



**Pilbara
Minerals**

...Powering a Sustainable Energy Future

ASX / MEDIA ANNOUNCEMENT

2 January 2019

POSCO AND PILBARA MINERALS TO EVALUATE LARGER DOWNSTREAM CHEMICAL FACILITY IN LINE WITH CONTINUED GROWTH OF PILGANGOORA

Strong demand from South Korean customers and their partners encourages POSCO and Pilbara Minerals to consider a larger South Korean JV chemical conversion facility, to be supported by additional offtake from the Pilgangoora Project

HIGHLIGHTS

- POSCO and Pilbara Minerals sign a non-binding MoU to consider a larger jointly owned chemical conversion facility of up to 40ktpa LCE (currently 30ktpa LCE), based on the patented PosLX purification process to produce industry leading, high-grade hydroxide and carbonate products.
- As part of the agreements under consideration, the existing offtake agreement for spodumene concentrate from the Pilgangoora project would increase to support the jointly owned South Korean JV chemical plant from 240ktpa to 315ktpa of spodumene concentrate (dry metric tonnes basis) over the life-of-mine (LOM).
- Pilbara Minerals' right to participate as a 30% joint venture partner in the South Korean JV chemical plant is required to be exercised on or before 28 February 2019, with final documentation and board approvals to be completed in May 2019.
- Due diligence activities assessing the proposed joint development in South Korea are underway, with key commercial terms of the joint venture (previously agreed between the parties) expected to be formalised in joint venture documentation in the coming months, including a technology licensing agreement for the patented PosLX purification process.
- Stage 2 DFS results, existing Ore Reserves¹ and associated project engineering provide potential flexibility in the design and layout of the Pilgangoora project to facilitate a future expansion beyond the 5Mtpa Stage 2 project ("Stage 3").
- Initial Stage 3 studies are underway which proposes ultimate ore processing capacity of up to 7.5Mtpa, but with the ability to initially configure an interim step to process 6.2Mtpa, delivering up to 1,000,000 tonnes per annum of spodumene concentrate or over 130Ktpa on an LCE basis.

Australian lithium producer Pilbara Minerals Limited (ASX: PLS) ("Pilbara Minerals" or "the Company") is pleased to advise that it has executed a non-binding Memorandum of Understanding ("MoU") with POSCO that proposes a larger joint venture (JV) chemical conversion facility in South Korea of up to 40ktpa LCE capacity (Pilbara Minerals' JV interest expected to be 30%), compared to the previously agreed 30ktpa LCE (*refer to ASX announcement of 28 February 2018*).

Pilbara Minerals has commenced its due diligence processes to evaluate the opportunity to participate in the proposed jointly owned chemical conversion facility development in South Korea.

In parallel, the Company has commenced the detailed documentation of the previously agreed key commercial terms of the proposed joint venture with POSCO (*refer to ASX announcement of 28 February 2018*), with a view

to completing the due diligence and finalising detailed JV terms and technology licensing arrangements during the March 2019 quarter.

The development of the jointly owned chemical facility, including its proposed expansion under the MoU, would then be subject to the final approval of the respective boards of both Pilbara Minerals and POSCO shortly thereafter.

In order to facilitate additional offtake to the expanded JV chemical facility (as well as the potential to grow existing or new offtake customers supply), Pilbara Minerals has recently commenced studies on a Stage 3 project expansion (refer separate ASX announcement released today).

The scale of the existing Pilgangoora resource and reserve, when combined with the expected low cost of operations, demonstrated high quality product, and the demand of its customers and their affiliates, means that the Pilgangoora operation is ideally placed to consider future production growth over time should the market support such expansion.

The 100% owned Pilgangoora Lithium-Tantalum Project in Western Australia (“Project” or “Pilgangoora Project”) is one of the world’s premier lithium development and production projects.

Pilbara Minerals’ Managing Director and CEO, Ken Brinsden, said:

“POSCO has invested extensively in battery raw materials research and development for approximately 10 years – especially in the lithium sphere – and as a result they have significant experience and expertise at their disposal. We are pleased to be working with POSCO to develop and expand a new lithium raw material supply chain for the South Korean market that is principally focused on high-quality hydroxide production.

In much the same way as Pilbara developed Stage 1 with Stage 2 in mind, Stage 2 will be developed with a Stage 3 expansion clearly in the frame. In that way, we can maximise the synergies between each development, grow in line with our customers’ expectations and reduce the combined cost of future developments.

Discussions continue with our existing customers and it is clear they want to continue to access more spodumene concentrate tonnes in the future to support their expansion or that of their partners. Given the scale of the project at Pilgangoora, we welcome the chance to continue to help our quality customer group grow,” he added.

The Stage 3 expansion will undergo further engineering studies and assessment to optimise the overall existing capacity of the 2Mtpa Stage 1 project and proposed 5Mtpa Stage 2 project. Work to date indicates that utilising latent capacity in the existing Stage 1 circuit, alternate key component selection for Stage 2 and overall plant optimisation has the potential to unlock processing capacity in the range of approximately 6.2Mtpa (million tonnes per annum), which in turn could deliver up to 1Mtpa of SC6.0 spodumene concentrate (underpinned solely by the existing Pilgangoora Project Ore Reserve¹).

Envisaged capacity over time of a final Stage 3 expansion project is estimated to be up to 7.5Mtpa of ore processing capacity delivering up to 1.2Mtpa of SC6.0 spodumene concentrate (underpinned solely by the existing Pilgangoora Project Ore Reserve¹).

The decision and timing for delivery of any proposed Stage 3 expansion is subject to a range of factors including final customer demand, financing, environmental approvals and further economic and technical analysis. It is not envisaged that any Stage 3 expansion would be commissioned any sooner than early 2021.

In support of the potential for further expansion at Pilgangoora, Pilbara Minerals continues to also work on a range of ancillary infrastructure optimisation initiatives. Key infrastructure initiatives include (but are not limited to) gas / hybrid solar power supply solutions, road development, and additional water supplies and

communications infrastructure, with a view to supporting the mines continued expansion and further reducing operating costs over time.

NOTES

1. The Ore Reserves underpinning the production targets have been prepared by a Competent Person in accordance with the JORC Code (2012 Edition) and were released by the Company to ASX on 17 September 2018 (“Pilgangoora Resource and Reserve Upgrade”). The relevant proportions of proven Ore Reserves and probable Ore Reserves that underpin the production targets are 20% proven Ore Reserves and 80% probable Ore Reserves. The Company confirms that it is not aware of any new information or data that materially affects the information included in that release and that all material assumptions and technical parameters underpinning the Ore Reserve estimate continue to apply and have not materially changed.

Contacts:

Investors / Shareholders

Ken Brinsden

Managing Director and CEO

Ph. +61 (0)8 6266 6266

Media

Nicholas Read

Read Corporate

Ph. +61 (0)8 9388 1474

FORWARD LOOKING STATEMENTS AND IMPORTANT NOTICE

This announcement may contain some references to forecasts, estimates, assumptions and other forward-looking statements. Although the Company believes that its expectations, estimates and forecast outcomes are based on reasonable assumptions, it can give no assurance that they will be achieved. They may be affected by a variety of variables and changes in underlying assumptions that are subject to risk factors associated with the nature of the business, which could cause actual results to differ materially from those expressed herein. All references to dollars (\$) and cents in this announcement are to Australian currency, unless otherwise stated.

Investors should make and rely upon their own enquiries before deciding to acquire or deal in the Company's securities.

MORE INFORMATION

About Pilbara Minerals

Pilbara Minerals (Pilbara Minerals – ASX: PLS) is a mining and exploration company listed on the ASX, specialising in the exploration, development and production of lithium and tantalum bearing minerals. Pilbara Minerals owns 100% of the world class Pilgangoora Lithium-Tantalum project which is one of the world's premier lithium development projects. Pilgangoora is also one of the largest pegmatite hosted tantalite resources in the world and Pilbara Minerals proposes to produce tantalite as a by-product of its spodumene production.

About lithium

Lithium is a soft silvery white metal which is highly reactive and does not occur in nature in its elemental form. It has the highest electrochemical potential of all metals, a key property in its role in lithium-ion batteries. In nature it occurs as compounds within hard rock deposits and salt brines. Lithium and its chemical compounds have a wide range of industrial applications resulting in numerous chemical and technical uses. A key growth area is its use in lithium batteries as a power source for a wide range of applications including consumer electronics, power station-domestic-industrial storage, electric vehicles, power tools and almost every application where electricity is currently supplied by fossil fuels.

About tantalum

The tantalum market is boutique in size with total global demand of approximately 1,700 tonnes of tantalum metal per year. Tantalum is primarily used in the electronics industry in the manufacture of capacitors for high-end applications like telecommunications and data storage. It is also used in semi-conductors, engine turbine blades and medical implants. As well as providing ductility, toughness, corrosion resistance, thermal conductivity and heat resistance to various other applications.