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## QUARTERLY ACTIVITIES REPORT FOR QUARTER ENDED 31 DECEMBER 2012

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31 JANUARY 2013

### QUARTERLY HIGHLIGHTS

- EXPLORATION TARGET OF 2.1 BILLION TONNES TO A MAXIMUM OF 3.0 BILLION TONNES AT DANDARAGAN AT A GRADE OF 2.5%K<sub>2</sub>O TO 5.0% K<sub>2</sub>O<sup>1</sup>
- DRILLING PERMITS LODGED - DRILLING TO ASSIST IN METALLURGICAL TESTWORK FOR THE DANDARAGAN PROJECT
- LAND OWNER NEGOTIATIONS ARE BEING SOUGHT FOR INITIAL GEOPHYSICAL SURVEYS AT COOLJARLOO PROJECT. INITIAL ACCESS AGREEMENTS HAVE BEEN EXECUTED
- NEW PROJECT GENERATION ACTIVITIES CONTINUING

#### **DANDARAGAN PHOSPHATE PROJECT**

The Dandaragan Potash Project is located approximately 150km north of Perth, centred on the town of Dandaragan (Figure 1). The project comprises a single granted Exploration License, E70/3741, covering 100 sub-blocks or approximately 295 Km<sup>2</sup>.

The Project is located in the Dandaragan Trough, a Cretaceous age sub-basin of the Northern Perth Basin which is bounded by the Darling & Eneabba Faults. The sub-basin extends northwards and has an ill – defined relationship with the southernmost part of the Carnarvon Basin, east of the Northampton Block.

The large area of E70/3741 [~300 Km<sup>2</sup>], in which almost 90% is underlain by relatively shallow potassic greensand strata of the Coolyena Group results in a large, but conservatively derived Exploration Target Estimate. Furthermore the gently deformed conformable horizons suggest considerable lateral continuity exists, particularly for the Poison Hill Greensand Formation, identified in very widely distributed areas of the lease, in last year's exploratory drilling. The methodology comprises generating an area for various regularly shaped blocks of drill holes and then applying an intercept thickness of 15m on average. This assumption is very conservative and indeed the Specific Gravity factor of 1.5 is also at the lower end of the scale. Collectively, the Exploration Target ranges from **2.1 Billion Tonnes to a maximum of 3.0 Billion Tonnes at a grade of 2.5% K<sub>2</sub>O to 5.0% K<sub>2</sub>O<sup>1</sup>**, notwithstanding the fact that the formation may pinch-out in limited areas and may thin towards the western contact zone. The general homogeneity and sedimentary facies uniformity, however, and the lateral persistence in this section of the Northern Perth Basin render this estimate as an appropriate proposition.

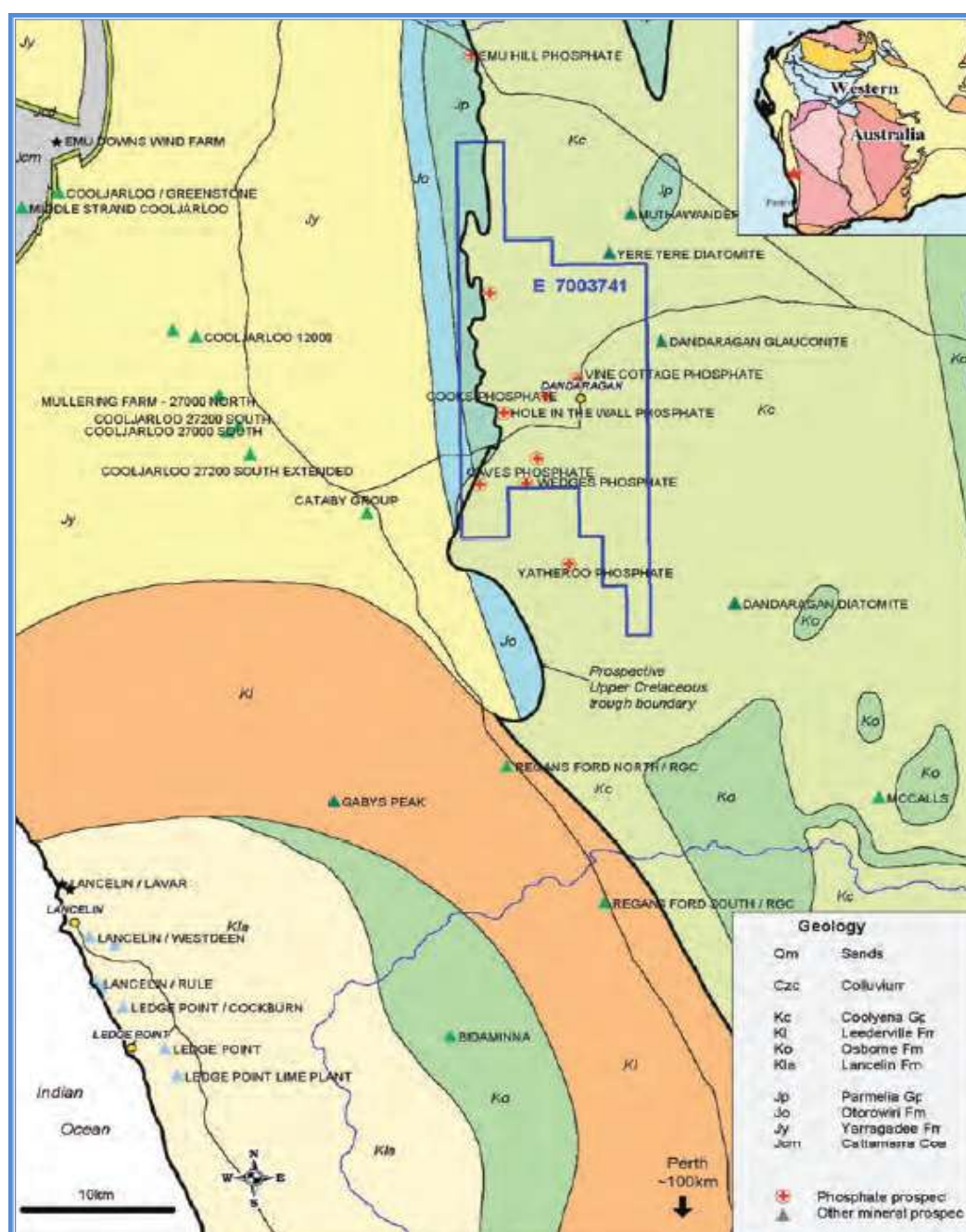
1. *Note that the Company's exploration target includes potential quantity and grade and is conceptual in nature. There has been insufficient exploration to define these mineral resources and it is uncertain if further exploration will result in the determination of mineral resources.*

Approvals have been sought for additional drilling to provide samples to assist in investigating the feasibility of processing the Dandaragan Phosphate / Potash project. Independent Metallurgical Operations Pty Ltd (IMO) have been selected to provide a proposal for a Scoping and Development Study for Dempsey Minerals' Dandaragan Phosphate / Potash mine.

IMO will undertake a Scoping and Development Study, including the scoping and management of metallurgical testwork, the development of a potentially economic flowsheet and performing feasibility and trade-off studies where required.

IMO's initial review of the supplied data suggests that this deposit can best benefit from the Scoping Study focusing on beneficiation, upgrading and gangue rejection as the early stages of the processing to maximise project economics.

The Company believes that the Dandaragan project has the huge advantages of having great infrastructure, being close to market and have access to rail and port.



## COOLJARLOO MINERAL SANDS PROJECT

The Cooljarloo Heavy Minerals Sands (HMS) Project is situated in the Northern Perth Basin of WA and lies approximately 150km north of Perth within a very active minerals sands mining district hosting HMS mines. The project abuts Tiwest's Cooljarloo mine and Image Resources Limited's Cooljarloo heavy mineral sands discoveries. The company notes the recent activities of Image Resources NL and Sheffield Resources Ltd.

Land access is being finalised for a ground geophysical survey. This survey should be undertaken during the current quarter.

## CORPORATE ACTIVITIES

The Company applied for an exploration near Ravensthorpe that is considered prospective for lithium.

The company will continue working on its existing projects and focus on its corporate objectives to implement a growth strategy and to seek out further exploration, acquisition and joint venture opportunities.

### For further information contact:

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## Competent Person's Statement

*The information that relates to exploration targets, exploration results and drilling data of Dempsey operated projects is based on information compiled by Mr Richard Twomey a Member of The Australasian Institute of Geoscientists and is a consultant to the Company. Mr Twomey has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which they are undertaking to qualify as a Competent Persons as defined in the 2004 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr Twomey consents to the inclusion in their names in the matters based on their information in the form and context in which it appears.*