

New Frontier Minerals Ltd

Ticker: ASX/LSE: NFM

October 16, 2025

Heavy Potential in Australia's Rare Earth Push

Executive Summary

New Frontier Minerals (ASX/LSE: NFM) is a junior explorer, currently focused on developing the Harts Range Heavy Rare Earths Project in the Northern Territory, Australia. After confirming Heavy Rare Earth (HRE) mineralisation at surface through rock chip and bulk sampling across several prospects, NFM is now preparing for a maiden drilling campaign.

NFM is about to embark on a maiden drilling campaign. The discovery of significant HRE mineralisation is expected to be a key value driver and catalyst underpinning a substantial re-rate, especially with the US Department of Defence seeking alternate supply sources away from China. Our 6-month price target is A\$0.075, implying >340% upside.

Investment Recommendation

Rating: SPECULATIVE BUY

Price Target: A\$0.075 (341% Upside)

Current Price: A\$0.017

Horizon: 6 Months

Risk: HIGH

Our price target reflects the potential success of the initial drill program at the Harts Range project. The Harts Range project displays some similarities with the Browns Range project operated by Northern Minerals Ltd (ASX: NTU). To derive our price target, we backtrack in time (2013-2014) to examine the market value of NTU during the post-discovery period (ranging from A\$30m to A\$120m) and applied a 1.6x factor to reflect the current market interest for the rare earths sector in general and the heavy rare earths in particular. Our resulting valuation amounts to A\$120m.

Investment Thesis

We believe NFM presents a high risk, high reward investment opportunity in the rare earths sector. With a focus on HREs and subject to further exploration success, NFM could easily stand out among a relatively crowded light rare earths sector.

Heavy-rare-earth + niobium assay results: rock chip and bulk samples from the Cusp Prospect returned strong TREO, with notable dysprosium and terbium content, indicating a HRE-dominated basket, coincident with significant Niobium and Tantalum.

Exploration upside across tenure: Multiple high-priority targets highlight significant exploration upside, provide scope to expand the prospective footprint and define a mineral resource with reasonable potential for economic extraction.

Multi-commodity project portfolio: The Harts Range Project offers HRE + Niobium + Tantalum potential, while NFM holds NW Queensland copper assets with an existing JORC MRE, which diversifies upside.

Accessible tenure & infrastructure: The Harts Range Project is granted, accessible by road and located in a jurisdiction with existing mining activity; this reduces some logistical risk vs remote greenfield sites. High value HRE exposure — Proven dysprosium/terbium content in assays positions NFM to benefit from rising demand/pricing for HREs used in permanent magnets and defence technologies.

Strategic tailwinds (policy & demand): Global supply-chain efforts for the US DoD and the rest of the world to diversify away from China for HREs could lift project economics and attract offtake/joint-venture partners or government support for non-Chinese supply.

Dual listing & recent institutional support: Listed on both ASX and LSE, NFM can better access capital markets. The recent completed placement, indicates some institutional interest.

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Equity Research Australia

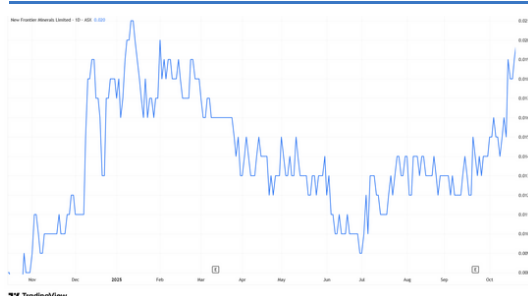
Mining & Resources



New Frontier Minerals Ltd is an Australian-based mineral exploration company focused on the Harts Range Heavy Rare Earths and Niobium Project which is circa 140km north-east from Alice Springs in the Northern Territory.

Valuation	A\$0.075
Current price	A\$0.017
Market cap	A\$27m
Cash on hand	A\$1.85m

Share Performance (A\$)



Over the past year, New Frontier Minerals (ASX: NFM) has climbed from around A\$0.005 to A\$0.020. The rally reflects renewed investor interest in rare earths and growing optimism around the company's Harts Range drilling program.

Substantial shareholders

Top 20 shareholders 36%

Upcoming Catalysts/Next News

- Harts Range Drill approval
- Field preparation and drill-testing
- Drilling results

Rare Earths Sector Recent Developments

China tightening export controls

- In April 2025, China added several medium and heavy rare earth elements to its controlled export list—elements such as samarium, gadolinium, terbium, dysprosium, lutetium, scandium, yttrium—as well as the permanent magnets made from them.
- More recently, China has extended or intensified export licensing requirements, particularly for rare earth processing, recycling, and magnets, and for exports with possible defence or semiconductor applications.
- China has also begun placing restrictions on foreign stockpiling of rare earths and downstream products, to prevent hoarding by foreign companies.

Trade and tariff tensions, especially U.S.-China

- The U.S. and China continue to engage in trade disputes, including increased tariffs on Chinese goods. China has used rare earth export controls as a countermeasure.
- There is also pressure from U.S. policy to reduce dependency on Chinese-controlled rare earth supply chains, motivated by national security concerns (defence, semiconductors, clean energy).
- The U.S. Department of Defense (DoD) is investing US \$400 million in MP Materials, including a US \$110/kg price floor for NdPr, as part of a broader “mine-to-magnet” strategy to build a non-Chinese rare earth supply chain.

Supply chain resilience/diversification

- Governments in “Western”/developed economies are investing more in rare earths upstream (mining), midstream (processing & separation), downstream (magnets, components). There is a push for friend-shoring or like-minded nation collaboration.
- Australia is positioning itself as a “safe and reliable” alternative supplier, taking advantage of China’s export restrictions to attract investment and build processing capacity.

National security framing of rare earths

- Rare earths are increasingly regarded as strategic assets tied to military, defence, aerospace, and advanced technology (e.g. magnets for guided weapons, radar systems, semiconductors). This framing has ramped up regulatory interest and policy interventions.
- Export restrictions often cite “national security” or dual-use technology risk (e.g. minerals, smelting/processing technologies, magnet components) as justification.

Price volatility, market uncertainty, and logistics risks

- With China curbing exports or requiring licences, there have been disruptions in supply flows. This has often led to shortages, delays, and increased costs for magnets or rare earth processed products.
- Producers outside China face environmental, permitting or technical challenges (e.g. in establishing separation, refining capacity), which slows response to demand.
- Countries are forming partnerships, sharing capital, technology, and policy frameworks to secure rare earth supply. For example, efforts among Australia and its allies, the G7, etc.
- Some governments are establishing strategic stockpiles, or offtake/backing arrangements to support domestic or allied supply chains. Australia’s “Minerals for Mates” style policy is an example.

Environmental, permitting & regulatory bottlenecks outside China

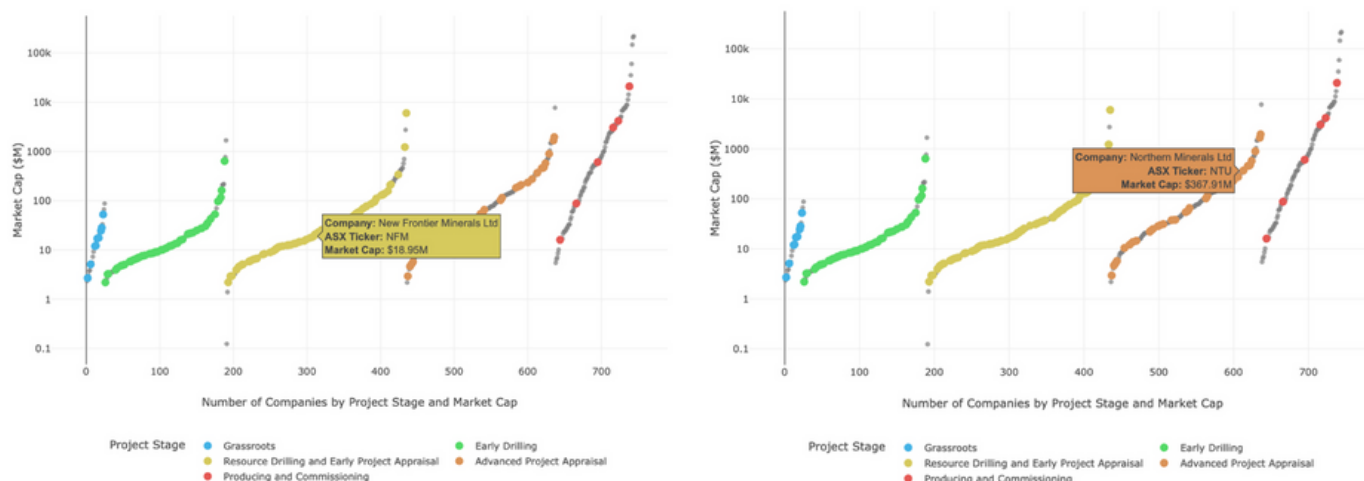
- Many non-Chinese rare earth projects have advanced in exploration, but scaling up (especially in separation/refinement) faces environmental reviews, community opposition, regulatory delays.
- This means it takes quite a while for investment in supply diversification to materialize into reliable supply. So even as demand surges (for EVs, clean energy, defence), supply lags.

In this context, Australia offers highly prospective terrains, proven track record in developing projects as well as safe and stable jurisdiction attracting investors.

ASX-Listed Rare Earths Sector

According to the Minervue database, 187 ASX-listed companies are active in or have exposure to the rare earths and niobium sectors. The various “S” curves indicate the value progression as projects appraisal progresses within each of the categories defined. One could argue that NFM is on the verge of “Early Drilling” in relation to the Harts Range project. The “Resource Drilling and Early Project Appraisal” classification is related to NFM second project, the NWQ Copper Project with a JORC compliant inferred Mineral Resource Estimate of 2.1 million tonnes at 1.1% Cu for 21,886 tonnes copper metal. On the right-hand side chart, Northern Minerals (ASX: NTU) with a market capitalisation in excess of A\$500 million illustrates the potential value creation through exploration and project evaluation. Please note that the Market Cap (A\$M) axis uses a log scale.

Figure 1 – ASX-listed Companies with Exposure to the Rare Earths and Niobium Sectors



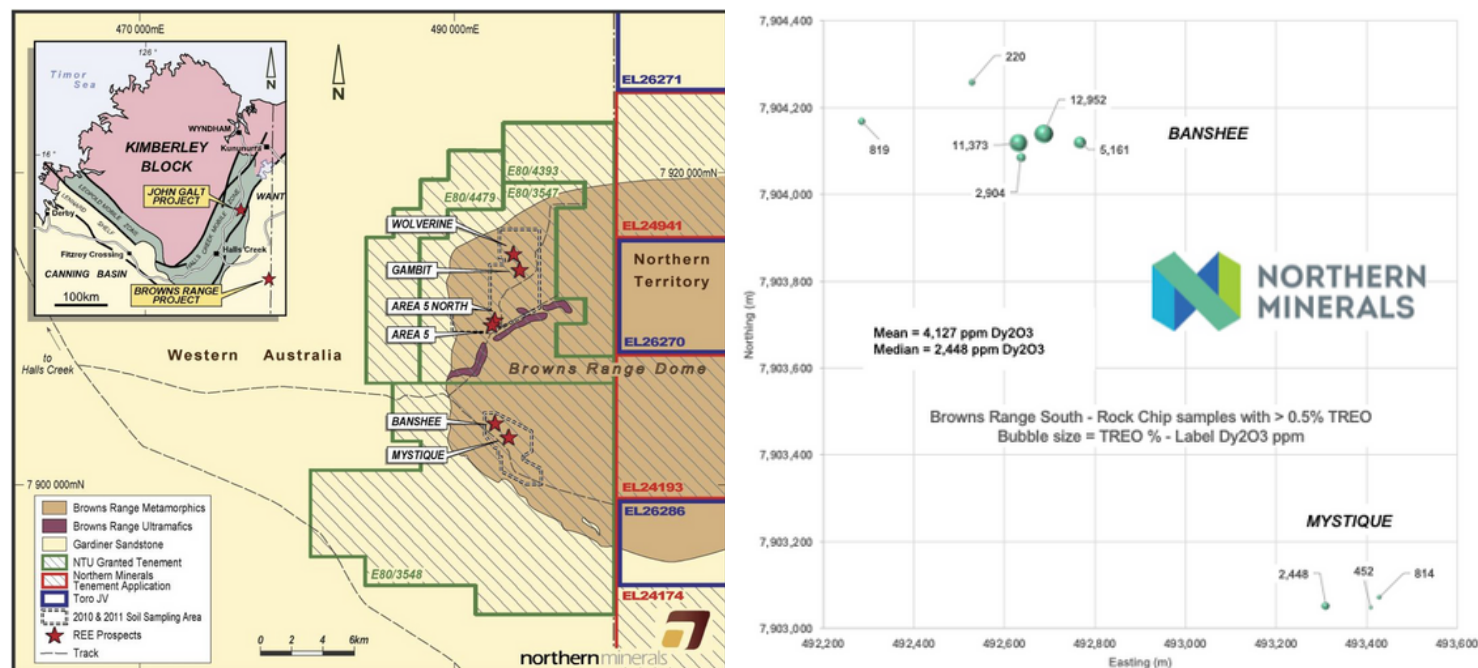
Source: Minervue software

Promising Initial Exploration Results

Rock Chip and Bulk Sample Assay Results:

To bring some light to the initial exploration results from the Harts Range HRE Project, we looked at the results of the geochemical soil sampling and rock chip sampling at Browns Range undertaken back in 2012 (See Figure 2)

Figure 2 – Browns Range Project (left) – Prospects and soil sampling locations (right)



Source: NTU ASX announcements, Cashu Research

In comparison, the initial rock chip results from the Harts Range Project look promising with regards to dysprosium. The 25 kg bulk sample from the Cusp Prospect returned 1.72% TREO, including 0.19% Dy₂O₃ and 0.03% Tb₄O₇, with an impressive 94.8% HREO/TREO ratio confirming the dominance of heavy rare earths. The sample also contained 4.51% Nb₂O₅ (niobium) and 0.91% Ta₂O₅ (tantalum), highlighting the project's potential for valuable by-products.

Table 1 (below): Harts Range Rock Cusp Prospect Sample Assay Data.

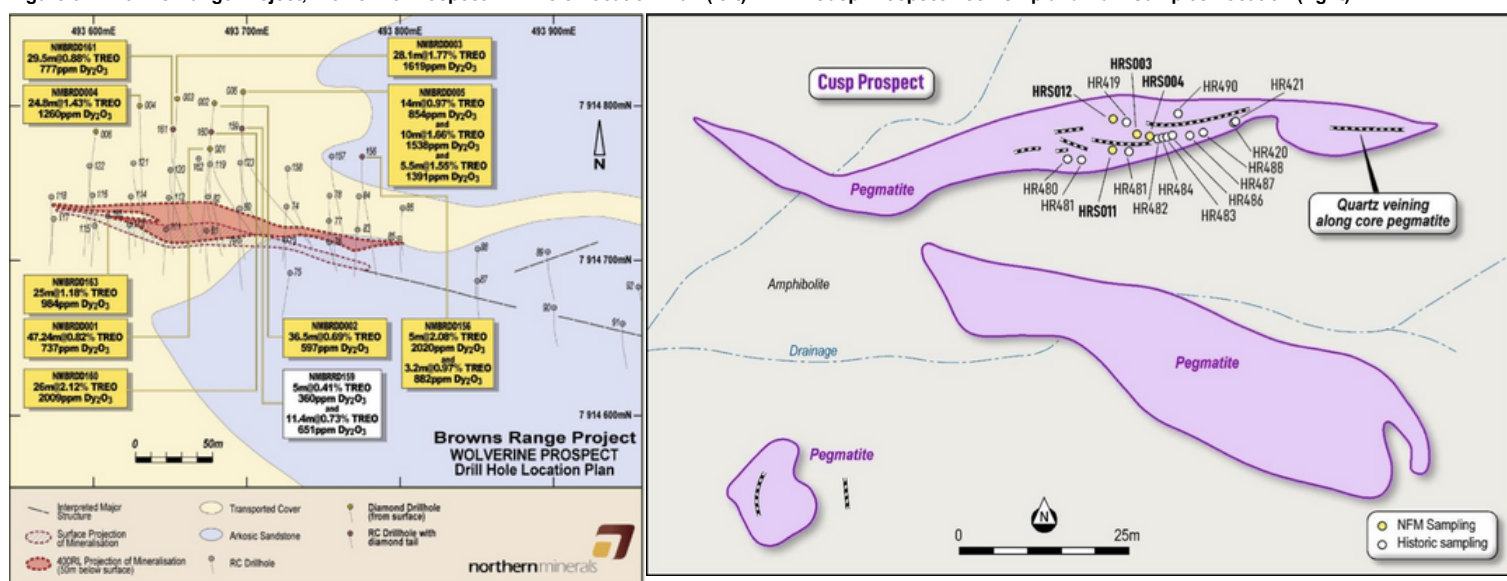
SAMPLE	PROSPECT	TREO%	Dy2O3%	Tb4O7%	Nb2O5%	Ta2O5%	HREO/TREO
HR419	CUSP	11.91	1.19	0.21	22.89	11.39	79.27
HR420	CUSP	0.35	0.04	0.01	1.57	0.11	83.45
HR421	CUSP	14.87	1.78	0.29	32.47	6.74	83.14
HR480	CUSP	16.61	1.94	0.31	30.04	8.60	85.75
HR481	CUSP	7.32	0.84	0.12	23.32	13.43	88.79
HR482	CUSP	17.83	2.16	0.34	33.19	7.19	85.81
HR483	CUSP	16.80	2.00	0.32	32.90	8.05	85.40
HR484	CUSP	0.11	0.01	0.00	1.37	0.09	77.61
HR485	CUSP	16.59	2.01	0.32	32.04	7.18	85.14
HR486	CUSP	15.61	1.87	0.30	29.47	5.39	85.12
HR487	CUSP	17.17	2.04	0.32	28.61	6.39	86.37
HR488	CUSP	16.30	1.97	0.31	27.75	5.69	85.49
HR490	CUSP	15.04	1.71	0.28	25.75	7.71	85.04
HRS003	CUSP	11.86	1.29	0.21	29.80	6.26	83.03
HRS004	CUSP	9.97	1.13	0.18	25.46	4.77	85.66
HRS011	CUSP	14.15	1.68	0.26	31.48	5.81	85.73
HRS012	CUSP	12.74	1.25	0.17	19.73	9.13	89.60

Source: NFM ASX announcement - 12 May 2025 - Sampling returns 10.61% TREO with 23.56% Nb₂O₅ and 15.67% Ta₂O₅ at Harts Range, NT

Project Footprint (below)

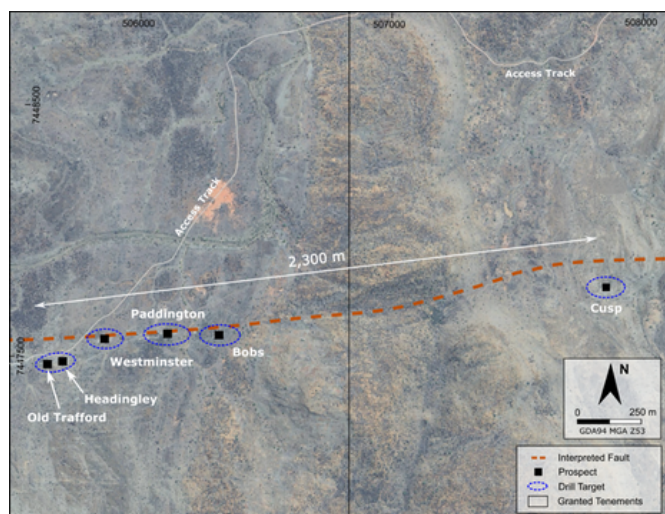
Figure 3 displays side by side the drill hole location of the initial drill program at the Wolverine prospect, which with hindsight has become the main deposit of the Browns Range Project and the rock chip and bulk samples location of the Cusp Prospect, one of the prospects of the Harts Range Project.

Figure 3 – Browns Range Project, Wolverine Prospect Drill Hole Location Plan (left) – NFM Cusp Prospect Rock Chip and Bulk Samples Location (right)



Source: 23 April 2012 NTU ASX announcement and 13 Aug 2025 NFM ASX announcement

Figure 4: Numerous prospect Paddington, Westminster, Headingley and Old Trafford discovered during 2025 Harts Range field program.



Source: 13 Aug 2025 NFM ASX announcement

HRE-Nb-Ta Drill Targets:

Numerous mineralised HRE–Niobium–Tantalum drill targets within pegmatites are associated with a prominent east–west trending structure which now spanning over 2.3kms.

The extent of the two main pegmatite outcrops (Cusp Prospect) are roughly in the same order of magnitude than the extent of the REO mineralisation delineated by the initial drilling at the Wolverine Prospect. Note for both projects, there are other prospects.

Niobium Add-On

Niobium is a rare element with only three mines globally producing this metal. Its addition to the mineralisation mix adds significant value. With a market capitalisation in excess of 1.6 billion, WA1 Resources Ltd (ASX: WA1) and its Luni Niobium Project in Western Australia (220 million tonnes at 1.0% Nb₂O₅) give an indication of the ultimate value uplift, should extensive niobium mineralisation be confirmed at the Harts Range project.

Cusp Prospect Bulk Sample Analysis and REE Distribution

Analysis of a 25kg bulk sample assays from the Cusp Prospect confirm total rare earth oxide (TREO) grades of 1.72% TREO, with a heavy rare earth distribution exceeding 94%, and highlights exceptional niobium (4.51% Nb₂O₅) and tantalum (0.91% Ta₂O₅) enrichment.

SAMPLE	PROSPECT	TREO (%)	Dy ₂ O ₃ (%)	Tb ₄ O ₇ (%)	Nb ₂ O ₅ (%)	Ta ₂ O ₅ (%)	HREO/TREO (%)
HRMS001	CUSP	1.72	0.19	0.03	4.51	0.91	94.8

The rare earth sample distribution from the Cusp bulk sample is consistently enriched in dysprosium (11.23%, Dy₂O₃) and terbium (1.86%, Tb₄O₇), with a rare earth basket that comprises over 94.8% heavy rare earth minerals. The combined dysprosium and terbium distribution at the Cusp Prospect makes up 13.09% of the TREO basket mix

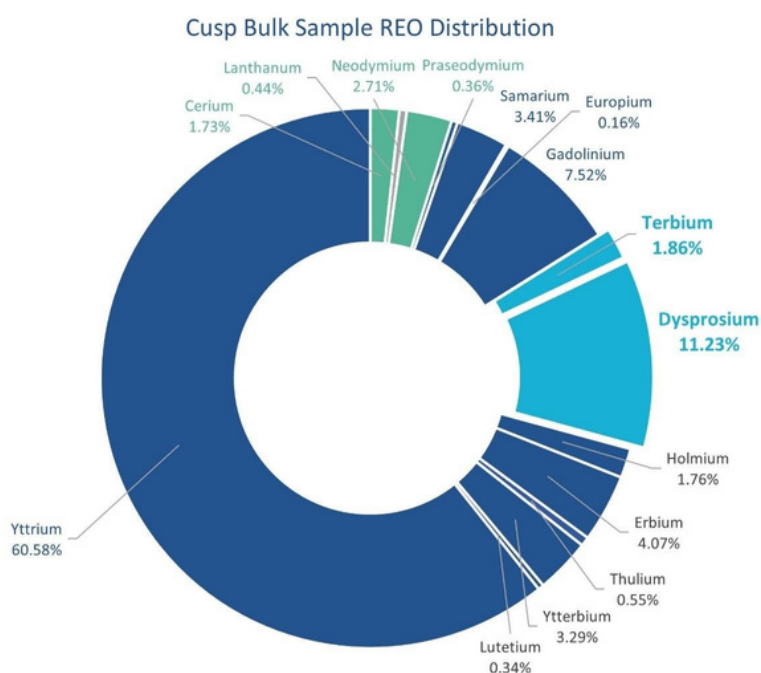


Figure 5 (left): REO distribution of Cusp Prospect bulk sample – enriched in dysprosium and terbium

Source: ASX Release – 25 August 2025, Harts Range bulk sample returns 1.72% TREO including 4.51% Nb₂O₅ and exceptional HREO/TREO ratio of 94.8%

NFM Peer Group

While there is now many companies exploring and evaluating rare earths projects worldwide, the number of projects with a focus on heavy rare earths is far more limited. Among those, we have identified the following ASX-listed companies with exposure to heavy rare earths:

Company	Code	Market Cap (A\$)	Project & Status	Evidence of Heavy Rare Earth (Dy/Tb) Exposure
Northern Minerals	NTU	\$510m	Browns Range project. DFS results announced on 15 Sep 2025	The project's flagship deposit, Wolverine, is considered Australia's highest-grade Dy and Tb orebody
Ionic Rare Earths	IXR	\$180m	Their subsidiary, Ionic Technologies, operates a plant at Belfast (UK).	They are producing heavy rare earth oxides, specifically high-purity dysprosium (Dy ₂ O ₃) and terbium (Tb ₄ O ₇)
Australian Strategic Materials	ASM	\$410m	Dubbo Project in New South Wales	Their pilot plant separation work has demonstrated that it can produce Tb & Dy oxides at high purity (Tb >99.99%, Dy >99.95%) from their heavy rare earth flows.
ABx Group	ABX	\$21m	Projects in Tasmania (northern Tasmania rare earth province, Deep Leads, etc.)	Discovery of high-grade Tb & Dy in Tasmania; test results showing good extraction levels for Dy/Tb.
Lynas Rare Earths	LYC	\$21 billion	Recently commissioned a Heavy Rare Earth separation circuit in Malaysia	First separated dysprosium oxide produced; terbium is expected to follow

NWQ Copper Project

The NWQ Copper Project, located 150 km north of Mt Isa in Queensland, benefits from its proximity to both active and historical mines operated by prominent global companies such as Anglo American, Glencore, and Rio Tinto. The Big One Deposit is the most advanced prospect within the NWQ Copper project area, with a JORC compliant inferred Mineral Resource Estimate of 2.1 million tonnes @ 1.1% Cu for 21,886 tonnes copper metal. This oxide resource could potentially be developed and by treated at the Mt Kelly SX/EW plant currently operated by Austral Resources (ASX: AR1).

Considering that most of the value of the company is going to be driven by the Harts Range project, we elected to omit the NWQ Copper Project from our valuation.

NFM Valuation

Considering the early stage of exploration and evaluation of the Harts Range project, any valuation of the project and company is highly speculative and subjective. At this time, we extended our comparison with Northern Minerals (ASX: NTU) and its Browns Range project by examining the market value of the company soon after discovery.

Figure 6 displays the historical market capitalisation of Northern Minerals Ltd (ASX: NTU) since 15 Nov 2006.

To derive our price target, we backtrack in time (2013-2014) to examine the market value of NTU during the post-discovery period (ranging from A\$30m to A\$120m, average A\$75m) and applied a 1.6x factor to reflect the current surging market interest for the rare earths sector in general and the heavy rare earths in particular. Our resulting valuation amounts to A\$120m.

Figure 6 – Historical Market Capitalisation of Northern Minerals (ASX: NTU)



Source: S&P Capital IQ

Board & Management Team

Gerrard Hall – Chairperson

Gerrard is a seasoned finance professional with over 20 years of experience at leading institutions such as JP Morgan and UBS, specialising in proprietary trading, derivatives, and asset management. Based in London, Ged oversees UK investor relations and brings a wealth of expertise, including a decade of experience working in the Middle East. Ged holds both an MBA and an MSc in Financial Management, achievements that attest to his strong understanding of the financial sector.

Kevin Das – Senior Consultant

Kevin is a geologist and seasoned mining executive with over 24 years in technical and corporate roles across a variety of global mining jurisdictions. In 2016, he founded the ARD Group, driving capital allocation, acquisitions, and development of mineral assets. Kevin was the Project Manager at Browns Range and was instrumental in the virgin heavy rare earth discoveries at Browns Range with Northern Minerals from 2009 - 2016.

Eduardo Robaina – Non-Executive Director

Eduardo is a highly accomplished Managing Director and Engineering Consultant, combining extensive executive and technical expertise. With over 20 years of experience in the resources sector, Eduardo has excelled in both technical and leadership roles. Eduardo holds a Bachelor of Science in Mechanical Engineering from Metropolitan University in Venezuela.

Joel Logan – Non-Executive Director

Joel, a driven and enthusiastic mining and exploration geologist at New Frontier, brings substantial geological expertise and a keen interest in the corporate and economic facets of mining operations. He holds a Bachelor of Science in Applied Geology and Geophysics from the University of Adelaide, as well as a Graduate Diploma in Mineral Exploration Geoscience from Curtin University.

Key Investment Risks

Exploration Risk: NFM is still in exploration/early-stage development. Their Harts Range project has many identified targets (e.g. 46 priority geophysical targets, 18 high-priority zones) but drilling, sampling, metallurgical testwork etc must still prove commercial viability. Some bulk sampling has returned promising grades (e.g. 1.72% TREO including Dy & Tb) at Cusp prospect, but scaling up and defining resource size and continuity is uncertain. So the project might not lead to a mineable deposit, or the costs/risks of drilling etc might reveal undesirable conditions.

Geology/Technical Risk: Even with good surface sampling etc, subsurface geology (continuity, grades at depth, mineralogy, metallurgical recoveries) may differ. Heavy rare earths (HRE) often have complex mineral associations, which might make processing more difficult or costly. Also, separation/extraction of Dy, Tb and niobium etc may require more advanced, expensive treatment. If mineralogy is not favourable, recovery rates may be low or contaminants may inhibit clean separation. Metallurgical testwork is needed; success in lab or small bulk sample doesn't always translate to scalable economic process.

Commodity Price Risk: Prices of rare earths (especially heavy rare earths), niobium, copper, tantalum etc are volatile. Demand from EVs, defence, magnets etc may shift, but downturns, oversupply (especially from China or other major producers), or substitution could reduce prices. If the price of Dy/Tb drops, this could severely impact project economics, especially given the likely higher cost base outside China or initial low volumes. Similarly, any negative sentiment or policy reversals in demand could reduce commodity price.

Funding/Dilution Risk: As with many juniors, NFM needs capital to fund exploration, drill programs, testwork, etc. If further funding is needed, share issues or dilution could reduce per-share value, or introduce equity risk. Also, cost overruns, unexpected regulatory/technical delays could increase funding requirements.

Regulatory/Permitting/Environmental Risk: Working in NT (Northern Territory, Australia) has many advantages, but it still involves environmental assessments, land access, Indigenous land rights, permitting etc. Delays, objections, increased regulatory standards (especially for environmental or tailings/waste) can slow or increase cost of development. Rare earths often have associated radioactive elements (e.g. uranium, thorium); managing radiation, waste, residuals etc adds complexity and risk. Also, export/processing regulations (both domestic & in logistic chain) could change.

Execution Risk: Even if exploration success is good, moving to production requires dealing with infrastructure, staffing, metallurgical processing, off-take contracts, logistics. There may be cost blow-outs, delays, technical challenges. NFM has announced MOU with Austral Resources to use the Mt Kelly facility for its copper project, which helps, but processing, logistics, quality, and transport risks remain. If metallurgical or processing flows are not as expected, margins may be much less.

Market/Share Price/Liquidity Risk: The share price is low (on the order of one cent or a few cents per share), which means high volatility. Small trades can move price, and liquidity might be limited. Investor sentiment can swing strongly on results or announcements. Negative drill result or slower funding could lead to big drops. Also, being dual-listed (ASX/LSE) may add complexity, but also some exposure to different investor bases.

Exchange/Currency Risk: Costs are often incurred in local currency (AUD) but the prices for rare earths/heavy rare earths etc may be benchmarked in USD or other currencies. If AUD strengthens vs USD, the revenue in AUD terms may drop (or vice versa). Similarly, if parts of supply chain are imported (equipment, reagents etc) in foreign currencies, cost could rise. Also, exchange listing risks (differences in regulation, investor expectations, reporting) between ASX and LSE could impose additional compliance cost.

Political/Sovereign Risk: Although Australia is a relatively stable jurisdiction, there can be policy changes (tax, royalty, export regulations, critical minerals laws) that impact profitability. Also, if global trade tensions (e.g. China controls, export licensing) shift, supply chain disruptions or tariff risks may affect downstream demand or pricing. Access to land, Indigenous heritage, environmental approvals etc depends on government policy and community relations.

Technical/Process Risk: Because NFM is aiming for heavy rare earths (Dy, Tb) and niobium etc, the processing and separation stage is particularly tricky. These materials often need specific, sometimes proprietary, separation technologies, potentially with high capital expenditure. Also, efficiency and recovery, impurity levels, regulatory controls (e.g. for radioactive by-products) all can increase cost or reduce margins. If metallurgical testwork shows low recoveries or high impurities, economics may be much worse than initial assays suggest.

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DISCLOSURES

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