



ALABAMA GRAPHITE CORP



FOR IMMEDIATE RELEASE

Alabama Graphite Corp. Achieves 99.99997% Graphite Purity via Proprietary, Environmentally Responsible and Sustainable Purification Process; Exceeds Nuclear Graphite Purity Requirements

*The Energy Graphite™ Company
Sourced and Manufactured in the United States of America*

TORONTO, CANADA — (February 17, 2017) — [Alabama Graphite Corp.](#) (“AGC” or the “Company”) (TSX-V:[CSPG](#)) (OTCQB:[CSPGF](#)) (FRANKFURT:[1AG](#)) - http://www.commodity-tv.net/c/mid,2697,Company_Presentation/?v=297325 - is very pleased to announce that it has achieved 99.99997% Carbon total percentage by weight (“wt% C”) purity from its sourced-in-USA graphite from its flagship, 100%-owned [Coosa Graphite Project](#) — located in Coosa County, [Alabama](#), USA — via the Company’s propriety, [low-temperature thermal purification process](#). In addition to these positive ultra-high-purity graphite results, it is important to note that AGC’s environmentally responsible and sustainable graphite purification process does *not* utilize acids that are commonly regarded as dangerous and environmentally harmful (*e.g. hydrofluoric acid — as is commonly used in Chinese graphite production* [source: Industrial Minerals Data, 2015] — *hydrochloric acid, sulfuric acid, nitric acids, or alkali roasting, caustic-soda roasting, etc.*), nor the need for copious amounts of scarce, clean water or costly, energy-intensive high-temperature thermal upgrading.

A total of 16 pounds (“lbs.”) of 96.7 wt% C graphite concentrate was shipped from the Company’s multi-ton Coosa Graphite Project Pilot Plant concentrate stockpile (please refer to the [February 3, 2016](#) announcement, ‘[Alabama Graphite Corp. Reports Positive Pilot Plant Test Results for Coosa Graphite Project in Coosa County, Alabama, USA](#)’) to AGC’s Coated

Spherical Purified Graphite (“CSPG”) laboratory in the United States as the feedstock for the purification trials. The purpose of the purification trials was to further demonstrate the efficacy of the Company’s low-temperature thermal purification process, as well as to provide precursor material to manufacture and produce the Company’s core product, CSPG — identified by the [ULTRACSPG™](#) trademark, the very first trademarked sourced-in-USA and manufactured-in-USA natural battery-ready graphite for use in lithium-ion (“Li-ion”) batteries — as well as battery-grade high-conductivity enhanced graphite products, including, Purified Micronized Graphite (“PMG”), Expanded Graphite (“EXDG”), and Delaminated Expanded Graphite (“DEXDG”) for Li-ion battery cathode applications. DEXDG is a form of processed natural crystalline flake with significantly improved electrical conductivity in electrode matrixes. Additionally, DEXDG is preferable to conventional air-milled flake and/or premium quality synthetic graphite when higher conductivity properties are desired, such as applications at high discharge rates. EXDG is a precursor material to DEXDG and is synthesized from purified flake graphite by the Company’s proprietary technology. As a result of its superior performance in batteries as a conductivity enhancement diluent, DEXDG is preferred over competing grades of flake and synthetic graphite currently being used for this application. PMG and DEXDG are used as conductivity enhancement additives in secondary (rechargeable) Li-ion batteries, primary (non-rechargeable) lithium batteries and alkaline batteries. AGC currently anticipates expanding its planned product line to include DEXDG additional battery-grade high-conductivity enhanced graphite products.

As indicated in the Company’s [November 30, 2015](#) announcement, ‘[Alabama Graphite Corp. Announces Positive Preliminary Economic Assessment for Coosa Graphite Project in Coosa County, Alabama, USA; Files Completed PEA NI 43-101 Technical Report](#)’, AGC’s business model is predicated on the eventual downstream production of CSPG. However, in the process of producing CSPG, some non-spherical material will also be produced. The non-spherical material produced is considered an off-spec CSPG byproduct, yet 100% of byproduct produced can be utilized for battery-grade conductivity enhancement applications. The Company has demonstrated its ability to segregate the non-spherical material, classify, and further process into specialty battery-grade conductivity enhancement graphite products, specifically, PMG and DEXDG. In other words, AGC holds the potential to effectively utilize 100% of its secondary processed production. However, it is important to note that prior to commencing with commercial production, AGC must first complete a positive Feasibility Study, secure the required financing and then construct a mine and downstream CSPG processing and production facilities. It should be further noted that no supply agreement exists today with respect to U.S. Department of Defense (“DoD”) Li-ion battery manufacturers and contractors.

Note: AGC completed its [Preliminary Economic Assessment \(“PEA”\) for the Coosa Graphite Project](#) on November 27, 2015. A PEA is not a Feasibility Study. The PEA is preliminary in nature, that it includes Inferred Mineral Resources that are considered too speculative geologically to have the economic considerations applied to them that would enable them to be categorized as Mineral Reserves, and there is no certainty that the PEA based on these mineral resources will be realized. Mineral Resources that are not Mineral Reserves do not have demonstrated economic viability.

A total of 10 CSPG scientists contributed to this purification project for AGC — consisting of three PhD scientists and seven battery materials engineers working in the Company’s dedicated, battery materials research laboratory — under AGC Chief Executive Officer Donald Baxter’s and Director of Technology George C. Hawley’s direction and supervision. For reasons of


commercial confidentiality, AGC will not identify the arm's length, U.S.-based, independent battery anode materials laboratory utilized for the Company's downstream, secondary processing CSPG production facility (please refer to the Company's [January 19, 2016](#) announcement, '[Independent Test Results: Alabama Graphite Corp. Succeeds in Producing High-Performance Coated Spherical Graphite \(CSPG\) for Lithium-ion Batteries](#)').

Two separate graphite flotation samples were subjected to AGC's purification process, based on AGC's recently optimized metallurgical flowsheet for secondary processing. The purity results for both samples were measured at 100 wt% C. The graphite was extremely pure in that the amount of mineral impurities were below the limits of detection for a conventional Loss-on-Ignition ("LOI") test. AGC sent the two purified samples to a reputable, independent laboratory that performs Glow Discharge Mass Spectrometry ("GDMS") analysis on carbon. GDMS is a mature, versatile technique for measuring purity, which is widely recognized for being the most precise determination of the concentration of mineral impurities in graphite.

Coosa purified concentrate sample number one recorded a combined total of 1.135 ppm of registered elemental impurities (please refer to Table 1 below, under the subheading 'Coosa Purified Concentrate Sample No. 1 (ppm)'), yielding a purity measurement of 99.9999 wt% C ("6N"). Coosa purified concentrate sample number two recorded a very positive combined total of 0.292 ppm of registered elemental impurities (please refer to Table 1 below, under the subheading 'Coosa Purified Concentrate Sample No. 2 (ppm)'), yielding 99.99997 wt% C ("6N7") purity. The average of these two results is 0.7135 ppm of total registered elemental impurities (please refer to Table 1 below, under the subheading 'Coosa Purified Concentrate Average (ppm)'), yielding a combined average 99.99993 wt% C ("6N3") purity.

Table 1: GDMS Analysis of AGC's Coosa Purified Graphite Concentrates

The following are the results of AGC's GDMS analysis of the Coosa graphite concentrates after undergoing the AGC's low-temperature thermal purification:

 Trace Mineral Impurities / Key Elements	GDMS Analysis of AGC's Coosa Purified Graphite Concentrates		
	Coosa Purified Concentrate Sample No. 1 (ppm)	Coosa Purified Concentrate Sample No. 2 (ppm)	Coosa Purified Concentrate Average (ppm)
Ag (Silver)	0.002	0.000	0.001
Al (Aluminum)	0.002	0.000	0.001
As (Arsenic)	0.012	0.000	0.006
B (Boron)	0.036	0.062	0.049
Ba (Barium)	0.000	0.000	0.000
Be (Beryllium)	0.000	0.000	0.000
Ca (Calcium)	0.015	0.009	0.012
Cd (Cadmium)	0.001	0.000	0.0005
Co (Cobalt)	0.007	0.000	0.0035

Cr (Chromium)	0.004	0.001	0.0025
Cu (Copper)	0.005	0.000	0.0025
Fe (Iron)	0.005	0.013	0.009
Ga (Gallium)	0.000	0.003	0.0015
Ge (Germanium)	0.001	0.000	0.0005
Hf (Hafnium)	0.002	0.000	0.001
K (Potassium)	0.001	0.003	0.002
Li (Lithium)	0.000	0.000	0.000
Mg (Magnesium)	0.006	0.000	0.003
Mn (Manganese)	0.000	0.000	0.000
Mo (Molybdenum)	0.849	0.025	0.437
Na (Sodium)	0.000	0.008	0.004
Ni (Nickel)	0.000	0.008	0.004
P (Phosphorus)	0.003	0.000	0.0015
Pb (Lead)	0.007	0.000	0.0035
S (Sulfur)	0.038	0.049	0.0435
Si (Silicon)	0.019	0.030	0.0245
Sn (Tin)	0.000	0.036	0.018
Ta (Tantalum)	0.000	0.000	0.000
Te (Tellurium)	0.074	0.000	0.037
Ti (Titanium)	0.002	0.002	0.002
V (Vanadium)	0.033	0.039	0.036
W (Tungsten)	0.009	0.002	0.0055
Zn (Zinc)	0.002	0.002	0.002
Zr (Zirconium)	0.000	0.000	0.000
Elemental Impurities Grand Total	1.135 (99.99990 wt% C)	0.292 (99.99997 wt% C)	0.7135 (99.99993 wt% C)

Additionally, the purity levels AGC achieved exceeded the [ASTM International](#) (“ASTM”) standard for nuclear-grade graphite, which has a purity threshold of 99.995 wt% C and, more importantly, less than 2 parts per million (“ppm”) equivalent boron concentration (“EBC”). Based on ASTM standard [D7219-08](#) ‘*Standard Specification for Isotropic and Near-isotropic Nuclear Graphites*’, AGC’s ultra-high-purity graphite exceeds the ASTM specification. Weapons-grade and reactor-grade nuclear graphite must be free of neutron-absorbing materials, especially boron, which has a large neutron capture cross section. The primary demand driver for ultra-high-purity graphite is nuclear applications, specifically Pebble Bed Modular Reactors (“PBM”).

AGC aspires to be an American-sourced-and-manufactured battery-graphite supplier and is confident that ≥ 99.9999 wt% C graphite holds the potential to make a better Li-ion battery; specifically, by allowing for superior electrochemical performance in Li-ion battery anodes compared to ≥ 99.95 -wt%-C-pure anode material. Application of ultra-high-purity graphite is

expected to result in the reduced rate of self-discharge reactions and consequently, in longer calendar life batteries. As such, AGC intends to conduct electrochemical tests on various purities in anodes, including the ≥ 99.9999 wt% C material. Further, AGC intends to pioneer studies on the role of mineral impurities in graphite and their long-term effect on performance in Li-ion batteries, particularly with respect to their long-term cycling performance. Because AGC believes it will eventually be able to easily, safely, sustainably, and responsibly produce such an ultra-high-purity graphite, management believes there may be potential additional benefits to its use in CSPG for use in Li-ion batteries, such as higher capacity, increased power, longer-lasting (increased calendar life), and safer batteries.

President and Chief Executive Officer Donald Baxter commented, *“We have known for some time that AGC’s graphite concentrate is quite amenable to secondary processing; however, our low-temperature thermal purification technology has exceeded my high expectations and we are extremely pleased with the results.*

“Per our PEA technical report, AGC holds the potential to become a bottom-quartile-cost producer of CSPG with the lowest initial CAPEX costs in the space. Sourcing and manufacturing our battery-ready graphite in the contiguous United States represents significant potential competitive advantages. Our commitment to the environment and environmental sustainability is something we take exceedingly seriously, but as these purification results indicate, we can adhere to the most stringent environmental standards without having to compromise whatsoever in terms of product quality,” explained Mr. Baxter. *“I believe that our ultra-high-purity flake will result in a higher performing CSPG product and, thus, a better battery. We look forward to further testing and investigation. Additionally, we intend to broaden our eventual product catalog to include our DEXDG battery-grade specialty conductivity enhancement materials, in addition to our PMG. We intend to realize 100% of our secondary-processed production, manufacturing in-demand specialty graphite products to sell into battery-graphite markets.”*

Executive Vice President, Tyler Dinwoodie stated, *“Although these ultra-high-purity results are significant, I believe what is perhaps even more important is to understand how said purity results were achieved — without the use of toxic, environmentally harsh acids or costly upgrading with a significant sulfur CO₂ footprint. This is a critical point of differentiation between AGC and others in the space. We can thermally purify at a low temperature, without acid and we can achieve ultra-high-purity results.*

“The battery manufacturers we are in discussions with demand a secure and accessible, yet consistently high-performing product; however, the means by which we manufacture our battery-ready CSPG are equally as important,” said Mr. Dinwoodie. *“Environmental sustainability and responsibility, coupled with complete supply-chain transparency and corporate social responsibility are paramount — both to our potential customers and to AGC.”*

Readers are cautioned that AGC is not yet in production and there is no guarantee that the Company will advance to full-scale production. If, following the completion of a Feasibility Study — which has not yet been commenced — AGC is able to advance the Coosa Graphite Project into production, the resulting graphite would be sourced from within the contiguous United States and the Company may have a potential competitive advantage over other producers of value-added graphite materials sourced from other countries, regardless of whether said materials were processed and/or manufactured in the United States of America.

On behalf of the Board of Directors of
ALABAMA GRAPHITE CORP.

Donald K. D. Baxter, P.Eng.

President, Chief Executive Officer and Executive Director

QUALIFIED PERSON

Donald K. D. Baxter, P.Eng., President, Chief Executive Officer and Executive Director of Alabama Graphite Corp., is a Qualified Person as defined by National Instrument 43-101 (“N.I. 43-101”) guidelines, and has reviewed and approved the content of this news release.

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ABOUT ALABAMA GRAPHITE CORP.

[Alabama Graphite Corp.](#) is a Canadian-based flake graphite exploration and development company as well as an aspiring battery materials production and technology company. The Company operates through its wholly owned subsidiary, Alabama Graphite Company Inc. (*a company registered in the state of [Alabama](#)*). With an advancing flake graphite project in the United States of America, Alabama Graphite Corp. intends to become a reliable, long-term US supplier of specialty high-purity graphite products, namely Coated Spherical Purified Graphite (CSPG) engineered for use in lithium-ion batteries. A highly experienced team leads the Company with more than 100 years of combined graphite mining, graphite processing, specialty graphite products and applications, advanced battery development and graphite sales experience. Alabama Graphite Corp. is focused on the exploration and development of its flagship [Coosa Graphite Project](#) in Coosa County, Alabama, and its [Bama Mine Project](#) in Chilton County, Alabama as well the research and development of its proprietary manufacturing and technological processing process of battery materials.

Alabama Graphite Corp. holds a 100% interest in the mineral rights for these two US-based graphite projects, which are both located on private land. The two projects encompass more than 43,000 acres and are located in a geopolitically stable, mining-friendly jurisdiction with significant historical production of crystalline flake graphite in the flake graphite belt of central Alabama, also known as the Alabama Graphite Belt (*source: US Bureau of Mines*). A significant portion of the Alabama deposits are characterized by graphite-bearing material that is oxidized and has been weathered into extremely soft rock. Both projects have infrastructure in place, are within close proximity to major highways, rail, power and water, and are approximately three hours (by truck or train) to the Port of Mobile, the Alabama Port Authority's deep-seawater port and the ninth largest port by tonnage in the United States (*source: US Army Corps of Engineers/USACE*). The state of Alabama's hospitable climate allows for year-round mining operations and the world's largest marble quarry (which operates 24 hours a day, 365 days a year in Sylacauga, Alabama), is located within a 30-minute drive of the Coosa Graphite Project.

On [November 30, 2015](#), Alabama Graphite Corp. announced the results of a preliminary economic assessment (“PEA”) for the Coosa Graphite Project, indicating a potentially low-cost project with potential positive economics. Please refer to the Company’s technical report titled “*Alabama Graphite Corp. Preliminary Economic Assessment (PEA) on the Coosa graphite Project, Alabama, USA*” dated November 27, 2015, prepared by independent engineering firms

AGP Mining Consultants Inc. and Metal Mining Consultants Inc., and filed on SEDAR at www.sedar.com.

Note: a preliminary economic assessment is preliminary in nature, it includes inferred mineral resources that are considered too speculative geologically to have economic considerations applied to them that would enable them to be categorized as mineral reserves and there is no certainty that the preliminary economic assessment will be realized.

** Inferred Mineral Resources represent material that is considered too speculative to be included in economic evaluations. Additional trenching and/or drilling will be required to convert Inferred Mineral Resources to Measured or Indicated Mineral Resources. Mineral Resources that are not Mineral Reserves do not have demonstrated economic viability. There is no guarantee that all or any part of the Mineral Resource will be converted into a Mineral Reserve.*

Alabama Graphite Corp. is a proud member of the National Association of Advanced Technology Batteries International (“[NAATBatt International](#)”), a US-based, not-for-profit trade association commercializing advanced electrochemical energy-storage technologies for emerging, high-tech applications.

For further information and updates on the Company or to sign up for [Alabama Graphite Corp. News](#), please visit www.alabamagraphite.com or follow, like and subscribe to us on [Twitter](#), [Facebook](#), [YouTube](#), and [LinkedIn](#).

FORWARD-LOOKING STATEMENTS

This press release contains forward-looking information under applicable Canadian securities laws (“forward-looking statements”), which may include, without limitation, statements with respect to any potential expansion in the Company’s planned product line, any potential ability to effectively utilize the Company’s possible secondary processed production, the undertaking, completion and results of any possible tests and studies of the Company, any potential additional benefits to using ultra-high purity graphite in Li-ion batteries, the Company’s potential to become a bottom-quartile cost producer of CSPG with the lowest initial CAPEX costs in the space, and any potential relationships between the Company and battery manufacturers, the DoD and any other related entities. The forward-looking statements are based on the beliefs of management and reflect Alabama Graphite Corp.’s current expectations. When used in this press release, the words “estimate”, “project”, “belief”, “anticipate”, “intend”, “expect”, “plan”, “predict”, “may” or “should” and the negative of these words or such variations thereon or comparable terminology are intended to identify forward-looking statements. Such statements reflect the current view of Alabama Graphite Corp. with respect to risks and uncertainties that may cause actual results to differ materially from those contemplated in those forward-looking statements.

By their nature, forward-looking statements involve known and unknown risks, uncertainties and other factors which may cause our actual results, performance or achievements, or other future events, to be materially different from any future results, performance or achievements expressed or implied by such forward-looking statements. Such factors include, among other things, the interpretation and actual results of current exploration activities; changes in project parameters as plans continue to be refined; future prices of graphite; possible variations in grade or recovery rates; failure of equipment or processes to operate as anticipated; the failure of contracted parties to perform; labor disputes and other risks of the mining industry; delays in obtaining governmental approvals or financing or in the completion of exploration, as well as those factors disclosed in the Company's publicly filed documents. Forward-looking statements are also based on a number of assumptions, including that contracted parties provide goods and/or services on the agreed timeframes, that equipment necessary for exploration is available as scheduled and

does not incur unforeseen breakdowns, that no labor shortages or delays are incurred, that plant and equipment function as specified, that no unusual geological or technical problems occur, and that laboratory and other related services are available and perform as contracted. Forward-looking statements are made based on management's beliefs, estimates and opinions on the date that statements are made and Alabama Graphite Corp. undertakes no obligation to update forward-looking statements (unless required by law) if these beliefs, estimates and opinions or other circumstances should change. Investors are cautioned against attributing undue certainty to forward-looking statements. Alabama Graphite Corp. cautions that the foregoing list of material factors and assumptions are not exhaustive. When relying on Alabama Graphite Corp. forward-looking statements to make decisions, investors and others should carefully consider the foregoing factors and assumptions and other uncertainties and potential events.

Alabama Graphite Corp. has also assumed that the material factors and assumptions will not cause any forward-looking statements to differ materially from actual results or events. However, the list of these factors and assumptions is not exhaustive and is subject to change and there can be no assurance that such assumptions will reflect the actual outcome of such items or factors.

NEITHER THE TSX VENTURE EXCHANGE NOR ITS REGULATION SERVICE PROVIDER (AS THAT TERM IS DEFINED IN THE POLICIES OF THE TSX VENTURE EXCHANGE) ACCEPTS RESPONSIBILITY FOR THE ADEQUACY OR ACCURACY OF THE CONTENT OF THIS NEWS RELEASE.

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