
Australian Securities Exchange Announcement

19 December 2018

King River Resources Limited (ASX: KRR) is pleased to advise that ongoing metallurgical testwork from the company's 100% owned Speewah Vanadium Project ("SVP") in the East Kimberley of Western Australia continues to support an alternative development plan.

The Board has re-prioritized most studies around the focus for a much more flexible, modular engineered strategy that better takes into consideration the advantage of owning such a large vanadium resource that is consistently disseminated, flat lying and outcrops at surface.

This new development project plan will most likely include:

- ❖ on-site sulphuric acid vat leaching and the processing of V_2O_5 , TiO_2 , iron oxide and other high purity products (vanadyl sulphate and high purity alumina).
- ❖ possible on-site production of acid, which produces surplus heat, steam and electricity.
- ❖ potential for scalability and the potential of capital and operating cost savings, whilst increasing and diversifying product outputs and revenue opportunities.

Testwork and studies underway will re-examine the following:

- open pit mining of the large Central Vanadium deposit.
- beneficiation of lump magnetite gabbro or coarse magnetite-ilmenite concentrate.
- on-site sulphuric acid (H_2SO_4) vat leach-SX processing of a lump gabbro and/or coarse concentrates.
- production from a sulphuric leachate of high purity Vanadium Pentoxide powder ($>99.5\% V_2O_5$) and standard grade Vanadium Pentoxide flake ($>98\% V_2O_5$), Titanium Dioxide products (pigment grade and high purity $>99\% TiO_2$), and iron oxide hematite (Fe_2O_3). The best means being tested to extract the metals from the sulphuric acid leachate solutions, include solvent extraction, ion exchange, thermal hydrolysis and chemical precipitation.
- production of other high purity-high value products, including Vanadyl Sulphate (used to manufacture Vanadium Electrolyte used in vanadium flow batteries), High Purity Alumina (HPA) products (used in the manufacture of LED and semiconductor substrates, scratch proof glass and lithium-ion battery separator coatings), Magnesium Oxide, and Pig Iron.
- on-site sulphuric acid plant to produce acid and steam for process heating and power generation or the alternative of imported acid and/or contract power generation.
- in-pit waste disposal to optimise rehabilitation and reform the landscape to be assessed.

The next phase of pre-feasibility (PFS) work examines more detailed costings of beneficiation of various ROM lump sizes and coarse-grained concentrates, and also reviews in more detail the capital and operating costs for a vat leach operation and sulphuric acid plant. Successful conclusion of these tests and studies will lead to the planned publication of a PFS Study in 2019.

Results pending in coming weeks include:

- Magnetic separation results for a -2mm magnetic concentrate.
- Bottle roll sulphuric acid leach results on lump gabbro rock crushed to 3.35mm, 5.6mm and 10mm, including V, Ti and Fe extractions, acid consumption and mass loss.
- Bottle roll sulphuric acid leach results on 2mm magnetic concentrate, including V, Ti and Fe extractions, acid consumption and mass loss.
- Mini vat sulphuric acid leach results on 3.35mm lump gabbro, examining the effects of increased temperature and acid strength control on V, Ti and Fe extractions, acid consumption and mass loss.

This work will lead into larger scale vat leach testwork and a focus on extracting the V, Ti and Fe products from the leach solutions.

Anthony Barton
Chairman
King River Resources Limited

Statement by Competent Person

The information in this report that relates to Exploration Results, Mineral Resources, Metallurgy and Previous Studies is based on information compiled by Ken Rogers (BSc Hons) and fairly represents this information. Mr. Rogers is the Chief Geologist and an employee of King River Resources Ltd, and a Member of both the Australian Institute of Geoscientists (AIG) and The Institute of Materials Minerals and Mining (IMMM), and a Chartered Engineer of the IMMM. Mr. Rogers has sufficient experience of relevance to the styles of mineralisation and the types of deposits under consideration, and to the activities undertaken, to qualify as a Competent Person as defined in the 2012 Edition of the Joint Ore Reserves Committee (JORC) Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Mr. Rogers consents to the inclusion in this report of the matters based on information in the form and context in which it appears.