



#### **ASX ANNOUNCEMENT**

5 November 2013

**ASX Code: MDX** 

ABN: 28 106 866 442

#### **Corporate Description**

Mindax's Mt Forrest Iron Project is progressing through feasibility with a view to mining in 2015.

Mindax is also the greenfields discoverer of a new uranium province near Mukinbudin, Western Australia.

Mindax also has exploration projects based in Western Australia which involve Gold and Copper.

Through technically advanced exploration and an eye for detail, Mindax has successfully built a significant portfolio of 25 mineral exploration and mining tenements covering over 1,700 square kilometres. In addition, Mindax has tenure in place for water and infrastructure covering over 2,400 square kilometres in support of the Mt Forrest Iron Project development.

Mindax aims to develop strategic resources through innovative exploration. Projects will be moved to production including via strategic partnerships.

#### **Key Projects**

Mt Forrest Iron

Yilgarn-Avon JV Sedimentary Uranium

Mortlock JV Copper-Gold

Meekatharra JV Gold

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# UPDATED SCOPING STUDY CONFIRMS THE POTENTIAL OF MT FORREST IRON PROJECT

### **Highlights**

- Updated Scoping Study confirms initial Mt Forrest DSO Project can be based on 2Mtpa production for 5 years.
- DSO mine plan incorporates regolith and detrital material from updated resource.
- DSO mining will open up the way for potential subsequent large scale and value creating magnetite production. Presence of existing mine site and infrastructure will facilitate transition to magnetite mining and reduce costs for change.
- Work programs to secure regulatory approvals for DSO production are progressing well and are advanced well beyond Scoping Study stage. Preparation of submissions is underway.
- Latest project plan predicts DSO mining will commence at Mt Forrest mid-2015.
- The Updated Scoping Study will provide a strong basis and starting point for the announced Mt Forrest Joint Venture with Perpetual Mining Holding Limited (PMHL) to undertake a detailed Feasibility Study. Information has been provided to an independent expert engaged to prepare a report for shareholders on the transaction with PMHL.



Mindax Limited (MDX or the Company) refers to its announcement released to the market on 20 April 2012 regarding the Scoping Study (Study) on Mt Forrest DSO and Magnetite Projects and is pleased to provide an updated Study (UStudy).

The UStudy referred to in this report is based on low-level technical and economic assessments, and is insufficient to support estimation of Ore Reserves or to provide assurance of an economic development case at this stage, or to provide certainty that the conclusions of the Scoping Study will be realised.

The focus of the new work has been to take a holistic approach to the Mt Forrest Iron Project, with detailed emphasis on the initial DSO phase. A more substantial first phase DSO project has been determined by inclusion of detrital iron resource which was established during 2013. The DSO project is viable in its own right as a stand-alone project, but has also been planned such that an easy transition to magnetite mining could follow. The DSO project will uncover large sections of magnetite resource ready for mining. Initial mine infrastructure and equipment will be selected wherever possible and sited such that it can be used for magnetite mining when DSO mining is completed. This reduces capital and operating costs and minimises the operations footprint.

#### Initial DSO Project Phase - Overview

The overall scope of this phase is now planned as follows:

- 1) Production of 2Mt per annum of final product 60% Iron concentrate for a 5 year period.
- 2) Road haul to Menzies via purpose built single lane private haul road.
- 3) Rail transport from Menzies to Esperance.
- 4) Product export from expanded Esperance Port.
- 5) Total product cash costs FOB Esperance A\$85/tonne.
- 6) Investment Cost, (including Feasibility Study (**FS**) and mine development including Build Own Operate (**BOO**) or Build Own Operate and Transfer (**BOOT**) items), of A\$177M.
- 7) Focus on reducing own initial capital costs by a series of BOO and BOOT commercial contracts for mine site plant operations and major infrastructure.
- 8) Mine start up mid 2015 which is generally consistent with the published expansion timeframe for the Esperance Port.

#### Initial DSO Project Phase - Detailed Commentary

#### Resource

The Regolith resource was updated in September 2013 (refer to ASX announcement of 27 September 2013) with the inclusion of detrital mineralisation which was confirmed during the successful 2013 drill program. The current resource is listed in table 1 below:



Table 1: Updated Regolith Iron Resource at Mt Forrest (reported above a 40% cut-off).

JORC	Tonnes	Fe	SiO <sub>2</sub>	Al <sub>2</sub> O <sub>3</sub>	LOI	P	S
	Kt	%	%	%	%	%	%
November 2011 Indicated	12,340	45.5	23.0	5.2	6.1	0.06	0.07
November 2011 Inferred	2,370	44.8	26.4	4.5	4.6	0.05	0.06
September 2013 Detrital Inferred	12,440	42.3	19.9	11.4	6.3	0.02	0.04
Total Indicated and Inferred	27,140	44.0	18.0	11.8	6.0	0.04	0.06

Some inconsistencies due to rounding may occur.

#### Mine Plan and Operations

A mine plan has been developed to exploit the regolith and detrital resources, with the regolith material comprising the bulk of the material mined. The plan has taken into due consideration all factors impacting economics. Metallurgical test work has been undertaken on regolith and detrital material to establish processing recoveries. The regolith and detrital ore bodies are near or at surface and have a low strip ratio. The low material strength and shallow mine pits enable low cost surface mining techniques to be used. Mined material will be upgraded to final 60% iron concentrate product through a process plant containing standard metallurgical separation techniques.

It may be possible to increase mine life by a further year to six years total by incorporation of other regolith material, which is present on the mine site but not yet included in the Mineral Resource inventory.

The Mt Forrest mine layout has been designed to minimise operating impact footprint. Mining of the DSO will expose large sections of Magnetite mineralisation for future mining. Please refer to appended Figure 1.

#### **Logistics**

The Company has determined the most cost effective logistics solution is via a new private haul road from Mt Forrest to Menzies, new rail loading siding at Menzies and use of existing rail infrastructure from Menzies to Esperance, with product exports from the planned expanded Esperance Port. Use of a private road facility from Mt Forrest to Menzies reduces capital and operating costs which would be required for the existing road and lowers operating costs by use of larger vehicles.

Discussions with logistics and infrastructure providers are ongoing. The Company is actively involved in the Esperance Port Upgrade process with the aim of securing some of the planned new port capacity.

#### Capital Cost

The forecast investment of \$177M includes costs for feasibility study, mine development and infrastructure. Major cost items include, mine processing plant, mine infrastructure (including roads, bore field, power plant and earthworks), mine camp and haul road from Mt Forrest to Menzies. It is intended that significant items will be the subject of BOO or BOOT commercial



contracts with third party providers. Reductions in overall investment costs will be pursued in future work programs.

#### **Operating Costs**

The forecast operating cash cost of \$85/tonne FOB includes port charges, rail and road haul, processing, mining and administration costs. The largest single cost is for the logistics path in transporting the product from the mine to the customer and a key focus of future work will be to reduce this cost.

#### **Environmental Matters**

Considerable work has been undertaken to prepare the regulatory approval submission to the Environmental Protection Authority (EPA) with much of this work in excess of the requirements for a Scoping Study.

Environmental surveys are substantially complete with only some current spring survey work underway. No species listed as endangered under State or Federal legislation have been recorded which should allow for a more streamlined approval process.

#### **Subsequent Magnetite Production**

Upon completion of DSO mining, large sections of Magnetite mineralisation will be exposed and available for mining. The DSO mine site will be established with infrastructure and some processing plant which can be used to facilitate the transition to magnetite mining. The April 2012 Study reported a robust case for magnetite mining at 10 Mtpa for an 18 year period. Further assessments of future magnetite mining scenarios will be made in due course.

#### **Forward Plan**

It is planned for the Mt Forrest Iron Project to be developed in a Joint Venture (**JV**) with PMHL. Current Mindax subsidiary, Yilgiron Pty Ltd (**YPL**), will become the JV vehicle (refer to ASX announcement of 15 October 2013).

An independent expert's report regarding the planned JV with PMHL is being prepared for all shareholders. Information relating to the UStudy has been forwarded to the independent expert for their consideration.

Once formed YPL will commence the FS for the Mt Forrest Iron Project. This UStudy will provide a strong basis for commencement of the FS.

A forward project timeline has been developed in the UStudy. Subject to securing regulatory approvals for the project and satisfactory FS outcomes, it is currently predicted that DSO mining will commence at Mt Forrest around mid-2015 which is generally consistent with the planned Esperance Port capacity upgrade.

A key part of the FS will be to examine ways to reduce initial investment costs and to reduce operating costs and to confirm future project program.



#### **Study Preparation**

This Ustudy was prepared by Mindax staff experienced in mineral resources project studies with resources, mining, processing, water and road reports from recognised industry consultants to update the original scoping study. Logistics costs were updated through discussion with key contractors that deliver these services based upon the proposed timing and scale of the project.

The level of accuracy is that of a scoping study (+/-30%) and utilises the original scoping study estimates as well as those obtained through the updated studies by industry consultants and industry accepted rates through discussion with contractors.

#### **Competent Person Statement**

The information in this announcement that relates to Exploration Results is based on information compiled by Mr John Vinar who is a member of the Australasian Institute of Mining and Metallurgy, with more than 5 years experience in the field of activity being reported on.

Mr Vinar is a full-time employee of the Company and has sufficient experience which is relevant to the style of mineralisation and type of deposit and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2004 Edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves". Mr Vinar consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

#### **End of Announcement**

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## **Appendix**

Figure 1: Potential Mt Forrest mine layout and Future Pit Shell Outline

