



**Pilbara
Minerals**

...Powering a Sustainable Energy Future

ASX / MEDIA ANNOUNCEMENT

Monday 30 July 2018

JUNE 2018 QUARTERLY ACTIVITIES REPORT

Pilbara Minerals on track to become a major global lithium producer with the Pilgangoora plant commissioning underway, first concentrates produced, and first DSO shipped to China; Stage 2 DFS nearing completion, supported by substantial resource upgrade.

HIGHLIGHTS

Production

- Successful on-time commencement of first fines spodumene and tantalite production as part of the initial concentrator commissioning process. Pathway to full production clear and commissioning on track.
- First shipment of 85,000 wet metric tonnes of Pilgangoora Direct Shipping Ore (“DSO”) shipped to China by Atlas Iron Limited (“Atlas Iron”) pursuant to the Company’s DSO Sale Agreement with Atlas Iron; 145,974 wet metric tonnes of DSO sold to Atlas Iron during the Quarter with DSO operations on track to sell ~100,000 wet metric tonnes of DSO per month for a total of up to 1.5Mt.

Project Development

- Construction of the Stage 1 (2Mtpa) concentrator largely completed.
- Commissioning of the crusher and wet commissioning of the concentrator commenced and progressing according to plan.
- Stage 2 (5Mtpa) expansion Definitive Feasibility Study (“DFS”) set for completion in the coming weeks, paving the way for funding and a final investment decision in Q3 CY2018.

Exploration

- 36% increase in tonnage and increase in grade to the Pilgangoora Mineral Resource now comprising 213 million tonnes grading 1.32% Li₂O (spodumene) and 116 ppm Ta₂O₅, containing 2.82 million tonnes of lithium oxide and 54.6 million pounds of Ta₂O₅.
- Early exploration works commenced at Mt Francisco subsequent to the Quarter-end, following receipt of regulatory approvals and execution of land access and heritage agreements.

Corporate

- Funds totaling US\$5.3M received from Atlas Iron for DSO sales under the DSO Sale Agreement, inclusive of a US\$3M prepayment.
- Second draw-down completed under the US\$100M senior secured bond issue, following satisfaction of a cost-to-complete test.
- Unrestricted cash balance as at 30 June 2018 of A\$120M (31 March 2018: A\$134.7M).

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

“This has undoubtedly been a landmark period in the Company’s history, with the on-time production of our first spodumene and tantalite concentrates from the Pilgangoora Project and the first cash-flow generated through the maiden shipment of Direct Shipping Ore from Port Hedland under our mine gate DSO Sale Agreement with Atlas Iron.

“Commissioning of the Pilgangoora concentrator is now well underway and making good progress with first concentrates being produced. This confirms Pilbara Minerals is firmly on track to becoming a significant low-cost supplier of lithium raw materials as we complete commissioning and ramp-up production over the remainder of the year,” he added.

1. OVERVIEW

Australian lithium developer, Pilbara Minerals Limited (ASX: PLS) (“Pilbara Minerals” or “the Company”), is pleased to advise that the quarter ended 30 June 2018 (“Quarter”) has been a pivotal period for the Company, with the commencement of plant commissioning and the production of first spodumene and tantalite concentrate from its 100%-owned Pilgangoora Lithium-Tantalum Project in Western Australia (“Project” or “Pilgangoora Project”).

Reflecting on the Project’s development to date, Pilbara Minerals’ Managing Director and CEO, Ken Brinsden, acknowledged the efforts of the team in delivering a fully funded world class project on time. *“The rapid completion of construction on site and the delivery of all outstanding elements of the Project on-time reflects a remarkable effort by the entire Pilbara Minerals’ team, as well as by our engineering and contracting partners including MACA, CSI, RCR Resources and their sub-contractors. Constructing a new large-scale mine and process plant through the northern Australian wet season is no mean feat, and I am extremely proud of our team”.*

During the Quarter, Stage 2 expansion plans continued to advance rapidly with the Definitive Feasibility Study to increase plant capacity to 5Mtpa now in its final stages. The Stage 2 expansion received an additional boost with the announcement of another big increase in the size and scale of the Pilgangoora Mineral Resource, which now stands at an impressive 2.82 million tonnes of contained lithium oxide. This further reinforces the Project’s outstanding credentials and cements its position as one of the most significant lithium and tantalum resources globally.

The impending DFS and the increased resource base lays the foundations for Pilbara Minerals’ continued emergence as one of the biggest long-term participants and contributors in the global shift towards lithium battery technology.

2. SAFETY PERFORMANCE

Safety performance for the Quarter was positive, particularly given the increased volume and organisational complexity of construction, commissioning and production activities on site during the June quarter.

The Quarter ended with a total recordable injury frequency rate (“TRIFR”, FY18 YTD) of 4.14. This was a 29% improvement on the previous quarter.

3. PRODUCTION AND SALES

	Units	Q2 FY18	Q3 FY18	Q4 FY18	YTD FY18
Ore Mined	Wmt	0	0	344,549	344,549
Waste Mined	Wmt	151,812	1,832,205	2,851,161	4,835,178
Total Material Mined	Wmt	151,812	1,832,205	3,195,710	5,179,727
Ore Mined - Grade	%	N/A	N/A	1.45	1.45
Ore Crushed	Wmt	N/A	N/A	50,185	50,185
Ore Processed	Wmt	N/A	N/A	N/A	N/A
DSO Sold	Wmt	N/A	N/A	145,974	145,974

The first shipment of Pilgangoora DSO by Atlas Iron set sail from Port Hedland on 16 June 2018 with 85,000 tonnes of 1.6% Li₂O DSO bound for China. During the Quarter, Pilbara Minerals sold at the mine gate a total of 145,974 tonnes of DSO product to Atlas Iron.

The DSO was shipped by Atlas Iron under the terms of a mine gate DSO Sale Agreement between Atlas Iron and Pilbara Minerals (*refer ASX announcement dated 20 December 2017*). The shipment was acquired by Sinosteel Australia Pty Ltd (“Sinosteel”) under a separate off-take agreement between Atlas Iron and Sinosteel, for the export of lithium DSO purchased from the Pilgangoora Project.

Refer to section 4.1 of this Report for further details regarding the production of first spodumene and tantalite concentrates as part of commissioning activities at the Pilgangoora Project.

During the Quarter, mine production focused on the development of the Monster pit and ore mining in support of the ongoing DSO operations. In addition, ore production continued in the Central pit to support the concentrator commissioning and plant ramp-up during the September quarter.

Waste from the Central pit has also been used in the development of infrastructure including the tailings management facility, Run-of-Mine (ROM) ore pad and haul road construction.



Figure 1: Mining at the Monster pit



Figure 2: Monster deposit DSO operations layout



Figure 3: DSO ship loading, Port Hedland

4. PROJECT DEVELOPMENT

4.1. Project construction

Construction of Stage 1 of the Pilgangoora Project has now entered its final phase with the workforce reducing to approximately 500 personnel on site at Quarter-end, well down on the previous quarter. The successful commissioning and ramp-up of the Project remains Pilbara Minerals' primary objective with the aim of becoming a significant global lithium producer in 2018.

After a period of intensive investment by Pilbara Minerals and construction activity by its contracting partners (in particular RCR Resources), the concentrator facility is now nearing completion with the successful completion of no-load ("dry") commissioning during the Quarter, and the commencement of load ("wet") commissioning with first ore put through the concentrator.

This led to the production of first fines spodumene and tantalite concentrates from the Pilgangoora Project during the Quarter in late June (*refer ASX announcement dated 20 June 2018*) – marking a significant commissioning milestone and a key step on the path to full production. The initial concentrate will be tested for specifications and quality as part of the subsequent commissioning steps in the plant, particularly the commencement of commissioning of the spodumene dressing sub-circuit. Early signs indicate that the process plant and equipment is performing as expected.

The first spodumene and tantalite concentrates at the Pilgangoora Project were produced through the fines flotation and gravity circuits respectively, with the coarse concentrate circuit (referred to as heavy/dense media separation ("DMS")) at that time continuing to be constructed. The fines circuit was prioritised during commissioning because of the higher proportion of product that is yielded through this circuit at the start of production. Since then and subsequent to Quarter end, the remaining construction activities (primarily within the coarse circuit) continued with further commissioning and testing undertaken through the combined operation of both the coarse and fines circuit. This led to the Company subsequently announcing its production of first coarse concentrate from the DMS coarse circuit (*refer ASX announcement dated 24 July 2018*).

Delivery of the first shipment of spodumene concentrate is targeted for August 2018. In preparation for this shipment, the Company is in the process of working through the remaining logistics, shipment and payment details consistent with its Stage 1 off-take agreements with partners Ganfeng Lithium and General Lithium.

Following the initial commissioning of the flotation and DMS circuits during July and August 2018, Pilbara Minerals' operating team will then focus on continuing to ramp-up the plant's overall production capacity, with lithia and tantalite recoveries expected to match the designed Stage 1 capacity. This process is anticipated to take approximately six to nine months, with incremental increases to production rates during the ramp-up period.



Figure 4: June quarter construction at the Pilgangoora Project

4.2. Mining

Mining continued during the Quarter with the development of both the Central pit supporting the Stage 1 development and the DSO operation at Monster pit.

The development of other critical infrastructure was progressed during the Quarter including the tails management facility, the ROM ore pad and mine access roads.

4.3. Award of key contracts and personnel

All major contracts have been awarded, with the last major operations contract awarded to Qube Bulk Pty Ltd for concentrate haulage and logistics during the Quarter.

The last of the employment plan appointments were completed. The plant operations' team commenced with initial training in Perth followed by mobilisation to site.

4.4. Stage 2 (5Mtpa) pre-feasibility study

Following the completion of a successful Pre-Feasibility Study ("PFS") for the Stage 2 (5Mtpa) expansion of the Pilgangoora Project in the March Quarter, Pilbara Minerals is now in the final stages of completing a Definitive Feasibility Study for the proposed development of the Stage 2 (5Mtpa) expansion.

This DFS is anticipated to be delivered in early August 2018.

Pilbara Minerals is currently targeting Q4 CY2019 for first production from the proposed Stage 2 expansion of the Project, which will be delivered to a development schedule taking advantage of robust market demand and the required timing of Pilbara Mineral's Stage 2 customers.

In addition, the Company intends to undertake certain detailed engineering work and the award of long-lead procurement contracts for key plant equipment for the 5Mtpa expansion ahead of a final investment decision by the Board which is expected during Q3 CY2018.

An overall indicative timeline of delivery for the Stage 2 expansion outlining key activities through to commissioning and production is provided in Figure 5 below.

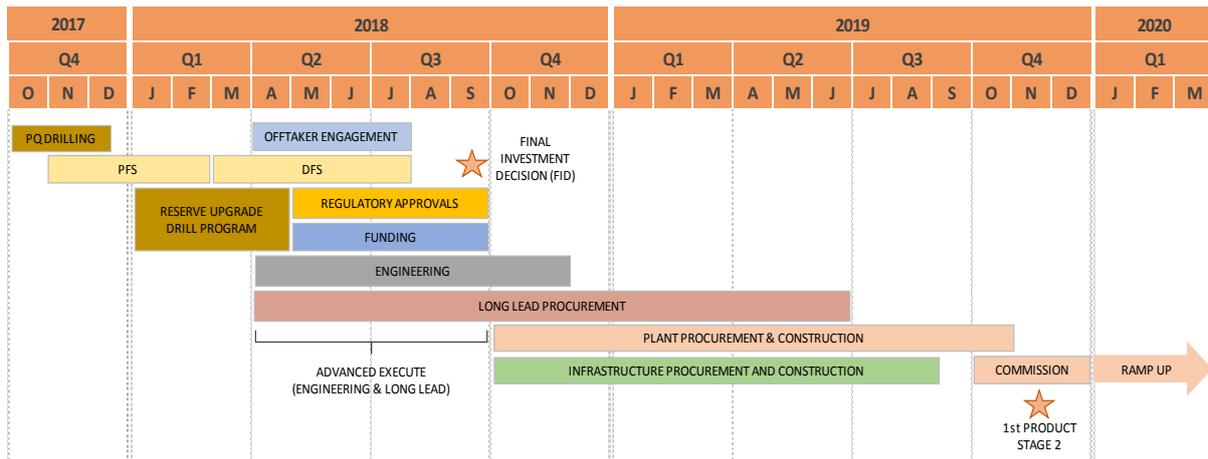


Figure 5: Stage 2 indicative project delivery timeline

Full details of the PFS results were provided in the Company's ASX announcement dated 13 February 2018.

5. EXPLORATION

5.1. Pilgangoora resource update

During the Quarter, the Company delivered a further significant increase in the Pilgangoora Mineral Resource, reinforcing its position as one of the world's premier lithium development and growth projects (*refer ASX announcement dated 29 May 2018*).

The new Mineral Resource represents a 36% increase in total resource tonnage compared with the resource upgrade announced on 25 January 2017, and now comprises a total of 213 million tonnes grading 1.32% Li₂O (spodumene) and 116 ppm Ta₂O₅ and 0.69% Fe₂O₃, containing 2.82 million tonnes of lithium oxide and 54.6 million pounds of Ta₂O₅.

This upgraded Mineral Resource will underpin a new Ore Reserve for the Pilgangoora Project and provides further support to an already compelling business case for the construction and development of the Stage 2 (5Mtpa) expansion, which is targeted to begin shortly after the commencement of first concentrate and the initial ramp-up of spodumene concentrate production from the Stage 1 (2Mtpa) operation.

The updated JORC 2012 Mineral Resource for the Project incorporates all historical data, as well as all drilling data acquired through several exploration campaigns completed by Pilbara Minerals from 2014 to April 2018. This Mineral Resource clearly demonstrates the Pilgangoora Project is a globally significant hard-rock lithium-tantalum deposit.

The estimation was carried out by independent resource consultancy, Trepanier Pty Ltd, resulting in the estimation of Measured, Indicated and Inferred Resources. The reporting of all domains (using a cut-off of 0.5% Li₂O) results in a Measured, Indicated and Inferred Mineral Resource estimate (Table 1) totaling 213.3 million tonnes @ 1.32 % Li₂O, containing 2.82 million tonnes of Li₂O.

Category	Mt	Li ₂ O (%)	Ta ₂ O ₅ (ppm)	Li ₂ O (T)	Ta ₂ O ₅ (M lb)
Measured	22.1	1.41	146	311,000	7.1
Indicated	107.0	1.34	119	1,435,000	28.0
Inferred	84.2	1.27	105	1,071,000	19.4
TOTAL	213.3	1.32	116	2,818,000	54.6

Table 1: Pilgangoora Project – Mineral Resource Estimate (using 0.5% Li₂O cut-off)

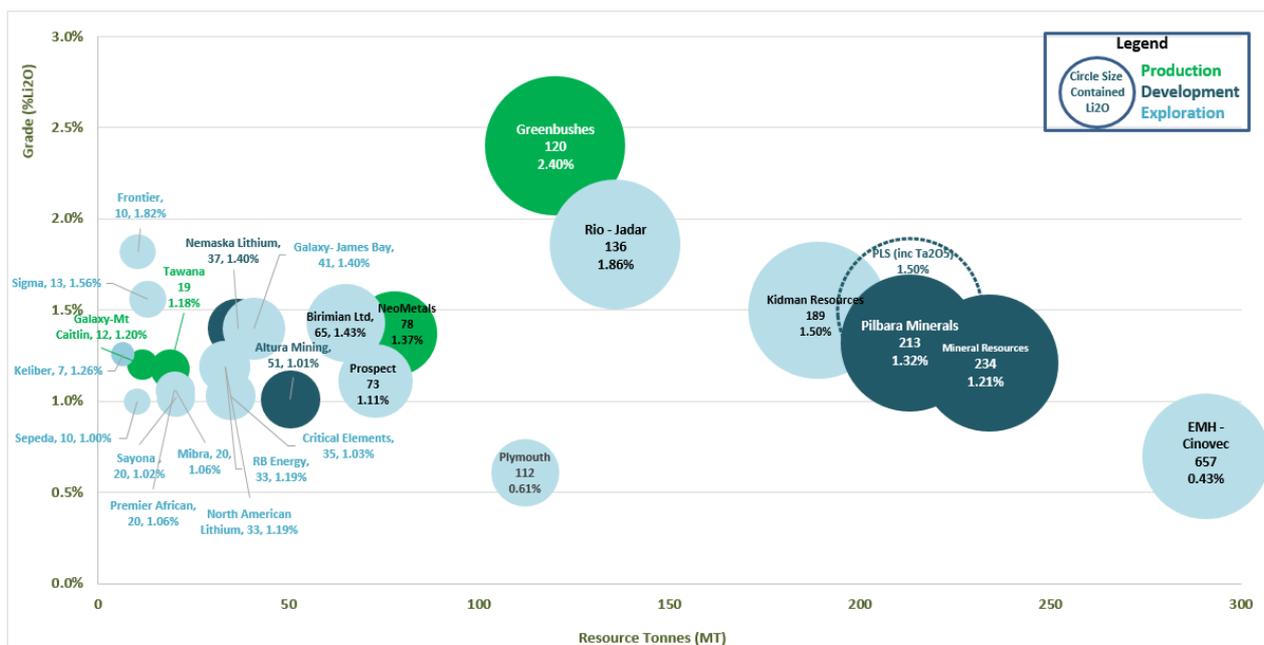


Figure 6: Pilgangoora – A globally significant hard rock resource

Note: Tantalum adjusted resource size at Pilgangoora includes consideration of the spodumene equivalent revenue of tantalum by-product recovered and attributable to Pilbara Minerals over the LOM. Sources: Published resource estimates by project owners. Note that resources estimates for projects other than Pilgangoora may have been prepared under different estimation and reporting regimes and may not be directly comparable. Pilbara Minerals has not verified, and accepts no responsibility for, the accuracy of resources estimates other than its own. Readers should use appropriate caution in relying on this information.

5.2. Mt Francisco Joint Venture (PLS 51% / AGO 49%, Pilbara Minerals earning up to 80%)

During the Quarter, the Company finalised a Land Access Agreement with Mugarinya Community Association Inc, the Aboriginal occupier and lessee of Crown Reserve 31428 in which the Mt Francisco tenement is located, as well as an Aboriginal Heritage Agreement with the registered Native Title Claim Group, the Kariyarra People, whose claim area includes Mt Francisco.

After the Quarter-end, the Aboriginal Lands Trust and the Minister for Aboriginal Affairs issued an Entry Permit for Mt Francisco to the Company. The Company has commenced early works exploration activities with geological mapping and surface geochemistry, with targeted drilling scheduled to follow during Q3 CY2018.

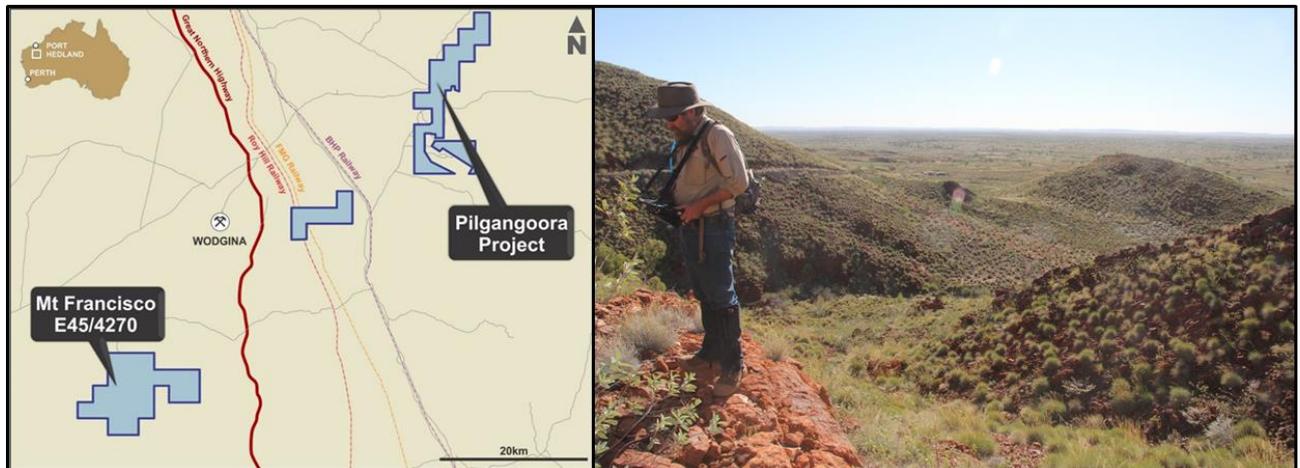


Figure 7: Exploration activities underway at Mt Francisco

6. CORPORATE

6.1. Proceeds from sale of DSO

During the Quarter, Pilbara Minerals received cash totaling US\$5.3M from Atlas Iron for DSO material sold during the Quarter under the terms of a mine gate DSO Sale Agreement (*refer ASX announcements dated 20 December 2017 and 18 June 2018*). These funds received included a US\$3M prepayment which is required under the DSO Sale Agreement.

At 30 June 2018, the Company also recognised a receivable of US\$4M for DSO material sold to Atlas, for which it received cash after the Quarter end.

6.2. Successful draw-down from bond

Pilbara Minerals completed the second draw-down under its US\$100M senior secured bond issue, having satisfied all conditions precedent including a customary cost-to-complete test, during the Quarter.

The draw-down represented approximately 40% of the total US\$100M bond issue (approximately 90% drawn down to Quarter-end), with all proceeds from the drawdown to be applied towards project construction and plant commissioning costs.

Subsequent to Quarter-end, the Company completed the last cost-to-complete test and drew-down the final remaining 10% under the senior secured bond during July 2018.

6.3. Stage 2 funding

The Company expects to release the Stage 2 (5Mtpa) DFS results shortly and is targeting a final investment decision (FID) by the Board for Stage 2 by the end of Q3 CY2018.

In the meantime, Pilbara Minerals is currently progressing a range of funding alternatives for Stage 2 including debt and/or offtake prepayment funding from its customers linked to accessing additional Stage 2 product (as

previously foreshadowed and contemplated under existing offtake agreements), as well as sourcing funding from existing senior secured bondholders or alternative bond and debt markets.

During the Quarter, the Company continued customer engagement with both Ganfeng Lithium and Great Wall Motor Company in relation to their interest in accessing additional Stage 2 concentrate production in return for their commitment to provide funding for Stage 2. Based on these discussions, Pilbara Minerals is aiming to finalise detailed documentation in support of funding for the Stage 2 expansion, including obtaining necessary bond holder consents, ahead of the Stage 2 FID.

6.4. Board changes

During the Quarter, Mr John Young stepped down from the Company's Board in April, reflecting his growing personal and other business commitments, including as Managing Director of ASX-listed gold developer, Spitfire Materials Limited (ASX: SPI). Mr Young made a substantial contribution to Pilbara Minerals' rapid growth to become a leading mid-tier mining company, now having successfully achieved first production. With construction of the Pilgangoora Project nearing completion, Mr Young decided it was an appropriate time for him to stand down from the Board.

Pilbara Minerals was delighted to appoint respected company director and highly experienced corporate advisor Sally-Anne Layman to the Board. Ms Layman has 23 years of experience in exploration, mining and finance, including over 16 years of successfully identifying and closing over \$1.8 billion in financial deals and equity investments across six continents and more than 20 countries.

Ms Layman's skill set is a valuable addition to the Board and the directors and management welcome her contributions as the Company moves toward its Stage 2 expansion.

6.5. Cash balance

The Company had an unrestricted cash balance of A\$120M as at 30 June 2018 (A\$134.7M as at 31 March 2018), excluding A\$12.3M of undrawn Bond proceeds at Quarter-end available for Project construction and plant commissioning costs. During the Quarter, the Company received cash proceeds of A\$55.4M from the second drawdown of the senior secured bond facility.

Major items of expenditure during the Quarter included A\$74.3M on the construction and development of Stage 1 of the Pilgangoora Project, A\$4.1M in interest and financing payments largely associated with the USD senior secured bond facility, A\$2.8M on payroll, administration and corporate costs and A\$2.5M on exploration and evaluation work in relation to the Pilgangoora Project (including associated feasibility studies).

As well as net proceeds of A\$3.2M from DSO sales during the Quarter, the Company also received A\$6.7M from the exercise of employee options and A\$4.3M following the sale of its shares in Tungsten Mining NL.

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Competent persons statements

The Company confirms it is not aware of any new information or data that materially affects the information included in the 29 May 2018 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 29 May 2018.

The Company confirms it is not aware of any new information or data that materially affects the information included in the 29 June 2017 Pilgangoora 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 resource announcement made on 29 June 2017.

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.

Appendix 1 – Tenement Table as at 30 June 2018

Tenement	Location	Status	Registered Holder	PLS beneficial holding at commencement of period	PLS beneficial holding at end of period
ACTIVE TENEMENTS and APPLICATIONS AT COMMENCEMENT OF THE QUARTER					
E45/2241	Pilgangoora	Granted	Pilbara Minerals Limited	100%	100%
E45/3560	Pinnacle	Granted	Pilbara Minerals Limited	100%	100%
E45/3648	Pilgangoora	Granted	Pilbara Minerals Limited	100%	100%
E45/4523	Pilgangoora	Granted	Pilbara Minerals Limited	100%	100%
E45/4624	Pilgangoora	Granted	Pilbara Minerals Limited	100%	100%
E45/4633	Pilgangoora	Granted	Pilbara Minerals Limited	100%	100%
E45/4640	Pilgangoora	Granted	Pilbara Minerals Limited	100%	100%
E45/4648	Pinga	Granted	Pilbara Minerals Limited	100%	100%
E45/4689	Pilgangoora	Granted	Pilbara Minerals Limited	100%	100%
E45/4270	Mt Francisco	Granted	Pilbara Minerals Limited	51%	51%
L45/388	Pilgangoora	Granted	Pilbara Minerals Limited	100%	100%
L45/396	Pilgangoora	Granted	Pilbara Minerals Limited	100%	100%
L45/402	Pilgangoora	Granted	Pilbara Minerals Limited	100%	100%
L45/403	Pilgangoora	Granted	Pilbara Minerals Limited	100%	100%
L45/411	Pilgangoora	Granted	Pilbara Minerals Limited	100%	100%
L45/413	Pilgangoora	Granted	Pilbara Minerals Limited	100%	100%
L45/414	Pilgangoora	Granted	Pilbara Minerals Limited	100%	100%
L45/417	Pilgangoora	Granted	Pilbara Minerals Limited	100%	100%
L45/421	Pilgangoora	Application	Pilbara Minerals Limited	100%	100%
L45/425	Pilgangoora DSO	Granted	Pilbara Minerals Limited	100%	100%
L45/426	Pilgangoora	Granted	Pilbara Minerals Limited	100%	100%
L45/429	Pilgangoora	Application	Pilbara Minerals Limited	100%	100%
L45/430	Pilgangoora	Granted	Pilbara Minerals Limited	100%	100%
L45/434	Pilgangoora	Application	Pilbara Minerals Limited	100%	100%
M45/1256	Pilgangoora	Granted	Pilbara Minerals Limited	100%	100%
M45/1266	Pilgangoora	Application	Pilbara Minerals Limited	100%	100%
M45/333	Pilgangoora	Granted	Pilbara Minerals Limited	100%	100%
M45/511	Pilgangoora	Granted	Pilbara Minerals Limited	100%	100%
M45/78	Pilgangoora	Granted	Pilbara Minerals Limited	100%	100%
P45/2783	Pilgangoora	Granted	Pilbara Minerals Limited	100%	100%
P45/3058	Pilgangoora	Application	Pilbara Minerals Limited	100%	100%
APPLICATIONS MADE DURING THE QUARTER					
L45/449	Pilgangoora	Application	Pilgangoora Operations Pty Ltd	0%	100%
L45/450	Pilgangoora	Application	Pilgangoora Operations Pty Ltd	0%	100%
L45/453	Pilgangoora	Application	Pilbara Minerals Limited	0%	100%
L45/454	Pilgangoora	Application	Pilbara Minerals Limited	0%	100%
TENEMENTS DISPOSED OF DURING THE QUARTER					
M45/1259	Pilgangoora	Application	Pilbara Minerals Limited	100%	0%
M45/1264	Pilgangoora	Application	Pilbara Minerals Limited	100%	0%