

11 September 2025

## Araxá: A Gift that Keeps On Giving

### NEED TO KNOW

- Drilling shows high-grade mineralisation of rare earths and niobium
- New rare earths discovery 1 km from existing resource
- Balance sheet strengthened

**Assays from resource drilling deliver:** First assays from SGQ's resource expansion and definition program revealed significant high-grade near-surface rare earths (REEs) and niobium (Nb), including high ratios of valuable NdPr. These results show the high quality of the Araxá deposit and the potential to increase the quality and size of the current resource.

**New REE discovery:** A reconnaissance drilling program 1km east of the Araxá MRE has confirmed a new near-surface REE discovery.

**Balance sheet strengthened, increased drilling:** SGQ conducted a placement to strategic European investors, raising A\$5m at A\$0.038 per share. The funds will add diamond rigs and expand the drilling program.

### Investment Thesis

**Araxá Project set up perfectly to become new Nb producer in CY27:** The project's prime location next to the world's largest Nb producer, existing infrastructure, government support and strong customer interest have SGQ set to become a new Nb producer in a relatively short period, with potential to be producing by CY27. Araxá compares very favourably against its global Nb pre-production peers on all measures, and we estimate a relatively low capex. At full Nb production, we estimate Araxá could generate EBITDA of ~US\$130m pa at margins of >60%.

**Niobium is a valuable metal; customers keen for additional suppliers:** Nb's usefulness in steelmaking makes it a high-demand metal with a strong growth profile. Further potential demand lies within the battery market. CBMM's market dominance has seen customers (large steel mills) looking for alternative suppliers to reduce supply risk. MoUs are in place with leading global players (SKI, Fangda, Xinhai) covering offtake, marketing and potential financing. These partnerships provide early commercial validation and position SGQ to accelerate development with potential to minimise dilution.

**Rare earths provide potential significant additional value:** Araxá's high-grade REE mineralisation has potential to add significant value to the project. Brazil is a significant rare earth province and is looking to expand both its rare earth mining and refining industries substantially, with the potential for Araxá to participate in this growth. We view Araxá as a world-class REE deposit comparable to REE producers Lynas and MP Materials.

### Valuation (A\$0.15) and Risks

We value SGQ via a sum-of-the-parts methodology, adding the NPV of the Araxá Nb project to an EV/Resource valuation for the undeveloped REEs. Our blended valuation is A\$0.15 (up from A\$0.12). We consider SGQ shares to be substantially undervalued and also see significant potential upside to our current valuation. Key short-term risks include disappointing drilling results, short-term funding, unsatisfactory rare earth metallurgical results, disappointing scoping study outcomes and delays to approvals.

### Equity Research Australia

#### Materials

**Michael Bentley**, Senior Analyst  
michael.bentley@mstaccess.com.au

**ST GEORGE**  
MINING LIMITED

St George is a global player in niobium and rare earths owning 100% of the advanced niobium-REE Araxá Project in Brazil. Araxá is located in the world's leading district for niobium production and adjacent to the flagship operation of CBMM, the world's largest niobium producer with ~80% of global supply. Araxá is situated in an established mining district with existing infrastructure (roads and power), a proven route to market and access to a skilled workforce, with open pit, free-digging operation.

Valuation	<b>A\$0.150</b> (from A\$0.120)
Current price	<b>A\$0.065</b>
Market cap	<b>A\$190m</b>
Cash on hand	<b>A\$2.8m</b> (30 June 25)

### Additional Resources

[Interview with Exec. Chair John Prineas](#)

### Upcoming Catalysts / Next News

Period	
2HCY25	Rare earths metallurgical testing
3QCY25	Further drilling results
CY25	Scoping study, niobium project
CY25	Conversion of various MoUs

### Share Price (A\$)



Source: FactSet, MST Access.

# Contents

<b>Financial Summary</b>	<b>3</b>
<b>Resource Definition Drilling Hits the Spot</b>	<b>4</b>
<b>New REE Discovery at Araxá</b>	<b>6</b>
<b>Battery makers get interested in Araxá REE</b>	<b>7</b>
<b>Strategic Placement Strengthens Balance Sheet</b>	<b>7</b>
<b>A Refresher – The Araxá Project: High-Grade Nb and REEs</b>	<b>8</b>
<b>Peer Comparison: Nb and REEs Look Good</b>	<b>10</b>
<b>Valuation: SOTP of A\$0.15/Share (Prev A\$0.12)</b>	<b>12</b>
<b>Appendix 1:</b>	<b>19</b>
<b>Niobium 101 – The Key to Araxá's Success</b>	<b>19</b>
<b>Disclosures, disclaimers and certificates</b>	<b>25</b>

# Financial Summary

Figure 1: Financial summary

ST GEORGE MINING LIMITED							SGQ-AU						
Year end 30 June													
MARKET DATA							12-Month Relative Performance vs S&P/ASX Metals & Mining						
Share Price	A\$/sh						0.065						
52 week high/low	A\$/sh						0.071-0.015						
<b>Valuation</b>	<b>A\$/sh</b>						<b>0.15</b>						
Market Cap (A\$m)	A\$m						190						
Net Cash / (Debt) (A\$m)	A\$m						7						
Enterprise Value (A\$m)	A\$m						183						
Shares on Issue	m						2,922						
Options/Performance shares	m						1,102						
Other Equity	m						1,672						
Potential Diluted Shares on Issue	m						5,695						
INVESTMENT FUNDAMENTALS		FY23A	FY24A	FY25E	FY26E	FY27E	Profit & Loss (A\$m)						
Reported NPAT	A\$m	(11)	(8)	(9)	(9)	(9)	Revenue	0	0	0	0	0	
Underlying NPAT	A\$m	(11)	(8)	(9)	(9)	(9)	Expenses	(11)	(8)	(9)	(9)	(9)	
EPS Reported (undiluted)	¢ps	(1.4)	(0.9)	(0.9)	(0.7)	(0.5)	EBITDA	(11)	(8)	(9)	(9)	(9)	
EPS Underlying (undiluted)	¢ps	(1.4)	(0.9)	(0.9)	(0.7)	(0.5)	D&A	(0)	(0)	(0)	(0)	(0)	
Underlying EPS Growth	%	n/m	n/m	n/m	n/m	n/m	EBIT	(11)	(8)	(9)	(9)	(9)	
P/E Reported (undiluted)	x	n/m	n/m	n/m	n/m	n/m	Interest	0	0	0	0	0	
P/E Underlying (undiluted)	x	n/m	n/m	n/m	n/m	n/m	Tax	0	0	0	0	0	
Operating Cash Flow / Share	A\$	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	NPAT	(11)	(8)	(9)	(9)	(9)	
Price / Operating Cash Flow	x	n/m	n/m	n/m	n/m	n/m	Exceptionals	-	-	-	-	-	
Free Cash Flow / Share	A\$	(0.01)	(0.01)	(0.02)	(0.01)	(0.07)	Reported Profit	(11)	(8)	(9)	(9)	(9)	
Price / Free Cash Flow	x	n/m	n/m	n/m	n/m	n/m	Profit before tax	(11)	(8)	(9)	(9)	(9)	
Free Cash Flow Yield	%	n/m	n/m	n/m	n/m	n/m	<b>Balance Sheet (A\$m)</b>	<b>FY23A</b>	<b>FY24A</b>	<b>FY25E</b>	<b>FY26E</b>	<b>FY27E</b>	
Book Value / Share	A\$	0.00	0.00	0.01	0.01	0.01	Cash	3	3	3	2	8	
Price / Book	x	30.02	31.21	7.92	8.75	6.11	Receivables	0	0	0	0	0	
NTA / Share	A\$	0.00	0.00	0.01	0.01	0.01	Inventory	0	0	0	0	0	
Price / NTA	x	30.02	31.21	7.92	8.75	6.11	PP&E	0	0	5	10	145	
Year End Shares	m	841	989	989	1,629	2,279	Exploration	-	-	-	-	-	
Market Cap (spot)	A\$m	55	64	64	106	148	Other	1	1	1	1	1	
Net Cash / (Debt)	A\$m	3	3	3	2	(121)	<b>Assets</b>	<b>4</b>	<b>3</b>	<b>9</b>	<b>13</b>	<b>154</b>	
Enterprise Value	A\$m	51	62	61	104	269	Creditors	1	0	0	0	0	
EV / EBITDA	x	n/m	n/m	n/m	n/m	n/m	Debt	0	0	-	-	129	
Net Debt / Enterprise Value		(0.0)	(0.0)	(0.0)	(0.0)	0.7	Leases	0	0	0	0	0	
Dividend Per Share	A¢ps	0.0	0.0	0.0	0.0	0.0	Provisions	0	0	0	0	0	
							Other	0	0	0	0	0	
							<b>Liabilities</b>	<b>2</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>130</b>	
							<b>Net Assets</b>	<b>2</b>	<b>2</b>	<b>8</b>	<b>12</b>	<b>24</b>	
							<b>Cashflow (A\$m)</b>	<b>FY23A</b>	<b>FY24A</b>	<b>FY25E</b>	<b>FY26E</b>	<b>FY27E</b>	
							Cash From Operations	(3)	(3)	(2)	(3)	(6)	
							Interest	0	0	0	0	0	
							Tax	-	-	0	-	-	
							Net Cash From Operations	(3)	(3)	(2)	(3)	(6)	
							Capex	(0)	(0)	(0)	(0)	(130)	
							Exploration	(6)	(5)	(5)	(5)	(5)	
							Investments	(1)	3	-16	-9	-8	
							Free Cash Flow	(9)	(6)	(23)	(17)	(149)	
							Equity / Options Exercised	9	5	23	16	26	
							Borrowings	0	0	-	-	129	
							Dividend	0	0	0	0	0	
							Net Increase / (Decrease) in Cash	(1)	(1)	1	(1)	6	

Source: Company data, MST Access.

# Resource Definition Drilling Hits the Spot

Seven reverse circulation (RC) drill hole assays **were the first of the results from the resource expansion and definition program**, with more than 9,000m of drilling still to be completed.

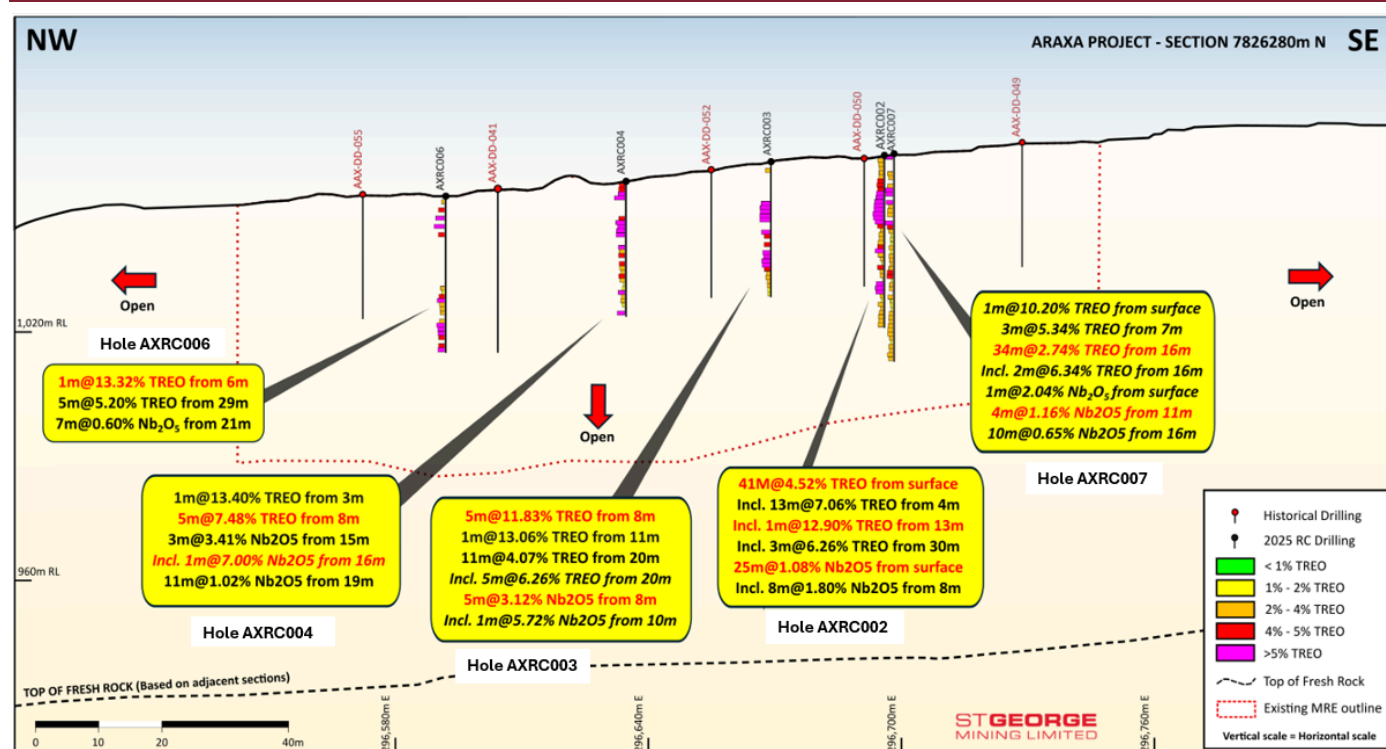
The assays revealed significant high-grade near-surface rare earths (REE) intersections with grades of up to 13.98% total rare earth oxides (TREO). This includes the high-value NdPr elements of up to 2.89% and NdPr: TREO ratios averaging 18-24% across the RC drilling and as high as 42%. Grades of up to 7% Nb were also intersected.

The latest assays confirm the substantial scale and continuity of the REE and Nb mineralisation at the Araxá Project (see Figure 2 for intercepts from the recent drilling).

## Key intersections from recent drilling

- 18m in total of high-grade REEs in AXRC001, comprising:
  - 16m @ 5.56% TREO from surface, including:
    - 11m @ 7.06% TREO from 5m
    - 2m @ 12.21% TREO from 17m
- 41m in total of high-grade REEs in AXRC002 (see Figure 2), comprising:
  - 41m @ 4.52% TREO from surface, including:
    - 13m @ 7.06% TREO from 4m, including 1m @ 12.90% TREO from 13m
- 18m in total of high-grade REEs in AXRC003 (see Figure 2), including:
  - 5m @ 11.83% TREO from 8m
  - 11m @ 4.07% TREO from 20m
- 36m in total of high-grade REEs in AXRC005, including:
  - 4m @ 3.17% TREO from surface
  - 3m @ 9.90% TREO from 13m
  - 15m @ 3.42% TREO from 35m
- 44m in total of high-grade REEs in AXRC007 (see Figure 2), including:
  - 1m @ 10.20% TREO from surface
  - 3m @ 5.34% TREO from 7m
  - 34m @ 2.74% TREO from 16m, including 2m @ 6.34% TREO from 16m.

Figure 2: TREO intercepts from the recent drilling results



Source: SGQ

## Working towards a resource with higher confidence and size

These significant results are from within the current resource envelope, already a globally significant resource in terms of scale and grade, and are the result of a drilling campaign that aims to:

- **improve the confidence** of the resource (by moving from Inferred to Measured and Indicated)
- **expand the resource** (find more tonnes within the resource)

These initial results indicate that the resource has a very high chance of being reclassified to a higher confidence and increasing in size. SGQ is continuing the drilling campaign with further resource definition drilling and deeper drilling to test the extensions of the resource. 9,000m of drilling is still to be completed.

Figure 3: Existing JORC Mineral Resources Estimate (REE) for Araxá

Classification	Mt	TREO (%)	MREO (%)	Contained TREO (Mt)	Contained NdPr (kt)
Measured	1.9	5.44	1.04	0.10	1.07
Indicated	7.37	4.76	0.9	0.35	3.16
Inferred	31.37	3.9	0.74	1.22	9.05
<b>Total</b>	<b>40.64</b>	<b>4.13</b>	<b>0.78</b>	<b>1.68</b>	<b>13.09</b>

Source: Company data.

Figure 4: Existing JORC Mineral Resources Estimate (Nb) for Araxá

Classification	Mt	Nb <sub>2</sub> O <sub>5</sub> (%)	Contained Nb <sub>2</sub> O <sub>5</sub> (kt)
Measured	1.9	1.19	23
Indicated	7.37	0.93	69
Inferred	31.93	0.59	188
<b>Total</b>	<b>41.2</b>	<b>0.68</b>	<b>280</b>

Source: Company data.

## Valuable NdPr makes up a large proportion of REEs at Araxa

NdPr (neodymium-praseodymium) is a critically important constituent of REEs as it is the main ingredient used to manufacture high-strength permanent magnets, which are essential to key modern technologies such as electric vehicles (EVs) and wind turbines.

The value of a REE deposit is significantly influenced by its proportion of NdPr given its relatively high value, and deposits with a high NdPr content are considered much more commercially attractive. NdPr is the contributor of the highest proportion of revenue for Lynas's Mt Weld mine and MP Materials' Mountain Pass operation, – both of which are carbonatite-hosted rare earths deposits, the same deposit style as St George's Araxa Project.

NdPr values returned in the drilling are highly encouraging, with grades of up to 2.89% NdPr and NdPr:TREO ratios reaching as high as 42%. Across the RC drilling, the NdPr:TREO ratio consistently averages 18–24%. These ratios are at the upper end of what is typically observed in carbonatite-hosted deposits.

## Niobium drilling results

For Nb, grades of up to 7% Nb<sub>2</sub>O<sub>5</sub> were intersected. Other high-grade intervals included:

- 3m @ 3.41% Nb<sub>2</sub>O<sub>5</sub>; 5m @ 3.12% Nb<sub>2</sub>O<sub>5</sub>; 1m @ 5.72% Nb<sub>2</sub>O<sub>5</sub>

All of the results were from at or near surface.

## New REE Discovery at Araxá

SGQ reported outstanding auger assay results, identifying mineralisation approximately 1km east of the existing JORC resource, confirming a large extension to the deposit's footprint. The program tested previously undrilled carbonatite-hosted zones, confirming a significant expansion of the high-grade REE system.

## High-grade discovery with elevated NdPr levels

Initial assays from 22 auger holes intersected mineralisation of up to 13.4% TREO, with exceptionally high NdPr ratios of up to 45% and an average of 24% (see Figure 5). These results materially enhance the project's global significance and growth potential.

A number of holes ended in mineralisation, supporting strong continuity at depth and indicating further upside.

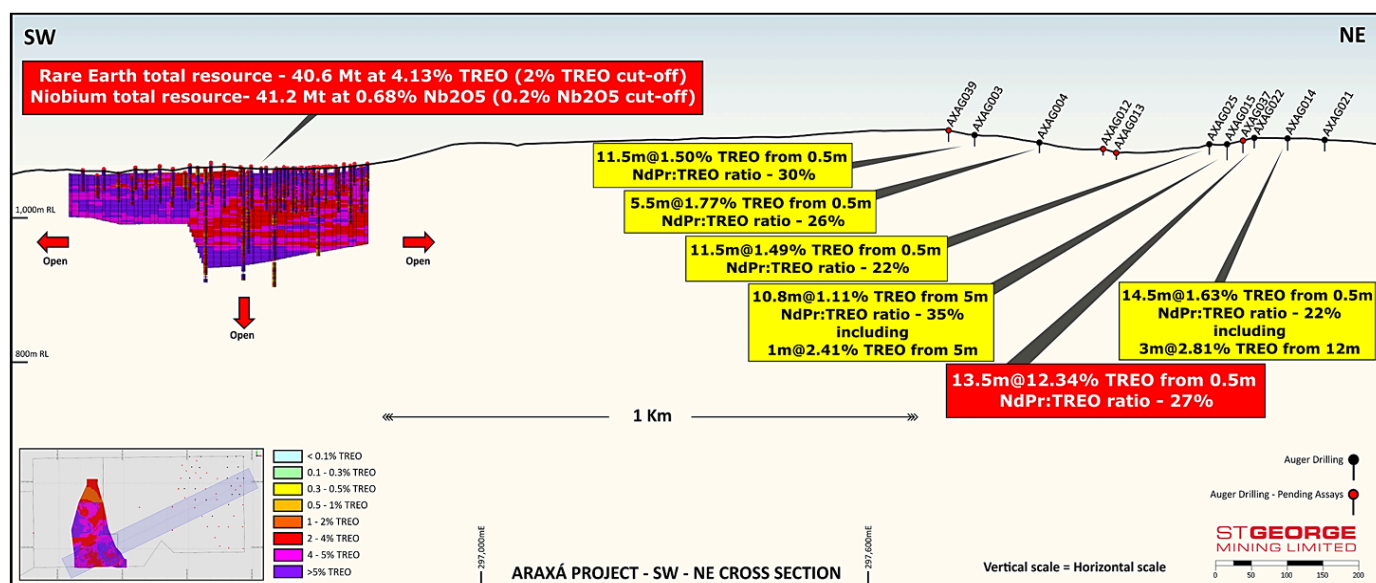
## Heavy rare earths potential

Heavy rare earths are highly valuable, with unique properties that make them indispensable in advanced, high-growth technology sectors such as EVs, renewable energy, defence and electronics. Heavy rare earths are geologically scarcer and more difficult to extract than light rare earths.

The East Araxá area returned assays with heavy rare earths intersections – including lutetium (Lu), gadolinium (Gd), dysprosium (Dy) and terbium (Tb), with Gd making up 1.57% of TREO (Gadolinium Oxide sells for US\$21,700/t)

In addition, samarium (Sm) (Sm sells for US\$1670/t) – a light rare earth element used in electric motors (especially in aerospace, defence, and electric vehicles), sensors, actuators, generators and medical devices represents an average of 2.6% of TREO, further enhancing the overall rare earth profile of the mineralisation.

Figure 5: High-grade intercepts in recent auger drilling and the existing MRE



Source: Company data.

## Battery makers get interested in Araxá REE

### MOU with US based REAlloys

SGQ has made a move into the US rare earths supply chain with a landmark development and offtake MOU with REAlloys Inc – a leading US-based magnet maker with Government contracts.

The strategic alliance with REAlloys provides new opportunities for St George to secure development funding for its rare earths operation, to optimize its rare earths products by leveraging REAlloys patented, cutting-edge separation processing technology and to lock-in high-value offtake deals supported by US Government floor prices for certain REE products.

### Brazil joins in as well

SGQ is also a first-mover in supporting the MagBras Project – a public-private partnership aimed at establishing a domestic supply chain for REE products in Brazil including the production of rare earths magnets.

SGQ has delivered a bulk sample of rare earths material from the Araxá Project to MagBras – the first delivery of its kind by a rare earths project developer in Brazil. This underscores the advanced nature of St George's project and its potential to support Brazil's REE supply chain.

## Strategic Placement Strengthens Balance Sheet

SGQ secured A\$5m in new funding from a strategic share placement at A\$0.038/share, representing a 13.1% premium to the prevailing 30-day VWAP.

131.6 million new shares were issued at A\$0.038, with participation from new and existing investors, primarily from Europe.

The funds will predominantly be used for the deployment of three diamond rigs (versus one previously planned) alongside RC and auger rigs, accelerating over 9,000m of diamond drilling targeting both step-out and infill (Inferred to Indicated) resource conversion.

### Large Parcel of Options in the money

A key source of potential funding is the large parcel of Feb 2027 options with a strike price of A\$0.04. There are 976.1m of these options on issue and have potential to raise up to ~A\$39m in funding

### Acquisition progress payment due in November

The next progress payment for the acquisition of Araxá is US\$6m due on 27 November 2025.



# A Refresher – The Araxá Project: High-Grade Nb and REEs

## Araxá Set Up to be New Nb Producer

SGQ St George Mining (SGQ) is on a path to emerge as a major producer of niobium (Nb) and rare earths (REE). The company holds 100% ownership of the Araxá Nb and rare earths (REE) project, a pre-production asset. Araxá has the potential to become a significant near-term producer of Nb, supplying into the global steel market, and in the medium term a supplier of REEs into the global market and particularly a growing Brazilian market and a US market where government intervention in the supply chain is creating strong demand for rare earths materials to feed the fast-growing US magnet making industry.

Araxá is strategically located in the world's leading district for Nb production (Minas Gerais), adjacent to the flagship operations of Companhia Brasileira de Metalurgia e Mineracao (CBMM), the world's largest Nb producer (~80% of global supply). The second-largest Nb producer, China Molybdenum Company (CMOC) (11% of global supply), is also located in Brazil, reinforcing its status as the epicentre of global Nb production. The deposit has easy accessibility – it is a large, shallow, flat-lying deposit, beginning at surface, and a free dig mining operation.

## Project overview

### **A fast track to production – targeting CY27 commencement; estimated EBITDA of US\$130m pa; relatively low capex**

The Araxá Project's prime location, existing infrastructure, government support and strong customer interest have SGQ set up for a strong path to Nb production and significant cash flow potential. The project has the potential to be producing Nb by CY27, and we estimate it will generate EBITDA of ~US\$130m pa at margins of >60%. We also consider the project will be relatively low in capex.

### **Scoping study to show value of the project**

With an upcoming scoping study (expected CY25) to identify key project inputs and outcomes, we view the project as being relatively straightforward, outlining our expectations of moderate capex, relatively low opex and a rapid construction timetable. The company expects the scoping study will lead straight into a bankable feasibility study (BFS).

## Key products – a critical metal with potential for rare earths

### **Niobium is a critical and valuable metal with a large market**

Nb increases the strength of steel and reduces the weight of the total steel required in products, leading to cost efficiencies, lower steel usage and reduced CO<sub>2</sub> emissions. Use in batteries adds further growth in demand.

Market analyst estimates of Nb market growth are at ~117kt in 2025, and to reach 188kt by 2030 at a CAGR of 9.92%.

### **Rare earths add value – quality resource with huge potential**

Araxá is a high-grade rare earths resource, containing 41.2Mt at 0.68% Nb<sub>2</sub>O<sub>5</sub> giving 280kt niobium oxide and 40.6Mt at 4.13% TREO (1.7Mt of TREO). The deposit is rich in valuable NdPr and comparable to the Mountain Pass project in the US and Mt Weld in Australia. The current MRE was defined predominantly from shallow historical drilling, with ~80% of holes to depths of 60m or less, and only 10% of the project area has been close space drilled.

Brazil is a significant rare earth province and is looking to expand both its rare earth mining and refining industries substantially. We see the potential for Araxá to participate meaningfully in this growth.



## Market and competitive dynamics

### Niobium: a dominant supplier, but customers are looking for alternatives

CBMM's dominance in the market has seen customers looking for alternative suppliers to reduce supply risk. SGQ has MoUs in place with leading global players (SKI, Fangda, Xinhai) covering offtake, marketing, and potential financing. These partnerships provide early commercial validation and position SGQ to accelerate funding and development of the project.

### REEs: the game has changed - MP Material's deals with US DOD and Apple

In July 2025, the US Department of Defense (DOD) entered into a landmark public-private partnership with MP Materials, the largest US RE miner and processor. This deal is a broad US response to China's controls on REEs and aims to create a secure, self-sufficient American supply of REPMs for defence, EVs, wind turbines, and critical technologies. The partnership is historic as it combines large-scale equity investment, direct price support, and 100% offtake – a level of public market intervention unprecedented in the US for critical minerals.

In July 2025 Apple and MP Materials signed a multi-year deal valued at US\$500m with production and shipments beginning in 2027.

### Araxá stacks up against its peers

SGQ's Araxá Niobium Project stacks up very favourably to its peers in terms of grade, infrastructure, jurisdiction, timeline, and first to market.

Other key aspiring Nb producers include WA1's West Arunta Project (ASX: WA1), NioCorp's Elk Creek Critical Minerals Project (NASDAQ: NB) and Globe Metals and Mining's Kanyika Niobium Project (ASX: GBE).

With regards to REE, Araxa compares very favourably to existing producers Weld Range (Lynas) and Mountain Pass (MP Materials).

## Upcoming catalysts

- 2HCY25: Rare earths metallurgical testing results
- 3QCY25: Further results of drilling campaign, update of MRE
- CY25: Scoping study – Nb project
- CY25: Conversion of various MoUs for offtake, construction and approvals to be converted to binding agreements

# Peer Comparison: Nb and REEs Look Good

## Niobium comparables

We have compared the Araxa Project to other key pre-production Nb projects including WA1's West Arunta Project (ASX: WA1), NioCorp's Elk Creek Critical Minerals Project (NASDAQ: NB) and Globe Metals and Mining's Kanyika Niobium Project (ASX: GBE). The projects all have existing resources and are aspiring to bring Nb production to the market in as short a time frame as possible. The Araxá Project compares very favourably with these competing projects in terms of grade, infrastructure, jurisdiction, timeline, and first to market.

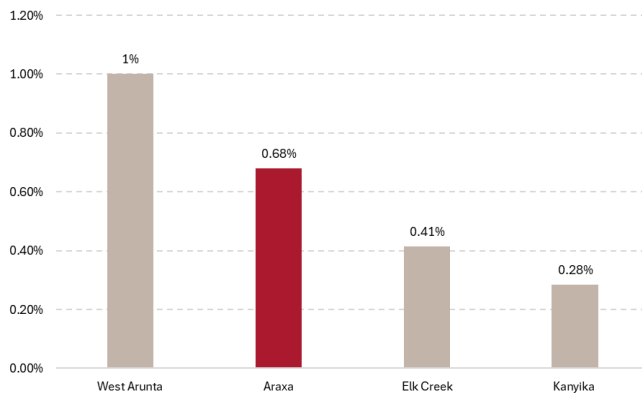
Figure 6 shows our assessments of SGQ's peers. Green indicates an advantage/superior outcome to peers, orange indicates being in line with peers while red indicates being at a disadvantage to peers.

**Figure 6: Araxá compares favourably in terms of most desirable features (Nb comparison)**

	SGQ's Araxa	WA1's West Arunta	NioCorp's Elk Creek	Globe Metals & Mining's Kanyika
<b>Resource Size</b>	-	✓	✓	-
<b>Resource Grade</b>	✓	✓	-	✗
<b>Infrastructure</b>	✓	✗	-	✗
<b>Metallurgical process</b>	✓	-	-	-
<b>Approvals Process</b>	✓	✓	-	-
<b>Capex</b>	✓	✗	-	-
<b>Opex</b>	✓	-	-	-
<b>Time to market</b>	✓	✗	-	-
<b>Jurisdiction</b>	✓	✓	✓	✗

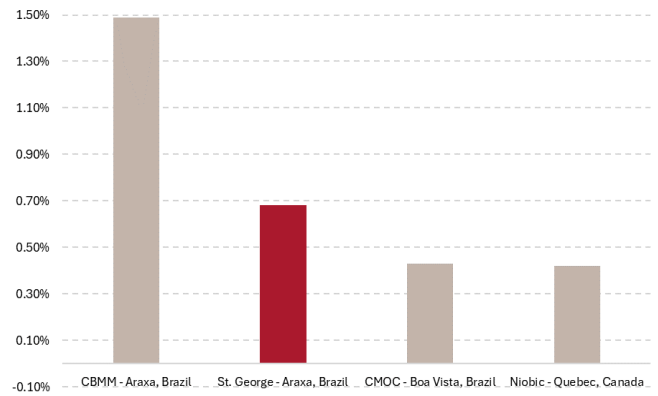
Source: MSTe, company data.

**Figure 7: Araxá's Nb<sub>2</sub>O<sub>5</sub> stacks up well against other Nb development projects (grade %)**



Source: Company data.

**Figure 8: Araxá's Nb<sub>2</sub>O<sub>5</sub> also stacks up well against major operating projects (CBMM a standout) (grade %)**



Source: Company data.

## REE comparables

The two major producing rare earths mines outside of China are carbonatite-hosted deposits – the Mountain Pass mine in California and Mt Weld in Western Australia. They are the same style of deposit as St George's Araxá Project. Mountain Pass is the only producing REE mine in the USA and, until recently, relied on China to process most of its product. Mt Weld is Australia's premier REE producer. Both of these are producing assets and give a glimpse at the potential of SGQ to be significantly re-rated.

We also compare Araxá to the Nolans Project, a large undeveloped resource in the Northern Territory. Araxá's metrics are similar or better than those of Nolans, yet SGQ has a significantly smaller market capitalisation than that of Nolans' owner, Arafura Rare Earths.

**Figure 9: Araxá compared with other REE projects - metrics point to undervaluation of SGQ**

	St George	Lynas	MP	Arafura
<b>Mkt Cap and Exchange</b>	A\$172m ASX	A\$14.2b ASX	US\$11.2b NYSE	A\$496m ASX
<b>Project</b>	Araxá, Brazil	Mt Weld, Aust.	Mountain Pass, USA	Nolans, Australia
<b>Deposit Style</b>	Hard-rock	Hard-rock	Hard-rock	Hard-rock
<b>Stage</b>	Development studies	Producing	Producing	Development studies; funding
<b>REE Product</b>	Oxide	Oxide	Oxide	Oxide
<b>MRE for TREO (Mt)</b>	Measured: 1.9 Indicated: 7.37 Inferred: 31.37 Total: 40.64	Measured: 20 Indicated: 15.5 Inferred: 71.1 Total: 106.6	Measured: 0.1 Indicated: 31.5 Inferred: 9.1 Total: 40.6	Measured: 4.9 Indicated: 30 Inferred: 21 Total: 56
<b>TREO Grade (%)</b>	Measured: 5.44% Indicated: 4.76% Inferred: 3.9% Total: 4.13%	Measured: 7.2% Indicated: 4.3% Inferred: 3.2% Total: 4.1%	Measured: 9.5% Indicated: 6.2% Inferred: 5.1% Total: 5.9%	Measured: 3.2% Indicated: 2.7% Inferred: 2.3% Total: 2.6%
<b>NdPr (%)</b>	Total 0.78%	Total 0.61%	Total 0.93%	Total 0.69%
<b>NdPr:TREO ratio (%)</b>	18.9%	14.8%	15.7%	26.5%
<b>Contained NdPr (Mt)</b>	0.32	0.65	0.38	0.38

Source: Company data.

## Valuation: SOTP of A\$0.15/Share (Prev A\$0.12) SGQ Appears Significantly Undervalued

### Methodology: SOTP includes risked NPV (Nb) + EV/Resource (rare earths)

We value SGQ using a sum of the parts (SOTP) valuation of risked NPV for Nb production and EV/Resource for the REEs. Our valuation is A\$0.15 per share, fully diluted (see Figure 10).

We believe SGQ shares are currently trading at a substantial discount to fair value based on our assessment of the fundamental value of the flagship Araxá Project. In our view, the share price does not factor in the value of the project given its location in Brazil, the established infrastructure, government support and an Nb market that needs new suppliers.

We also believe that there is significant possible upside to our valuation given the strong potential for an increase in the resource, extension to our assumed mine life, potential production upside and the inclusion of REEs in the production profile. (We have not modelled REE production at this stage, as this portion of the project is not as advanced as the Nb portion. There is metallurgical work underway on the REEs; however, SGQ is still determining the processing route and the final REE product.)

We have increased our valuation to A\$0.15 per share (from A\$0.12 per share previously) driven by an increase in our valuation of the REEs, which is based on EV/Resources in our base-case SOTP valuation. The broader market for REEs and REE-related stocks has structurally changed following MP Materials' deals with the US DOD and Apple, and the market has substantially re-rated the sector. As a result, our market-based EV/Resources valuation for SGQ's REE asset has also been marked upwards (see below for details).

In our base-case SOTP valuation, we have retained our valuation for the Nb as we await the updated scoping study towards the end of CY2025.

We have adjusted our valuation for additional shares and options issued relating to the recent A\$5m capital raise.

**Figure 10: Valuation – sum of the parts (base case)**

NPV OF PROJECTS	US\$M	Ownership	Risk	A\$M	A\$/share
ARAXA - Niobium	441	100%	75%	525	0.09
ARAXA - REE EV / Resource Valuation	247	100%	60%	235	0.06
Corporate Costs				(25)	(0.01)
Net Cash (Debt)	5			7	0.01
<b>Total</b>				<b>742</b>	<b>0.15</b>
<b>WACC</b>					<b>10.0%</b>
AUDUSD					0.63
Shares on issue (Undiluted)					2,922
Options & Performance Rights					1,102
Additional Equity Required					1,672
Shares on issue (Fully Diluted)					<b>5,695</b>

Source: MST Access.

### Niobium: risked NPV = A\$0.09 base-case contribution

We have completed an NPV assessment of the Nb project. The valuation is preliminary in nature and is based on our assumptions utilising a 2013 PEA as a basis and making adjustments for what we see as a lower capital Nb mine and plant. **We await the release of the scoping study in CY25**, at which time there may be some substantial adjustments as we enhance our inputs and firm up our valuation. We have taken account of the preliminary nature of our valuation by assigning a risk/probability percentage. Our preliminary risked assessment of the Nb project at Araxá shows a valuation well in excess of the current share price.

## 2013 Preliminary Economic Analysis (PEA): a starting point

In 2013, Itafos conducted a Preliminary Economic Analysis (PEA) on the project. Key features of the PEA, which contemplated a large REE project including the processing of Nb, were:

- 40-year mine life
- 2-phase production
- Phase 1 capex of US\$406m
- Phase 1 REO production of 119.4ktpa
- Phase 1 Nb production of 742tpa
- NPV of project of US\$967m.

## Assumptions utilised in calculating NPV for Araxá Nb valuation

The PEA set the groundwork for our valuation. However, given the age of the PEA and changes in costs and SGQ's focus on Nb, we have reviewed the inputs (see our full assumptions in Figure 11). We highlight the following:

- Opex: We view cost assumptions in the PEA as too high; Nb is cheaper to produce than the PEA assumes. The PEA uses US\$10,000/t but we note that neighbouring project costs are around US\$3,000/t.
- Capex: The PEA assumes a multi-product concentrator with a capex of US\$400m. We have considered a much simpler Nb-only float plant for US\$130m.
- Our initial full rate of production is 5kt of ferroniobium (FeNb), ramping up to 10ktpa from FY35 (we add US\$60m of capex in year 6 to ramp up to 10ktpa of production).
- We have not considered production of REEs at this stage.
- We risk our valuation and currently give it a 75% probability. The project is early stage, but with a high-quality resource, established infrastructure, government support and customer interest, we believe that the probability of the project coming into production is quite high and that the risk is at the lower end. We do see the necessity to risk the project due to the preliminary nature of our estimates.
- We have assumed an 80:20 debt-to-equity funding ratio. We have assumed an equity raising of A\$15m in FY26 (at an assumed price per share of A\$0.025) to fund working capital and progress payments for the project purchase, but acknowledge it may not be necessary if SGQ is able to source alternative non-dilutionary funding in the short term from offtake or strategic partners.

Figure 11: NPV assumptions – Araxá Nb

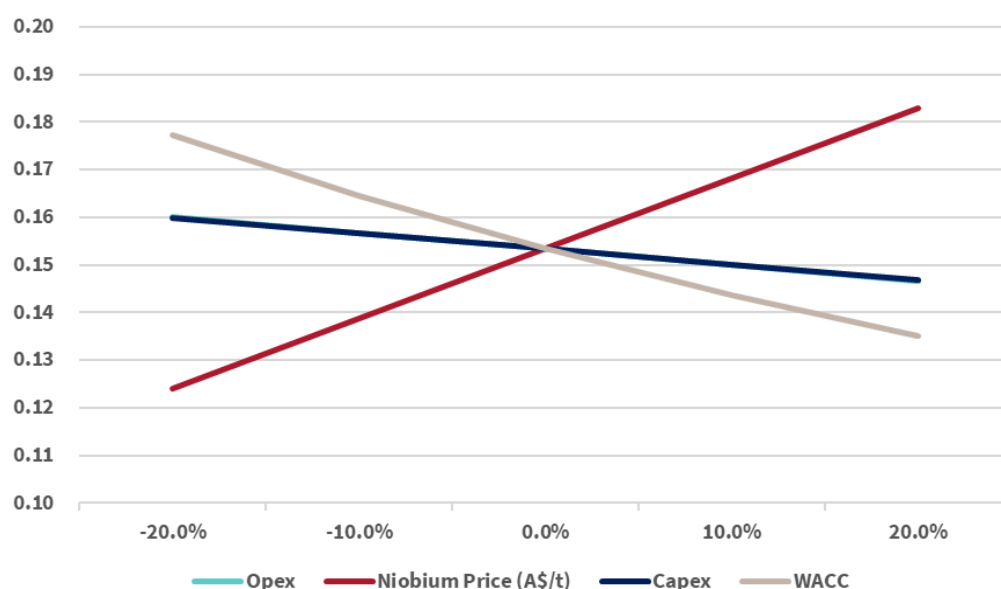
Assumptions	
<b>PROJECT ASSUMPTIONS</b>	
Project Ownership (%)	100%
First production	FY28
Processing Plant Throughput (mtpa)	1.5
Grade (% Nb <sub>2</sub> O <sub>5</sub> )	0.82%
Leach Efficiency (%)	41%
Annual Ferroniobium Production (kt)	5 ramping up to 10
Contained Annual Niobium (ktpa)	3.25
Mine Life (years)	15
Capex (US\$m, real)	130
Operating Cash cost (US\$/t, real)	5,000
<b>FINANCIAL ASSUMPTIONS</b>	
Discount Rate (%)	10.0%
Inflation Rate (%)	1.5%
Probability / Risk Assumption %	75.0%
Funding Debt / Equity %	80 / 20
Share price assumption cap raise (A\$/s)	0.025
<b>PRICING &amp; TAX ASSUMPTIONS</b>	
Niobium Basket Price (US\$/t) -real	50,000
Royalty Rate (%)	10%
Corporate Tax Rate (%)	34%

Source: MST estimates.

### Key sensitivities: commodity prices, forex, costs, discount rate

The key sensitivities for our valuation are shown in Figure 12, with the Nb price being the key driver.

Figure 12: Sensitivity analysis



Source: MST estimates.

## Nb project alternative valuation: EV/Resource – A\$0.076 per share

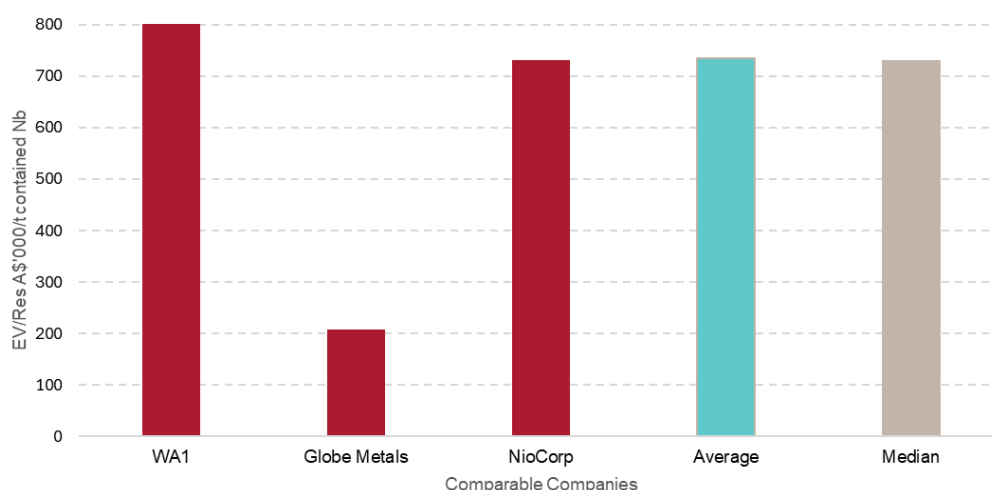
Given the early-stage nature of our NPV calculation, we consider a comparative valuation metric is warranted. In this case we have looked at the EV/Resource – a common tool used to assess the value of mining companies in their pre-production phase which aims to understand what value the market places on the company's resource and its potential.

We have compared the Araxá Project to other key pre-production Nb projects which we used in the 'Peer Comparison' section of this report, including WA1's West Arunta Project (ASX: WA1), NioCorp's Elk Creek Critical Minerals Project (NASDAQ: NB) and Globe Metals and Mining's Kanyika Niobium Project (ASX: GBE).

In the calculation, we consider only the Nb resource for each project and acknowledge the calculation is not perfect as some of the other projects contain other metals within their resources. We have applied the average EV/Resource calculated from the projects to come up with an estimated valuation for SGQ based on the current resource. It should be noted that SGQ will be conducting a significant drilling campaign which has the potential to materially increase the resource.

If we look at the average EV/Resource multiple of A\$735/t of contained Nb, then an estimated EV for SGQ is A\$205.8m or A\$0.053 per share on a fully diluted basis (A\$0.076 per share undiluted).

**Figure 13: Nb EV/Resource for comparable companies, plus average and median (cross-check valuation)**



Source: Company data, MST.

## REEs: EV/Resources = A\$0.06 base-case contribution

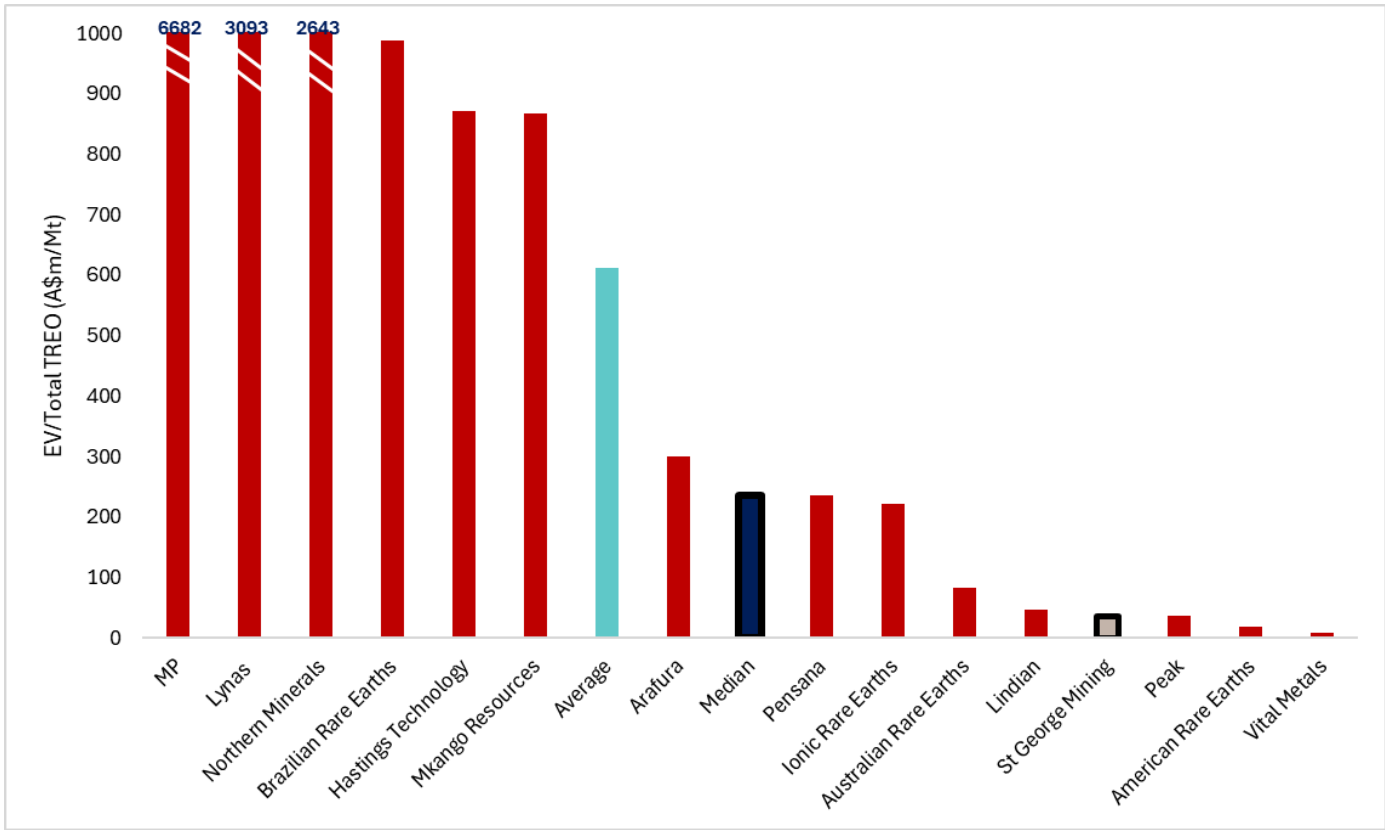
We consider the REE resource development to be at too early a stage to contemplate an NPV calculation. However, given the high grade, strong recent drilling results from both within and outside the current resource envelope and the potential value of the REEs, it is appropriate to assign a value to them – for this purpose, we use EV/Resources.

We selected a group of peers for comparison (see Figure 14). This group is made up of comparable ASX-listed rare earth development companies based in Australia, Brazil and Africa. For this peer group, we assessed the median EV/Resource multiples paid by the market (see Figure 14). (We note that this comparison is not exactly precise due to differences in the natures of the ore bodies, as well as the different stages of development, grade and size.)

If we were to apply the median value (A\$235 per tonne of contained TREO) of the selected companies to the contained TREO of 1.67Mt (40.64Mt @ 4.13% TREO) at Araxá, this would equate to an EV of A\$392m, or A\$0.10 per share on a fully diluted basis. We have risked this valuation at 60% to take into account the variability of the projects and the fact that Araxá is not a pure REE project.



Figure 14: EV/Resource comparables



Source: Company data, MST.

## **Positive catalysts for share price/valuation**

We believe that SGQ has significant potential for further share price upside and capacity to move towards our valuation. Beyond that, further development of the project and significant funding for it could potentially move the share price above our current valuation as the risks of the project being delivered reduce. We highlight a number of key milestones/catalysts which may deliver share price upside over the near term and move the stock price towards our valuation.

### **Exploration and infill drilling – increase to quality and quantity of resource**

With ~10% of the project having closely spaced drilling completed and contained in the MRE, the current infill drilling aims to boost the quality of the resource (increased Measured and Indicated) as well as to increase the resource via drilling both along strike and below the current resource, which is open in all directions.

### **Scoping study**

The upcoming scoping study has the potential to show a stronger and higher-value project than that assumed by both the market and our valuation.

### **Rare earths progression**

Progression of REE processing options would be a catalyst for the share price, given the high grade of the REEs in the project. Any studies showing processing and product options could also add to our valuation as we currently do not give the REEs a DCF valuation.

### **Offtake agreements**

Offtake agreements are key to ensuring the project has a viable market. The confirmation of existing offtake MoUs and the addition of further customer offtakes would likely act as a positive catalyst for the stock price.

### **Conversion of MoUs to binding agreements**

SGQ has a number of MoUs in place covering offtakes, construction and approvals. Conversion of such MoUs to binding agreements would likely be a positive catalyst for the stock price.

### **Approvals**

Key to all mining projects is obtaining the relevant approvals. A signing of an MoU with the regional government for fast tracking of approvals is a positive sign for the project. Confirmation of approvals will be a key catalyst for share price appreciation.

### **Project funding**

Key to getting a project up and running is funding. SGQ has a number of available options including offtake funding, contractor funding for construction, royalties and conventional project funding. Any progress on funding would be a positive catalyst to the stock.

### **Niobium pricing**

The Nb price is reasonably tightly controlled by major producer CBMM. However, the market is showing strong long-term fundamentals, and increased pricing would be both positive for the share price and our valuation.

### **Early project delivery**

The early commencement of the projects relative to the currently outlined timeline of development would provide earlier cash flows and reflect positively on the management team, which would likely increase the valuation.

## **Risks to share price and valuation**

The project's location in Brazil with beneficial access to existing critical infrastructure, as well as its Tier-1 location, strong fundamentals and government support, are all notable positives for the project. We believe these factors partially offset the risk inherent to a mining development in general as well as the project-specific risks, which we identify below.

### **Disappointing drilling results**

The upcoming drilling program is crucial for improving both the size and quality of the resource. Any disappointing results would be detrimental to the share price.

### **Disappointing rare earths metallurgical results**

The upcoming rare earth metallurgical testing results are key to taking the REE development forward. Any disappointing outcomes would be detrimental to the share price and may have the potential to reduce our valuation.

### **Short-term funding – progress payment for asset acquisition in November**

The company had A\$2.8m in the bank as at 30 June 2025, and has subsequently raised A\$5.0m through a placement. The company is required to pay US\$6m for the second progress payment for the purchase of the Araxá asset in November 2025. The company has ~970m options exercisable at A\$0.04 which are in the money and may well create an additional source of funding, but timing of exercise is uncertain and is dependent on the share price remaining above A\$0.04.

### **Capex funding**

The potential size of the Araxá Project is reasonably large – we estimate capex of US\$200m. The project could require funding from various sources including government, strategic partners, commercial debt and equity. There is risk to obtaining the required funding.

### **Lack of Brazilian Government support**

Although we see this as extremely low risk, the support of the Brazilian Government for the Araxá Project is key to its progress and approval. Any change in policy would pose a key risk for the project.

### **Disappointing scoping study results**

The scoping study is a key short-term catalyst to provide project details, setting up the project for funding discussions. Any disappointing results from the scoping study are a risk to the stock.

### **Approval delays**

Any approval delays would be detrimental to the share price, as this would delay the potential start of the project and add to the risk that it will not get approved.

### **Execution and construction**

Over the medium term, a project of this size will have execution, timing and construction risks.

### **Price decreases in key commodities**

The market sentiment and valuation is sensitive to underlying Nb prices. Price decreases would have a negative effect on the valuation and share price.

# Appendix 1: Niobium 101 – The Key to Araxá's Success

## What is niobium?

Niobium (Nb) is a ductile, refractory metal known for its resistance to heat, wear and corrosion (see Figure 15). Nb is useful in producing high-strength, low-alloy steel as well as in next-gen battery applications.

Nb is widely distributed in the Earth's crust, but rarely found in high concentrations. Over 90 different Nb-bearing minerals have been identified, but most occur in trace amounts or within complex mineral assemblages, making extraction uneconomical. The primary source of Nb globally is pyrochlore, a mineral typically hosted in carbonatites or pegmatites derived from alkaline rocks, often alongside zirconium, titanium, thorium, uranium and rare-earth minerals. Pyrochlore mineralisation is processed to produce a Nb concentrate grading 55–60% Nb<sub>2</sub>O<sub>5</sub>, which is then further refined into ferroniobium (FeNb) or other Nb-based products.

Nb can also be found in columbite, a mineral typically associated with intrusive pegmatites, biotite, and alkali granites. Historically, Nb and tantalum were commonly found together and difficult to distinguish. Thus, columbite is processed in the same way as tantalite, with Nb recovered alongside tantalum. Fittingly, Nb takes its name from Niobe, the daughter of Tantalus in Greek mythology – a nod to its natural association with tantalum.

**Figure 15: Niobium's unique combination of traits drives demand**

Niobium Traits
Resistant to wear
Resistant to corrosion
Resistant to extreme heat- high melting point of 2477°C
Superconductive at cryogenic temperatures
Increase yield strength, tensile strength and toughness of alloys
Lightweight relative to other refractory metals
Low thermal expansion

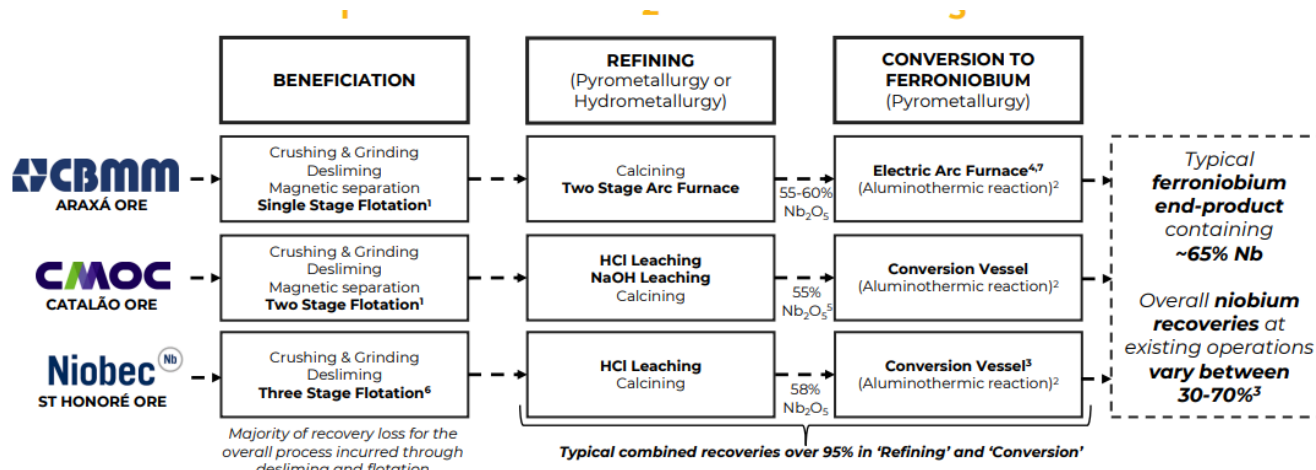
Source: MST.

## Processing method

Pyrochlore ore is mined and initially crushed and ground to liberate the mineral. The ore undergoes froth flotation with multiple cleaning stages to refine the concentrate to ~60% Nb<sub>2</sub>O<sub>5</sub>. The resulting concentrates are calcined to reduce impurities such as phosphorus, sulphur and lead. The purified concentrates then undergo an aluminothermic process to arrive at FeNb. In this process, the concentrate is mixed with hematite powder, aluminum powder, and small quantities of fluorspar and lime fluxes. The reaction is initiated by igniting a fuse, triggering an exothermic reaction that generates temperatures of approximately 2,400°C. During this process, niobium pentoxide (Nb<sub>2</sub>O<sub>5</sub>) is reduced by aluminum producing a ferro-niobium alloy with iron from hematite and aluminum oxide slag (Al<sub>2</sub>O<sub>3</sub>). The molten iron and niobium metal combine to form FeNb alloy, typically grading 60-66% Nb. The lighter slag layer floats on top and is tapped off. Once cooled, the solidified FeNb ingot is cleaned, crushed, screened, and sized according to customer specifications. In some cases, further refining via electron-beam melting is undertaken to produce high-purity niobium metal for specialised applications.

Columbite concentrates and tin slags with high tantalum content are typically processed using wet chemical methods. Lower-grade material is first melted in a furnace to separate the tantalum-niobium into a ferroalloy. The resulting material is then broken down using hydrofluoric acid, followed by a solvent extraction process to separate tantalum and niobium. Tantalum goes into the organic phase, while niobium stays in the aqueous solution. Niobium is then precipitated, dried, and roasted to form Nb<sub>2</sub>O<sub>5</sub>. From here, it can be converted into FeNb through an aluminothermic reaction similar to pyrochlore.

Figure 16: Summarised flowsheets of the top 3 producers of Nb

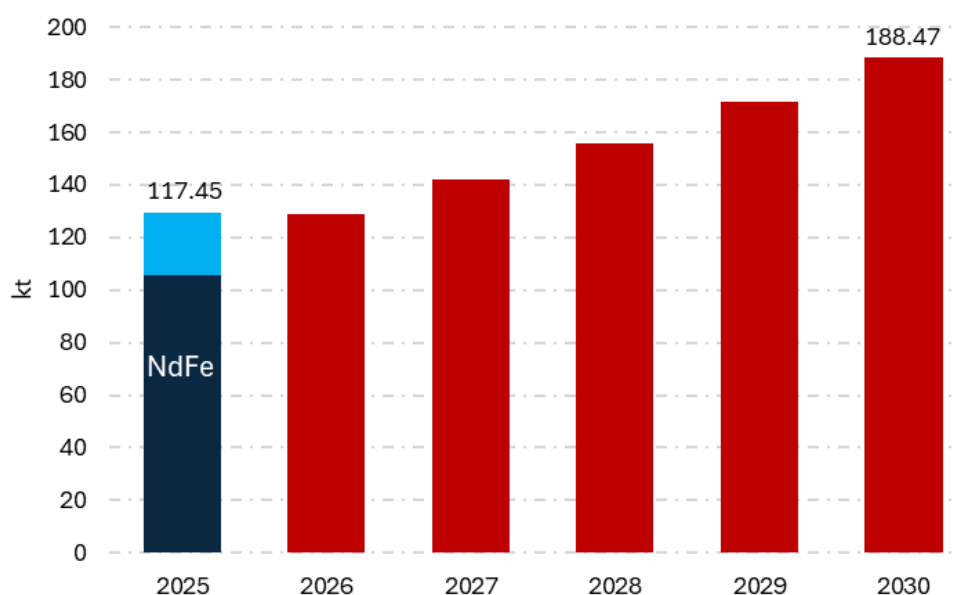


Source: Company data.

## Uses and applications

The Nb market is estimated at ~117kt in 2025 and market estimates are for it to reach 188kt by 2030, a CAGR of 9.92% (see Figure 17). There are 4 end products from Nb production: FeNb, Nb oxide (Nb<sub>2</sub>O<sub>5</sub>), vacuum-grade alloys and metallic Nb. FeNb undoubtedly dominates global demand at ~90%, followed by ~9% in niobium oxide and the remaining split between the rest.

Figure 17: The Nb market is set to grow to 188kt by 2030



Source: Mordor Intelligence.

## NbFe: steroids for steel

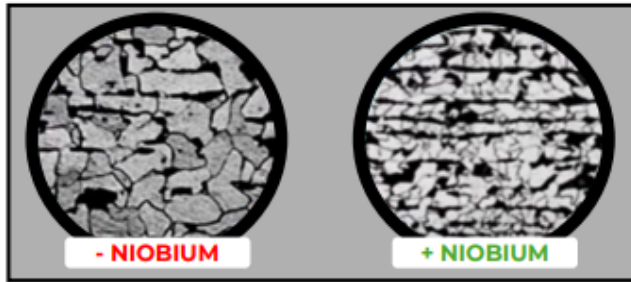
The substantial market presence of FeNb is driven by its crucial role in producing high-strength low-alloy steel (HSLA), significantly enhancing steel's strength and toughness while reducing its weight and improving weldability and stability at high temperatures. Its widespread adoption in infrastructure projects, oil and gas pipelines, automotive manufacturing, and construction sectors, where these enhancements are crucial, continues to drive demand. The use of HSLA has significant benefits for the user across various industries. These benefits include the following:

- Improved efficiency and cost savings:** Nb increases the strength of the steel, reducing the total amount of steel required, leading to substantial cost savings. For example, if 130kt of steel is used in construction, adding 0.02% of Nb to steel componentry will result in a total steel saving of 12kt. 12kt of steel costs ~US\$6m whilst 40t of FeNb costs ~US\$1.2m – reducing net costs by US\$4.8m, whilst also improving the quality of steel and reducing emissions.

- **Enhanced fuel efficiency:** Nb reduces vehicle weight significantly, increasing fuel efficiency. For example, adding just 300g of Nb can reduce the weight of steel in a mid-size car by 200kg, improving fuel efficiency by 5% whilst reducing emissions.
- **Environmental benefits:** Lower steel usage results in reduced CO<sub>2</sub> emissions during production and operations.

Regulatory trends with respect to steel toughness are providing structural tailwinds. Increasingly stringent global standards for stronger, lighter, and more efficient steel – particularly in the automotive, construction, and infrastructure sectors – have steadily lifted baseline demand for Nb over time. The most recent amendments to Chinese steel strength standards occurred in June 2024; the new standards included stricter requirements for tolerance, smelting processes, mechanical properties, packaging, and rebar quality.

**Figure 18: Improved microstructure of steel with Nb additions    Figure 19: Improved flat sheet formability with Nb**



Source: WA1



Source: WA1

### **Nb<sub>2</sub>O<sub>5</sub>: high-growth, next-gen materials story – use in batteries, electronics**

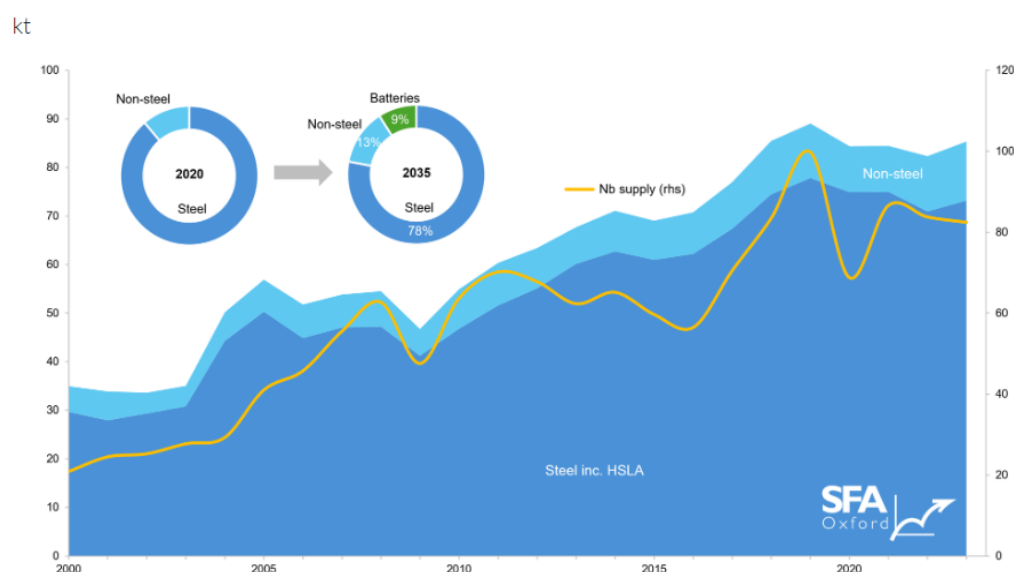
The Nb<sub>2</sub>O<sub>5</sub> market is experiencing significant growth and is projected to expand at ~26% during 2024-2029 (see Figure 20).

This growth is largely attributed to its increasing adoption in next-generation lithium-ion batteries and advanced electronics. Leading Nb producers, notably CBMM, are investing heavily to capitalise on this growth, with plans to lift Nb<sub>2</sub>O<sub>5</sub> production capacity to 40ktpa by 2030. CBMM also projects that Nb for battery technologies will account for 25% of its total revenue by 2030.

Historically used in optical glass, camera lenses, and electronic components due to its high refractive index and superior electrical properties, Nb<sub>2</sub>O<sub>5</sub> is now emerging as a key enabler of next-gen battery technologies. Recent research into the use of Nb in lithium-ion EV batteries has shown significant potential including 10x longer life than traditional batteries, reduced charge times down to less than 6 minutes and increased stability and performance. For example, Toshiba's Niobium Titanium Oxide anode allows for higher performance, longer-life, faster charging, and safer batteries.

Given the dominance of steel application, naturally Nb demand will correlate significantly with steel demand and growth.

**Figure 20: Nb demand in batteries is set to account for 9% of total demand in 2035**



Source: SFA (Oxford).

### Superalloys and metallic Nb – critical for high-performance applications

Nb is also being used in nickel, cobalt, and iron-based superalloys for applications in the aerospace and defence industries where strength and extreme heat resistance are critical, such as jet engine components, gas turbines, rocket subassemblies, turbo charger systems, heat resisting, and combustion equipment. Examples include the liquid rocket thruster nozzles of the Merlin Vacuum engines developed by SpaceX for the upper stage of its Falcon 9 rocket. Metallic Nb is widely used in advanced medical equipment such as MRI machines, CT scanners, and particle accelerators. This is a key area of future growth as countries continue to increase defence and aerospace spending in a more volatile geopolitical backdrop.

### Demand – APAC dominates, followed by Europe and America

In 2023, China was the largest importer of Nb, accounting for ~30% of the US\$3.2bn global FeNb trade and 50% of the US\$0.6bn market in Nb, tantalum and vanadium ores and concentrate (source: WA1). This demand from China was underpinned by its massive steel industry, infrastructure and renewables buildout, and rising EV production. An imminent Chinese economic stimulus package is likely to spur on steel and HSLA demand after several years of sluggish growth resulting from its struggling housing market.

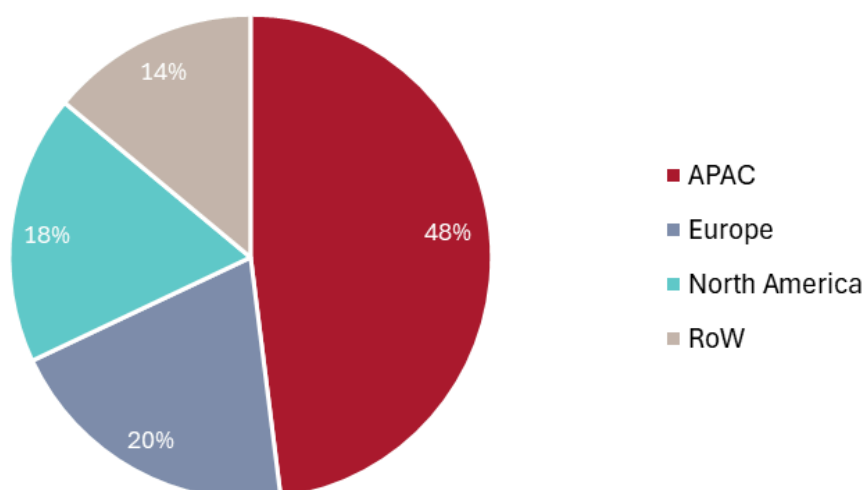
India represents the fastest-growing market in the APAC region, with market analysts projecting a growth rate of 6% pa in 2024–2029. Industrialisation, infrastructure expansion and automotive manufacturing are key drivers for India. Japan and South Korea maintain steady consumption in their advanced manufacturing and electronics industries.

In the West, the Netherlands and the US accounted for ~16% and ~8% of global FeNb trade, respectively (source: the Observatory of Economic Complexity). Nb is an in-demand commodity in the EU for its applications in energy transition infrastructures, such as wind turbines, solar panels and lithium-ion batteries. We expect this demand to accelerate given the Bloc's green energy transition strategy being a two-pronged desire of emission reduction and, more importantly, energy security. The Netherlands acts as a trading hub and distributes end product to high-demand countries such as Germany (automotive, renewables and aerospace – Airbus production is in Hamburg) and Italy (automotive, steel and renewables).

US demand is primarily driven by its advanced manufacturing sector, particularly in aerospace (Boeing) and defence applications, with the country having the world's largest defence budget. In addition, construction and infrastructure development in the US continues to support steady demand for FeNb.



**Figure 21: APAC dominates niobium demand**



Source: WA1, The Observatory of Economic Complexity.

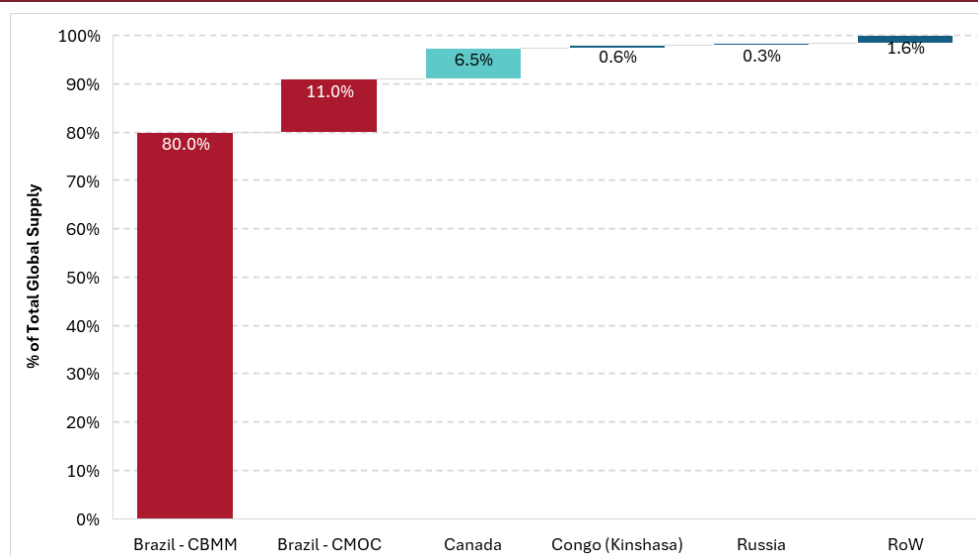
## Supply – a highly concentrated, near-monopoly situation

The global Nb market is a highly concentrated oligopoly – arguably a near-monopoly – dominated by 3 players: Brazil's Companhia Brasileira de Metalurgia e Mineracao (CBMM), China's China Molybdenum Company (CMOC), and Canada's Magris Performance Metals. This concentration reflects the scarcity and unique geological distribution of commercial Nb deposits, which are overwhelmingly located in Brazil and Canada. CBMM's Araxá mine in Brazil is the industry giant, accounting for ~80% of global supply. CMOC's Boa Vista mine, also in Brazil, contributes ~11%, while Magris's Niobec mine in Canada provides ~7%. CBMM is majority owned by the Moreira Salles family with 15% owned by a group of Chinese steelmakers and an additional 15% by a Japanese-South Korean joint venture.

The concentration of supply – essentially, the dependence on a single major supplier, as well as the fact that 90% of global Nb comes from Brazil – exposes strategic industries to heightened supply chain risks, especially given the backdrop of the tariff wars recently instigated by the US Government and the subsequent reshaping of global trade. The US has had no domestic production since 1959 and both the US and EU are wholly reliant on imports. This, in combination with Nb's difficult-to-substitute nature and demand in critical industries such as defence and aerospace, makes it a critical mineral to many nations. Indeed, Nb is listed as a critical mineral in many nations and jurisdictions including the EU, the US, Australia, Japan, South Korea, the UK and Canada.

Although world reserves of Nb are more than adequate to supply projected needs for more than 50+ years, the concentration of the world's identified reserves in Brazil, particularly CBMM highlights access to supply as a serious issue.

**Figure 22: Brazil and Canada control ~98% of global niobium supply**



Source: USGS.

## Pricing – historical stability

While Nb prices are largely governed by long-term contracts, typically benchmarked to CBMM's pricing, Shanghai Metals Exchange provides a useful proxy. Shanghai Metals Market (SMM) publishes indicative pricing for key forms including Nb, ferroniobium (FeNb60) and niobium pentoxide (Nb<sub>2</sub>O<sub>5</sub>), offering useful signals for market sentiment and contract renegotiations.

Given Nb's primary use as a microalloying agent in HSLA steel, its price is closely correlated to global steel production trends. Nb demand and pricing are thus inherently cyclical (vulnerable to broader macroeconomic downturns that typically weigh on steel production) yet still exhibit low volatility.

Nb pricing also has an interesting relationship with vanadium, another key steel-strengthening alloy. The steel sector responds rapidly to vanadium price swings by substituting with Nb. During price spikes, such as 2005, 2008 and 2018, steelmakers increasingly shift from vanadium to Nb to maintain cost efficiency. This shift from vanadium is a key reason for vanadium's poor pricing performance in the past 3 years.

Because of the large amount of reserves held by CBMM, the company ramps up Nb supply to meet rising demand, and vice versa. CBMM's ability to flex production to stabilise the market results in less dramatic price swings, giving Nb its stable pricing trait. In the last 3 years, FeNb60 prices have been relatively stable and have seen low volatility, compared to vanadium alloyed steel (FeV50) which has been much more volatile.

As Chinese steel production recovers, and demand increases with Europe's energy transition and higher global defence spending, we expect NbFe and Nb pricing to strengthen.

## Personal disclosures

Michael Bentley received assistance from the subject company or companies in preparing this research report. The company provided them with communication with senior management and information on the company and industry. As part of due diligence, they have independently and critically reviewed the assistance and information provided by the company to form the opinions expressed in this report. They have taken care to maintain honest and fair objectivity in writing this report and making the recommendation. Where MST Financial Services or its affiliates has been commissioned to prepare content and receives fees for its preparation, please note that NO part of the fee, compensation or employee remuneration paid has, or will, directly or indirectly impact the content provided in this report.

## Company disclosures

The companies and securities mentioned in this report, include:

St George Mining Ltd (SGQ.AX) | Price A\$0.065 | Valuation A\$0.150;

*Price and valuation as at 11 September 2025 (\* not covered)*

## Additional disclosures

This report has been prepared and issued by the named analyst of MST Access in consideration of a fee payable by: St George Mining Ltd (SGQ.AX)

## Other disclosures, disclaimers and certificates

## Methodology & Disclosures

MST Access is a registered business name of MST Financial Services Limited (ABN 54 617 475 180 "MST Financial Services"), which is a limited liability company incorporated in Australia on 10 April 2017 and holds an Australian Financial Services Licence (AFSL 500 557). This research is issued in Australia through MST Access, which is the research division of MST Financial Services. The research and any access to it, is intended only for "wholesale clients" within the meaning of the Corporations Act 2001 of Australia. Any advice given by MST Access is general advice only and does not take into account your personal circumstances, needs or objectives. You should, before acting on this advice, consider the appropriateness of the advice, having regard to your objectives, financial situation and needs. If our advice relates to the acquisition, or possible acquisition, of a financial product you should read any relevant Product Disclosure Statement or like instrument.

**ECM and corporate advisory services:** MST Financial Services provides equity capital markets ("ECM") and corporate advisory services through its capital markets division, MST Capital Markets ("MST Capital"). MST Capital provides these services to a range of companies including clients of MST Access. As such, MST Capital may in the future provide ECM and/or corporate advisory services and, accordingly, may receive fees from providing such services. However, MST Financial Services has measures in place to ensure the independence of its research division is maintained, including information barriers between its Capital Markets and Research teams. In addition, neither MST Access, nor any of its research analysts, receive any financial benefit that is based on the revenues generated by MST Capital or any other division of MST Financial Services.

**Accuracy of content:** All information used in the publication of this report has been compiled from publicly available sources that are believed to be reliable, however we do not guarantee the accuracy or completeness of this report and have not sought for this information to be independently certified. Opinions contained in this report represent those of MST Access at the time of publication. Forward-looking information or statements in this report contain information that is based on assumptions, forecasts of future results and estimates of amounts not yet determinable, and therefore involve known and unknown risks, uncertainties and other factors which may cause the actual results, performance or achievements of their subject matter to be materially different from current expectations.

**Exclusion of liability:** To the fullest extent allowed by law, MST Access shall not be liable for any direct, indirect or consequential losses, loss of profits, damages, costs or expenses incurred or suffered by you arising out of or in connection with the access to, use of or reliance on any information contained in this report. No guarantees or warranties regarding accuracy, completeness or fitness for purpose are provided by MST Access, and under no circumstances will any of MST Financial Services' officers, representatives, associates or agents be liable for any loss or damage, whether direct, incidental or consequential, caused by reliance on or use of the content.

## General Advice Warning

MST Access Research may not be construed as personal advice or recommendation. MST Access encourages investors to seek independent financial advice regarding the suitability of investments for their individual circumstances and recommends that investments be independently evaluated. Investments involve risks and the value of any investment or income may go down as well as up. Investors may not get back the full amount invested. Past performance is not indicative of future performance. Estimates of future performance are based on assumptions that may not be realised. If provided, and unless otherwise stated, the closing price provided is that of the primary exchange for the issuer's securities or investments. The information contained within MST Access Research is published solely for information purposes and is not a solicitation or offer to buy or sell any financial instrument or participate in any trading or investment strategy. Analysis contained within MST Access Research publications is based upon publicly available information and may include numerous assumptions. Investors should be aware that different assumptions can and do result in materially different results.

MST Access Research is distributed only as may be permitted by law. It is not intended for distribution or use by any person or entity located in a jurisdiction where distribution, publication, availability or use would be prohibited. MST makes no claim that MST Access Research content may be lawfully viewed or accessed outside of Australia. Access to MST Access Research content may not be legal for certain persons and in certain jurisdictions. If you access this service or content from outside of Australia, you are responsible for compliance with the laws of your jurisdiction and/or the jurisdiction of the third party receiving such content. MST Access Research is provided to our clients through our proprietary research portal and distributed electronically by MST Financial Services to its MST Access clients. Some MST Access Research products may also be made available to its clients via third party vendors or distributed through alternative electronic means as a convenience. Such alternative distribution methods are at MST Financial Services' discretion.

## Access & Use

Any access to or use of MST Access Research is subject to the [Terms and Conditions](#) of MST Access Research. By accessing or using MST Access Research you hereby agree to be bound by our Terms and Conditions and hereby consent to MST Financial Services collecting and using your personal data (including cookies) in accordance with our [Privacy Policy](#), including for the purpose of a) setting your preferences and b) collecting readership data so we may deliver an improved and personalised service to you. If you do not agree to our Terms and Conditions and/or if you do not wish to consent to MST Financial Services' use of your personal data, please do not access this service.

Copyright of the information contained within MST Access Research (including trademarks and service marks) are the property of their respective owners. MST Access Research, video interviews and other materials, or any portion thereof, may not be reprinted, reproduced, sold or redistributed without the prior written consent of MST Financial Services.