



TITANIUM · GRAPHITE · HEAVY RARE EARTHS

Redefining Western critical minerals supply chains

OCTOBER 2026

ASX: SVM | AIM: SVML | OTCQX: SVMLF | ABN: 71 120 833 427

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Competent Persons Statements

Definitive Feasibility Study

The information in this presentation that relates to the DFS (including Mine Engineering, Mine Scheduling, Processing, Infrastructure, Capital and Operating Costs, Production Target and Ore Reserves and other financial forecasts) is extracted from an announcement dated 16 April 2026, which is available to view at www.sovereignmetals.com.au. Sovereign confirms that a) it is not aware of any new information or data that materially affects the information included in the original announcement; b) all material assumptions included in the original announcement continue to apply and have not materially changed; and c) the form and context in which the relevant Competent Persons' findings are presented in this presentation have not been materially changed from the original announcement.

The information in this presentation that relates to the Mineral Resource Estimate is extracted from Sovereign's announcement dated 18 March 2026 entitled 'Kasiya Mineral Resource Estimate Significantly Upgraded Ahead of DFS' (MRE announcement), which is available to view at www.sovereignmetals.com.au, and is based on, and fairly represents information compiled by Mr Jeremy Witley, a Competent Person, who is a member of the South African Council for Natural Scientific Professions (SACNASP Pr. Sci. Nat.), a Recognised Professional Organisation (RPO) included in a list promulgated by ASX from time to time. Mr Witley is a principal of MSA Group, an independent consulting company. Sovereign confirms that a) it is not aware of any new information or data that materially affects the information included in the original announcement; b) all material assumptions included in the original announcement continue to apply and have not materially changed; and c) the form and context in which the relevant Competent Persons' findings are presented in original announcement have not been materially changed from the disclosure in the original announcement.

The information in this presentation that relates to the exploration results (rutile and graphite metallurgy) is extracted from announcements dated 28 September 2023, 8 May 2024, 15 May 2024, 4 September 2024, 21 January 2026 and 27 May 2026, which is available to view at www.sovereignmetals.com.au. Sovereign confirms that a) it is not aware of any new information or data that materially affects the information included in the original announcement; b) all material assumptions included in the original announcement continue to apply and have not materially changed; and c) the form and context in which the relevant Competent Persons' findings are presented in this presentation have not been materially changed from the original announcement.

DISCLAIMERS & DISCLOSURES (Continued)



Competent Persons Statements (Continued)

Monazite Scoping Study

The information in this presentation that relates to the Scoping Study (including Infrastructure, Capital and Operating Costs, Production Target and economic analysis and other financial forecasts) exploration results and metallurgical testwork is extracted from an announcement dated 9 September 2026 entitled "Scoping Study Confirms Kasiya's Potential as a Globally Significant And Strategic Source Of Critical Rare Earths", which is available to view at www.sovereignmetals.com.au. Sovereign confirms that a) it is not aware of any new information or data that materially affects the information included in the original announcement; b) all material assumptions included in the original announcement continue to apply and have not materially changed; and c) the form and context in which the relevant Competent Persons' findings are presented in this presentation have not been materially changed from the original announcements.

The information in this presentation that relates to the Mineral Resource Estimate (Monazite) is extracted from Sovereign's announcement dated 9 September 2026, which is available to view at www.sovereignmetals.com.au, and is based on, and fairly represents, information compiled by Mr Jeremy Witley, a Competent Person who is a member of the South African Council for Natural Scientific Professions (SACNASP Pr. Sci. Nat.), a RPO included in a list promulgated by ASX from time to time. Mr Witley is a principal of MSA Group, an independent consulting company. Sovereign confirms that a) it is not aware of any new information or data that materially affects the information included in the original announcement; b) all material assumptions included in the original announcement continue to apply and have not materially changed; and c) the form and context in which the relevant Competent Persons' findings are presented in original announcement have not been materially changed from the disclosure in the original announcement.

Cautionary Statement

The REC Scoping Study referred to in this presentation assesses the potential incremental recovery of monazite from mineral streams that potentially may be generated by the Kasiya Project as included in the April 2026 DFS. The Scoping Study is based on low-level technical and economic assessments, supported by project-specific metallurgical testwork and the existing DFS production schedule. Consistent with the preliminary nature of a Scoping Study, it is not sufficient to support the estimation of Ore Reserves for the additional products or to provide assurance of an economic development case for those products at this stage. Further evaluation and appropriate studies are required before the additional products can be assessed as to whether they can be estimated as Ore Reserves and be incorporated into a definitive development case. The Scoping Study has been prepared to an accuracy level of $\pm 30\%$. The results should not be considered a profit forecast or production forecast.

Authorisation statement

This presentation has been approved and authorised for release by the Company's Managing Director & CEO, Mr Frank Eagar.



America's exposure - titanium, graphite, heavy rare earths

TITANIUM

100%

U.S. import reliance

Titanium “sponge” - the metal of airframes, naval and aerospace systems for U.S. defence and aerospace primes is produced by Japan

Japan needs unencumbered feedstock to maintain titanium sponge supply

China is actively pursuing a strategy to control this supply chain

NATURAL GRAPHITE

100%

U.S. import reliance

~77% of **flake graphite** production and ~100% of **anode** processing by China

China has weaponized its monopoly through export controls

HEAVY RARE EARTHS

100%

U.S. import reliance

No U.S. commercial-scale production of Dy, Tb or Y; overall rare earth import reliance still ~67%

China continues to weaponize supply through export controls

**Washington's response has included price floors, stockpiles and offtake vehicles.
The vulnerability is structural.**

Sources: U.S. Geological Survey (USGS) Mineral Commodity Summaries 2026; U.S. Government arrangements as publicly announced.



Sovereign Metals - Kasiya Critical Minerals Project, Malawi

TITANIUM

- World's largest natural rutile resource
- Cleanest, highest-grade titanium mineral
- 1st rutile-dominant deposit found in over 50 years
- 26.3Mt contained rutile at 95%+ TiO₂
- 222ktpa at steady state

GRAPHITE

- World's 2nd largest flake graphite resource
- Both battery and industrial grade
- 37.3Mt contained flake graphite
- 275ktpa at steady state
- By-product with production costs ~25% below China

HEAVY RARE EARTHS

- Monazite concentrate with five of the seven China export-controlled rare earths
- Dy, Tb, Y, Sm, Gd all at elevated levels
- NdPr levels in line with current producers
- Lowest product costs as a by-product
- ~2.6ktpa @ ~57% TREO at steady state

PRODUCT QUALIFICATION

- ✓ Toho — validated for all and any end uses
- ✓ Verified premium product for welding

PRODUCT QUALIFICATION

- ✓ Industrial grade: refractories, expandables, high-purity
- ✓ Battery grade: in line with, and better than, BTR (China's largest anode producer)

PRODUCT QUALIFICATION

- ⌚ In progress: testwork underway with Western refiners

Note: Per the Kasiya DFS (April 2026) and REC Scoping Study (September 2026). Refer to those announcements for material assumptions and cautionary statements.

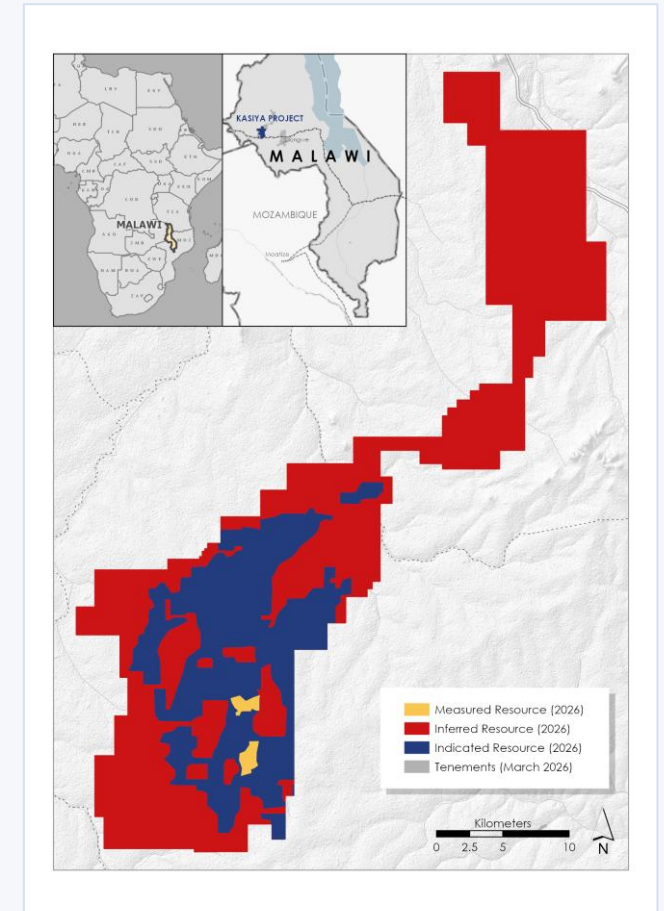
Tier-1 scale in three critical minerals

3.4Bt
TOTAL COMBINED RESOURCE

26.3Mt
CONTAINED RUTILE
World's #1

37.3Mt
CONTAINED GRAPHITE
World's #2

69kt
CONTAINED MONAZITE
Significant heavy rare earths



Sources: See Appendices 1, 2 and 3 for MRE tables



De-risking profile



Rio Tinto

Technical input throughout mining, process and ESG



Pilot mining complete

Real-world mining inputs, completed ahead of the DFS



IFC/World Bank Collaboration Agreement

Environmental & social input - IFC Performance Standards alignment

Financing rights to fund Kasiya – debt & equity



DFS complete

Definitive Feasibility Study for rutile & graphite - April 2026



Monazite study complete

Rare earths circuit - September 2026, with maiden monazite MRE (74% Indicated)



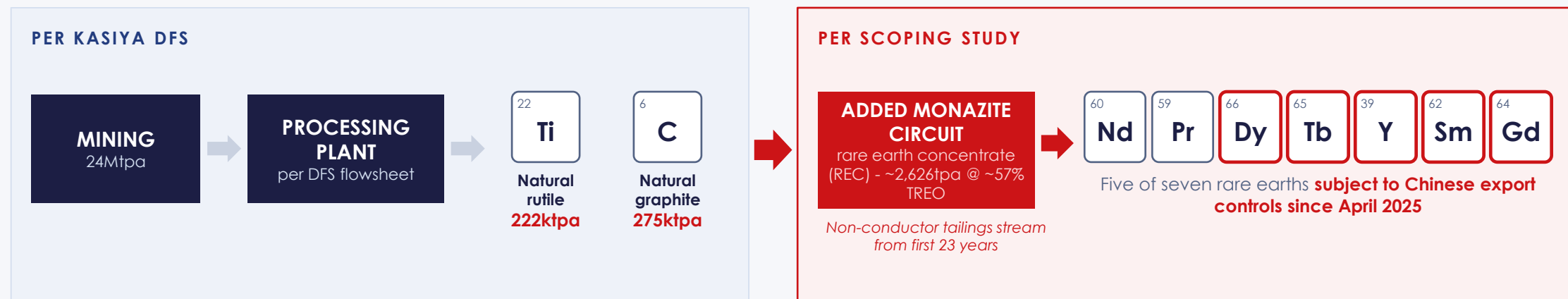
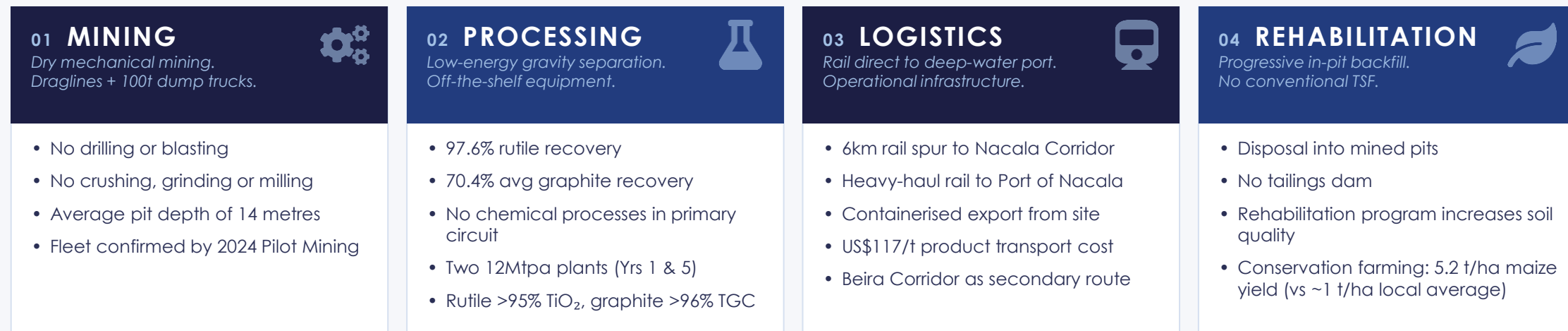
U.S. engagement

Integrating into U.S. legislative and executive (White House) discussions on critical mineral supply chains inc. Project Vault

Note: Per the Kasiya DFS (April 2026) and REC Scoping Study (September 2026).



Simple by design - mine to market



Note: Per the Kasiya DFS (April 2026) and REC Scoping Study (September 2026).



Malawi - stable · democratic · Western-aligned



New U.S. Embassy, Lilongwe - under construction

COMMONWEALTH DEMOCRACY

Multi-party democracy since 1994 · English common law · English official language

ACTIVE AFRICOM ENGAGEMENT

Strong bilateral U.S. relations · AFRICOM (U.S. DOW) · U.S. Air Forces Africa

CHAMBER OF MINES LEADERSHIP

Presided over by Sovereign's Country Manager, Maxwell Kazako

DEEPENING U.S. ENGAGEMENT

U.S. Deputy Assistant Secretary of State visited Sovereign's Malawi facilities

WORLD BANK-BACKED MINING

One of four inaugural metals & minerals compact countries; US\$30B export roadmap to 2040

INFRASTRUCTURE BEING UPGRADED

US\$350M grid grant · 375MW hydro (2030) · US\$7Bn Nacala corridor

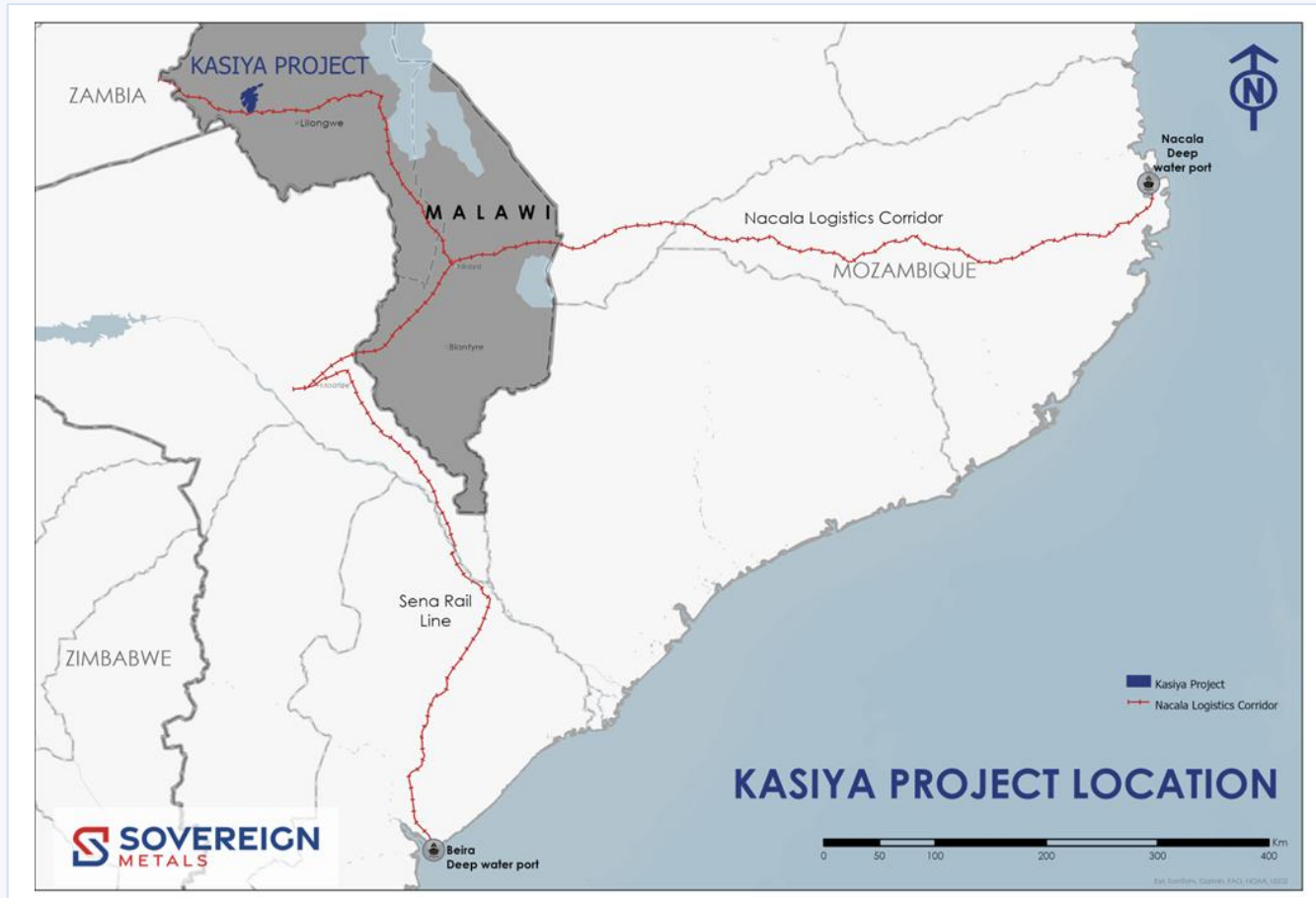
Active in Malawi: World Bank · IFC · IMF · AfDB · Afreximbank · DFC · JICA · JOGMEC · JBIC · KfW · BII · Norfund · EIB / EC · EDF · TotalEnergies

Sources: World Bank Group (metals & minerals compacts, Apr 2026; Malawi minerals roadmap); Government of Japan; Malawi Chamber of Mines and Energy; U.S. Department of War.

CONNECTED TO GLOBAL MARKETS · RAIL TO PORT, COSTED TO AMERICA



Existing rail to two deep-water ports



EXISTING RAIL

Operational today – 6km rail spur to connect to Kasiya

TWO DEEP-WATER PORTS

Nacala corridor, with the Sena line to Beira as optionality

US\$7BN CORRIDOR UPGRADE

Japan-led, with an explicit critical-minerals focus

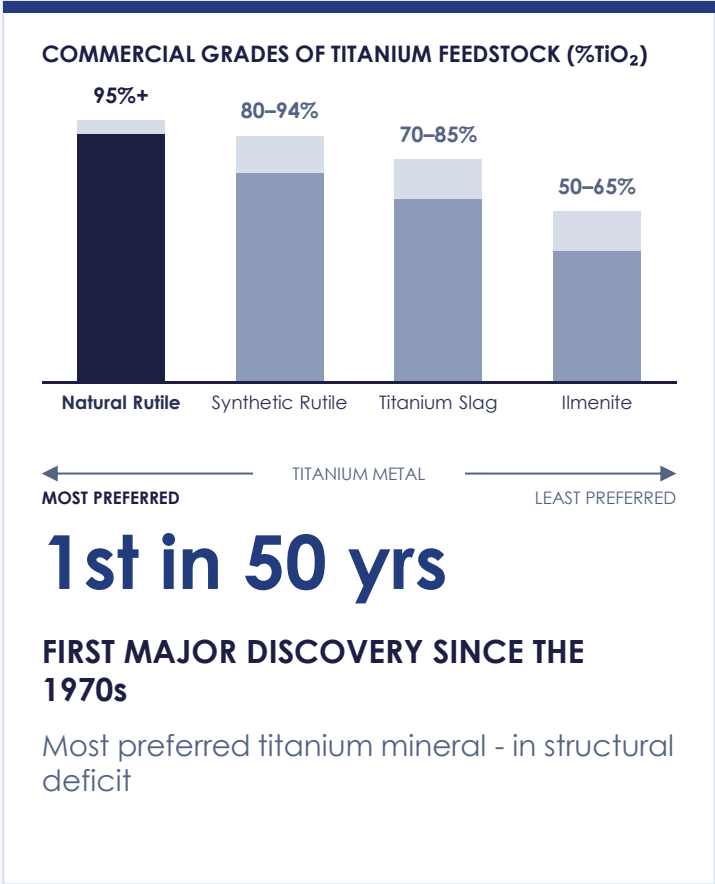
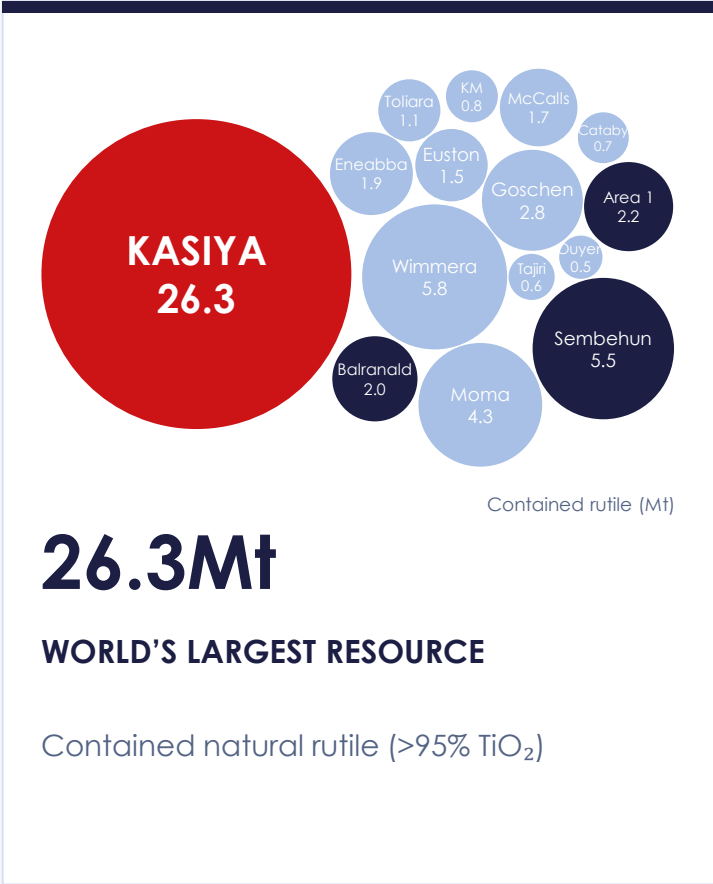
~US\$3.68/KG CIF TEXAS

REC costed landed in a U.S. Gulf port, end to end

Note: Per the Kasiya DFS (April 2026) and REC Scoping Study (September 2026); corridor investment per Government of Japan announcements.



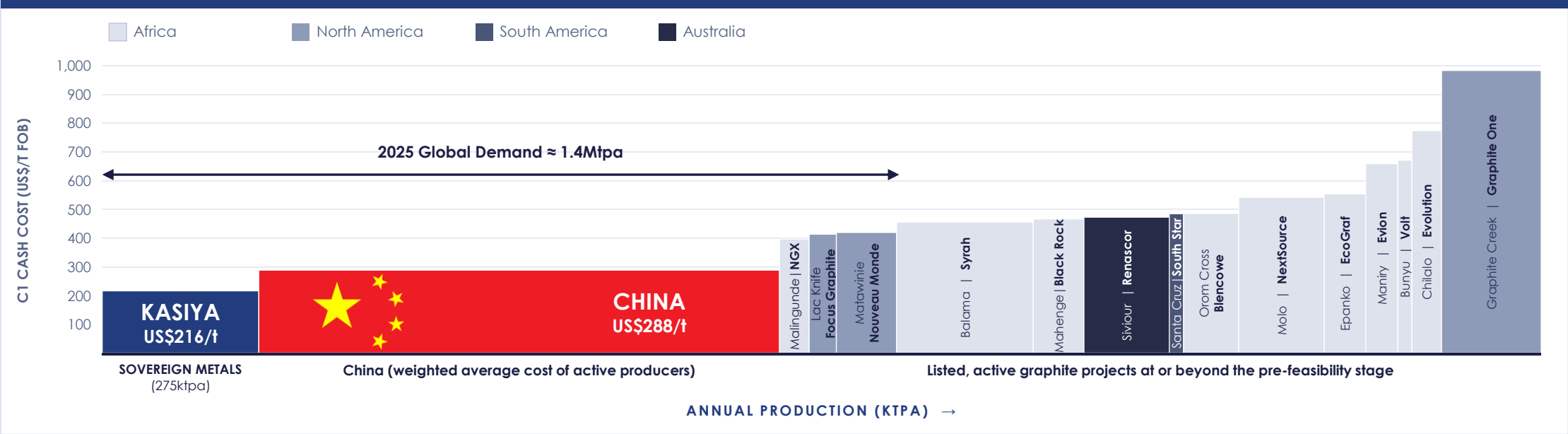
The cleanest, highest-grade titanium feedstock



Note: Per the Kasiya DFS (April 2026). Peer resources per Appendix 4. See Appendix 10 for end use equivalents source data.



Flake graphite at a cost China cannot match



37.3Mt

WORLD'S 2ND LARGEST RESOURCE

Contained natural flake graphite (96% C)

~25% below China

LOWEST COST PRODUCER

C1 production costs of US\$216/t vs China US\$288/t



~2,200 GWh

OF BATTERY CELLS

3x America's 2031 requirement

Note: Per the Kasiya DFS (April 2026); peer C1 costs and production per Appendix 5; China production 914,774t and cash costs per Benchmark Resource Intelligence (2025). See Appendix 10 for end use equivalents source data.



A heavy REE basket with potential to feed U.S. refiners

5 of 7

EXPORT-CONTROLLED RARE EARTHS

Dy, Tb, Y, Sm, Gd in the basket

~US\$3.68/kg

ALL-IN COST, CIF TEXAS

Low-cost delivery into the U.S.

~57%

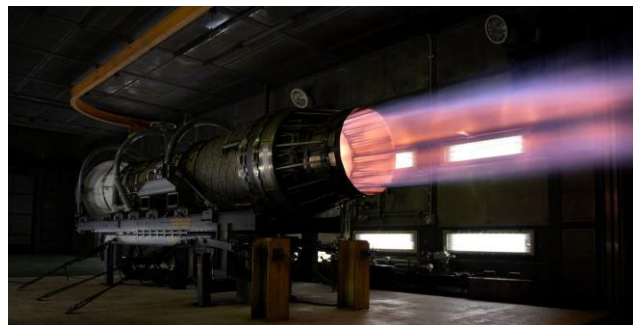
TREO CONCENTRATE

A heavies-rich concentrate



~7 million

HUMANOID ROBOTS' MAGNETS OVER LOM



~35%

OF CURRENT ANNUAL U.S. YTTRIUM DEMAND



~23 years

OF U.S. SAMARIUM SUPPLY OVER SCOPING STUDY LOM

Note: Per the REC Scoping Study (September 2026). LOM: life of mine of 23 years per REDC Scoping Study. See Appendix 10 for end use equivalents source data.



A basket weighted to high-value heavy rare earths



Note: Basket values per the REC Scoping Study (September 2026), See Appendix 9 for source data. Prices: S&P Global Platts (30 Sep 2026); Asian Metal (12 Aug 2026) and historical yttrium range, as reported by Petra Capital Pty Ltd (2 Sep 2026).



Monazite potentially broadens Kasiya's funding options

THREE CONTRACTABLE PRODUCTS



WHAT IT CAN MEAN FOR FUNDING



PATH TO VALUE



Note: Per the REC Scoping Study (September 2026). Rutile (Mitsui) and graphite (Traxys) agreements are non-binding MOUs. Funding outcomes are illustrative and not assured.



US\$2.2B definitive foundation, potential high-return rare earths

	NPV (PRE-TAX)	CAPEX	NPV ÷ CAPEX	ANNUAL EBITDA	OPERATING MARGIN
Kasiya DFS (Apr 2026) Rutile & graphite · 25-year LOM	US\$2.2B 25-year initial LOM	US\$727M to first production	3.0x as published	US\$476M steady state	64% FOB Nacala
REC Study (Sep 2026) Monazite · 23-year LOM (Accuracy ±30%)	~US\$722M 151% IRR · 1.5-yr payback	~US\$29M no additional mining	~24.9x incremental basis	~US\$84M steady state	~90% CIF Texas

vs current market cap: ~US\$210M

Downside tested - at U.S. Government floor prices the rare earths circuit still returns ~US\$183M NPV₈, a ~43% IRR and ~6.3x its capital, pre-tax

Note: Per the Kasiya DFS (April 2026) and REC Scoping Study (September 2026). Floors applied as a downside assumption only; Kasiya is not party to any floor arrangement.



Corporate, ownership & the team

CAPITAL STRUCTURE & OWNERSHIP

Share price shares on issue	A\$0.46 / 24.5p 656M
Market capitalisation	A\$300M / US\$210M
Cash / debt (30 Jun 2026)	A\$25M / no debt
Rio Tinto	~18%
Board & management	~11%

OFFTAKE PARTNERS

- Mitsui (rutile MOU) · Traxys – Project Vault (graphite MOU)
- Further US and US-allied offtake discussions underway

TEAM

- Over 200 years of mine feasibility, financing, construction and operating experience
- Over 10 mining projects taken from feasibility to construction / operation
- Successful track record of mine development financing via debt, offtake, strategic investment and equity

UPCOMING CATALYSTS

- Binding offtake agreements
- Rare earth studies and testwork
- Permitting
- FID

Note: Share price information as at 13th October 2026.

KASIYA

A GLOBALLY STRATEGIC CRITICAL MINERALS ASSET



DEFINITIVE

STRATEGIC

DE-RISKED

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APPENDICES

Kasiya rutile & graphite Mineral Resource Estimates

Kasiya March 2026 Model – Rutile Mineral Resource

Category	Class	Tonnes (Mt)	Rutile Grade (%)	Rutile (Mt)	TGC (%)	TGC (Mt)	Rutile Eq. (%)
Rutile Mineralisation	Measured	107	1.05	1.12	1.56	1.67	1.94
>=0.4% Rut95	Indicated	1,545	0.97	14.99	1.05	16.26	1.57
	Inferred	452	0.91	4.12	0.45	2.02	1.17
Total Rutile MRE		2,105	0.96	20.24	0.95	19.95	1.51
Rutile Mineralisation	Measured	1	0.24	0	1.88	0.02	1.32
<0.4% Rut95	Indicated	40	0.25	0.1	1.92	0.77	1.35
	Inferred	7	0.22	0.02	1.69	0.12	1.19
Total internal waste in RPEEE		48	0.24	0.12	1.88	0.91	1.32
Total Rutile in Pit Shell		2,153	0.95	20.35	0.97	20.86	1.5

Note: Rutile Mineral Resource defined from an optimised pit shell with mineralisation defined as >= 0.75% Rut95. A rutile concentrate net price of US\$1,400 was used to maximise economic value. Graphite had no value for this run.

Kasiya March 2026 Model – Graphite Mineral Resource

Category	Class	Tonnes (Mt)	TGC (%)	TGC (Mt)	Rutile Grade (%)	Rutile (Mt)	Rutile Eq. (%)	Dry BD
TGC>=0.6%	Measured	30	1.99	0.59	0.52	0.15	1.67	1.74
	Indicated	629	1.86	11.69	0.4	2.53	1.47	1.69
	Inferred	201	1.7	3.42	0.3	0.61	1.28	1.7
Subtotal HG		860	1.83	15.7	0.38	3.29	1.43	1.69
TGC<0.6%	Measured	0.6	0.23	0	0.68	0	0.81	1.66
	Indicated	195	0.23	0.45	0.65	1.27	0.78	1.6
	Inferred	220	0.15	0.33	0.65	1.42	0.73	1.57
Subtotal MG		415	0.19	0.78	0.65	2.69	0.76	1.59
Total Graphite MRE		1,275	1.29	16.48	0.47	5.98	1.21	1.66

Note: Graphite Mineral Resource is all material inside the total MRE pit shell after depletion of the Rutile Mineral Resource.

Kasiya global Mineral Resource Estimates & Ore Reserves

Kasiya March 2026 – Global Mineral Resource – Rutile and Graphite

Class	Tonnes (Mt)	Rutile Grade (%)	Rutile (Mt)	TGC (%)	TGC (Mt)	Rutile Eq. (%)	Dry BD
Measured	139	0.93	1.3	1.65	2.3	1.87	1.67
Indicated	2,409	0.78	18.9	1.21	29.2	1.48	1.62
Inferred	881	0.7	6.2	0.67	5.9	1.08	1.59
Total	3,428	0.77	26.3	1.09	37.3	1.39	1.62

Note: The Total MRE includes all rutile and graphite mineralisation within an optimised open pit shell using a 95%+TiO₂ rutile (Rut95) concentrate revenue price of net US\$1,400/t and a Graphite product price of net US\$1,200/t; Mine Opex US\$1.35/t; Process Opex US\$5.44/t; Rutile recovery of 97.6%; Average Graphite recovery of 70.4%. Figures are rounded and may not sum exactly.

Kasiya March 2026 – Ore Reserve - Rutile (Rut95) + Graphite (TGC)

Class	Tonnes (Mt)	Rutile Grade (%)	Rutile (Mt)	TGC (%)	TGC (Mt)	Rutile Eq. (%)	Dry BD
Proved	78	1.03	0.80	1.65	1.28	1.87	1.67
Probable	458	0.94	4.29	1.54	7.07	1.47	1.62
Total	536	0.95	5.09	1.56	8.35	1.39	1.62

The Total Ore Reserve is all rutile and graphite mineralisation within an optimised open pit shell using a Rut95 concentrate revenue price of net US\$1,286.81/t and a Graphite product price of net US\$1,099.51/t; Mine Opex US\$1.35/t; Process Opex US\$5.44/t; Rutile recovery of 97.6%; Average Graphite recovery of 70.4%.



Kasiya monazite Mineral Resource Estimate

Kasiya September 2026 – Monazite mineral resource estimate

Class	Tonnes (Mt)	Monazite Grade (%)
Indicated	386.9	0.0135
Inferred	137.5	0.0125
Total	524.4	0.0132

Notes:

1. The mineral resource is constrained to the Kasiya rutile and graphite DFS open pits to satisfy RPEEE
2. No cut-off is applied and the total volume within the DFS open pits will be processed with monazite concentrate being produced as a by-product of the Kasiya rutile and graphite production
3. The grade % is the in-situ grade of monazite mineral calculated from the recovered magnetic concentrate fraction of the HMS within the sand fraction (>45um <600um)

Natural rutile resource information (slide 11)

Ref	Company	Project	Stage of Development	Source
1	Iluka Resources	Wimmera	DFS	Ore Reserves and Mineral Resources statement 2025 https://www.iluka.com/media/ntnd53oo/iluka-resources-ore-reserves-and-mineral-resources-as-at-31-december-2024.pdf
2	Leonoil (ex.Sierra Rutile)	Sembehun	DFS	2023 Annual Report https://sierra-rutile.com/media/52zon0go/sierra-rutile-2023-annual-report.pdf
3	Kenmare Resources	Moma (Various)	Production	2024 Annual Report https://wp-kenmare-2024.s3.eu-west-2.amazonaws.com/media/2025/04/2025-04-14-Kenmare-2024-Annual-Report.pdf#page=35
4	VHM	Goschen	DFS / Permitted	Corporate Presentation (26 Mar 2026) https://wcsecure.weblink.com.au/pdf/VHM/03072246.pdf
5	Leonoil (ex.Sierra Rutile)	Area 1	Production	2023 Annual Report https://sierra-rutile.com/media/52zon0go/sierra-rutile-2023-annual-report.pdf
6	Iluka Resources	Balranald	Construction	Ore Reserves and Mineral Resources statement 2025 https://www.iluka.com/media/ntnd53oo/iluka-resources-ore-reserves-and-mineral-resources-as-at-31-december-2024.pdf
7	Iluka Resources	Eneabba	Construction	Ore Reserves and Mineral Resources statement 2025 https://www.iluka.com/media/ntnd53oo/iluka-resources-ore-reserves-and-mineral-resources-as-at-31-december-2024.pdf
8	Image Resources	McCalls	Resource	Corporate Presentation 30 May 2025 https://app.sharelinktechnologies.com/announcement-preview/asx/5953be32f215f379c7d1903671e85994
9	Iluka Resources	Euston	Resource	Ore Reserves and Mineral Resources statement 2025 https://www.iluka.com/media/ntnd53oo/iluka-resources-ore-reserves-and-mineral-resources-as-at-31-december-2024.pdf
10	Energy Fuels	Toliara	DFS	NI 43-101 and S-K 1300 Feasibility Study https://www.energyfuels.com/wp-content/uploads/2026/01/FS-Vara-Mada-Project-Report-NI43-101-FINAL-01.07.2026.pdf
11	MRG Metals	Koko Massava	Resource	2023 Annual Report https://wcsecure.weblink.com.au/pdf/MRQ/02717754.pdf
12	Iluka Resources	Cataby	Production	Ore Reserves and Mineral Resources statement 2025 https://www.iluka.com/media/ntnd53oo/iluka-resources-ore-reserves-and-mineral-resources-as-at-31-december-2024.pdf
13	Shenge Resources	Tajiri	Scoping Study	2024 Annual Report (Strandline Resources Limited) https://clients3.weblink.com.au/pdf/STA/02860612.pdf
14	Iluka Resources	Ouyen	Production	Ore Reserves and Mineral Resources statement 2025 https://www.iluka.com/media/ntnd53oo/iluka-resources-ore-reserves-and-mineral-resources-as-at-31-december-2024.pdf

Notes: Does not include any projects where rutile is not reported separately within HMC assemblage.

Natural rutile resource information (slide 11) – cont.

1. Wimmera	Mt	Rutile Grade	Contained Rutile
Measured	246	0.31%	0.8
Indicated	535	0.29%	1.5
Inferred	1,327	0.38%	3.1
Total	2,108	0.28%	5.8
2. Sembehun	Mt	Rutile Grade	Contained Rutile
Measured	133.77	1.38%	1.85
Indicated	166.82	1.05%	1.75
Inferred	207.20	0.93%	1.93
Total	507.79	1.09%	5.53
3. Moma	Mt	Rutile Grade	Contained Rutile
Reserves not included in Resources	1,420	0.05%	0.8
Measured	363	0.06%	0.2
Indicated	2,879	0.05%	1.4
Inferred	4,296	0.04%	1.8
Total	8,958	0.05%	4.3
4. Goschen	Mt	Rutile Grade	Contained Rutile
Measured	25	0.5%	0.1
Indicated	360	0.3%	1.2
Inferred	500	0.3%	1.6
Total	890	0.3%	2.8

5. Area 1	Mt	Rutile Grade	Contained Rutile
Measured	41.85	0.99%	0.41
Indicated	103.53	0.91%	0.94
Inferred	123.32	0.71%	0.88
Total	268.7	0.83%	2.23
6. Balranald	Mt	Rutile Grade	Contained Rutile
Measured	6	5.7%	0.3
Indicated	35	3.8%	1.3
Inferred	13	3.0%	0.4
Total	54	3.7%	2.0
7. Eneabba	Mt	Rutile Grade	Contained Rutile
Measured	249	0.4%	0.9
Indicated	177	0.4%	0.7
Inferred	93	0.4%	0.3
Total	518	0.4%	1.9
8. McCalls	Mt	Rutile Grade	Contained Rutile
Measured	-	-	-
Indicated	1,630	0.05%	0.8
Inferred	1,980	0.05%	0.9
Total	3,610	0.05%	1.7
9. Euston	Mt	Rutile Grade	Contained Rutile
Measured	-	-	-
Indicated	34	3.5%	1.2
Inferred	14	1.7%	0.2
Total	48	3.1%	1.5

10. Toliara	Mt	Rutile Grade	Contained Rutile
Measured	597	0.06%	0.4
Indicated	793	0.04%	0.3
Inferred	1,390	0.03%	0.4
Total	1,190	0.03%	1.1
11. Koko Massava	Mt	Rutile Grade	Contained Rutile
Measured	-	-	-
Indicated	557	0.05%	0.3
Inferred	977	0.05%	0.5
Total	1,531	0.05%	0.8
12. Cataby	Mt	Rutile Grade	Contained Rutile
Measured	105	0.2%	0.2
Indicated	63	0.1%	0.1
Inferred	65	0.1%	0.1
Total	233	0.3%	0.7
13. Tajiri	Mt	Rutile Grade	Contained Rutile
Measured	74	0.2%	0.1
Indicated	165	0.2%	0.4
Inferred	29	0.2%	0.1
Total	268	0.2%	0.6
14. Ouyen	Mt	Rutile Grade	Contained Rutile
Measured	-	-	-
Indicated	10	1.9%	0.2
Inferred	24	1.5%	0.4
Total	34	1.6%	0.5



Flake graphite operating cost information (slide 12)

Company	Project	Stage of Development	Steady State Production tpa	C1 Cash Costs US\$/t	Notes	Source
NGX	Malingunde	PFS Complete	52000	396	-	Company Presentation: Clean Energy Minerals in Africa (August 2024) https://cdn-api.markitdigital.com/apiman-gateway/ASX/asx-research/1.0/file/2924-02844363-6A1222369&v=fc9bdb61fe50ea61f8225e24ce041a0e155a9400
Focus Graphite	Lac Knife	FS Complete	47781	413	Converted from Canadian Dollars to US Dollars based on exchange rate used in source document of 1.00 CAD / 0.736 USD	Company Announcement: NI 43-101 Technical Report – Feasibility Study Update Lac Knife Graphite Project Québec, Canada (14 April 2023) https://focusgraphite.com/wp-content/uploads/2021/07/J5116-Focus-Lac-Knife-Tech-Rep-FSU-1.pdf
Nouveau Monde Graphite	Matawinie	Construction	105882	419	-	Press Release: Updated Feasibility Study for the Matawinie Mine https://nmg.com/updated-feasibility-study/
Syrah Resources	Balama	Production	240000	455	Production based on Company guidance of 20kt per month production rate. Operating costs based on midpoint of Balama C1 cost (FOB Nacala/Pemba) medium-term guidance of US\$430-480 per tonne.	Company Presentation: Equity Raising and US Government Strategic Funding Proposals (26 March 2026) https://www.syrahresources.com.au/investors/asx-announcements#
Black Rock Mining	Mahenge	Financing post eDFS	89000	466	Operating costs are for first 10 years therefore average production of first 10 years only shown	Company Announcement: Black Rock Completes FEED and eDFS Update (10 October 2022) https://blackrockmining.com.au/wp-content/uploads/BlackRockCompletesFEEDAndeDFSUpdate.pdf
Renascor	Siviour	DFS Complete	150000	472	-	Company Announcement: Siviour Battery Anode Material Study Results (8 August 2023) https://renascor.com.au/wp-content/uploads/2023/08/20230808-Siviour-Battery-Anode-Material-Study-Results-2588185.pdf

Flake graphite operating cost information (slide 12) – cont.

Company	Project	Stage of Development	Steady State Production tpa	C1 Cash Costs US\$/t	Notes	Source
South Star Battery Metals	Santa Cruz	Production	25000	484	Transport costs per Benchmark minerals	Technical Report: Updated Resources and Reserves Assessment and Pre-feasibility Study (18 March 2020) https://www.southstarbatterymetals.com/ydihapto/2021/04/NI43-101_PFS_Santa_Cruz_Mar18_2020.pdf
Blencowe Resources	Orom-Cross	PFS Complete	97000	485	Costs are AISC	Company Announcement: Definitive Feasibility Study Confirms Outstanding Economics for Orom-Cross Graphite Project (1 Dec 2025) https://blencoweresourcesplc.com/2025/12/01/dfs-results-confirms-outstanding-economics/
NextSource Materials	Molo	Production	150000	541	Figures relate to Molo expansion case. Operating Costs are US\$392.59/t Minesite Operating Cost plus Selling Cost of US\$148.80	Company Announcement: Nextsource Materials announces robust feasibility study results for Molo Mine expansion to 150,000 tonnes per annum of Superflake® graphite concentrate (12 December 2023) https://www.nextsourcematerials.com/nextsource-materials-announces-robust-feasibility-study-results-for-molo-mine-expansion-to-150000-tonnes-per-annum-of-superflake-graphite-concentrate/
Ecograp	Epanko	BFS Complete	73000	553	-	Updated Epanko BFS (25 February 2026) https://www.ecograp.com.au/wp-content/uploads/2026/02/3029888.pdf
Evion	Maniry	DFS Complete	56400	658	Production of 56.4ktpa is from year 4. Years 1-3 production is 39ktpa	BlackEarth Minerals Maniry Graphite Project Definitive Feasibility Study (3 November 2022) https://cdn-api.markitdigital.com/apiman-gateway/ASX/asx-research/1.0/file/2924-02593286-6A1120357?access_token=83ff96335c2d45a094df02a206a39ff4



Flake graphite operating cost information (slide 12) – cont.

Company	Project	Stage of Development	Steady State Production tpa	C1 Cash Costs US\$/t	Notes	Source
Volt Resources	Bunyu	Stage 1 FS Complete	24780	670	Relates to stage 1 development which has had a feasibility study completed	Company Announcement: Feasibility Study Update for Bunyu Graphite Project Stage 1, Tanzania, delivers significantly improved economics (14 August 2023) https://api.investi.com.au/api/announcements/vrc/d68bb8a5-dc8.pdf
Evolution Energy	Chilalo	DFS Complete	52000	773	Operating costs are for first 9 years of production	Company Announcement: FEED and updated DFS confirms Chilalo as a standout high margin, low Capex and development-ready graphite project (20 March 2023) https://api.investi.com.au/api/announcements/ev1/67aa3d24-039.pdf
Graphite One	Graphite Creek	FS Complete	175000	982	Production and costs relate to Graphite Creek Mine and not the proposed graphite manufacturing facility	Graphite Creek Project NI 43-101 Technical Report and Feasibility Study (25 March 2025) https://www.graphiteoneinc.com/wp-content/uploads/2025/04/NI-43101_FS_Report_20250422_Final.pdf

Notes:
 Analysis does not include projects:
 without at least a PFS-level study complete;
 owned by unlisted companies or companies in administration (voluntary or otherwise);
 in care and maintenance;
 with downstream studies which do not include a breakdown of graphite concentrate C1 costs

Key DFS metrics (steady state)

OPERATING METRICS	Units	Results
Initial Life of Mine (LOM)	Yrs	25
Total Ore Mined	Mt	536
Phase 1 Plant Throughput (Yrs 1-4)	Mtpa	12
Phase 2 Plant Throughput (Yrs 5-25)	Mtpa	24
Annual Rutile Production (95%+ TiO ₂)	ktpa	222
Annual Graphite Production (96% TGC)	ktpa	275
FINANCIAL PERFORMANCE		
Total Revenue	US\$M	16,210
Annual Revenue	US\$M	728
Annual EBITDA	US\$M	476
Annual Free Cash Flow (pre-tax, unlevered)	US\$M	452
NPV8 (real, pre-tax)	US\$M	2,204
IRR (pre-tax)	%	23%
OPERATING AND CAPITAL EXPENDITURE		
Capex to First Production	US\$M	727
Total LOM Development Capex	US\$M	1,239
Total LOM Sustaining Capex	US\$M	431
Operating Costs (FOB Nacala)	US\$/t product	450

Key REC Scoping Study metrics (steady state) (Accuracy $\pm 30\%$)

OPERATING METRICS	Units	Results
Initial Life of Mine (LOM)	Yrs	23
PRODUCTION TARGET (Steady State Average)		
Monazite REC	tpa	2,626
Contained TREO	tpa %	1,485 56.6%
- of which NdPr oxide	tpa %	310 20.8%
- of which DyTb oxide	tpa %	36 2.5%
- of which Yttrium oxide	tpa %	193 13.0%
- of which Samarium + Gadolinium oxides	tpa %	82 5.5%
FINANCIAL PERFORMANCE		Base Case Western Supply Case
Rare earth basket price assumption (CIF Texas)	US\$/kg REC	39.45 47.34
Incremental Operating costs (Site)	US\$/kg REC	0.90
Incremental Operating costs (CIF Texas)	US\$/kg REC	~3.68 ~4.07
Operating Margin	%	90% 91%
Annual EBITDA (Steady State)	US\$M	84 102
Annual Free Cash Flow (Steady State, Pre-tax, Unlevered)	US\$M	82 99
INCREMENTAL ECONOMICS (Pre-tax, Real)		
Incremental Capex to First Production	US\$M	29
NPV ₈	US\$M	722 883
IRR	%	151% 172%
Payback on incremental capex	Yrs	1.5 1.5

Notes: Base Case represents Argus Media group (**Argus**) rare earths price forecasts with payability of 50%; Western Supply Case represents Argus rare earths price forecasts and payability of 60% representing value attributable to ex-China monazite concentrate supply.



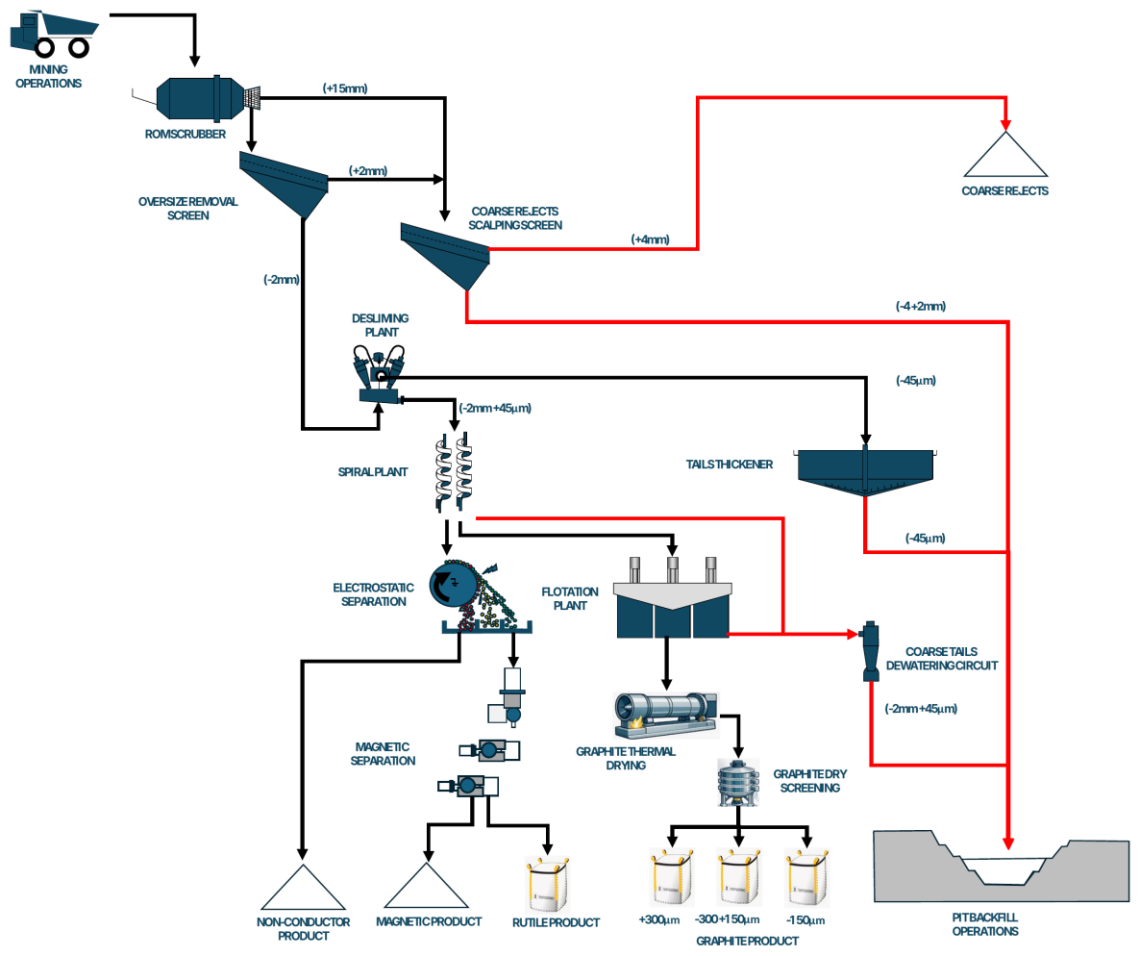
Product specifications

Kasiya Rutile Specifications

Constituent		Kasiya (Sovereign Metals)
TiO2	%	95.7
ZrO2+HfO2	%	0.18
SiO2	%	0.7
Fe2O3	%	0.98
Al2O3	%	0.44
Cr2O3	%	0.1
V2O5	%	0.58
Nb2O5	%	0.37
P2O5	%	0.018
MnO	%	0.007
MgO	%	0.001
CaO	%	0.011
S	%	0.005
U+Th	ppm	30

Kasiya Graphite Specifications

Particle Size		Flake Category	Weight Distribution	TGC
Micron (μ)	Tyler Mesh	(% w/w)	(%)	(%)
500	+32	Super Jumbo	11	96.2
300	+50	Jumbo	24.9	95.9
180	+80	Large	26.8	95.4
150	+100	Medium	9.2	96
-150	-100	Small	28.1	94.8
			100	95.50%





REE company specific sources (slide 14)

Project	Company	Status	Source Data	Link
Mt Weld	Lynas Rare Earths Ltd.	Producing	Vara Mada Feasibility Study NI43-101 & S-K 1300 Technical Summary (7-Jan-26)	https://www.energyfuels.com/wp-content/uploads/2026/01/FS-Vara-Mada-Project-Report-NI43-101-FINAL-01.07.2026.pdf
Mountain Pass	MP Materials Corp.	Producing	SEC FILING: 10-K - Mineral Resource Estimate (28-Feb-25)	https://d18m0p25nwr6d.cloudfront.net/CIK-0001801368/37126578-26fe-49e0-b0d2-12c6053a5a1b.pdf

End-use equivalents source data

1. U.S. rare earth production, consumption and import reliance

- U.S. Geological Survey, *Mineral Commodity Summaries 2026* (February 2026)
- U.S. rare earth production of 8,900t REO-equivalent in 2025 (4,300t in 2024);
- net import reliance approximately 67%;
- yttrium among 13 minerals at 100% net import reliance, with China the dominant supplier;
- no U.S. production of heavy rare earths (including Dy, Tb) at commercial scale;
- U.S. mineral-reliant industries US\$4.09 trillion of output, more than one-eighth of the U.S. economy
- Yttrium consumption basis (~550tpa) per USGS yttrium statistics, 2021–2025 average.

2. Chinese export controls

Ministry of Commerce of the People's Republic of China: export controls on seven medium and heavy rare earths (samarium, gadolinium, terbium, dysprosium, lutetium, scandium, yttrium), April 2025; controls extended to holmium, erbium, thulium, europium and ytterbium, October 2025.

3. U.S. Government floor prices and supply arrangements

- MP Materials / U.S. Department of Defense partnership announcement (10 July 2025): ten-year US\$110/kg NdPr floor price. ([LINK](#))
- Lynas Rare Earths ASX announcement (16 March 2026): U.S. Department of War supply arrangement applying the US\$110/kg NdPr floor. ([LINK](#))
- U.S. Department of War / Serra Verde offtake structure (20 April 2026): US\$1.55 billion government-backed vehicle; floor prices of US\$575/kg dysprosium oxide and US\$2,050/kg terbium oxide, escalating 2% per annum under a 15-year take-or-pay arrangement. ([LINK](#))

4. Samarium inventories and defence content

National Defense Magazine, "Stockpiles of Critical Mineral Needed for High-End Magnets Begin to Dwindle" (1 July 2026)

5. Platform rare earth content

- U.S. Congressional Research Service / U.S. Department of Defense figures as publicly reported: approximately 410kg of rare earth materials per F-35 airframe; approximately 4.2t per Virginia-class submarine.
- *Adamas Intelligence*: Per-unit content of electric vehicles and humanoid robots (~1–4kg)

6. End-use equivalents — bases of Sovereign's derivations

- ~7 million humanoid robots: contained NdPr + DyTb over the initial 23-year mine life at per-robot magnet content per item 5 above
- ≈18% of U.S. Dy/Tb separation nameplate: 36tpa contained DyTb against the 200tpa nameplate of the first U.S. heavy rare earth separation circuit (*MP Materials*, Q3 2025 results)
- ≈35% of U.S. yttrium consumption: 193tpa Y₂O₃ against average annual U.S. consumption per item 1.