

The Company Announcements Officer
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**The following is an *Inside Briefing* interview with
Pilbara Minerals CEO, Mr Neil Biddle**

In this interview, Neil Biddle provides an update on Pilbara Minerals (ASX: PLS – market capitalisation: ~\$14.9 million at 2.5c; 594.1M shares on issue) as it closes in on construction and development of its flagship 50%-owned Tabba Tabba Tantalum Project in Western Australia's Pilbara region, positioning it to join the ranks junior miners by the end of the year.

Highlights of this interview include:

- The Company's timeline to production at the Tabba Tabba Tantalum Joint Venture Project, which is forecast to produce ~300,000lbs a year of tantalite concentrate, commencing in Q4 2014;
- Major drilling programs which are about to commence targeting extensions to the mine life at Tabba Tabba and to define additional resources at the much larger Pilgangoora Tantalum-Lithium Project, where it is aiming to establish a world-scale lithium resource; and
- The Company's view of the outlook for the tantalum and lithium markets, and its strategy to build a substantial Australian strategic metals company

Inside Briefing: Pilbara has raised \$4 million over the past two months and is now fully funded for the start of tantalum production at Tabba Tabba. What is the current status of the project in terms of outstanding approvals and what is your timeline through to development and production?

Neil Biddle: Mine construction is scheduled to commence as soon as we receive approval for the Mine Plan and Mine Closure Plan. This approval is expected by mid-September. Earthworks are due to be completed by mid-October, when stockpiling of ore will commence. It is proposed to campaign mine the Tabba Tabba ore to provide sufficient stockpiles of ore to sustain operations through the northern wet season.

The processing plant is being built by our joint venture partner, Nagrom, at their Kelmscott premises in Perth. The plant is slightly behind schedule due to delays in the delivery of some of the required pumps. We now expect it to be completed by mid-October and shipped to site by the end of the month.

Our Works Approval Application was lodged in early July and we are expecting approval during October. The Works Approval permit allows us to construct the processing plant on site and commence ramping up to full production. The final permit we need is the Operating Permit, which is required before we can begin shipping tantalite concentrate from site. This is anticipated to be issued around mid-November, as the plant ramps up to full production.

It's important to note that the ore treatment process at Tabba Tabba is very benign, with no chemicals used on site. Only water is added to the ore and there no deleterious elements in the tailings, so we aren't expecting any issues with the approval of our Works Approval and Operating Permits. It's a straightforward and simple permitting process.

Our main focus is to have the mine earthworks completed and ore stockpiled ready for processing before the onset of the northern wet season. That will mean that any unexpected delays in receipt of the Works Approval and Operating permits will not impact our overall timeline.

Inside Briefing: Can you provide a brief overview of the Tabba Tabba Project in terms of capital and operating costs, production levels and mine life? What are the key financial parameters of the project? How much capital remains to be spent before the start of production?

Neil Biddle: The total capital cost of the project is estimated at about \$5 million, which comprises about \$3.8 million for the processing plant and about \$1.2 million in pre-production costs. To date, the Joint Venture has spent approximately \$3.6 million, so we still have about \$1.4 million to spend. A lot of our site equipment such as vehicles, power supply and machinery will be leased and will fall into operating expenditure.

As outlined in the Feasibility Study (see to ASX release on 19/2/2014), the operating cost is estimated at \$34 per pound of tantalite produced (tantalite is priced globally in Dollars per pound). Our profit margin is expected to be very healthy operating at 30 tonnes per hour and it is estimated that the project will provide an EBITDA of approximately \$16 million over the initial mine life of the project which is estimated in the Feasibility Study at 19 months.

Annual estimated production from the Feasibility Study is forecast at 300,000 pounds of Ta₂O₅. Our initial mining reserve provides a mine life of approximately 19 months, however we expect this to grow significantly with further drilling of known tantalite mineralisation in the Tabba Tabba District and upgrading of Tabba Tabba Inferred Resources.

All our production is sold to Global Advanced Metals (Wodgina) (“GAM”) under an exclusive 5-year offtake agreement. GAM is the largest refiner of tantalite in the world, producing very high purity tantalite and tantalum products for specialty end-users.

Inside Briefing: How will the joint venture with your partner, Nagrom Pty Ltd, operate from a practical and operational perspective? Can you provide some background on Nagrom?

Neil Biddle: Nagrom employs over 100 staff operating a large metallurgical laboratory and process engineering facility in Kelmscott, an industrial suburb of Perth. Nagrom specialises in the metallurgy of heavy metal extraction and is recognized as a world leader in their field and in particular the processing of tantalite ores.

Nagrom and Pilbara are 50/50 joint venture partners. Nagrom will manage the Tabba Tabba Project and will staff the Tabba Tabba processing plant with technicians and maintenance crew rotated out of their Kelmscott laboratory. Pilbara is providing mining and exploration expertise to the JV and will be responsible for managing exploration, upgrading ore reserves and grade control within the open pit.

Inside Briefing: You have previously flagged some major upcoming drilling programs at Tabba Tabba and your other key project, the Pilgangoora Lithium-Tantalum Project. When will this drilling start and what are the key objectives at each project? When do you expect to receive first results?

Neil Biddle: Drilling will commence at Tabba Tabba by mid-September. The drilling is designed to upgrade the Inferred Resources and unclassified mineralisation to Measured and Indicated Resources. Drilling will also test for extensions to the Tabba Tabba mineralisation to the south and south-east

where there are surface workings indicating significant tantalite mineralisation. Drilling will also test the northern end of the Southern pegmatite where it intersects the Tabba Tabba main zone.

2,000m of RC drilling is proposed to complete this program with provision to extend it if necessary to close off the mineralised pegmatite. Drill samples will be fast-tracked to the laboratory for assaying and inclusion into the resource model. Revised Measured and Indicated Resources can then be assessed for inclusion into Mineable Ore Reserves and the open pit design revised accordingly.

This is clearly a very short-term program given the imminent commencement of mining and would need to be concluded by end October.

The Pilgangoora Project is 100% owned By Pilbara and sits outside of the Tabba Tabba JV. It is centred 50km south of Tabba Tabba and is easily accessible, being just 15km from the NW Coastal Highway. It is a much larger scale project and contains potentially world-class tantalite and spodumene (lithium) resources. Only 10% of the mineralised pegmatites have been drill tested so there is considerable upside potential.

We intend to move the drill rig to Pilgangoora at the completion of Tabba Tabba drilling for a planned 10,000m program which will run through to the end of this year. The objective of the program is to test the majority of the 90% of undrilled pegmatites on relatively broadly spaced drill lines. The drilling will also in-fill higher grade tantalite zones identified from previous drilling with a view to upgrading Inferred tantalite resources to Measured and Indicated status.

Higher grade tantalite resources could be trucked for processing at the Tabba Tabba plant, a distance of only 50km, providing an attractive incremental growth opportunity for the Tabba Tabba operation.

However, the bigger picture for Pilbara is the Pilgangoora project, which is huge. The mineralized pegmatites extend over a significant distance and there is abundant spodumene and tantalite at surface identified from historical geochemistry and recent mapping by Pilbara's geologists.

Inside Briefing: Can you explain how Pilgangoora fits into your broader strategy as a strategic metals company operating in the Pilbara region? What will your key priorities at this project over the next 12 months?

Neil Biddle: We are aiming to establish very substantial lithium and tantalite resources at Pilgangoora. We believe there is potential for us to prove up one of the largest hard rock lithium deposits in the world. Our tenements surround Altura Mining's (ASX: AJM) lithium resource, which has been reported at 25 million tonnes grading 1.4% Li₂O (see *Altura Mining ASX Release – 3 October 2012*), making it the world's third biggest hard rock lithium resource. So the potential in our ground is obvious and it is a very exciting opportunity for us.

The recently announced maiden JORC 2012 compliant tantalite resource is already quite large, with 5.5 million pounds of contained tantalite, and that's from just one area of pegmatites in the centre of the tenements (see *Pilbara Minerals ASX Release – 17 June 2014*)

There is excellent potential for Pilgangoora to supply ore to the Tabba Tabba plant in the near term and eventually be a stand-alone tantalite and lithium producer on a large scale.

We therefore rate Pilgangoora as our company making-project and Tabba Tabba as a company-builder and our lead into production, helping us make the all-important transition from explorer to self-funding producer which we see as very important in the current market environment.

Inside Briefing: What is the outlook for the tantalum and lithium markets? Why do you believe this is an opportune time to be starting production as a strategic metals company?

Neil Biddle: London-based metal markets analyst Roskills has forecast a 60% increase in tantalum demand by the end of 2016, from 2012 levels of around 1,300 tonnes to some 2,000 tonnes per annum.

Tantalum is a high-tech metal used primarily as a coating for capacitors in high-end miniature electronics (smartphones, tablets, laptops, digital cameras, etc.) However, the growth in demand is projected to come from an improving global economy and increased use of tantalum in semi-conductors, the aeronautical and space industries as protective coating of turbine blades and as sputtering targets – materials used to create thin films used in the production of semi-conductors and computer chips.

Pilbara is well placed to fill the supply gap in a growing tantalum market because the Tabba Tabba plant is easily scaleable by up to four times to 400,000tpa throughput. The scale-up could occur in a very short time frame – less than a month – and can equally be scaled back just as quickly in a falling demand market. We regard this throughput flexibility as a key element in dealing with the vagaries of the tantalum market, which is notoriously volatile.

Of course we need to grow our resource base to become a major player in tantalite; however, we are very confident that with Tabba Tabba and Pilgangoora we have the projects that will deliver very long term mine life.

The lithium market is growing at an annual rate of 12% due to the growing lithium battery market. Most of the growth in the battery market will be taken up by brine producers, however batteries still only account for 45% of the total lithium market. 55% of lithium production goes into ceramics, glassware and pharmaceuticals and hard rock spodumene is the preferred source of lithium in these applications.

In our view there is definitely room in the market for another large hard rock lithium resource and we are already seeing expressions of interest for Pilgangoora spodumene. One major advantage for Pilgangoora is that we are located only 100km from Port Hedland, via a major transport corridor, which has a container terminal with most containers inbound full and leaving empty.

We believe the timing for us to enter the tantalite and lithium markets is ideal. We have immediate profitable tantalite production from Tabba Tabba, partnered by leading global players in the tantalum industry with a guaranteed off-take for all production and excellent potential for long-term mine life. At Pilgangoora we have an emerging world class tantalite and lithium resource which is primed to meet growing global demand for both products.

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These factors include, but are not limited to, the failure to complete and commission the mine facilities, processing plant and related infrastructure in the time frame and within estimated costs currently planned; variations in global demand and price for tantalum and lithium; fluctuations in exchange rates; failure to recover the resource and reserve estimates of the Project; the failure of Pilbara Minerals Limited's suppliers, service providers and partners to fulfil their obligations under construction, supply and other agreements; unforeseen geological, physical or meteorological conditions, natural disasters or cyclones; changes in the regulatory environment, industrial disputes, labour shortages, political and other factors; the inability to obtain additional financing, if required, on commercially suitable terms; and global and regional economic conditions.

Readers are cautioned not to place undue reliance on forward-looking statements. We assume no obligation to update such information. The information concerning production targets in this announcement are not intended to be forecasts. They are internally generated goals set by the board of directors of Pilbara Minerals. The ability of the company to achieve these targets will be largely determined by the company's ability to secure adequate funding, implement mining plans, resolve logistical issues associated with mining and enter into off take arrangements with reputable third parties.

Competent Person's Statement:

The Company confirms it is not aware of any new information or data that materially affects the information included in the December 18, 2013 Mineral Resource Estimate and that all material assumptions and technical parameters underpinning the estimate continue to apply and have not materially changed when referring to its maiden resource announcement made on December 18, 2013.

The Company confirms it is not aware of any new information or data that materially affects the information included in the June 17, 2014 Mineral Resource Estimate and that all material assumptions and technical parameters underpinning the estimate continue to apply and have not materially changed when referring to its maiden resource announcement made on June 17, 2014.

The Company confirms it is not aware of any new information or data that materially affects the information included in the February 19, 2014 Mineral Reserve Estimate and that all material assumptions and technical parameters underpinning the estimate continue to apply and have not materially changed when referring to its maiden resource announcement made on February 19, 2014.

Listing Rule 5.19 Disclosure:

Pilbara Minerals confirms that all the material assumptions underpinning the production target, or the forecast financial information derived from a production target, in the Feasibility Study as announced on 19 February 2014 continue to apply and have not materially changed.