QUEENSLAND PACIFIC METALS

HPA Technology License Heads of Agreement Executed with Lava Blue

Highlights

- ✓ **Heads of Agreement executed with Lava Blue regarding use of their proprietary HPA technology in the TECH Project.**
- ✓ **Lava Blue will play an integral role in the HPA section of the TECH Project DFS including testwork, piloting and direct support to engineers.**
- ✓ **Engineering consultants Engenium to undertake HPA DFS – Engenium has worked with Lava Blue for several years and is involved with development and construction of Lava Blue's demonstration plant**
- ✓ **Lava Blue is a mineral resources and material science company that is focussed on the science and engineering of HPA production. Lava Blue has successful produced 4N+ HPA from a variety of feedstocks and is working closely with Queensland University of Technology on de-risking controls and scale up of its proprietary process.**
- ✓ **The partnership with Lava Blue will significantly advance QPM's progress on HPA, leveraging off the knowledge and expertise of an industry expert, which will allow QPM to maintain its focus on the production of net negative carbon nickel and cobalt sulfate.**

Queensland Pacific Metals Ltd (**ASX:QPM**) ("**QPM**" or "the **Company**") is pleased to announce that it has executed a binding Heads of Agreement with Lava Blue regarding the licensing of Lava Blue's proprietary technology for HPA production and the joint development of a Definitive Feasibility Study ("**DFS**") for HPA production at the TECH Project.

Lava Blue's technology is based around the conventional hydrocloric acid leach, which was the base case for QPM. The technology centres around the ability to deal with trace impurities, process control, and demonstration plant confirmation of designs.

Based on due diligence undertaken by QPM and discussions between the two companies, both QPM and Lava Blue are confident the Lava Blue process will be able to successfully refine TECH Project aluminium hydroxide feedstock into 99.99% ("**4N**") high purity alumina ("**HPA**").

The initial phase of the partnership, which has already commenced, involves Lava Blue undertaking lab scale testwork to produce 4N HPA from aluminium hydroxide produced from QPM's pilot plant. To ensure success, Lava Blue will undertake detailed characterisation testwork to confirm that problem impurities can be identified and dealt with as part of the process.

QPM will also engage Engenium to undertake a DFS on a HPA Refinery for the TECH Project. Engenium is a leading engineering consultancy who has worked closely with Lava Blue. This feasibility study, undertaken in conjunction with Lava Blue, will be undertaken in parallel with other DFS activities and will be finished in time with and form part of the final TECH Project DFS.

QPM Managing Director Dr Stephen Grocott commented,

"From our Pre-Feasibility Study, it was evident that HPA production is a significant value enhancer for the TECH Project. We are delighted to work with Lava Blue and their partners QUT and Engenium. This jnt development significantly advances us with respect to achieving commercial production of HPA at the TECH Project. By leveraging off Lava Blue's technical expertise and networks in HPA, we will be able to maintain our focus on the production of net carbon negative nickel and cobalt, whilst ensuring the HPA opportunity is not left behind."

Lava Blue Managing Director Michael McCann commented,

"*The collaboration with QPM was a tremendous validation of the approach Lava Blue had taken to the issues of making HPA. Like a lot of materials that are required for the production of batteries, the challenges of making HPA are not obvious until you are attempting to do it repeatedly, and with the aim of achieving highly controlled and consistent outcomes. We see QPM taking a very similar approach to the scaling up of the Direct Nickel Process™. We look forward to working with QPM on the manufacturing of HPA as part of their incredibly exciting TECH project."*

Terms of the Agreement

The key terms of the Heads of Agreement are detailed below:

- Initial fee: $25k;
- DFS completion fee: $75k;
- QPM makes a Final Investment Decision to construct HPA Refinery fee: $100k;
- Commercial plant commissioning fee: $250k;
- Royalty payable on commercial HPA production (commercial in confidence);
- 18 month exclusivity period where QPM will not enter negotiations with another HPA technology supplier;
- QPM can terminate if the initial phase testwork fails or if Lava Blue causes material delays to QPM during the DFS for the HPA Refinery; and
- Long form agreement to be entered into between the parties.

About Lava Blue

Lava Blue Ltd is a mineral resources and materials science company that has been focused on the science and engineering of HPA production from a variety of feedstocks.

Working in conjunction with the Queensland University of Technology and Engenium, Lava Blue has been methodically de-risking the controls and scale up of proprietary processes for production of +4N HPA.

Having initially focussed on manufacturing of HPA from an aluminium rich but unconventional clay, the Lava Blue process has been demonstrated to be able to control a wide range of impurities. They have now produced HPA from a number of very different feedstocks and have commenced work on material supplied by QPM as they prepare to apply their proprietary knowledge to production of HPA for QPM.

They are now building a 20kg batch demonstration plant in Brisbane, which will validate all unit operations,

materials of construction and processes and, when combined with machine learning, will result in advanced and flexible process controls. The Lava Blue demonstration plant is currently under construction and will be operational in the first half of 2022.

For more information visit www.lavablue.com.au

Figure: +4N HPA at right manufactured from kaolin at left with intermediary products in the vials between.

Figure: The Lava Blue research facility under construction in Redlands, Brisbane. The 440 sq m, 6 m high, steel structure will be operating early in 2022 and will conduct repetitive process validation operations, producing 20kg batches of HPA from various materials while developing process control options for commercial scale production.

This announcement has been authorised for release by the Board.

QUEENSLAND PACIFIC METALS

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