18 AUGUST, 2014 ASX: TLG



## CSIRO AND TALGA COLLABORATE ON THE COMPANY'S GRAPHITE RESOURCE

Talga Resources Ltd ABN 32 138 405 419

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## **Corporate Information**

ASX Code TLG
Shares on issue 124.6m
Options (listed) 7.75m
Options (unlisted) 6.25m

Company Directors
Keith Coughlan
Non-Executive Chairman

**Mark Thompson**Managing Director

Grant Mooney
Non-Executive Director

The Commonwealth Scientific and Industrial Research Organisation ("CSIRO") and Talga Resources Limited (ASX:TLG) ("Talga" or "the Company") are pleased to announce a collaborative agreement to undertake analytical work on ore from the Company's high-grade Nunasvaara graphite-graphene project in northern Sweden.

The agreement is one of the first entered into by CSIRO to focus on graphene produced from natural ore deposits, increasing the scope of Australia's emerging and internationally focused graphite-graphene sector beyond CSIRO's breakthrough research in graphene hybrid materials.

The aim of the collaboration is to accelerate the mineralogical characterisation of graphite and graphene from Talga's wholly-owned and flagship Nunasvaara project and to better interpret how the mineralisation formed and the conditions under which more may be found.

The outcomes of these studies are expected to provide crucial new insight into how Nunasvaara ore (one of the highest grade graphite deposits in the world) has an ability to provide high quality graphene direct from natural ore.

Talga Managing Director, Mr Mark Thompson, said "Talga is extremely enthusiastic to be working with Australia's national science agency and one of the largest and most diverse research agencies in the world. The CSIRO program is expected to provide cutting edge insight of our graphite and graphene developments with results that can dovetail directly into the Company's metallurgical program and soon to be completed scoping study."

Initial results from the collaboration are expected towards the end of the September quarter. The work is collaboratively funded by CSIRO and the Department of Industry's Researchers in Business Program in conjunction with Talga.

CSIRO research scientist **Dr Mark Pearce** said "The organisation will undertake the test-work over three different stages, using four separate lode samples from the deposit. This is a multi-stage characterisation workflow which will provide very detailed analysis and insight into the geometry, mineralogy and chemistry of these graphite lodes".





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"The process will include high resolution X-ray computed topography, 3D image processing, microstructural analysis, X-ray fluorescence mapping of the chemical composition of the samples, and high resolution electron microscope imaging of the ore samples. We will also examine in detail the graphene component of the samples liberated from the main ore under test."

## Talga Graphene Background

Graphene is renowned as the world's strongest material, a million times thinner than paper but 200 times stronger than steel. Discovered only ten years ago, it is a material with an extremely wide range of applications that are in the early stages of commercialisation.

Talga embarked early in 2014 on a specific development program for the Nunasvaara project based around dual and simultaneous production of both graphite and graphene. The Company's work to date has demonstrated that high quality graphene can be produced directly from raw ore in the same single step process that liberates graphite but without expensive and destructive stages of crushing, grinding, flotation or chemical leaching. The products therefore retain a state of high quality but can potentially be produced in bulk scale at low cost.

Talga recently raised more than \$3 million in new capital and has commenced new design and permitting work for a test mining program to extract and test a 5,000 tonne bulk ore sample from Nunasvaara to be put through a pilot plant by mid-2015.

Nunasvaara is one of five wholly-owned Talga graphite projects located within the Fennoscandian Shield of northern Sweden, an historic graphite producing area of Europe. The project is only 3km from a sealed highway and 20km from rail direct to major European graphite and graphene markets.

For further information, contact:

## **Mark Thompson**

Managing Director Talga Resources Ltd

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Talga Resources project locations in north Sweden. Norway FINLAND Vittangi Masugnsbyn Jalkunen Pajala SWEDEN Raitajärvi Legend Talga Graphite Project Talga Iron Ore Project Talga Copper Project Iron Ore Mine Copper/Gold Mine Piteå City/major Town Port Major Road/Highway Railway

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