

INTERNATIONAL CUSTOMER TESTING CONFIRMS PRODUCTION OF >99.99% MnSO_4 BY FIREBIRD

Third-party international customer testing confirms HPMSM quality, significantly exceeding China industry standards across all key parameters

- **Independent international customer testing confirms Firebird's production of ultra-high purity manganese sulphate (MnSO_4) exceeding 99.99%.**
- Impurity levels across all key parameters are significantly below Chinese industry standards, validating Firebird's proprietary processing technology and downstream processing capability.
- High purity manganese sulphate is the critical precursor for advanced battery cathode chemistries, including LMFP, LMR and NCM.
- Independent third-party results further validate Firebird's ability to consistently produce battery-grade HPMSM through multiple processing routes, demonstrating the robustness and flexibility of its proprietary technology.
- Australian Demonstration Plant (ADP) remains on schedule and within budget, with major equipment procurement substantially complete and site development progressing as planned.
- The ADP will produce Australian-made qualification samples for customer testing, supporting product qualification, strategic partnerships and future commercial offtake opportunities.
- Firebird continues to advance commercial discussions with global OEMs, battery manufacturers and other downstream industry participants as it progresses the commercialisation of its integrated manganese battery materials platform.
- High purity manganese sulphate prices have increased approximately 23% year-to-date, supported by strengthening demand from electric vehicles, energy storage systems and other lithium-ion battery applications.

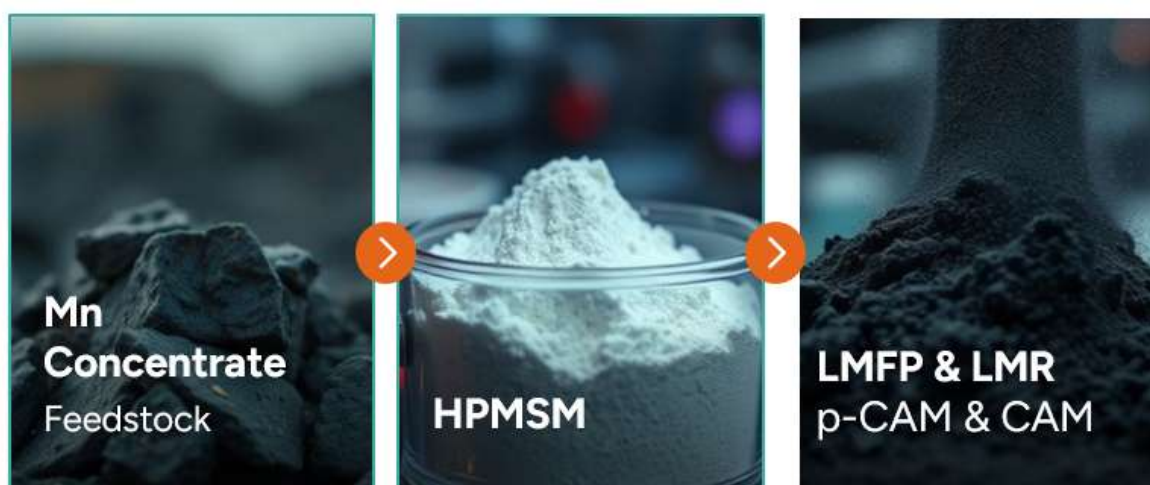


Figure 1. Firebird's proprietary concentrate to HPMSM to cathode process.

Firebird CEO, Ron Mitchell, commented:

"Independent customer testing is one of the most important milestones in the commercialisation of any battery material. These results provide valuable third-party validation that Firebird can consistently produce high-purity manganese sulphate monohydrate (HPMSM) of exceptional purity, while reinforcing our engagement with prospective customers and strategic partners.

"As we continue advancing our Australian Demonstration Plant, which remains on schedule and on budget, we are building the technical capability, operational expertise and customer relationships required to support future commercial-scale deployment. Together, these achievements continue to de-risk our technology, strengthen our commercial proposition and position Firebird as a potential Western supplier of advanced manganese-based battery materials."

Australian-owned Firebird Metals Limited ("FRB", "Firebird" or "the Company") is pleased to provide the following update on independent third-party customer testing of its High-Purity Manganese Sulphate Monohydrate (**MnSO₄ or HPMSM**), representing another important milestone in Firebird's growing engagement with international battery materials customers and further validate the Company's HPMSM processing capability.

Comparable to lithium carbonate and lithium hydroxide, manganese sulphate is the key input chemical to manufacture manganese-based battery materials, including LMFP, LMR and NCM.

Shanghai Metals Market (SMM) reports that HPMSM Battery Grade prices in domestic China have increased 23% YTD on the back growing demand battery sector (June 2026). Based on ongoing industry engagement Firebird anticipates demand for HPMSM to grow strongly over the coming decade.

Customer Testing: Results benchmarked against China industry Standards

In June 2026, an international potential customer conducted independent testing of a Firebird HPMSM sample produced at the Company's Hunan pilot plant, using third party ore, and Firebird's in-line impurity removal process. The customer results were benchmarked against China national industry standards (Table 1).

Across all measured impurity parameters, the Firebird sample significantly exceeded the China industry standards, with the majority of elements recorded below 0.5 ppm detection limits. Manganese content of 32.6 Wt.% exceeded the Chinese Superior Grade benchmark of 32.18 Wt.%.

Table 1. Firebird HPMSM customer test results compared with China industry standards (June 2026).

Item	Code	Unit	China Industry Standard (Superior Grade)	Firebird HPMSM Customer Test Result (June 2026)	Test Method
Manganese Sulphate	MnSO4	Wt. %	99.00	>99.99	Subtraction
Manganese	Mn	Wt. %	32.18	32.6	ICP-OES
Iron	Fe	ppm	≤ 10	<0.5	ICP-OES
Zinc	Zn	ppm	≤ 10	1	ICP-OES
Copper	Cu	ppm	≤ 10	<0.5	ICP-OES
Lead	Pb	ppm	≤ 10	<0.5	ICP-OES
Cadmium	Cd	ppm	≤ 50	<0.5	ICP-OES
Chromium	Cr	ppm	≤ 10	<0.5	ICP-OES
Potassium	K	ppm	≤ 30	<0.5	ICP-OES
Sodium	Na	ppm	≤ 100	2.6	ICP-OES
Calcium	Ca	ppm	≤ 50	<0.5	ICP-OES
Magnesium	Mg	ppm	≤ 50	<2.5	ICP-OES
Nickel	Ni	ppm	≤ 50	<5.0	ICP-OES
Cobalt	Co	ppm	≤ 50	<0.5	ICP-OES
Aluminium	Al	ppm	≤ 10	<0.5	ICP-OES
Barium	Ba	ppm	–	<0.5	ICP-OES
Titanium	Ti	ppm	–	<0.5	ICP-OES
Antimony	Sb	ppm	–	<0.5	ICP-OES
Selenium	Se	ppm	–	<0.5	ICP-OES
Arsenic	As	ppm	–	<1	ICP-OES
Mercury	Hg	ppm	–	<1	ICP-OES

In-Line Impurity Removal: A Step-Change in Process Efficiency

Conventional HPMSM production routes rely on multistage crystallisation to remove various impurities from manganese sulphate solution. This approach introduces additional unit operations, increases capital and operating costs, and creates intermediate handling steps that can reintroduce contamination risk.

Firebird's proprietary process adopts a fundamentally different approach. By integrating impurity removal directly within the HPMS solution phase, prior to any crystallisation step, the Company eliminates the need for discrete two-stage processing while achieving superior purity outcomes. This in-line approach:

- Reduces the number of unit operations and associated capital requirements
- Lowers operating costs and energy consumption relative to conventional multi-stage crystallisation routes
- Delivers enhanced impurity control by treating the solution in a single continuous phase
- Improves scalability and process consistency, directly supporting commercial-scale feasibility
- Is directly transferable to the Australian Demonstration Plant, providing continuity from pilot to demonstration scale

Australian Demonstration Plant (ADP) to Support Customer Qualification

The ADP will be Australia's first demonstration-scale facility capable of converting manganese ore through to High-Purity Manganese Sulphate Monohydrate (HPMSM), Manganese Iron Phosphate Precursor Cathode Active Material (MFP p-CAM), and Cathode Active Material (CAM).

These customer test results provide further validation of Firebird's processing expertise and reinforce the Company's broader downstream processing capability. The Australian Demonstration Plant (ADP) will build on this capability by producing samples for prospective customers while supporting ongoing process optimisation. Demonstrating the ability to consistently produce high-purity manganese sulphate supports the Company's pathway to commercial-scale production.

Successful ADP validation will:

- Establish a training, knowledge-transfer and development hub, building Australian capability in advanced manganese battery materials while supporting customer-specific R&D
- Provide the technical foundation underpinning commercial-scale feasibility studies

- Enhance customer engagement by supplying Australian-made samples for qualification programs supporting progression toward commercial partnerships with reputable tier-one Western counterparties
- Supports the pathway to a commercial-scale manganese battery-materials facility, ensuring a smoother transition from demonstration to full-scale production

- END -

For further information contact:

Ron Mitchell
CEO

E: ron.mitchell@firebirdmetals.com.au
Ph: +61 407 726 325

About Firebird Metals Limited (ASX:FRB)

Firebird is a wholly owned Australian processing technology company focused on advanced manganese-based lithium-ion battery materials positioned in the EV and energy storage markets. Firebird has proprietary, fully patented technology that allows for the direct processing of manganese ore to cathode active materials (CAM) within a single facility and process line.

The Company's state-of-the-art lab and research facility demonstrate full flow-sheet capability, from manganese ore to finished battery active cathode materials. Firebird pairs downstream processing know-how with proprietary technologies, including a high-efficiency kiln and advanced crystallisation, targeting lower cost and energy use and enabling near-term revenue via equipment sales and licensing.

Firebird is advancing a lithium manganese iron phosphate (LMFP) and lithium manganese rich (LMR) pathway to near-term production of high-purity manganese sulphate and an LMR program for next-generation cathodes.

Firebird also holds 234 Mt of manganese resources in Western Australia, led by Oakover (176.7 Mt at 9.9% Mn, including Indicated 105.8 Mt at 10.1% Mn) and Hill 616 (57.5 Mt at 12.2% Mn). The Company has the flexibility to source manganese ore through third-party suppliers and stockpiles, with mining optionality retained within its broader portfolio.

JORC Compliance Statement

This announcement contains references to Mineral Resource Estimates, which have been reported in compliance with Listing Rule 5.8 (Oakover: 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; Hill 616: 1 December 2021 - Inferred Resource of 57.5 Mt at 12.2% Mn) 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.