



Titan Mining Graphite Testwork Demonstrates Product Meets Battery, Industrial and Defense Specifications

Independent Testing Confirms High-purity Natural Graphite from Titan's Kilbourne Project in New York state

Gouverneur, New York, Vancouver, British Columbia – August 28, 2025 – Titan Mining Corporation (TSX: TI; OTCQB: TIMCF) (“Titan” or the “Company”) announced today positive results from independent downstream testing on natural flake graphite from its 100% owned Kilbourne graphite project located in St. Lawrence County, NY demonstrating that Kilbourne graphite can be transformed into multiple high-value product streams, supporting Titan’s strategy to unlock diversified revenue opportunities across multiple industry groups.

Key Results and Commercial Applications:

- **Battery Materials:** Kilbourne graphite was successfully processed into spherical graphite (USPG) with 99.99% purity, high tap density, and favorable particle size distribution, confirming its suitability as anode material for lithium-ion batteries.
- **Industrial Products:** Micronized and purified products achieved >99.9% purity, meeting specifications for refractories, lubricants, automotive, and specialty industrial markets that demand consistent quality and high performance.
- **Defense and Aerospace:** Ultra-high purities and processing flexibility support potential qualification for military-specification (MiL-spec) materials, including applications in thermal management, composites, coatings, and defense-grade energy storage.

Don Taylor, CEO of Titan commented: “This is a key milestone as we advance toward becoming the first fully integrated U.S. producer of natural flake graphite in more than seventy years. These results confirm Kilbourne graphite can be processed into the high-purity products required for critical applications in aerospace, batteries, industrial and defense sectors.”

“By validating spherical, micronized, and purified graphite products, this testwork underscores Titan’s ability to serve multiple markets—from energy storage to defense-grade applications,” said Rita Adiani, President of Titan. “Equally important, Kilbourne strengthens U.S. supply chain security by reducing reliance on foreign graphite. These results enhance our commercial flexibility and reinforce the importance of our demonstration facility, which remains on track for commissioning later this year.”

Demonstration Facility Advancing

Titan is advancing construction of its graphite demonstration facility in St. Lawrence County. Approximately 70% of the equipment has been delivered and installation is underway. Commissioning expected in Q4 2025. The facility will validate the downstream flowsheet at scale and provide bulk product samples for customer qualification in the several sectors including, battery, industrial, and defense sectors.



Next Steps

Titan will continue downstream optimization and initiate electrochemical performance testing of its spherical graphite. Bulk samples produced from the demonstration facility are expected to be available for customer qualification and offtake discussions in late 2025.

Technical Summary Table

| Product Type | Key Metrics | Purity (LOI) | Commercial Relevance |
|--|---|---------------------------|---|
| Flotation Concentrate | Overall grade 95.0% Cg; Medium flake (+150 μm) 96.8% Cg; Mid fraction (-150 +71 μm) 96.4% Cg; Fine (-71 μm) 93.6% Cg | 95.0–96.8% | Saleable / qualifiable as -100 mesh concentrate; suitable for refractories, foundry, lubricants, friction |
| Micronized Graphite (PMG D90-45, D90-15) | D90 ~47 μm and ~17 μm ; Bulk densities after purification: ~292 g/L D90 ~ 47 μm , ~276 g/L D90 ~ 17 μm ; Particle sizes within target specs | 99.95–99.97% | High-purity micronized products; specialty industrial markets; feedstock for SPG |
| Spherical Graphite (SPG18) | D90 ~ 33 μm ; D50 ~18 μm ; D10 ~10 μm ; ; Tap density 0.96 g/cm ³ ; BET / SSA area 6.5 m ² /g; Springback 4% | 99.99% | Meets anode-grade specifications for lithium-ion batteries |
| Impurity Removal | Zn reduced from ~2,099 ppm (concentrate) to 1.1 ppm (SPG); Fe reduced from ~3,600 ppm to 11 ppm; Si reduced from ~7,000 ppm to 11 ppm | >99.9% after purification | Enables qualification for MiL-spec defense, aerospace, and advanced composites |
| Testing Conducted at ProGraphite GmbH in Germany– Kilbourne Graphite | | | |



Quality Assurance and Quality Control

All work and chemical analysis was conducted by ProGraphite GmbH in Germany, which is independent of the Company. The laboratory employs quality management systems that are in compliance with ISO 9001 standards, which ensures that the laboratory produces high-quality, accurate, and timely results. Equipment calibration using third-party standards are performed in prescribed intervals to ensure accuracy of the provided results. The QP is not aware of any factors that could materially affect the accuracy or reliability of the data referred to herein.

Qualified Person

The scientific and technical information in this news release has been reviewed and approved by Mr. Oliver Peters, a Principal Metallurgist and President of Metpro Management Inc., with over 25 years of mineral processing experience. He is a Qualified Person within the meaning of NI 43-101 and is independent of the Company. Mr. Peters is satisfied that the metallurgical testing procedures and associated assay methods used are standard industry operating procedures and methodologies. He has reviewed, approved and verified the technical information disclosed in this news release, including core sampling, analytical and test data underlying the technical information.

About Titan Mining Corporation

Titan is an Augusta Group company which produces zinc concentrate at its 100%-owned Empire State Mine located in New York state. Titan is also an emerging natural flake graphite producer and targeting to be the USA's first end to end producer of natural flake graphite in 70 years. Titan's goal is to deliver shareholder value through operational excellence, development and exploration. We have a strong commitment towards developing critical minerals assets which enhance the security of the domestic supply chain. For more information on the Company, please visit our website at www.titanminingcorp.com

Contact

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Cautionary Note Regarding Forward-Looking Information

Certain statements and information contained in this new release constitute "forward-looking statements", and "forward-looking information" within the meaning of applicable securities laws (collectively, "forward-looking statements"). These statements appear in a number of places in this news release and include statements regarding our intent, or the beliefs or current expectations of our officers and directors, including that Titan is advancing toward becoming the first fully integrated U.S. producer of natural flake graphite in more than seventy years; that our demonstration facility remains on track for commissioning later this year; the facility will validate the downstream flowsheet at scale and provide bulk product samples for customer qualification in the several sectors including, battery, industrial, and defense sectors; Titan will continue downstream optimization and initiate electrochemical performance testing of its spherical graphite; and that bulk samples produced from the demonstration facility are expected to be available for customer



qualification and offtake discussions in late 2025. When used in this news release words such as “to be”, “will”, “planned”, “expected”, “potential”, and similar expressions are intended to identify these forward-looking statements. Although the Company believes that the expectations reflected in such forward-looking statements and/or information are reasonable, undue reliance should not be placed on forward-looking statements since the Company can give no assurance that such expectations will prove to be correct. These statements involve known and unknown risks, uncertainties and other factors that may cause actual results or events to vary materially from those anticipated in such forward-looking statements, including risks relating to cost increases for capital and operating costs; risks of shortages and fluctuating costs of equipment or supplies; risks relating to fluctuations in the price of zinc and graphite; the inherently hazardous nature of mining-related activities; potential effects on our operations of environmental regulations in New York State; risks due to legal proceedings; risks related to operation of mining projects generally and the risks, uncertainties and other factors identified in the Company's periodic filings with Canadian securities regulators. Such forward-looking statements are based on various assumptions, including assumptions made with regard to our forecasts and expected cash flows; our projected capital and operating costs; our expectations regarding mining and metallurgical recoveries; mine life and production rates; that laws or regulations impacting mining activities will remain consistent; our approved business plans; our mineral resource estimates and results of the PEA; our experience with regulators; political and social support of the mining industry in New York State; our experience and knowledge of the New York State mining industry and our expectations of economic conditions and the price of zinc and graphite; demand for graphite; exploration results; the ability to secure adequate financing (as needed); the Company maintaining its current strategy and objectives; and the Company's ability to achieve its growth objectives. While the Company considers these assumptions to be reasonable, based on information currently available, they may prove to be incorrect. Except as required by applicable law, we assume no obligation to update or to publicly announce the results of any change to any forward-looking statement contained herein to reflect actual results, future events or developments, changes in assumptions or changes in other factors affecting the forward-looking statements. If we update any one or more forward-looking statements, no inference should be drawn that we will make additional updates with respect to those or other forward-looking statements. You should not place undue importance on forward-looking statements and should not rely upon these statements as of any other date. All forward-looking statements contained in this news release are expressly qualified in their entirety by this cautionary statement.