



TSODILO RESOURCES LIMITED

Gcwihaba REE Project

2025 Update

Stakeholder Presentation - Rare Earth Elements Project, Botswana

October 2025

Forward Looking Statement

National Instrument 43-101 - Standards of Disclosure for Mineral Projects, Form 43-101F1 and Companion Policy 43-101CP requires that the following disclosure be made:

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Project Overview & Location

Project Specifications

Project Name

Gcwihaba REE Project – Skarn Occurrences C26 & C27

Location

Northwest Botswana, extension of Central African Copper Belt

Owner/Operator

Tsodilo Resources Limited (TSX-listed)

Geology

Skarn-hosted rare earth mineralization in marbles and schists

Exploration

No surface outcrop; resource defined through geophysics, soil sampling, and exploration discovery drilling

Mineralization

Complex REE minerals including carbonates (bastnäsite), silicates (allanite), and phosphates (monazite)



The Gcwihaba REE Project is located in the strategically important Northwest region of Botswana, representing an extension of the mineral-rich Central African Copper Belt. The project focuses on two significant skarn anomalies (C26 & C27) with promising rare earth element concentrations.

Initial exploration has identified a conceptual current exploration target of 81-97 Mt of skarn ore with grades ranging from 0.05% to 1.5% Total Rare Earth Oxide (TREO).

Strategic Importance of Rare Earth Elements (REEs)

Global Market Drivers

Rising

Projected to outstrip supply

Critical

For green energy transition

Strategic

For global supply security

Supply Constraints

Market Concentration

85%

China controls global processing

Global demand for REEs projected to grow at CAGR of 9.2% through 2030, creating critical supply shortages

Critical Applications



Permanent Magnets



Electric Vehicles



Electronics



Renewable Energy

Defense Systems

Critical for precision-guided weapons, radar systems, and communications infrastructure

Exponential Demand

Electric Vehicle Growth

1kg

REEs per motor

42%

Annual growth

Wind Turbine Magnets

600kg

REEs per MW capacity

Source: Industry forecasts and market research (2025). Gcwihaba project positioned to address growing demand across multiple sectors.

Resource Estimates

Key Resource Metrics

Exploration Target

81-97 Mt

Million tonnes of skarn ore

Grade Range (TREO)

0.05-1.5%

Total Rare Earth Oxide

Contained TREO

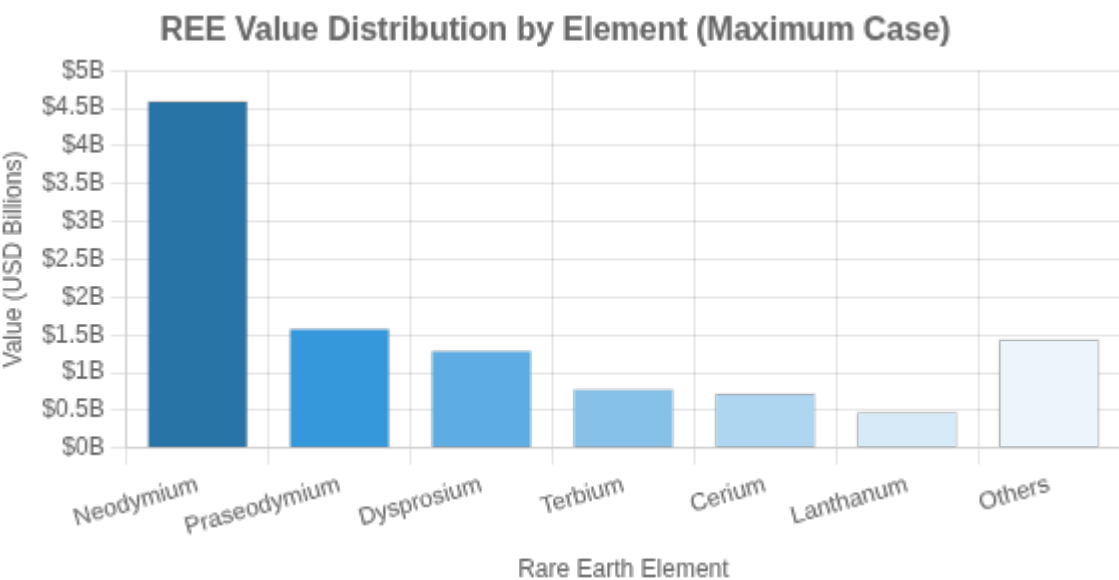
40K-1.45M t

Tonnes of rare earth oxides

Highest Recorded Grade

1.49% TREO

Drill hole 1822C27_6



2025 In-situ Value Range

Total Value Range

\$800M-\$20B

Based on September 2025 prices

Magnet REEs (Nd,Pr,Dy,Tb)

\$610M-\$7.9B

Critical for EV & tech applications

Updated valuations reflect September 2025 market prices, with neodymium oxide at \$77,325/t and terbium oxide at \$870/kg driving significant value potential.

Note: All resource figures represent current conceptual exploration targets and may be subject to change with further drilling and analysis.

Current Rare Earth Elements Pricing (September 2025)

Latest prices compiled from Metal.com, Institut für Seltene Erden (ISE), and Trading Economics as of September 30, 2025. All prices in USD.

The rare earth market continues to be dominated by China, controlling approximately 85% of global processing capacity. Neodymium prices have stabilized after reaching an all-time high of 1,520,000 CNY/T in February 2022, now trading at 785,000 CNY/T as of September 30, 2025.

↑ Price increase

↓ Price decrease

REE Oxide	Element	Price (USD/kg)	Price (USD/mt)	Change (30d)	Source
Nd ₂ O ₃	Neodymium	77.33	77,325.51	↑ 0.08%	Metal.com
Pr ₂ O ₃	Praseodymium	77.76	77,759.23	↑ 0.08%	Metal.com
Dy ₂ O ₃	Dysprosium	200.13	200,130.00	↑ 0.08%	Metal.com
Tb ₂ O ₃	Terbium	870.53	870,530.00	↑ 0.08%	Metal.com
CeO ₂	Cerium	1.38	1,375.50	↑ 0.08%	Metal.com
La ₂ O ₃	Lanthanum	0.56	557.64	↑ 0.08%	Metal.com
Eu ₂ O ₃	Europium	19.83	19,830.00	↑ 0.08%	Metal.com
Gd ₂ O ₃	Gadolinium	20.69	20,694.49	↑ 0.08%	Metal.com
Y ₂ O ₃	Yttrium	5.82	5,824.20	↑ 0.08%	Metal.com

Pricing Trends Rare earths magnets (Nd, Pr, Dy, Tb) continue to command premium pricing due to their critical applications in electric vehicles and wind turbines. Supply chain diversification efforts have helped stabilize prices throughout 2025, but strategic reserves and export quotas continue to influence market dynamics.

Gcwihaba Project REE Pricing Table

Element pricing based on latest market data (September 2025). Project values calculated using Gcwihaba Exploration Target of 81-97 Mt skarn with 0.05-1.5% TREO.

REE Oxide	Element	Price (USD/mt)	Lower Tonnage (0.05% TREO, 81 Mt)	Upper Tonnage (1.5% TREO, 97 Mt)	Value Lower (USD M)	Value Upper (USD M)
Nd ₂ O ₃	Neodymium	77,326	4,781	146,331	369.7	11,314.8
Pr ₂ O ₃	Praseodymium	77,759	1,635	50,047	127.1	3,891.6
CeO ₂	Cerium	1,376	19,224	588,605	26.5	809.9
La ₂ O ₃	Lanthanum	558	12,655	387,466	7.1	216.2
Dy ₂ O ₃	Dysprosium	200,130	209	6,381	41.8	1,277.1
Tb ₂ O ₃	Terbium	870,530	54	1,649	47.0	1,435.5
Sm ₂ O ₃	Samarium	1,983	493	15,085	1.0	29.9
Eu ₂ O ₃	Europium	19,830	103	3,152	2.0	62.5
Gd ₂ O ₃	Gadolinium	20,694	218	6,682	4.5	138.3
Ho ₂ O ₃	Holmium	66,916	34	1,037	2.3	69.4
Er ₂ O ₃	Erbium	41,451	66	2,030	2.7	84.1
Y ₂ O ₃	Yttrium	5,824	877	26,862	5.1	156.4

Total Estimated Project Value: **\$800M** **\$20,000M**

Critical Magnet Materials Highlighted elements (Nd, Pr, Dy, Tb) represent 92% of project value and are critical for manufacturing permanent magnets essential for electric vehicles, wind turbines, and various high-tech applications. The current global supply deficit in these elements underscores the strategic importance of the Gcwihaba project.

Metallurgy Advantage: The identified mineralogy (bastnäsite, allanite, monazite) at Gcwihaba represents well-established REE minerals with proven extraction methods. The project's exoskarn setting in marble-rich lithologies offers potential processing advantages compared to other complex REE deposits.

Polymetallic Potential: Gold, Silver & Copper at C26 & C27

Polymetallic skarn occurrences at C26 & C27 contain significant concentrations of gold, silver, and copper alongside REE mineralization. Latest metal pricing from Bloomberg, Kitco, and Trading Economics (October 2, 2025).

 Precious Metals

 Base Metals

The polymetallic nature of the C26 & C27 skarn occurrences offers significant processing synergies. Modern processing technologies allow for sequential recovery of base and precious metals alongside REEs, potentially enhancing overall project economics and reducing per-unit recovery costs.

Metal	Concentration at C26 & C27	Current Price (Oct 2025)	Price Unit	Resource Estimate (81-97 Mt)	Potential In-Situ Value Range
 Gold (Au)	0.1 g/t	\$3,892.61	per troy oz	8,100 - 9,700 kg (260,422 - 311,865 oz)	\$1.01 - \$1.21 billion
 Silver (Ag)	1.0 g/t	\$47.99	per troy oz	81,000 - 97,000 kg (2.60 - 3.12 million oz)	\$125 - \$150 million
 Copper (Cu)	0.25% - 0.4% over 5m	\$4.89 \$10,379	per pound per tonne	202,500 - 388,000 tonnes	\$2.10 - \$4.03 billion
 Cobalt (Co)	0.02%	\$33,750	per tonne	16,200 - 19,400 tonnes	\$547 - \$655 million
 Iron (Fe)	28%	\$110	per tonne	22.7 - 27.2 million tonnes	\$2.50 - \$2.99 billion

Total Polymetallic Resource Value (excluding REEs):

\$6.28 - \$9.04 billion

Combined Resource Value: REE + Gold, Silver & Copper

Total Project Potential Value

REE Value Range

\$800 Million - \$20 Billion USD
Based on 81-97 Mt @ 0.05-1.5% TREO

Polymetallic Value Addition

\$6.28 - \$9.04 Billion USD
Based on Cu (0.25-0.4%), Au (0.1 g/t), Ag (1 g/t), Co (0.02%), Fe (28%) concentrations

Combined Potential Value

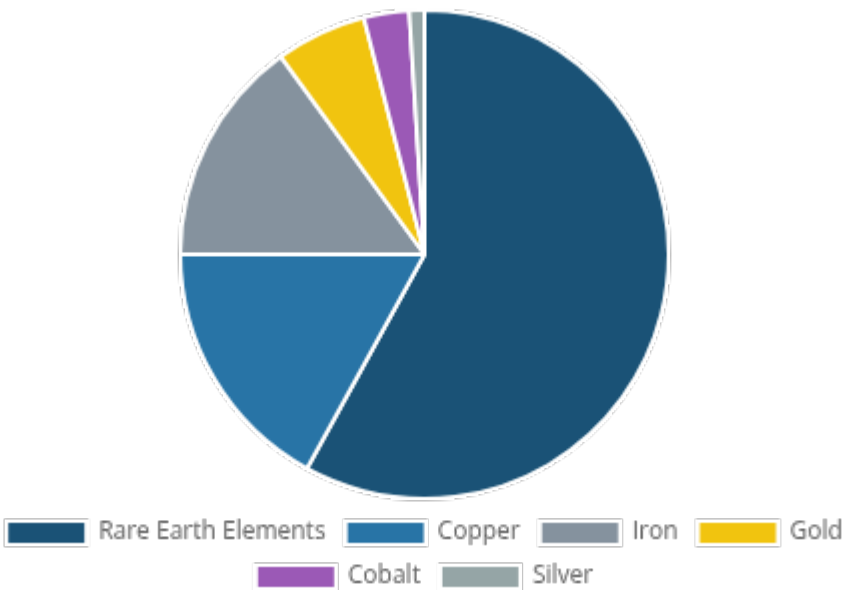
\$7.08 - \$29.04 Billion USD

Conceptual in-situ value range

Key Assumptions

Current metal prices (October 2025): Gold - \$3,893/oz, Silver - \$48/oz, Copper - \$4.89/lb
Additional metals: Iron - \$132/tonne, Cobalt - \$35,000/tonne
Polymetallic grades based on exploration discovery drillholes at C26 & C27
All values are conceptual in-situ estimates prior to mining, processing, and recovery factors

Value Contribution by Metal Group



Strategic Value Proposition

The Gcwihaba Project represents a significant opportunity for polymetallic resource development, with REEs providing the primary value driver while gold, silver, copper, cobalt, and iron credits enhance overall project economics and reduce potential production costs.

The polymetallic nature of the deposit provides important flexibility for future mine development, with multiple revenue streams reducing single-commodity price risk.

Market Valuation & Economics

In-situ Value Range

\$800M-\$20B

Based on September 2025 prices

Neodymium Oxide Value

\$495M-\$3.0B

Key magnet element value

Cerium Oxide Value

\$24M-\$577M

Most abundant REE value

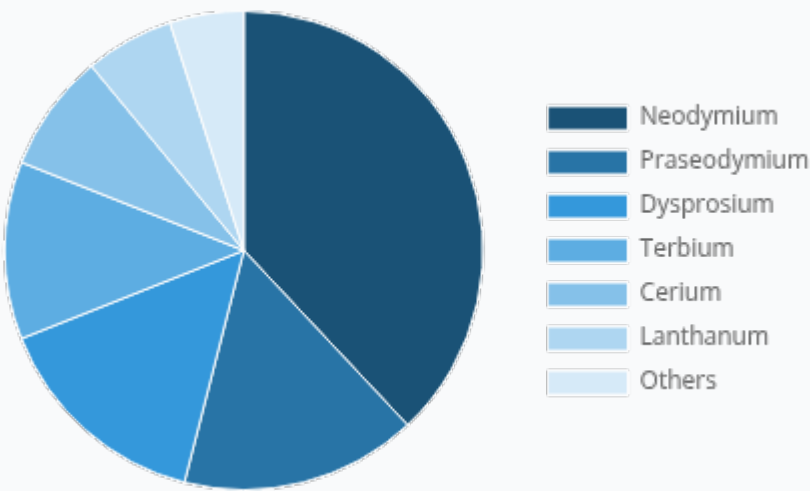
Element Value Breakdown

Total REE Value \$805M-\$19.5B (all elements combined)

Critical REE Values Nd+Pr: \$496M-\$3.1B | Dy+Tb: \$114M-\$2.8B

Critical for magnets & high-tech applications

Value Distribution by Element



Market Reference

Sept 2025 Prices:

Nd₂O₃: \$77,325/tonne

Pr₂O₃: \$77,759/tonne

Dy₂O₃: \$200,130/kg

Tb₄O₇: \$870,530/kg

Note: All values are conceptual, based on in-situ resources, and prior to any feasibility or economic studies. Values do not represent recoverable economic value.

Global Competitive Positioning

Competitive Advantages

Project	Location	Tonnage (Mt)	Grade (TREO%)
Gcwihaba (C26 & C27)	Botswana	97 (max)	1.5% (max)
Bayan Obo	China	800	6%
Mountain Pass	USA	18.4	7.98%
Mount Weld	Australia	51.0	5.4%
Lofdal	Namibia	0.1	0.18%
Steenkampskraal	South Africa	53.4	14.4%

Size & Grade Balance

Gcwihaba's up to 97 Mt @ 1.5% TREO estimation represents an optimal balance between scale and grade, exceeding many advanced exploration projects

Strategic Location

Positioned in stable, mining-friendly Botswana with established mineral development infrastructure

Economic Viability

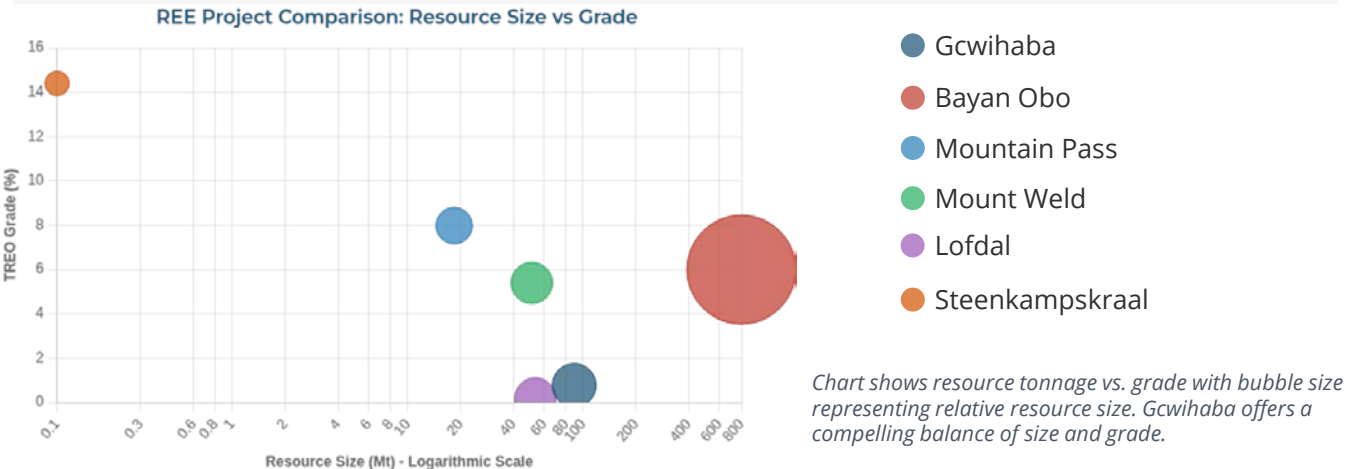
Lower-grade projects gaining attention as REE demand increases; Gcwihaba's grades are multiples higher than many active development projects

Exploration Maturity

Early exploration discovery drillholes and analysis work provide guidance and confidence in resource estimation

Growth Potential

Potentially one of Africa's largest undeveloped REE resources with significant upside exploration potential



Investment Highlights



Multi-Billion Dollar Resource Potential

Conceptual in-situ value range of \$800 million to \$20 billion USD, based on 81-97 Mt resource with grades up to 1.5% TREO



Excellent Scale & Grade Potential

One of Africa's largest undeveloped REE projects with 81-97 Mt of resource and grades up to 1.5% TREO, potentially exceeding other advanced exploration projects worldwide



Strategic Market Timing

Positioned to address growing global supply deficit as demand surges for REEs in green energy, permanent magnets, and electric vehicles. Increasing REE prices enhance project economics



De-Risked Investment

Fully permitted exploration with TSX-listed Tsodilo Resources Limited (established 1995). Located in Botswana, ranked among Africa's most stable mining jurisdictions with established regulatory framework



Robust Exploration Base

Discovery exploration drill holes completed across C26 & C27 anomalies providing high confidence in resource model and grade distribution. Highest recorded grade of 1.49% TREO demonstrates significant economic potential. Now proceeding with advanced drilling and analysis in 2025-2026 program.

Next Steps: 2025-2026 Work Program

Drilling Program

Drilling Specifications

- Approximately 50 drill holes
- HQ-size core (63.5mm diameter)
- 250-300 meters depth per hole
- Total drilling: ~13,750 meters
- Focus on C26 & C27 skarn anomalies

Program Objectives

- Complete mineral resource statement
- Define high-grade zones >1% TREO
- Improve geological confidence
- Collect samples for metallurgical testing
- Map REE mineral distribution in 3D

Technical Studies

Preliminary Economic Assessment

The PEA will integrate multiple technical studies to assess the economic viability of the Gcwihaba REE Project.

Mining Studies

- Mine design concepts
- Production scheduling
- Capital & operating costs

Metallurgical Studies

- Mineralogical characterization
- Flotation & extraction tests
- REE recovery optimization

Plant Design

- Process flow design
- Equipment specifications
- Infrastructure requirements

Economic Analysis

- Capital cost estimates
- Operating cost projections
- Market analysis & pricing

Timeline Target:

Drilling Start: Q1 2026

PEA Completion: Q4 2026

Technical Studies Roadmap

Development Timeline



Drilling Program

- 50 HQ-size drillholes (250-300m depth)
- Geological modeling & data integration
- Geochemical analysis of core samples
- Structural & stratigraphic interpretation

Resource Statement

- Updated geological model
- Mineral resource classification
- Grade & tonnage estimation
- NI 43-101 compliant reporting

Technical Studies

- Preliminary mine design & planning
- Environmental baseline assessment
- Infrastructure & logistics evaluation
- Capital & operating cost estimates

Preliminary Economic Assessment (PEA)

Metallurgy & Ore Beneficiation Studies

Comprehensive testing program to optimize REE extraction from skarn mineralization, focusing on the unique mineralogy of carbonates (bastnäsite), silicates (allanite), and phosphates (monazite).

Process Development

- Mineralogical characterization
- Comminution & liberation analysis
- Flotation optimization testing
- Hydrometallurgical route testing

Recovery Optimization

- Critical REE separation methods
- Process flowsheet development
- Pilot plant testing parameters
- Product specifications development

Project Economics

- Capital expenditure forecasting
- Operating cost structure analysis
- Revenue projections based on 2025 pricing
- Sensitivity analysis & risk assessment
- Net present value (NPV) calculation
- Internal rate of return (IRR) modeling

PEA Deliverables

- Market analysis & pricing forecast
- Mine life projection (15-20 years)
- Processing plant conceptual design
- Environmental & social impact review
- Project development strategy
- Recommendations for pre-feasibility

The technical studies program is designed to advance the Gcwihaba REE Project toward production decision, leveraging the project's unique mineralogy and strategic REE content profile. [Expected PEA Completion: Q4 2026](#)



Future Outlook & Project Timeline

Strategic Development Roadmap 2025-2030

1

Resource Definition

2025-2026

2

Technical Studies

2026-2027

3

Development

2028-2030