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## ASX Announcement

### KOBE RELEASE ABOUT ITmk3® PRODUCTION

Further to the Company's announcement yesterday that the first commercial scale plant to use the ITmk3® technology has produced its first iron nugget production, please find attached the release by Kobe Steel, Ltd. about this important milestone. Kobe Steel, Ltd. developed the ITmk3® technology.

For further information please refer to yesterday's announcement about the Company's intended use of ITmk3® technology in its Yalgoo Iron Project.

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#### **The Yalgoo Iron Project - Outline**

Ferrowest Limited is developing the Yalgoo Iron Project aimed at producing seaborne traded merchant pig iron (96%Fe) from the Yogi magnetite deposit near Yalgoo in the mid west region of Western Australia. Proposed initial production will be either 500,000tpa or 1,000,000 tonnes per annum. The plan to process the iron ore to pig iron is premised on the ITmk3® technology and excellent existing infrastructure servicing the Project area. The resulting value added merchant pig iron product will be a relatively high margin, high quality, low volume product for export to quality electric arc furnace steel making plants worldwide.

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## **World's first commercial ITmk3 plant successfully begins production *Next-generation ironmaking process produces high-purity iron nuggets***

TOKYO, January 14, 2010 – Kobe Steel, Ltd. announces that the world's first commercial plant using the ITmk3® Process successfully began production of iron nuggets in the United States on January 12 at 6:00 pm CST. The next-generation ITmk3 Process was developed by Kobe Steel.

Kobe Steel and Steel Dynamics, Inc. (or SDI) constructed the plant at Hoyt Lakes, Minnesota. Production of iron nuggets, which are used in steelmaking, will gradually increase in accordance with operating conditions and is anticipated to reach the facility's annual design capacity of 500,000 metric tons in mid-2010.

ITmk3 is an innovative next-generation ironmaking process totally different in concept from the traditional blast furnace method. Since the discovery of the phenomenon in 1994, the process has undergone many stages of development resulting in the start of production of a commercial plant. The ITmk3 Process is noted for the following characteristics:

1. High-grade iron nuggets can be produced in an extremely short time of about 10 minutes.
2. The ITmk3 Process can use lower-cost iron ore fines and steaming coal, which are difficult to use in blast furnace ironmaking.
3. In comparison to pig iron produced in a blast furnace, the production of iron nuggets using the ITmk3 Process emits about 20% less carbon dioxide due to its good energy efficiency.

With the start up of the commercial ITmk3 plant, Kobe Steel is moving quickly to popularize the ITmk3 Process in world markets. As a pioneer of this technology, Kobe Steel is working on iron nugget projects in North America, Vietnam, India, Russia, Australia and other countries, a cumulative production capacity of several million tons of iron nuggets.

Over the medium- to long-term future, steel demand is anticipated to continue increasing. Accordingly, electric-arc furnace steelmakers are faced with a growing need for cold iron units, namely clean iron units such as blast-furnace pig iron and direct reduced iron. Kobe Steel believes the ITmk3 Process is one of the most effective ways to meet this new demand.

The ITmk3 Process, with its lower carbon-dioxide emissions and capital investment, is highly suitable for growing environmentally friendly steel industries in developing countries. Moreover, the ITmk3 Process can use cheaper low-grade iron ore and coal, which are difficult to use in blast furnace ironmaking, to keep raw material costs down for steel and mining companies. Along with these advantages, the real value of the ITmk3 Process is that it produces high-grade iron nuggets with better meltability than blast-furnace pig iron when used in the steelmaking stage.

For mining companies, the ITmk3 Process enables them to produce iron nuggets to add value to their natural resources. As a result, mining companies can expand their markets to include electric-arc furnace steelmakers, in addition to their traditional customers, blast furnace steelmakers.

Grappling with environmental issues, the world steel industry faces a tight raw material market and higher costs due to the sharp increase in steel production. Under these conditions, the ITmk3 Process is an attractive alternative. Kobe Steel, with subsidiary Midrex Technologies, Inc., is the world's leader in direct reduction processes. Its MIDREX® Direct Reduction Process is used to produce nearly 60% of the world's direct reduced iron. As a member of the world steel industry, Kobe Steel has now commercialized ITmk3, a revolutionary ironmaking process that, in step with the present age, contributes to society.

### **Background to the Project**

Following the completion of trials in July 2004 conducted at a demonstration plant in Minnesota, Kobe Steel and SDI formed a joint venture, Mesabi Nugget Delaware, LLC, to operate the commercial-scale plant. Full-scale construction of the facility began in November 2007. Mesabi Nugget Delaware will operate the ITmk3 Plant and sell the iron nuggets. Kobe Steel provided the ITmk3 process license, engineering services, primary production equipment, and technical support. The Mesabi Nugget plant will provide further data on plant and process operation.

SDI plans to use the nuggets produced by the Minnesota ITmk3 Plant in its steel mills.

### **The ITmk3 Process**

1. Pulverized iron ore and pulverized coal are agglomerated into ball-shaped pellets.
2. The pellets are fed into a rotary hearth furnace. Reduction, melting and slag separation occur in about 10 minutes.
3. The resulting product is high-grade iron nuggets.

### **Advantages of the ITmk3 Process**

1. In comparison to pig iron produced in a blast furnace, the production of iron nuggets using the ITmk3 Process emits about 20% less carbon dioxide due to its good energy efficiency.
2. Raw material pretreatment facilities (coke ovens, sintering plants and pellet plants) are unnecessary.
3. ITmk3 is highly suitable for mining sites and can be profitable for even small mines.
4. Operation is easy and production adjustments are also easy.

### **Features of the Iron Nuggets**

1. Iron nuggets are slag-free, high-purity iron units of the same quality as pig iron. They have a metallic iron content of 96% to 97%.
2. Iron nuggets improve the productivity and energy efficiency of electric arc furnaces (EAFs). With better meltability than blast-furnace pig iron, iron nuggets can be continuously fed into EAFs.
3. Iron nuggets are easy to transport and handle. High in density, they do not reoxidize or generate fines.

Note to Editor: Photos are available upon request

Information on Kobe Steel is available at:

[www.kobelco.com](http://www.kobelco.com)

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