveraging a fully domestic supply chain.

The Beecher project is already licensed for production, and ReElement is advancing from demonstration operations at its Noblesville, Indiana Customer Qualification Plant to a commercial-scale critical mineral refining plant at their 42-acre campus in Marion, Indiana. Together, the parties are positioned as an imminent new domestic supplier of lithium carbonate, offering fully Inflation Reduction Act (IRA) compliant lithium units to the expanding US market. Bringing together the upstream and downstream components of the lithium supply chain will put the parties in a stronger position to access IRA funding and unlock its non-dilutive capital. This partnership is a pivotal step towards fulfilling America's critical mineral requirements.

Following the signing of the MOU, IRIS Metals supplied a 6% Li₂O spodumene concentrate (SC6) to ReElement for lab scale demonstration of their process on representative material from the Beecher Project in South Dakota. The material supplied by IRIS Metals is the same material discussed in the Company's ASX news release dated 9 October 2024 and produced as part of the Beecher Project metallurgical testing completed by SGS Canada. ReElement's lab scale demonstration successfully converts the supplied SC6 into 99.5% battery grade lithium carbonate and confirmed the quality of the SC6 supplied by IRIS Metals.

Further planned activities include a demonstration-scale conversion trial, additional bulk testing and definitive discussions for commercialisation and production ramp-up are planned. IRIS Metals aims to commence domestic SC6 production in 2025, while ReElement scales into its large-scale commercial operations in Marion, targeting the commissioning of initial production in the latter half of 2025.

The parties are negotiating a potential investment by ReElement in IRIS Metals to strengthen the domestic US lithium carbonate supply.

Additionally, the partnership is also considering the production of battery-grade lithium hydroxide through ReElement's conversion process as it evaluates market demand.

For clarity, in respect of the MOU, it is noted:

- There is no consideration payable by either party, as it is a cooperation agreement to test the viability of Re-Element technology on IRIS ground;
- There is no term in respect of the above; and
- The MOU is non-binding.

Being non-binding, the MOU has no present financial implications for IRIS Metals' financial performance or financial standing.

About ReElement Technologies Corporation

ReElement Technologies Corporation, a wholly owned subsidiary of American Resources Corporation (NASDAQ:AREC), is a leading provider of high-performance refining capacity for rare earth and critical battery elements. Its multi-mineral, multi-feedstock platform technology focuses on the refining of recycled material from rare earth permanent magnets and lithium-ion batteries, concentrated ores and brines, as well as coal-based waste streams and byproducts to create a cost effective and environmentally safe, circular supply chain. ReElement has developed its innovative and scalable "*Powered by ReElement*" process which collaboratively utilizes its exclusively licensed intellectual property within its partners' material processing flow sheets to more efficiently support the global supply chain's growing demand for magnet and battery-grade products. For more information visit reelementtech.com or connect with the Company on [Facebook](#), [Twitter](#), and [LinkedIn](#).

ENDS

This announcement was approved for release by the Board of IRIS Metals Ltd.

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About IRIS Metals (ASX: IR1)

IRIS Metals Ltd (ASX: IR1) is an exploration company with an extensive suite of assets considered to be highly prospective for hard rock lithium located in South Dakota, United States (US). The company's large and expanding South Dakota Project is in a mining friendly jurisdiction and provides the company with strong exposure to the battery metals space, and the incentives offered by the US government for locally sourced critical minerals.

The Black Hills have a long and proud history of mining dating back to the late 1800s. The Black Hills pegmatites are famous for having the largest recorded lithium spodumene crystals ever mined. Extensive fields of fertile LCT-pegmatites outcrop throughout the Black Hills with significant volumes of lithium spodumene mined in numerous locations.

To learn more, please visit: www.irismetals.com

Forward looking Statements:

This announcement may contain certain forward-looking statements that have been based on current expectations about future acts, events and circumstances. These forward-looking statements are, however, subject to risks, uncertainties and assumptions that could cause those acts, events and circumstances to differ materially from the expectations described in such forward-looking statements. These factors include, among other things, commercial and other risks associated with exploration, estimation of resources, the meeting of objectives and other investment considerations, as well as other matters not yet known to IRIS or not currently considered material by the company. IRIS accepts no responsibility to update any person regarding any error or omission or change in the information in this presentation or any other information made available to a person or any obligation to furnish the person with further information.

Not an offer in the United States:

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Competent Persons Statement:

The information in this announcement that relates to exploration results is based on information reviewed by Matt Hartmann, IRIS' President of U.S. Operations, and a Competent Person who is a Member of the Australasian Institute of Mining and Metallurgy (MAusIMM) (318271), a Registered Member of the Society for Mining, Metallurgy and Exploration (RM-SME) (4170350RM). Matt Hartmann is an exploration geologist with over 20 years' experience in mineral exploration, including lithium exploration and resource definition in the western United States, and has sufficient experience in the styles of mineralisation and type of deposit under consideration and to the activity undertaken to qualify as a Competent Person as defined in the 2012 Edition of the Australian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Matt Hartmann has consented to the inclusion in this Public Report of the matters based on his information in the form and context in which it appears.