

ASX ANNOUNCEMENT

31st August 2015

SITE OPERATIONS COMMENCE AT TABBA TABBA TANTALUM PROJECT AS PILBARA CLOSES IN ON FIRST COMMERCIAL PRODUCTION

MAJOR CONTRACTS AWARDED; CLEARING COMMENCES FOR PLANT CONSTRUCTION; FINAL ADMINISTRATIVE AND REGULATORY CLEARANCES BEING PROGRESSED

HIGHLIGHTS:

- **Major contracts awarded for crushing, drill & blast, equipment hire and earthworks.**
- **Clearing and earthworks have commenced for the tailings dam and plant site.**
- **The processing plant has been constructed in modules and transported to site, and is anticipated to be installed and operational by end September.**

Australian strategic metals company Pilbara Minerals Ltd (ASX: PLS) is pleased to advise that it is now in the final stages of preparing to start commercial production at its high-grade **Tabba Tabba Tantalum Project** located 70km south-east of Port Hedland in the Pilbara region of WA with a number of key operational activities underway on site.

Major contracts have been awarded for **crushing, drill and blast, equipment hire and earthworks** and survey controls and earthworks have commenced with the clearing of major infrastructure sites including for the processing plant.

Construction of the 120,000tpa processing facility was completed earlier this year in Perth, and the plant has been transported to site. The formal approval received in July from the WA Department of Mines and Petroleum for the **Mining Proposal** and **Mine Closure Plans** has cleared the way for construction and commissioning of the processing facility to proceed.

The Company's consultant hydro-geologists, Rockwater Pty Ltd, are currently on site completing test pumping of the existing water bores and installing additional monitoring bores prior to the issue of the 5C water licence, one of the final remaining key licences required for full-scale commercial operations to commence.

A number of the administrative and regulatory plans have also now been completed including **Project Management, Topsoil and Weed Management, Dust Management Plan and Radiation background monitoring**, with all Safe Working Procedures under construction for specific job activities and Employee Visitor and Contractor induction documentation completed.

Construction and installation of the processing plant and initial mining and processing activities can proceed prior to receipt of the final outstanding regulatory approval, the Operating Permit, which will allow commercial production (shipment and sale of product from site) to commence.



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Figure 1– Tabba Tabba Tantalum Project, cleared plant site



Figure 2– Tabba Tabba Haul road construction underway.



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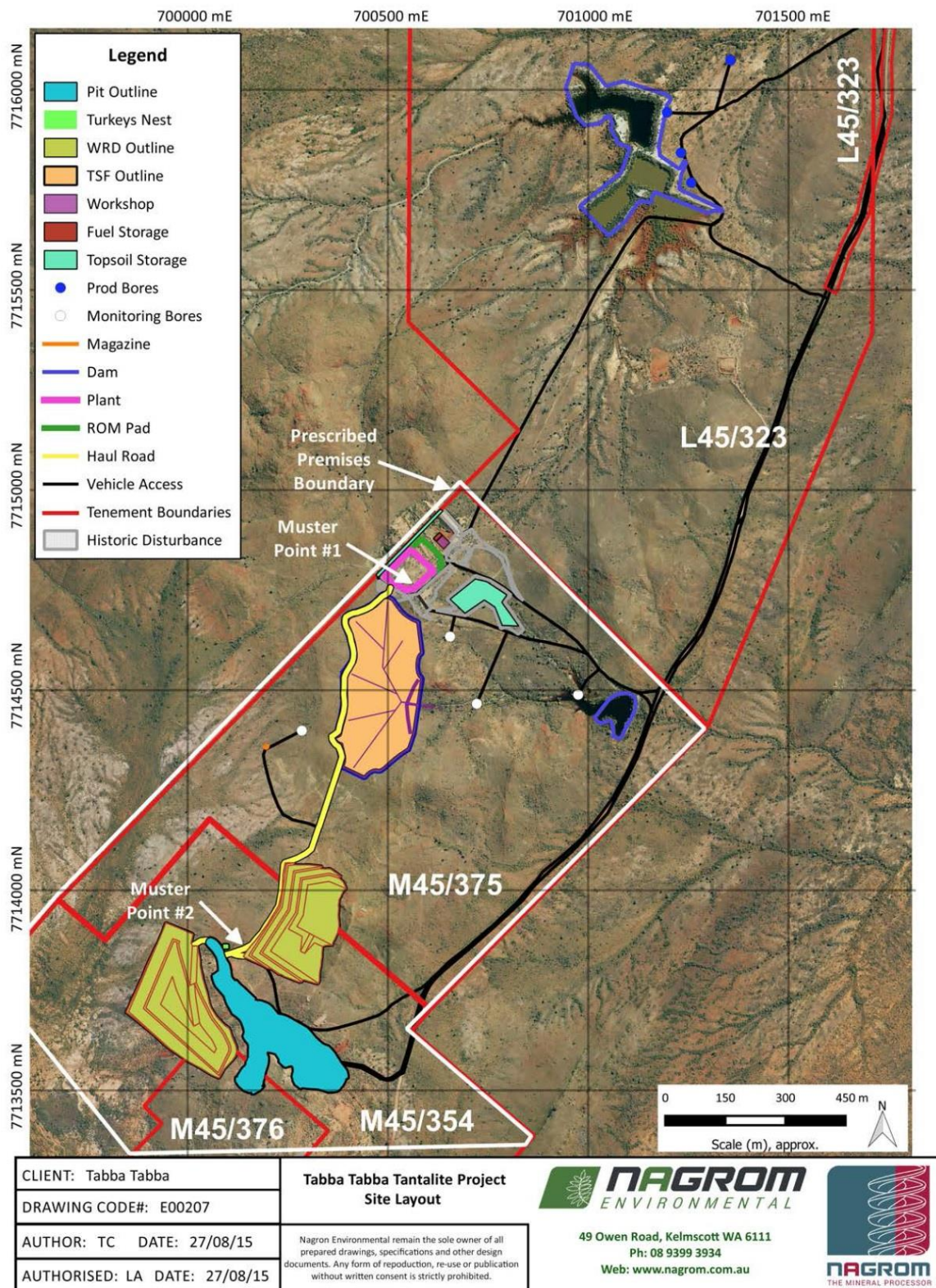


Figure 3– Tabba Tabba Project, site layout



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The Tabba Tabba Project, Pilbara's first operating mine, will be a high-grade, low cost producer of tantalite concentrate. All production from the project is sold to Global Advanced Metals Wodgina Pty Ltd ("GAM") under an exclusive 5-year off-take agreement. Current Tabba Tabba tantalite (Ta_2O_5) ore reserves, as used in the 2014 Definitive Feasibility Study, are:

- Proven Reserves of 32,000 tonnes at 1420ppm Ta_2O_5 totalling 100,178 pounds of Ta_2O_5 (tantalite) and Probable Reserves of 101,000 tonnes at 1249ppm Ta_2O_5 totalling 278,111 pounds of Ta_2O_5 ;
- Total combined Proven and Probable Ore Reserves are 133,000 tonnes at 1,290ppm Ta_2O_5 for 378,000 pounds of contained Ta_2O_5 (tantalite).

The Tabba Tabba Project current Mineral Resources estimate comprises Measured Resources of 35,100 tonnes @ 1380ppm Ta_2O_5 , Indicated Resources of 187,000 tonnes at 1020 ppm Ta_2O_5 and Inferred Resources of 96,000 tonnes at 660ppm Ta_2O_5 , totalling 318,100 tonnes at 950ppm Ta_2O_5 for a combined total **666,200 pounds of contained Ta_2O_5** .

Importantly, 80 per cent of this resource is in the higher confidence Measured and Indicated categories, which totals over 526,000 pounds of contained Ta_2O_5 (see ASX Release – "Resource Update Tabba Tabba, 19th January 2015").

Pilbara's Executive Director, Mr Neil Biddle, said the Tabba Tabba Project was now close to commencing commercial production, with the final stage of preparations underway on site.

"The cash-flow generated by Tabba Tabba will provide a strong platform for us to grow the Company with the start of commercial production also allowing us to make the all-important transition from explorer to producer status," he said.

"Tabba Tabba is an outstanding high-grade production asset, with low capital intensity, strong economics and great potential to extend the mine life once production is underway. The start-up of site operations marks another exciting milestone for the Company and we look forward to reporting on our first commercial shipment of tantalite concentrate in the coming weeks, once we have received the final operating permit."



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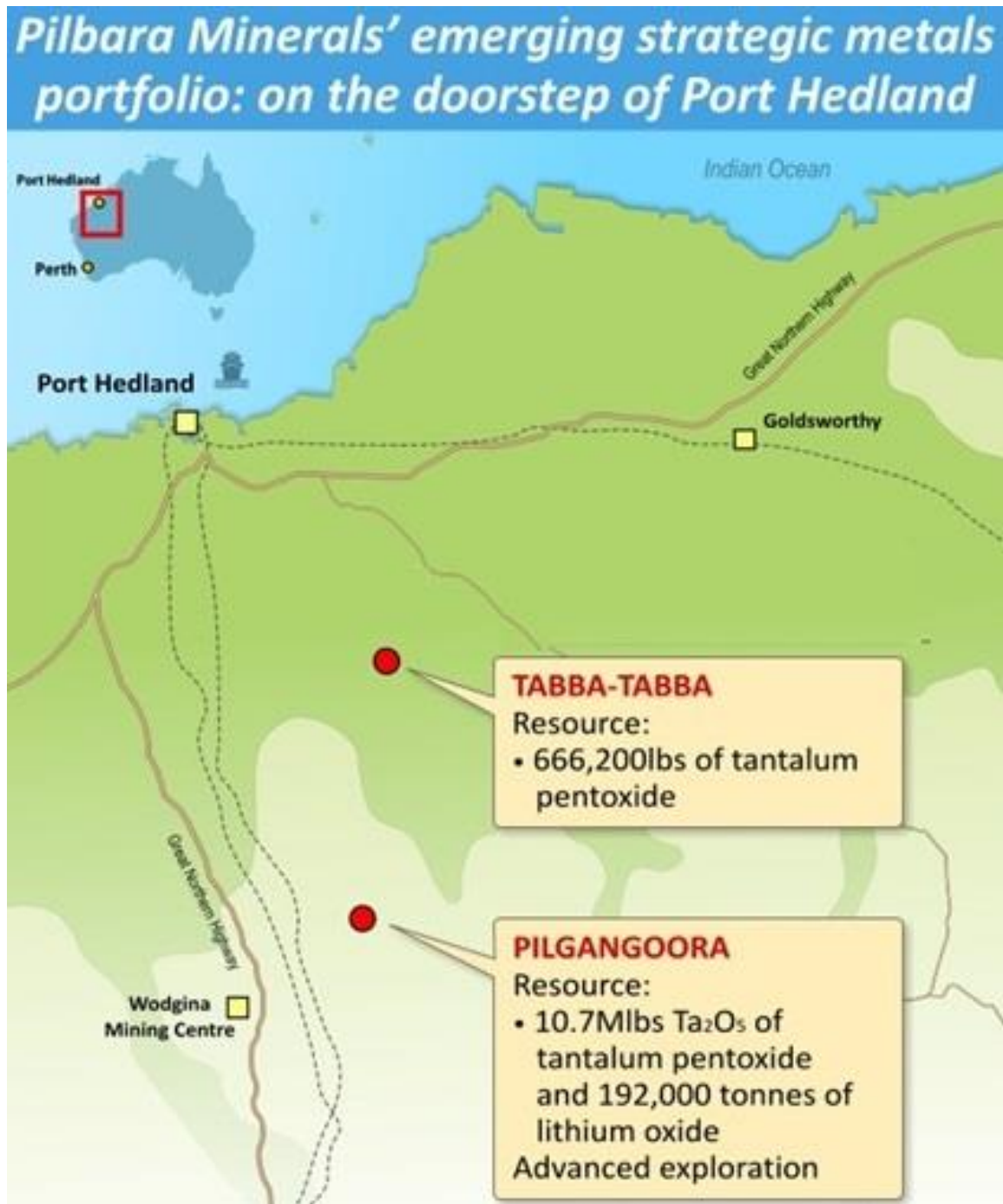


Figure 4: Tabbatabba Location Plan



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About Pilbara Minerals

Pilbara Minerals (Pilbara) is a mining and exploration company listed on the ASX, specialising in the exploration and development of the specialty metals tantalum and lithium. Pilbara is currently developing the Tabba Tabba Tantalum deposit, located approximately 50km south-east of Port Hedland through a 50% Joint Venture. Pilbara is also drilling out the advanced 100%-owned Pilgangoora tantalum-lithium deposit close to Tabba Tabba.

The primary source of tantalum is from minerals such as tantalite, columbite, wodginite and microlite contained in pegmatite ore bodies. The largest deposits are located in Australia, Brazil and Africa. Tantalum's **major use** is in the production of electronic components, **especially for capacitors**, with additional use in components for chemical plants, nuclear power plants, airplanes and missiles. It is also used as a substitute for platinum.

The tantalum market is boutique in size with around 1,300 tonnes required each year. However the market is rapidly growing due to capacitor use in wireless and handheld devices. PLS's Tabba Tabba Project could supply approximately 7% of the annual market consumption over two years. There are two major buyers of tantalum raw product worldwide: HC Stark and Global Advanced Metals.

Lithium is a soft silvery white metal and has the highest electrochemical potential of all metals. In nature it occurs as compounds within hard rock deposits and salt brines. Lithium and its chemical compounds have a wide range of beneficial properties 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 electric bikes, motor vehicles, buses, trucks and taxis.

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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 February 19th, 2014 Tabba Tabba Ore 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 announcement made on 19th February 2014.

The Company confirms it is not aware of any new information or data that materially affects the information included in the January 19th, 2015 Tabba Tabba 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 updated resource announcement made on 19th January 2015.