

ASX/Media Announcement

25 January 2018

## DECEMBER 2017 QUARTERLY ACTIVITIES REPORT

***Pilgangoora Stage 1 construction ramps up as Pilbara signs Mine Gate Sale Agreement to generate early cash-flow, executes landmark agreements with Great Wall to support Stage 2 expansion to 5Mtpa, and commits to additional capital investment to support long-term growth***

### PILGANGOORA LITHIUM-TANTALUM PROJECT

- Construction activities ramped up with a total workforce of 325 by the end of the Quarter and multiple construction and development work-fronts advancing, including:
  - Award of contracts for pre-fabricated buildings for operations centre and phase 1 access road;
  - Completion of major bulk earthworks, dewatering pipeline, camp raw water pipeline, power station footings, and engine hall structure;
  - Mobilisation of the crushing contractor, Crushing Services International;
  - Process plant and ground works area advanced for steel deliveries anticipated in Q1 of 2018;
  - Ball mill and thickeners delivered to site;
  - Commissioning of telecommunications tower; and
  - MACA commenced site establishment and pre-strip, and began mining bulk waste from the Central pit for the construction of haul roads and the outer walls of the tailings management facility.
- Mine Gate Sale Agreement finalised with Atlas Iron (ASX: AGO) for the proposed sale of a minimum 1.0Mt of run-of-mine lithium-tantalum ore from Pilgangoora over 12 months. DSO sales targeted to commence from April, enabling Pilbara to capitalise on current strong demand for lithium feedstock and generate early revenue.
- Off-take agreement for Stage 2 production finalised with leading Chinese automotive group Great Wall Motor Company and its wholly-owned subsidiary, Hong Kong-registered Billion Sunny Development Limited.
- Pilgangoora Stage 1 capital spend updated to \$274M, reflecting proposed EPC contract acceleration costs, scope changes at the Company's direction (including exclusions and inclusions) and further investment to add value to the quality of the final Pilgangoora concentrate. This additional capital investment is expected to be funded from existing sources (as detailed in the Corporate Section of this Quarterly Report).
- New zones of high-grade pegmatite mineralisation discovered across multiple prospects, plus thick zones of high-grade mineralisation intersected outside the current Mineral Resource, laying the foundations for an updated Mineral Resource in Q1 2018 and providing strong support for the Stage 2 DFS.
- Two-year tantalite off-take agreement signed with Global Advanced Metals Greenbushes Pty Ltd, a wholly-owned subsidiary of the leading vertically integrated global tantalum products provider Global Advanced Metals Pty Ltd, comprising 100,000lbs of contained Ta<sub>2</sub>O<sub>5</sub> as primary 4-5% concentrates.

### CORPORATE

- Great Wall completed its A\$28M equity investment in Pilbara with the proceeds contributing towards completion of Stage 1 of the Pilgangoora Project development and financing of the Stage 2 DFS. As a strategic shareholder, Great Wall now holds approximately 3.41% of Pilbara's issued capital.
- Pilbara Minerals included in the benchmark S&P/ASX 200 index effective from 18 December 2017, reflecting the increase in its market capitalisation to over \$1.87 billion as at that date. The S&P ASX 200 is based on the 200 largest ASX-listed stocks, accounting for more than 80% of Australia's share market capitalisation.
- Unrestricted cash balance at 31 December 2017 of \$71.97M (30 September 2017: \$78.95M). Financial closure for the Company's US\$100 million senior secured bond achieved enabling the Company to draw-down its bond proceeds once the Company's project equity contribution has been expended.

### Pilbara Minerals Limited

## OVERVIEW

Australian lithium developer, Pilbara Minerals Limited (ASX: PLS) (“Pilbara”, “Pilbara Minerals”, or “the Company”), is pleased to report on another active and successful quarter for the three months to 31 December 2017 (“Quarter”), during which it continued to make rapid progress towards its objective of becoming a premier long-term supplier of both chemical and technical grade spodumene concentrates and tantalum from its flagship 100%-owned Pilgangoora Lithium-Tantalum Project (“Pilgangoora Project”, “Pilgangoora” or “Project”) in Western Australia to global markets.

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

*“The December quarter was another defining period for Pilbara with substantial progress achieved both on site at Pilgangoora and across many other levels of our business, including within the portfolio of Tier-1 customers, strategic partners and contractors who are working closely with us to bring this world-class and highly sought after lithium asset on stream as quickly as possible and then to facilitate its rapid expansion to become one of the biggest new lithium mines in the world.*

*“Most importantly, at the construction coalface we saw activities ramp up significantly to hit peak levels by Quarter-end, with more than 650 people expected to be on site through the February-May period and multiple work-fronts advancing in parallel to ensure that we meet our target of starting commissioning of the plant during the June quarter and commencing product shipments by mid-2018.*

*“We updated our capital investment forecasts during the Quarter to reflect the additional capital required to ensure that we meet these deadlines, to facilitate the start of DSO sales in April, and to allow us to continue to invest in the future growth of our spodumene concentrate business by upgrading key components of our plant and facilities.*

*“We are currently seeing exceptionally strong demand for DSO products due to the current shortage of lithium units in China. We are delighted to have the opportunity to participate in this market segment through the landmark DSO deal with Atlas Iron, which allows us to help support the growth of the lithium-ion processing chain in China and generate early cash-flow in parallel with the commissioning phase at Pilgangoora.*

*“On other fronts, we were delighted to finalise our Stage 2 off-take and equity subscription agreement with Great Wall Motor Company, which is a landmark deal for the lithium-ion raw materials supply industry globally and heralds what we believe will be a growing alignment between producers and downstream end-users. We were also pleased to have secured a foundation tantalite sales agreement with Global Advanced Metals, the industry leader in the tantalum industry.*

*“The next few months will be a pivotal time for Pilbara as construction enters its final and most important stage, open pit mining ramps up, DSO sales commence early next quarter and we prepare to start the all-important plant commissioning process.”*

## MINE GATE SALE AGREEMENT WITH ATLAS IRON

Pilbara continued to receive significant inquiry from customers regarding the potential for DSO sales arrangements from the Pilgangoora Project during the Quarter. Against this backdrop, the Company finalised a Mine Gate Sale Agreement (“MGSA”) with Pilbara iron ore miner Atlas Iron Limited (“Atlas”) on 20 December 2017.

The innovative mine gate sale and DSO arrangement will enable Pilbara to capitalise on current strong demand for lithium feedstock in the Chinese market and generate an early source of revenue and cash-flow from the Pilgangoora Project with minimal additional capital expenditure.

Under the MGSA, the Company will deliver a minimum of 1.0 million tonnes of unprocessed run-of-mine lithium-tantalum material from the Pilgangoora mine to Atlas on a mine gate sale basis, based on a delivery schedule which is designed to allow Atlas to ship 100,000 tonnes of DSO per month to off-take customers, commencing in April of 2018.

Atlas will utilise its existing processing and logistics infrastructure in the Pilbara to crush the material at its Mt Dove iron ore operations and ship the DSO to customers through its Utah Port shipping facilities in Port Hedland, under one or more off-take agreements to be entered into separately between Atlas and Sinosteel Australia Pty Ltd and other potential off-take parties.

The overall agreement delivers an attractive fixed US\$ base price per wet metric tonne of mine gate material sold, subject to adjustments in respect of the final product specifications shipped and the actual shipping costs realised. It is envisaged that the arrangement will deliver a healthy operating cash margin to Pilbara Minerals during the life of the DSO program.

Under the terms of the MGSA, Atlas will pay to Pilbara Minerals a Mine Gate Commitment fee of US\$3 million to fund the Company's upfront establishment costs associated with the DSO program.

The MGSA provides an opportunity to generate upfront revenue and cash-flow in the early stages of commissioning and ramp-up of the Pilgangoora Project without detracting from the Company's core focus of building a long-term spodumene concentrate business. It is also consistent with Pilbara's desire to support the rapid growth of the lithium-ion supply chain (particularly in China) and to benefit from the very strong prices currently being realised in the lithium DSO market.

## **OFF-TAKE AGREEMENT WITH GREAT WALL MOTOR COMPANY**

During the Quarter, Pilbara finalised the previously announced binding off-take agreement and equity subscription with Great Wall Motor Company ("Great Wall"), one of China's largest automotive manufacturers, to underpin the Stage 2 expansion of the Pilgangoora Project.

The Great Wall agreements represented the first direct investment by an automobile manufacturer into an Australian upstream supplier of lithium raw materials. The offtake agreement is for 75,000tpa and potentially increases up to 150,000tpa of Stage 2 chemical grade spodumene concentrate in the event that Stage 2 debt or pre-payment financing support is provided by Great Wall. The agreement also included a A\$28 million equity subscription for Pilbara shares, which was also completed during the Quarter (see Corporate Section below).

The off-take agreement, which was executed with Great Wall Motor Company and its wholly-owned subsidiary, Hong Kong-registered Billion Sunny Development Limited, comprises 75,000tpa of chemical grade spodumene concentrate (SC6.0 basis) over an initial 5-year term, with the ability to extend for up to a further 10 years via two 5-year options.

The Great Wall off-take agreement, when combined with the previously announced off-take agreement with Ganfeng Lithium (see ASX announcements dated 2 May and 28 September 2017), support sales of between 150,000tpa and 300,000tpa of additional chemical grade spodumene concentrate from the proposed Stage 2 expansion of the Pilgangoora Project, together with a potential funding solution to be negotiated with both off-takers on commercial terms following completion of the Stage 2 Definitive Feasibility Study ("Stage 2 DFS") for a significant proportion of the capital requirements for the development of Stage 2.

Under the agreements with Great Wall, Pilbara has also secured a first opportunity to participate in the joint ownership of a chemical conversion plant by negotiating and entering into any potential joint venture with Great Wall or one of its subsidiaries, consistent with Pilbara's longer term strategy to participate in chemical facilities downstream. The agreement contemplates that chemical grade spodumene concentrate from Stage 2 will be supplied to such a jointly owned conversion plant.

## **TANTALUM OFF-TAKE AGREEMENT WITH GLOBAL ADVANCED METALS**

Towards the end of the Quarter, Pilbara entered into a foundation tantalite concentrate sale agreement with Global Advanced Metals Greenbushes Pty Ltd ("GAMG"), a wholly-owned subsidiary of Global Advanced Metals Pty Ltd ("Global Advanced Metals"), the leading vertically integrated provider of tantalum metallurgical products and tantalum powders for high-performance capacitors.

The GAMG off-take agreement comprises 100,000 pounds of contained Ta<sub>2</sub>O<sub>5</sub> as primary 4-5% concentrates, over a two-year term.

The GAMG off-take agreement covers a portion of the forecast annual tantalite production from Stage 1 of the Pilgangoora Project of 321,000lbs per annum in a lower grade concentrate category, providing Pilbara with greater flexibility to sell this key by-product during the commissioning and ramp-up phase of the Pilgangoora Project.

Global Advanced Metals, one of the world's leading suppliers of tantalum products, is committed to the responsible supply of tantalum in all its forms. Global Advanced Metals also trades tantalum on international markets, produces and supplies tin and manufactures niobium metal products.

Pilbara remains engaged with other buyers in the tantalum market for the balance of its tantalite production, and is encouraged by the strength of demand evident for stable western sources of high quality concentrate. As a result, the Company will continue to engage with the market and in particular with buyers of secondary (higher-grade) tantalite concentrates in the 25-30% Ta<sub>2</sub>O<sub>5</sub> category, which has been readily achieved in Pilbara's pilot scale test work.

## **PILGANGOORA LITHIUM-TANTALUM PROJECT – DEVELOPMENT ACTIVITIES**

### ***Project Construction***

Construction of the Stage 1 Pilgangoora Project ramped up significantly during the Quarter, with a total project workforce of 325 on site at Quarter-end and the construction workforce expected to peak at 650 during Q1 and Q2 of 2018. The successful execution and delivery of the Project remains Pilbara's key corporate objective with the aim of becoming a significant Australian lithium producer during Q2 of 2018.

### ***Award of Key Contracts***

Pilbara awarded a number of additional key project contracts during the Quarter as part of its expedited construction schedule, including a build own and operate contract for crushing services with Crushing Services International ("CSI"), and contracts in respect of the pre-fabricated buildings for the operations centre and phase 1 of the Pilgangoora access road.

### ***Pilgangoora Project Execution – General Update***

Work continued to gather pace in the Quarter with CSI mobilising for the build own and operate of the crusher services. Contract Power Group achieved good progress, completing the civil works and commencing the engine hall structural steel installation for the power station. The EPC contractor, RCR Tomlinson, received the thickener materials and further progressed with the service trenches, commencing the HDPE pipe installation and HV cable pulling. Civil works also progressed in the process plant. NRW Pty Ltd ("NRW") continued with the site access roads and crusher earthwork pads. The dewatering construction phase was completed and is producing daily 3ML per day of storage capacity for construction and mining water resource.





**Figure 1 – Civil and shed erection**



**Figure 2 – Cast in chute for HPGR**



**Figure 3 – Tailings thickener steel erection**



**Figure 4 – Ball Mill assembly**





**Figure 5 – Installation of site wide mobile and radio coverage**

### ***Project Updated Capital Forecasts***

During the Quarter, in light of a number of scope changes, plant improvements and product quality enhancement opportunities, Pilbara revised the forecast Stage 1 capital investment for the Pilgangoora Project to A\$274 million, representing an increase of 17% compared with the previous capital cost estimate.

The increase reflects the following:

- a commitment to additional investment in the processing plant aimed at further enhancing the quality of the final product, consistent with the Company's strategic objective of becoming a quality long-term supplier of SC6.0 spodumene concentrate to the chemical conversion market. This investment – which includes additional investment for iron removal on both the coarse and fine product streams, additional attritioning in the circuit pre-float and the inclusion of reflux classifiers – reflects the outcomes of the Company's pilot-scale test work and detailed EPC engineering (subsequent to the award of the EPC contract);
- acceleration costs proposed to be incurred to ensure that project commissioning remains largely consistent with the original project delivery schedule. This is a result of some additional time consumed by the detailed engineering design program arising from additional scope items and minor extension-of-time claims. The timing of first concentrate is targeted for June 2018 for fines concentrate with balance of commissioning and production ramp up to follow shortly thereafter; and
- some outright cost increases which have been evident in the camp relocation package and Stage 1 bulk earthworks package including latent rock removal and foundation preparations for some of the major plant components.

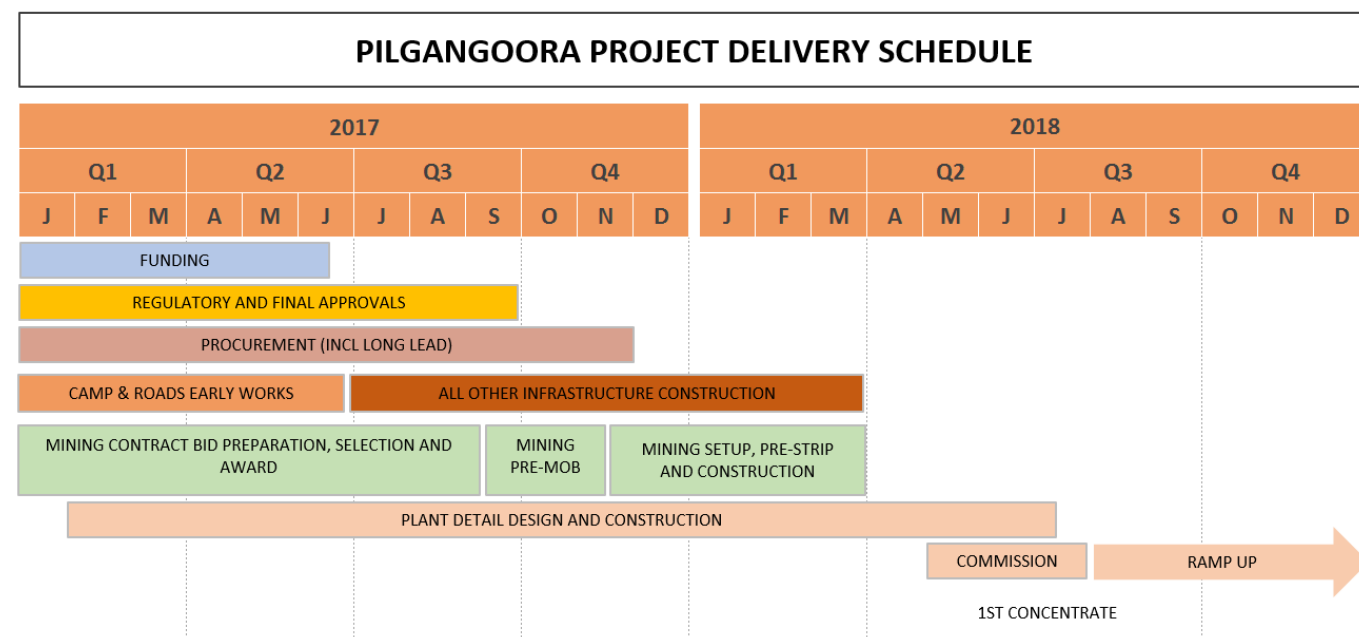
The additional scope items and acceleration costs have been partially offset by the award of a crushing contract to CSI Pty Ltd (a division of Mineral Resources) in lieu of Pilbara undertaking the primary and secondary crushing works itself. Given CSI's recent successful experience at Mt Marion and Wodgina, this significantly de-risks the crushing component of the Pilgangoora plant works.

Additional investments are also being made in support of the Stage 2 expansion, primarily relating to the required earthworks. Additional scope has been included within the NRW earthworks package that provides increased elevation to the plant site, additional drainage and road accesses to the Stage 2 plant pads. Capital costs allocated to the Stage 2 development are approximately \$5.5 million.

In total, the additional forecast expenditure in the period through to the sales of first spodumene concentrate is approximately \$50 million. The Company expects to finance the additional expenditure from existing available sources including project contingency, management reserve, additional equity capital previously raised (A\$20M), along with DSO product sales and customer pre-payments.

### **Project Development Schedule**

The indicative delivery program for the Project is provided in **Figure 6** below:



**Figure 6 – Pilgangoora Project Delivery Schedule**

### **Stage 2, 5Mtpa Processing Expansion Studies**

A Preliminary Feasibility Study (“PFS”) was released by the Company in September 2016 (see ASX announcement dated 20 September 2016), which contemplated an expansion of the Pilgangoora Project from 2Mtpa to 4Mtpa nameplate capacity, resulting in chemical grade spodumene concentrate (SC6.0 basis) production increasing from 314,000tpa to 564,000tpa over the life-of-mine (existing reserve basis).

In response to strong market demand for lithium and the increasing appetite for spodumene concentrate globally, Pilbara commenced a Stage 2 DFS during the Quarter in respect of a 5Mtpa expansion case, targeting chemical and technical grade spodumene concentrates to achieve production of approximately 800,000tpa.

Metallurgical testwork, process plant design, supporting infrastructure and mine planning, together with other key technical disciplines, were progressed during the Quarter in support of the Stage 2 project, with the Company anticipating an announcement of interim outcomes early in 2018 and final Stage 2 DFS outcomes targeted for mid-2018.

## **EXPLORATION ACTIVITIES**

The Company completed its 2017 exploration drilling programs at the Pilgangoora Project during the Quarter, with results continuing to demonstrate the world-class endowment of the Pilgangoora deposit and providing strong support for the ongoing Stage 2 DFS.

Drilling programs included strategic development drilling, PQ diamond drilling within the Central and Eastern prospects, and infill RC grade control drilling at the Monster prospect. All up a total of 94 holes were drilled for 3,995 metres.



Results from these programs, together with results from extensional RC drilling programs being undertaken in Q1 2018, will be incorporated into an updated Mineral Resource estimate. The updated Mineral Resource will, in turn, underpin a new Ore Reserve as part of the Stage 2 DFS due for completion by mid-2018.

### ***Exploration RC Drilling***

The balance of results from strategic development and exploration drilling undertaken in the Quarter were received and have defined new zones of high-grade pegmatite mineralisation at Far East, Monster, West End and Central (**Figure 7**). Extensional drilling north of the Central Zone intersected a thick, high-grade footwall zone outside the current Mineral Resource while drilling at the Monster deposit delivered impressive results with a new near-surface zone of mineralisation intersected to the north of the current pit design.

All results are included in **Appendix 3**. Some of these intersections include:

- 27m @ 1.68% Li<sub>2</sub>O and 71ppm Ta<sub>2</sub>O<sub>5</sub> from 258m (PLS1050) (Central North)
- 21m @ 1.67% Li<sub>2</sub>O and 95ppm Ta<sub>2</sub>O<sub>5</sub> from 178m (PLS1049) (Central North)
- 20 m @ 1.62% Li<sub>2</sub>O and 123ppm Ta<sub>2</sub>O<sub>5</sub> from 141m (PLS1048) (Central North)
- 22m @ 1.15% Li<sub>2</sub>O and 179ppm Ta<sub>2</sub>O<sub>5</sub> from 10m (PLS1052) (Monster)
- 14m @ 1.38% Li<sub>2</sub>O and 161ppm Ta<sub>2</sub>O<sub>5</sub> from 14m (PLS1090) (Monster)
- 8m @ 1.86% Li<sub>2</sub>O and 73ppm Ta<sub>2</sub>O<sub>5</sub> from 31m (PLS1090) (Far East)

An extensive RC exploration drilling is currently underway as part of the Stage 2 expansion project with the key objective being to upgrade the current Inferred Resources to the Indicated and Measured category. This information, together with the results from the current drilling program, is anticipated to form the basis of an expanded Mineral Resource and an updated Ore Reserve estimate for the Stage 2 expansion project by mid-2018.

### ***PQ Diamond Drilling***

PQ diamond drilling was undertaken over key parts of the resource for advanced metallurgical testwork as part of the Stage 2 DFS. The drilling program was undertaken by Mount Magnet Drilling Pty Ltd ("MMD") using a TR1000 track mounted rig. A total of 17 holes for 1074m (275m RC pre-collars and 799m PQ core) were completed at the Central and Eastern prospects.

Drill holes were designed to intersect the major pegmatite ore zones scheduled for mining within the first 5 years of an expanded mining operation. A combined total of approximately 7 tonnes of pegmatite ore was collected. Sample fillets of drill core were cut from each pegmatite domain and submitted to Nagrom Laboratories for analysis. Results continue to demonstrate impressive widths and grades, including:

- 34.7m @ 1.43% Li<sub>2</sub>O from 13.3m and 130ppm Ta<sub>2</sub>O<sub>5</sub> (PLS1110M);
- 28.7m @ 1.57% Li<sub>2</sub>O from 16.0m and 241ppm Ta<sub>2</sub>O<sub>5</sub> (PLS1108M);
- 26.9m @ 1.86% Li<sub>2</sub>O from 27.1m and 224ppm Ta<sub>2</sub>O<sub>5</sub> (PLS1105M); and
- 25.0m @ 1.76% Li<sub>2</sub>O from 96.0m and 133ppm Ta<sub>2</sub>O<sub>5</sub> (PLS1096M).

Remnant drill core together with core collected from previous drilling campaigns will be utilised for advanced metallurgical test-work in Q1 2018.

### ***RC Grade Control Drilling***

Pilbara Minerals completed a second phase of RC grade control drilling over the Monster prospect in preparation for its DSO operation in early 2018. All up a total of 77 holes for 2,922 metres were infill drilled bringing the hole spacing down to nominal 12.5m x 12.5m centres.

Drilling was completed by MMD using a track mounted RC450 drilling rig just prior to Christmas. The information gained from these programs will allow mining to continue in the Stage 1 DSO pit for up to 12 months before any further RC grade control drilling required.

All results have now been received and are included in **Appendix 3**. Some of these intersections include:

- 30m @ 1.76% Li<sub>2</sub>O and 139ppm Ta<sub>2</sub>O<sub>5</sub> from 18m (PGC737)
- 26m @ 1.96% Li<sub>2</sub>O and 196ppm Ta<sub>2</sub>O<sub>5</sub> from 15m (PGC727)

- 25m @ 1.57% Li<sub>2</sub>O and 109ppm Ta<sub>2</sub>O<sub>5</sub> from 33m (PGC692)
- 24m @ 1.92% Li<sub>2</sub>O and 150ppm Ta<sub>2</sub>O<sub>5</sub> from 15m (PGC736)

Resource estimation and reconciliation studies for the Monster DSO pit are currently in progress and will be completed in preparation for mining.

### ***Mt Francisco***

While the Company had expected to obtain access to the Mt Francisco Project for exploration drilling during 2017, the process for securing such access to this project area has taken longer than expected.

The Company continues to engage in access negotiations with the Kariyarra Native Title Claimant Group and the Mugarinya Community Association, who are the entrusted reserve custodians in the Mt Francisco Project area. The Company remains optimistic of obtaining such access rights in the short to near term and looks forward to working collaboratively with the Kariyarra Native Title Claimant Group and the Mugarinya Community Association. A request for Entry Permit has also been lodged with the Aboriginal Lands Trust (ALT), and is expected to be assessed shortly.

Geological studies are currently underway in preparation for the 2018 field program. Proposed exploration including detailed geological mapping and surface sampling is anticipated to commence in early 2018 following receipt of regulatory approvals and the abovementioned consents. This will be followed up by targeted drilling programs and resource estimation during the course of the 2018 calendar year.

As part of the DSO deal with Atlas Iron (see above), Atlas and Pilbara have agreed to extend the deadline by which Pilbara is required to invest \$1 million on exploration at the Mt Francisco Project to October 2018. Pilbara purchased a 51% interest in the project from Atlas last year (see ASX release dated 29 March 2017). Access agreements are targeted to be complete by approximately March 2018 with on-the-ground works commencing shortly thereafter. Drilling is anticipated to commence in Q2 of 2018.

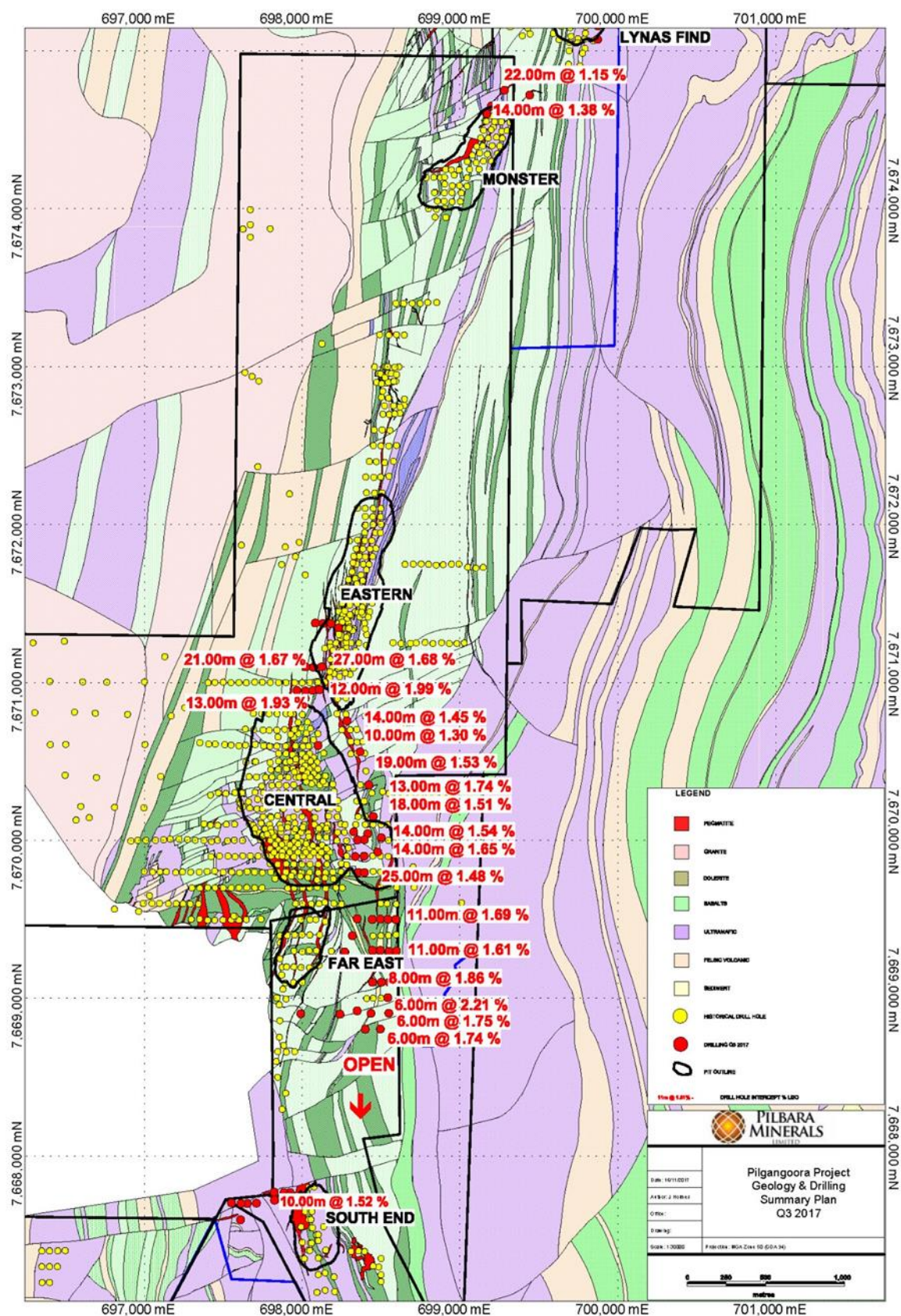


Figure 7 – Pilgangoora Project, Exploration RC Drilling Results Summary

## CORPORATE

### PROJECT FUNDING

#### *Great Wall Motor Company Equity Subscription Agreement*

In addition to the off-take agreement executed with Great Wall for a Stage 2 off-take (see above), Great Wall also completed a A\$28 million equity investment in Pilbara Minerals, with 56 million fully-paid ordinary shares issued to Great Wall on 30 October 2017.

Following allotment, Great Wall holds a relevant interest of approximately 3.41% of the current issued shares in Pilbara. The placement was undertaken within the Company's existing placement capacity under ASX Listing Rule 7.1.

#### *Downstream Processing Opportunities*

The Company continues to be engaged in non-binding discussions with potential joint venture partners for downstream processing opportunities both within and outside China, including Korea. While discussions remain incomplete, the Company remains optimistic that such discussions may deliver a strategic opportunity to participate further in downstream chemical conversion and processing.

#### *Exercise of Unlisted Options*

During the Quarter approximately 33.5M unlisted options were exercised, resulting in the issue of approximately 31.6M fully paid ordinary shares and the receipt of \$12.8M in option exercise proceeds.

#### *Cash Balance*

The Company had an unrestricted cash balance of \$71.97M as at 31 December 2017 (\$78.95M as at 30 September 2017). During the Quarter, the Company received cash proceeds of \$28M from the Great Wall investment and \$12.8M from option conversions.

Major items of expenditure during the Quarter included \$40.2M on the construction and development of the Pilgangoora Project, \$4.8M on net interest and financing payments largely associated with the secured USD Bond facility, \$2.4M on administration and corporate costs and \$1.5M on exploration and evaluation work in relation to the Pilgangoora Project (including associated feasibility studies).

At 31 December 2017, the proceeds from the US\$100M senior secured bond facility were classified as "restricted cash" and held in an escrow account. Funds will be released from the escrow account upon the satisfaction of a customary cost to complete test for the Pilgangoora Project.

### More Information:

#### **ABOUT PILBARA MINERALS**

Pilbara Minerals ("Pilbara" – ASX: PLS) is a mining and exploration company listed on the ASX, specialising in the exploration and development of the specialty metals Lithium and Tantalum. Pilbara owns 100% of the world class Pilgangoora Lithium-Tantalum project which is 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 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 around 1,300 tonnes required each year. Its primary use is in capacitors for consumer electronics, particularly where long battery life and high performance is required such as smart phones, tablets and laptops.



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## **COMPETENT PERSONS STATEMENTS**

The information in this report that relates to Exploration Results and Exploration Targets is based on and fairly represents information and supporting documentation prepared by Mr John Holmes (Exploration Manager of Pilbara Minerals Limited). Mr Holmes is a shareholder of Pilbara Minerals. Mr Holmes is a member of the Australasian Institute of Geoscientists and has sufficient experience of relevance to the styles of mineralisation and types of deposits under consideration, and to the activities undertaken to qualify as Competent Persons as defined in the 2012 Edition of the Joint Ore Reserves Committee (JORC) Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Specifically, Mr Holmes consents to the inclusion in this report of the matters based on his information in the form and context in which they appear.

The Company confirms it is not aware of any new information or data that materially affects the information included in the 25 January 2017 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 25 January 2017.

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 31 December 2017**

Lease	Location	Status	Registered Holder	PLS beneficial holding at commencement of period	PLS beneficial holding at end of period
<b>ACTIVE TENEMENTS and APPLICATIONS AT COMMENCEMENT OF THE QUARTER</b>					
E45/2241	Pilgangoora	Granted	PILBARA MINERALS LTD	100%	100%
E45/3560	Pinnacle	Granted	PILBARA MINERALS LTD	100%	100%
E45/3648	Pilgangoora	Granted	PILBARA MINERALS LTD	100%	100%
E45/4523	Pilgangoora	Granted	PILBARA MINERALS LTD	100%	100%
E45/4624	Pilgangoora	Granted	PILBARA MINERALS LTD	100%	100%
E45/4633	Pilgangoora	Granted	PILBARA MINERALS LTD	100%	100%
E45/4640	Pilgangoora	Granted	PILBARA MINERALS LTD	100%	100%
E45/4648	Pinga	Granted	PILBARA MINERALS LTD	100%	100%
E45/4689	Pilgangoora	Granted	DAKOTA MINERALS LIMITED	100%	100%
E45/4270	Mt Francisco	Granted	PILBARA MINERALS LTD / ATLAS IRON LTD	51%	51%
L45/388	Pilgangoora	Granted	PILBARA MINERALS LTD	100%	100%
L45/396	Pilgangoora	Granted	PILBARA MINERALS LTD	100%	100%
L45/402	Pilgangoora	Granted	PILBARA MINERALS LTD	100%	100%
L45/403	Pilgangoora	Granted	PILBARA MINERALS LTD	100%	100%
L45/411	Pilgangoora	Granted	PILBARA MINERALS LTD	100%	100%
L45/413	Pilgangoora	Granted	PILBARA MINERALS LTD	100%	100%
L45/414	Pilgangoora	Granted	PILBARA MINERALS LTD	100%	100%
L45/417	Pilgangoora	Granted	PILBARA MINERALS LTD	100%	100%
L45/421	Pilgangoora	Application	PILBARA MINERALS LTD	100%	100%
L45/425	Pilgangoora DSO	Granted	PILBARA MINERALS LTD	100%	100%
L45/426	Pilgangoora	Granted	PILBARA MINERALS LTD	100%	100%
L45/429	Pilgangoora	Application	PILBARA MINERALS LTD	100%	100%
L45/430	Pilgangoora	Granted	PILBARA MINERALS LTD	100%	100%
L45/434	Pilgangoora	Application	PILBARA MINERALS LTD	100%	100%
M45/1256	Pilgangoora	Granted	PILBARA MINERALS LTD	100%	100%
M45/333	Pilgangoora	Granted	PILBARA MINERALS LTD	100%	100%
M45/511	Pilgangoora	Granted	PILBARA MINERALS LTD	100%	100%
M45/78	Pilgangoora	Granted	PILBARA MINERALS LTD	100%	100%
P45/2783	Pilgangoora	Granted	DAKOTA MINERALS LIMITED	100%	100%
<b>APPLICATIONS MADE DURING THE QUARTER</b>					
M45/1266	Pilgangoora	Application	PILBARA MINERALS LTD	0%	100%
P45/3058	Pilgangoora	Application	PILBARA MINERALS LTD	0%	100%
<b>TENEMENTS DISPOSED OF DURING THE QUARTER</b>					
-	-	-	-	-	-

## Appendix 2 – Q4 2017 Exploration Drill Hole Collars

### PQ / RC Program – Central and Eastern Domains

Hole ID	East GDA94	North GDA94	RL	Dip	Azm	Depth
PLS1093M	697925	7669799	185	-60	270	39
PLS1094M	698020	7669799	185	-60	270	28.3
PLS1095M	697906	7670006	206	-60	270	109.5
PLS1096M	697997	7669998	192	-60	270	136.5
PLS1102M	697979	7670503	225	-90	0	22.9
PLS1110M	698046	7670223	221	-75	270	50.9
PLS1104M	697950	7670699	204	-90	0	30.2
PLS1105M	698245	7670940	201	-70	270	64.5
PLS1107M	698257	7671196	200	-90	0	73.7
PLS1108M	698286	7671403	199	-90	0	49.5
PLS1109M	698280	7671601	195	-90	0	37.7
PLS1100	698061	7670301	216	-60	270	29
PLS1097	697800	7670099	193	-90	0	24
PLS1099	698096	7670208	226	-60	270	45
PLS1103	697990	7670595	225	-60	270	23
PLS1098M	697769	7670208	224	-80	90	155.5
PLS1101M	697865	7670399	221	-75	270	154.4

### RC GC – Monster

Hole ID	East GDA94	North GDA94	RL	Dip	Azm	Depth
PGC681	698863	7674175	236	-90	0	52
PGC682	698888	7674175	234	-90	0	58
PGC683	698913	7674175	231	-90	0	58
PGC684	698838	7674188	234	-90	0	40
PGC685	698850	7674188	235	-90	0	42
PGC686	698863	7674188	237	-90	0	46
PGC687	698875	7674188	237	-90	0	52
PGC688	698888	7674188	237	-90	0	56
PGC689	698900	7674188	236	-90	0	60
PGC690	698913	7674188	234	-90	0	58
PGC691	698925	7674188	231	-90	0	58
PGC692	698938	7674188	229	-90	0	60
PGC693	698913	7674200	236	-90	0	58
PGC694	698925	7674200	235	-90	0	58
PGC695	698938	7674200	233	-90	0	58
PGC696	698950	7674200	230	-90	0	63
PGC697	698831	7674213	231	-90	0	30



PGC698	698844	7674213	232	-90	0	28
PGC699	698856	7674213	234	-90	0	34
PGC700	698869	7674213	237	-90	0	34
PGC701	698881	7674213	238	-90	0	42
PGC702	698894	7674213	238	-90	0	48
PGC703	698906	7674213	238	-90	0	57
PGC704	698919	7674213	238	-90	0	58
PGC705	698931	7674213	236	-90	0	60
PGC706	698944	7674213	235	-90	0	58
PGC707	698844	7674238	227	-90	0	8
PGC708	698860	7674235	230	-90	0	14
PGC709	698869	7674238	231	-90	0	17
PGC710	698881	7674238	232	-90	0	20
PGC711	698894	7674238	233	-90	0	26
PGC712	698906	7674238	233	-90	0	35
PGC713	698919	7674238	234	-90	0	40
PGC714	698931	7674238	235	-90	0	46
PGC715	698944	7674238	235	-90	0	50
PGC716	698956	7674238	234	-90	0	52
PGC717	698969	7674238	231	-90	0	56
PGC718	698981	7674238	227	-90	0	56
PGC719	698994	7674238	224	-90	0	56
PGC720	698914	7674263	228	-60	0	24
PGC721	698919	7674263	229	-90	0	24
PGC722	698931	7674263	229	-90	0	37
PGC723	698944	7674263	231	-90	0	37
PGC724	698956	7674263	232	-90	0	41
PGC725	698969	7674263	230	-90	0	43
PGC726	698981	7674263	226	-90	0	46
PGC727	698994	7674263	222	-90	0	43
PGC728	699006	7674263	216	-90	0	48
PGC729	699019	7674263	216	-90	0	53
PGC730	698944	7674288	225	-90	0	24
PGC731	698956	7674288	225	-90	0	26
PGC732	698969	7674288	224	-90	0	26
PGC733	698994	7674288	223	-90	0	30
PGC734	698994	7674288	221	-90	0	34
PGC735	699006	7674288	220	-90	0	38
PGC736	699019	7674288	221	-90	0	44
PGC737	699031	7674288	222	-90	0	52
PGC738	699044	7674288	222	-90	0	59





PGC739	698956	7674313	217	-90	0	8
PGC740	698969	7674316	218	-90	0	12
PGC741	698969	7674316	219	-60	110	18
PGC742	699002	7674313	217	-60	270	23
PGC743	699006	7674313	216	-90	0	25
PGC744	699019	7674313	216	-90	0	27
PGC745	699031	7674313	216	-90	0	29
PGC746	699044	7674313	216	-90	0	36
PGC747	699056	7674313	214	-90	0	46
PGC748	699019	7674338	207	-90	0	9
PGC749	699031	7674338	210	-90	0	16
PGC750	699044	7674338	209	-90	0	19
PGC751	699056	7674338	207	-90	0	29
PGC752	699069	7674338	208	-90	0	23
PGC753	699050	7674363	203	-90	0	12
PGC754	699063	7674363	205	-90	0	18
PGC755	699075	7674363	208	-90	0	23
PGC756	699056	7674388	203	-90	0	6
PGC757	699069	7674388	205	-90	0	12

### Appendix 3 – Q4 2017 Drill Hole Intersection Summary

#### *PQ Diamond Core Results (1.0% Li<sub>2</sub>O cut)*

Hole ID	From (m)	To (m)	Thickness (m)	Li <sub>2</sub> O %	Ta <sub>2</sub> O <sub>5</sub> (ppm)
PLS1110M	13.32	48	34.7	1.43	130.39
PLS1108M	16	44.7	28.7	1.57	241.33
PLS1105M	27.1	54	26.9	1.86	224.77
PLS1096M	96	121	25.0	1.76	133.6
PLS1096M	47.15	68	20.9	1.84	86.17
PLS1107M	12	26	14.0	1.9	219.64
PLS1102M	9.5	22.9	13.4	1.65	137.24
PLS1096M	4.1	12.5	8.4	1.19	54.15
PLS1104M	14	21	7.0	2	271.71
PLS1109M	20	25	5.0	1.72	234.56
PLS1096M	127	129.1	2.1	1.91	338.1
PLS1104M	5	7	2.0	1.58	159
PLS1107M	43	44	1.0	2.48	139
PLS1093M	2	4	2.0	1.52	229.5
PLS1093M	19	32	13.0	1.25	95.08
PLS1094M	6	23.7	17.7	1.47	75.69
PLS1095M	1	9	8.0	1.28	104.75
PLS1095M	16.9	20	3.1	1.87	100.9
PLS1095M	59	101	42.0	1.95	113.81
PLS1098M	71	108	37.0	1.72	89.35
PLS1098M	111	137	26.0	1.79	68.62
PLS1098M	142	144	2.0	1.52	161
PLS1098M	151	152	1.0	1.33	48
PLS1101M	101	152.05	51.1	1.56	126.33

#### *RC GC Results – Monster (1.0% Li<sub>2</sub>O cut)*

Hole ID	From (m)	To (m)	Thickness (m)	Li <sub>2</sub> O %	Ta <sub>2</sub> O <sub>5</sub> (ppm)
PGC681	32	45	13	1.95	145.08
PGC682	37	52	15	1.5	144.13
PGC683	34	43	9	1.62	98.67
PGC683	46	55	9	1.5	114.33
PGC684	26	36	10	1.79	164.4
PGC685	28	38	10	2.02	148.3
PGC686	27	39	12	1.8	147.5
PGC687	31	46	15	1.8	146
PGC688	34	49	15	1.58	125.67
PGC689	40	56	16	1.52	127.44
PGC690	33	39	6	1.72	67.67

PGC690	43	55	12	1.95	123.92
PGC691	33	54	21	1.72	128.86
PGC692	33	58	25	1.57	109.32
PGC693	32	37	5	1.91	122
PGC693	41	50	9	1.83	103.11
PGC693	53	54	1	1.24	558
PGC694	34	55	21	1.96	111.67
PGC695	33	55	22	1.73	112.23
PGC696	36	61	25	1.6	130.48
PGC697	16	22	6	1.97	155.5
PGC697	25	28	3	1.12	152.67
PGC698	12	22	10	1.7	152.8
PGC699	16	24	8	2.11	167.63
PGC700	16	24	8	1.64	121
PGC700	27	31	4	1.55	241.75
PGC701	19	30	11	1.73	153.18
PGC702	24	42	18	1.94	129.06
PGC703	29	45	16	1.98	138.69
PGC703	50	51	1	1.22	143
PGC704	30	39	9	2.41	81.44
PGC704	42	52	10	1.2	148.4
PGC705	32	53	21	1.91	106.24
PGC706	36	56	20	1.4	152.4
PGC707	2	3	1	1.85	231
PGC708	1	10	9	1.78	203.67
PGC709	0	1	1	2.23	83
PGC709	5	14	9	1.85	170.67
PGC710	1	7	6	2.02	133.33
PGC710	10	17	7	1.29	143
PGC711	5	23	18	1.91	158.17
PGC712	12	30	18	1.67	117.89
PGC713	18	26	8	1.72	101.63
PGC713	30	36	6	1.41	110.67
PGC714	22	42	20	1.88	132.25
PGC715	24	43	19	1.74	111.68
PGC716	25	49	24	1.7	137.92
PGC717	29	51	22	1.97	161.45
PGC718	28	36	8	1.97	139
PGC718	43	52	9	1.87	197.33
PGC719	26	47	21	1.94	150.33
PGC720	9	16	7	1.46	167.29
PGC721	0	21	21	1.67	124.1
PGC722	7	22	15	2.1	130.67
PGC722	25	27	2	1.44	111

PGC723	13	34	21	1.79	124.38
PGC724	16	38	22	1.62	131.18
PGC725	16	25	9	1.8	123.22
PGC725	32	40	8	1.43	214.37
PGC726	18	27	9	2.04	111
PGC726	31	44	13	1.62	296.62
PGC727	15	41	26	1.96	196.27
PGC728	13	33	20	2	169.1
PGC728	39	44	5	1.34	153
PGC729	18	37	19	1.99	156.42
PGC729	43	50	7	1.5	179
PGC730	0	20	20	1.94	141.35
PGC731	1	23	22	1.63	179.77
PGC732	1	23	22	1.73	172.91
PGC733	2	11	9	1.22	109.44
PGC733	15	25	10	1.59	247.1
PGC734	7	31	24	1.8	159.83
PGC735	10	20	10	1.96	120.5
PGC735	24	35	11	1.58	223.73
PGC736	15	39	24	1.92	150.75
PGC737	18	48	30	1.76	138.9
PGC738	22	39	17	1.65	118.12
PGC738	42	53	11	1.71	122.55
PGC742	3	17	14	1.45	156
PGC743	1	20	19	1.81	157.11
PGC744	0	13	13	1.94	108.46
PGC744	16	24	8	1.49	153.5
PGC745	2	25	23	1.83	132.35
PGC746	8	33	25	1.6	127.12
PGC747	11	20	9	1.71	131.33
PGC747	31	36	5	1.79	143.2
PGC747	39	42	3	1.1	211.67
PGC749	6	8	2	1.1	82.5
PGC750	0	4	4	1.08	69
PGC750	10	17	7	1.97	135.43
PGC751	5	6	1	1.1	42
PGC751	10	16	6	1.67	139
PGC751	20	24	4	2.19	120.25
PGC752	1	13	12	1.68	96.42
PGC754	0	14	14	1.53	97.21
PGC755	8	12	4	2.49	99.25



**RC Exploration Results (0.5% Li<sub>2</sub>O cut)**

*Note - All Collars tabled in September 2017 quarterly report. Full results including balance not reported previously tabled below.*

Hole ID	From (m)	To (m)	Thickness (m)	Li <sub>2</sub> O %	Ta <sub>2</sub> O <sub>5</sub> (ppm)
PLS808	16	20	4	1.65	65
PLS810	150	158	8	1.69	57.13
PLS815	6	13	7	1.14	59.43
PLS816	34	40	6	1.35	70
PLS816	49	53	4	1.43	45.5
PLS817	120	123	3	1.76	73
PLS817	129	135	6	0.82	69.33
PLS817	177	179	2	1.35	32
PLS818	189	200	11	1.61	62.55
PLS822	19	24	5	0.81	103.4
PLS822	111	112	1	1.2	78
PLS823	31	39	8	1.86	73.5
PLS823	136	137	1	1.7	74
PLS824	57	59	2	0.57	91.5
PLS824	105	107	2	0.69	26.5
PLS977	82	88	6	2.21	58.17
PLS978	36	39	3	1.07	61.33
PLS983	64	65	1	0.54	76
PLS985	32	33	1	1.35	51
PLS985	76	77	1	0.82	54
PLS985	88	90	2	1.8	54.5
PLS987	49	53	4	1.56	59.75
PLS987	104	108	4	1.72	109.75
PLS987	114	118	4	1.28	69.5
PLS989	121	127	6	1.75	43.67
PLS989	185	188	3	1.04	60.33
PLS989	193	195	2	1.45	67
PLS990	62	65	3	1.21	50.67
PLS990	95	101	6	1	42.33
PLS990	120	122	2	0.76	119
PLS992	110	116	6	1.74	46.33
PLS992	161	165	4	1.11	77.25
PLS995	62	63	1	0.79	64
PLS996A	48	51	3	1.85	94
PLS997	65	66	1	0.56	9
PLS1000	24	27	3	0.85	66.67
PLS1000	30	31	1	0.77	70
PLS1001	11	16	5	0.88	46.4
PLS1001	21	25	4	0.99	53.75

PLS1003	49	64	15	1.13	74.53
PLS1004	24	25	1	2.36	22
PLS1004	36	37	1	0.55	10
PLS1004	50	53	3	2.51	67.67
PLS1004	64	70	6	1.19	79.83
PLS1004	128	131	3	1.14	59.67
PLS1004	135	142	7	1.14	34.57
PLS1005	22	31	9	1.44	76.44
PLS1005	47	56	9	1.18	47.22
PLS1005	80	90	10	1.52	52.4
PLS1005	96	97	1	1.08	82
PLS1007	81	88	7	1.53	90.29
PLS1007	117	124	7	1.21	59.86
PLS1007	131	134	3	0.8	57.67
PLS1008	51	52	1	1.78	63
PLS1008	80	81	1	1.27	54
PLS1009	5	7	2	1.37	109.5
PLS1009	10	15	5	1.02	74.6
PLS1009	25	28	3	1.41	84
PLS1016	38	42	4	0.43	174.5
PLS1016	124	130	6	1.87	75.17
PLS1017	92	117	25	1.48	82
PLS1018	0	12	12	2.02	324.83
PLS1018	61	66	5	2.05	113.2
PLS1019	24	27	3	1.31	270.33
PLS1019	103	106	3	0.78	75.67
PLS1023	40	45	5	1.96	83.8
PLS1024	10	15	5	1.32	259.4
PLS1024	81	88	7	1.64	88.86
PLS1027	41	49	8	1.66	85.5
PLS1028	9	10	1	0.65	193
PLS1028	48	60	12	1.36	102.83
PLS1029	10	11	1	0.51	2
PLS1029	21	27	6	1.72	198.17
PLS1030	33	35	2	0.72	366.5
PLS1032	6	10	4	1.35	208
PLS1032	23	41	18	0.89	214.37
PLS1032	62	63	1	1.23	177
PLS1032	80	81	1	0.71	11
PLS1032	84	85	1	0.67	275
PLS1032	88	89	1	1.25	33
PLS1036	70	78	8	0.95	97.38
PLS1036	90	96	6	0.98	117

PLS1036	105	109	4	1.41	212.5
PLS1036	130	146	16	1.17	99.38
PLS1044	15	16	1	0.55	35
PLS1044	95	104	9	0.87	175.56
PLS1044	108	114	6	1.04	71.5
PLS1045	76	81	5	1.83	256.6
PLS1045	96	99	3	1.61	123.67
PLS1045	184	196	12	1.99	97
PLS1045	204	215	11	1.62	388.64
PLS1046	10	13	3	1.75	146.33
PLS1046	39	43	4	0.63	199.25
PLS1046	125	126	1	0.51	4
PLS1046	151	164	13	1.93	122.15
PLS1046	173	182	9	1.73	367.33
PLS1047	106	120	14	0.99	97.71
PLS1048	30	36	6	0.96	182.67
PLS1048	114	115	1	0.87	83
PLS1048	141	161	20	1.62	122.75
PLS1049	42	43	1	0.7	78
PLS1049	74	81	7	0.71	179.71
PLS1049	90	93	3	1.42	85
PLS1049	158	160	2	1.25	126
PLS1049	178	199	21	1.67	95.19
PLS1049	205	220	15	1.31	214.4
PLS1050	66	67	1	1.06	247
PLS1050	74	81	7	1.03	63.43
PLS1050	87	88	1	0.58	136
PLS1050	122	127	5	1.19	285
PLS1050	130	133	3	1.14	109.33
PLS1050	138	142	4	1.05	67.25
PLS1050	194	196	2	1.17	114.5
PLS1050	207	209	2	0.6	328.5
PLS1050	223	228	5	1.3	125
PLS1050	235	245	10	1.67	62
PLS1050	253	254	1	0.68	90
PLS1050	258	285	27	1.68	71.41
PLS1051	90	93	3	1.03	226.67
PLS1051	98	105	7	1.92	150.29
PLS1051	119	121	2	1.4	157.5
PLS1051	142	143	1	0.78	110
PLS1052	10	32	22	1.15	179.05
PLS1052	48	50	2	1.31	52
PLS1054	42	43	1	0.65	431

PLS1054	81	88	7	0.94	143.43
PLS1054	99	100	1	0.53	95
PLS1078	27	34	7	1.57	220
PLS1078	40	43	3	1.07	230
PLS1078	72	74	2	0.76	233
PLS1078	195	197	2	1.64	106
PLS1078	228	242	14	1.45	74.21
PLS1078	322	325	3	0.6	41
PLS1078	350	360	10	1.3	109.4
PLS1078	372	374	2	0.72	102
PLS1079	16	26	10	0.72	124.9
PLS1079	88	93	5	1.6	91.6
PLS1079	122	126	4	1.22	163.75
PLS1079	242	248	6	1.41	104.5
PLS1079	289	295	6	0.98	78.5
PLS1079	358	364	6	1.24	74.17
PLS1079	447	466	19	1.53	57.74
PLS1080	15	16	1	0.61	318
PLS1080	29	32	3	1.94	267.33
PLS1080	168	181	13	1.74	70.92
PLS1080	368	371	3	1.53	66
PLS1080	375	376	1	0.79	72
PLS1080	477	495	18	1.51	45.72
PLS1081	109	110	1	0.98	196
PLS1081	153	160	7	2.04	58
PLS1081	327	341	14	1.54	79.14
PLS1081	448	462	14	1.65	46.86
PLS1082	68	84	16	1.17	70.69
PLS1082	302	305	3	0.52	74.33
PLS1082	403	411	8	1.32	66.38
PLS1082	446	449	3	1.69	78
PLS1090	0	6	6	1.19	82.17
PLS1090	45	59	14	1.38	161
PLS1091	6	12	6	0.68	88
PLS1091	32	39	7	1.04	54.43
PLS1091	47	53	6	1.24	48.67

## JORC Code, 2012 Edition – Table 1 report

### Section 1 Sampling Techniques and Data

(Criteria in this section apply to all succeeding sections.)

Criteria	JORC Code explanation	Commentary
<b>Sampling techniques</b>	<i>Nature and quality of sampling (e.g. cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.</i>	Pilbara Minerals Limited (“PLS”) has completed 13 diamond drill core holes (Size PQ) for 798.9m, 6 RC pre collars for 274.7m and 77 RC Grade Control holes for 2922m during Q4 2017. All results have been reported in Appendix 3. Additional results include the balance of RC exploration intersections that were not available in Q3 2017.
	<i>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</i>	PLS RC holes were sampled every metre, with samples split on the rig using a cyclone splitter. The sampling system consisted of a rig mounted cyclone with cone splitter and dust suppression system. The cyclone splitter was configured to split the cuttings at 85% to waste (to be captured in 600mm x 900mm green plastic mining bags) and 15% to the sample port in draw-string calico sample bags (10-inch by 14-inch). Bulk waste for grade control holes were laid out in rows on the ground at each collar location. PQ Core measured and marked up on site and photographed prior to transport to Perth.
	<i>Aspects of the determination of mineralisation that are Material to the Public Report. In cases where ‘industry standard’ work has been done this would be relatively simple (e.g. ‘reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay’). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (e.g. submarine nodules) may warrant disclosure of detailed information.</i>	Samples collected from RC holes were split at the rig. Core fillets (approximately 15% were cut on site on 1m intervals. All samples are then sent to NAGROM Perth laboratory and analysed for a suite of 18 elements. Analysis was completed by XRF and ICP techniques.



Criteria	JORC Code explanation	Commentary
<b>Drilling techniques</b>	<i>Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (e.g. core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).</i>	RC grade control drilling was completed by Mt Magnet Drilling Pty Ltd using an RC450 track mounted Schramm drill rig. Drilling used a reverse circulation face sampling hammer. The sampling system consisted of a rig mounted cyclone with cone splitter and dust suppression system. PQ diamond drilling was completed by Mt Magnet Drilling using a TR1000 track mounted diamond drilling rig.
<b>Drill sample recovery</b>	<i>Method of recording and assessing core and chip sample recoveries and results assessed.</i>	Sample recovery was recorded as good for RC and Diamond drill holes.
	<i>Measures taken to maximise sample recovery and ensure representative nature of the samples.</i>	Whilst drilling through the pegmatite, RC rods were flushed with air after each 6 metre interval.
	<i>Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.</i>	Samples were dry and recoveries are noted as “good.”
<b>Logging</b>	<i>Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.</i>	For RC holes 1m samples were laid out in lines of 20 or 30 samples with cuttings collected and geologically logged for each interval and stored in 20 compartment plastic rock-chip trays with hole numbers and depth intervals marked (one compartment per 1m). Geological logging information was recorded directly onto digital logging system and information validated and transferred electronically to Database administrators in Perth. The rock-chip trays are to be stored on site at Pilgangoora. All PQ diamond holes were geologically and geotechnically logged following mark-up.
	<i>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</i>	Logging has primarily been quantitative. Core photography undertaken on a tray by tray basis for both wet and dry core prior to cutting.

Criteria	JORC Code explanation	Commentary
	<i>The total length and percentage of the relevant intersections logged.</i>	The database contains lithological data for all holes in the database. All holes logged from start to finish on 1 metre intervals.
<b>Sub-sampling techniques and sample preparation</b>	<p><i>If core, whether cut or sawn and whether quarter, half or all core taken.</i></p> <p><i>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</i></p> <p><i>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</i></p>	<p>RC samples were generally dry and split at the rig using a cyclone splitter, which is appropriate and industry standard.</p> <p>Diamond drill core was filleted (approximately 15%) on site using a Clipper brick saw. Samples were collected on 1m intervals through the pegmatite zone. Samples intervals vary at contact boundaries as only pegmatite sampled.</p>
	<i>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</i>	PLS samples have field duplicates, field standards and blanks as well as laboratory splits and repeats.
	<i>Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling.</i>	Field duplicates were taken approximately every 20m, and standards and blanks every 50 samples.
	<i>Whether sample sizes are appropriate to the grain size of the material being sampled.</i>	Drilling sample sizes are considered to be appropriate to correctly represent the tantalum and lithium mineralization at Pilgangoora based on the style of mineralization (pegmatite) and the thickness and consistency of mineralization.
<b>Quality of assay data and laboratory tests</b>	<i>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</i>	PLS samples were assayed NAGROM Perth laboratory and analysed for a suite of 18 elements via ME-MS91 Sodium Peroxide for ICPMS finish and Peroxide fusion with an ME-ICP89 a ICPAES finish.
	<i>For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument</i>	No geophysical tools were used to determine any element concentrations used in this resource estimate.

Criteria	JORC Code explanation	Commentary
	<i>make and model, reading times, calibrations factors applied and their derivation, etc.</i>	
	<i>Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.</i>	<p>PLS duplicates of the samples were taken at twenty metre intervals with blanks and standards inserted every 50m. Comparison of duplicates by using a scatter chart to compare results show the expected strong linear relationship reflecting the strong repeatability of the sampling and analysis process.</p> <p>The PLS drilling contains QC samples (field duplicates, blanks and standards plus laboratory pulp splits, and Nagrom internal standards), and have produced results deemed acceptable.</p>
<b>Verification of sampling and assaying</b>	<p><i>The verification of significant intersections by either independent or alternative company personnel.</i></p> <p><i>The use of twinned holes.</i></p>	<p>Infill drilling completed by PLS in this program has confirmed the approximate width and grade of historical drilling.</p> <p>A number of the PQ diamond drill holes were also used as twinned holes to measure against historical RC holes.</p>
	<i>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</i>	An electronic database containing collars, surveys, assays and geology is maintained by Trepanier Pty Ltd, an Independent Geological consultancy.
	<i>Discuss any adjustment to assay data.</i>	Li was converted to Li <sub>2</sub> O for the purpose of reporting. The conversion used was $Li_2O = Li \times 2.153$
<b>Location of data points</b>	<i>Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.</i>	<p>PLS holes were surveyed using DGPS in GDA94, Zone 50.</p> <p>Down hole surveying of drill holes was conducted using a Reflex EZ-shot, electronic single shot camera to determine the true dip and azimuth of each hole.</p>

Criteria	JORC Code explanation	Commentary
		Measurements were recorded at the bottom of each hole. Drill hole collar locations will be surveyed at the end of the program by a differential GPS (DGPS). All diamond drill holes were surveyed using a Gyro by independent contractors Gyro Australia.
	<i>Specification of the grid system used.</i>	The grid used was MGA (GDA94, Zone 50).
	<i>Quality and adequacy of topographic control.</i>	The topographic surface used was supplied by GAM.
<b>Data spacing and distribution</b>	<i>Data spacing for reporting of Exploration Results.</i>	Drilling spacings varied between 12m to 200m apart.
	<i>Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.</i>	The interpretation of the mineralised domains are supported by a moderate drill spacing, plus both geological zones and assay grades can be interpreted with confidence.
	<i>Whether sample compositing has been applied.</i>	No compositing.
<b>Orientation of data in relation to geological structure</b>	<i>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</i>	The mineralisation dips approximately 45-60 degrees at a dip direction of 090 degrees. The drilling orientation and the intersection angles are deemed appropriate.
	<i>If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.</i>	No orientation-based sampling bias has been identified.

Criteria	JORC Code explanation	Commentary
<b>Sample security</b>	<i>The measures taken to ensure sample security.</i>	Chain of custody for PLS holes were managed by PLS personnel.
<b>Audits or reviews</b>	<i>The results of any audits or reviews of sampling techniques and data.</i>	Sampling techniques for historical assays have not been audited. The collar and assay data have been reviewed by checking all of the data in the digital database against hard copy logs. All PLS assays were sourced directly from the NAGROM laboratory.

## Section 2 Reporting of Exploration Results

(Criteria listed in the preceding section also apply to this section.)

Criteria	JORC Code explanation	Commentary
<b>Mineral tenement and land tenure status</b>	<i>Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites</i>	PLS owns 100% of tenements within the Pilgangoora Project area. All drill holes from the reported program were drilled on M45/1256. Results from previous program were drilled on M45/1256, M45/333, M45/511 and Licence Application for M45/1259 (E45/4523).
	<i>The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.</i>	No known impediments.
<b>Exploration done by other parties</b>	<i>Acknowledgment and appraisal of exploration by other parties.</i>	Talison completed RC holes in 2008. GAM completed RC holes between 2010 and 2012.
<b>Geology</b>	<i>Deposit type, geological setting and style of mineralisation.</i>	The Pilgangoora pegmatites are part of the later stages of intrusion of Archaean granitic batholiths into Archaean metagabbros and metavolcanics. Tantalum mineralisation occurs in zoned pegmatites that have intruded a sheared metagabbro.



Criteria	JORC Code explanation	Commentary
<b>Drill hole Information</b>	<p>A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes, including easting and northing of the drill hole collar, elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar, dip and azimuth of the hole, down hole length and interception depth plus hole length.</p> <p>If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.</p>	Refer to <b>Appendices 2 and 3</b> of this Report.
<b>Data aggregation methods</b>	<p>In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated. Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.</p> <p>The assumptions used for any reporting of metal equivalent values should be clearly stated.</p>	<p>Length weighed averages used for exploration results reported in <b>Appendix 3</b>. Cutting of high grades was not applied in the reporting of intercepts in <b>Appendix 3</b>. PQ diamond drill core and RC grade control results have been reported using a 1.0% Li<sub>2</sub>O lower cutoff. RC exploration results have been reported using a 0.5% Li<sub>2</sub>O lower cutoff.</p> <p>No metal equivalent values are used.</p>
<b>Relationship between mineralisation widths and intercept lengths</b>	<p>These relationships are particularly important in the reporting of Exploration Results.</p> <p>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</p> <p>If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known').</p>	Downhole lengths are reported in <b>Appendix 3</b> .
<b>Diagrams</b>	Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being	See <b>Figure 7</b> of this Report.

Criteria	JORC Code explanation	Commentary
	<i>reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.</i>	
<b>Balanced reporting</b>	<i>Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.</i>	Comprehensive reporting of drill details has been provided in <b>Appendix 3</b> of this Report.
<b>Other substantive exploration data</b>	<i>Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.</i>	All meaningful & material exploration data has been reported.
<b>Further work</b>	<i>The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling). Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</i>	The aim is to upgrade the existing JORC compliant resource calculation.