

Level 3, 62 Pitt Street Sydney NSW 2000 GPO Box 5297

SYDNEY NSW 2001

AUSTPAC RESOURCES N.L.

Telephone: (+61 2) 9252 2599
Facsimile: (+61 2) 9252 8299
Email: apgtio2@ozemail.com.au
www.austpacresources.com



# **QUARTERLY REPORT TO 30 SEPTEMBER 2018**

## **Austpac's Zinc & Iron Recovery Process**

The proof-of-concept testwork underway at Austpac's Newcastle plant is designed to demonstrate that the Company's four-stage Zinc Iron Recovery Process (ZIRP) can commercially produce pig iron, zinc oxide and strong hydrochloric acid from iron and zinc oxide-rich furnace dusts and spent-pickle liquor (SPL) generated by the steel industry. The first three process stages (Evaporation, Pyrohydrolysis and Pre-Reduction) are being undertaken at Newcastle and will produce sufficient reduced iron pellets for melt tests in an electric furnace at a commercial foundry.

Work at the plant has focused on the critical first process stage; the EVAP (Evaporation) unit. Three EVAP campaigns have been completed and a total of 350kg Ideally-sized mixed zinc and iron oxide-iron chloride pellets have been produced to date. Each campaign has identified the need for improvements to the prototype EVAP unit that are necessary for continuous operations at steady state. The modifications will be made as soon as funds are available to complete all stages of the proof-of-concept program. Further EVAP campaigns will produce a further 700kg of mixed oxide-chloride pellets for downstream processing through the PYRO & FBPR stages.

The program has attracted the interest of both domestic and international companies:

- An Australian steelmaker who has closely followed the testwork program since its inception believes that the ZIRP process could be used at their facilities to recycle contaminated furnace dusts. Draft agreements regarding the testwork program and subsequent development have been exchanged and are now being progressed by the steelmaker.
- A South African company involved in the treatment of by-products and wastes generated by mining, metallurgical and chemical plants recognizes that the ZIRP technology could be implemented in the local steel industry. Confidentiality Agreements have been signed and a draft agreement is under negotiation.
- Senior representatives of a large Chinese integrated steel mill who recently visited the Newcastle plant have presented a proposal to assist the development of a small commercial ZIRP plant in Australia. The implementation of this proposal is under negotiation

### **EL 5291 Nhill**

Austpac's discovery at Nhill of significant zinc-gold mineralization is the first made at the northern end of the newly recognized ancient island arc; the Stavely Arc. The vertical hole, GG-01, passed through 249m of younger Murray Basin sediments before obtaining 76m of diamond core from the basement. This comprised increasingly strongly to intensely hydrothermally-altered basaltic volcanics, with sulphide mineralisation deposited in fractures, along breccia boundaries and in voids. Pyrite is predominant but is often accompanied by significant sphalerite (Zn sulphide), minor finely disseminated chalcopyrite (Cu sulphide) and anomalous gold. Intercepts included 0.5m (308.0-308.5) containing 3.60% Zn and 0.44g/t Au, and 0.5m at the end of the hole containing 1.20% Zn and 0.2g/t Au.

The identification of the magnetic mineral, pyrrhotite, within the hydrothermal mineral assemblage led to a review of two low amplitude features in the close spaced ground magnetic data. The western feature is 600m in length and trends towards the collar of GG-01, which appears to have been located off the end of that magnetic feature. A second magnetic feature several hundred metres to the east is twice as long as the western magnetic body and is quite separate from the mineralisation encountered in GG-01. Positive anomalies identified in gravity data and coincident with the magnetic anomalies indicates the likely presence of dense, magnetic material within the volcanic basement. These features provide two specific targets for follow-up drilling.

The mineral assemblage observed in GG-01 is typical of the outer halo of a hydrothermal system. Combined gravity and magnetic anomalies are often associated with massive sulphide mineralisation. Austpac's recent analyses of sulphur isotopes in the mineralisation from GG-01 demonstrate an association with sea water at the time of deposition, indicative of a volcanic-hosted massive sulphide origin for the mineralisation.

Further drilling is required to test the two new targets which may represent mineralised lenses that form part of a Cambrian volcanic-hosted massive sulphide deposit.

A number of representatives of mining/exploration companies have examined the core from GG-01 and several companies have signed a confidentiality agreement with a view to an exploration joint venture. Discussions will continue with these and other groups regarding ongoing exploration drilling within EL 5291.

### Corporate

In July 2018, Austpac finalised a placement of 90 million fully paid ordinary shares at \$0.002 with Australian investors to raise \$180,000.

In July 2018, the Converting Note Agreement between Austpac and the Bergen Global Opportunity Fund II, LLC ("Bergen"), announced to the market on 11 January 2018, terminated by mutual consent of the parties. The converting notes issued under the Agreement have been converted in full. The funds raised under the Agreement were utilized for working capital and the progression of the Newcastle Zinc Iron Recovery project and international applications of Austpac technologies.

For further information please contact: Mike Turbott Managing Director - Tel (+61 2) 9252 2599

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 Fellow 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.

#### About Austpac Resources N.L. (ASX code: APG)

Austpac Resources N.L. is a mineral technology company currently focused on recycling waste chloride solutions and iron- and zinc oxide dusts produced by steelmaking to recover strong hydrochloric acid, high purity pig iron and zinc oxide. Austpac's adjunct technologies also transform ilmenite into high-grade synthetic rutile, a preferred feedstock for titanium metal and titanium dioxide pigment production. The Company has been listed on the Australian Stock Exchange since 1986.