

27th October 2016

Third and final stage of Ngualla Processing Flowsheet confirmed

Highlights

- Feasibility of Peak’s three-stage processing flowsheet has been confirmed following completion and positive results from Leach Recovery Pilot Plant (“**Pilot Plant**”)
- Pilot Plant demonstrated leach recovery flowsheet to be robust whilst delivering high recoveries (>90%) of the target magnet metals neodymium and praseodymium (“**NdPr**”).
- Successful completion of this third and final Pilot Plant campaign will feed valuable engineering data into the Bankable Feasibility Study (“**BFS**”) which is due for completion in first half of 2016

Peak Resources Limited (“**Peak**”; ASX Code: PEK) is pleased to announce the successful completion of the Leach Recovery Pilot Plant, a key milestone in enabling the Ngualla Project (“**Ngualla**”) to become a low operating and capital cost project, capable of producing high value, high demand rare earths for use in the magnet metal market.

Testing of the Leach Recovery process, developed by Peak’s metallurgical team specifically for the low carbonate and low phosphate bastnaesite mineralisation present at Ngualla, was completed at ANSTO Minerals (“**ANSTO**”) dedicated piloting facility at Lucas Heights, New South Wales.

The validation of the Leach Recovery process follows the earlier validation of the Beneficiation and Separation processes (both of which were operated to pilot plant phase) and allows Peak to demonstrate a clear and viable processing pathway from Run-of-Mine ore to the production of saleable rare earth products (see Figure 1).

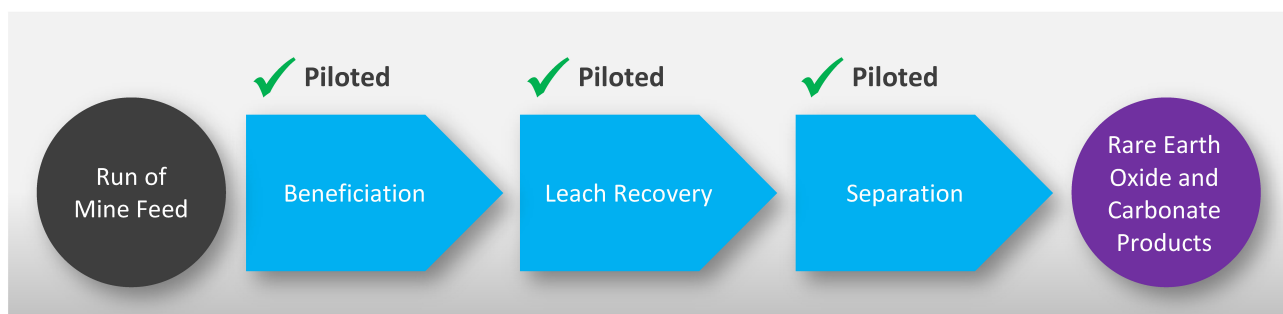


Figure 1: Pilot Plant status of the three stage process developed by Peak for Ngualla’s rare earth mineralisation

Key results from the Pilot test program include:

- High NdPr leach recoveries (>90%) confirmed along with low dissolution of cerium and gangue elements during the selective leach
- Environmental waste characterisation on solids residues undertaken by ANSTO to European Standards demonstrated the process residues to be stable and inert leading to low waste disposal costs
- The successful Pilot Plant was witnessed by Peak's engineers AMEC Foster Wheeler and attended by equipment vendors

Peak's Managing Director, Darren Townsend, commented that the Company was pleased to have completed this final milestone before completion of the project Bankable Feasibility Study.

"The completion of the Leach Recovery pilot plant unequivocally demonstrates Peak's enviable advantage of having favourable mineralogy at Ngualla which is capable of delivering a product suite that is aligned to the high demand and value magnet metal market.

"We are confident that with our processing flowsheet confirmed as both technically feasible and deliverable at low operating and capital costs compared to our industry peers that the Ngualla Project is on track for near-term development".

A detailed technical report on the Leach Recovery Pilot Plant is located in Appendix 1.

For and on behalf of Peak Resources Limited.

Darren Townsend
Managing Director

Metallurgy

The information in this report that relates to Metallurgical Test Work Results based on information compiled and / or reviewed by Gavin Beer who is a Member of The Australasian Institute of Mining and Metallurgy and a Chartered Professional. Gavin Beer is the General Manager Metallurgy of the Company and has sufficient experience relevant to the activity which he is undertaking to be recognised as competent to compile and report such information. Gavin Beer consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

Appendix 1- Detailed Technical Report

Further to Peak's ASX announcement titled "**Final BFS Pilot Plant Commences**" of 19 May 2016, Peak is pleased to announce the successful completion of the Leach Recovery Pilot Plant at ANSTO's Lucas Heights piloting facility in NSW.

The feed for the Pilot Plant was the high grade (>40% REO) concentrate produced by the successful Beneficiation Pilot Plant (see ASX announcement "**Concentrate Grades Exceed Expectation in Pilot Plant Testwork**" of 30 December 2015).

The Pilot Plant comprised of continuous, sustained campaigns along with programs of individual stage optimisation of Peak's novel Leach Recovery flowsheet (Figure 2).

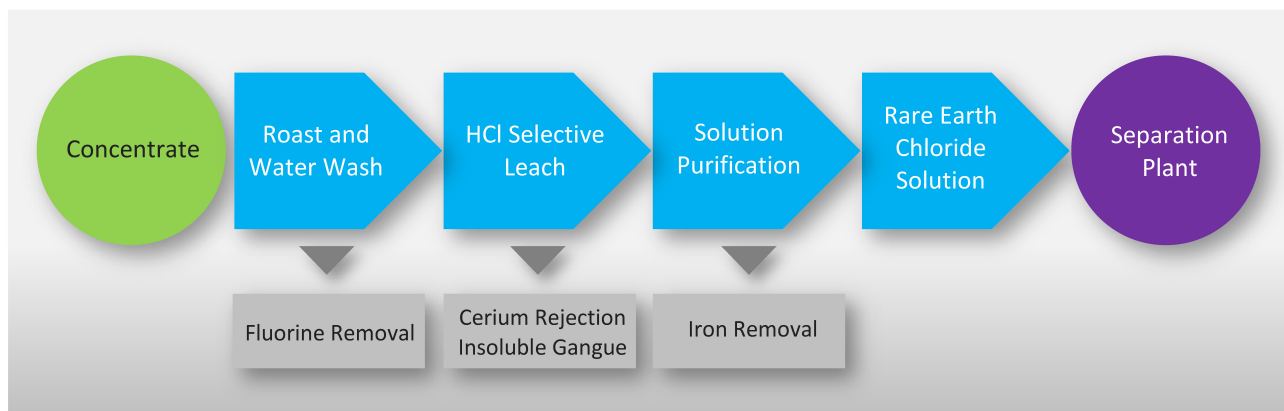


Figure 2: Simplified overview of Peak's Leach Recovery Pilot Plant

The pilot plant successfully demonstrated the new selective leach flowsheet developed by Peak, a flowsheet that is a significant improvement on the previous Preliminary Feasibility Study ("**PFS**") process.

The Leach Recovery process is a key factor in Ngualla's low operating and capital costs and in aligning the final products to the high demand magnet metal rare earth market.

The advantages of Peak's leach flowsheet are:

- Limited processing stages
- Low plant Capex cost due to smaller plant of modular designed polymer tanks
- Use of a simple and dilute acid process
- Low operating costs due to low reagent consumption
- Early rejection of the majority of the low value Cerium and deleterious Iron without consuming acid
- Focus on recovering high value magnet metals
- Minimisation of the extraction of deleterious elements thereby simplifying the purification stage

The Pilot Plant program incorporated the following phases:

- Initial optimisation of the dry roasting process via four runs lasting 10 to 24 hours in duration
- Campaign 1 roasting for four days continuously
- Campaign 1 through the water wash, selective leach and purification circuits for five days continuously
- Campaign 2 roasting for five days continuously evaluating three different roasting temperatures
- Scale up (100L) wash and leach reactor testwork on Campaign 2 samples
- Vendor testwork on Campaign 2 samples
- Environmental assessment of solids residues

Final Campaign Pilot Plant by stage is shown below.

Alkali Roasting

The high grade bastnaesite concentrate was combined with soda ash through an auger type mixer and fed to an indirect fired tube furnace. As this is a dry, acid free process, the kiln design and operation is simple and scrubbing requirements are minimal.



Figure 3: ANSTO Pilot Plant roaster and products at varying temperatures (inset)

Selective Leaching

A low strength hydrochloric acid leach was employed to selectively target the desired rare earths (NdPr) whilst rejecting cerium along with gangue elements such as iron. Extractions exceeding 90% for the NdPr were demonstrated during the program.

Solution Purification

Residual leach impurities were removed by precipitation using lime slurry. The precipitate was removed from the solution using simple filtration.

The filtrate, depleted in cerium but rich in the high value NdPr, was confirmed as suitable feed to the solvent extraction separation circuit as previously piloted.

Effluent Treatment

The Pilot Plant successfully demonstrated the effluent treatment process on the waste streams. The recovered solids were subjected to environmental waste characterisation testwork (see Figure 5).

Ancillary Programs

Vendors were onsite during operation of the Pilot Plant to present to collect data for engineering design. Thickening and filtration tests were undertaken by the vendors on the following samples:

- Water wash residue slurry
- Selective leach slurry
- Purification slurry
- Effluent Treatment slurry

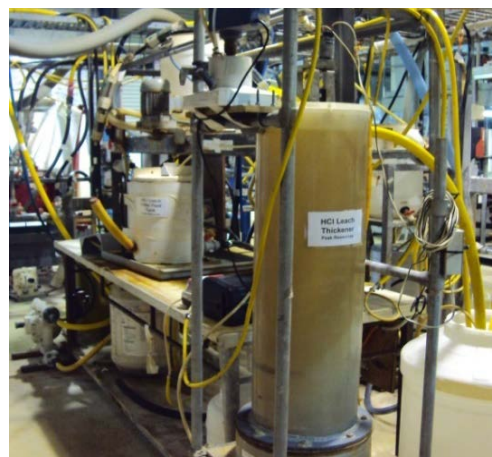


Figure 4 and 5: Leach and Purifications sections of the Pilot Plant at ANSTO



Figure 6: Effluent Treatment Circuit



Figure 7: Pressure Filtration Test Rig

ANSTO undertook environmental waste characterisation tests on solids residues from the leach and water treatment circuits. Tests were conducted according to European Standard procedures and concluded that all plant solid wastes are stable and inert.