

ASX RELEASE

5 June 2024

MTM AND MURDOCH UNIVERSITY COLLABORATE ON ADVANCED METALLURGY RESEARCH WITH FLASH JOULE HEATING TECHNOLOGY

Highlights:

- MTM has entered a Memorandum of Understanding (MOU) with Murdoch University (Murdoch) to investigate research collaboration opportunities for metal extraction using Flash Joule Heating (FJH) technology.
- Murdoch's expertise in extractive metallurgy complements research conducted by Rice University, where FJH technology was invented and developed by Professor James Tour.
- MTM and Murdoch seek to advance the FJH technology through the establishment of research programs and infrastructure at Murdoch for testing waste streams and development of new mineral processing solutions for primary ores, as well as seek joint funding including but not limited to grants from Australian, USA and Industry sources.
- The collaboration builds on MTM's recently executed license agreement for exclusive global rights to FJH technology and aims to accelerate research efforts at both Murdoch & Rice Universities which will benefit MTM's future commercialisation plans.

MTM Critical Metals Limited (ASX:MTM) (MTM or the Company) has signed a Memorandum of Understanding (MOU) with Murdoch University (Murdoch) to investigate several research and collaboration opportunities for the use of Flash Joule Heating technology that has recently been licensed to MTM by Rice University (Rice).

MTM Chairman, Mr John Hannaford said: *"MTM is delighted to be partnering with Murdoch University to explore research in relation to FJH technology. Murdoch's expertise in metallurgy and mining, through its Centre for Water, Energy and Waste is highly complementary to the work done by Rice University on the extraction of Rare Earth Elements (REE) and other metals using FJH technology. This is a significant endorsement of the potential of FJH technology across REE and critical minerals sectors. Western Australia has not only a world leading mining industry but also has large stockpiles of materials categorised as waste, which represent an opportunity for value addition with the right technology. Murdoch University is well positioned as our research partner in these technologies as they apply to bulk waste streams in Australia and globally."*

Based in Perth, Western Australia, Murdoch University is renowned for its metallurgy and mining programs, particularly on sustainable mining practices. MTM and Murdoch will examine ways to use FJH technology to

develop new research in mineral extraction and processing to enhance the recovery of metals and minerals and the production of high-purity metals and metal compounds.

MTM also intends to leverage the expertise at Murdoch and Rice to research and commercialise FJH technology. MTM and Murdoch will aim to establish research programs and infrastructure at Murdoch for testing mineral waste streams and developing new mineral processing solutions for primary ores. They will also seek joint funding, including grants from Australian, US and industry sources. The collaboration will facilitate engagement with industry participants for specific projects and focus on developing infrastructure at Murdoch for research purposes.

The MOU sets out the framework for collaboration; however, it is not a definitive agreement with commercial terms and timelines.

MTM will work closely with Professor Aleks Nikoloski, Academic Chair of Chemical and Metallurgical Engineering at Murdoch, with over 25 years teaching and research experience in extractive metallurgy. Professor Nikoloski is an expert in the development of technology for the beneficiation, extraction and recovery of metals and minerals and the production of high purity metals and metal compounds. He leads several applied research projects relating to the production and use of many different commodities including lithium, vanadium, copper, cobalt, nickel, manganese, uranium, rare earths, zinc, coal, mineral sands and precious and platinum group metals. Aleks is the head of the Hydrometallurgy Research Group set up for development of recycling of lithium and e- waste for critical minerals.

The collaboration builds on MTM's recently executed license agreement for exclusive global rights to FJH technology. This agreement granted MTM the rights to the proprietary technology under associated patents for the recovery of REE and other critical metals and metallic compounds from industrial waste, providing a foundation for the Company to scale FJH commercialisation.

This announcement has been authorised for release by the Board of Directors.

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About MTM Critical Metals Limited

MTM Critical Metals Limited is an exploration company which is focused on searching for niobium (Nb) and rare earth elements (REE) in Western Australia and Québec. Additionally, the Company has entered into a licence agreement in relation to an early-stage processing technology for REE and precious metals known as Flash Joule Heating, which has been developed by researchers at Rice University, USA. MTM's West Arunta Nb-REE licences lie within one of Australia's critical metal exploration hotspots where over \$60m in exploration expenditure has been collectively invested in the district by a number of ASX companies including WA1 Resources Limited (ASX:WA1), Encounter Resources Limited (ASX:ENR), Rio Tinto Limited (JV with Tali Resources Pty Ltd) (ASX:RIO), CGN Resources Limited (ASX:CGR), and IGO Limited (ASX:IGO).

The Company also holds tenements in other prolific and highly prospective mineral regions in Western Australia. The Mukinbudin Nb-REE Project comprises two exploration licences located 250km northeast of Perth in the South West Mineral Field of Western Australia. The East Laverton Projects is made up of a regionally extensive package of underexplored tenements prospective for REE, gold and base metals. The Mt Monger Gold Project comprises an area containing known gold deposits and occurrences in the Mt Monger area, located ~70km SE of Kalgoorlie and immediately adjacent to the Randalls gold mill operated by Silver Lake Resources Limited. In Québec, the Pomme Project is a known carbonatite intrusion that is enriched in REE and niobium and is considered to be an extremely prospective exploration target adjacent to a world class REE resource (Montviel deposit). The Company has an experienced Board and management team which is focused on discovery to increase value for shareholders.

Previous Disclosure

The information in this announcement is based on the following MTM Critical Metals Limited ASX announcements, which are all available from the MTM Critical Metals Limited website www.mtmcriticalmetals.com.au and the ASX website www.asx.com.au.

Date	Description
31 May 2024	Flash Joule Heating Licence Agreement Completed

The Company confirms that it is not aware of any new information or data that materially affects the information included in the original ASX announcements and that all material assumptions and technical parameters underpinning the relevant ASX announcements continue to apply and have not materially changed. The Company confirms that the form and context in which the Competent Person's findings are represented have not been materially modified from the original ASX announcements.

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