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TEMAS' RCL CRITICAL MINERALS PATENT PORTFOLIO EXPANDS INTO CHROMIUM

Patent filing follows recent RCL metallurgical testwork and further strengthens Temas' growing critical minerals technology platform

Highlights

- **Temas has initiated the filing of a new process patent** covering the extraction of chromium from complex ore bodies using its proprietary Regenerative Chloride Leach ("RCL") mixed chloride leaching technology.
- Patent application, entitled "**Chloride-based process for Chromium extraction**," establishes a **priority filing date of July 10, 2026**, further expanding Temas' growing RCL intellectual property portfolio.
- **Chromium is a critical material** essential to the stainless steel, aerospace, defence, energy infrastructure and advanced manufacturing, with a global market valued at approximately US\$23.9 billion in 2024.
- Filing follows the recent completion of the Company's previously announced **RCL vanadium metallurgical patent filing** demonstrating the ability of the RCL Platform Technology to be adapted across multiple critical minerals, as well as its strong applicability to Temas' 100% owned La Blache Project, which hosts high grade of vanadium over broad intervals.
- The chromium extraction process has the potential application to Temas' wholly owned La Blache and Lac Brule titanium-vanadium-iron projects, as well as **third-party chromium bearing deposits, concentrates and mine waste**.
- Expands the commercial opportunity for the RCL Platform through future technology **licensing, strategic processing partnerships and deployment across global mining operations**.
- Builds on Temas' portfolio of **eleven granted metallurgical process patents** and reinforces the Company's strategy of becoming a leading provider of environmentally responsible critical minerals processing technology.
- The Company continues to advance confidential discussions and third-party metallurgical testing with potential commercial partners regarding deployment of the RCL platform across multiple critical minerals.

Why this matters to Investors – Every New RCL Application Expands the Company's Commercial Opportunity

- 1) **Expands the value of the RCL technology platform.** Each new patent broadens the commercial reach of Temas' proprietary RCL process beyond titanium and vanadium into another strategically important critical mineral, increasing the potential for future licensing, processing partnerships and additional revenue opportunities.
- 2) **Adds to Temas's growing portfolio of high-value intellectual property.**

With eleven granted patents and new patent applications for both vanadium and chromium, Temas continues to strengthen the competitive moat around its metallurgical technology, creating long-term strategic value that extends well beyond its mineral assets.
- 3) **Positions Temas to benefit from increasing demand for secure Western critical mineral supply chains.**



Chromium is essential to stainless steel, aerospace, defence, energy infrastructure and advanced manufacturing. By developing environmentally responsible extraction technology applicable to both its own projects and third-party deposits, Temas is building a scalable technology business aligned with growing global demand for critical minerals.

Temas Resources Corp. ("Temas" or the "Company") (ASX: TIO | CSE: TMAS | OTCQB: TMASF | FSE: 26P0) is pleased to announce that, following the recent completion of the Company's Regenerative Chloride Leach ("RCL") metallurgical testwork announced earlier this year, the Company has initiated the filing of a new process patent covering the extraction of chromium from complex ore bodies using mixed chloride leaching technology.

The patent application, entitled "**Chloride-based process for Chromium extraction**" establishes a priority filing date of **July 10, 2026**, providing intellectual property protection for a novel process developed through the Company's ongoing metallurgical research and development activities.

Chromium is classified as a critical mineral in numerous Western countries due to its importance in defence, aerospace, energy infrastructure and advanced manufacturing. Approximately 85-90% of chromium production is consumed in the manufacturing of stainless steel, while high-purity chromium metal is increasingly required for aerospace superalloys, military armour systems, turbine components, hydrogen technologies and emerging battery applications. According to *Grand View Research*, the global chromium market was valued at **US\$23.9 billion in 2024** and is forecast to reach approximately **US\$34.5 billion by 2030** (*Source: Grand View Research, Chromium Market Size, Share & Trends Report, 2025*), reflecting continued demand growth by infrastructure investment, electrification, and defence manufacturing.

Tim Fernback, President & Chief Executive Officer, commented:

"The filing of this patent is another important step in transforming Temas from a critical minerals developer into a global clean metallurgical technology company. Every new patent strengthens our competitive position and builds long-term value in our technology licensing business. This growing global market for chromium metal further highlights the commercial significance of developing proprietary environmentally responsible chromium extraction technologies such as the Temas' RCL platform. As demand accelerates for secure supplies of critical minerals such as chromium, we believe proprietary processing technologies like RCL will become increasingly valuable to miners seeking lower-cost, environmentally responsible extraction."

The new patent application builds upon the encouraging results generated from Temas' proprietary RCL metallurgical testing on its 100%-owned La Blache Titanium-Vanadium-Iron Project in Québec, Canada. The work further demonstrates the adaptability of the RCL technology platform across multiple critical minerals while expanding the Company's growing portfolio of proprietary processing technologies.

The Company believes that securing intellectual property protection remains a critical component of its strategy to commercialize the RCL technology through future licensing agreements, strategic partnerships and deployment across global mineral projects. ***The Temas RCL technology platform is comprised of successfully granted US and Canadian metallurgical process patents for the extraction of Gold, Iron, Titanium, Nickel and Rare Earth Elements using its proprietary mixed-chloride leaching technology.***



In addition to this new patent applications for the extraction of **Chromium** and the recently announced patent filing for [Vanadium extraction](#), which is directly applicable to the Company's La Blache Project in Québec, Canada. The RCL platform is supported by eleven granted patents across multiple critical minerals and jurisdictions:

- Gold - granted (United States)
- Gold - granted (Canada)
- Iron - granted (United States)
- Iron - granted (Canada)
- Iron - granted (India)
- Titanium - granted (United States)
- Titanium - granted (Canada)
- Nickel - granted (United States)
- Nickel - granted (Canada)
- Rare Earth Elements - granted (India)
- Rare Earth Elements - granted (Canada)
- [Vanadium - application filed, priority date 8 July 2026 \(new\)](#)
- Chromium – application filed, priority date 10 July 2026 (new)

Expanding the RCL Intellectual Property Platform

The RCL technology platform continues to evolve beyond its original titanium applications into a broad hydrometallurgical process capable of recovering multiple critical minerals from complex ores, concentrates and mine waste.

The Company's intellectual property strategy is focused on protecting novel metallurgical processes that can be commercialized through:

- Technology licensing;
- Joint venture opportunities;
- Strategic processing partnerships;
- Proprietary processing of Temas' wholly-owned mineral assets.

The filing of "**Chloride-based process for Chromium extraction**" represents another significant addition to Temas' expanding portfolio of proprietary RCL technologies.

- ENDS -

Approved for Release by the Board of Directors

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ABOUT TEMAS RESOURCES

Revolutionizing Metal Production

Proprietary IP. Global Licensing. Titanium & Critical Minerals.

Temas Resources Corp. (**ASX: TIO | CSE: TMAS | OTCQB: TMAF | FRA:26P0**) is a technology-driven critical minerals company advancing a dual-business model built around proprietary processing innovation and strategic mineral ownership. The Company's patented Regenerative Chloride Leach (RCL) technology platform delivers significant operational cost reductions — validated at up to 65% lower than traditional processing — while dramatically reducing energy use and environmental impact.

Temas' RCL process is the foundation of its technology licensing and partnership business, enabling global mining and materials companies to adopt sustainable, high-margin metal extraction methods across a range of critical minerals including titanium, vanadium, nickel, and rare earth elements.

Complementing its technology division, Temas also owns 100% of two advanced titanium-vanadium-iron projects in Québec, Canada — La Blache and Lac Brûlé — which are strategically positioned to feed directly into the Company's proprietary processing platform, creating a fully integrated mine-to-market supply chain for Western metals.

Through this combination of innovative IP commercialization and resource ownership, Temas Resources is positioned to deliver scalable, low-carbon solutions that strengthen Western critical-mineral independence and create long-term value for shareholders.

Benefits the ORF - RCL Technology:



The RCL platform technology involves the hydrometallurgical mineral extraction of concentrates, whole ores, slags and tailings to enhance recovery of critical metals, battery metals, Platinum Group Minerals (“PGMs”), precious and base metals and Rare Earth Element (“REE”) recovery at materially higher through-yields and lower capital and operating costs than many of the conventional approaches that are in use traditionally. This novel RCL technology is ideally suited to treat increasingly complex ores in an environmentally sensitive manner.

Pilot Testing Complete: The Company has completed a pilot test of approximately 1 ton of material from its La Blache TiO₂ mineral property yielding 88 kgs of a 99.8% pure TiO₂ commercial grade product.¹

Validated Cost Reduction: A significant cost reduction of over 65%^{2,3} is validated for TiO₂ processing using the RCL platform technology (e.g., reagent recycling, potentially lower energy use, optimized recovery etc.). These fundamental process efficiencies are expected to translate into economic advantages when applying the platform to Nickel or other target minerals hosted in complex ores.

Environmental Performance: The closed-loop design and high reagent recycling rates are core to the RCL platform, irrespective of the target mineral. Over 69% lower operating costs compared to conventional processing due to its core features operating at near ambient temperatures.³ This means the reduced environmental footprint and enhanced ESG profile are benefits that extend to ores and minerals previously noted, not just TiO₂.

High Recovery Potential: Just as we've demonstrated high-quality, 99.8% TiO₂ product from pilot testing¹ the RCL platform is engineered for high recovery and purity of all target metals. Our metallurgical expertise focuses on optimizing these recoveries and maximizing margins for each specific mineral.

RCL results in a quicker and more complete liberation of the target metals using atmospheric pressure and lower temperatures than competing methods and improves the selectivity and efficiency of subsequent solvent extraction steps. Management believes that this novel metallurgical process can be applied to many complex resource deposits worldwide, enhancing both extraction and recovery for the operator.

¹ Source: Temas Resources Corp. “Pilot Scale Evaluation of Temas La Blache Ilmenite – Final Report PRO 21-16,” 24 June 2022.

² These metallurgical test results and cost-reduction data were first reported in the Company's Canadian market announcement dated 13 April 2021, titled “Temas Resources Acquires 50 % of Green Mineral Process Developer ORF Technologies Inc.”

³ The cost-reduction figure is supported by independent evaluation conducted by the Natural Resources Research Institute (University of Minnesota, 2017) and subsequent pilot-scale validation by ORF Technologies Inc., as detailed in Temas Resources news releases of 2021 and 2022.



COMPARISON OF RCL PROCESS FOR TITANIUM PRODUCTION

Cheaper and more energy efficient:
A University of Minnesota study on ORF Technology's patents concluded that the TiO₂ recovery process could slash production costs by ~50-65%, and the process is also less energy-intensive compared to the industry standard.

Massive sector tailwinds:
The global market for TiO₂ valued at US\$21.23 billion, is anticipated to grow at a compound annual growth rate of 6.2% through 2033, signifying a substantial opportunity for RCL efficient recovery process.

Our technology as a platform:
ORF Technology's patented process can produce high-purity Titanium Dioxide (TiO₂) from low-grade materials and is applicable to all minerals ores, including those rich in Chromium (Cr), Cobalt (Co), and Vanadium (V), thus enabling the extraction of additional value from elements that are typically not recoverable with other methods.

	SUBOXIDE		CHLORIDE	RCL
Technical	History	Hydrex Company	TDH Chemicals	Potential (Patent)
	Process Type	Hydrometallurgical	Pyrometallurgical	Hydrometallurgical
	Process Conditions	Hydrometallurgical (up to 300°C, 80-90% H ₂ O ₂)	Pyrometallurgical (up to 1000°C)	Hydrometallurgical TOC, 50% H ₂ O
	End-to-End Processing in One Location	Feasible	Not practical	Potential
Environmental	CAPEX per installed tonne	\$2,000-\$3,000	\$3,000-\$4,000	\$2,750 (estimated)
	Health and Safety Requirements	High	Very High	Lowest
	Environmental Challenges	Disposal of acidic waste products	Disposal of sulfur waste products	Waste streams to Reverse Osmosis
Financial	Carbon Footprint	7.08 t CO ₂ eq / t of TiO ₂	8.38 t CO ₂ eq / t of TiO ₂	30-35% lower than Chloride Route (estimated)
	Energy Consumption and Efficiency	Moderate and efficient Batch Process	Highly Efficient Efficient	Lowest and most Efficient
	Raw Materials/Flexibility	Feeds from low Cost Street Mining	Inflexible and High Cost (up to 10% of TiO ₂)	Highly Flexible and Lowest Cost (Ingo, STP, Superfines, Smelter)
	Reagent Cost	Superior Price per Substrate (Water)	No Extra Reagents are Regenerated	Yes (Most Reagents are Largely Regenerated)
	Quality + Unit Cost of TiO ₂ in Field (USD/tonne)	\$600	\$1,200 (up to \$1,800 (market supply))	\$280 (Tioxide Feedstock) - \$600 (Standard Feedstock)
	OREX (USD/Tonne)	\$700-\$1,100 (up to \$1,000-\$2,000 (market supply))	\$1,750 (Feedstock) - \$1,000 (Grade)	< \$100 (estimated)
	Value + Quality of Finished TiO ₂ pigment (USD/Tonne)	~\$1800 - \$2000	~\$3000 - \$3500 +	~\$3800 +
	Cost Drivers	Gold Feedstock, water consumption, and higher technology requirements increase costs over time	Higher initial capital cost and raw material costs, but, long-term benefits from lower waste, continuous processing, and higher product quality	The superior flexibility in utilizing low-cost feedstocks coupled with simple two-step process produces superior operating margins and environmental performance.

Cautionary Note Regarding Forward-Looking Statements

Neither the Canadian Securities Exchange nor the Market Regulator (as that term is defined in the policies of the Canadian Securities Exchange) accepts responsibility for the adequacy or accuracy of this news release.

This press release contains forward looking statements within the meaning of applicable securities laws. The use of any of the words “anticipate”, “plan”, “continue”, “expect”, “estimate”, “objective”, “may”, “will”, “project”, “should”, “predict”, “potential” and similar expressions are intended to identify forward looking statements

Although the Company believes that the expectations and assumptions on which the forward-looking statements are based are reasonable, undue reliance should not be placed on the forward-looking statements because the Company cannot give any assurance that they will prove correct. Since forward looking statements address future events and conditions, they involve inherent assumptions, risks and uncertainties. Actual results could differ materially from those currently anticipated due to a number of assumptions, factors and risks. These assumptions and risks include, but are not limited to, assumptions and risks associated with mineral exploration generally and results from anticipated and proposed exploration programs, conditions in the equity financing markets, and assumptions and risks regarding receipt of regulatory and shareholder approvals.

Management has provided the above summary of risks and assumptions related to forward looking statements in this press release in order to provide readers with a more comprehensive perspective on the Company's future operations. The Company's actual results, performance or achievement could differ materially from those expressed in, or implied by, these forward-looking statements and, accordingly, no assurance can be given that any of the events anticipated by the forward-looking statements will transpire or occur, or if any of them do so, what benefits the Company will derive from them. These forward-looking statements are made as of the date of this press release, and, other than as required by applicable securities laws, the Company disclaims any intent or obligation to update publicly any forward-looking statements, whether as a result of new information, future events or results or otherwise.

