



QUARTERLY REPORT TO 31 DECEMBER 2018

- Testing the two massive sulphide targets indicated by detailed gravity and magnetic surveys at Nhill is a prime focus of Austpac. Completing drilling during the first half of 2019 will ensure Exploration Licence 5291 will be renewed later in the year. Additionally, further intersections of significant zinc-gold mineralisation would confirm the discovery of the first volcanogenic massive sulphide occurrence found north of Horsham in this hitherto unexplored region of Western Victoria. This achievement would have a large impact on the Company.
- Also essential to Austpac is the recognition by steel makers that our furnace dust recycling technology adds significant value to the industry. This requires the completion of the Proof of Concept test program at Newcastle, the success of which will convince steel companies to invest in projects that use our technologies at their facilities.

Exploration Licence 5291 (Nhill)

The Nhill massive sulphide discovery is considered an excellent opportunity to make an immediate impact on the future of the Company. Undertaking further drilling in the first half of 2019 will be critical to ensure renewal of the Licence in August 2019.

The first drill hole at Nhill, GG-01, intersected very encouraging zinc-gold mineralisation beneath a cover of younger sediments, including 0.5m at 3.6% Zn & 0.44 g/t Au from 308m, and 0.5m at 1.2% Zn & 0.20 g/t Au from 324m (the end of the hole). This is the first significant buried zinc-gold massive sulphide mineralization occurrence at the northern end of the newly recognized ancient island arc, the Stavely Arc, a region that has been inaccessible to prospectors due to the thick sediment cover and neglected by major resource companies.

The discovery hole passed through 249m of sediments before encountering increasingly strongly to intensely hydrothermally altered Cambrian-aged 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. This mineral assemblage is typical of the outer halo of a hydrothermal system.

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 GG-01. The hole is located off the end of that magnetic feature and the intercepts in GG-01 are interpreted as the distal end of a lens of massive sulphide mineralisation. Thus, the first hole did not test the main part of the inferred sulphide zone.
- A second magnetic feature 400m to the east is twice as long as the western magnetic body and is quite separate from the mineralisation encountered in GG-01. It represents a distinct but equally attractive drill target.

The two magnetic anomalies are coincident with positive anomalies in the gravity data, indicating the likely presence of dense, magnetic material within the volcanic basement. Combined gravity and magnetic anomalies are often associated with massive sulphide mineralisation, and 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.

Both targets will be tested in the proposed drilling program. A successful program will certainly attract the support of large companies who have yet to engage with the new geological concepts in this flat region of broad-acre farming where native vegetation is extremely rare.

Austpac's Zinc & Iron Recovery Process

The Proof of Concept (PoC) testwork program at Newcastle is designed to confirm that the reduced iron and zinc oxide pellets produced by the first three stages of the ZIRP process (EVAP, PYRO and FBPR) can produce high quality pig iron and zinc oxide when melted in an electric furnace at a commercial foundry. The program is being conducted in campaigns, and commenced with Stage 1 (EVAP), which has so far produced a total of 350kg ideally-sized mixed zinc and iron oxide-iron chloride pellets. It is planned to produce a further 700kg of these pellets to ensure there is a sufficient volume for processing through the next two stages. Operations of the EVAP unit give confidence that this equipment can be scaled up for a commercial operation.

Completion of EVAP testwork and the operation of the two subsequent stages, PYRO and FBPR, will commence as soon as funds are available. These stages have been previously undertaken at Newcastle using fine iron oxide dusts, so we are confident that zinc-contaminated dust will also produce strong hydrochloric acid and pre-reduced iron and zinc oxide pellets for the melt tests.

A major Australian steel-maker closely associated with the PoC testwork has recognised that the use of the ZIRP process to recycle their zinc-contaminated furnace dust is an economic option. It is anticipated that completion of the PoC testwork will enable the steel-maker to establish a ZIRP plant within their facilities to produce pig iron and strong HCl for reuse internally, and zinc oxide for sale. Regular meetings are being held with this steel-maker. Several other steelmakers have also expressed genuine interest in our ZIRP process, subject to the PoC program demonstrating the viability of the technology.

A South African company involved in the treatment of industrial by-products and wastes has recognised that the ZIRP technology is capable of recovering iron from iron oxide wastes produced by the local steel industry. That company recently made a proposal to one steel mill to use the Austpac iron recovery process to recycle the very fine iron oxide dusts produced by the mill's furnaces and discussions are continuing. Austpac is collaborating with a metallurgist with 45 years' operational and management experience in the South African steel industry to identify additional opportunities in the country.

During the second half of 2018, executives from a Chinese steel mill visited the Newcastle facility several times and expressed an interest in working with Austpac to advance the PoC testwork program and fund a small commercial ZIRP plant in Australia. Draft agreements have been exchanged and the proposal is under consideration by the steel mill's management, who also recently expressed an interest in Austpac's ilmenite processing technology. Regular discussions are being held with this group.

Corporate

Since the end of the December 2018 quarter Austpac has lodged a Research and Development tax Concession refund application for \$318,003 for 2018. In January 2019 Austpac announced a placement of 108,500,500 fully paid ordinary shares at \$0.002 with Australian investors to raise \$217,000. Austpac intends to announce a Shareholder Share Purchase Plan in February 2019.

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NOTE: This report is based on and accurately reflects information compiled by M.J. Turbott, FAusIMM and FAIG, 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.