

# Focus Graphite Achieves 5N Purity from Lac Knife Graphite, Refined to Nuclear-Grade Purity Levels in AETC Testing

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Thermal purification run on Lac Knife concentrate material produced and characterized by AETC has resulted in 99.9992 wt. % C purity - laying the foundation for the transition into the nuclear spec material purity

OTTAWA, June 12, 2025 - [Focus Graphite Advanced Materials Inc.](#) (TSXV: FMS) (OTCQB: FCSMF) (FSE: FKCO) ("Focus" or the "Company") is pleased to announce that recent thermal purification testing completed by American Energy Technologies Company ("AETC") has successfully refined Lac Knife flake graphite concentrate to a purity level of 99.999 wt.% C ("5N"). This milestone underscores Focus Graphite's potential to supply ultra-high-purity graphite material for nuclear energy applications, a market historically dominated by synthetic graphite and limited to a small cohort of qualifying producers.

The thermal purification was conducted at AETC's Wheeling, Illinois facility under an inert gas atmosphere at 2,800°C without the use of halogen gases. The test results exceeded expectations, achieving 5N purity through a proprietary, environmentally safer process.

This breakthrough creates a new downstream market entry point for Focus Graphite, whose Lac Knife Project is one of North America's most advanced, high-purity natural graphite deposits - now nearing the end of the mine permitting process.

Additional material characterizations are underway and will include:

- SEM/EDS: Scanning Electron Microscopy with Energy Dispersive X-ray Spectroscopy to evaluate surface morphology and elemental composition
- Scott Volume: Measurement of bulk density for assessing packing characteristics
- Tap Density: Analysis of powder compressibility and packing uniformity
- Laser Diffraction: Particle size distribution and aspect ratio changes due to thermal purification
- Particle Shape Analysis: Identification of predominant particle geometries in the 5N purity product
- BET Surface Area: Brunauer-Emmett-Teller analysis to determine surface area for adsorption and reactivity studies

"Achieving 5N purity from Lac Knife graphite through thermal processing alone provides strong technical and commercial validation of our material," said Jason Latkowcer, Vice President, Corporate Development at Focus Graphite. "As global momentum shifts toward energy resilience, and surging electricity demand driven by AI, data centers, and electrification, nuclear power is regaining critical importance. Focus continues to progress towards our goal of supplying secure, high-purity natural graphite from a domestic North American source. Beyond the 5N precursor, we intend to further process the 5N purified power into specific market segments within the nuclear graphite market."

This development coincides with a significant resurgence in nuclear energy investment. In Canada, Ontario is leading the G7 with the construction of the world's first grid-scale Small Modular Reactor (SMR) at the Darlington site, representing a critical step in clean energy transformation. Meanwhile in the U.S., President Trump recently signed an executive order prioritizing the revival and expansion of domestic nuclear energy capacity, placing further emphasis on the supply of key materials like nuclear-grade graphite.

According to Anna Doninger, Manager of Government Relations at American Energy Technologies Co., "We at AETC were pleased to confirm that Focus Graphite's Lac Knife natural flake graphite concentrate was thermally purified to an impressive 99.9992 wt.% C purity, based on platinum crucible LOI testing. Even more noteworthy, this 5N-level purity was achieved without the use of halogen gas - using thermal purification at 2,800°C in an inert gas environment. This result positions Focus Graphite as a potential entrant into the nuclear graphite market, a space currently accessible to only a select few companies in North America. It's important to note that there is no generic 'nuclear-grade' graphite; production methods are proprietary, and end users must carefully select grades that meet their exact specifications. Historically, nuclear graphite powders have been predominantly synthetic. However, the ability of certain natural graphite materials - like Focus' - to meet both high-purity and Equivalent Boron Concentration (EBC) requirements opens the door for natural graphite to serve as a viable, and in some cases superior, alternative. Natural graphite meeting these specifications can command prices in the range of US\$30,000 to \$35,000 per tonne for 99.999 wt.% C LOI with <2 ppm EBC. The next phase of our collaboration will involve EBC testing of Focus' thermally refined graphite to further validate its applicability in nuclear-grade applications."

Focus Graphite's strategy includes continued testing and validation of its 5N graphite for nuclear applications, as well as evaluating commercial pathways to serve this premium market. As the company moves closer to full mine permitting and production readiness, these results further enhance the strategic and economic potential of the Lac Knife Project.

#### About Focus Graphite Advanced Materials Inc.

Focus Graphite Advanced Materials is redefining the future of critical minerals with two 100% owned world-class graphite projects and cutting-edge battery technology. Our flagship Lac Knife project stands as one of the most advanced high-purity graphite deposits in North America, with a fully completed feasibility study. Lac Knife is set to become a key supplier for the battery, defense, and advanced materials industries.

Our Lac Tétépisca project further strengthens our portfolio, with the potential to be one of the largest and highest-purity and grade graphite deposits in North America. At Focus, we go beyond mining - we are pioneering environmentally sustainable processing solutions and innovative battery technologies, including our patent-pending silicon-enhanced spheroidized graphite, designed to enhance battery performance and efficiency.

Our commitment to innovation ensures a chemical-free, eco-friendly supply chain from mine to market. Collaboration is at the core of our vision. We actively partner with industry leaders, research institutions, and government agencies to accelerate the commercialization of next-generation graphite materials. As a North American company, we are dedicated to securing a resilient, locally sourced supply of critical minerals - reducing dependence on foreign-controlled markets and driving the transition to a sustainable future.

For more information on Focus Graphite Inc. please visit <http://www.focusgraphite.com>

#### Cautionary Note Regarding Forward-Looking Statements

Certain statements contained in this press release constitute forward-looking information. These statements relate to future events or future performance. The use of any of the words "could," "intend," "expect," "believe," "will," "projected," "estimated," and similar expressions, as well as statements relating to matters that are not historical facts, are intended to identify forward-looking information and are based on the Company's current beliefs or assumptions as to the outcome and timing of such future events.

In particular, this press release contains forward-looking information relating to, among other things, the results and ongoing evaluation of Lac Knife concentrate material processed by American Energy Technologies Company (AETC), the potential to meet nuclear-grade graphite purity and EBC specifications, and the Company's future participation in the nuclear graphite supply chain. It also includes statements regarding the expected advancement and permitting of the Company's Lac Knife Project, its strategic focus on supplying ultra-high-purity graphite for nuclear, battery, and defence applications, and the possibility of entering into commercial agreements, joint ventures, or downstream processing partnerships as part of its dual-stream development strategy.

Forward-looking statements are subject to known and unknown risks, uncertainties, and other factors that may cause actual results, performance, or achievements to differ materially from those expressed or implied by such statements. These risks and uncertainties include, but are not limited to, risks related to market conditions, regulatory approvals, changes in economic conditions, the ability to raise sufficient funds on acceptable terms or at all, operational risks associated with mineral exploration and development, and other risks detailed from time to time in the Company's public disclosure documents available under its profile on SEDAR+.

The forward-looking information contained in this release is made as of the date hereof, and the Company is not obligated to update or revise any forward-looking information, whether as a result of new information, future events, or otherwise, except as required by applicable securities laws. Because of the risks, uncertainties, and assumptions contained herein, investors should not place undue reliance on forward-looking information.

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