Successful 60 tonne pilot flotation program supports Talga's anode market development

- **Successful scale-up of Talga's active anode supply for Li-ion batteries (Talnode®) in pilot processing of 60 tonne graphite ore sample from Talga's north Sweden Vittangi project**
- **Milling and concentration program completed at toll mineral processor in Scandinavia achieves desired product targets using equipment up to 20x larger than that used in PFS work program**
- **Concentrate now progressing to next stage refining into Talga's flagship anode product (Talnode®-C) for on-going development and larger customer qualification programs**

Battery anode and graphene additives provider Talga Resources Ltd ("**Talga**" or "**the Company**") (**ASX:TLG**) is pleased to announce the successful completion of a 60 tonne pilot-scale processing program producing graphite concentrate - the feedstock for Talga's planned European battery anode refinery and ongoing customer development programs.

The pilot processing program employed continuous test conditions for numerous key processing stages including crushing, grinding, flotation and concentration using advanced, industrial scale equipment at a Scandinavian toll milling and testing facility. The program achieved the Company's targeted range of operational and product performance, in line with PFS assumptions (ASX:TLG 23 May 2019), and demonstrated suitability of the process flowsheet for planned commercial production.

Talga Managing Director, Mr Mark Thompson: *"This successful increase in processing scale is a positive milestone in progressing our plans for an integrated graphite mine and anode refinery in Sweden. The pilot scale program confirmed some key equipment requirements and production parameters, further improving our in-house processing knowledge and capability for future operations."*

Figure 1 *Partial overview of milled Talga graphite ore undergoing flotation concentration stages.*

Figure 2 *Toll milled Talga graphite ore undergoing froth flotation to form high grade concentrates for downstream refining into anode.*

In addition to further validating the first step of Talga's processing flowsheet for its battery anode production, the pilot program generated information and samples for final detailed engineering design for ongoing DFS work and customer programs.

The process development and refinements of pilot-scale testing highlight the effectiveness of Talga's preferred production process which uses large-scale European developed quality industrial equipment. Talga's patent pending purification processes will be used in the downstream refining of the Vittangi graphite concentrate into the Company's Talnode®-C anode product for use by Lithium-ion battery makers.

Background to scale-up program

Graphite anode is an advanced non-metal product that requires extensive physical validation by cell or battery manufacturers at increasing volumes prior to commercialisation. This is unlike most battery metals (such as lithium, copper or cobalt) that can be sold on a purity basis with little testing.

The addition of several automotive electric vehicle (EV) customers to Talga's commercial register has driven the requirement to provide more advanced samples for testing, increased industry quality standards (high ISO standards and Six Sigma type quality operations) and most importantly, the need for samples to be sourced from larger production scale equipment.

The Company is currently investing in upscaled equipment and other components of the Talnode-C production supply chain at its European operations to meet ongoing customer qualification programs. Talga is also reviewing its options to more rapidly service the particular demands of automotive customers.

Pilot ore test program details

The pilot ore processing program was based around Talga's unique and effective production flowsheet developed over several years from a comprehensive range of pilot and laboratory metallurgical programs.

These development programs have translated into a successful Scandinavian production schedule incorporating a 300 kg/hr pilot processing circuit, operating 24 hours per day continuously over 7 days at the facility, with a focus on developing and optimising the ore processing flowsheet.

The pilot operation included commissioning and process optimisation phases run over 15 days and testing the following key unit operations - crushing, milling, roughing, regrinding, cleaning, tailings dewatering and concentrate filtration.

Key areas of the process were tested under locked-cycle conditions simulating commercial plant operation with recycle of process streams allowing further investigation and optimisation of the process conditions, circuit configurations and operational practice.

Vital data was obtained, and targeted recoveries and product quality achieved while exploring a range of primary grinding settings, float cells residence times, regrinding energy and equipment configuration, tailings dewatering and concentrate filtration.

The results and samples from the pilot plant production will form the basis of core information in developing the graphite ore tolling process for near term ramp-up of customer sample production and guide the choice of process plant equipment for the full scale battery anode operation.

Representative samples were also taken during the pilot for further analysis and vendor trial work to support engineering and process validation activities as required.

The next stage of the anode scale-up program is currently underway, incorporating the refining of the concentrate into active anode for distribution to customers via several of Talga's European process partner sites and at Talga's German pilot processing facility.

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Competent Persons Statement

The information in this document that relates to metallurgy results is based on information compiled by Martin Phillips, a Competent Person who is a Member of the Australian Institute of Mining and Metallurgy (Membership No.108230). Martin Phillips is a full-time employee of Talga Resources Ltd.

Martin Phillips has sufficient experience, which is relevant to the style of mineralisation and types of deposits under consideration and to the activity which has been undertaken to qualify as a Competent Person as defined in the 2012 edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (JORC Code). Martin Phillips consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

About Talga

Talga Resources Ltd (ASX:TLG) is building a European source of battery anode and graphene additives, to offer graphitic products critical to its customers' innovation and the shift towards a more sustainable world. Vertical integration, including ownership of several high-grade Swedish graphite projects, provides security of supply and creates long-lasting value for stakeholders. Joint development programs are underway with a range of international corporations.

Company website: **www.talgaresources.com**