

An insight from Heron's Project Manager for the Jump up Dam Project **Kevin Reynolds**



With over 20 years experience as a metallurgist and nickel hydrometallurgy can you give us a brief summary of your working background?

I started out in operations, in gold CIP plants, and base metals flotation plants and worked up to the level of Metallurgical Superintendent. Then I shifted to project development work and spent 5 years working on the Olympic Dam expansion project, as a senior process engineer through pre-feasibility and definitive feasibility and finished in a commissioning management role. While with WMC Copper Uranium Division, I also spent half a year working on Nifty Copper Operation undertaking process optimisation and business modeling prior to its sale, which is where I gained most of my heap leach knowledge.

From there I spent 4 years working for engineering companies including SNC Lavalin and GRD Minproc, on various projects. My major experience with nickel laterite was with LNC Lavalin on the Murrin Murrin project and the Syerston project in NSW.

I then joined MPI Mines in 2003, who were subsequently taken over by LionOre in late 2004. There I managed the expansion of the Black Swan Concentrator and the development of the Black Swan Disseminated open pit, as well as the Honeymoon Well Project feasibility study.

Where were you before your new role with Heron?

Group Projects Manager for LionOre as above, based in Perth. In this role I gained additional nickel hydrometallurgical experience while managing the Honeymoon Well study, which included LionOre's patented Activox concentrate leaching process.

What do you do for fun outside of work?

I enjoy motorcycling, and compete in a form of off road motorcycle sport called Observed Trials, together with my two boys (aged 12 and 15).





Project Manager for the Jump up Dam Project **Kevin Reynolds**

You were appointed Project Manager for Jump-up Dam earlier this year, what does your role with Heron entail?

Managing the development of the Jump-up Dam project through the feasibility study phases, the construction phase and finally into production. The study phase entails pulling the individual mining disciplines of geology and resource, the mine design and schedule, metallurgical testwork, flowsheet design, plant design and configuration together, along with the infrastructure and all the environmental and regulatory studies and approvals to arrive at a firm project capital and operating cost estimate and implementation plan from which to base a project go ahead decision.

Following all that, management of the execution (construction) phase and input into the ramp-up for operations.

How does that compare with your previous roles?

Including my work on the "other side of the fence" with engineering companies, I've been doing various facets of the role for over 10 years. Since 2003 however I have had roles covering all disciplines. The work I did with MPI and LionOre was very similar to this role, where metallurgy is a key project driver.

There seems to be a lot of talk recently about heap leach operations? Can you explain simply what they are and why they seem to be becoming more popular?

They are a lower capital cost option for leaching ores, provided that they are amenable. Basically, the technique involves percolating leach solution through a stack or heap of ore, and collecting the leach solution from a drainage collection pipe system at the bottom of the heap. The tricks are ensuring that the heaps remain free

draining. There is considerable "art" in heap leach design and operation.

Because of the cost structure, they are being looked at for smaller, or lower grade deposits which can not support the cost of more intensive leaching methods like HPAL (high pressure acid leaching). However, they may yet prove to be a competing technology alongside HPAL for some ore types.

How is Jump up Dam currently progressing?

The resource exploration side of the work is going really well, ahead of schedule and within budget, due to the good work of Heron Exploration Manager Dave Von Perger and his team. Metallurgical testwork is progressing steadily, but this will be one of the rate determining steps for the project. We have just employed Senior Metallurgist Mark Haslam, who was formerly with Independent Metallurgical Laboratories, to take charge of the testwork and Process Development within the Heron Project Team. We are working in a new technology area, and are one of the first to apply the technology in the Australian arid environment.

The initial scoping study is just about complete, and we know that we have to scale the project at 10,000 tpa Ni production as a minimum, and are looking for upside opportunities to enhance the project further. We are looking to start the pre-feasibility study stage in April this year and a definitive study towards the end of the year.





Project Manager for the Jump up Dam Project **Kevin Reynolds**

What about the regional exploration program around Jump up, how is that fitting in with the main project and what kind of impact could Jump up have on other nearby projects?

Boyce Creek and Aubils will be important ore sources for an expanded Jump-up Dam Project. I can see potential for a 20,000 tpa Ni project based on good results from these areas, which significantly improve the project.

Other laterite deposits within trucking distance could be treated at Jump-up Dam, so it could offer other opportunities to other projects.

How are you enjoying the role at Heron? What do you see are the project's biggest positives as well as its challenges?

I've settled in well and enjoy working with all the Heron team, who have been very supportive. I have come in at the end of the scoping study, without having any input to it, so there has been a flurry of activity up front.

The greatest positive I see is that this technology may open up a significant number of smaller sized laterite projects.

Maintaining an aggressive project development schedule, while undertaking testwork is a challenge, but it is also a positive as it keeps us focused. Also key is building up quality teams and sound knowledge bases both within Heron and within our consultant teams, particularly as we are operating in a boom cycle where people are more difficult to find.

