

# NFM Signs Strategic Processing Deal With Metallium After Breakthrough FJH Results

Initiation Price (Oct 2025): A\$0.017

Current Price: A\$0.024 (+41% since initiation)

Price Target: A\$0.075 (+213% Upside)

Rating: Speculative Buy

NFM Announcement

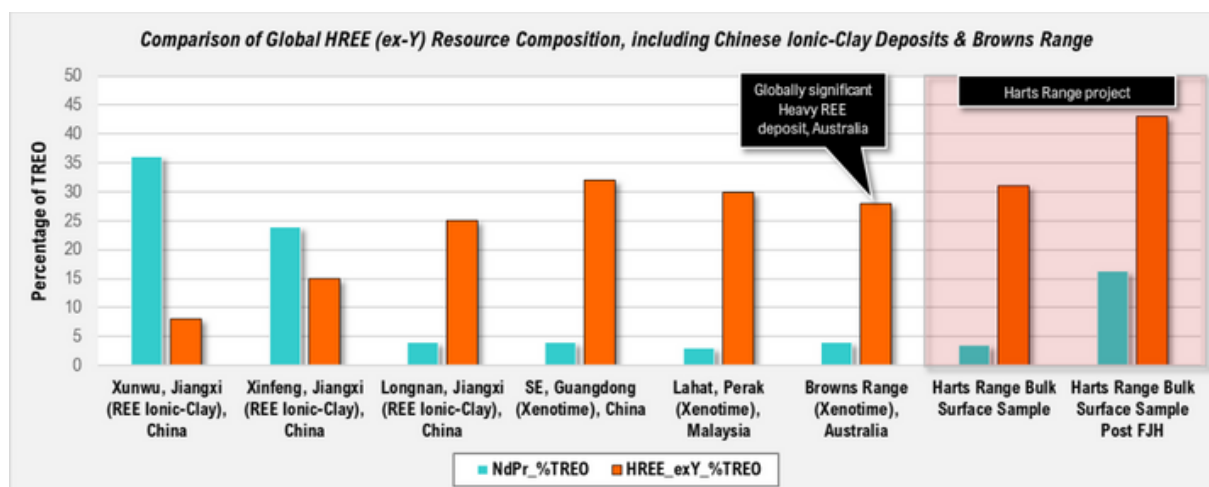
Metallium Announcement

### Key Developments

- **Flash Joule Heating Breakthrough:** Metallurgical tests using Flash Joule Heating (FJH) on Harts Range ore boosted total rare-earth oxide (TREO) grade from ~1.7% to ~35.0% in a single, solvent-free step (~20x upgrade), while enriching dysprosium ~53x and terbium ~21x. This one-step process achieved complete removal of impurities and is described as an unprecedented performance for heavy rare-earth ore.
- **10-Year Exclusive Processing Framework:** New Frontier Minerals (NFM) has entered a binding agreement granting Metallium Ltd (ASX: MTM) exclusive rights to apply its FJH technology to all Harts Range material for at least 10 years. The deal includes royalties and process licensing fees on future Dy/Tb output, ensuring Metallium retains long-term commercial exposure to Harts Range's heavy rare earth production.
- **U.S.-Focused Downstream Pathway:** Metallium will fast-track the production of a dysprosium-terbium "super-concentrate" at its Texas technology campus, aiming to qualify Harts Range material for U.S. magnet and defense supply chains. This provides NFM a direct avenue into Western markets seeking secure heavy rare-earth sources.

### Global Benchmark Comparison

The comparative chart highlights how Harts Range, post-FJH, outperforms global peers, including China's ionic clay deposits and Australia's Browns Range, in both NdPr and heavy rare earth (ex-Y) content. The processed sample contains ~43% HREE (ex-Y) versus ~10-12% at Browns Range and <2% in typical light REE projects. This dual strength, high HREE and strong NdPr, reflects not only the ore's natural endowment but the exceptional efficiency of FJH processing. Harts Range is now positioned at the upper end of global benchmarks for rare-earth enrichment.



Source: MTM Announcement

Note: The Harts Range sample programme remains at early exploration stage (surface samples only); no Mineral Resource has yet been defined at Harts Range

## Why It Matters

- **Metallurgy De-Risked:** The FJH success removes a key development uncertainty. A solvent-free, one-step upgrade process simplifies future project development and lowers potential CapEx/OpEx for extraction and refining.
- **Strategic Alliance:** A 10-year binding framework with Metallium provides NFM guaranteed access to cutting-edge processing technology through to production. This long-term partnership effectively marries NFM's resource with Metallium's refining expertise, creating a clear pathway from mine to market.
- **U.S. Supply Chain Entry:** By targeting Dy/Tb concentrate qualification in Texas, NFM gains exposure to U.S. magnet and defense markets hungry for non-Chinese rare earth sources. This could attract strategic interest or offtake agreements, given dysprosium and terbium's critical role in high-performance magnets and military applications.
- **Project Validation:** The ability to produce a high-grade concentrate from Harts Range ore confirms the project's credentials as an unusually Dy/Tb-rich system. This outcome validates earlier surface results and elevates Harts Range from a speculative exploration story to an emerging development with proven processing capability. It's a strong affirmative signal that NFM's flagship asset can deliver real-world value.

## Cashu Research View

This is a milestone moment for NFM. The FJH breakthrough removes a critical technical unknown and demonstrates the project's potential to generate high-grade, magnet metal-rich products in a single, scalable step. Securing an exclusive decade-long agreement with a capable downstream partner like Metallium aligns NFM with the Western rare earth supply chain at a time of geopolitical urgency.

With virtually no Dy/Tb refining capacity in the U.S. and China still controlling 95%+ of global supply, this deal provides NFM with both a breakthrough process and a route to market. In our view, the market has not yet fully priced in the significance of this alignment. This development enhances project credibility, valuation appeal, and potential for near-term investor re-rating.

## Cashu Takeaway

With this processing breakthrough and exclusive deal, NFM's evolution from explorer to future producer has accelerated. The company now has both a unique metallurgical solution and a committed downstream partner, which together underpin a more robust valuation framework for Harts Range. In our view, the market has yet to fully price in the significance of a Western-aligned heavy rare earth supply chain link. We expect this milestone to sharpen investor focus on NFM's strategic positioning, potentially catalyzing a re-rating as the story shifts from concept toward commercialization.

## Conclusion

NFM is now firmly positioned at the forefront of the Western heavy rare earth narrative. The Metallium agreement, secured on the back of game-changing FJH test results, cements a clear path to monetizing Harts Range's dysprosium-terbium content. This alliance validates the project's potential and aligns it with U.S. critical mineral priorities, marking a shift from promise to tangible progress. We reaffirm our **Speculative Buy rating and A\$0.075 price target**, noting that the substantial de-risking achieved here strengthens the case for significant upside as NFM advances toward production.

## Disclosure:

*This research update has been prepared by Cashu Research, a division of Cashu Group, which is an authorised representative (AR #001318029) of Adviser Solutions Group Pty Ltd (AFSL 485946).*

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*For full disclosures, please refer to our original initiation coverage published on 16 October 2025 at [research.cashugroup.com](https://research.cashugroup.com).*