



PILBARA MINERALS LIMITED

ACN 112-425-788

ASX ANNOUNCEMENT

22 February 2016

PILGANGOORA PROJECT UPDATE: MAJOR NEW DRILLING PROGRAMS UNDERWAY AS FEASIBILITY WORK ADVANCES

CONTINUED NEWS-FLOW EXPECTED WITH 2016 EXPLORATION AND RESOURCE DEFINITION PROGRAM UNDERWAY, PFS DUE EARLY NEXT MONTH AND DFS ON TRACK FOR MID-YEAR RELEASE

- Mobilisation for a major new 15,000m drilling program has commenced at the 100%-owned Pilgangoora Lithium-Tantalite Project in WA.
- RC and diamond drilling progressively commencing over the coming weeks over four main target areas to in-fill, upgrade and expand the current global Indicated and Inferred Resource of 80.2Mt grading 1.26% Li₂O (Spodumene) containing 1,008,000 tonnes of Lithium Oxide.
- Drilling activities will ramp up quickly with a total of four RC rigs and a diamond rig scheduled to be operating at Pilgangoora for the next few months, in parallel with groundwater exploration.
- Pre-Feasibility Study (PFS) on schedule to be released early March 2016, focusing on a standalone 2Mtpa operation at Pilgangoora producing Lithium (Spodumene) concentrates targeting the glass and ceramics industry plus the rapidly growing lithium battery market.
- Continued strong interest and discussions with customers seeking to secure new high-quality Spodumene supply.
- Definitive Feasibility Study (DFS) on track to be completed by mid-2016, paving the way for development of the globally significant Pilgangoora Lithium-Tantalite project.

Australian strategic metals company Pilbara Minerals Ltd (ASX: PLS) is pleased to announce the recommencement of significant site works at its flagship 100%-owned **Pilgangoora Lithium-Tantalite Project**, located near Port Hedland in WA. A number of activities are progressing in parallel as part of the Company's strategy to progress the Pilgangoora project rapidly and with the right technical inputs.

Pilbara Minerals' CEO, Mr Ken Brinsden, said the start of major new drilling programs at Pilgangoora just weeks into the New Year reflected the Company's clear focus and intent to advance the project to production as quickly as possible.

"Pilbara's fast-track development strategy is well underway, with the next major milestone being the completion of the Pre-Feasibility Study – which is on track to occur by early next month," he said.

"We will shortly have a total of four rigs working around the clock at Pilgangoora, with the main objective of the drilling being to in-fill and upgrade the main Indicated resource zones to Measured status to support the DFS, but with an ancillary objective of further increasing the overall resource inventory and future reserve growth.

“The current phase of drilling will also include important metallurgical and geotechnical drilling, sterilisation drilling for key site infrastructure and water bore drilling to ensure that the mining operation has access to sufficient long-term water supplies,” Mr Brinsden continued.

“Shareholders can look forward to strong and increasing news-flow as we deliver on all of these items over the coming months, putting Pilbara in a great position to become one of the most significant new strategic metals producers on the world stage.”

2016 Exploration and Resource Drilling Programs

The Company’s 2016 exploration and resource development drilling program has now commenced at Pilgangoora, initially with drilling to test potential water-bore sites for the future mining operation.

Reverse Circulation and diamond drilling will commence early next month, with a total of **15,000m of RC drilling** planned over the four main target areas within and adjacent to the existing global resource. Current resources are **80.2Mt grading 1.26% Li₂O (in Spodumene) containing 1,008,000 tonnes of lithium oxide** with 42.3Mt grading 0.02% Ta₂O₅ (Tantalum) containing 18.3 million pounds of Ta₂O₅ Resource (please see Pilbara’s detailed announcement of 1st February, 2016).

Work is also progressing on schedule on the Pilgangoora Definitive Feasibility Study (DFS) with the Pre-Feasibility Study (PFS) on track to be released early March 2016 and all work streams progressing on schedule to meet the overall target of completing the DFS by mid-2016.

Pilbara will provide further details on its development timetable for Pilgangoora in the upcoming PFS announcement, with the focus on progressing the project towards production as soon as possible while ensuring the right technical work is being completed to deliver solid project outcomes.

Water Bore Drilling

Initial ground-water exploration activities have already commenced on site with drill testing of 35 potential bore sites within the existing RC drilling database currently underway.

A further 19 drill targets for approximately 1200m within E45/2232 have been selected as potential production water bore sites.

Diamond Drilling – Metallurgical and Geotechnical

Two phases of diamond drilling are scheduled to commence on 1 March 2016, with the initial program of PQ Diamond Drilling designed to extract samples for further metallurgical test work related to the DFS and to collect a bulk sample to create concentrate samples for product sales and marketing purposes.

Sites for the diamond drilling have been selected based on a pit shell outlining the first five years of mining at Pilgangoora. The initial PQ program will total 11 diamond holes for 700m, generating more than 5 tonnes of material.

The second phase of HQ diamond drilling is for geotechnical purposes to provide data for the mining studies being undertaken as part of the DFS. Pit design work undertaken by Mining Plus as part of the PFS will determine the number of geotechnical holes and metres to be completed as part of the DFS drill program.

RC Drilling – Exploration and Resource In-Fill

Resource extension and exploration RC drilling is scheduled to commence following the completion of the heritage survey in early March. This program will total **86 RC holes for 8800m**. Proposed infrastructure sites for the camp, airstrip, processing plant and potential bore fields at Pilgangoora are included in this heritage survey, which is expected to take approximately two weeks.

In-fill RC drilling is expected to commence on 10 March 2016 and will be carried out on nominal 25m centres over the central parts of the Eastern, Western and Central zones. In addition, the program will

target the north-west extensions of the thick pegmatites at the Central prospect (Figure 1 following), as well as extensions of the mapped pegmatites at the Southern Prospect to the Monster Prospect in the north.

The in-fill program will total **62 holes for 6100m**. The expectation is that this program will convert a high percentage of the current Indicated resources to the Measured category in the priority areas, defined or based on the first five years of mining inventory.

Environmental Surveys

The Company's environmental consultants, 360° Environmental, will also be on site in March completing a Level 2 Fauna Survey. A Level 1 Fauna Survey and Levels 1 & 2 Flora Surveys were completed in 2015 as well as a follow-up specialist survey for the Pilbara Leaf Nosed Bat. This survey was successful in finding a small roost some 3km from E45/32232, well to the north of the Pilgangoora mining centre.

An additional Flora field survey is planned for the proposed airstrip, waste dump area and site access road in the coming month.

Tabba Tabba Tantalum Project Update

The Company expects to issue a further update on the Tabba Tabba Project shortly, following completion of the engineering and technical review currently underway (see ASX Announcement – 14 January 2016).

In order to minimise ongoing site costs, in mid-January 2016 the Company suspended the engagement of operating staff supplied under the service contract held with Nagrom & Co. and has concluded the services of two FIFO support staff. Furthermore, in a further effort to minimise site costs, adhoc equipment on hire has been demobilised while the site review continues.

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 1st 2016 Pilgangoora 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 resource announcement made on 1st February.

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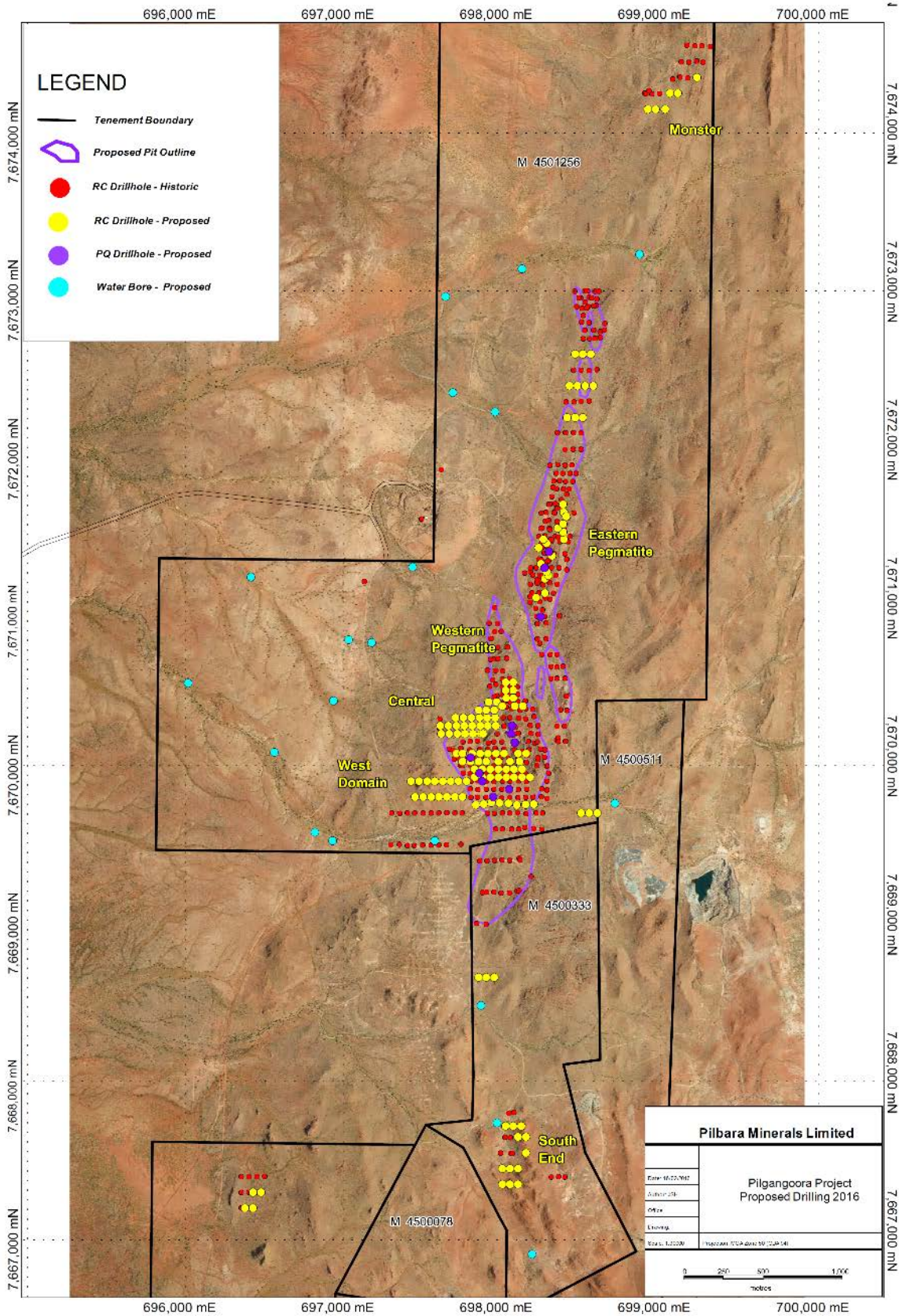


Figure 1 – Proposed Drilling Activities, Feb – Apr 2016