

# Reung Kiet Lithium Project

## One of the few projects in the hard rock peer group which ...

- i. is positioned in a low cost, advanced industrial economy,
- ii. is close to all required infrastructure,
- iii. has exceptional access for all required inputs, and
- iv. is in close proximity to the lithium end markets,

## and therefore:

... has real prospects for lithium carbonate and hydroxide manufacturing.

# **Company highlights**

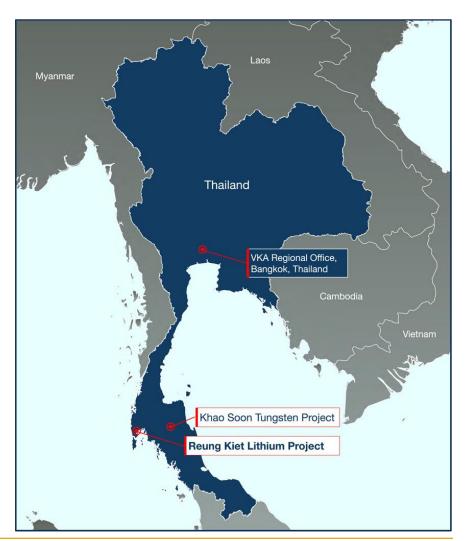


## **Acquired Argo Metals Group Limited (Argo):**

- 75% interest in the Reung Kiet Lithium Project.
- Orientation and reconnaissance soil and rock chip sampling, and mapping programs, delivering consistently strong results.

# Combined strike based on pits, exposures and rock chips of ~2.5km:

- one of longest in peer group.
- Average rock chip grades of 1.55% Li<sub>2</sub>O, one of the highest in the peer group.
- Drill ready, drilling contract close to agreed.
- Licensing process in final stages, proceeding well with very strong support from local community and government.
- Project fits nicely into Thai Government industrial policy objectives, has support.
- Company underwritten by asset value and and/or \$8m in cash receipts from the Akoase Gold Project sale.



## **Corporate snapshot**



## One of the few companies with a pathway to lithium carbonate manufacturing.

### **Financial Information (17-Feb-2016)**

<u> </u>	
Share price	1.8 cents
52 Week high / low	1.3 – 3.1 cents
Shares on issue (undiluted)	313,717,856
Market Capitalisation	\$5.6m
Cash (31-Dec-2016)	\$1.6m
Debt (31-Dec-2016)	\$0.0m
Enterprise Value	\$4.0m
Akoase Gold Sale (US\$6.0M) <sup>1</sup>	\$8.0m
Akoase Gold Valuation (A\$20/oz) <sup>2</sup>	\$16.0m
Adj. Enterprise Value	\$(4.0–12.0)m

## **Share Price (12 Months)**



### Top Shareholders (16-Feb-2016)

Board & Management	22.4%
Top 20 Shareholders	41.1%

<sup>1.</sup> The Akoase Gold Project sale is under contract the sale is subject to purchaser performance.

<sup>2.</sup> Akoase JORC Inferred Resource of ~21Mt at 1.2g/t for 790,000oz, valued at A\$20/oz.



## Viking valuation underwritten



# Viking's lead asset is the Reung Kiet Lithium Project (RK Project).

- License applications well progressed, high grades, good strike, drill ready.
- Khao Soon Tungsten, high grades, good strike, drill ready.
- We believe both projects are low capex opportunities.

# Several legacy assets, low holding costs, minimal management time, to be realised:

- Ghana:
  - i. Akoase Gold sold:
    - » US\$6.0m due.
    - » US\$12.0m value in the ground.
  - ii. Tumentu Gold, application over well understood and highly anomalous ground.
- Mongolia
  - i. Berkh Uul Coal with JORC resource requiring Gov't to resolve license boundary issues.
  - ii. Khonkhor Zag Anthracite Coal attracting Chinese buyer interest in new coal price environment.



## **Development strategy**



## Viking's objective:

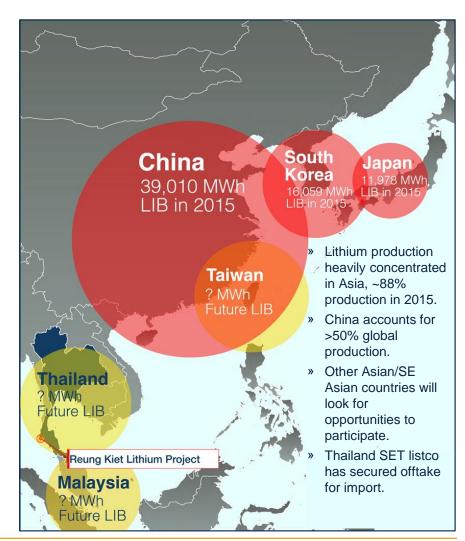
 Identify strategically positioned specialty, base and precious metal assets which can deliver near term low cost production.

# Viking is well positioned to enter the Asian lithium carbonate market, The RK Project:

- Is positioned is in a low cost advanced industrial economy,
- Provides a new supply alternative for the Asian market,
- Has all required infrastructure to mine, concentrate and manufacture lithium carbonate in close proximity, and
- · Has all required inputs available in Thailand.

## Lepidolite is a lithium containing mica:

 Work completed by LPD, LIT, EMH, PLH and others supports Li-Micas as a potentially low cost alternative to brines and spodumene.

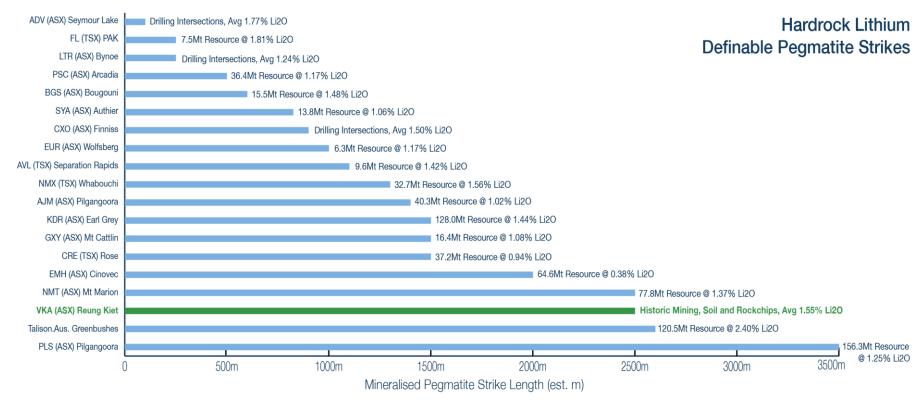


# **ASX/TSX Lithium Landscape - 1**



### Soil trends are good, definable strikes with mineralisation are better:

- The RK Project pegmatites have been exposed by previous mining, the estimated strike lengths are commensurate with peer group leaders.
- Less than 20 hard rock lithium explorers have meaningful mineralised pegmatite strikes.

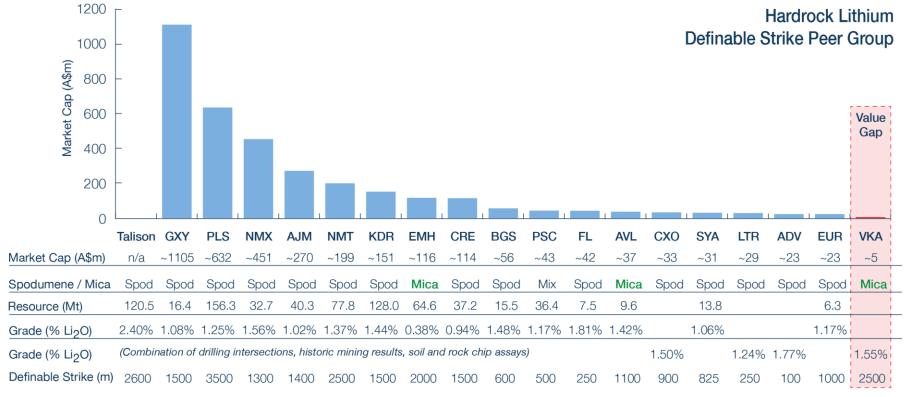


## **ASX/TSX Lithium Landscape - 2**



## Defining a mineralised pegmatite strike early reduces a project's risk profile:

- The RK Project's definable strike is based on ~1.6km of historic tin mining pits and 900m of pegmatite exposures to the south of the Reung Kiet and Bang I Tum pits, which are open.
- In comparison with the peer group, as defined, Viking is well undervalued.



## The Cost Curve



## Potential position on the lithium carbonate cost curve is a key driver of Viking's strategy:

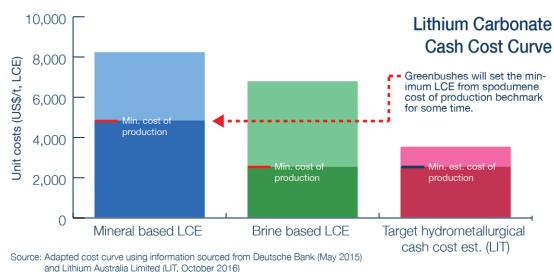
- The Lithium Carbonate market currently has two key sources of lithium:
  - i. Brines which are generally low cost but chemistry, and front end capital expenditure, can be prohibitive.
  - ii. Spodumene The benchmark is Talison's Greenbushes Lithium Project in WA.

## Lithium from Micas (Li-Mica) is emerging as a very low cost alternative source of supply:

- As the supply of lithium in concentrate increases then cost curve ranking will start to matter:
  - i. Greenbushes is the benchmark, it is unlikely that many other spodumene projects will produce at equal or lower costs.
  - ii. As price pressure moves back up the supply chain the higher cost spodumene projects will become uneconomic.
  - iii. Financiers are wary of this dynamic due to the failure of many iron ore projects.

# Important milestones have been achieved in Li-Micas:

 Groups such as Lepidico (L-Max) and the metallurgical results of several Li-Mica extraction technologies.

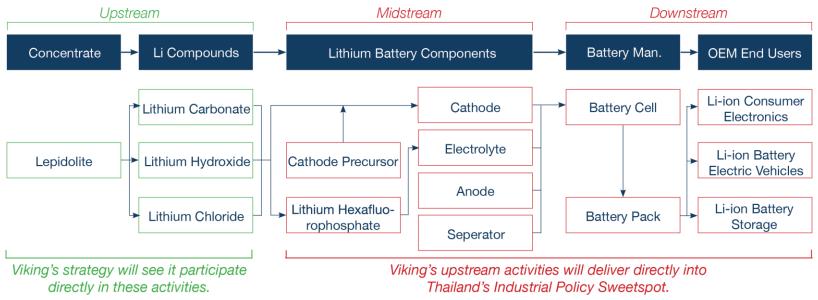


Leaching and roast technologies offer Viking two low cost pathways for lithium carbonate processing, Viking's strategy is to be in the lower half of the cost curve.

# **Technology Strategy**



### Reung Kiet is one of the few projects with a pathway to lithium carbonate production:



## Several Li-Mica processes are well advanced, producing lithium carbonate:

- Lepidico (LPD) aims to earn royalties through the licensing of L-Max, a well understood hydrometallurgical process.
- European Metals (EMH) has produced lithium carbonate using a well understood sodium roast process, its simplicity offsets the higher cost of roasting.
- Plymouth (PLH) has confirmed the leach-ability of its Li-Micas using a simple gypsum lime roast followed by a short 90 minute lithium-solution process.

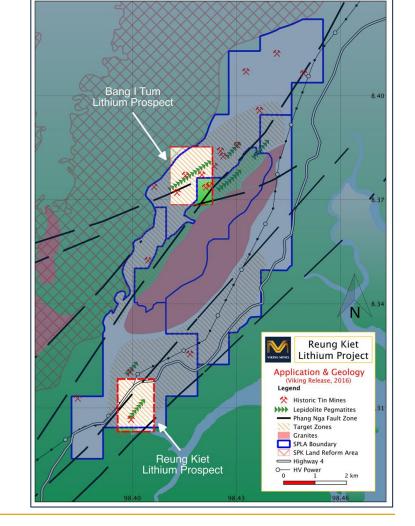
## Reung Kiet Lithium Project (VKA 75%)



# The SE Asian tin-tungsten granite belt has globally significant production and history:

- A late 1960's major study identified lepidolite in pegmatites, then being mined for tin.
- Lepidolite was found to contain 3-4% Li<sub>2</sub>O.
- Significant focus on Reung Kiet (RK) and Bang I Tum (BIT) trend, the survey stated:
  - i. "the pegmatites at Reung Kiet and Bang I Tum may well be the largest un-zoned lepidolite pegmatites yet recorded" and
  - ii. "lepidolite is fairly evenly distributed both along the length of the pegmatite and from wall to wall. In places there is local enrichment of massive lepidolite"
- Old open cuts now contain water:
  - i. Reung Kiet: pit ~450m long, <120m wide, 30m deep, and sits in a +1km strike.
  - ii. Bang I Tum: several old mines along a 1.5km strike, main pit ~650m long, <130m wide, 30m deep.

Viking has additional applications in process, which capture that portion of the prospective trends that are available.

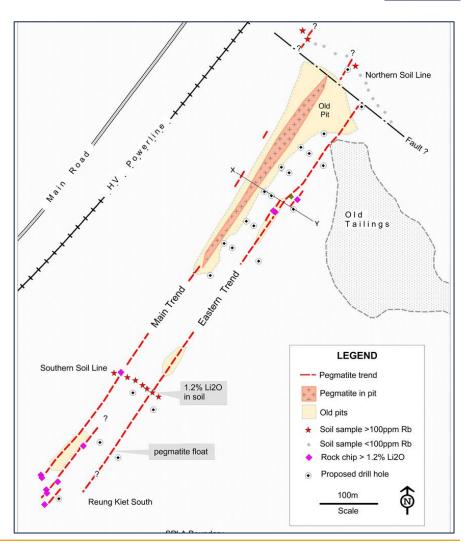


## **Reung Kiet Prospect**



# Work to date has identified a new significant lepidolite pegmatite trend:

- Work includes rock chip sampling, soil sampling, geological mapping and other observations.
- The Main Trend extends southwest along strike and exhibits excellent exposures of several lepidolite pegmatite dykes in a swarm of ~30m wide.
  - i. Previous rock chip and channel sampling returned results of up to 1.9% Li<sub>2</sub>O (see Figure 2).
- The second, new Eastern Trend is ~65-75m east of the Main Trend, ~1km long and runs parallel to Main Trend. Minor historical workings are present with individual dykes up to 4m wide.
  - i. Rock chip sampling indicates Li<sub>2</sub>O grades of 0.99% to 1.49% (see Figure 2).
- Subtle lithium and rubidium anomalism suggest both lepidolite pegmatite trends are open to the North of the historical tin mine.
- Project is drill ready, subject to standard permissions.

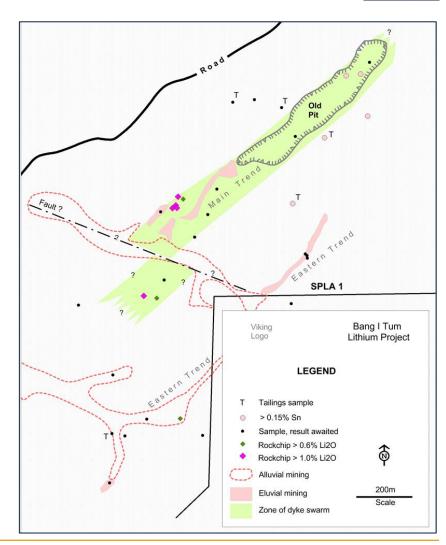


## **Bang I Tum Prospect**



# The Bang I Tum project was a relatively large scale open pit tin mine.

- Mining for tin continued into the 1980's.
- The open cut is approximately 650m long and up 100-125m wide.
- Mining of weathered pegmatites reportedly extended to about 40m below surface.
- Additional smaller scale mining extended further along strike and the area is host to extensive alluvial and eluvial mining in many drainages.
- Previous rock chip sampling has yielded grades between 0.9 to 1.8% Li<sub>2</sub>O plus accessory tin (Sn) and tantalum (Ta<sub>2</sub>O<sub>5</sub>).
- A second trend has been located approximately 350m east of, and parallel to the Main trend with a length of approximately 1km.
- Several narrow pegmatite outcrops have been identified approximately 3km and 6km along trend, southwest of Bang I Tum.





# **Appendix 1**

## Khao Soon Tungsten Project (VKA Option for 75%)

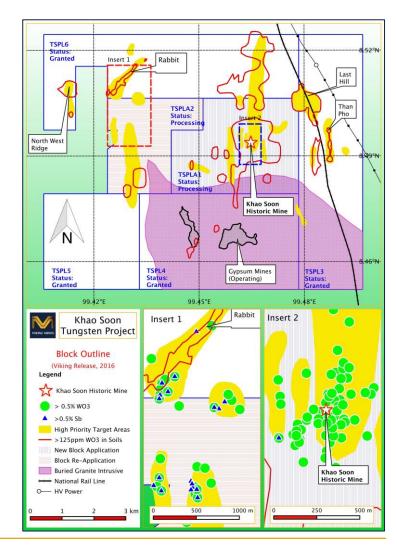


## High grade, historic tungsten mining area:

- Strong government and community support with access to all required infrastructure.
- District scale mineralisation, >20km² of tungsten anomalism, outcropping mineralisation, multiple targets defined, 'drill ready'.

### ~A\$4m of expenditure since 2006, good data:

- Mineralisation generally hosted in high grade breccia:
  - i. Khao Soon mine production to 1979 ~0.5Mt @ 2.2% WO<sub>3</sub>.
  - ii. High grade rock chip assays, including ~235 assays >=  $0.5\%WO_3$ ; ~75 >=  $2.0\%WO_3$ ; and ~20 >=  $5.0\%WO_3$ .
  - iii. Underground channel-chip results include: 6.1 @ 2.1% WO $_3$ , 12m @ 0.6% WO $_3$  and 20m @ 0.5% WO $_3$ .
  - iv.86% WO<sub>3</sub> recoveries from 2% WO<sub>3</sub> head grade, 'hard-rock'.
  - v. High tenor soil anomalies at 0.05% WO<sub>3</sub>, spot highs to 0.3% WO<sub>3</sub>.
- Extensively developed regolith hosted tungsten mineralisation:
  - i. Tungsten occurs in thick lateritic profiles at or near surface.
  - ii. These highly anomalous values in the regolith may be vectors to underlying hard rock tungsten mineralization.



## **Thailand - Overview**



## Thailand is a complex industrial economy:

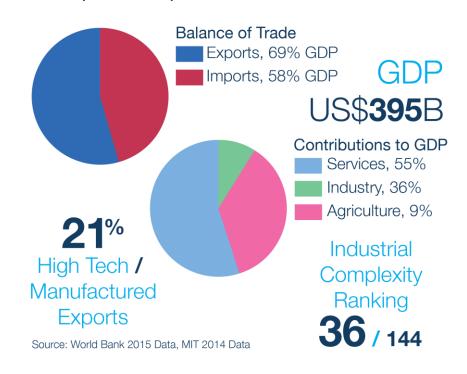
- has highly sophisticated industrial policies.
- forms an important part of the pan-Asian industrial production and supply chain.
- is represented by the full gamut of domestic and foreign based industrial multinationals.

# Thailand is ranked 36th out of 144, based on 2014 inputs and outputs data:

- in Asia the countries which rank ahead are Japan (1), South Korea (6), Singapore (8), Malaysia (25).
- there are no African countries ranked ahead of Thailand.
- Except for Brazil (32) there are no South American countries ranked ahead.
- China is ranked 37th, New Zealand 39th and Australia 56th.

# Thailand is the 22nd largest export economy in the world:

- exports \$240B, imports \$210B, trade balance >\$29B.
- top exports are computers, trucks, integrated circuits, refined petroleum products and cars.



## Thailand - Political Risk



### Investments are protected:

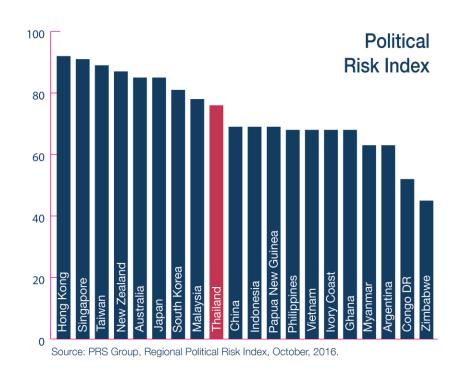
- A Free Trade Agreement exists between Thailand and Australia (TAFTA).
- Thailand is a member of ASEAN, which in itself promotes a set of pro trade rules governed by dispute mechanisms.
- With respect to the TAFTA, there is a clause which protects Australian FDI from events such as nationalisation.

# Thailand's industrial policies favour the development of sophisticated industrial initiatives:

- Viking's two specialty metal projects offer the potential for the development of sophisticated industries using lithium and tungsten based inputs in their processes.
- As a result, Viking is receiving strong support from the Government.

# Based on the PRS Group's 'Political Risk Index', Thailand is ranked:

- No. 9 /15 in East and South East Asia.
- No 9 / 20 when Argentina, DRC, Ghana and the Ivory Coast are included.



# Thailand – Industrial Policy



## Thailand has a sophisticated industrial strategy supported by comprehensive policy:

- Thailand plays a vital role in the global supply chain, and specifically the Asian supply chain.
- Focused on value added initiatives and the development of up/downstream activities.
- Has received 30% of Japan's ASEAN directed Foreign Direct Investment over the last 20 years.
- Has received technology transfers and training, a key foundation of Thailand's skill base.

## Multinationals have a strong presence:

- +A\$67B invested in industrial production activities, including +A\$15B in automotive and +A\$36B in petrochemical.
- Key global brand names are strongly represented across a number of industries, particularly automotive and chemicals.

## Detroit of the East

>AUD15 Billion Invested















## Map Ta Phut Industrial Estate

Petrochemical Complex >AUD37 Billion Invested













# **Appendix 2**

# **Board & Management**



## **Strong Board and Management team:**

- Viking's Chairman has extensive global experience in ore processing, mining, shipping and marketing, including having a hand in the construction of over 60 mineral processing plant.
- The team brings financial acumen to Viking, with equity and debt raising experience, project modeling and financing experience, and an understanding of the debt and equity markets.
- The team understands the SE Asian market, brings strong experience of government processes.

### Jack Gardner - Executive Chairman

- » Founding and non-executive director of Mincor Resources.
- » Former Chairman of Ghana Manganese Co and Chief Engineer for Guinor Gold Corp in West Africa.
- » Extensive global experience in ore processing, mining, shipping and marketing.

# Mike Langoulant - Company Secretary

- » Chartered Accountant with over 20 years experience in corporate administration.
- » 10 years experience in international accounting firms.
- » Acting or acted as chairman, non-exec director, chief financial officer and company secretary for a number of listed companies.

## Ray Whitten - Non-Exec. Director, Deputy Chairman

- » Admitted solicitor with +40 years experience, previously acted as President of the Sydney Law Society.
- » Chairman of Whittens & McKaeough, a boutique law firm specialising in mergers, acquisitions and corporate law.
- » Private and public company experience.

### Paul Lock - Managing Director, AMGT

- » Operating in SE Asia since 2012 for a number of privately held exploration companies.
- » Corporate advisory and project finance experience with leading Australian bank, derivative trading with leading boutique bank.
- Commodity trading experience with leading Japanese and Australian trading companies.

### **Peter McMickan - Executive Director**

- » Economic Geologist with ~35 years exploring for gold, base metals, nickel and tin in Africa, Australia and Europe.
- » Multi-national experience, including Newmont, Pancontinental Mining, BP Minerals, Kalgoorlie Consolidated Gold Mines and Homestake.
- » Senior and technical management experience.

## **David Hobby – Country Manager**, Thailand

- » Professional geologist with over 23 years experience in the minerals industry.
- » Experience in a variety of geological settings, has been involved with projects in Argentina, USA, Asia and Africa.
- » Comprehensive experience in all facets of the minerals project cycle.

# **Argo Acquisition Details**



On 18 November, 2016, Viking announced the acquisition of 100% of Argo Metals Group Limited (Argo).

# Share based transaction, geared towards project development and production:

- Viking will acquire 100% of Argo by the issue of:
  - i. 35 million VKA shares upon grant of Reung Kiet tenements.
  - ii. 55 million VKA shares upon production of commercial grade Lithium Carbonate.
  - iii.80 million shares upon completion of pre-feasibility study of an Argo project.
  - iv.100 million 2 years options issued at a 20% discount to the then 30 day VWAP on completion of a positive definitive feasibility study for an Argo project.
  - v. PFS and DFS need to be placed in the bottom half of the cost curve.

# Post grant of Reung Kiet Lithium Project tenements on an undiluted basis:

i. Viking shareholders: 88.8%

ii. Argo shareholders: 11.2%

iii. Transaction subject to shareholder meeting approval.



## **Important Information**



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## **Competent & Qualified Persons' Statement**



#### Competent Person and Report Source Statements - Thailand

The information in this Public Report that relates to technology metals Exploration Results, Mineral Resources or Ore Reserves is based on information compiled by Mr David Hobby, who is a Member of the Australasian Institute of Mining and Metallurgy. Mr Hobby is a full time employee of Argo Metals Group Limited. Mr Hobby has sufficient experience that is relevant to the style of mineralization and type of deposit under consideration and to the activity that 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. Mr Hobby consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

#### **Competent Person and Report Source Statements – Ghana**

The information in this presentation that relates to the Exploration Results and Mineral Resources of Viking Mines Limited is based on information compiled by Mr. Peter McMickan who is a Member of the Australasian Institute of Mining and Metallurgy. Mr. McMickan is a full time employee of Viking Mines Ltd. Mr. McMickan has sufficient experience that is relevant to the style of mineralization and type of deposit under consideration and to the activity that 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. Mr. McMickan consents to the inclusion in this presentation of the matters based on his information in the form and context in which it appears.

#### Mineral Reserve and Resource Statements

The information in this Report concerning the Berkh Uul Mineral Resource is extracted from Viking's announcement to the ASX entitled "New 38.3Mt resource for Merger Company's Mongolian coal project" dated 17 March, 2014. The information in this report concerning the Akoase Mineral Resource is extracted from Viking's announcement to the ASX entitled "12% Increase to 790,000 oz in Gold Resource for Ghana Project" dated 4 October 2013. These announcements are available to view on Viking Mines website at www.vikingmines.com. Viking Mines confirms that it is not aware of any new information or data that materially affects the information included in the original market announcements and, in the case of estimates of Mineral Resources or Ore Reserves that all material assumptions and technical parameters underpinning the estimates in the relevant market announcement continue to apply and have not materially changed. Viking Mines confirms that the form and context in which the Competent Person's findings are presented have not been materially modified from the original market announcement.

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