



Kalgoorlie Miner

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Heron hopes for second coming

By Charles Amery

A RECENT technical discovery could see the second coming of the nickel laterite boom and one of the big winners is certain to be Heron Resources, owners of the Kalgoorlie Nickel Project. While KNP is not expected to be in production until 2013 it has the potential to be a 25-year 50,000 tonne a year producer.

Recent screen upgrade test work on samples from its reverse circulation drilling at the Highway Project, part of the \$1.4 billion KNP in agreement with joint venture partner Inco, showed some amazing grade improvement.

One hole returned 30m at 0.53 per cent nickel in head assay then screened to 30m at 1.72 per cent. An amazing grade enhancement of 308 per cent.

It is more than 10 years since the first laterite crusade when what was generally regarded as pretty worthless gravelly dirt caught the imagination of the investing public but the difficult and costly high pressure acid leaching soon saw the boom go bust.

The majors now believe laterites again to be the future of nickel, a point underscored by Heron's KNP farm-in and joint venture with Inco, and the latest screening techniques are providing a massive value added dimension to nickel recovery.

In essence low grade ore is screened through a sub-100 micron mesh to deliver material with much higher grading at the autoclave.

Screening work by Heron showed leach feed grades in line with expectations when using 75 micron screening but when finer screens were used enhanced results showed upgrades averaging 120 per cent above a one per cent leach feed grade cutoff.

The Pressure Acid Leach (PAL) processing of laterite has already been proven at Cawse and Moa Bay and is under construction for Inco's Goro and BHP Billiton at Ravensthorpe.

Heron said the results demonstrated the real potential to exceed their already high target of 1.5 per cent nickel as a leach feed for the Kalgoorlie Nickel Project.

The enhancement of grades by as little as 0.1 or 0.2 per cent had a "potentially significant impact on the project economics."

The beneficiation process, as undertaken on the reverse circulation drill chips, involves a mild agitation and simple physical screening and Heron believes the process may be optimised at mining and plant operating scale to further improve results.

Heron's chief operating officer Mat Longworth said recent results gave Heron encouragement that a 1.5 per cent nickel leach feed to the autoclave was achievable.

"The results indicate that with continuing refinement higher leach feed grades are possible leading to greater resource utilisation. It further demonstrates the project's potential to convert large tonnages of low grade siliceous mineralisation to the 1.5 per cent leach grade feed the project is targeting," Mr Longworth said.

Heron and Inco are committed to moving towards commissioning the KNP as feasibility study milestones are met with Inco sole funding all the studies. Currently the Goongarrie nickel laterite project is Heron's leading project, incorporating 521 sqkm within 44 tenements between 50 and 130km north-north west of Kalgoorlie.

It is not only Heron that is relying on laterites to be a nickel producers Holy Grail. BHP Billiton's Ravensthorpe Project and Inco's Goro in New Caledonia will fire up mid-2007, with Ravensthorpe already having shown that silica laterite ores grading less than one per cent nickel can be upgraded by around 50 per cent simply by screening out the barren coarse fraction.

Perth-based independent analyst John Macdonald, who spent many years researching Anaconda in the first boom, believes around 50,000 tonnes of new nickel capacity is needed each year just to satisfy the current growth in world demand.

The question of whether the screening breakthrough has put the nickel industry on the edge of a new laterite boom will soon be answered.



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Screen upgrade: New screening techniques have the potential to greatly enhance nickel leach feed grades.