



## QUARTERLY ACTIVITIES REVIEW

### For the period ending 30 June 2015

#### OVERVIEW

Australian advanced materials company, Talga Resources Ltd (ASX: TLG) ("Talga" or "the Company") is pleased to report its activities for the quarter ending 30 June 2015. The quarter marks a strong half year of activity with several key goals executed along Talga's path to becoming a global scale large volume graphene and graphite supplier.

Discovery of the unique attributes of Talga's high grade deposits and the building blocks to what is now a comprehensive package of processing intellectual property occurred just over a year ago. Talga has made significant advances in a relatively short time-frame and is pleased to report it has successfully commenced trial mining, de-risked its unique mining technique and delivered its first graphite ore to Germany for processing. These achievements represent important milestones for the Company and precede advanced commercial development. Highlights included:

#### Project Development

##### *Trial mining commences and Pilot Plant site secured*

- Permit granted by Swedish authorities to conduct graphite ore trial mining at the Vittangi project and site works commenced;
- Trial mining successfully commenced subsequent to quarter end and first ore blocks delivered to Germany for pilot plant processing;
- Pilot plant site selected in central German industrial hub for Talga's pilot plant - Thuringian State confirms full backing for the project; and
- CSIRO characterisation report supports Talga development strategy and assists future exploration and processing considerations.

#### Exploration

##### *Future growth pipeline*

- Diamond drilling program at Jalkunen graphite/graphene project intercepts large shallow dipping graphite unit with drill intercept grades up to 31.8% graphitic carbon and potential for conversion to maiden resource estimate.

#### Commercial and Corporate

##### *Graphene strategy drives expansion of technical talent, commercial engagements and intellectual property protection*

- Growth of senior technical team with appointment of Manager Metallurgy;
- Patent application lodged to protect proprietary technology;
- Advanced discussions underway with third parties for divestment of Australian gold assets following lapse of option to purchase;
- Strong internal strategic development on Company positioning, from pure play resources sector to high growth technology materials sector;
- Collaboration agreement with Haydale Graphene Industries PLC post the quarter end to explore development of graphene composite and ink products; and
- Talga attendance and presentations at a range of local and international nano material and commercial events.

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#### Corporate Information

ASX Code **TLG/TLGO**

Shares on issue **138.6m**

Options (unlisted) **11.7m**

Options (listed) **7.7m**

#### Company Directors

**Keith Coughlan**

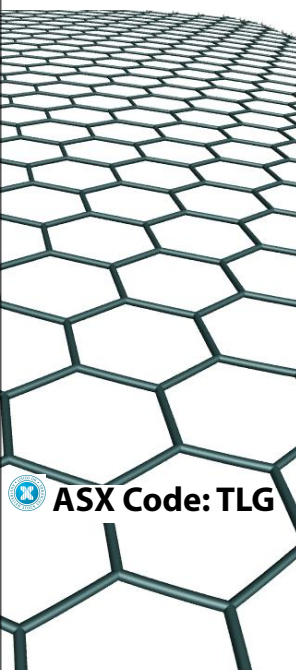
Non-Executive Chairman

**Mark Thompson**

Managing Director

**Grant Mooney**

Non-Executive Director



## PROJECT DEVELOPMENT

During the quarter Talga has dramatically advanced its graphitic carbon production capabilities with the commencement of trial graphite mining in Sweden and securing of the German graphene pilot plant site.

### Trial Mining - Vittangi Project

#### *Background*

Talga's Vittangi Project ("Vittangi") contains the highest grade graphite mineral resource\* in the world, the Nunasvaara deposit. Testwork by numerous university and commercial laboratories has shown the graphite mineralisation to be unique in character and ability to produce graphene via simple and bulk scale processes.

Talga's activities to commercialise the deposit follows a successful initial economic study ("Scoping Study") in November 2014. The Scoping Study demonstrated a circa 20 year mine life operation with a pre-tax net present value ("NPV") in excess of A\$490 million (using 12% discount rate) with a required capital expenditure outlay of A\$29 million. The high grade and unique character of the Vittangi graphite ore enables a smaller and simpler processing route so the capital expenditure requirement is smaller than most global graphite developments. Additionally the robust Scoping Study economics allow for the development path to be compressed, advantageously avoiding the lull in material news flow suffered by Companies requiring support for larger capital expenditure.

Talga's commercialisation strategy is to conduct trial mining (see Figure 1) and processing stages, while permitting for full scale development occurs in the background. This is intended to more rapidly scale up the Company as a technology material supplier, generating tonnes of products for end user application testing and developments to place Talga at the forefront of graphitic nanomaterial market growth.

*Figure 1. Trial mining underway in high grade graphite ore at Talga's 100% owned Vittangi project in Sweden.*



### Trial Mining Commences

During the period Talga received confirmation regarding the environmental approval of its trial mining operation at Vittangi (see Figure 2). The permit covers the excavation of up to 2,000m<sup>3</sup> (approximately 5,000 tonnes) of graphite ore within a specified part of the Nunasvaara resource<sup>1</sup> area adjacent to a historically mined pit. Talga intends to extract a portion of the permitted tonnes allowed in 2015 within a prescribed local authority trial mining window. Importantly, Talga has the ability to extract the balance of graphite tonnes in the same window each year up to 30 September 2018.

With permitting in hand Talga commenced trial mine operations in the quarter (see Figure 3). Site works, securing final clearances and mobilising contractors and equipment preceded mining of the surface to expose the orebody. Post the quarter, Talga announced that it had begun mining and transporting graphite ore blocks to its pilot plant facility in Rudolstadt, Germany.

Importantly, the trial mining has proven what is a new technique as applied to graphite mining. Specifically, Talga has adopted the cutting of whole graphite ore specifically in a form to suit a unique processing method that enables high quality graphene and graphite production. As envisaged in the scoping study this was via application of a combined rotary diamond saw and wire mining technique.

All indications reveal that the Vittangi ore is readily amenable to the process (see Figure 4) and the mining technique has now been largely de-risked, with the exercise proving deposit homogeneity, speed of mining, durability of sawn blocks and life of consumables.

The quarter has been a major success for the Company in validating its mining approach and it has also provided sufficient feedstock, hundreds of tonnes more than was available from drilling programs, for the various phases of pilot plant testing. The goal of enabling at least 12 months supply of graphite ore for the production of large graphene samples for industry has been achieved. Additionally, each trial mining exercise builds Talga's expertise towards full scale development and the Company will go forward into the 2016 trial mining season armed with improved equipment and new efficiencies.

Figure 2. Location of Talga's mineral projects in Sweden.

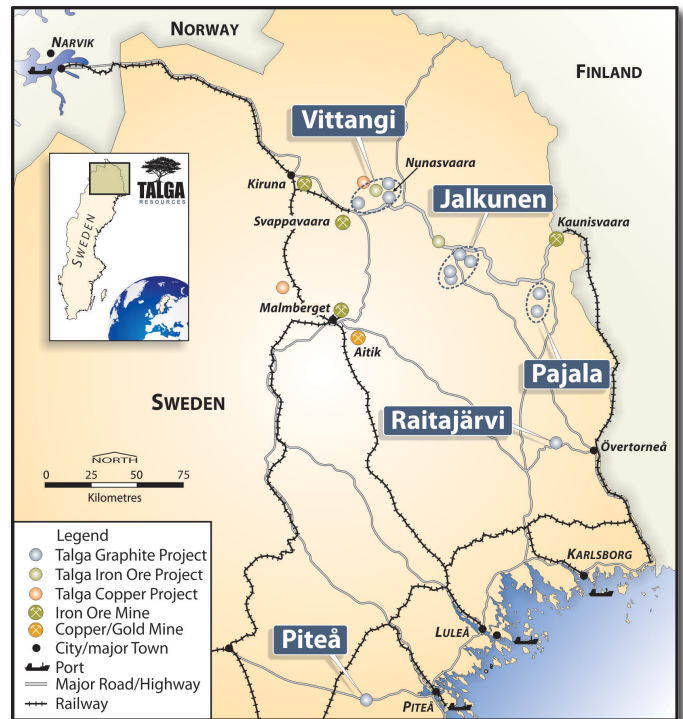


Figure 3. Talga's Project Manager Kane Freeman and Group Geologist Simon Coxhell inspecting the trial mine ore bench.



Figure 4. The amenability of the mining technique to precisely and efficiently shape the graphite ore blocks is evident.



**Graphene Pilot Plant**

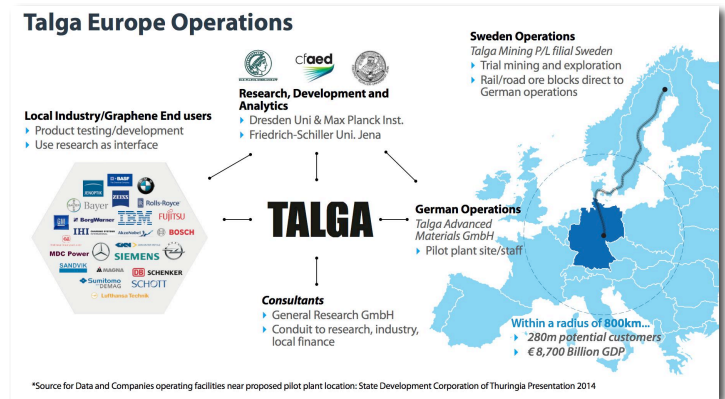
In the prior period Talga outlined its intention to build a graphene pilot plant in central Germany, to capitalise on commercial opportunities presenting themselves in the region where graphene technologists and end-users are requiring near term large graphene samples (see Figure 5).

During the period, following a review of sites across the states of Saxony and Thuringia, a leased site was chosen at Rudolstadt in Thuringia (see ASX release 18 May 2015 and Figure 6). The state government owned facility built in 2008 includes a 1,248m<sup>2</sup> production area with attached 323m<sup>2</sup> office space and an adjacent 1,167m<sup>2</sup> ore dressing/warehouse.

The site sits within a chemical processing estate and technical support hub just 35km from Talga’s Thuringia-based product research partner, Friedrich-Schiller University at Jena. This proximity ensures state-of-the-art analytics and research expertise are advantageously close to the pilot plant, assisting the pace of both process scale-up and graphene product testing. It is also near Talga’s processing and product research group partners, Dresden University and the Max Planck Institute, Mainz and is surrounded by potential graphene end-users.

Post the end of the quarter, Talga announced that first blocks from the trial mining operation had been trucked to the Rudolstadt pilot plant site for storage ahead of processing. Talga is presently building its German operations team while fabrication of the phase one pilot plant (“Phase 1”) equipment is completed. The Company’s metallurgy manager will take day to day residence at the Rudolstadt facility in August at

**Figure 5. Talga’s European operations; mine, process, partners and market opportunity.**



**Figure 6. Trial mined graphite ore is delivered to Talga’s pilot plant facility located in Rudolstadt chemical park, Germany.**



which point Phase 1 commissioning will commence and first slabs of ore will be processed. For further details of the pilot plant scale up phases see ASX release 20 July 2015.

Importantly, in an opaque nano material industry with hitherto restricted volume, end users will soon be in a position to not only test the suitability of the Company's material for their respective needs but also see Talga's potential for future reliable, bulk scale production. Where possible Talga will evidence those views with announceable commercial undertakings.

### **Research and Metallurgy**

Talga's research and development programs continued throughout the quarter in Germany and this work aligned closely with the Company's Australian metallurgical program which focused on the preparation of graphene sample material for various industry end users.

The German programs are using Talga's graphene to test and develop better, high efficiency conductive inks suitable for printable, flexible electronics and other materials for energy storage applications including batteries and supercapacitors. This work is ongoing and the ability of graphene to improve conductivity, flexibility, strength and transparency over silver and copper currently used in printable electronic products creates what Talga considers a real volume supply opportunity. In addition Talga's research partners are world-class parties with extensive experience in graphene liberation technology complementary to Talga's processing pathway.

The lead time to assess Talga's material and process means that both programs are now sufficiently progressed to focus sharply on the application aspects (conductive ink and energy storage products) within their respective scope of works. It is intended for initial test results from some of these programs to be received in the next period and be reported subject to technical or commercial confidence restrictions.

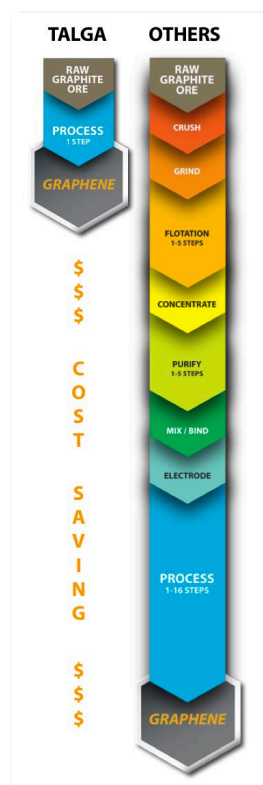
### **CSIRO**

Commencing in August 2014, the Commonwealth Scientific and Industrial Research Organisation ("CSIRO") undertook a 10 month assessment of graphite and graphene samples from Talga's Vittangi project, specifically from drillcores of the Nunasvaara resource<sup>1</sup>. The assessment was conducted pursuant to a collaboration agreement with Talga as part of CSIRO's focus on potential graphene-producing natural ore deposits. The test work was funded by CSIRO and the Federal Department of Industry's 'Researchers in Business Program' in conjunction with Talga. The purpose of the assessment was to characterise Talga's material using the CSIRO's world class equipment with a view to enhancing future exploration and processing considerations.

The outcomes of the study were detailed in a comprehensive report that concluded:

- Talga's graphite at Nunasvaara is highly crystalline and was likely formed from a biogenic carbon source;
- Graphene liberated by Talga directly from uncrushed raw Nunasvaara graphite ore showed thin, electron transparent 2-10 micron size graphene;
- The distribution of graphite flakes within the Nunasvaara ore matrix (deposit within the Vittangi project) was highly homogeneous, particularly compared with more conventional global deposits; and that late stage coarser vein graphite occurs deposited by notably low-temperature fluids.

Collectively the data provided a deeper insight to Talga's deposits and assists in confirming key aspects of how its natural graphite ores were formed. This information may improve project economics as it facilitates optimised mining and processing performance and highlights ideal conditions under which deposit extensions may be found.



**EXPLORATION**

**Future growth pipeline**

Talga wholly owns five graphite projects located in the Fennoscandian Shield of northern Sweden, a historic graphite producing area and major mining province of Europe. Each project has a number of historically explored or defined graphite deposits, of which only the first two, Vittangi and Raitajärvi have been drill tested to define JORC-compliant graphite mineral resources<sup>1</sup> (see Fig 2 for location and Appendix 1 for Resource details). The multitude of remaining untested deposits within each project form a large pipeline of strong resource growth potential.

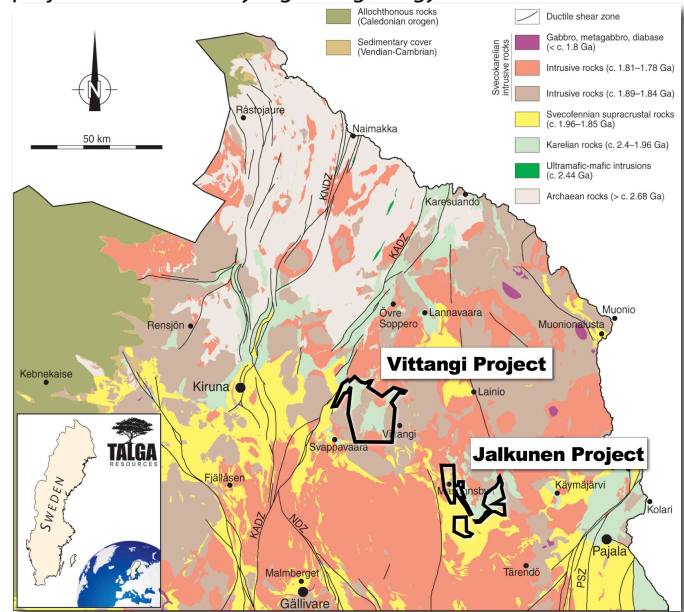
Talga has defined approximately 60km of strike graphite unit in the Vittangi and Jalkunen projects (see Figure 7), and in the previous period announced Exploration Targets<sup>#</sup> across these two projects totalling 150-275 Mt at an average grade between 18-25% Cg (limited to 0-100 metres depth)(see Table 1). The graphite occurrences in these project areas have demonstrated ability to produce graphene using Talga's unique processing methods.

*#Note the Vittangi and Jalkunen Exploration Targets are based on numerous assumptions and limitations with the potential grade and quantity being conceptual in nature. With respect to the Exploration Targets, there has been insufficient exploration to estimate a Mineral Resource Estimate in accordance with the JORC Code and it is uncertain if future exploration will result in the estimation of a Mineral Resource.*

**Jalkunen Graphite Project (Talga 100%)**

The Jalkunen project is situated 50km southeast from Vittangi and comprises a number of exploration licences covering ~88km<sup>2</sup> and five graphite prospects - Jalkunen, Tiankijokki, Nybrännan, Suinavaara and Lautakoski (see Table 1). The area was previously explored for graphite by the Swedish Geological Survey in the early 1990's and the results have enabled five Exploration Targets<sup>#</sup> to be estimated with a total combined exploration target ranging 50-100Mt with average grades between 19-27% Cg (see ASX 22 February 2015 and Table 1).

**Figure 7. Talga's 100% owned Vittangi and Jalkunen graphite projects over summary regional geology.**



**Table 1 JORC graphite Exploration Targets<sup>#</sup> for Jalkunen and Vittangi projects.**

Project	Exploration Target	Tonnes (0-100m Vertical Depth)		Graphite (% Cg)	
		Min.	Max.	Min.	Max.
Vittangi	Nunasvaara	62,400,000	93,600,000	20	30
	Kotajärvi	16,640,000	30,160,000	20	25
	Maltosrova	20,800,000	52,000,000	20	25
Jalkunen	Jalkunen	13,000,000	26,000,000	20	25
	Tiankijokki	2,600,000	5,200,000	15	25
	Nybrännan	5,200,000	10,400,000	20	30
	Suinavaara	2,600,000	5,720,000	15	25
	Lautakoski	26,000,000	52,000,000	15	25
	Subtotal	149,240,000	275,080,000	19	27
	<b>Rounded Total</b>	<b>150,000,000</b>	<b>275,000,000</b>	<b>18</b>	<b>25</b>

## Drilling Program

During the quarter Talga completed diamond drilling to test the Jalkunen exploration target. The drilling consisted of eight diamond holes ranging in depth from 80 to 270 metres and totalling 1,082 metres (see ASX:TLG 13th April 2015). Six holes successfully intersected the target confirming the graphite unit is shallow dipping at approximately 18°, averages 50-60 metres true thickness (approximately >150m horizontal width) and is present over approximately 600m down dip and remains open.

Key intercepts (downhole interpreted to be true width) include:

JALK02: **30m @ 19.5% Cg** from 3m depth (collared in mineralisation)

JALK03: **26m @ 16.6% Cg** from 7m depth (collared in mineralisation)

JALK06: **54m @ 16.6% Cg** from 76m depth

JALK07: **51m @ 15.0% Cg** from 115m depth

JALK08: **66m @ 13.4% Cg** from 9m depth

The graphite mineralisation is visually similar to that of Vittangi (see TLG:ASX 13 April 2015) and core has been despatched for testing processing amenability to Talga's novel graphite-graphene metallurgical methods.

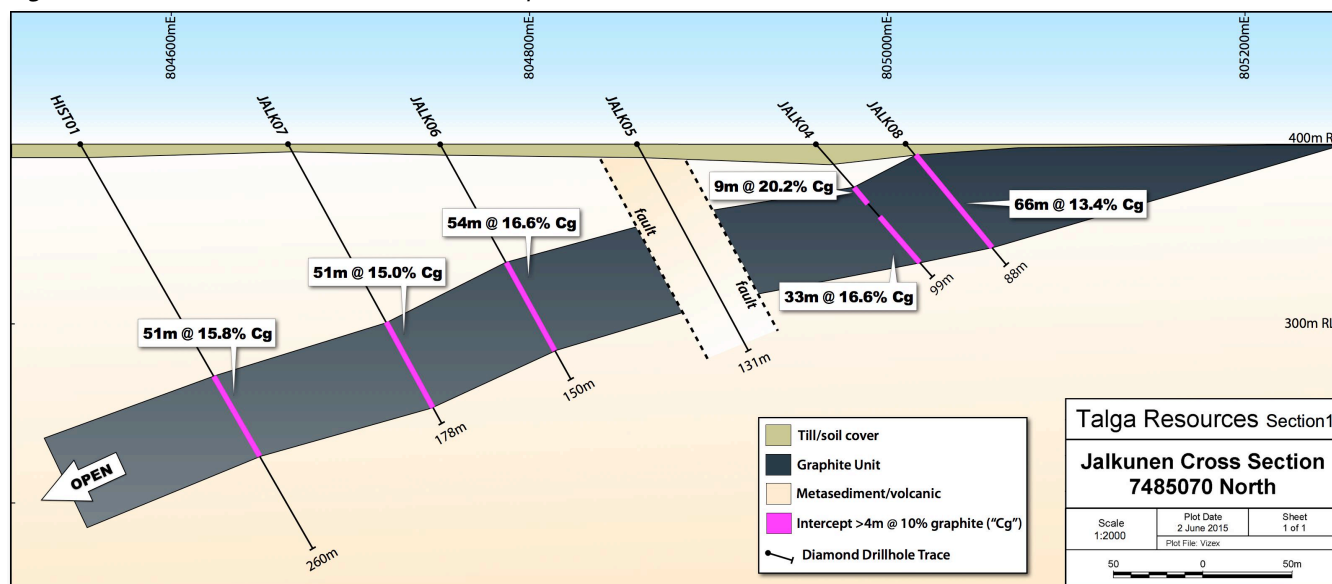
## Conclusions and Next Steps

The wide intersections, high grade and favorable mining geometry confirmed in the work to date suggest a graphite deposit is present at Jalkunen that is potentially globally significant as a stand alone project. When combined with Talga's other current multiple resources at Vittangi and Raitajärvi, the large scale and long term potential of the Company's graphite deposit pipeline is apparent.

The proximity of Jalkunen to Vittangi enables the possibility of shared processing assets and alludes to potential large scale expansions of Talga's production base in the event a future resource warrants development. Additionally a second dual production asset (graphene and graphite) can support Talga's aim of enabling enormous international growth prospects in the market by removing pricing and volume bottlenecks for large scale industrial graphene supply.

On the back of these positive drill results, Talga is moving to the estimation of a maiden JORC mineral resource for Jalkunen and this is expected imminently. Further to this, metallurgical testwork is being undertaken to both characterise the Jalkunen graphite flake attributes and confirm amenability for the production of graphene using Talga's proprietary process. Once this information is received an analysis of Jalkunen's potential development path will be undertaken.

**Figure 8.** Jalkunen drill section (see ASX:TLG 13 April 2015 for more details.)



## Other Graphite Projects

Minimal work was undertaken during the period on the Company's other graphite projects in Sweden.

### Sweden - Kiskama Cobalt-Copper-Gold Project (Talga 100%)

The Kiskama cobalt-copper-gold project ("Kiskama") is located west and nearby the Vittangi graphite project (see TLG ASX 10th February 2014) and has been described by some workers as a shear-hosted iron oxide copper-gold ("IOCG") style deposit. Based on data from 105 historic drill holes it is reported as one of the largest known deposits of cobalt in Sweden. As Talga's focus is on graphite-graphene developments the Company undertakes minor activities on Kiskama with a view to develop quality joint venture and divestment opportunities, and the best commercial outcomes for Talga shareholders.

### Sweden - Vittangi and Masugnsbyn Iron Projects (Talga 100%)

The Vittangi and Masugnsbyn iron projects in Sweden host combined total (JORC 2004) Indicated and Inferred resources<sup>1</sup> of **235.6 Mt @ 30.7% Fe** (iron) in skarn-style near surface magnetite deposits (see Fig 2 for location and Appendix 2 for resource details). Work during the quarter was restricted in order to minimise expenditure, amid challenging iron ore pricing and market conditions. A number of the skarn-style deposits have historically recorded copper and zinc mineralisation. A review of their base and precious metal potential will be conducted with a view towards finding a partner for the projects.

### Australian Gold Assets (Talga 100%)

Minimal work was undertaken during the period by Talga on the Australian gold assets (Talga Talga, Warrawoona, Mosquito Creek (Pilbara) and Bullfinch (Yilgarn) as during the quarter an option agreement was executed (and subsequently lapsed) for the sale of these assets (see the Commercial section below).

## COMMERCIAL & CORPORATE

### ***Graphene strategy drives growth of technical talent, commercial engagements and intellectual property protection***

#### **Appointment of Manager - Metallurgy**

During the quarter Talga appointed a highly credentialed metallurgy manager (Mr Peter Bartsch) to coordinate and execute the installation and scale-up of the pilot plant at the Company's Rudolstadt site. Mr Bartsch has over 38 years experience across broad facets of metallurgical technology development, engineering management and process development with major mining companies on global top tier mineral projects. Peter is leading Talga's process design and development as a full time employee based in Germany and he is responsible, amongst other things, for building the technology team and progressing Talga through various pilot plant phases and towards full scale processing.

#### **Patent Application**

Talga's trial mining approach defines and constitutes an important component of Talga's intellectual property. The mining method has been designed so that natural graphite feed material has optimal form to suit Talga's novel and simple graphene and graphite processing pathways. To this end, Talga has taken measures to protect its proprietary technology (mining and processing) via a patent application lodged during the quarter.

#### **Gold Asset Divestment**

During the March quarter Talga announced its grant to Caledonian Capital Ltd ("Caledonian") of an option to purchase all of Talga's Australian gold exploration assets (the "Option") comprising Bullfinch, Mosquito Creek, Talga Talga and Warrawoona (collectively "the Projects")(see ASX 6<sup>th</sup> February 2015). The binding Heads of Agreement was executed by both parties and a non-refundable \$50,000 deposit was received. Caledonian subsequently chose not to exercise its Option which has freed Talga to progress discussions with other interested parties. Several discussions are now well advanced.



### **Internal Focus on Strategic Direction**

The period has represented a watershed with respect to Talga's transition from being a pure play resources story to an advanced materials company with 100% ownership of its graphitic carbon source. This is a critical distinction as Talga's development status now demands a strong focus on the high growth technology materials sector, involving product development, marketing and sales aspects into diverse applications from aerospace to battery electrodes.

In recognition of the Company's evolution and advancing developments, Talga dedicated significant time during the period in order to best position the Company going forward. Utilising advice from several independent parties Talga held an offsite strategy day to provide a revised 2 year strategic growth plan that considers Talga's positioning and objectives in order to meet what are now a raft of new development opportunities. Further to this, the Company recognises the growth and skill requirements of its Board and management team and this was specifically addressed in the strategic planning process.

### **Collaboration Agreement signed with Haydale Graphene Industries PLC**

Post the end of the period, Talga signed a term sheet with Haydale Graphene Industries PLC ("Haydale") in relation to formal collaboration on the development of finished graphene composite and ink products. Talga and Haydale will jointly explore business cooperation opportunities through the supply of Talga graphene and other graphitic carbon nano-materials.

Haydale is listed on the 'AIM' market of the London Stock Exchange and owns a proprietary process to 'functionalise' graphene and other nano-materials (chemical modification so graphene can be dispersed in a matrix, fit for purpose in the ultimate application). Haydale has strong expertise with advanced polymer materials and strong end user relationships. Moreover, Haydale has an established track record at tailoring products for end users however it requires a steady source of precursor graphene material.

### **Investor and Corporate Relations Activities**

During the quarter, Talga pursued numerous activities to raise awareness about its status and ambitions as an advanced materials company that has the potential to disrupt the graphite and graphene marketplace.

Management attended both the Commercial Graphene Show in Manchester, UK and the 'Graphene Live' conference in Berlin, Germany where Managing Director, Mark Thompson presented and the Company was well received. Mr Thompson also presented a chapter of the LESANZ ("Licencing and Executives Society Australia and New Zealand") Disruptive technology Series at Technology Park, Western Australia. Various media interviews with parties like Eureka Report's Alan Kohler and Investor Intel in Canada supported Talga in its efforts to gain traction in the marketplace. In addition to this, Mark Thompson visited multiple potential graphene and graphite product end-users in North America and while there participated in a roadshow to various funds, investment vehicles and broking participants.

### **Management**

During the period Talga announced the renewal of employment terms for Managing Director, Mark Thompson (see ASX:TLG 22 July 2015). Subsequent to the period, Talga announced the cancellation of two resolutions at its August general meeting of shareholders. The resolutions related to the adoption of a performance rights plan (the "Plan") within the Company and also the issue of performance rights under that plan to Mark Thompson. The Plan was considered for some time before finally being resolved by the Talga Board in early April. Since that time, the Company's development path has further evolved and the macro conditions impacting global financial markets have deteriorated significantly.

The Board is reviewing alternatives to put a revised incentive structure to shareholders at the upcoming Annual General Meeting. Given the ongoing technical success of Talga, it remains critical that Talga can attract and retain its key staff with incentives that match both the current market and the global landscape within which the Company is operating.

## Tenement Interests

As required by ASX listing rule 5.3.3, please refer Table 2 for details of Talga's interests in mining tenements held by the Company. No joint ventures or farm-in/farm-out activity occurred during the quarter.

## Research and Development Cash Rebate

During the quarter Talga received approximately \$182,000 by way of cash rebate from the Australian Tax Office in relation to its research and development expenditure in financial year 2014.

## THE SEPTEMBER QUARTER

Talga is poised to commence commissioning of its pilot plant phases and satisfy material demand for samples from industry. The coming period is very much about tailoring products for potential end users and maturing the Company's processing methodologies to meet industrial scale graphene demand, enabling products previously hamstrung by limited volume of graphene and prohibitive pricing. Unlike many of its peers, Talga is in a position where it can deliver significant news-flow (commercial and operational) while it runs traditional full scale permitting and feasibility pathways in the background.

The key milestones for the Company in the September quarter are expected to include:

- Estimation of the maiden resource estimate for the Jalkunen graphite project;
- Ongoing expansion of Talga's German pilot plant operation and team;
- Commissioning of phase one of the pilot plant in Rudolstadt and preparation of graphene and graphite samples for industry;
- Technical analysis of Talga's unique un-milled graphite product suite;
- Results from metallurgical test-work on Jalkunen samples; and
- Commercial collaborations/agreements with industry using pilot plant generated graphene and graphite samples.

For further information, please contact:

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*\* Refer [www.techmetalsresearch.com](http://www.techmetalsresearch.com) for global graphite NI43-101/JORC resources grade comparison table.*

### Competent Person's Statement

*The information in this report that relates to Exploration Results is based on information compiled and reviewed by Mr Mark Thompson, who is a member of the Australian Institute of Geoscientists. Mr Thompson is an employee of the Company and has sufficient experience which is relevant to the activity which is being 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"). Mr Thompson consents to the inclusion in the report of the matters based on this information in the form and context in which it appears.*

*The information in this report that relates to Resource Estimation is based on information compiled and reviewed by Mr Simon Coxhell. Mr Coxhell is a consultant to the Company and a member of the Australian Institute of Mining and Metallurgy. Mr Coxhell has sufficient experience relevant to the styles of mineralisation and types of deposits which are covered in this document and to the activity which he is undertaking 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"). Mr Coxhell consents to the inclusion in this report of the matters based on this information in the form and context in which it appears.*

TABLE 2

*Tenement Holdings*

Project/Location	Tenements	Interest at end of quarter	Acquired during quarter	Disposed during quarter
<b>Jalkunen Project</b> Norrbotten County, Sweden	Jalkunen nr 1 Jalkunen nr 2 Jalkunen nr 3 Kursuvaara Lautakoski nr 1 Lautakoski nr 2 Lautakoski nr 3 Nybrännan nr 1 Nybrännan nr 2 Suinavaara nr 1 Suinavaara nr 2 Tiankijoki nr 1	100% 100% 100% 100% 100% 100% 100% 100% 100% 100% 100% 100%	100%	
<b>Kiskama Project</b> Norrbotten County, Sweden	Kiskama nr 1	100%		
<b>Masugnsbyn Project</b> Norrbotten County, Sweden	Masugnsbyn nr 1 Masugnsbyn nr 2	100% 100%		
<b>Pajala Project</b> Norrbotten County, Sweden	Lehtosölkä nr 3 Liviövaara nr 2	100% 100%		
<b>Piteå Project</b> Norrbotten County, Sweden	Grålidén nr 2 Önusträsket nr 2	100% 100%		
<b>Raitajärvi Project</b> Norrbotten County, Sweden	Raitajärvi nr 5 Raitajärvi nr 6	100% 100%		
<b>Vittangi Project</b> Norrbotten County, Sweden	Maltosrova nr 2 Maltosrova nr 3 Mörttjärn nr 1 Nälkävuoma nr 1 Nunasvaara nr 2 Vathanvaara nr 1 Vittangi nr 2 Vittangi nr 3 Vittangi nr 4	100% 100% 100% 0% 100% 100% 100% 100% 100%		100%
<b>Bullfinch Project</b> Western Australia	E77/2139 E77/2221 E77/2222 E77/2251 P77/4106	100% 100% 100% 100% 100%		
<b>Mosquito Creek Project</b> Western Australia	P46/1634 P46/1636 P46/1638 P46/1666 P46/1667 P46/1668 P46/1800 E46/1035	100% 100% 100% 100% 100% 100% 100% 100%		

TABLE 2 (continued)

*Tenement Holdings*

Project/Location	Tenements	Interest at end of quarter	Acquired during quarter	Disposed during quarter
<b>Talga Talga Project</b> Western Australia	M45/618	100%		
	P45/2689	100%		
	P45/2690	100%		
	P45/2691	100%		
	P45/2746	100%		
	P45/2747	100%		
	P45/2774	100%		
<b>Warrawoona Project</b> Western Australia	E45/3381	100%		
	P45/2661	100%		
	P45/2662	100%		
	P45/2781	100%		

## APPENDIX 1

*Graphite Resources<sup>1</sup>*

Nunasvaara Mineral Resource (10% Cg lower cut-off) Nov 2012

JORC 2004 Classification	Tonnes (Mt)	Grade %graphite
Indicated	5,600,000	24.6%Cg
Inferred	2,000,000	24.0%Cg
<b>Total</b>	<b>7,600,000</b>	<b>24.4%Cg</b>

Raitajärvi Mineral Resource (5% Cg lower cut-off) Aug 2013

JORC 2004 Classification	Tonnes (Mt)	Grade %graphite
Indicated	3,400,000	7.3%Cg
Inferred	900,000	6.4%Cg
<b>Total</b>	<b>4,300,000</b>	<b>7.1%Cg</b>

## APPENDIX 2

*Iron Resources<sup>1</sup>*

Deposit	Tonnes (Mt)	Grade %Fe	JORC 2004 Classification
Vathanvaara	51.2	36	Inferred Resource
Kuusi Nunasvaara	46.1	28.7	Inferred Resource
Mänty Vathanvaara	16.3	31	Inferred Resource
Sorvivuoma	5.5	38.3	Inferred Resource
Jänkkä	4.5	33	Inferred Resource
Masugnsbyn	87	28.3	Indicated Resource
Masugnsbyn	25	29.5	Inferred Resource
<b>Total</b>	<b>235.6</b>	<b>30.7</b>	

*1 Note: This information was prepared and first disclosed under the JORC code 2004. It has not been updated since to comply with the JORC code 2012 on the basis that the information has not materially changed since it was last reported. The Company is not aware of any new information or data that materially affects the information included in the previous announcement and that all of the previous assumptions and technical parameters underpinning the estimates in the previous announcement have not materially changed.*