

### 3,000 TPA ERMS SR SYNTHETIC RUTILE DEMONSTRATION PLANT

Austpac's key technology, the ERMS SR process, produces very high grade synrutile and high quality iron pellets from ilmenite. The technology is now being showcased in a 3,000 tonnes per year Demonstration Plant at the Company's facilities in Newcastle, NSW.

The ERMS SR synrutile process is unique in delivering two valuable products with **no solid or liquid wastes**. The process is carbon-capture capable and generates less CO<sub>2</sub> per tonne of product than other ilmenite upgrading processes. Thus it is **the most environmentally friendly process available today**.

### ABOUT AUSTPAC RESOURCES N.L. (ASX CODE: APG)

Austpac is a minerals technology company focused on the titanium, steel and iron ore industries. Austpac's key technology transforms ilmenite into high-grade synthetic rutile, a preferred feedstock for titanium dioxide pigment production.

The technology can also be used to process waste chloride solutions and iron oxides produced by steel making to recover hydrochloric acid and iron metal pellets.

A third process can be used to produce Direct Reduced Iron (DRI) from both hematite and magnetite iron ores.



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## ERMS SR Demonstration Plant

## Status of the Demonstration Plant



Newcastle Demonstration Plant

The Plant is being built in two stages:

**Stage 1** comprises ilmenite roasting and magnetic separation.

**Stage 2** comprises ilmenite leaching, synrutile production, acid regeneration and iron pellet production.

### Stage 1 Operations

The ilmenite roasting section of Austpac's ERMS SR synrutile Demonstration Plant at Newcastle, is currently running successfully on a 24 hour 7 days a week basis. The roasted ilmenite continues to meet specifications and bench leaching of small samples of the bulk roasted material consistently produces an ultra high grade synrutile, containing 97%  $TiO_2$ , with low contaminants and low radioactivity.



Fluid Bed Roasters

The roasting campaign commenced in March 2008 with the processing of 150 tonnes of CRL ilmenite. The plant has now roasted over 300 tonnes of the 500 tonne ilmenite parcel purchased from Bemax's Murray Basin operations. Once roasting of Bemax ilmenite is complete, the Plant will process 70 tonnes of ilmenite from BHP Billiton's Corridor Sands deposit in Mozambique. Roasting will conclude at the end of June 2008.

### Stage 2: Construction

During Stage 1 Operations, Stage 2 Construction has continued on schedule. Major advances have been made over the past months and most large scale construction tasks are now complete.



Continuous Leach Vessel

Austpac's patented continuous leach vessel and the associated tanks and pumps have been installed. The leaching section will be ready for hydrostatic testing in early June 2008.

The calcining section, the final step in producing ultra high grade synrutile, is in place. All fluid bed roasters are installed. The calcining section will be ready for commissioning by mid June 2008.



Calciner Installation

The EARS acid regeneration section, the cornerstone of Austpac's technology, is currently being built. Absorption vessels are fabricated and ready for installation. Fluid bed vessels for evaporation, pyrohydrolysis and metallisation to produce the saleable iron pellets will be completed by July 2008.

The tank farm is complete, with spent leach liquor, pickle liquor and fresh acid receive tanks in place. Tanks have also been installed to recycle process water and to capture all storm water run off, both saving water and ensuring that the Plant produces no liquid waste. Austpac's ERMS SR synrutile process is the most environmentally sustainable ilmenite upgrading process available.



Tank Farm

### Stage 2: Commissioning and Production

Commissioning of Stage 2 will begin as scheduled in July 2008, and synrutile/iron pellet production will commence in August 2008 and finish in September 2008.



ERMS SR Synrutile



DRI Pellets

### Plan for 60,000 tpa Synrutile Plant

The data collected during operations at the Demonstration Plant will be used for a detailed engineering and costing study into a 60,000 tpa ERMS SR synrutile plant, which will commence in third quarter of 2008.

### Bankable Feasibility Study

The current program is designed to lead into a full bankable feasibility study for the first commercial ERMS SR synrutile plant.