

# **Volta Delivers Positive Initial Metallurgical Results at Springer**

written by Raj Shah | June 1, 2026

## **88.2% REE Recovery and Demonstrating Gallium By-Product Potential**

June 01, 2026 ([Source](#)) – Volta Metals Ltd. (CSE: VLTA) (FSE: D0W) (OTCQB: VOLMF) (“Volta” or the “Company”) is pleased to report results from the first metallurgical flotation test program completed on material from its Springer Rare Earth Element (“REE”) Deposit in Ontario, Canada (“Springer”). The testwork was conducted by SGS Canada Inc. (“SGS”) at its Lakefield, Ontario facility, one of the world’s premier metallurgical laboratories with extensive experience in rare earth element project development. The early-stage results confirmed several important milestones for the project:

- 1. Springer’s rare earth elements can be successfully recovered using conventional froth flotation, a well-established and widely used industrial processing method.**
- 2. The processing pathway is straightforward and potentially cost-effective relative to many other rare earth projects globally.**
- 3. Gallium, a critical mineral essential to semiconductors, telecommunications, and defense technologies, might be economically recovered as a by-product alongside the rare earths.**

These results represent the first phase of metallurgical testing, with additional and more advanced testwork planned as

the Springer project advances future engineering and economic studies. Metallurgical results are a critical milestone for any mining project, whether ore can be economically processed into a saleable product. Today's results provide the first independent confirmation that Springer's rare earth ore can be processed using proven, cost-effective methods, a foundational step in establishing the project's economic viability.

## HIGHLIGHTS

- **13x REE enrichment achieved in initial bench-scale testing, significantly exceeding typical industry benchmarks:** Springer mineralization demonstrated approximately 13 times enrichment from feed to concentrate, compared to the commonly accepted 5-10x range considered strong performance for REE flotation circuits.
- **88.2% total rare earth elements ("TREE") recovery achieved in initial flotation testing:** A strong result for early-stage work; comparable REE projects typically target 70-85% recovery at this stage, confirm that Springer mineralization responds well to conventional flotation methods. Cleaner-stage testing in this initial program produced concentrate grades of up to **26.4% Total Rare Earth Oxides ("TREO") at 65.8%** recovery, with additional optimization work planned to further enhance grade and recovery performance.
- **Results materially exceed the historic Marino (2012) recovery assumptions:** initial test results significantly exceed the conservative recovery assumptions in the Company's existing NI 43-101 mineral resource estimate. All individual rare earth elements tracked consistently through each flotation stage.
- **Gallium identified as a potential by-product opportunity utilizing REE flotation streams:** With China controlling

~80% of global gallium supply, recovery of this critical mineral as a North American by-product alongside rare earths would be strategically significant. Gallium reports to the REE concentrate via the same host mineral, with additional testwork required to establish definitive recovery rates.

*“These results represent a genuinely important milestone for the Springer project. Confirming that our ore responds well to conventional flotation – the same technology used at some of the world’s leading rare earth operations – significantly de-risks the processing path and improves our confidence in the project’s economic potential. The early indication of gallium recovery as a by-product, from a North American deposit at a time when China controls approximately 80% of global gallium supply, adds a strategically important dimension to what is already a well-located critical mineral asset. We are moving quickly into the next phase of optimization work.”*

– Kerem Usenmez, President & CEO, Volta Metals Ltd.

## **Metallurgical Recovery Review Webinar**

Volta Metals will be hosting a webinar to discuss the results of the Springer REE Project Initial Metallurgical Recovery results, during which members of the Volta Metals’ leadership team will be on the call. Participants will be able to submit questions or email them in advance to [info@voltametals.ca](mailto:info@voltametals.ca).

Date: Monday, June 1, 2026

Time: 4:30 p.m. EST / 1:30 a.m. PST

Link: <https://www.gowebcasting.com/14736>

## **KEY ACHIEVEMENTS**

The initial program consisted of eleven bench-scale flotation

tests. Eight tests focused on recovering REEs hosted within synchysite, the primary REE-bearing mineral identified at Springer, while an additional three tests evaluated the potential recovery of gallium from gallium-bearing feldspars contained within the REE flotation tailings. The primary objective of the program was proof of concept – specifically, to determine whether rare earth elements at Springer could be effectively separated using conventional flotation techniques and whether gallium recovery from tailings may represent a viable by-product opportunity. Initial REE flotation results were highly encouraging. Additional metallurgical work remains ongoing to further enhance REE recoveries and concentrate grades, and to evaluate and optimize gallium recovery potential. Testwork confirms several positive characteristics of the Springer REE Deposit that support its development potential:

- **A simple and conventional process flowsheet** – Springer’s mineralization responds well to conventional froth flotation processing, supporting a straightforward crush-grind-float beneficiation flowsheet capable of producing a rare earth concentrate, with gallium representing a potential by-product opportunity. Froth flotation is a proven and widely utilized mineral processing technology globally, and its successful application to Springer ore represents an important early-stage technical de-risking milestone for the project.
- **Potential operating cost advantage through coarser grind size** – Metallurgical testing indicates that effective mineral liberation at Springer can be achieved at a relatively coarse grind size (-106 µm) compared to many advanced REE projects globally that typically require substantially finer grinding (-50 to -53 µm). As grinding typically accounts for up to 30% of mineral processing operating costs, the ability to operate at a coarser grind

size could provide a meaningful economic advantage for the project.

- **Additional value creation through potential gallium recovery** – Preliminary testing suggests the opportunity to recover gallium from both the REE concentrate, in addition to the flotation tailings, creating the potential for a secondary critical mineral product from material that would otherwise be treated as waste. This approach may support improved overall resource efficiency and a more sustainable processing model relative to traditional single-product rare earth operations.

## **INITIAL METALLURGICAL RESULTS**

The SGS programme evaluated a range of reagent systems, grind size fractions, and cleaner circuit configurations. Testing identified an effective flotation collector and demonstrated that processing the feed without pre-separation delivered the best overall results, supporting the potential for a simplified future process flowsheet. Preliminary gravity and magnetic pre-concentration methods were evaluated but were paused as coarse grind parameters failed to deliver useful concentration benefits.

Optimal performance was achieved in test F8, where the second cleaner concentrate produced a rare earth oxide grade of 16.8% TREO at a **recovery of 87.8%**, representing approximately 9x enrichment from the original feed grade. Additional cleaner stages produced higher concentrate grades of up to 27.3% TREO, representing approximately **13x enrichment**, at the expected trade-off of lower recoveries, declining to 65.6%. Full individual REE assays (La, Pr, Nd, Sm, Eu, Gd, Tb, Dy, Ho, Er, Tm, Yb, Lu, Y) confirm consistent distribution across all elements.

Importantly, all individual rare earth elements, including the high-value magnet materials neodymium, praseodymium, terbium, and dysprosium, showed similar distribution patterns across flotation products in this initial program. This is an encouraging early-stage indicator that REEs are hosted in a single or closely related mineral phase, interpreted to be synchysite, subject to confirmation through detailed mineralogical analysis planned in the next phase of work. If confirmed, this would represent a positive characteristic for future processing predictability and metallurgical consistency.

### **INITIAL GALLIUM RECOVERY RESULTS**

Gallium mineralization at the Springer deposit occurs in two mineral hosts: synchysite (the primary REE-bearing mineral), which reports to the REE flotation concentrate, and feldspars (a gangue mineral for REE flotation), which reports to the REE flotation tailings. This dual-host distribution creates **two opportunities for gallium recovery, both of which were investigated in the initial test program.**

With China controlling approximately 80% of global primary gallium supply, and gallium demand driven by semiconductor and defense electronics manufacturing, the demonstration of gallium by-product potential from a North American REE deposit is a strategically meaningful early-stage result. Further testwork is required before any conclusions on commercial-scale gallium recovery can be drawn.

**Synchysite-hosted gallium (REE concentrate):** because gallium and the majority of the rare earth elements are believed to share the same host mineral (synchysite), they cannot be separated by physical flotation methods alone. Gallium that reports to the REE concentrate, amounting to about 40% of the gallium in the mineralization, represents potential by-product value,

recoverable through downstream hydrometallurgical processing of the REE concentrate. This represents a meaningful upside opportunity that will be further evaluated as part of future hydrometallurgical testwork.

**Feldspar-hosted gallium (REE flotation tailings):** three preliminary scoping flotation tests (F9-F11) were completed on the REE flotation tailings to screen alternative collector reagents for floating feldspar and recovering its associated gallium. The tests evaluated different reagent systems and identified the best-performing collector with respect to selectivity. These results are scoping-stage only; cleaner and scavenger flotation stages have not yet been undertaken. The next phase of work will use the best-identified collector in a full flotation circuit (rougher, cleaner, and scavenger stages) to establish representative grade and recovery figures. This approach also supports a potential sustainable flowsheet in which the tailings from the main REE product serve as feed for gallium beneficiation.

## **COMPARISON TO HISTORIC MARINO (2012) ASSUMPTIONS**

The Company's NI 43-101 mineral resource estimate (announced February 23, 2026) incorporates conservative metallurgical recovery assumptions from the 2012 historic Marino study. Those conservative assumptions estimated individual element recoveries as follows: terbium (Tb): 43.8%; dysprosium (Dy): 41.8%; neodymium (Nd): 48.5%; praseodymium (Pr): 72.7%. Initial test results from the SGS Lakefield program suggest recovery performance materially above these conservative assumptions, with all rare earth elements tracking together through each flotation stage in this initial program. A formal updated metallurgical reconciliation will be completed as testwork progresses.

## GLOBAL METALLURGICAL BENCHMARKING

Springer's initial flotation results are presented below alongside seven advanced-stage global REE projects for directional benchmarking purposes only. Each of the peer projects shown has been the subject of several cycles of metallurgical optimization, locked-cycle testing, and pilot-plant work, and the table provides useful context for the development pathway of comparable carbonatite-hosted REE deposits. Notably, Springer's first-pass results, produced from initial bench-scale testwork only, already demonstrate characteristics that position the project competitively, including a simple ambient-temperature flowsheet, a coarser grind than the peer group, strong rare earth recovery, and the additional opportunity of gallium as a co-product. The next phases of testwork are designed to build on this foundation. The following observations are noted for context only:

**1) Coarser grind size may represent a meaningful operating advantage.** Springer achieved rare earth liberation at an initial grind size of approximately -106  $\mu\text{m}$ , which is materially coarser than that of several comparable advanced-stage REE projects reviewed. For example, Wicheeda and Mountain Pass require finer grind sizes of a -53  $\mu\text{m}$  or lower. Springer's current grind profile could translate into significantly lower energy consumption, reduced processing complexity, and lower capital and operating costs. Grinding commonly represents up to 30% of total mineral processing operating costs.

**2) The 13x enrichment ratio represents a positive early-stage indicator.** Springer achieved an enrichment ratio of approximately 13x during initial bench-scale flotation testing conducted under ambient conditions and without elevated conditioning stages. Springer's enrichment ratio is expected to continue evolving as additional cleaner-stage and circuit

optimization testwork progresses.

**3) Current concentrate grades represent an early-stage starting point.** The highest concentrate grade achieved to date, 27.3% TREO, should be viewed as an early-stage benchmark rather than a final optimized result. Lower concentrate grades are common during scoping-stage flotation programs and typically improve through ongoing circuit optimization, cleaner-stage development, and reagent tuning.

**4) Potential gallium recovery may represent an emerging differentiator.** None of the seven peer REE projects reviewed reports gallium recovery as part of their published metallurgical work. Springer's preliminary feldspar-circuit results indicate that gallium recovery from REE flotation tailings might be possible. Additional testwork is required to confirm whether this translates into commercially meaningful gallium recovery.

**Table 1. Global REE Metallurgical Peer Comparison – Springer vs. Seven Peer Projects**

Project	Feed (TREO)	Concentrate (TREO)	Enrichment	Grind (P80)	Flowsheet	Ga Recovery
Springer (VLTA)*	~ 2.0% (1.7 TREE)	Up to 27%	~13x REE; ~7x Ga	-106 µm	Crush-grind-float (ambient)	Initial recovery indicated as possible
Wicheeda (DEFN)	2.43%	~50%	~13-20x	-53 µm	Float + hydromet	None
Mountain Pass (MP)	~6.0-8.5%	~61%	~7.2x	<50 µm	Float + steam cond.	None
Bear Lodge (REE)	2.2%	45%	~12.5-20x	Screen-based	Physical pre-conc + Proprietary hydromet	None

Project	Feed (TREO)	Concentrate (TREO)	Enrichment	Grind (P80)	Flowsheet	Ga Recovery
Strange Lake (TOR)	~0.93%	~7-8%	~7-8x	Very fine	Sort + mag + float + acid bake	None
Kipawa (FUR)	~0.41%	~1.1%	~2.7-3x	N/D	Mag sep + HCl	None
Round Top (USAR)	~0.06%	N/A	N/A	13 mm	H <sub>2</sub> SO <sub>4</sub> heap leach	Bench Pilot Ga Separation
Tanbreez (CRML)	~0.5%	2.96%	~5.9x	<600 µm	Dry mag sep (no flotation)	None

*\*Springer data from initial bench-scale testwork (F1-F11), SGS Canada Project 21280-01, 2026. Peer project sources: Defense Metals PFS (2025); MP Materials 10-K (2024); Rare Element Resources Technical Report (2024); Torngat Metals / Springer Nature (2024); Matamec FS (2013); MDPI Minerals (Round Top, 2016); Critical Metals Corp / GlobeNewswire (Tanbreez, 2026).*

*\*\*These are the first flotation tests ever conducted on Springer mineralization. All results represent initial bench-scale scoping work. Every peer project referenced in this release has completed substantially more advanced development – including locked-cycle tests, pilot plants, and pre-feasibility studies. Springer’s optimization program is underway. These results are starting points, not optimized outcomes.*

## **Flotation Testing – The Process**

Flotation is a widely used physical separation process in which air bubbles are generated in a water-based slurry containing finely ground ore. Specialized chemical reagents, known as collectors, are added to selectively control the particle surface properties of valuable mineral grains, causing them to be hydrophobic and float to the surface, where they are recovered as a mineral concentrate. When mineralization responds well to flotation, the process offers several important

advantages: it utilizes commercially proven equipment and readily available reagents, efficiently removes the majority of waste rock and non-economic material, and significantly reduces the volume of material that must proceed to more complex and costly downstream chemical processing stages.

## **Flotation Testing – Program Details**

Tests F1-F3 consisted of preliminary rougher-only scoping tests conducted on fine and coarse size fractions to evaluate alternative reagent systems. Tests F4-F5 added cleaner and scavenger stages. Tests F6-F8 used a combined feed (fine + coarse blended, no pre-separation) with progressively cleaner stages (F6: two cleaners; F7: two cleaners at  $-75\ \mu\text{m}$ ; F8: four cleaners). Gravity pre-concentration and magnetic concentration were evaluated in the early program but ultimately discontinued after producing no meaningful pre-concentration benefit of REE or gallium. Based on the initial results, direct flotation of the full head feed without pre-concentration was identified as the preferred processing approach, supporting a simplified crush-grind-float process flowsheet. Tests F9-F11 used different amine-based reagent systems (DA17 for F9; Flotigam 7100 for F10; Flotigam 7500 for F11) to float feldspars from REE flotation tailings and recover the feldspar-hosted gallium fraction. F11 produced the best result and is the basis for subsequent cleaner-stage development. No cleaners or scavengers have yet been applied to the feldspar circuit.

## **Gallium Dual-Host Context**

Gallium at Springer is interpreted to occur in two distinct mineral phases, synchysite and feldspars, based on flotation behaviour observed across the eleven-test program. The synchysite-hosted fraction was captured in the REE flotation circuit; the feldspar-hosted fraction reported to the REE

flotation tailings and was recovered in the preliminary F9-F11 scoping tests. Detailed mineralogical characterization (TIMA-X or QEMSCAN, EPMA) is part of the next phase of work and will further confirm gallium mineralogy and inform optimization of the recovery flowsheet.

### **Next Steps**

The initial metallurgical program successfully established proof of concept for the flotation recovery of rare earth elements and the potential recovery of gallium as a by-product. The next phase of metallurgical work, to be conducted by SGS, will focus on detailed mineralogical characterization, flotation circuit optimization, reagent refinement, and further improvements to concentrate grade and recovery performance. The Company will report results as they become available.

### **Qualified Person**

The technical content of this press release has been reviewed and approved by Philip Ng, M.Eng., P.Eng., VP, Projects, and Qualified Person (“QP”) as defined in National Instrument 43-101, Standards of Disclosure for Mineral Projects.

For more information about the Company, please visit Volta’s website at [www.voltametals.ca](http://www.voltametals.ca).

### **GRANT OF RESTRICTED SHARE UNIT**

The Company is also announcing that it has granted an aggregate of 180,000 restricted share units (“RSUs”) of the Company to certain officers under the Company’s long-term equity incentive plan (the “LTIP”). The RSUs vest in four equal quarterly instalments over one year, with 25% of the RSUs vesting on each of the dates that are three, six, nine, and twelve months following the date of grant. Each vested RSU entitles the holder

to receive one common share of the Company. The grant of the RSUs is subject to the terms of the LTIP and the policies of the Canadian Securities Exchange.

## **ABOUT VOLTA METALS LTD.**

**Volta Metals Ltd. (CSE: VLTA) (FSE: D0W) (OTCQB: VOLMF)** is a critical mineral exploration company focused on rare earths, gallium, lithium, cesium, and tantalum. Volta owns, has optioned, and is currently exploring a critical minerals portfolio of rare earths, gallium, lithium, cesium, and tantalum projects in Ontario, one of the world's most prolific and emerging hard-rock critical mineral districts.

Volta is advancing its 4,750-hectare Springer REE Project, which is located on the traditional territory of the Nipissing First Nations in Sturgeon Falls, 80 km east of Sudbury, Ontario, Canada. The Springer REE Deposit is readily accessible by paved roads and is within 8 km of main infrastructure, such as hydropower dams, the Trans-Canada Highway, and railway, and has powerlines on site.

To learn more about Volta and its Springer and Aki Projects, please visit [www.voltametals.ca](http://www.voltametals.ca).

## **ON BEHALF OF THE BOARD**

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*This news release contains forward-looking statements relating to product development, plans, strategies, and other statements that are not historical facts. Forward-looking statements are often identified by terms such as "will", "may", "should", "anticipate", "expects", and similar expressions. All statements other than statements of historical fact included in this news release are forward-looking statements that involve risks and uncertainties. There can be no assurance that such statements will prove to be accurate, and actual results and future events could differ materially from those anticipated in such statements. Important factors that could cause actual results to differ materially from the Company's expectations include: the risks detailed from time to time in the filings made by the Company with securities regulators; the fact that Volta's interests in its mineral properties are options only and there are no guarantees that such interests, if earned, will be certain; the future prices and demand for lithium, rare earth elements, and gallium; and delays or the inability of the Company to obtain any necessary approvals, permits, and authorizations required to carry out its business plans. The reader is cautioned that assumptions used in the preparation of any forward-looking statements may prove to be incorrect. Events or circumstances may cause actual results to differ materially from those predicted, as a result of numerous known and unknown risks, uncertainties, and other factors, many of which are beyond the control of the Company. The reader is cautioned not to place undue reliance on any forward-looking statements. Such information, although considered reasonable by management at the time of preparation, may prove to be incorrect and actual results may differ materially from those anticipated. Forward-looking statements contained in this news release are expressly qualified by this cautionary statement. The forward-looking statements contained in this news release are made as of the date of this news release, and the Company disclaims any*

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