ZEN Graphene Solutions Successfully Tests Industrially Viable Purification Process for Pre-cursor Albany graphene material

written by Raj Shah | March 20, 2019

March 20, 2019 (Source) – **ZEN Graphene Solutions Ltd. (TSXV: ZEN) ("ZEN" or "Company")** is pleased to provide an update on the Company's recent metallurgical test program which successfully simulated an industrial process which was utilized to purify Albany Graphite concentrate. This successful test is a significant step forward towards industrial graphene production. A final product purity of approximately 99.8% Cg appears to be the practical upper limit of this hydrometallurgical processing. This final product will be used as a precursor material for the Company's developing graphene applications such as graphene enhanced concrete and other composites.

This work was conducted at SGS Canada Inc. (SGS), Lakefield, Ontario under the supervision of ZEN's Metallurgist and Project Manager, James Jordan, P.Eng. As reported in the July 16, 2018 news release, a new graphite purification process was developed which eliminated soluble graphite losses, helped increase the total recovery from 75% to 90% and achieved greater efficiency in both chemical reagent consumption and energy input when compared to the previous flow sheet.

Dr. Francis Dubé, Zenyatta's Co-CEO and Head of Business

Development and Technology said: “The successful development of this new industrially viable graphite purification process is an important step in the Company’s business plan to develop the Albany Graphite Project for graphene applications. The next step for the company will be to confirm an industrial process to convert purified Albany Graphite into graphene.”

The new graphite purification process is based on a pressure caustic leach followed by a second stage purification using acidified ammonium fluoride. Key to the success of the new purification process is the ability to recycle process solutions and a locked-cycle test program was implemented which simulated an industrial process wherein impurities were removed allowing water and reactant to be reclaimed. The six-cycle test demonstrated that stable impurity concentrations could be maintained within the circuit and no build-up of elements detrimental to final product purity was found.

James Jordan, P.Eng., is the “Qualified Person” for the purposes of National Instrument 43-101 and has reviewed, prepared and supervised the preparation of the technical information contained in this news release. SGS performed analyses of all purified Albany graphite samples by direct ash analysis using a platinum crucible, according to a validated method that also accurately quantifies key trace level impurities by subsequent ICP analysis.

About ZEN Graphene Solutions Ltd.

ZEN Graphene Solutions Ltd. is an emerging graphene technology solutions company with a focus on development of the unique Albany Graphite Project as a precursor graphene material product opportunity and product market development. The Albany Graphite Project provides the company with a competitive advantage in the potential graphene market as independent labs in Japan, UK,

Israel, USA and Canada have demonstrated that ZEN's Albany Graphite/Naturally Pure™ easily converts (exfoliates) to graphene, using a variety of simple mechanical and chemical methods.

To find out more on ZEN Graphene Solutions Ltd., please visit our website at www.ZENGraphene.com. A copy of this news release and all material documents in respect of the Company may be obtained on ZEN's SEDAR profile at www.sedar.ca.

Forward Looking Statements

This press release contains forward-looking statements. This news release includes certain "forward-looking statements", which often, but not always, can be identified by the use of words such as "potential", "believes", "anticipates", "expects", "estimates", "may", "could", "would", "will", or "plan". These statements are based on information currently available to ZEN and ZEN provides no assurance that actual results will meet management's expectations. Although the Company believes that the expectations reflected in these forward-looking statements are reasonable, undue reliance should not be placed on them because the Company can give no assurance that they will prove to be correct. Since forward-looking statements address future events and conditions, by their very nature they involve inherent risks and uncertainties. Although ZEN believes that the assumptions and factors used in preparing the forward-looking information in this news release are reasonable, undue reliance should not be placed on such information, which only applies as of the date of this news release, and no assurance can be given that such events will occur in the disclosed time frames or at all. ZEN disclaims any intention or obligation to update or revise any forward-looking information, whether as a result of new information, future events or otherwise, other than as required by law. Neither the TSX Venture Exchange nor its

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