

30 October 2018

## QUARTERLY ACTIVITIES REPORT

Quarter ended 30 September 2018

### CHILALO GRAPHITE PROJECT

#### SUMMARY

During the Quarter, the Company completed an updated pre-feasibility study ('PFS') on the Chilalo Graphite Project ('Project'). The PFS was completed to support ongoing discussions with global private investment firm Castllake L.P., with whom the Company recently announced that it had signed agreements for financing the development of Chilalo (ASX Announcement dated October 29, 2018).

The Chilalo finance agreements are with funds managed by global private investment firm Castllake, L.P. (the 'Castllake Funds') and provide for a funding package of up to US\$80 million, which subject to satisfaction of agreed conditions, is expected to fully fund Chilalo through to production. Further information on the funding package is set out below.

#### FUNDING PACKAGE AGREED WITH CASTLLAKE FUNDS

Under the funding package agreed with Castllake Funds:

- The Company entered into a Loan Note Subscription Agreement to raise US\$5 million from the issue of secured Interim Loan Notes, which becomes available immediately; and
- The Company has signed a term sheet setting out the proposed terms on which the Castllake Funds and other market participants (subject to the satisfaction of agreed conditions) provide up to US\$40 million in equity and up to US\$40 million from the issue of senior secured loan notes ('Senior Funding Package').<sup>1</sup>

On announcement of the agreed funding package, Graphex Managing Director, Phil Hoskins, commented *"We take great confidence from the commitment of a global private investment firm, which follows a period of extensive due diligence. We believe this transaction affirms the quality of the Chilalo project, the premium product it will produce, the graphite market opportunity identified by the Company and confidence in the Company's ability to reach a satisfactory resolution in Tanzania."*

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<sup>1</sup> See ASX announcement "Graphex Agrees Funding Package to Fully Fund Chilalo" dated October 29, 2018 for detail on the terms and conditions of the funding agreements with Castllake Funds.

With key approvals in place and the Chilalo Mining Licence, which was granted in February 2017, valid and in good standing, satisfaction of the conditions to the Senior Funding Package will see Chilalo strongly positioned for development.

### **Conditions to the Senior Funding Package**

Proceeds from the Interim Loan Notes are to be used to satisfy the conditions precedent to the Senior Funding Package. The more material conditions, in addition to customary conditions precedent, that need to be satisfied for the Senior Funding Package include:

- Entry into definitive transaction documents – the term sheet for the Senior Funding Package is to be converted into transaction documents;
- Completion of a bankable feasibility study ('BFS');
- Certain Castllake approvals and completion of ongoing Castllake due diligence to its satisfaction;
- Resolution of issues relating to Tanzania's mining legislation – a detailed submission has been provided to the Tanzanian Government and Graphex expects to present the submission to Government officials in the near future; and
- Execution of material contracts including off-take, mining and EPC amongst others.

Satisfaction of these conditions (and other customary conditions) are required to proceed with the Senior Funding Package, allowing for the commencement of mine construction and providing a pathway to production.

### **UPDATED PRE-FEASIBILITY STUDY**

The PFS assessed a two-stage production scenario, under which stage 1 would produce approximately 58,000 tonnes of graphite product per year for the first two years of operation and a stage 2 expansion to commence operation in Year 3 that would produce approximately 108,000 tonnes per year. The Company is confident in its ability to sell 108,000 tonnes per annum of Chilalo graphite from the beginning of the Project, however has adopted a staged approach to minimise upfront capital. This approach is expected to maximise value for existing shareholders.

The PFS proposes a high-grade open-pit operation and a plant that applies simple comminution and flotation processing. Graphite product will be transported to, and shipped from, the deep water commercial port of Mtwara, which is located approximately 220 km by road from Chilalo, the majority of which is a sealed main road.

### **Results of the PFS**

The results of the PFS, which are summarised in Table 1 below, confirm that Chilalo is a high quality, high margin graphite project.

**Table 1. PFS results: Key operating and financial metrics<sup>2</sup>**

Item	Measure	Outcome
Life of mine	years	8.5
Average annual production	tpa	93,000
Plant feed rate	tpa	883,000
Average head grade	% TGC	10.6%
Average annual EBITDA	US\$m	112
Basket sales price FOB Mtwara	US\$/t	1,777
Operating cost per tonne of product	US\$/t	500
Operating margin	US\$/t	1,277
Stage 1 capital cost	US\$m	43.6
Stage 2 capital cost	US\$m	32.5
Post-tax NPV (10% discount rate)	US\$m	349
Post-tax internal rate of return (IRR)	%	131
Post-tax payback period	Yrs	0.84

### Potential for increased mine life

Feed to the mill is comprised of Ore Reserves (5.3 Mt) and Inferred Mineral Resources (2.2 Mt). There is potential for 9.5 Mt of additional Inferred Mineral Resources currently not included in the mine schedule, to be upgraded to a higher classification and added to the 7.5 Mt mill feed in the mine schedule.

A diamond drilling program of up to 3,000m (**'Diamond Drilling Program'**), one of the purposes of which is to upgrade the Inferred Resources to a higher confidence classification, is nearing completion. It is anticipated that the Diamond Drilling Program will enable this upgrade to progress and given the historically favourable conversion rate of Inferred Mineral Resources to Indicated Mineral Resources, the Company has confidence that this is likely.

### Chilalo product and basket price

Since 2015, extensive metallurgical testwork has been carried out on Chilalo ore. This has included work programs completed by SGS Lakefield (Canada), SGS Perth, Suzhou Sinoma Research Institute for Non-Metallic Minerals in Suzhou China and ALS Metallurgy Perth. During 2018, a series of tests were completed by ALS Metallurgy Perth and managed by BatteryLimits Pty Ltd (**'BatteryLimits'**), to optimise the flake size distribution. The most recent testwork managed by Battery Limits demonstrated that Chilalo can produce an exceptionally coarse flake product with over 57% of the product above 300 microns. The results of the most recent testwork, and the corresponding basket price, are shown in Table 2.

<sup>2</sup> See ASX announcement "Updated Pre-Feasibility Study Confirms Exceptional Economics of Chilalo Project" dated 20 September 2018. Graphex confirms that it is not aware of any new information or data that materially affects the information in that announcement and that all material assumptions and technical parameters underpinning the production targets and forecast financial information based on production targets in that announcement continue to apply and have not materially changed.

It is anticipated that further testwork to optimise the process flow sheet will result in improved flake size and a higher value product. The Company has engaged SGS Lakefield in Canada for this purpose, with a 5 tonne sample currently in Canada.

**Table 2. Chilalo basket price (FOB Mtwara)**

Flake Size	Microns	Mesh	Mass Dist. %	Grade TGC %	Price (US\$/t)	Basket Sales Price (US\$/t)
Above Super Jumbo	> 850	20	9	93.4	5,150	437
Super Jumbo	500 – 850	32	24	90.3	2,540	620
Jumbo	300 – 500	50	24	88.6	1,757	427
Large	180 – 300	80	9	98.7	974	83
Medium	150 – 180	100	5	98.8	779	39
Small	< 150	-100	29	97.4	583	171
Weighted Basket Sales Price (Mass Dist. % x Price) (FOB Mtwara)						<b>\$1,777</b>

The weighted average basket price is based on information obtained from CN Docking Joint Investment & Development Co. Ltd, a subsidiary of China National Building Materials Inc. and a reputable Chinese trading house. Of these sources, the most conservative estimates were used in the PFS.

#### **Bankable feasibility study**

The PFS was an important factor in the investment decision by Castl lake Funds. One of the conditions of the Senior Funding Package (see below) is the completion of the BFS. The Company has identified the technical work required to complete a BFS and the Diamond Drilling Program, which is a key work stream for the BFS, is well advanced and expected to be completed in November.

## **CORPORATE**

#### **Share capital**

As at 30 September 2018, the Company had 78,714,794 shares on issue, 6,172,459 unexercised Loyalty Options and 13,073,137 unexercised unquoted options.

#### **Cash**

As at 30 September 2018, the Company had cash of \$0.76 million. Pursuant to the funding package agreed with Castl lake Funds, the Company will have access to finance available under the Interim Loan Notes.

#### **Tanzanian Government**

In August, the Company provided a submission to the Tanzanian Government with respect to the development of the Chilalo Graphite Project (**'Submission'**). This followed a request from the Minister of Minerals, the Honourable Angellah Kairuki, during a meeting held with the Company in June 2018

The Submission was a comprehensive document that identified 10 key issues associated with the legislation and regulations introduced in July 2017 and 2018 respectively that are central to the ability of resources companies operating in Tanzania to obtain the finance required for project development. It included input from independent experts, comparison with the legislative position in other African countries and proposals

to address the identified issues in a manner that allows for the development of new mines that delivers benefits to all stakeholders.

The Company is working with senior Government officials in Tanzania on a suitable format in which the Submission could be presented to a range of Government departments relevant to the development of Chilalo.

### Annual General Meeting

The Company's annual general meeting will be held at the President's Room of the Celtic Club at 48 Ord Street, West Perth on Monday, 26 November 2018 at 11.00am (WST).

## TENEMENT INTERESTS

Table 3 shows the Company's tenement interests as at 30 September 2018.

**Table 3. Tenement interests**

Tenement	Ownership	Project	Location
ML 569/2017 - Chilalo	100%	Chilalo	Tanzania
PL 11050/2017 - Chilalo	100%	Chilalo	Tanzania
PL 11034/2017 - Chilalo	100%	Chilalo	Tanzania
PL 8628/2012 - Kipendengwa	100%	Chilalo	Tanzania
PL 9929/2014 - Chikwale	100%	Chilalo	Tanzania
PL 9946/2014 - Machangaja	100%	Chilalo	Tanzania
PL 11892/2017 - Noli	100%	Noli	Tanzania
PL 11921/2017 - Noli SE	100%	Noli	Tanzania

PL 6158/2009 was allowed to lapse during the Quarter.



**PHIL HOSKINS**  
Managing Director

For further information, please contact:  
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Tel: +61 8 9200 4960

Stuart McKenzie – Commercial Manager and  
Company Secretary  
Tel: +61 8 9200 4960

For more information, visit [www.graphexmining.com.au](http://www.graphexmining.com.au).

## Appendix 5B

# Mining exploration entity and oil and gas exploration entity quarterly report

Introduced 01/07/96 Origin Appendix 8 Amended 01/07/97, 01/07/98, 30/09/01, 01/06/10, 17/12/10, 01/05/13, 01/09/16

### Name of entity

Graphex Mining Limited

### ABN

77 610 319 769

### Quarter ended ("current quarter")

30 September 2018

Consolidated statement of cash flows	Current quarter \$A'000	Year to date (3 months) \$A'000
<b>1. Cash flows from operating activities</b>		
1.1 Receipts from customers	-	-
1.2 Payments for		
(a) exploration & evaluation	(410)	(410)
(b) development	-	-
(c) production	-	-
(d) staff costs	(274)	(274)
(e) administration and corporate costs	(214)	(214)
1.3 Dividends received (see note 3)	-	-
1.4 Interest received	3	3
1.5 Interest and other costs of finance paid	-	-
1.6 Income taxes paid	-	-
1.7 Research and development refunds	-	-
1.8 Other (marketing and business development)	(174)	(174)
<b>1.9 Net cash from / (used in) operating activities</b>	<b>(1,069)</b>	<b>(1,069)</b>
<b>2. Cash flows from investing activities</b>		
2.1 Payments to acquire:		
(a) property, plant and equipment	(5)	(5)
(b) tenements (see item 10)	-	-
(c) investments	-	-
(d) other non-current assets	-	-

<b>Consolidated statement of cash flows</b>	<b>Current quarter \$A'000</b>	<b>Year to date (3 months) \$A'000</b>
2.2 Proceeds from the disposal of:		
(a) property, plant and equipment	-	-
(b) tenements (see item 10)	-	-
(c) investments	-	-
(d) other non-current assets	-	-
2.3 Cash flows from loans to other entities	-	-
2.4 Dividends received (see note 3)	-	-
2.5 Other (provide details if material)	-	-
<b>2.6 Net cash from / (used in) investing activities</b>	<b>(5)</b>	<b>(5)</b>

<b>3. Cash flows from financing activities</b>		
3.1 Proceeds from issues of shares	-	-
3.2 Proceeds from issue of convertible notes	-	-
3.3 Proceeds from exercise of share options	-	-
3.4 Transaction costs related to issues of shares, convertible notes or options	-	-
3.5 Proceeds from borrowings	-	-
3.6 Repayment of borrowings	-	-
3.7 Transaction costs related to loans and borrowings	-	-
3.8 Dividends paid	-	-
3.9 Other (provide details if material)	-	-
<b>3.10 Net cash from / (used in) financing activities</b>	<b>-</b>	<b>-</b>

<b>4. Net increase / (decrease) in cash and cash equivalents for the period</b>		
4.1 Cash and cash equivalents at beginning of period	1,839	1,839
4.2 Net cash from / (used in) operating activities (item 1.9 above)	(1,069)	(1,069)
4.3 Net cash from / (used in) investing activities (item 2.6 above)	(5)	(5)
4.4 Net cash from / (used in) financing activities (item 3.10 above)	-	-
4.5 Effect of movement in exchange rates on cash held	(4)	(4)
<b>4.6 Cash and cash equivalents at end of period</b>	<b>759</b>	<b>759</b>

5. <b>Reconciliation of cash and cash equivalents</b> at the end of the quarter (as shown in the consolidated statement of cash flows) to the related items in the accounts	Current quarter \$A'000	Previous quarter \$A'000
5.1 Bank balances	76	279
5.2 Call deposits	683	1,560
5.3 Bank overdrafts		
5.4 Other (provide details)		
<b>5.5 Cash and cash equivalents at end of quarter (should equal item 4.6 above)</b>	<b>759</b>	<b>1,839</b>

**6. Payments to directors of the entity and their associates**

- 6.1 Aggregate amount of payments to these parties included in item 1.2
- 6.2 Aggregate amount of cash flow from loans to these parties included in item 2.3
- 6.3 Include below any explanation necessary to understand the transactions included in items 6.1 and 6.2

**Current quarter  
\$A'000**

110

Nil

Non-executive Directors fees and Managing Directors salary.

**7. Payments to related entities of the entity and their associates**

- 7.1 Aggregate amount of payments to these parties included in item 1.2
- 7.2 Aggregate amount of cash flow from loans to these parties included in item 2.3
- 7.3 Include below any explanation necessary to understand the transactions included in items 7.1 and 7.2

**Current quarter  
\$A'000**

Nil

Nil



## Mining exploration entity and oil and gas exploration entity quarterly report

<b>8. Financing facilities available</b> <i>Add notes as necessary for an understanding of the position</i>	<b>Total facility amount at quarter end \$A'000</b>	<b>Amount drawn at quarter end \$A'000</b>
8.1 Loan facilities	-	-
8.2 Credit standby arrangements	-	-
8.3 Other (please specify)	-	-
8.4 Include below a description of each facility above, including the lender, interest rate and whether it is secured or unsecured. If any additional facilities have been entered into or are proposed to be entered into after quarter end, include details of those facilities as well.		

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<b>9. Estimated cash outflows for next quarter</b>	<b>\$A'000</b>
9.1 Exploration and evaluation	(473)
9.2 Development	-
9.3 Production	-
9.4 Staff costs	(321)
9.5 Administration and corporate costs	(221)
9.6 Other (transaction costs <sup>1</sup> )	(701)
<b>9.7 Total estimated cash outflows</b>	<b>(1,716)</b>

<sup>1</sup> Transaction costs are the cost incurred in satisfying conditions for completion of the funding arrangement announced on 29 October 2018. These costs included, corporate advisor, due diligence, legal costs, site visit and taxation advisors.

<b>10. Changes in tenements (items 2.1(b) and 2.2(b) above)</b>	<b>Tenement reference and location</b>	<b>Nature of interest</b>	<b>Interest at beginning of quarter</b>	<b>Interest at end of quarter</b>
10.1 Interests in mining tenements and petroleum tenements lapsed, relinquished or reduced				
10.2 Interests in mining tenements and petroleum tenements acquired or increased				

**Compliance statement**

- 1 This statement has been prepared in accordance with accounting standards and policies which comply with Listing Rule 19.11A.
- 2 This statement gives a true and fair view of the matters disclosed.



Sign here: .....  
(Company secretary)

Date: 30 October 2018

Print name: Stuart McKenzie

**Notes**

1. The quarterly report provides a basis for informing the market how the entity's activities have been financed for the past quarter and the effect on its cash position. An entity that wishes to disclose additional information is encouraged to do so, in a note or notes included in or attached to this report.
2. If this quarterly report has been prepared in accordance with Australian Accounting Standards, the definitions in, and provisions of, AASB 6: Exploration for and Evaluation of Mineral Resources and AASB 107: Statement of Cash Flows apply to this report. If this quarterly report has been prepared in accordance with other accounting standards agreed by ASX pursuant to Listing Rule 19.11A, the corresponding equivalent standards apply to this report.
3. Dividends received may be classified either as cash flows from operating activities or cash flows from investing activities, depending on the accounting policy of the entity.

## Appendix 5B

# Mining exploration entity and oil and gas exploration entity quarterly report

Introduced 01/07/96 Origin Appendix 8 Amended 01/07/97, 01/07/98, 30/09/01, 01/06/10, 17/12/10, 01/05/13, 01/09/16

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**Current quarter  
\$A'000**

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\$A'000**

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