

## ASX Announcement

8 May 2024

ASX:MLS

# MAJOR CONTRACTS AWARDED TO ADVANCE LAC RAINY HIGH-GRADE FLAKE GRAPHITE PROJECT

Metals Australia Ltd (ASX: MLS) is pleased to announce a series of major project study agreements have been awarded to advance development of the Company's flagship Lac Rainy high-grade flake-graphite project in the Tier 1 mining jurisdiction of Quebec, Canada (see Figure 1). The various study agreements approved and initiated include:

- **A Metallurgical & Laboratory Services Agreement** with SGS Laboratories in Lakefield, Ontario and the appointment of specialist client advisor Metpro Management to oversee metallurgical test-work programs for the **design of a flake-graphite concentrate plant**.
- **A Pre-Feasibility Study (PFS) for the design of a 100,000 tonnes per annum flake-graphite concentrate plant** awarded to integrated engineering, design, and construction group Lycopodium. The PFS includes the flake-graphite concentrate plant and associated site infrastructure. It builds on the 2021 Scoping Study results<sup>1</sup> that **demonstrated Lac Rainy's potential to generate high operating margins over a 14-year mine life - based on the current resource alone**.
- **A downstream battery-grade spherical graphite (SpG) concentrate purification options assessment, plant location and Scoping Study** awarded to world-leading, German based, metallurgical test-work and process engineering design group ANZAPLAN. These programs will substantially build on the outstanding results of previous downstream product test-work that **produced battery grade (99.96% Cg) spherical graphite (SpG) with excellent battery charging and discharge performance<sup>2</sup>**.
- **A drilling and full-service support contract** signed with Magnor Exploration to complete the drilling and other exploration programs for **Mineral Resource expansion and to test new regional targets at Lac Rainy, where the current resource is contained within only 1km of a demonstrated 36km strike-length of high-grade graphitic trends<sup>3</sup> which have been tested to date**.

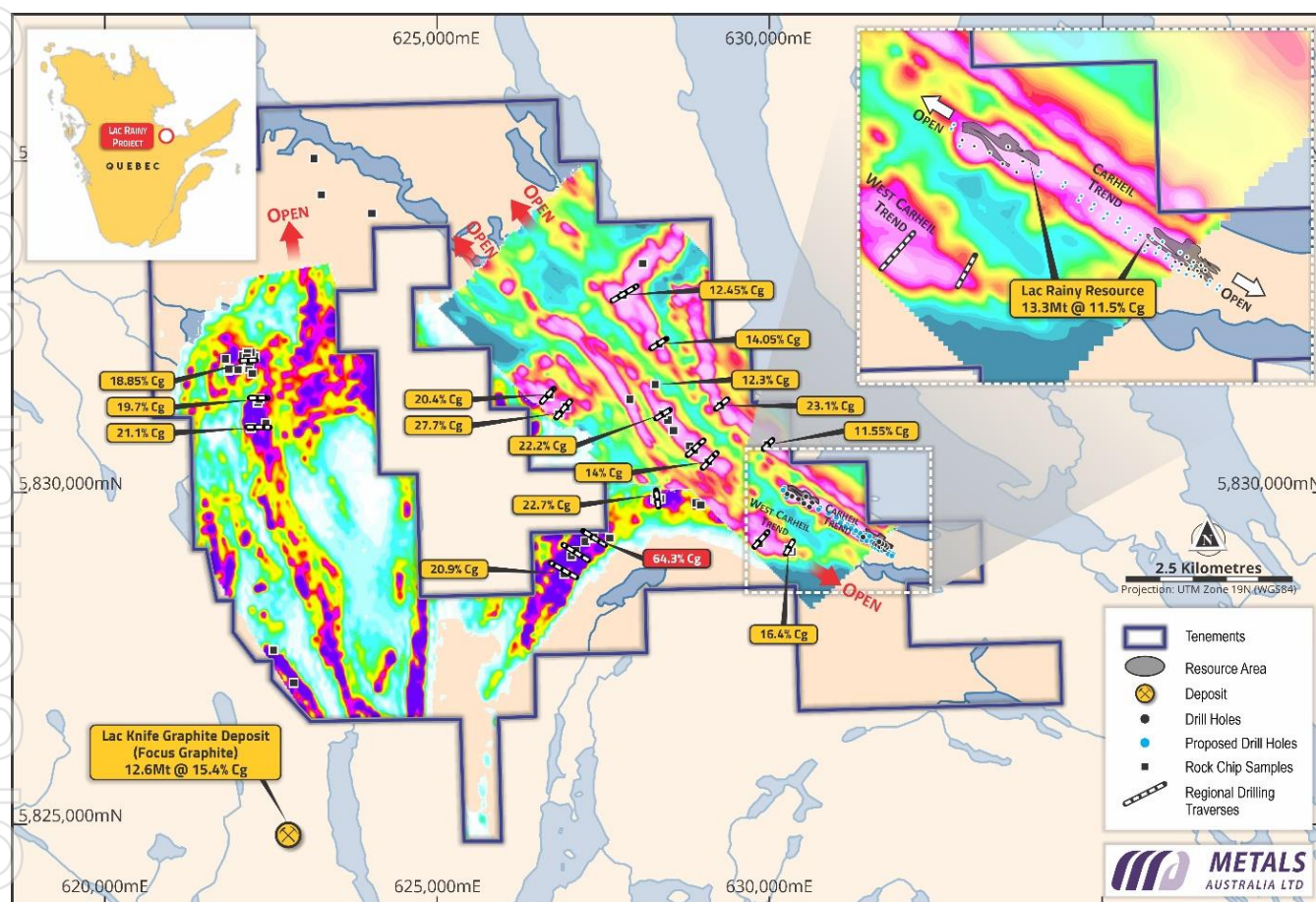
**Metals Australia CEO Paul Ferguson commented:**

*"We are delighted to have locked in a series of critical project development and test-work contracts with leading global service providers as we continue our efforts to grow the Lac Rainy resource and accelerate the development of what we believe is a world-class flake-graphite project, located in one of the world's best mining jurisdictions.*

*Significantly, Metals Australia's strong cash balance, which stood at \$17.8 million at the end of the March quarter<sup>4</sup>, gives us the financial strength to rapidly advance our pipeline of development studies at Lac Rainy, while also continuing exploration programs across our suite of other highly prospective projects in Canada and Australia.*

*We believe these studies will help unlock the significant value of the Lac Rainy project, which is not reflected in the current share price. This is despite the fact Lac Rainy has already demonstrated compelling and robust economics, as outlined in the 2021 Scoping Study<sup>1</sup>.*

*The work we are now advancing will significantly de-risk the project and bring it closer to development - at an ideal time when North America is seeking reliable supplies of critical minerals to establish or reorient its manufacturing base and supply logistics."*



**Figure 1: Lac Rainy Graphite Project, key high-grade graphite electro-magnetic (EM) trends and targets with planned drilling locations<sup>4</sup>**

### **Metallurgical & Laboratory Services Agreement for metallurgical test-work with SGS Laboratories**

Metals Australia has awarded the metallurgical test-work and laboratory services requirements for its PFS level flake-graphite metallurgical test-work program<sup>5</sup> to SGS Laboratories in Lakefield, Ontario, Canada.

Two approximately 200kg bulk-samples have been prepared from existing drill-core and despatched to SGS for comminution and flotation test-work and characterisation to provide key inputs to the flake-graphite concentrate production PFS. The program is estimated to take approximately four months and will include all sample preparation, chemical characterisation, mineralogy testing, comminution and flotation testing and reporting.

The program will firm up three core aspects of the concentrate plant design. These include the optimum design for coarse flake products and the production of a fine to medium flake concentrate for use in broad industrial applications, including as battery material for both the secondary and EV battery markets.

The test-work will also investigate the production of a dry stacked tailings stream with sulphide removal to manage the long-term disposal of benign tailings. If successful, the long-term tailings disposal plan will be managed with a significantly reduced potential for adverse environmental impact. An investigation will also be undertaken of the separated sulphide to assess its potential as a stand-alone value stream.

Results from the detailed test-work program will inform the PFS design of the concentrate plant, as well as generating a bulk, high-grade concentrate sample to advance study work for the downstream products assessments – including battery material applications.

SGS is the world's leading testing, inspection, and certification company, recognised as the global benchmark for sustainability, quality, and integrity. With 96,000 employees, SGS operates a network of 2,600 offices and laboratories.

The scope of work will be managed in Ontario through Metals Australia's appointed client advisor, Metpro Management. Metpro has significant experience in the design and execution of metallurgical study programs and detailed laboratory test-work for graphite and its broad product applications.

#### **PFS Engineering Design for a Flake-Graphite Concentrate Plant awarded to Lycopodium.**

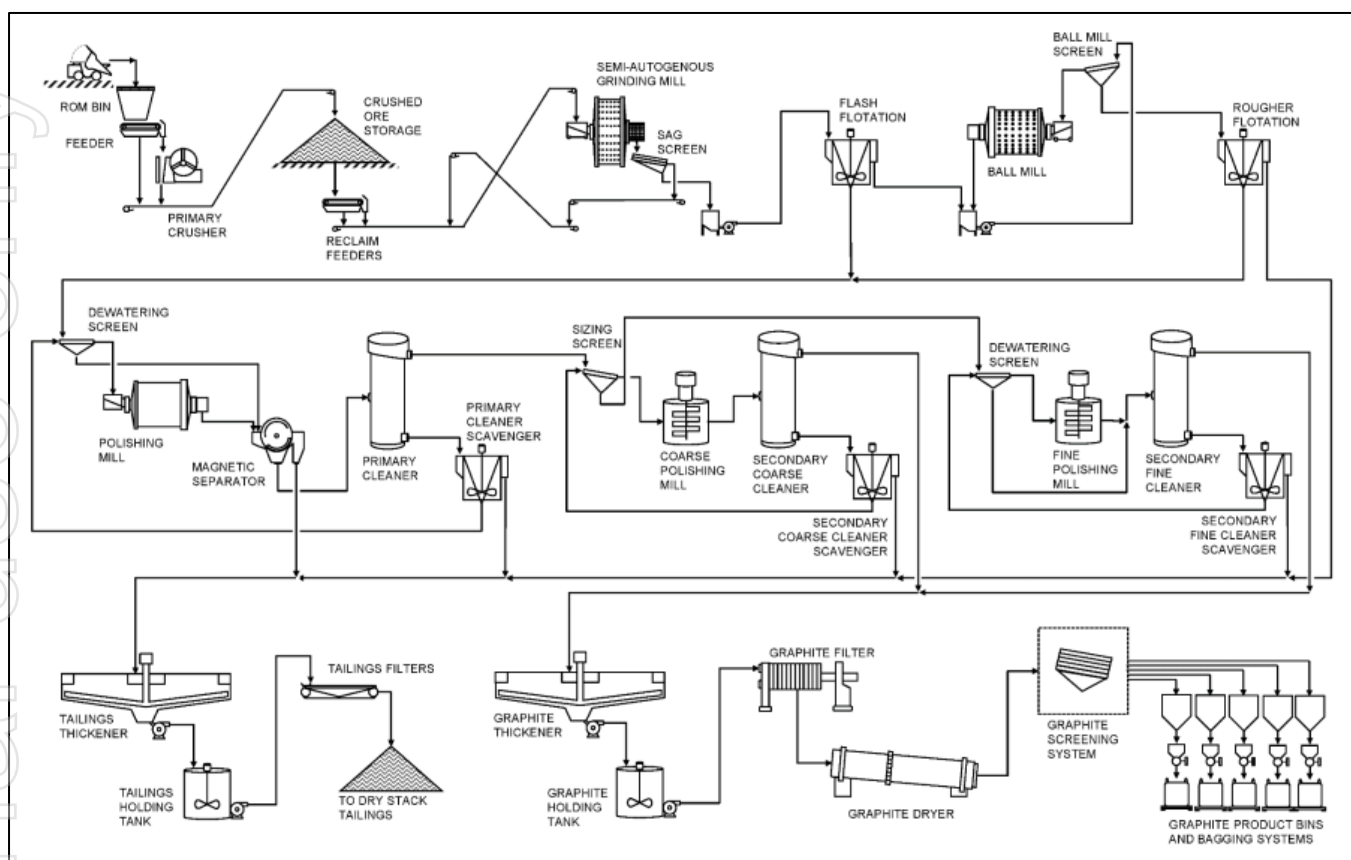
Metals Australia has awarded the design of its proposed 100,000tpa flake graphite concentrate plant to Lycopodium Ltd. This follows an extensive evaluation process that was competitively bid.

The PFS-level program will take about six months to complete and will overlap with the metallurgical test-work program<sup>5</sup>.

The PFS will build on the previous Scoping Study based on the current Indicated and Inferred Mineral Resource of 13.3Mt @ 11.5% Cg<sup>6</sup>. The Scoping Study demonstrated strong cashflow potential at an operating cost estimate of US\$433/t and a cashflow margin of more than 100% at an average flake-graphite concentrate price of US\$885/t. This is based on production of nearly 100,000tpa of 96.7% Cg flake-graphite concentrate over a 14-year period and capital payback within four years, and included a project Net Present Value before tax of US\$123 million (DCF 8%). *The Company confirms that it is not aware of any other new information or data that materially affects the information in the Scoping Study release of 3<sup>rd</sup> February 2021<sup>1</sup>.*

The study will meet the reporting requirements for Australia and Canada, given the ultimate approving authorities for the project are Quebec and Canada's Federal Government's. This approach also significantly aids evaluation by funds, investors, and prospective offtake partners in North America.

The key elements of the study include all plant facilities and required infrastructure to support the concentrate plant, including a site access road from the main highway and power supply to the site. Local power is 100% renewable hydro-electric from Quebec's substantial network of 59 hydro stations. Lycopodium will also take on the role of Lead Study Manager for the overall project assessment, inclusive of the overall economic analysis for the project.



**Figure 2 – Simplified Process Flow Diagram for Lac Rainy Concentrate Plant (Scoping Study<sup>1</sup>)**

Lycopodium is headquartered in Perth with minerals hubs in Perth and Toronto, providing full process, engineering, and project delivery capabilities for mineral processing plants. Lycopodium has significant experience in the design and construction of graphite projects in Quebec and elsewhere in Canada.

Metals Australia's CEO will oversee and monitor the scope of this program directly.

### **Downstream SpG Purification Options Assessment and Scoping Study awarded to ANZAPLAN.**

This work program will evaluate milling/micronisation, shaping (spheronisation), purification, coating, and electrochemical performance of Lac Rainy downstream CSpG battery anode product. It will significantly advance study work completed in May 2023<sup>2</sup>, where excellent yields, physical SpG characteristics, battery grade purity (99.96% Cg) and charging characteristics were achieved.

An extensive metallurgical test-work and laboratory scale program has been designed, using the bulk concentrate to be produced by SGS. ANZAPLAN's laboratories in Germany will undertake the study work, including use of specialist third parties for aspects of purification assessment.

The study will specifically investigate purification and performance from a wide range of options, including those used in the production of battery anode-grade material today.

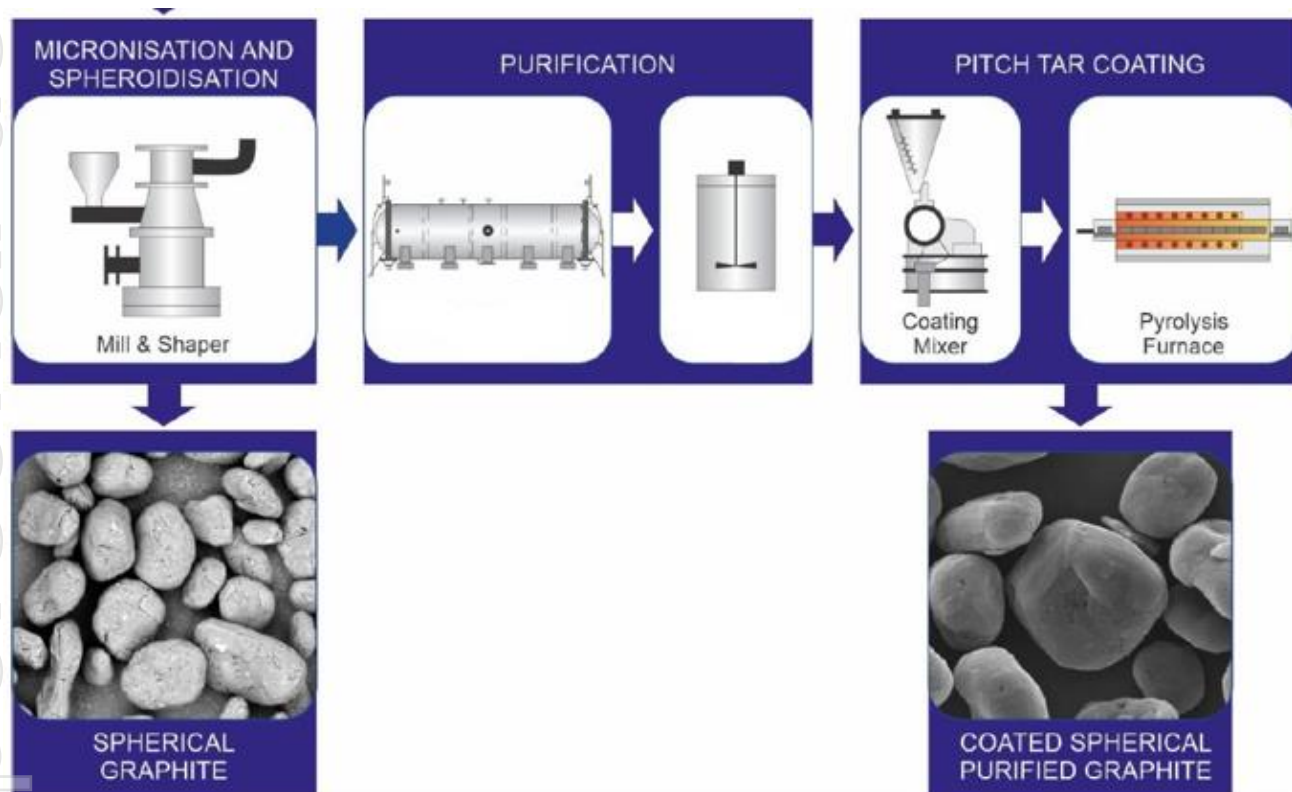
Based on the preferred techno-economic option, a location study will be conducted to assess the suitable jurisdiction for a Value-Add Anode plant within North America. This study will investigate a broad range of requirements, including concentrate transfer logistics, availability of suitable industrial land, access to required utilities such as power, water, and chemicals. Regulatory requirements and permitting together



with access to skilled labour for construction and ongoing operations and maintenance will also be key considerations.

A Scoping-level study will follow on from the location assessment. This work will investigate the Capital Construction and Operating Cost profile for a Battery-Grade and Coated Spherical Graphite (CSpG) Anode Plant. The Anode Plant will include all the core process engineering functions required to produce battery-grade graphite, including micronisation and spheroidisation (shaping the graphite), purification – via the preferred techno-economic option - coating, and packaging. The study will investigate all elements of infrastructure required to receive, process, and produce battery-grade material – SpG/ CSpG.

*ANZAPLAN is part of the Dorfner group of companies, a leading European industrial and speciality minerals producer with more than a century of experience. ANZAPLAN was established in 1985 and is a renowned provider of analytical and engineering services for industrial and speciality mineral projects worldwide.*



**Figure 3 – Simplified Process Flow Steps for Downstream Processing of Battery Material**

### **Drilling and Full Services Contract with Magnor Exploration to enhance and expand resource and test key regional high-grade graphite targets.**

Magnor's work scope includes all planning, permitting and logistics to support key drilling programs, as well as associated geological support services for work planned at Lac Rainy (see Figure 1, showing high-grade graphite trends and planned drilling).

Magnor has acted on behalf of the Company since 2023 to advance the planning and permitting of the proposed new drilling program at Lac Rainy, as well as supporting program design and preparations for the Company's other Quebec-based exploration activities.

The formal contract commitment is contingent on the Company being awarded a drilling permit by Quebec's Ministry of Natural Resources & Forestry (MRNF). This agreement provides a framework for future contracting, including the Corvette and Corvette River South Project locations, where exploration programs for drilling and trenching are well advanced in the planning phase.

Metals Australia is contract-ready to conduct the planned drilling at Lac Rainy – and is working closely with Magnor on the progress of its permitting and the practical execution of the drill program.

The Company and Magnor continue to work with all stakeholders through the permit application review process. We await the outcomes of our most recent discussions with identified impacted parties. The parties have expressed their desire to balance ancestral land use for hunting and fishing in the region, against the impacts of future development and the economic and social benefits that come from development. Metals Australia believes a balanced outcome is achievable that can ensure a development can be managed harmoniously. The Company has already demonstrated its credentials as a responsible explorer, via completion of drilling on the properties in 2018 and 2019, with no adverse environmental outcomes.

**It is important to note that with our metallurgy and engineering studies advancing, the sequencing of an upgraded resource is effectively managed to the back end of the overall Lac Rainy development study program. Our study work to date has already completed initial mining designs for the first 14 years of the project<sup>1</sup>. The purpose of the drilling for resource definition is simply to demonstrate a vastly expanded life for the project, rather than having any material impact on mining designs, equipment, or infrastructure requirements, which are anticipated to be like that outlined in the Scoping Study.**

## About Metals Australia Ltd

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Metals Australia Ltd (ASX: MLS) has a proven track record of battery minerals discovery and a quality portfolio of advanced battery minerals and metals projects in the highly endowed and well-established mining jurisdictions of Quebec and Western Australia.

With a strong balance sheet, the Company is focused on the exploration and development of its flagship Lac Rainy flake-graphite project in Quebec, a high-quality project which is well placed for the future delivery of premium, battery-grade graphite to the North American lithium-ion/EV battery market.

The Company is also advancing its lithium and gold exploration projects in the world-class James Bay region of Quebec and at its advanced Manindi battery minerals and metals project in Western Australia.

In addition, Metals Australia also has highly prospective exploration projects at Warrambie in the northwest Pilbara near the Andover lithium project and in Western Australia's rich Murchison gold region.

## References

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<sup>1</sup>Metals Australia Ltd, 3 February 2021. "Scoping Study Results for Lac Rainy Graphite Project, Quebec."

<sup>2</sup>Metals Australia Ltd, 23 May 2023. "Outstanding Battery Test Results Confirm Lac Rainy Graphite is Premium Lithium-ion Battery Anode Quality."

<sup>3</sup>Metals Australia Ltd, 16 January 2024. "Exceptional 64.3% Graphite and New Drilling at Lac Rainy Graphite Project."

<sup>4</sup>Metals Australia Ltd, 30 April 2024. "Quarterly Activities/Appendix 5B Cash Flow Report."

<sup>5</sup>Metals Australia Ltd, 25 March 2024. "Metallurgical Programs to Advance Lac Rainy Development."

<sup>6</sup>Metals Australia Ltd, 15 June 2020. "Metals Australia Delivers High-Grade Maiden JORC Resource at Lac Rainy."

## Cautionary Statement Regarding Forward Looking Information

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*This document contains forward-looking statements concerning Metals Australia Limited. Forward-looking statements are not statements of historical fact and actual events and results may differ materially from those described in the forward-looking statements as a result of a variety of risks, uncertainties, and other factors. Forward-looking statements are inherently subject to business, economic, competitive, political, and social uncertainties, and contingencies. Many factors could cause the Company's actual results to differ materially from those expressed or implied in any forward-looking information provided by the Company, or on behalf of, the Company. Such factors include, among other things, risks relating to additional funding requirements, metal prices, exploration, development and operating risks, competition, production risks, regulatory restrictions, including environmental regulation and liability and potential title disputes.*

*Forward looking statements in this document are based on the company's beliefs, opinions and estimates of Metals Australia Limited as of the dates the forward-looking statements are made, and no obligation is assumed to update forward looking statements if these beliefs, opinions, and estimates should change or to reflect other future developments.*

## Competent Persons Statement

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*The information in this report that relates to exploration results, Mineral Resources and Exploration Targets has been reviewed, compiled, and fairly represented by Mr Jonathon Dugdale. Mr Dugdale is a Technical Advisor to Metals Australia Ltd and a Fellow of the Australian Institute of Mining and Metallurgy ('FAusIMM'). Mr Dugdale has sufficient experience, including over 35 years' experience in exploration, resource evaluation, mine geology and finance, relevant to the style of mineralisation and type of deposits under consideration to qualify as a Competent Person as defined in the 2012 Edition of the Joint Ore Reserves Committee ('JORC') Australasian Code for Reporting of Exploration Results, Minerals Resources and Ore Reserves. Mr Dugdale consents to the inclusion in this report of the matters based on this information in the form and context in which it appears.*

## ASX listing Rules Compliance

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*In preparing this announcement the Company has relied on the announcements previously made by the Company as listed under "References". The Company confirms that it is not aware of any new information or data that materially affects those announcements previously made, or that would materially affect the Company from relying on those announcements for the purpose of this announcement.*

This announcement was authorised for release by the Board of Directors.

\*\*\*ENDS\*\*\*

## Further Information:

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