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## NOVAPHOS (JDCPhosphate) MOVES TO COMMERCIALISE SUPER-PHOSPHORIC ACID TECHNOLOGY

Avenira Limited ('Avenira' or the 'Company') (ASX: AEV) is pleased to provide an update regarding US-based company JDCPhosphate, Inc, of which Avenira owns a 7% interest. JDCPhosphate has announced that it is moving to commercialise its proprietary technology and changing its name to Novaphos Inc.

### HIGHLIGHTS

- JDCPhosphate, Inc. changing name to Novaphos Inc.
- Novaphos has been able to achieve phosphate yields of about 80%
- Novaphos is moving to commercialisation of its technology
- Avenira owns 7% of Novaphos and has exclusive rights to use its technology in Australia and Senegal

The Novaphos technology, formerly called IHP, enables sustainable production of high-quality super-phosphoric acid (SPA) using low-quality phosphate rock without creating phosphogypsum waste.

Novaphos' carbo-thermal reduction and oxidation process recovers phosphate from low-quality phosphate sources, including previously processed mine tailings, and avoids direct acidulation of phosphate rock, thereby minimizing the amount of waste and completely avoiding production of phosphogypsum. Instead of phosphogypsum, the Novaphos process co-produces solid balls from which phosphate has been extracted during processing, a commercially useful aggregate for construction and road building called J-Rox.

During the first calendar quarter of 2019, building on recent achievements at its demonstration plant in Fort Meade, Florida, Novaphos made additional improvements to its technology, further enhancing its efficiency and reliability. The Novaphos technology is now achieving phosphate yields of about 80%. Acid quality also continues to improve, with impurities at about 2% of SPA-equivalent acid, with strong potential for further improvement at commercial scale.

Novaphos has initiated a process of engagement with major phosphate producers and engineering companies to fully commercialise the Novaphos technology.

*"Avenira is excited to see the very strong results announced today by Novaphos"* said Louis Calvarin, Avenira Managing Director. *"The recent Novaphos achievements represent very promising next-step development opportunities for our Wonarah project in Australia as well as at our Baobab project in Senegal, and will factor in our strategic plans."*

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Novaphos continues to run its demonstration plan using only low-quality phosphate rock tailings, containing an average of about 14% phosphate as  $P_2O_5$ , with high levels of silica and other impurities, including magnesium.

Avenira has exclusive licence rights to use the Novaphos technology in Australia and Senegal, where it has phosphate projects, for an extended period.

Louis Calvarin  
Managing Director  
Avenira



## About Avenira Limited

Avenira Limited (ASX: AEV) is a phosphate rock mining company with a vision to develop a portfolio of agricultural minerals and production assets that will build long term shareholder value by supplying to the world the agricultural nutrients critical to global food security.

Our flagship asset is the 80% owned Baobab Phosphate Project located in Senegal, West Africa. During the 2017 calendar year, the Company established its strategic plan for the Baobab Project, focused first on a redevelopment of Baobab's Gadde Bissik mine to bring it to a profitable operational higher level, and subsequently on implementing next-step investments towards its longer-term objective of downstream integration.



*Phosphate Concentrate Production*



*Gadde Bissik Pit*

Under the plan to redevelop the Baobab Phosphate Project the Company engaged engineering firm Hatch to conduct a conceptual study which delivered positive results detailed in the Company's announcement of 17 October 2017. Following the positive conceptual study and successful completion of its Entitlement Offer and Placement capital raising, the Company embarked on the next phases of its strategic plan, to include more detailed engineering work, approvals and financing, and the Company appointed Wood Group PLC as lead engineering consultants for the first phase of the feasibility study, which delivered strong results detailed in the Company announcement dated 18 March 2019.

The Company also owns approximately 7% interest in Novaphos Inc. (formerly known as JDCPhosphate, Inc.), a private company in the USA focused on the development of a potentially game-changing proprietary high-quality super-phosphoric acid production technology. Avenira has exclusive license rights to use the IHP in Australia and Senegal once commercially proven.

The Company's other asset is the 100% owned Wonarah Phosphate Project in the Northern Territory. The project forms part of the Company's long-term strategy and will be enabled by the IHP process. Wonarah is one of the largest known phosphate deposits in Australia.

For further information on the company please refer to the company's website at [www.avenira.com](http://www.avenira.com).