

Securing North American CRITICAL MINERALS

RARE EARTH ELEMENTS & GALLIUM DEPOSIT in Ontario, Canada



CSE: VLTA | FRA: DOW

voltametals.ca

June 2025

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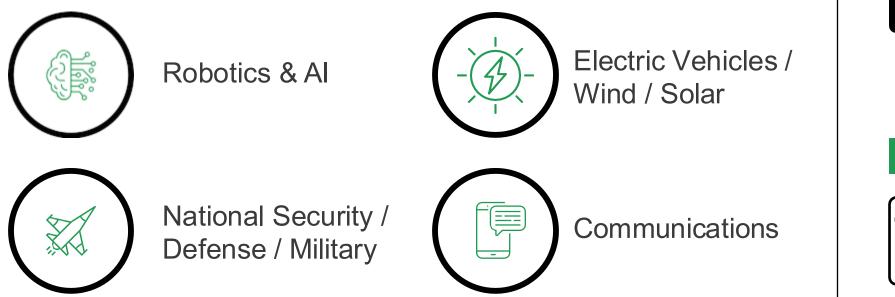
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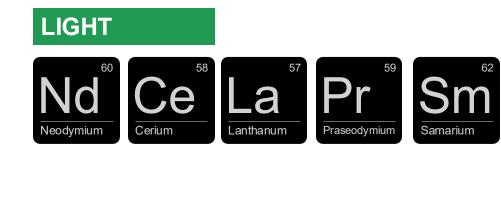
Under the terms of NI 43-101, Andrew Tims, P.Geo., is Volta's Qualified Person. Mr. Tims has 30 years experience working in all aspects of mine discoveries and, mine development, and he has reviewed and approved the technical information contained in this presentation.



USE OF RARE EARTH ELEMENTS PERMANENT MAGNETS

Essential for Current and Future Technologies in modern society and Defense





HEAVY 65 Terbium 65 Dysprosium Freduction





39

DOMESTIC SUPPLY OF RARE EARTH MINERALS IS AN INCREASED SECURITY ISSUE

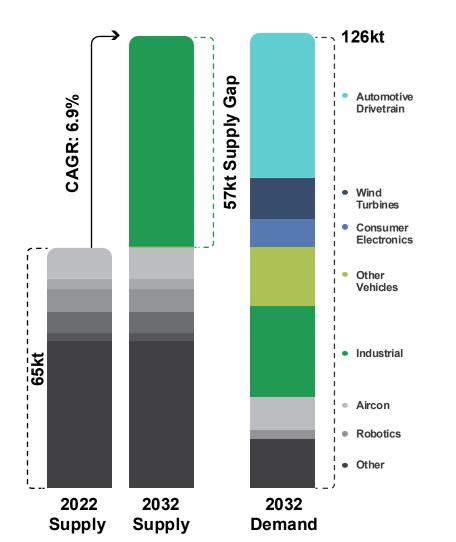


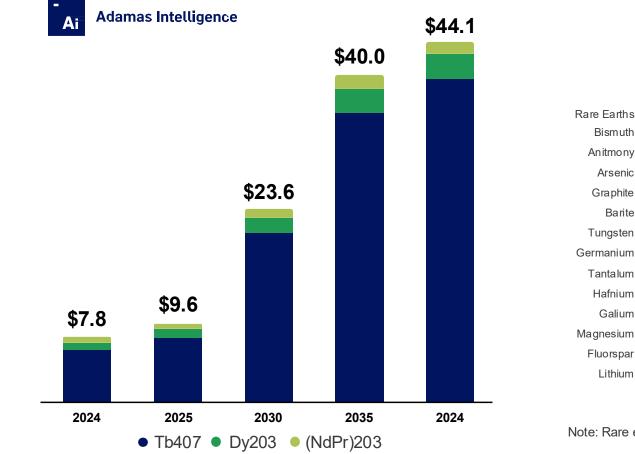
China controls 90% of the downstream market, and 60% of mining of Rare Earth Elements



Global magnet rare earth oxide consumption will quadruple from US \$9.6B in 2025 to US \$44.1B by 2040







Source

Arafura internal Supply Demand forecast referencing Wood Mackenzie Rare Earths Market Study, July 2022; | General Administration of Customs of China via Baiinfo January 2023, Roskill 2021 Supply is primary supply, including monazite and excludes secondary source of NdPr supply from waste magnet production | Growth to 2032 calculated off a base of 10.5 million EVs sold in 2022 and forecast production based on implied EVs produced given NdFeB alloy demand from automotive drivetrains and assuming 2kg Of NdFeB alloy is used per EV sold | EVs include Battery Electric Vehicles (BEV). Hybrid Electric Vehicles (HEV) and Plug-in Hybrid Electric Vehicles (PHEV).

Arsenic

Barite

Galium

Lithium

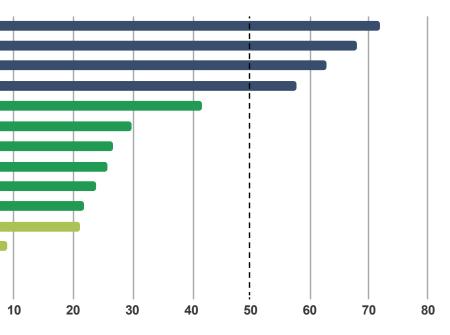
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China is the leading producer of 30 out of 50 US critical minerals, with Rare Earth Minerals at the top

Chart 1: China Supplies More Than Half of U.S. Imports for 19 Critical Minerals

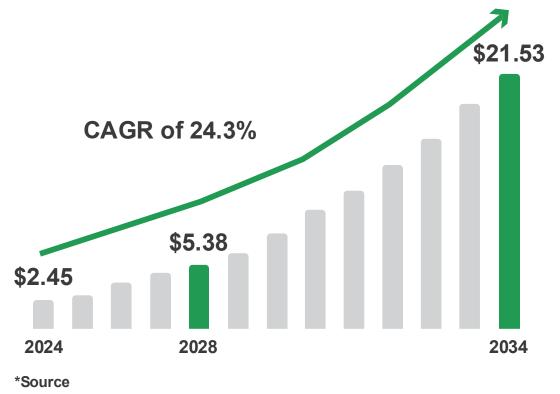
% Share of U.S. Imports Sourced from China



Note: Rare earths is a group of 16 critical minerals. Red = 50%+, Yellow = 20-49%. Green = <20%. Source: U.S. Geological Survey. TD Economics

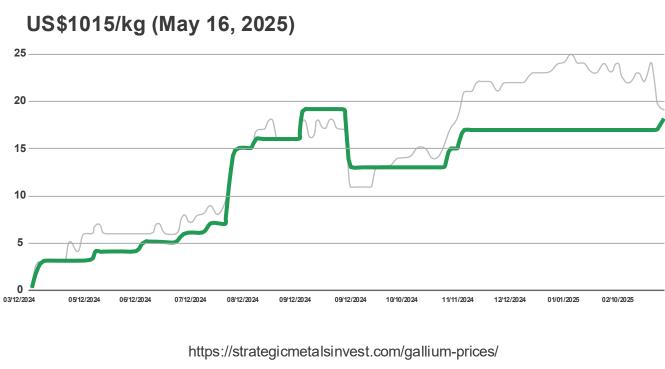
Gallium Securing Critical Minerals to Supply Defense & Al

- > The **price of gallium** keeps increasing due to supply disruptions.
- Solution Nitrate is needed for **semiconductors**, making AI more efficient.
- **Rare Earths and Gallium** are essential for military applications, power, radar, telecommunications and medical uses.
- Total gallium market predicted to increase from **US\$2.45 billion in 2024 to** US\$21.53 billion by 2034 (researchmarkets.com)



researchandmarkets.com | Gallium Global Market Report 2024 - January 2024

- $\mathbf{\Sigma}$



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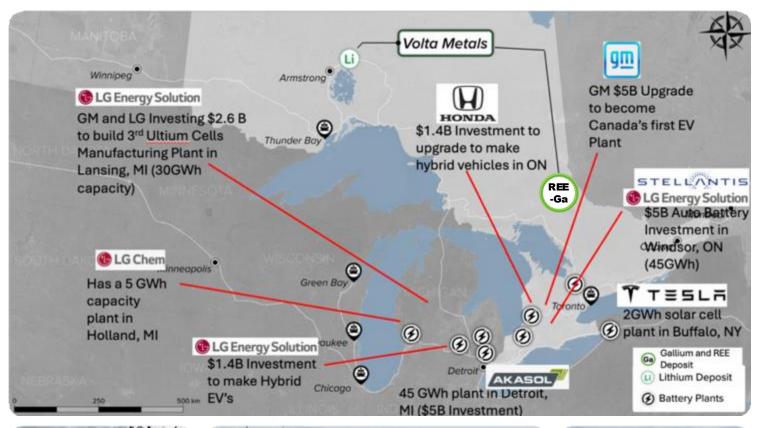
US and European Defense stocks have risen sharply amid global tensions, increasing military spending into hundreds of billions of \$.

Canadian gallium and rare earths could be expected to be in strong demand as Canadian, US and European military expenditures grow

Gallium, 99.995%

- USD - EUR

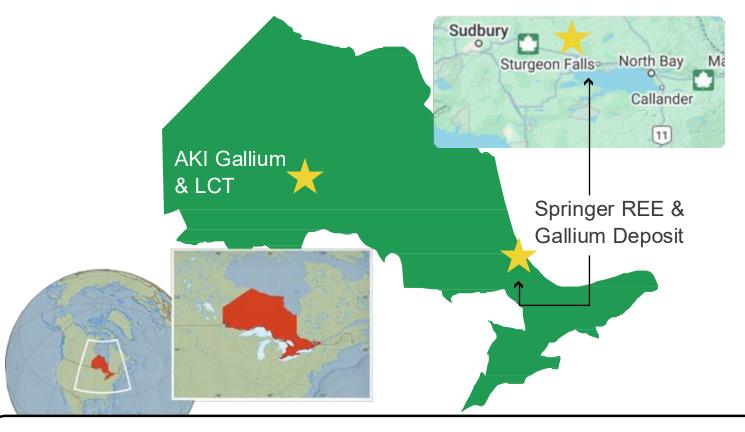
Volta's Projects - Location World Class Infrastructure, Easy Access to Market











- Ontario announced \$500M Critical Mineral Processing Fund
- **Paved Road and Power** lines through the property
- **Crystal Falls Power Generating** dam is 7km from the resource.
- Sturgeon Falls Dam and Railway station are 8.5km from the project site.

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SPRINGER *RARE EARTH AND GALLIUM DEPOSIT*

Access

Paved road to the property – **1hr from Sudbury, 30 minutes from North Bay**. Power lines through property.

Claims

~5,000Ha (50km²) – Patented over deposit and includes surface land rights – lowers risk.

Advanced Project

MRE **16.9Mt @ 1.15% TREO remains open** for expansion – 2x upside potential in the short term.

High Value

21% is high payable magnet rare earth elements, made up of Dysprosium,Preseodymium, Neodymium and Terbium.

High-Grade Intercepts

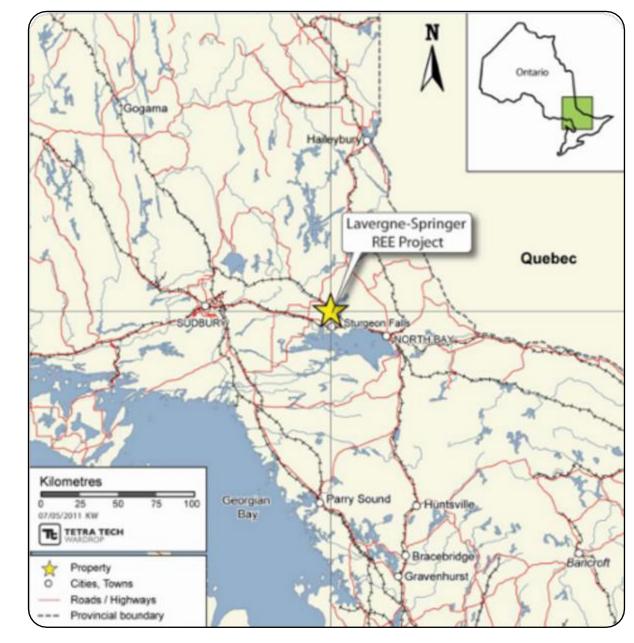
157m @ 1.43% TREO – deepest hole finished in **12.5m @ 4.5% TREO** – no follow up.

Gallium intercepts

Thick zones intersected BUT never modelled and/or followed up eg **76g/t @ 87.5m** (higher grade than N.America's largest unmined Ga deposit, Cordero cut-off grade is 30ppm, and avg grade is 47.7ppm). Potential for **>15Mt @67g/t**

Low Thorium content

Crucial for permitting, tailings and concentrate transport





7

MANAGEMENT & BOARD



Kerem Usenmez

M.Sc., P.Eng., Director, President and CEO

- Licensed Geological Engineer (ON & MB) with >25 years of global experience with majors and juniors
- Formerly CEO Of Metallum, advanced Zinc & Copper Project into Feasibility and IBA Stage in Ontario
- Ran a drilling company in the Americas, and Founded Atom Bits, and sold it to a larger American manufacturer
- Member of the board of the PDAC, and chairs the Securities Committee



Dr. Fred Breaks

Ph.D., Technical Advisor



- >25 years of mining finance executive experience with majors and juniors, including Goldcorp, and Kinross
- S Contributed securing >\$1B combined equity, debt and project finance for mining ventures



Dr. Mark Cruise

PGeo, ICD.D, Chair and Director

CPA. CMA. Chief Financial Officer



Rare Earths and lithium expert, discovered the two largest Lithium-rich rare element deposits (Li-Ta-Rb-Cs) in Ontario: Separation Rapids Pegmatite of Avalon Advanced Materials, and Pakeagama Lake Pegmatite of Frontier Lithium.

Spent 29 years at the Ontario Geological Survey where he ran Operation Treasure Hunt and headed a regional mapping project predominantly targeting Rare Earths and LCT pegmatites.

S Has 118 publications at the Ontario Geological Survey and numerous external publications.

Professional geologist with >30 years of international experience from exploration to production.

S Co-founded and/or led several billion-dollar TSX-V, TSX and NYSE American listed exploration and mining companies.

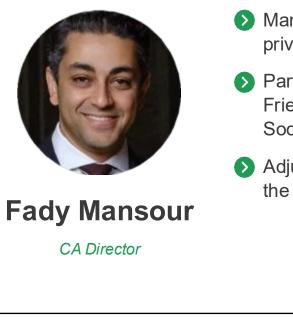
Independent director for Velocity Minerals, NiCAN Ltd, Interra Copper and Bunker Hill Mining



Saga Williams

B.A., LLB, Director

- Ms. Williams is Anishinaabe, a member of Curve Lake First Nation, and is currently an elected official for her community.
- Has been on negotiation teams that have successfully settled over \$1 billion in agreement and Adjunct Professor at Osgoode Hall Law School
- Has worked on Indigenous community engagement and negotiations to support national energy and mining projects across Canada



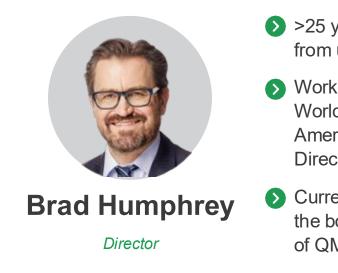


Mike Hoffman

P.Eng., ICD.D, Director

Mining executive with over 35 years of experience including engineering, mine operations, corporate development, projects and construction.

- Former CEO of Crowflight Minerals, Kria Resources and Crocodile Gold.
- Chair and Director at 1911 Gold and NiCAN Ltd. as well as a director of Silver X Mining and Fury Gold.





Managing Partner of Ethical Capital Partners, a private equity firm.

Partner of the Ottawa based criminal law firm Friedman Mansour, LL, and a member of the Law Societies of Ontario, Alberta, and the NWT.

Adjunct Professor in the Faculty of Common Law at the University of Ottawa since 2019.

>25 years of international mining experience, varying from underground contract miner to CEO.

Worked for Morgan Stanley, Raymond James, CIBC World Markets and Merrill Lynch as the North American Precious Metals Analyst and Managing Director for Research.

Currently President and CEO of NiCAN Ltd., sits on the board of Black Swan Graphene, and was the CEO of QMX Gold, which was acquired by Eldorado Gold.

OWNERSHIP & CAP STRUCTURE

Dedicated Management – Insiders participated in every financing round, increasing ownership.

First day trading: May 31, 2023



Local Management team resulting significantly lower overhead & burn rate compared to peers.

CSE: VLTA | FRA: DOW

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PEER COMPARATIVES RARE EARTH COMPANIES

		DEFENSE	Rare Earths - Refining - Recycling		AVALON
Exchange	CSE	TSXV	TSXV	TSXV	TSXV
Market Cap	\$3.0M	\$57M	\$13M	\$13 M	\$18 M
52 week Share Price⁴	\$0.02 - \$0.08	\$0.07 - \$0.24	\$0.06-\$0.17	\$0.06 - \$0.17	\$0.02 - \$0.10
Shares on Issue	85M	261M	143M	212M	608M
Project Name	Springer-Lavergne	Wicheeda	Montviel	Ashram	Nechalacho
Project Location	ON (Ihr from Sudbury via paved road)	BC (80km from Prince George via logging roads)	QC (100km from Lebel Sur via logging roads)	QC (300km NW of Schefferville, no road access)	NWT (IOOkm east of Yellowknife — Remote)
Project Size (Ha)	5,000	11,800	9,910	11,474	4,249
Stage	Historic MRE (2012)	DFS	Historic MRE (2011)	Feasibility (2013)	DFS (2013)
Gallium (Ga)	Yes (16Mt at 67ppm Ga - Non 43-101)	No	No	No	No
Indicated MRE	3Mt @ 1.21% TREO (Cutoff 1.0%)	27.8Mt @ 2.86% TREO (Cutoff 0.5%)	82.4Mt @ 1.5% TREO	73.2Mt @ 1.89%TREO	110Mt @ 1.49% TREO
Inferred MRE	9.4Mt @ 1.25% TREO (Cutoff 1.0%)	11.1Mt@ 1.02% TREO (Cutoff 0.5%)	Unknown	131.1Mt @ 1.98% TREO	183Mt @ 1.27% TREO
Deposit Open	Yes	No	No	Yes	No



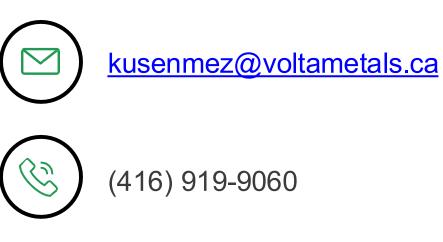






For further information contact:

Kerem Usenmez, M.Sc., P.Eng. President & CEO





VOLTA Metals Ltd. 130 King Street W, Suite 3680 Toronto, Ontario Canada M5X 1B1

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SPRINGER RARE EARTH AND GALLIUM DEPOSIT

Growth Potential

Mineralization continuous along c. 800m strike. Geologically appears to be part of a significantly larger system

High grade

Thick continuous zones of mineralization from surface:

157m @ 1.43% TREO

157m @ 1.43% TREO

One of the last holes finished in 12.5m @ 4.5% TREO in carbonatite – no follow up.

LREO Dominant

Consists of of mainly lanthanum, cerium and neodymium

Next Steps

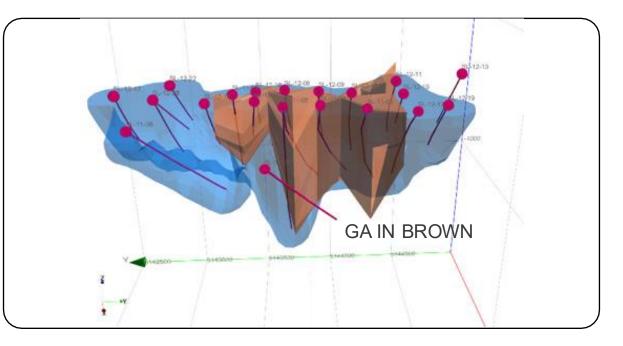
Excellent potential to increase grade / tonnes with additional drilling. Excellent potential to define a ~50 to 100Mt+ deposit at ~1-2% TREO.

Gallium Model

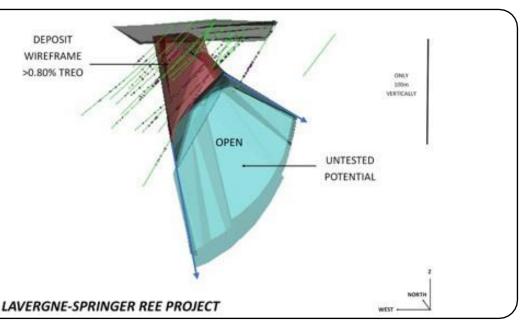
Thick zones of Gallium (Ga) also intersected BUT never modelled -eg 76ppm over 87.5m, 72ppm over 63.5m.

Mineral system analysis suggests >15Mt Ga exploration target

DEPOSIT WIREFRAME >0.80% TREO





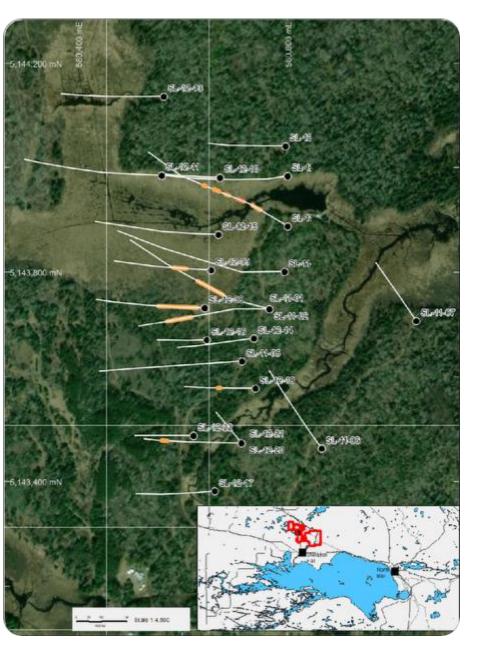


SPRINGER *GALLIUM INTERCEPTS*

Borehole	From	То	Interval (m)	Ga g/t	
SL-11-01	132.4	219.9	87.5	76.4	Fe Oxide + Carbonate
SL-11-02	213.8	277.0	63.2	71.6	Altered Syenite
SL-11-03	86.6	94.1	7.6	59.6	Altered Syenite
SL-11-03	101.4	113.4	12.0	76.0	Hematized Syenite
SL-11-03	135.9	153.2	17.3	72.3	Hematized Syenite
SL-11-03	178.6	189.1	9.0	57.8	Hematized Syenite
SL-11-03	209.9	223.9	14.0	71.3	Hematized Syenite
SL-11-03	247.9	252.9	5.0	72.4	Hematized Syenite
SL-12-08	19.0	37.0	18.0	62.0	Strongly Altered Granitoid
SL-12-08	37.0	125.0	88.0	62.0	Int Hm and Cb Brex, together 64 ppm Ga over 106 m
SL-12-09	66.0	102.0	36.0	57.3	Int Hm and Cb Brex Granotoid
SL-12-18	94.7	101.7	7.0	64.3	Weak to Moderately Altered Granite
SL-12-20	200.6	214.6	14.0	70.0	Strongly Altered Brex Granite -near massive Cb Veins

- ▶ Historic Drilling (22 holes for 6,000m 20 holes hit mineralization.
- Structure dips to east, open at depth and along strike.
- Solution Cabonatite intrusion, only upper breccia has been drilled.
- REE mineralization outcrops and extends from surface to over 250m below surface, and is open.





SPRINGER *RARE EARTH AND GALLIUM DEPOSIT*

Metallurgy

- Recent met work confirms clean mineralogy and potential for cost-effective downstream processing (up to 40% TREO concentrate), due to coarse grained mineralization (synchesite).
- ♦ Radionuclide levels are negligible i.e. non radioactive.
- 75-80% of synchesite liberated in lab-scale testing suggesting easier process to obtain concentrate (lower cost)
- There is ~US\$310 (NdPr ~\$260) of Rare Earth Elements in each tonne of the ore, near or equivalent value of 3g/t Au at current NdPr price of \$445,000 CNY/mt at current gold price.
- Confirmed 80% recovery to a Rare earth chloride Product.





SPRINGER RARE EARTH AND GALLIUM DEPOSIT

		RE Corp (FRA) – Lavergne-Springer Hard Rock Canada Exploration	
Rare Earth Oxides	REO Price (US\$/kg)	%TREO	Basket Value
Terbium	1,105.6	0.09%	0.950
Lutetium	767.7	0.00%	-
Dysprosium	366.4	0.47%	1.730
Holmium	74.9	0.09%	0.064
Praseodymium	70.3	4.73%	3.323
Neodymium	70 7	15.90%	11.246
Gadolinium	39.3	1.07%	0.422
Erbium	41.9	0.17%	0.072
Europium	248.8	0.45%	1.122
Ytterbium	13.8	0.11%	0.015
Yttrium	6.3	2.25%	0.143
Samarium	2.0	1.89%	0.038
Lanthanum	0.8	26.70%	0.219
Cerium	0.9	46.08%	0.437
Thulium	-	0.00%	-
"Other"		0.00%	-
Basket price (US\$/kg)			19.8
Basket price (US\$/t)			19,782.1
Reserves + Resources (Mt)			16,90
Contained TREO (Mt)			0,20
Basis ofCaleulations			Resources
Average TREO Grade			1.16%
In-grou nd value (us\$/t material)			230

Table 7.1	List of Elements and Oxides Associated REE Mineralization			
Element	Element Acronym	Common Oxides		
LREO				
Lanthanum	La	La_2O_3		
Cerium	Се	Ce ₂ O ₃		
Praseodymium	Pr	Pr ₂ O ₃		
Neodymium	Nd	Nd_2O_3		
Samarium	Sm	Sm ₂ O ₃		
HREO				
Europium	En	En_2O_3		
Gadolinium	Gd	Gd_2O_3	TREO	
Terbium	Tb	Tb_2O_3		
Dysprosium	Dy	Dy ₂ O ₃		
Holmium	Но	Ho ₂ O ₃		
Erbium	Er	Er_2O_3		
Thulium	Tm	Tm_2O_3		
Ytterbium	Yb	Yb ₂ O ₃		
Lutetium	Lu	Lu_2O_3		
Yttrium	Y	Y_2O_3		

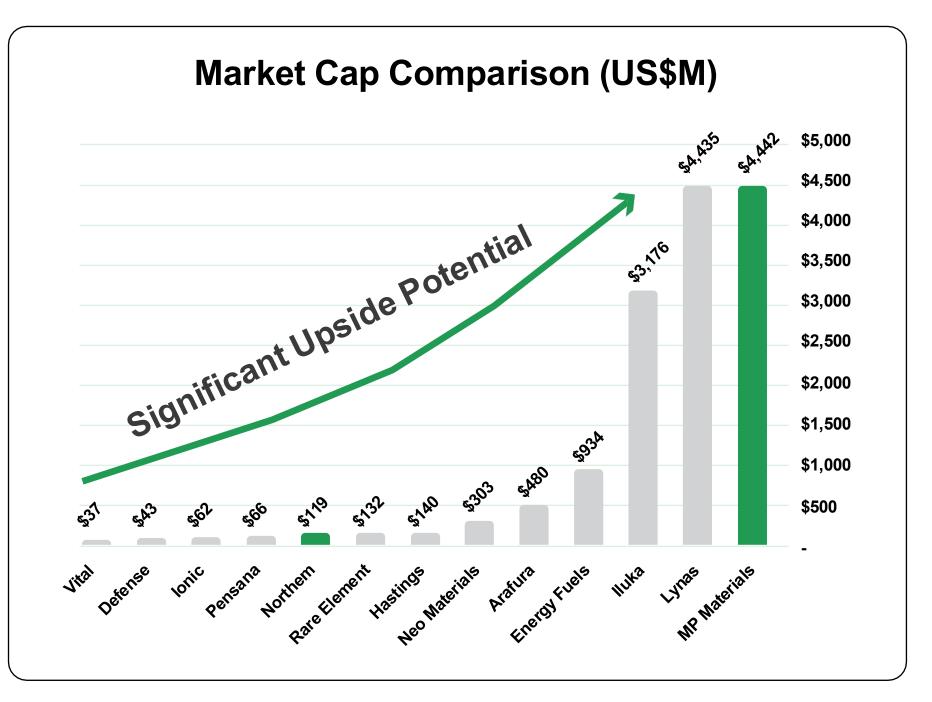
Basket Price of In-ground material = US\$230/tonne (equivalent of ~2moz @ 4g/t Au), excluding Gallium



NEXT STEPS

- Confirm presence of the high-grade primary carbonatite zone discovered at the end of last program (4.5% TREO over 12m), and extension zones to the North
- Further in-fill drilling to confirm REE grade continuity, presence of Ga, geotechnical data for mining studies and complete a modern resource estimate.
- Target significant North American incentives to support critical minerals and desire for local mining to support Rare Earth and critical mineral development.



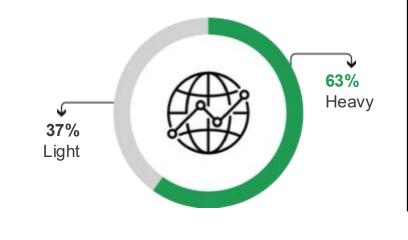


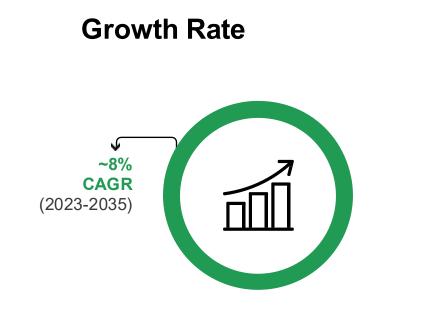


Rare Earth Metals Market

- Rare earth elements (REE) are key enablers for the ongoing energy and environmental transition as they are critical raw materials in many low-carbon technologies. REEs are widely used in high-tech technologies, medical devices, and military defense systems, and are especially indispensable in emerging clean energy.
- Global REE mineral resources mainly mainly occur in carbonatite and distributed in China, Brazil, Australia, and Canada, 42% of REE deposits are from medium-sized mines (resources <0.1 Mt REO) – Zhou, 2017 <u>https://www.mdpi.com/2075-163X/7/11/203</u>
- REE Market size was valued at US\$ 11.78 Billion in 2024, and is set to reach US\$ 33.5 billion by the end of 2037, expanding around 8.3% CAGR during the forecast period (2025-2037) (researchnester.com)
- The Light segment is estimated to gain largest market share of 63% in the year 2037. Light rare earth metals are commonly used in electronics and semiconductors due to their unique magnetic and electrical properties

Global Market Analysis, BY Type (in %), 2035





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Key Players in the Market

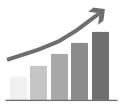
- Lynas Corporation (Australia)
- China Northern Rare Earth Group (China)
- Iluka Resources (Australia)
- MP Materials (United States)
- China Minmetals Corporation (China)
- Arafura Resources (Australia)
- Shenghe Resources Holding Co., Ltd. (China)

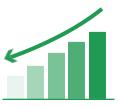
Growth Drivers

- Technological Advancements
- Growing Demand for Consumer Electronics

Challenges

- Environmental Impact
- Price Volatility





Lithium Sector Update



Majors Committing to Lithium

- Rio Tinto acquiring Arcadium Lithium (Oct 2024), premium of 90% to Arcadium's closing price.
- GM acquires 38% asset-level stake in Thacker Pass for US\$625 million
- Pilbara Minerals announces agreement to acquire Latin Resources at an implied 67% premium



Supply Being Curtailed

- Sinomine partially suspends petalite mining at its Zimbabwe Bikita Lithium Project (Oct, 2024)
- Pilbara places its 150,000 tpa Ngungaju spodumene plant into care&maintenance (Oct, 2024)
- Mineral Resources defers underground development of Mt Marion, places Bald Hill into care & maintenance (Oct, 2024)
- Albemarle estimates 800kt LCE supply deficit by 2030, implying 20% of demand (Jan, 2023)







CATL Prospectus Bullish on Long Term Demand

CATL, world's largest battery maker filed prospectus in Feb 2025 for its Hong Kong IPO

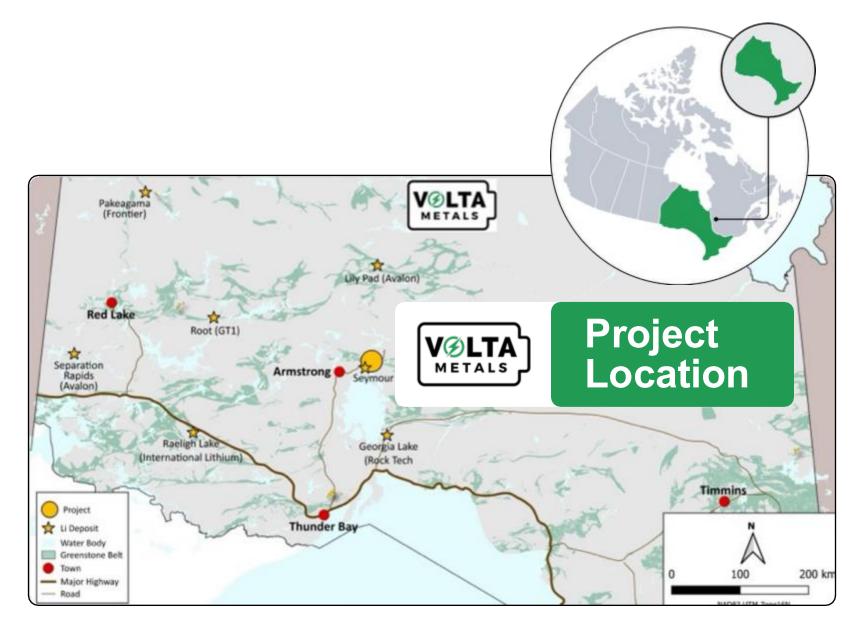
Battery demand forecast 50% higher demand, >4Mt of LCE in 2030, increase of additional 65 commercial scale lithium projects required.

Legacy Car Manufacturers

Hyundai Invests \$16.7 billion in 2025 into EV development, its largest investment ever in South Korea, \$90B globally by the end of decade

Toyota is spending \$13.9 billion on plant in North Carolina, one of the largest investments outside Japan.

AKI Critical Element Project Strategic Position in NW ONTARIO



Located in the emerging Seymour-Falcon pegmatite field host to Green Technology Metals (ASX:GT1) Seymour deposit (10.3Mt @1.03% Li2O JORC Resource).





- Inagural drilling returned up to 1.24% Li₂O over 15.6m.
- Permits and First Nations Agreements in place.
- Road accessible from Thunder Bay.



Thunder Bay (Major Hub):

Airport, Rail station, Port

Armstrong, ON:

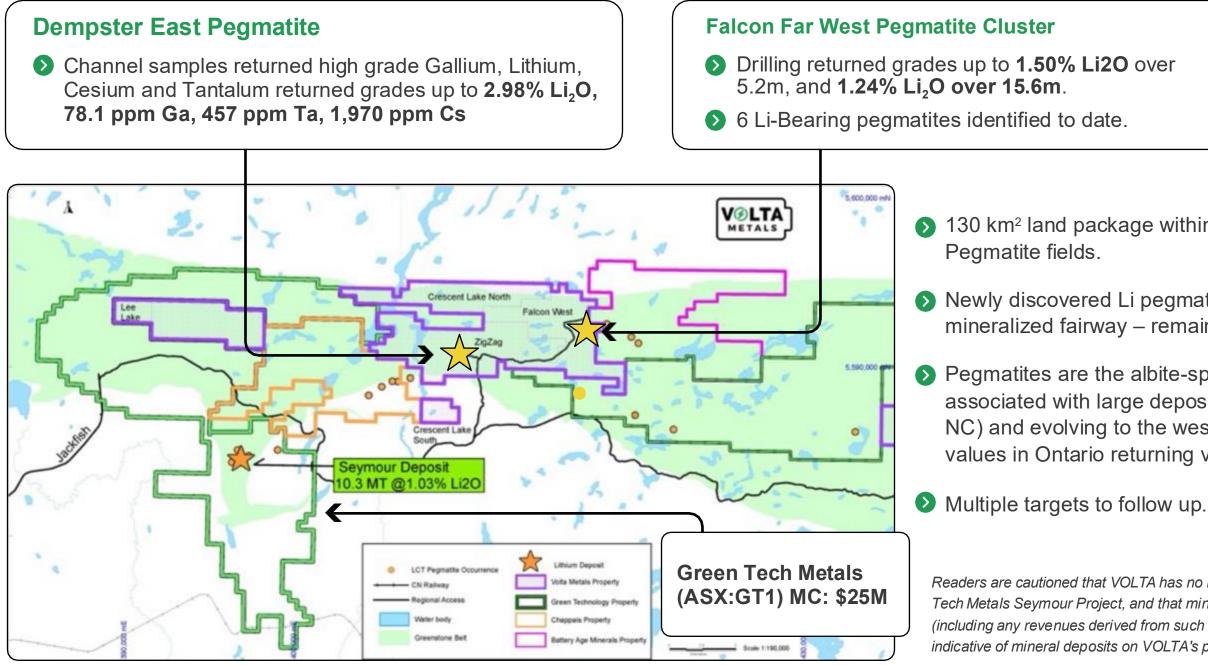
- Via Rail Station
- Functional Airstrip

New discovery of Spodumene Pegmatite swarm Fall 2023.

Recent channel sampling returned up to 1.59% Li₂O over 8.6m with 78.1 ppm Gallium, 1,970ppm Cesium, and 457ppm Tantalum.

LOCATION

Confirmed 8km mineralization, with 30km potential



CSE: VLTA | FRA: DOW

voltametals.ca



over	
0,001	

▲ 130 km² land package within the emerging Seymour - Falcon

Newly discovered Li pegmatites define a 300m x 500m mineralized fairway – remains open for expansion.

> Pegmatites are the albite-spodumene-subtype (typically associated with large deposits e.g. Foote Mine, Kings Mountain, NC) and evolving to the west with the highest reported tantalum values in Ontario returning values up to 306 ppm Ta_2O_5 .

Readers are cautioned that VOLTA has no interest in or right to acquire any interest in the Green Tech Metals Seymour Project, and that mineral deposits, and the results of any mining thereof (including any revenues derived from such mining), on adjacent or similar properties are not indicative of mineral deposits on VOLTA's properties or any potential exploitation thereof.