

# BAUXITE RESOURCES LIMITED



## POSITIVE EXPORT DSO BAUXITE SCOPING STUDY RESULTS RECEIVED FOR 100% BRL FORTUNA PROJECT

### Highlights

- Existing Mineral Resource and rail logistic chain can support a Direct Shipping Ore (DSO) production target rate of 3Mtpa for a 12 year mine life
- FOB operating cash costs estimated at A\$30 (US\$26) per tonne excluding royalties and landowner compensation\*
- A\$26M capital expenditure (excluding port capital expenditure)
- Level 2 environmental baseline studies underway
- Contractor selection underway for desk top hydrogeology, hydrology and aquatic ecology studies
- Conventional, shallow open cut mining method with no requirement for beneficiation
- BRL retains 100% of project
- Company well funded to advance project

### Future Activities Required

- Port studies critical to timeline for development
- Conversion of Exploration Access Agreements to Mining Access Agreements
- Off take discussions to confirm volume and pricing
- Infill drilling for mine planning and processing
- Environmental Approvals

### Scoping Study - Cautionary Statement

BRL advises the scoping study results referred to in this announcement are preliminary in nature as conclusions are drawn partly from Indicated Mineral Resources (15%) and partly from Inferred Mineral Resources (85%). The scoping study is a low-confidence technical and economic assessment and insufficient to support Ore Reserves or provide assurance of economic development at this time. There is a low level of geological confidence associated with Inferred Mineral Resources and there is no certainty that further exploration work will result in the determination of Indicated Mineral Resources. The Company cautions that the stated production target is based on the Company's current expectations of future results and should not be solely relied upon by investors when making investment decisions. Further evaluation work and appropriate studies are required to establish sufficient confidence that this target will be met.

\*Estimate of FOB costs may vary depending on the ultimate port solution.

**DATE:** 21 January 2015

**ASX Code:** BAU

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## Scoping Study Outcomes

Bauxite Resources Limited (ASX: BAU) (BRL) is pleased to advise that the pit-to-port scoping study on the Company's 100% owned Fortuna bauxite resource has been completed. The study was completed by well regarded, independent mining consultant, AMC Consultants (AMC), who provided mining, engineering, logistics and economic assessment.

The study shows the current Mineral Resources can support an annual production target after ramp up of 3 million tonne per annum (Mtpa), with a total mine life of 12 years.

Based on a forecast average A\$/US\$ exchange rate of 0.85 the FOB cash cost estimate will be US\$26 per dry tonne of bauxite (product) excluding royalties and landowner compensation (estimate of FOB costs may vary depending on the ultimate port solution).

BRL CEO, Peter Canterbury said "Whilst the study conducted by AMC is at a scoping level it does show the project can support a production target rate of 3Mtpa. The study shows sound rail transport logistic options for the project, critical for a commodity such as bauxite. We have secured additional land access which provides an opportunity to grow the resource further and potentially extend the forecast mine life, or increase production rates. Mining will be by conventional, shallow open cut methods and our resource, unlike many of our peers, does not require beneficiation. We are encouraged by the predicted global demand for bauxite and the current upward trend in bauxite pricing."

"The study does identify further development work to be undertaken to ensure port access is achievable in a reasonable timeframe, materials handling at the port, and associated capital requirements. The current preferred option is transshipping, with the Company having commenced engaging with consultants to detail this option which is expected to enable sea transport by Cape size vessels," he added.

## Mineral Resource

The scoping study is based on the Fortuna Mineral Resource (ASX announcement 19 June 2014), classified and reported in accordance with the guidelines of the JORC Code (2012 Edition) and summarised in Table 1.

**Table 1: Total Fortuna Deposit Resource Classification**

JORC Code classification	Quantity (Mt)	Al <sub>2</sub> O <sub>3</sub> % (total)	Al <sub>2</sub> O <sub>3</sub> % (available at 148°)	SiO <sub>2</sub> % (total)	SiO <sub>2</sub> % (reactive at 148°)
Measured	-	-	-	-	-
Indicated	6.3	40.2	34.0	5.7	1.9
Inferred	33.9	38.5	31.8	5.6	1.7
<b>Total</b>	<b>40.2</b>	<b>38.8</b>	<b>32.1</b>	<b>5.6</b>	<b>1.8</b>

*Note - all grades are unbeneficiated*

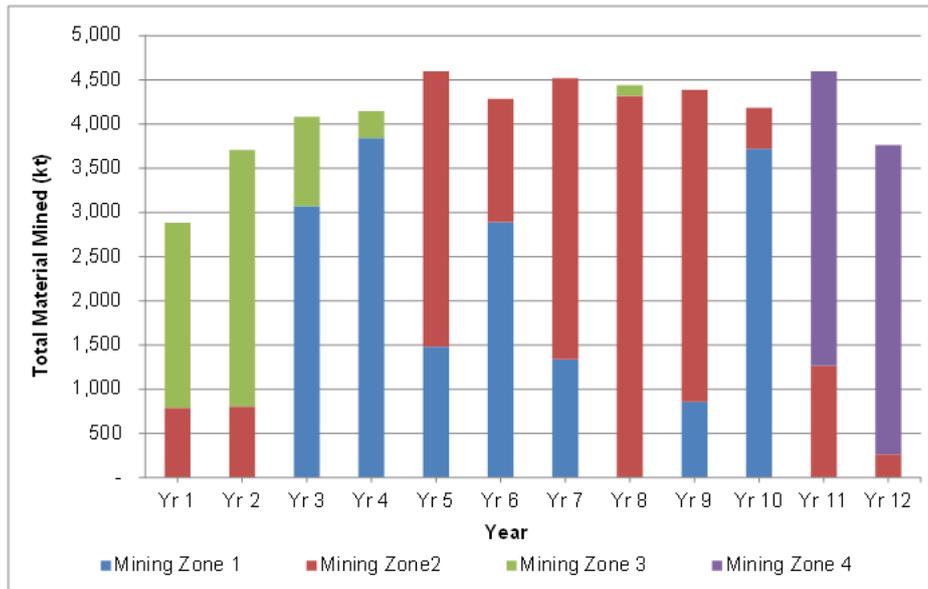
This Mineral Resource forms the basis of the production target, which took into account modifying factors including mining widths, cut off grade, mining dilution and mining recovery. Based on the economic analysis undertaken as part of the scoping study, AMC determined that it was appropriate to include approximately 85% of the Mineral Resource in the production target that totalled 34Mt grading 32.07% available alumina, and 2.09% reactive silica, which was the basis of the scoping study.

## Mining

It is envisaged that mining will be via excavators and trucks, but assessment of continuous miners and other alternatives is warranted. A mining and processing schedule was developed for a production target rate of 3Mt of product per annum over the life of the mine. To ensure a logical development sequence, the resource was divided into four mining zones with mining restricted to two zones per period (see Figures 1 and 2).

Mined ore will be transported to a crushing and screening plant, central to the resource area for sizing, which will feed an approximately 2km conveyor for transfer below Toodyay Road (see Figure 3) to a stockpile to the north. This option meets BRL’s objective of keeping haul trucks off this principal highway for safety reasons. Product from the transfer stockpile will be transported to a rail siding to the north. The Company intends to operate Fortuna under a contract earth moving arrangement whereby the contractor will supply manning, mining equipment and maintenance thereof. A mining cost estimate of A\$2.46/t of product was used for the purpose of the study. A diagrammatic flow of product is presented in Figure 4.

**Figure 1: Proposed material movement for 3Mtpa production target**



**Figure 2: Fortuna resource - mining zones 1 to 4**

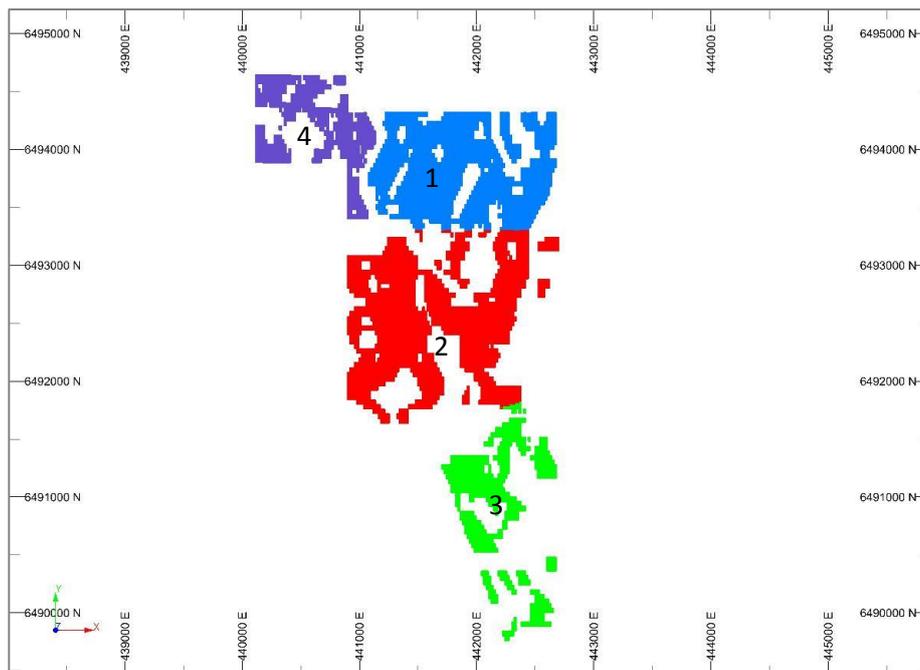
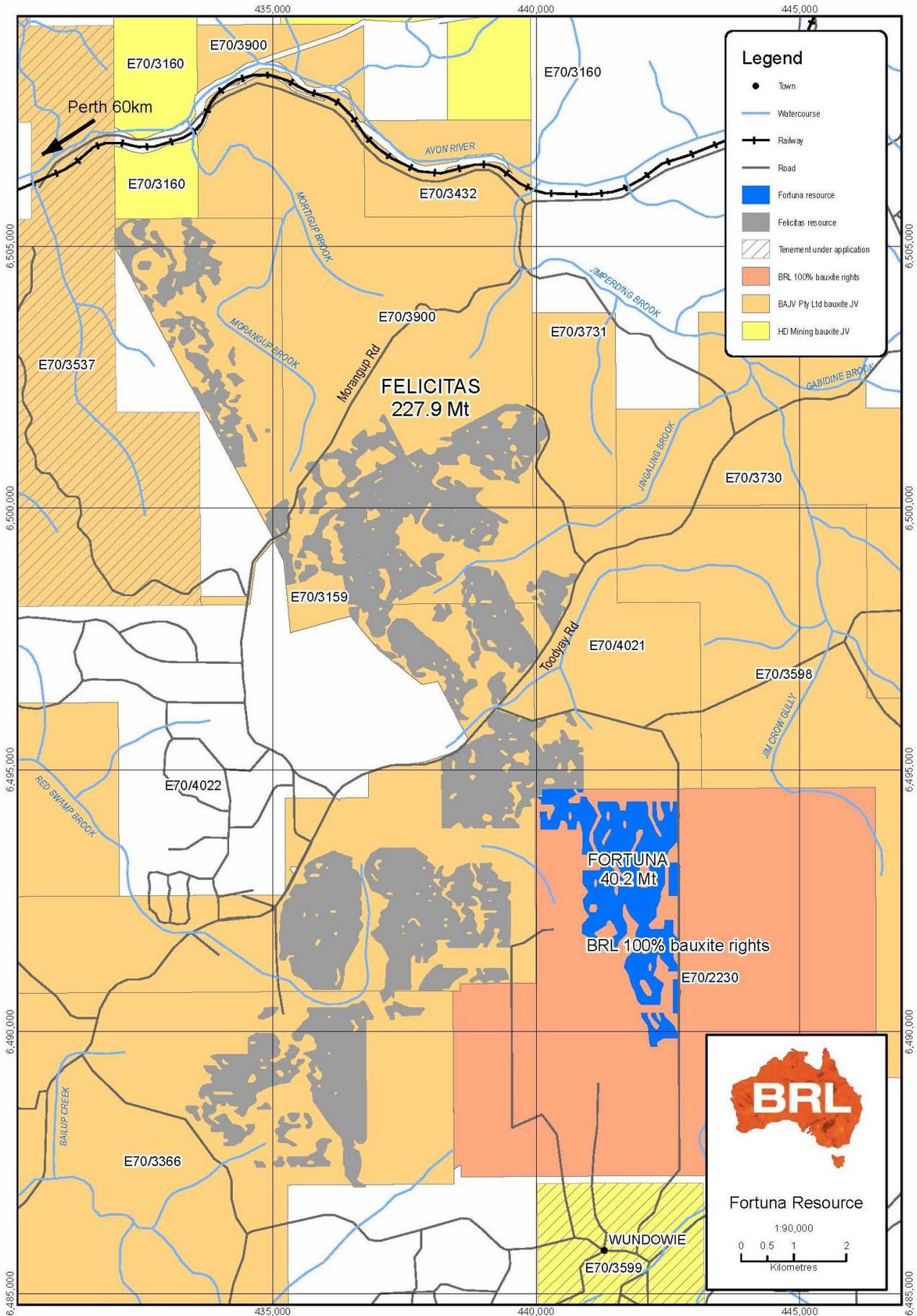


Figure 3: Fortuna resource location map



## Processing Costs

Processing cost estimates are outlined in Table 2.

**Table 2: Processing cost estimates – costs reported as A\$ per dry tonne**

	A\$/dry tonne
<b>On-site costs</b>	
Contractor management and administration allowance	0.64
Crushing	3.93
<b>Off-site costs</b>	
Transport - conveyor	0.54
Transport – truck	4.32
Transport – rail	7.13
Port handling / ship loading	10.8
<b>Total</b>	<b>27.36</b>

## Mine site and rail Infrastructure

It is envisaged the product will be transported to a siding approximately 15km north of the project. An existing siding is present which will require upgrading and lengthening. Loading of trains will be via conventional front end loader, for transport to Kwinana Port, unless future assessment of an overhead loading system is deemed economic. A number of options have been reviewed with respect to port capacity, with a current preferred model of transshipment. This option will enable Capesize vessels to be utilised, which can save up to A\$10/t compared to Handysize. Further studies are planned with respect to the most practical and efficient port handling option.

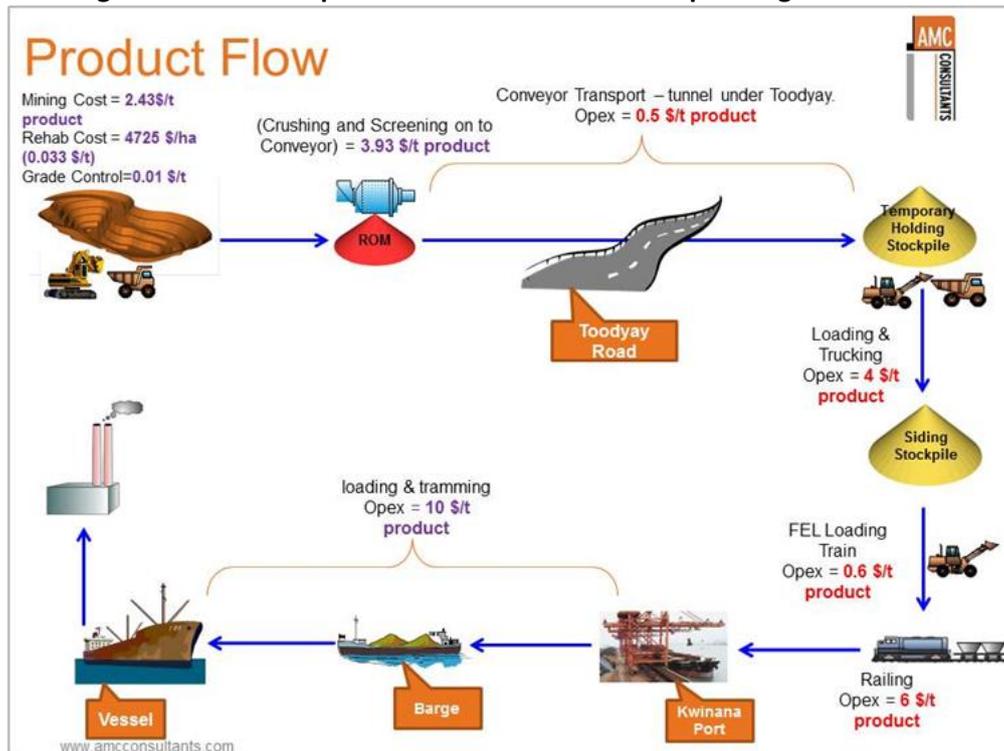
## Capital expenditure

The estimated capital expenditure required for the mining and rail facets of the project is A\$25.5M, as summarised in Table 3. A further study will be undertaken to assess capital requirements at port, and for materials loading for sea transport.

**Table 3: Capital expenditure estimate**

Item	Value (A\$M)
<b>Processing CapEx</b>	
Feed bin, conveyor and stacker from crushing plant to transfer stockpile	9.0
Tunnel for conveyor under Toodyay Road	2.0
Stockpile area for front end loader operation	0.5
Front end loader siding, including turnouts and signalling	9.0
Sub total	20.5
<b>Mining CapEx allowance (assumes contract mining)</b>	5.0
<b>Total</b>	<b>25.5</b>

**Figure 4: Schematic product flow and associated operating costs**



## Forward Plan

Following the receipt of the scoping study results from AMC, a number of follow-up studies are recommended from the study.

Port and port logistics studies will be commenced shortly on the options for loading small Capesize vessels via trans-loading. In addition, the Company is currently working with our existing land owners where we have exploration access agreements to convert these to mining access agreements that will be required for mining.

The Company is also working with its joint venture partner Bauxite Alumina Joint Venture (“BAJV”) in commencing the community engagement program to develop both the Felicitas and Fortuna bauxite deposits that border each other and are likely to utilise the same infrastructure.

Studies on infill drilling for mine planning and materials handling will also be undertaken shortly to provide further detail on the project.

Off-take discussions will continue with selected refineries to assist and confirm volume and pricing assumptions.

Subject to continuing favourable project economics and regulatory approvals, the Company intends to undertake the additional activities on the Fortuna DSO bauxite project with a targeted development timeframe from now (subject to economics, regulatory approvals and final investment decision) of around 2 to 3 years.

## About Bauxite Resources Limited and Fortuna

Bauxite Resources Limited (BRL) is a Western Australian based, ASX listed company focussing on the acquisition, exploration and development of bauxite deposits in the Darling Range region of Western Australia. The Darling Range is the largest bauxite and alumina region in the world. BRL is exploring in its own right, and via a number of joint ventures. Fortuna is BRL’s flagship 100% resource, located on private and predominantly cleared farmland north of the regional town of Wundowie. The Company has determined the resource is at a scale that may support stand-alone development and has commenced a range of studies to assess the viability of establishing a DSO operation.



## Competent Person Statements

The information in this announcement that relates to the Fortuna Mineral Resource is based on information compiled by Graham de la Mare who is a Member of the Australian Institute of Geoscientists. Mr de la Mare is employed by RungePincockMinarco (RPM). Mr de la Mare has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration 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'. Mr de la Mare consents to the inclusion in this announcement of the matters based on his information in the form and context in which it appears.

The information in this announcement that relates to Exploration results is based on information compiled by Mark Menzies. Mr Menzies is a qualified geologist and a full time employee of Bauxite Resources Limited (BRL). He is a shareholder in BRL and is entitled to participate in BRL's employee performance plan, details of which are included in BRL's 2014 Remuneration Report. Mr Menzies is a member of the Australian Institute of Geoscientists, and has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration 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". Mr Menzies has consented to the inclusion in this announcement of the Exploration Information in the form and context in which it appears.

The production targets and other information in this announcement that relates to mineral resources is based on, and fairly represent, information extracted from the ASX announcement on 19 June 2014 independently compiled by RungePincockMinarco (RPM), and from independent mine design, transport and economic data compiled by AMC Consultants Pty Ltd.

The company confirms that it is not aware of any new information or data that materially affects the information included in the original market announcement and, in the case of estimates of Mineral Resources that all material assumptions and technical parameters underpinning the estimate in the relevant market announcement continue to apply and have not materially changed. The company confirms that the form and context in which the Competent Person's findings are presented have not materially modified from the original market announcement.

## Forward Looking Statements

This material includes forward looking statements. Often, but not always, forward looking statements can generally be identified by the use of forward looking words such as "may", "will", "expect", "intend", "plan", "estimate", "anticipate", "continue", or other similar words and may include, without limitation, statements regarding plans, strategies, and objectives of management. Forward looking statements inherently involve known and unknown risks, uncertainties and other factors that may cause the Company's actual results, performance and achievements to differ materially. Relevant factors may include, but are not limited to, changes in commodity prices, foreign exchange fluctuations and general economic conditions, increased costs, the speculative nature of exploration and project development, including the risks of obtaining necessary licenses and permits, political and social risks, changes to the regulatory framework within which the Company operates or may in the future operate, environmental conditions, recruitment and retention of personnel, industrial relations issues and litigation. The Company does not give any assurance that the assumptions on which forward looking statements are based will prove to be correct, or that the Company's business or operations will not be affected in any material manner by these or other factors not foreseen or foreseeable by the Company or management or beyond the Company's control. Accordingly, readers are cautioned not to place undue reliance on forward looking statements.

The Company feels it has reasonable basis for making forward looking statements in this announcement, based on information independently compiled by AMC Consultants Pty Ltd with respect to the production target, design and scheduling, combined with the Mineral Resource as at June 2014 classified and reported in accordance with the JORC Code (2012 Edition), and independently prepared by RungePincockMinarco (RPM). The Fortuna production target is at a grade comparable to that currently economically mined elsewhere in the Darling Range.