

29 July 2005

## QUARTERLY REPORT TO 30 JUNE 2005

### HIGHLIGHTS

- The construction of the fully integrated ERMS SR and EARS Demonstration Plant in Newcastle continued during the quarter. The “front end” ilmenite fluid bed roasting and magnetic separation section is nearing completion and will have a capacity equivalent to 1,500 tpa of synthetic rutile.
- A patent application has been made to cover the metallisation of the iron oxide pellets produced by the EARS hydrochloric acid regeneration process. This is a unique feature of the ERMS SR process and has commercial applications extending to the steel industry.
- Austpac commenced an evaluation of potential sites in New South Wales, South Australia and Victoria for an ERMS SR plant. It is envisaged that such a plant will purchase ilmenite from the emerging mineral sand producers to manufacture high grade synthetic rutile for export.
- Negotiations are ongoing regarding funding for the first commercial ERMS SR plant producing high grade synthetic rutile.
- A placement was made in June 2005 to raise \$429,000 for working capital and to maintain progress of the ERMS plant upgrade at Newcastle.

### ERMS SR DEMONSTRATION PLANT

Construction of the ERMS SR (Synthetic Rutile) Demonstration Plant at Austpac’s facilities at Kooragang Island, Newcastle, continued with the integrated fluid bed roasting and magnetic separation section nearing completion. This section, which will comprise a pre-heater, oxidation and reduction roasters, a two stage anaerobic cooler, and an afterburner together with materials handling and magnetic separation equipment, gas and air lines and electrics, will roast ilmenite at a rate equivalent to a nominal capacity of 1500 tpa of high grade synthetic rutile.

During the previous two quarters, the old pilot plant process tower was extensively reconditioned and refurbished, including the installation of the pre-heater, oxidation and reduction roasters and the anaerobic solids cooler, which were all designed and fabricated by Austpac.

During the current quarter the reduction gas afterburner, the reduction roaster cyclone, and the reconditioning and assembly of a cooling tower were completed. Distributor plates for the roasters, which will allow the plant to use coal or gas as fuel, have been fabricated and are being installed. Positioning of the solids transfer lines and the hot gas lines, which incorporate the specially designed “L”-valves and “spade” valves that will be used in the commercial plant, is well underway. Installation of the high pressure air lines and thermocouples has commenced.

Design of the materials handling systems to deliver bulk materials to the top of the plant for processing has been completed and the raw materials hoist shaft has been constructed in the process tower. The balance of the materials handling system will be fabricated on the ground and the enclosed structure will be placed on the tower using a crane.

The "front end" roasting section is scheduled for completion and commissioning during the coming quarter. Work will also commence on the "back end" of the Demonstration Plant, which includes the leaching, calcination and acid regeneration/iron pelletisation sections. While the roasting section will have a capacity 1500 tpa, we are considering enlarging the "back end" of the plant to minimise any scale up risk for the first commercial ERMS SR plant.

The ERMS SR process is unique among SR processes in that it has two valuable products; high grade synthetic rutile and iron pellets. The iron leached from the ilmenite forms iron chloride, which is then processed through the EARS hydrochloric acid regeneration system to produce iron pellets, rather than being wasted as fine iron oxide sludge or dust, as it is in other processes. To preserve this advantage, a patent application was lodged in June 2005 which will ultimately provide worldwide protection over this part of the process. Because the EARS process also has applications in the steel industry, we believe this patent protection will be commercially important in the future

In June, Austpac initiated a study of potential sites for an ERMS SR plant to process ilmenite purchased from the new mineral sand mines that are nearing production in the Murray Basin. These mines have the potential to supply a world class ERMS SR facility, which would be able to produce high grade synthetic rutile from chrome-contaminated ilmenite concentrates that are currently planned to be stockpiled or returned to the mine after removal of the rutile and zircon. Testwork has already confirmed that these ilmenites are amenable to the ERMS SR process.

Site selection criteria include access to ilmenite, proximity to rail transport, suitable port facilities and skilled labour, and the availability and cost of energy. A number of sites in New South Wales, South Australia and Victoria are being evaluated. This work is being undertaken in conjunction with the construction of the Demonstration Plant so that the results can be used in Austpac's ERMS SR final feasibility study.

### **MURRAY BASIN - E.L. 4521, HORSHAM, VICTORIA**

Australian Zircon N L (AZC), which is earning an 80% interest in the WIM 150 deposit, reports that Roche Mining (MT) has recently completed the next phase of metallurgical testing of a bulk ore sample from the resource. AZC advises that a multi-stage wet processing gravity flow sheet has been developed and indicated zircon recoveries of 87%.

AZC has advised that the current testwork results, in conjunction with previous dry mill testwork conducted in 2004, suggest that despite the fineness of the sand and heavy mineral, no significant difficulties should be encountered during processing of this ore.

### **CORPORATE DEVELOPMENTS**

A placement of 13,000,000 fully paid ordinary shares was made at 3.3 cents each to raise \$429,000. This placement was made to Australian professional investors in June 2005 to provide working capital and to maintain progress of the ERMS pilot plant upgrade at Newcastle.

*NOTE: This report is based on and accurately reflects information compiled by M.J. Turbott who is a fellow of the Australasian Institute of Mining and Metallurgy and a member of the Australian Institute of Geoscientists and is a competent person as defined in the Australian Code for Reporting of Identified Mineral Resources and Ore Reserves.*

**Austpac Resources N.L.** is an Australian listed minerals technology company and emerging synthetic rutile producer. Austpac's processes include technology to transform ilmenite into high grade synthetic rutile, a preferred feedstock for titanium dioxide pigment production. They can also be used to beneficiate a range of heavy minerals, as well as process waste chloride streams from a number of industrial operations.