

QUARTERLY ACTIVITIES REVIEW

FOR THE PERIOD ENDING 30 SEPTEMBER 2019

Talga Resources Ltd

ABN 32 138 405 419

1st Floor, 2 Richardson St,
West Perth 6005
Australia

T: +61 8 9481 6667

F: +61 8 9322 1935

www.talgaresources.com

Corporate Information

ASX Codes **TLG**

Shares on issue **222.2m**

Options (unlisted) **14.8m**

Company Directors

Terry Stinson

Non-Executive Chairman

Mark Thompson

Managing Director

Grant Mooney

Non-Executive Director

Stephen Lowe

Non-Executive Director

Ola Mørkved Rinnan

Non-Executive Director

Andrew Willis

Non-Executive Director

Advanced battery anode materials and graphene additives provider Talga Resources Ltd (**ASX:TLG**) (“**Talga**” or “**the Company**”) is pleased to report its activities for the quarter ending 30 September 2019.

Highlights of the September 2019 quarter activities included:

COMMERCIAL & PRODUCT DEVELOPMENT

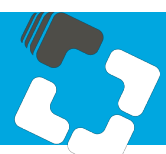
- Scale-up of Rudolstadt test processing facility to meet increased demand for Talnode®-C battery anode market samples towards customer qualification, commercial contracts and Stage 1 DFS metallurgical work
- Talga to develop graphite-based anode for solid state batteries (Talnode®-E) under a new Innovate UK co-funded Faraday Challenge consortium project announced subsequent to the quarter
- Agreement executed, subsequent to the period, with Swiss energy storage specialist, Leclanché SA, for evaluation of Talga anode products for use in Leclanché’s lithium-ion batteries
- Joint Development Agreement signed, subsequent to the period, with Swedish multinational paper and paperboard company, BillerudKorsnäs, to continue development of improved packaging technology incorporating Talphene®, Talga’s functionalised graphene product, in BillerudKorsnäs products

MINERAL PROJECT DEVELOPMENT & EXPLORATION

- Stage 1 project permitting submitted and DFS commenced for the Vittangi graphite anode project targeting March 2020 investment decision
- Balance of assay results received from drilling the Niska prospect within the Company’s Vittangi Project confirms discovery of a major high-grade extension of the Nunasvaara graphite deposit
- Maiden JORC Mineral Resource Estimate for the Niska graphite deposit completed, subsequent to the period, extending the scale and development options of the Vittangi Project
- Maiden JORC Mineral Resource Estimate for the Kiskama copper-cobalt project completed with development partners being sought, as Talga focuses on the Vittangi graphite anode project

CORPORATE & INVESTOR RELATIONS

- Appointment of second European-based Board member, Mr Andrew Willis
- Macquarie Capital Europe appointed as financial adviser for project financing and strategic investment processes regarding Talga’s Swedish graphite anode project subsequent to the quarter
- Cash balance of A\$5.6 million as at 30 September 2019



Managing Director, Mr Mark Thompson: “As we move towards the completion of DFS and financing for Stage 1 of the Vittangi graphite anode project in March 2020, this quarter has seen us make considerable progress. We have lodged permitting for Stage 1 and DFS activities are well underway.

Importantly, we are ramping up our ability to produce commercial samples towards customer qualification of our Talnode®-C product. The strong level of customer interest in qualifying our product is an excellent indicator of future demand and we look forward to continuing to progress the development of the project in the coming quarter.”

Figure 1. Talga’s test processing facility in Rudolstadt increases capacity of Talnode®-C market sample production.



COMMERCIAL AND PRODUCT DEVELOPMENT

Talnode®-C battery anode product scale up

Talga’s commercial and technology staff have been very active during the period, interfacing with battery and anode manufacturers predominantly in Japan and Korea but also Europe and China. There are currently 40 battery product engagements active under non-disclosure agreements, including numerous Tier 1 battery, automotive and electronic manufacturers.

Unlike battery metals (such as lithium) which are traded simply on the basis of purity, graphite battery anode material requires customer testing in batteries at increasing volumes before long term commercial contracts will be entered into.

Talga meets this demand by producing Talnode-C customer samples from its inventory of previously mined graphite ore at its test processing facility in Rudolstadt, Germany (which also provides pilot scale process information for Stage 1 DFS metallurgical work).

With market demand increasing for up to several hundred kilos per qualification sample per customer, and the next stages of the validation process requiring even larger samples, Talga has commenced upgrading Rudolstadt to increase production of battery anode market samples.

The scale up of Rudolstadt is expected to continue servicing battery market requirements until the first module of the Anode Refinery is built in Sweden under Stage 1 of the Vittangi graphite anode project.

UK backing for Solid State graphite battery anode

Solid state batteries are an emerging form of rechargeable battery technology with potential to combine high energy and high power with improved safety, attracting the likes of Toyota, Volkswagen, Hyundai, BMW, Dyson and Bosch to this space.

Subsequent to the period under review, Talga confirmed its intent to develop graphite-based anodes for solid-state batteries (Talnode-E) under a new Faraday Battery Challenge consortium project co-funded by Innovate UK. Approximately 70% of Talga costs will be co-funded under the project (ASX:TLG 2 Oct 2019).

Talnode-E aims to replace metallic lithium anode in solid state batteries, enabling more growth across emerging battery markets, and partnering Talga with multinational speciality chemicals and sustainable technologies company Johnson Matthey and leading battery research and development institute, the Sheffield University.

Anode Memorandum of Understanding signed with leading Swiss energy storage specialist

Talga executed a Memorandum of Understanding (“MoU”) with Switzerland-based Leclanché SA, a leading provider of high-quality energy storage solutions, subsequent to the quarter.

Under the MoU, Leclanché will evaluate Talga’s range of anode products, Talnode, in its batteries with the intention to develop commercial products for the lithium-ion battery industry.

Trials under the MoU are expected to run over a 2-6 month period and the agreement includes indicative pricing for various volumes of Talnode supply, both during the trials and over a three-year period (ASX:TLG 8 Oct 2019).

Graphene JDA executed with Sweden-based multinational packaging company

Talga and BillerudKorsnäs, a Swedish multinational paper and paperboard company, signed a Joint Development Agreement (“JDA”) subsequent to the period under the review. (ASX:TLG 24 Oct 2019). The JDA resulted from successful testwork completed under the Letter of Intent (“LoI”), signed by the parties in August last year (ASX:TLG 23 Aug 2018) and sets forth a structure for the parties to continue development of Talga’s functionalised graphene additive product, Talphene®, for BillerudKorsnäs fibre and board packaging products. The Talphene additive is designed to increase a range of performance and eco-benefits in the natural fibre products.

Terms of the JDA include ongoing co-development and validation of improved packaging technology incorporating Talphene in BillerudKorsnäs products, terms for potential commercialisation of products and intellectual property ownership, and commercialisation of successful products being facilitated through BillerudKorsnäs’ existing global industrial clients.

Figure 2. Talnode®-C battery anodes undergoing in-house testing at Talga UK, Cambridge.

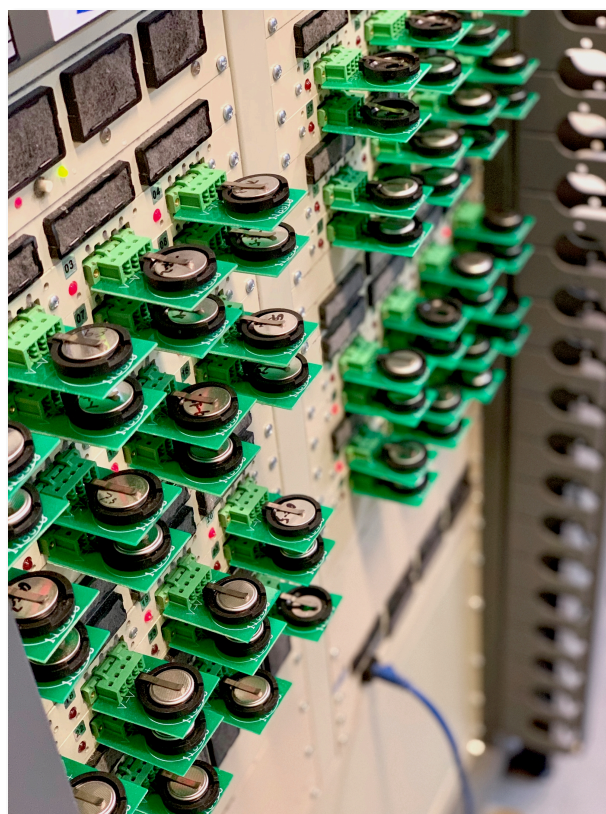


Figure 3. BillerudKorsnäs scientists visiting Talga’s facilities in Rudolstadt, Germany.



MINERAL PROJECT DEVELOPMENT AND EXPLORATION

Stage 1 Project Permitting and DFS

In line with the development timeline for its Vittangi graphite anode project, Talga submitted the application to Swedish authorities for Stage 1 (25,000t trial mine and 5,000t Talnode-C production) during the quarter. Approval is targeted in the first quarter of the 2020 calendar year. Simultaneously the Stage 1 definitive feasibility study has commenced, with quotes and initial design underway and the Company targeting March 2020 for investment decision (ASX:TLG 23 May 2019).

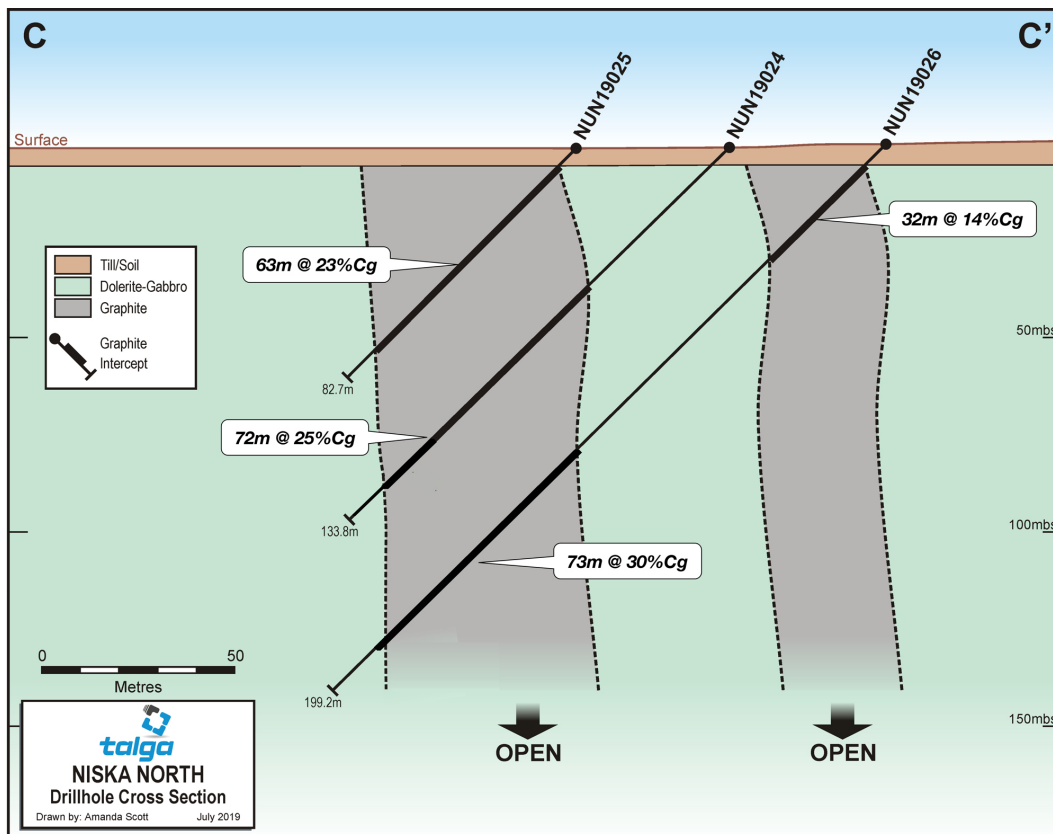
The ongoing project development work was supported by a range of stakeholder engagement activities during the quarter such as participation in the Vittangi village day and workshops with local stakeholders, and the inauguration of the Company's Kiruna office which is now open to the community. The Company also held a media day updating press on Luleå municipality's ambition to develop Europe's smartest industrial park near Luleå Port, with Talga's anode refinery being the first planned construction.

Spectacular Graphite Drill Results Expand Vittangi Potential

During the period under review, Talga announced the balance of the diamond drillhole assay results from the drilling campaign completed earlier in the year (ASX:TLG 4 Apr 2019 and 5 Jun 2019) at its Vittangi Project. A total of 28 exploration diamond drillholes for 3046.5m were completed at the Niska prospect, targeting a series of electro-magnetic and outcropping targets located 1-2km northeast along strike of the 12.3Mt @ 25.5% Cg (ASX:TLG 27 Apr 2017) Nunasvaara Mineral Resource.

Among the exceptionally wide and high-grade graphite downhole intercepts were 72.0m @ 29.9% graphite ("Cg") from 105.5m in NUN19023 (inc. 32.0m @ 41.9% Cg), 73.0m @ 29.7% Cg from 112.1m in NUN19026 (inc. 18.0m @ 41.4% Cg) and 106.4m @ 25.5% Cg from 24.8m in NUN19015 (ASX:TLG 3 Jul 2019). The Vittangi project contains the highest grade JORC compliant graphite mineral deposit in the world and the new zones add potential for numerous larger scale and longer life development options.

Figure 4. Niska North cross-section showing drilled graphite intercepts.



Maiden resource for Niska graphite deposit

Based on the outstanding assay results Talga moved to complete a maiden JORC Mineral Resource Estimate (“MRE”) for the Niska deposits (North and South) undertaken by independent geological consultancy Coxsrocks Pty Ltd.

The maiden Niska JORC (2012) Indicated resource of 4.6Mt @ 25.8% Cg (10% cut-off), completed subsequent to the quarter, expands Talga’s high grade JORC graphite resource inventory in Sweden to 9.3Mt contained graphite (ASX:TLG 27 Sep 2019). Compared to the Nunasvaara South ore reserve, the subject of the May PFS, the Niska mineralisation is slightly higher grade but up to three times the width and the deposits remain open, both at depth and along strike.

The conversion of Niska from discovery to resources adds further strength to Talga’s plan to build a large, long-term European source of graphene additives and advanced battery anode materials. Metallurgical and battery anode product testwork, to allow Niska to be included in future studies, are underway and a preliminary economic study for Niska will now commence to scope development options and begin the permitting process.

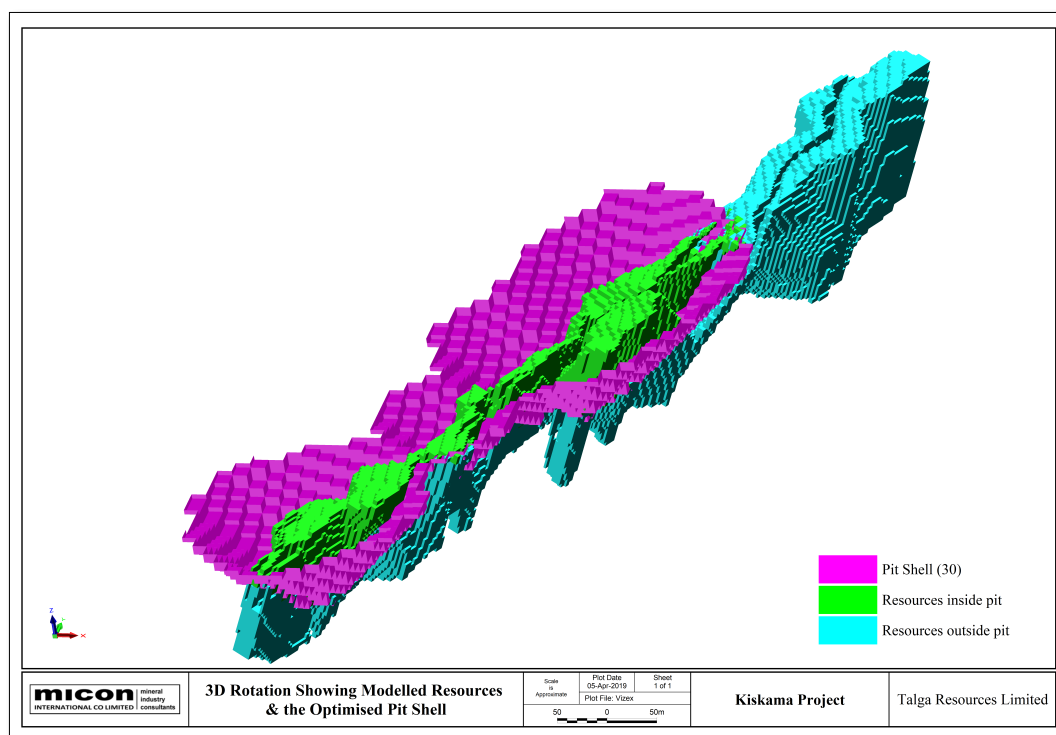
Maiden Cobalt Resource

To form a solid base from which to lift the project above exploration level, at a time of growing need for conflict-free sources of critical minerals such as cobalt, the Company completed a maiden JORC Mineral Resource Estimate for its Kiskama copper-cobalt deposit (“Kiskama”). Kiskama is a shear-zone related Svecofennian hosted Cu-Au ± Fe oxide deposit located 40km east of Kiruna in northern Sweden - a low risk mining jurisdiction close to Europe’s emerging battery supply chains.

The maiden Kiskama MRE, undertaken by independent geological consultancy Micon International and completed during the quarter (ASX:TLG 21 Aug 2019), utilised a substantial historical drillhole database along with Talga’s own and more recent drillhole database, exploration and metallurgical results. 100% of the 7.7Mt @ 0.25% Cu, 0.04% Co, 0.36% CuEq (0.1% CuEq cut-off, SG 2.7t/m³, 20% geological loss) JORC-compliant Kiskama MRE is classified as Inferred as it is based predominantly on historical drilling, without including any extensions or targets such as the large K2 conductor discovered in 2019 (ASX:TLG 28 Feb 2019).

A high-level pit design and optimisation program was also completed, with the optimal open-pit shell containing 4.2Mt @ 0.3% Cu, 0.05% Co, 0.45% CuEq, to visualise and plan for any potential development. From here, Talga will seek development partners for the early stage cobalt opportunity as the Company’s priority is its flagship, and highly advanced, north Sweden graphite anode project.

Figure 5. Kiskama Co-Cu resource block model and pit optimisation shell.



Tenement Interests

As required by ASX listing rule 5.3.3, refer to Appendix 1 for details of Talga's interests in mining tenements held by the Company. No new joint ventures or farm-in/farm-out activity occurred during the quarter.

CORPORATE AND INVESTOR RELATIONS

Board Appointment

Talga has appointed its second European-based Board member, Mr Andrew Willis, as a Non-Executive Director with immediate effect following the announcement date (ASX:TLG 1 Jul 2019). Mr Willis is an experienced finance executive and investment manager, with significant development operational and financial expertise in mining. He is the Co-Managing Partner of London-based The Pallinghurst Group, a leading strategic investor in the global metals and mining sector with a particular focus on battery minerals including graphite and lithium.

Macquarie appointed corporate advisor for Talga's Swedish Anode Project

Having significantly progressed the qualification of its Talnode-C battery anode product with target customers and commenced the Stage 1 Definitive Feasibility Study for the Vittangi graphite anode project the Company has been assessing potential financing options for the project.

To this end the Company appointed, subsequent to the quarter, Macquarie Capital (Europe) as its financial adviser (ASX:TLG 10 Oct 2019). Under the signed mandate Macquarie will focus on engaging strategic partners and investors in regard to financing Stages 1 and 2 of the Project.

Outreach

During the quarter Talga's marketing included participation in global industry events such as the Benchmark Mineral Intelligence World Tour event in Perth, Seoul and Tokyo, Graphene week 2019 in Helsinki, the European Research & Innovation Days hosted by the European Commission in Brussels, Eurocorr 2019 in Sevilla and the Almedalen Political Week in south of Sweden. The Benchmark presentation is available on Talga's website.

Figure 6. Talga Global R&D Manager, Anna Motta (2nd from right) on Graphene Week 2019 panel.



During the period under review, the Company's product development unit was invited to participate in the UK Chemical and Automotive Sectors Strategic Workshops on Batteries where key companies and institutions, working within the full life cycle of batteries in the UK, gathered to address key challenges. Over the coming months, the Chemistry Council and the Faraday Battery Challenge will turn the workshop guidance into recommendations for the UK Government and Industry to help enable a domestic automotive battery manufacturing supply chain valued at £4.8bn per annum.

On 24 September 2019 Talga hosted a successful live video Investor Webinar with more than 100 shareholders registered and on 27 September the Company released its 2019 annual financial report. A recording of the webinar and a copy of the full 2019 annual report, released and dispatched to shareholders subsequent to the quarter, is available on the Company's website.

Financial

Talga closed out the 2019 June quarter with A\$5.6 million cash-in-bank and at the close of the ASX on 30 October 2019, the Company was capitalised at ~A\$114 million. Currently the Company has 222,156,450 quoted ordinary shares and 14,800,000 unlisted options on issue.

For further information, visit www.talgaresources.com or contact:

Mark Thompson
Managing Director
Talga Resources Ltd
T: + 61 (08) 9481 6667

Dean Scarparolo
Company Secretary
Talga Resources Ltd
T: + 61 (08) 9481 6667

About Talga

Talga Resources Ltd (ASX:TLG) is building a European source of advanced battery anode materials 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

No New Information

To the extent that announcement contains references to prior technical information, exploration results and mineral resources; these have been cross referenced to previous market announcements made by the Company. These had been disclosed to JORC 2012 standard. Unless explicitly stated, no new information is contained. The Company confirms that it is not aware of any new information or data that materially affects the information included in the relevant market announcements that assumptions and technical parameters underpinning the relevant market announcement continue to apply and have not materially changed.

APPENDIX 1

Tenement Holdings

Project/Location	Tenements	Interest at end of quarter	Acquired during quarter	Disposed during quarter
Ahmavuoma Project Norrbotten County, Sweden	Ahmavuoma nr 3 Ahmavuoma nr 4 Ahmavuoma nr 5	100% 100% 100%		
Aitik East Project Norrbotten County, Sweden	Suorravaara 2 Suorravaara 3 Suorravaara 4	100% 100% 100%		
Jalkunen Project Norrbotten County, Sweden	Jalkunen nr 1 Kursuvaara Nybrännan nr 2	100% 100% 100%		
Kiskama Project Norrbotten County, Sweden	Kiskama nr 1 Airivaara nr 100	100% 100%		
Lautakoski Project Norrbotten County, Sweden	Jukkasvaara nr 2 Lautakoski nr 2 Lautakoski nr 4 Piipiönjoki nr 1 Suinavaara nr 2 Suinavaara nr 3 Suinavaara nr 4	100% 100% 100% 100% 100% 100% 100%		
Masugnsbyn Project Norrbotten County, Sweden	Masugnsbyn nr 101 Masugnsbyn nr 102	100% 100%	100%	
Piteå Project Norrbotten County, Sweden	Gräliden nr 2	100%		
Raitajärvi Project Norrbotten County, Sweden	Raitajärvi nr 5	100%		
Vittangi Project Norrbotten County, Sweden	Maltosrova nr 3 Nunasvaara nr 2 Vathanvaara nr 101 Vathanvaara nr 102 Vittangi nr 2 Vittangi nr 3 Vittangi nr 4	100% 100% 100% 100% 100% 100% 100%	100%	