Zenyatta Adds Quantum Dots to its Product Development Pipeline

written by Raj Shah | September 19, 2018
September 19, 2018 (Source) – Zenyatta Ventures Ltd. (TSXV: ZEN) ("Zenyatta" or the "Company")today announced that it has added Graphene Quantum Dots (GQDs) and Carbon Quantum Dots (CQDs) to its product development pipeline, working with its research partners Prof. Eugenia Kumacheva from the University of Toronto and Prof. Aicheng Chen from the University of Guelph.

Preliminary testwork by Dr. Kumacheva, Professor of Chemistry and a Canada Research Chair in Advanced Functional Materials, along with her research team, have confirmed the relative ease with which GQDs could be produced from graphite feed from the company's unique Albany Graphite Deposit in Northern Ontario. "Importantly, the spectroscopic properties of the GQDs we produced were consistent from experiment to experiment," said Prof. Kumacheva.

Independently, the Chen Research Group at the University of Guelph has also successfully used Albany Graphite to produce CQDs in a consistent fashion. "Employing a simple method that has the potential to be scaled to industrial sized applications allows the conversion of Albany Graphite into highly fluorescent CQDs," Prof. Chen said. "Analysis of these CQDs confirmed not only that they are relatively easy to produce, but also that they possess high uniformity which is a highly desirable feature of any nanomaterial."

A quantum dot gets its name because it is a tiny speck of matter so small that it is effectively concentrated into a single point

making it zero-dimensional like an atom. They range from between 2 to 10 nanometers in diameter, which is equivalent to 50 to 1000 atoms and it is this small size that gives quantum dots their unique properties. One interesting and very useful property is their ability to glow a particular colour after being illuminated by light (e.g. ultraviolet light). The colour light that a quantum dot emits is directly related to its size; smaller dots glow blue, larger ones glow red. Intermediate –sized dots glow green and other colours.

Quantum Dots have attracted much attention recently due to their high stability, good conductivity, superior thermal, mechanical and electrical properties, environmental friendliness, low toxicity and biocompatibility. GQDs and CQDs have many next generation applications including: Bio-imaging markers, fluorescent polymers, markers for anti-counterfeiting/brand protection and many others. Zenyatta and its research partners will continue this innovative product development work to potentially create value for shareholders through Intellectual Property ("IP") protected inventions. Zenyatta also intends to work with other leading industrial partners to co-develop IP. One of the important goals of the Company is to become an IP incubator where it can participate in IP creation across multiple industries.

Mr. Peter Wood, P.Eng, P.Geo., President and COO of Zenyatta, 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.

About Zenyatta

Zenyatta's Albany Graphite Project hosts a large and unique quality deposit of highly crystalline graphite. Independent labs in Japan, UK, Israel, USA and Canada have demonstrated that

Zenyatta's Albany Graphite/Naturally Pure™ easily converts (exfoliates) to graphene using a variety of simple mechanical and chemical methods. The deposit is located in northern Ontario just 30km north of the Trans-Canada Highway, near the communities of Constance Lake First Nation and Hearst. Important nearby infrastructure include hydro-power, natural gas pipeline, a rail line 50 km away and an all-weather road just 10 km from the deposit.

To find out more on Zenyatta Ventures Ltd., please visit our website at www.zenyatta.ca. A copy of this press release and all material documents with respect of the Company may be obtained on Zenyatta's SEDAR profile at www.sedar.ca.

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the graphite from Zenyatta’s Albany deposit. Since forward-looking statements are based on assumptions and address future events and conditions, by their very nature they involve inherent risks and uncertainties. Actual results relating to, among other things, results of metallurgical processing, ongoing exploration, project development, reclamation and capital costs of Zenyatta’s mineral properties, and Zenyatta’s financial condition and prospects, could differ materially from those currently anticipated in such statements for many reasons such as, but are not limited to: failure to convert estimated mineral resources to reserves; the preliminary nature of metallurgical test results; the inability to identify target markets and satisfy the product criteria for such markets; the inability to complete a prefeasibility study; the inability to enter into offtake agreements with qualified purchasers; delays in obtaining or failures to obtain required governmental, environmental or other project approvals; political risks; uncertainties relating to the availability and costs of financing needed in the future; changes in equity markets, inflation, changes in exchange rates; fluctuations in commodity prices; delays in the development of projects; capital and operating costs varying significantly from estimates and the other risks involved in the mineral exploration and development industry; and those risks set out in Zenyatta’s public documents filed on SEDAR. This list is not exhaustive of the factors that may affect any of Zenyatta’s forward-looking statements. These and other factors should be considered carefully and readers should not place undue reliance on Zenyatta’s forward-looking statements. Although Zenyatta 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.

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