

## PRELIMINARY DESIGN FOR BATTERY-GRADE MANGANESE SULPHATE PLANT APPROVED BY JINSHI HIGH-TECH INDUSTRIAL PARK

### HIGHLIGHTS

- Firebird subsidiary Hunan Firebird Battery Technology Co., Ltd. ("HFBT") has received approval for the preliminary design of the Company's proposed Battery-Grade High-Purity Manganese Sulphate Plant, which will be located in Jinshi, Hunan, China
- Approval received from the Jinshi High-Tech Industrial Park Committee who is responsible for the development and running of the Industrial Park
- Development of the Plant will cover a total land area of 12.09 hectares, with a building area of 84,399sqm and a designated greening area of 11,960sqm
- Through the approval of preliminary design, approximately 80% of the requirements needed for the Building and Construction Permit have been completed
- Geotechnical drilling has commenced on the proposed Plant site, with results expected in October. Results will contribute to detailed engineering design work, ensuring comprehensive planning and adherence to project specifications
- Within less than 12 months since its incorporation in China, HFBT has secured all critical permits and achieved preliminary design approval for the Plant. The company is on track to complete its planning work on schedule and within budget, marking a significant milestone in the development of the Plant.



**Figure 1:** Aerial view of proposed Plant

**Firebird Managing Director Mr Peter Allen commented:** *"The Company has taken another big step forward in the development of our battery grade manganese sulphate plant, in Jinshi, Hunan Province, China. The approval of the preliminary design of our plant and building is another key milestone achieved and impressively, over the past year, we have delivered all our stated objectives on time and under budget, which represents excellent value to all stakeholders."*

*"To be in the position we are in just over 12 months since establishing our China-based LMFP battery strategy is a huge testament to drive and dedication of the entire Firebird team. Through the hard work delivered over the last year, we have set a strong platform to work towards a Final Investment Decision in coming quarters. We will continue to work tirelessly every day to deliver on our unique, low-cost, speed-to-market strategy and build the Company into a near-term, low-cost battery grade manganese sulphate and tetroxide producer and by doing this, will deliver significant long-term value to all our stakeholders."*

**Firebird Metals Limited (ASX: FRB, Firebird or the Company)** is pleased to announce preliminary design approval has been received for Company's proposed Battery-Grade Manganese Sulphate Plant, which will be located in Jinshi, Hunan Province, China.

Following an in-depth technical review of the preliminary design, the Jinshi High-Tech Industrial Park Committee convened with the Hunan Chemical Engineering Design Institute (HCEDI) and HFBT to address key technical considerations and provide guidance for the approval of the preliminary design.

The Committee also offered feedback, primarily directed toward the upcoming detailed engineering design phase, noting that successful completion of this phase will facilitate the issuance of the Building and Construction Permit.

HCEDI, engaged by HFBT, has successfully completed the preliminary design as part of the broader Feasibility Study, which encompassed process design, engineering, financial assessments and the necessary environmental, safety, and energy permits.

Feedback gathered at various stages of development has been integrated into the preliminary design, with its approval signifying that approximately 80% of the requirements for obtaining the Building and Construction Permit have been met.

HFBT has also initiated geotechnical drilling at the proposed plant site, with results anticipated in October. These findings will inform the detailed engineering design, ensuring robust project planning and strict adherence to specifications.





Precipitation & Filter Press plant



Ore & Tailing Storage, Calcining Kiln



Office



Water Treatment plant



Mn3O4 Plant



Crystallisation & packaging

**Figure 2:** Aerial View of proposed Plant and buildings



**Figure 3:** Meeting at the HFBT Office at the R&D Centre in Jinshi China, including Jinshi High-Tech Industrial Park Committee, planning experts, Hunan Chemical Engineering Design Institute and HFBT Staff

**This announce has been approved for release by the Board.**

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## About Firebird Metals Limited

Firebird Metals is an advanced manganese developer focused on combining mining and downstream processing with a dedication to the advancement of the EV battery sector.

The Company is currently progressing its unique China-focused lithium manganese iron phosphate (LMFP) battery strategy, which will develop Firebird into a near-term producer of high-purity, battery-grade manganese sulphate, a key cathode material in LMFP batteries for electric vehicles.

Execution of this strategy will place Firebird at the forefront of manganese sulphate production, at a time when the use and demand for manganese in batteries continues to rapidly grow. Due to the low number of ASX-manganese developers and increasing use of LMFP by car manufacturers, Firebird is in a strong position to benefit from this growing market and deliver significant value to its shareholder base.

The Company also owns 100% of its project portfolio, located in the renowned East Pilbara manganese province of Western Australia, which boasts a total Resource of 234Mt<sup>1,2</sup>, with exciting exploration and development growth upside. The portfolio is led by the flagship Oakover Project, which holds a Mineral Resource Estimate<sup>1</sup> of 176.7 Mt at 9.9% Mn, with 105.8 Mt at 10.1% Mn in an Indicated category.

The Company's other key Projects are Hill 616 and Wandanya which provide Firebird with compelling growth opportunities. Hill 616 contains an Inferred Mineral Resource<sup>2</sup> of 57.5Mt at 12.2% Mn and shares similar geological traits to Oakover. Wandanya is a high-grade exploration opportunity, with Direct Shipping Ore potential.

The Company is committed to generating sustainable long-term value and growth for stakeholders, through the implementation of best practice exploration methods while prioritising the well-being, health and environmental protection of its employees and communities it operates in.

## JORC Compliance Statement

This announcement contains references to Mineral Resource Estimates, which have been reported in compliance with Listing Rule 5.8 and extracted from previous ASX announcements as referenced.

The Company confirms that it is not aware of any new information or data that materially affects the information previously reported and that all material assumptions and technical parameters underpinning the Mineral Resource Estimates continue to apply and have not materially changed.

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<sup>1</sup> See ASX announcement dated 23 March 2023: Indicated Resource of 105.8Mt at 10.1%; Inferred Resource of 70.9Mt at 9.6% for global Resource of 176.7 Mt at 9.9% Mn.

<sup>2</sup> See ASX announcement dated 1 December 2021: Inferred Resource of 57.5 Mt at 12.2% Mn.