Zenyatta Ventures tests show Albany Cg suitable for Lithium-ion batteries

Initial independent testing of Graphite from Zenyatta Ventures' {TSX.V: ZEN} Albany project has yielded positive results, indicating that the graphite is "within the range of materials used in existing Lithium-Ion batteries"

This is a useful step, but the company warn that this is not confirmation of an economic deposit, as an independent feasibility study is required first.

News Release

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Dr. Bharat Chahar reports

ZENYATTA: INITIAL TESTING OF ALBANY GRAPHITE YIELDS POSITIVE RESULTS FOR LITHIUM ION BATTERY ANODE APPLICATION

Zenyatta Ventures Ltd. embarked on a market development program over a year ago to initiate validation of Albany graphite in high-purity graphite applications. Since the kick-off of this program, the company has had detailed conversations with more than 35 graphite end-users, academic labs and third party testing facilities in Europe, North America and Asia under confidentiality agreements. Many of these organizations were provided a small amount of purified graphite material produced at the SGS Canada Inc. Lakefield site during the development of a process flow sheet for the Albany graphite deposit pursuant to a preliminary economic assessment, which is currently being completed. The samples produced at SGS are experimental in nature and may differ slightly from batch to batch and may also differ from the

final product in the future. However these samples are representative of the product that could be processed and provide a good initial assessment and guidance for the potential of Albany graphite for various applications.

The goal of these initial samples was to screen Albany graphite for suitable applications while gathering feedback from the end-users and testing facilities to improve the overall properties for high-value applications. The company is now starting to receive feedback from several end-users and independent labs, some of which received repeat samples. Information from this initial test program will be used to further define the company's product and market strategy and set the stage for next steps in development. Zenyatta plans to provide its stakeholders brief periodic updates on the progress as meaningful information becomes available. This is the first in a series of updates on the market and business developments.

Zenyatta is pleased to disclose that first testing has shown the performance of Albany graphite to be in the range of materials used presently for lithium-ion batteries (LIB). These initial tests, conducted by an independent lab, show that the performance of coated and shaped Albany graphite is equivalent to the leading high-quality natural and synthetic graphite in commercial usage today. Testing was conducted by an independent Canadian lab using a lab-scale sample provided by SGS solely for the purpose of providing early evaluation on the suitability and effectiveness of Albany graphite in various applications. Similar positive results were also obtained on these samples by separate corporations who are in dialogue with the company under confidentiality agreements.

Highlights:

- First testing on Zenyatta purified graphite meets specifications for LIBs;
- Equivalent to leading high-quality natural and synthetic

graphite in commercial usage;
- LIBs represent 25 to 30 per cent of Zenyatta’s targeted market.

This testing does not represent a statistically large sample size. Furthermore, these positive results do not mean that Zenyatta can extract and process Albany graphite for high-purity graphite applications on an economic basis. Without a formal independent feasibility study, there is no assurance that the operation will be economic.

Dr. Bharat Chahar, vice-president of market development for Zenyatta, stated: “Since the purity and particle size of the material provided by SGS processing was already in the range needed for LIB application, no further milling or purification was needed. Compared to natural flake graphite supplied to the industry from China, no extra treatment and no dangerous hydrofluoric acid purification process were required to generate our material. No extensive milling was needed to prepare the Zenyatta graphite with minor loss of material occurring during the shaping process.”

The Zenyatta graphite material was classified and processed in a mechano-fusion machine by a standard industry technique to increase packed density of the material. The higher-density Zenyatta material was coated to improve the irreversible capacity loss. Electrochemical tests were conducted using coin cells commonly used in the industry for screening purpose.

Dr. Chahar added: “Due to simple mineralogy, high crystallinity and desirable particle size distribution, Zenyatta graphite has shown first testing specification ranges needed for the Li ion battery industry. While further tests are ongoing by potential customers to verify other performance characteristics, this initial feedback on results is extremely encouraging. We now plan to carry out advanced testing with a

full cell made from the Zenyatta graphite anode.”

Based on research and dialogue with end-users, at this point in time, Zenyatta expects to have a targeted market application segmentation which includes 25 to 30 per cent for high-purity graphite in lithium-ion batteries. The remaining 70 to 75 per cent of target applications will be discussed in upcoming news releases.

Dr. Bharat Chahar, PEng, VP, market development, for Zenyatta, is a qualified person for the purposes of National Instrument 43-101 and has reviewed the technical information in this news release.

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