Pilbara Minerals
...Powering a Sustainable Energy Future

ASX / MEDIA ANNOUNCEMENT **Tuesday, 16 October 2018**

SEPTEMBER 2018 QUARTERLY ACTIVITIES REPORT

Pilbara Minerals joins the ranks of global lithium producers with ramp-up of the Stage 1 Pilgangoora project on track and concentrate shipments underway; Stage 2, 5Mtpa DFS and Ore Reserve upgrade underscores Pilbara's position as a major new player in global lithium raw materials supply.

HIGHLIGHTS

Production and Marketing

- Maiden shipment of concentrate from the Pilgangoora Lithium-Tantalum project departed Port Hedland on 2 October 2018 bound for customers in north Asia, comprising 8,800wmt (wet metric tonnes) of spodumene concentrate grading 6.256% lithia and 0.724% Fe_2O_3.
- Strong production throughput for both coarse and fines circuits, with very high product quality achieved.
- First tantalite primary concentrate delivery of approximately 5,000lb of tantalite product completed to GAM.
- 205,766 tonnes of direct shipping ore sold to Atlas Iron under the mine gate sale agreement.
- Second spodumene concentrate shipment targeted to occur in the second half of October 2018.

Project Development

- Outstanding progress with ramp-up of the Stage 1 concentrator, which has already demonstrated 270tph process run-rates (or higher), representing 100% of the plant's design throughput capacity. The Company continues to optimise the plant operation to achieve the targeted design utilisation and lithia recovery rates.
- Definitive feasibility study for the Stage 2, 5Mtpa Pilgangoora expansion project delivers exceptional financial outcomes and robust economics, with key highlights including:
  - Post-tax $NPV_{10\%}$ of A$2.160B; LOM project revenue of $A12.2B ($ real); LOM EBITDA of $A6.3B ($ real);
  - Average annual production of approximately 800-850ktpa of 6% spodumene concentrate and approximately 800,000lbs per annum of tantalite over estimated 17-year mine life;
  - Competitive cash operating costs of US$233/t CIF for first 5 years following ramp-up; LOM cash operating costs of US$263/t CIF.
- Stage 2 major long-lead process plant equipment tendered and nearing finalisation for placement of order.

Exploration

- 35% increase in total Proved and Probable Ore Reserves at the Pilgangoora project to 108.2Mt grading 1.25% Li_2O, 120ppm Ta_2O_5 and 1.17% Fe_2O_3. The updated Ore Reserve contains an estimated 1.36Mt of contained Li_2O and 28.5Mlb of Ta_2O_5, extending the mine life to ~23 years based on the proposed Stage 2, 5Mtpa operation.
- Inaugural exploration program including reconnaissance RC drilling has been completed at Mt Francisco. Drilling has intercepted multiple pegmatites containing tantalum and lithium mineralisation. Whilst drilling to date has only tested a relatively small portion of the project area, geological logging has shown lithium mineralisation to be associated with zinnwaldite and lepidolite, with exploration for major spodumene occurrences continuing.

Corporate

- US$15 million working capital and foreign exchange hedging facilities secured with globally recognised bank, BNP Paribas, supporting the Pilgangoora Stage 1 ramp-up and continued growth.
- Northern Australia Infrastructure Facility approves A$19.5 million concessional loan to fund the upgrade of the Pippingarra (public) Road from Pilgangoora to Port Hedland – with facility documentation expected to be entered into shortly.
- Final draw-down completed under the US$100M senior secured bond issue, following satisfaction of a cost-to-complete test.
- US$12.2M received from Atlas Iron during the quarter from DSO sales under the mine gate sale agreement.
- Cash balance as at 30 September 2018 of A$90.6M (30 June 2018: A$120M) following remaining Stage 1 development costs and the commencement of Stage 2 engineering and procurement works.

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

"Pilbara Minerals has now well and truly arrived as a new global lithium producer – and joined the ranks of Australia's mid-tier miners – following an exceptional September quarter which saw the Company achieve one key project milestone after another at Pilgangoora.

"The ramp-up of the Pilgangoora concentrator progressed on schedule, with our disciplined approach to investment and project development really paying dividends. We transitioned relatively quickly from commissioning to project ramp-up and the team managed the process of balancing and coordinating the various components of the plant with great professionalism and focus.

"Towards the end of the quarter, we had successfully delivered our first 'on spec' spodumene and tantalite concentrates, enabling us to complete our first concentrate shipment to our offtake partners on 2 October – a huge milestone for our employees, contractors, shareholders and partners.

"In parallel with the ramp-up of Stage 1, we also completed the Definitive Feasibility Study for the Stage 2, 5Mtpa expansion of the Pilgangoora project during the Quarter.

"Based on the strong technical and economic outcomes of this study, we expect the Pilbara Minerals Board to make a Final Investment Decision in the coming weeks, which could see us commence construction before the end of the year. The successful delivery of Stage 2 will underpin Pilbara Minerals' continued rapid growth trajectory to potentially become a top-3 global lithium raw materials producer by 2020."

Figure 1: *M.V. Pola Devora* being loaded with the first shipment of spodumene concentrate from the Pilgangoora project

1. OVERVIEW

Australian lithium producer, Pilbara Minerals Limited (ASX: PLS) ("Pilbara Minerals" or "the Company"), is pleased to advise that it made further outstanding progress at its 100%-owned Pilgangoora Lithium-Tantalum project in Western Australia ("Project" or "Pilgangoora project") during the September 2018 Quarter ("Quarter"), with the ramp-up of the Stage 1, 2Mtpa operation proceeding on schedule, and the delivery of the definitive feasibility study ("DFS") confirming exceptional financial outcomes and robust economics for the proposed Stage 2, 5Mtpa expansion.

The ramp-up of the Pilgangoora concentrator achieved a number of key milestones over the Quarter, with the first sale of tantalite concentrate completed in September under the mine gate sale agreement with Global Advanced Metals, and the first shipment of spodumene concentrate completed subsequent to the end of the Quarter, cementing Pilbara Minerals' status as the world's newest major lithium producer.

Plant run-rates have increased steadily over the reporting period, with design capacity input (approximately 270 tonnes per hour) achieved over a 24-hour period towards the end of the Quarter through the combined coarse and fines concentrate production circuits. These results demonstrate the effectiveness of Pilbara Minerals' thorough test work, engineering, process flow design and equipment selection.

Production of direct shipping ore ("DSO") also continued throughout the Quarter, with 205,766 sold under the mine gate sale agreement with Atlas Iron.

The completion of a definitive feasibility study for the Stage 2, 5Mtpa ("Stage 2, 5Mtpa DFS") expansion of the Pilgangoora project also marked a significant milestone, indicating competitive forecast cash operating costs, robust operating margins, long life and exceptional economic returns. Based on a proposed 5Mtpa stand-alone mining and processing operation, the Stage 2, 5Mtpa DFS indicates life-of-mine revenue of A$12.2 billion (real) and life-of-mine project EBITDA of A$6.3 billion (real) over an estimated 17-year mine life. A Final Investment Decision (FID) on the Stage 2 expansion is expected in the coming weeks.

The outstanding opportunity to expand production at the Pilgangoora project was further reinforced during the Quarter with the announcement of a 35% increase in Ore Reserves. The updated Ore Reserve contains an estimated 1.36 million tonnes of contained Li_2O and 28.5 million pounds of Ta_2O_5, extending the mine life to approximately 23 years based on the proposed Stage 2, 5Mtpa operation.

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 September quarter. The Quarter ended with a rolling twelve-month total recordable injury frequency rate (TRIFR) of 3.46, which was a 16% improvement on the previous June 2018 quarter.

3. PRODUCTION AND SALES

3.1 Operations overview

	Units	Q2 FY18	Q3 FY18	Q4 FY18	Q1 FY19
Ore Mined	*wmt*	0	0	344,549	525,559
Waste Mined	*wmt*	151,812	1,832,205	2,851,161	1,884,335
Total Material Mined	*wmt*	151,812	1,832,205	3,195,710	2,409,894
Ore Mined - Grade	*%*	-	-	1.45	1.43
Ore Crushed	*wmt*	-	-	50,185	177,369
Ore Processed[1]	*wmt*	-	-	0	173,667
DSO Sold	*wmt*	-	-	145,974	205,766
Spodumene Concentrate Produced	*dmt*	-	-	-	11,814
Spodumene Concentrate Sold	*dmt*	-	-	-	0
Tantalite Concentrate Produced	*lb*	-	-	-	16,891
Tantalite Concentrate Sold	*lb*	-	-	-	4,974

[1] A proportion of processed volumes are off-specification which is typical during ramp-up. These volumes will be reprocessed.

3.2 Mining

Mining activities at the Pilgangoora project for the Quarter included commencement of construction for a new Tails Management Facility (TMF) cell, continued mine development at Central pit and the DSO operation.

Mine production during the Quarter comprised 525,559 ore tonnes grading 1.43% Li, with ore sourced from Central pit to supply the processing plant, and Monster pit for the direct shipping ore program.

3.3 Processing

Mill throughput for the Quarter totalled 173,667 tonnes, in line with the ramp-up schedule, with the Pilgangoora concentrator performing in accordance with expectations in respect of both product throughput and

concentrate quality throughout the Quarter.

Continued optimisation as part of the Company's continuing plant ramp-up plan is expected to contribute to higher production. This optimisation includes continued improvement in Lithia recovery and increased plant utilisation (plant up-time).

3.4 Sales and marketing

During the Quarter, Pilbara Minerals sold a total of 205,766 tonnes of DSO product to Atlas Iron under the terms of a mine gate sale agreement between Atlas Iron and Pilbara Minerals (*refer ASX announcement dated 20 December 2017*).

The first delivery of tantalite concentrate, comprising approximately 5,000lb under the mine gate sale agreement for primary concentrate sales, was completed in September 2018 to Global Advanced Metals.

The first shipment of spodumene concentrate from the Pilgangoora project was completed subsequent to the end of the Quarter, departing Port Hedland on 2 October 2018 bound for off-take partners in north Asia. The maiden shipment, onboard charter vessel 'M.V. Pola Devora', comprised 8,800wmt (wet metric tonnes) of spodumene concentrate grading approximately 6.26% lithia and 0.72% Fe_2O_3. The product was a blend of coarse and fines concentrate from the Pilgangoora concentrator.

As previously announced, the Company is planning to load another vessel with spodumene concentrate in the second half of October 2018. Having achieved producer status, Pilbara Minerals now intends to report on production and sales outcomes as part of the Company's regular quarterly reporting.

4. PROJECT DEVELOPMENT

4.1 Project ramp-up

Following the completion of construction for Stage 1 of the Pilgangoora project and start of commissioning (*refer ASX announcement dated 30 July 2018*), the main focus of activity during the Quarter was completing the transition from commissioning into the ramp-up of fines concentrates production for customer delivery.

Product specifications for both fines spodumene concentrate and primary tantalite concentrates reached levels consistent with saleable specifications during the Quarter, allowing the Company to focus on growing concentrate production for sale via the steady ramp-up of the plant's capacity to total designed throughput and recovery levels.

Spodumene concentrate recovery at the Pilgangoora plant is achieved via dense media separation ("DMS") of the ore to a coarse concentrate, and fines flotation to recover the remaining spodumene.

For the purpose of first concentrate sales to customers, the fines circuit was prioritised initially due to the larger proportion of product supply, with commissioning of the DMS circuit following. By the end of the Quarter, both circuits were load commissioned and contributing to the production of saleable product.

Haulage of the concentrate to Port Hedland commenced in early September 2018.

By Quarter-end, the Pilgangoora Stage 1 concentrator was achieving strong production throughput for both coarse and fines circuits, with combined tonnages averaging above 450t/day in alignment with the planned

throughput levels during ramp-up. Both circuits are achieving exceptional product quality, confirming the ability of the Pilgangoora project to deliver a premium quality product to world markets.

Plant run-rates are continuing to increase and have been achieving design capacity input tonnes (of approximately 270 tonnes per hour) over multiple 24-hour periods, through the combined coarse and fines concentrate production circuits. These results demonstrate the effectiveness of Pilbara Minerals thorough test work, engineering, process flow design and equipment selection. Ongoing processing operations will now focus on increasing plant utilisation towards the targeted 85% of available time.

Product specifications for both fines and coarse spodumene concentrates have been further refined with improving overall stability in the processing plant operations.

Typical product specifications being achieved currently are greater than 6% Li_2O and typically <1.0% Fe_2O_3. Both coarse and fines circuits have demonstrated the capacity to deliver very high grade lithia production (in some cases >7% Li_2O) and very low iron in concentrate (as low is 0.4% Fe_2O_3), following further optimisation through the commissioning, testing and ramp-up cycle.

Concentrate production is expected to continue to increase each month, reaching designed plant tonnage throughput by the end of the 2018 calendar year.

Figure 2: Fines concentrate production from the filter press (top) and tantalite product bags (bottom) ready for delivery.

Consistent with the nature of the plant and the interconnected wet plant processes, the Company expects to achieve design plant lithia recovery of approximately 75%, by Q4 FY19. That represents the final stage of optimisation of the plant following ramp-up and reflects the additional time required to balance all of the plant components once commercial steady-state production throughput levels are achieved.

4.2 Stage 2, 5Mtpa definitive feasibility study

The definitive feasibility study for the Stage 2, 5Mtpa expansion of the Pilgangoora Lithium-Tantalum project was completed during the Quarter, outlining a compelling case for the expansion to proceed. The Stage 2, 5Mtpa DFS delivered exceptional results and reaffirmed the project's scale, quality, competitive forecast cash operating costs, robust operating margins, long life and outstanding project economics.

Based on a proposed 5Mtpa stand-alone mining and processing operation, the Stage 2, 5Mtpa DFS indicates the Pilgangoora project will be a robust, high margin operation with current forecast life-of-mine revenue of A$12.2B

(real) and life of mine project EBITDA of A$6.3B (real) over an estimated 17 year mine life.

A summary of the key Stage 2, 5Mtpa DFS financial outcomes is provided in Table 1 below:

Table 1: Stage 2, 5Mtpa DFS key financial outcomes

Study outcomes	DFS - 5Mtpa base case
Estimated LOM	17 years
LOM project revenue (real)	A$12.2B
LOM project EBITDA (real)	A$6.3B
Stage 2 capital	A$230.9M
Post-tax NPV[1]$_{10\%}$	A$2,160M
First 5 years average annual EBITDA (real), post ramp up	A$418M per annum
First 5 years cash operating costs[2] (real. net Ta_2O_5 credits), post ramp up	US$233/t CIF[3] (A$311/t CIF)
LOM cash operating costs[2] (real, net of Ta_2O_5 credits)	US$263/t CIF[3] (A$351/t CIF)
LOM average annual EBITDA (real)	A$370M per annum
LOM forecast spodumene concentrate price (real)	US$633/t CIF[3]

1. Valuation date of 1 July 2018 at after tax nominal discount rate of 10%.

2. Cash operating costs include mining, processing, transport, state and private royalties, native title costs, port, shipping/freight and site based general and administration costs, an allocation of corporate administration/overhead cost and are net of Ta_2O_5 by-product credits.

3. CIF ("Cost Insurance and Freight") (Incoterm) is a trade term requiring the seller to deliver goods onboard at port of discharge, plus cover the cost of transport and freight insurance to the destination port.

While the Stage 2, 5Mtpa DFS has delivered a slight increase in capital costs from A$207M to A$231M (compared to the pre-feasibility study) and LOM cash operating costs of US$263/t (CIF), the engineering re-design introduces an additional 3Mtpa processing circuit, compared to the 2.5Mtpa contemplated by the PFS. This provides advantages such as additional flexibility in the operation of the plant and the potential for further expansion capacity of the plant over time. The Stage 2, 5Mtpa expansion will be a globally cost competitive operation producing between 800,000 – 850,000tpa of high-quality spodumene concentrate over its 20-25 year mine life following growth in the Pilgangoora Reserve.

Select works have commenced pre-Final Investment Decision (FID), including tendering the procurement of the major long lead equipment for the process plant. These orders are expected to be placed early in the next quarter.

The FID will be sought from the Pilbara Minerals' Board and is expected to be reached in the coming weeks. It is expected early works construction will commence in late 2018 with commissioning and first product currently targeting late Q4 2019.

Full details of the Stage 2, 5Mtpa DFS results were provided in the Company's ASX announcement dated 3 August 2018.

5. EXPLORATION

5.1 Pilgangoora Ore Reserve and Mineral Resource upgrade

Pilbara Minerals delivered a 35% increase in the Ore Reserves at the Pilgangoora project during the Quarter, supporting both the Stage 2, 5Mtpa expansion as well as providing scope for further growth.

The expanded JORC Ore Reserve comprises 108.2Mt grading 1.25% Li_2O, 120ppm Ta_2O_5 and 1.17% Fe_2O_3, containing an estimated 1.36 million tonnes of Li_2O and 28.5 million pounds of Ta_2O_5, and extending the mine life of the Pilgangoora project to approximately 23 years based on the proposed Stage 2, 5Mtpa operation.

The new Ore Reserve was calculated based on the updated JORC Mineral Resource also delivered in September 2018 of 226.0Mt @ 1.27% Li_2O containing an estimated 2.86Mt of Li_2O.

Table 2: Pilgangoora Tantalum-Lithium Project JORC Ore Reserve Estimate (September 2018)

Category	Tonnage (Mt)	Li_2O (%)	Ta_2O_5 (ppm)	Fe_2O_3 (%)	Li_2O (Mt)	Ta_2O_5 (Mlbs)
Proved	22.1	1.30	135	1.11	0.29	6.6
Probable	86.1	1.24	116	1.19	1.07	21.9
TOTAL	**108.2**	**1.25**	**120**	**1.17**	**1.36**	**28.5**

Notes:

1. Ore loss was estimated to be 10% of the convertible Measured and Indicated Mineral Resource.
2. The Ore Reserve estimate includes 6% of diluting material at zero grade for Li_2O and Ta_2O_5.
3. The grade of Fe_2O_3 associated with waste rock dilution was estimated into a waste model using ordinary kriging and applied locally.
4. All Inferred Mineral Resource and unclassified mineral inventories within the mining envelope were treated as waste.
5. Oxidized mineralization was treated as waste.
6. The Lynas Find Pit and associated waste land forms are located on M45/1266, which was granted on 26 September 2018. All other pits and landforms are located within existing granted mining leases held by Pilbara Minerals Ltd.
7. Totals may not add up due to rounding.
8. The Ore Reserve was estimated using the Net Smelter Return (NSR) method. The marginal economic cut-offs were estimated to be between $25-30 per tonne, depending on the distance from the process plant.

There is significant potential for further increases in both the global Mineral Resource and Ore Reserve inventory, with customer demand supporting the opportunity for further growth beyond Stage 2.

Further details of the upgraded Ore Reserve and Mineral Resource estimates are provided in the Company's ASX announcement dated 17 September 2018.

5.2 Pilgangoora Exploration Target

Assessment of the resource model and geology within the Pilgangoora project has resulted in a revised Exploration Target* that has now been upgraded to 50-90 million tonnes grading 1.0-1.5% Li_2O (lithia), demonstrating the incredible endowment within the project area. There remain many areas at Pilgangoora that are under-explored (refer to Figure 3), and as such are important targets for further resource growth over the coming years.

* **Note to Exploration Target:** The potential quantities and grades of the Exploration Target are conceptual in nature and there has been insufficient exploration to date to define a Mineral Resource. It is not certain that further exploration will result in the estimation of a Mineral Resource.

The new Exploration Target*, which is in addition to the current JORC total Measured, Indicated and Inferred

Resource of 226 million tonnes grading 1.27% Li_2O and 116ppm Ta_2O_5 and 0.60% Fe_2O_3, has been determined from interpretation of numerous datasets, detailed geological mapping and interpolations from existing pegmatite domains in the Pilgangoora 3D geological model. The majority of target areas are further qualified by the occurrence of outcropping spodumene bearing pegmatites. RC drilling to test the validity of selected target areas will be undertaken in the first half of 2019. All target areas, including estimates of tonnages and grades, are listed in Table 3 and are also illustrated in Figure 3.

Table 3: Exploration Target* Areas

Target Area	Million Tonnes	Grade Li_2O %	Grade Ta_2O_5 ppm
Monster-Houston Creek	5-10	1.2 - 1.5	100 - 150
Eastern Prospects	10-15	1.2 - 1.5	200 - 250
Heartbreak Hill	10-15	1.0 - 1.2	200 - 250
Central West	5-10	1.2 - 1.5	100 - 150
Far East	5-10	1.2 - 1.5	100 - 150
Southern Prospects	5-10	1.0 - 1.2	50 - 100
Extensional Margins of existing resource	10-20	1.0 - 1.5	50 - 150
Exploration Target*	**50-90**	**1.0 - 1.5**	**50 - 250**

*** Note to Exploration Target: The potential quantities and grades of the Exploration Target are conceptual in nature and there has been insufficient exploration to date to define a Mineral Resource. It is not certain that further exploration will result in the estimation of a Mineral Resource.**

5.3 Mt Francisco joint venture (PLS 51% / AGO 49%, Pilbara Minerals earning up to 80%)

Pilbara Minerals has completed its inaugural exploration program at Mt Francisco resulting in a greatly improved understanding of the globally significant pegmatite system in the Pilgangoora district. Exploration included detailed geological mapping, surface geochemistry and a reconnaissance reverse circulation ("RC") drilling program. The Company considers that it has satisfied the earn-in expenditure commitment to increase its interest in the project from 51% to 70%.

Surface geochemistry was undertaken on 200 x 100m centres across the Mt Francisco project, with a total of 1156 soil samples and 23 rock chip samples collected. Several low order but contiguous lithium and tantalum geochemical anomalies were outlined within the High Range target area and also to the north at the Bright Star Prospect (refer to Figure 4).

RC drilling was carried out by Mt Magnet Drilling Pty Ltd over several targets within the Mt Francisco project area. A total of 24 holes were drilled for an advance of 2,808m at an average depth of 117m (refer to Figure 5). Drilling has intercepted multiple pegmatites with thicknesses ranging up to 30m. The pegmatites contain elevated levels of tantalum and lithium mineralisation, but geological logs indicate lithium mineralisation is associated with zinnwaldite and lepidolite.

Assay results have been received, with best results including:

- 11m @ 124ppm Ta_2O_5 from 14m (MTF032);
- 5m @ 248ppm Ta_2O_5 from 58m (MTF025); and
- 5m @ 0.45% Li_2O from 58m (MTF052).

Drill hole collar information along with a table listing the best intercepts are included as Appendices 2 and 3.

Whilst drilling to date has only focused on a relatively small portion of the Mt Francisco project area, numerous geological and surface geochemical targets remain untested with the Company's focus being on geology supporting spodumene occurrences. The Company plans to undertake a detailed assessment of the geology and analytical results prior to undertaking any further drilling.

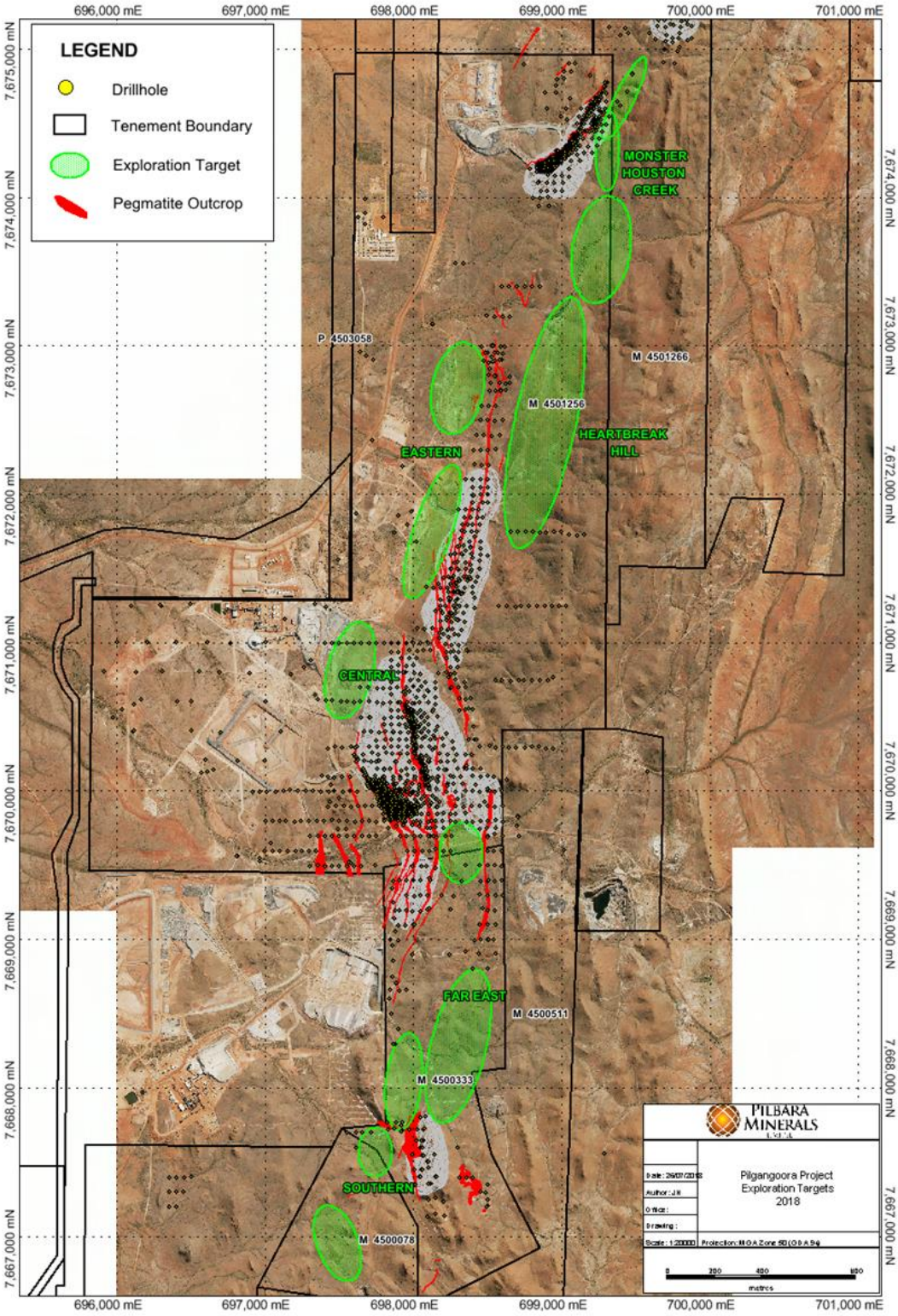

Figure 3: Pilgangoora Project – Exploration Target* Areas 2018

Note to Exploration Target: The potential quantities and grades of the Exploration Target are conceptual in nature and there has been insufficient exploration to date to define a Mineral Resource. It is not certain that further exploration will result in the estimation of a Mineral Resource.

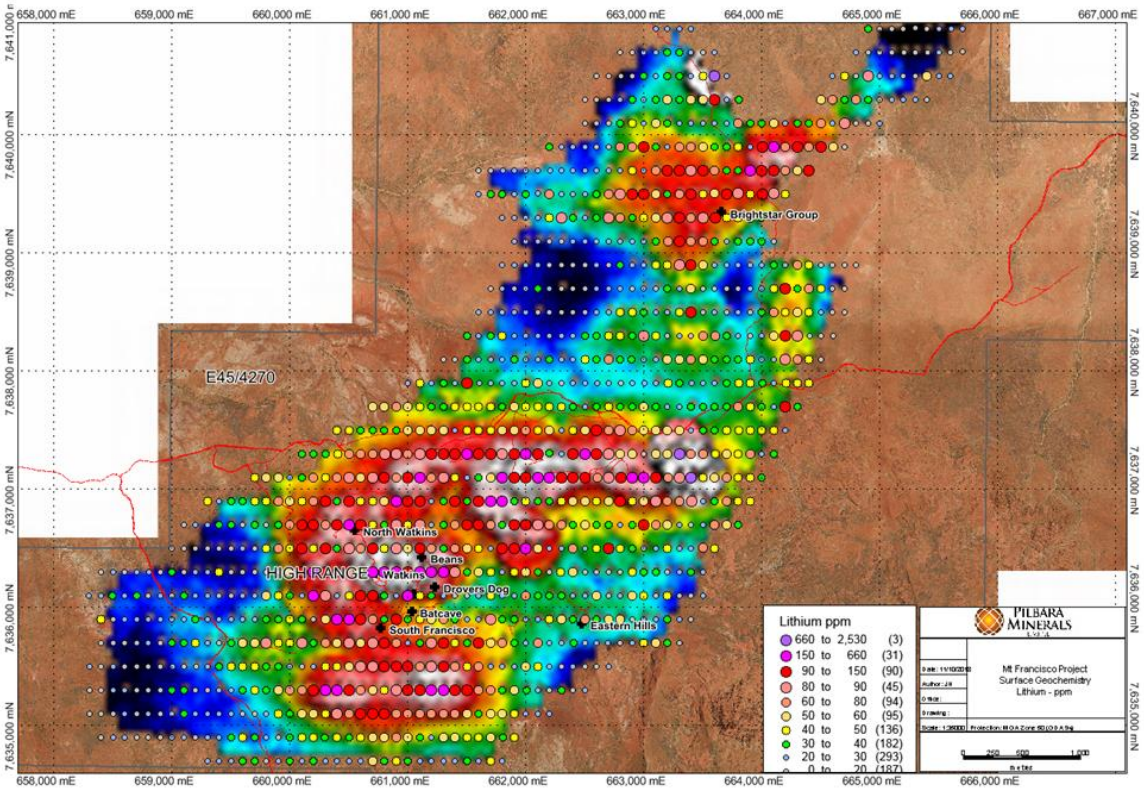

Figure 4: Mt Francisco Surface Geochemistry (Lithium ppm)

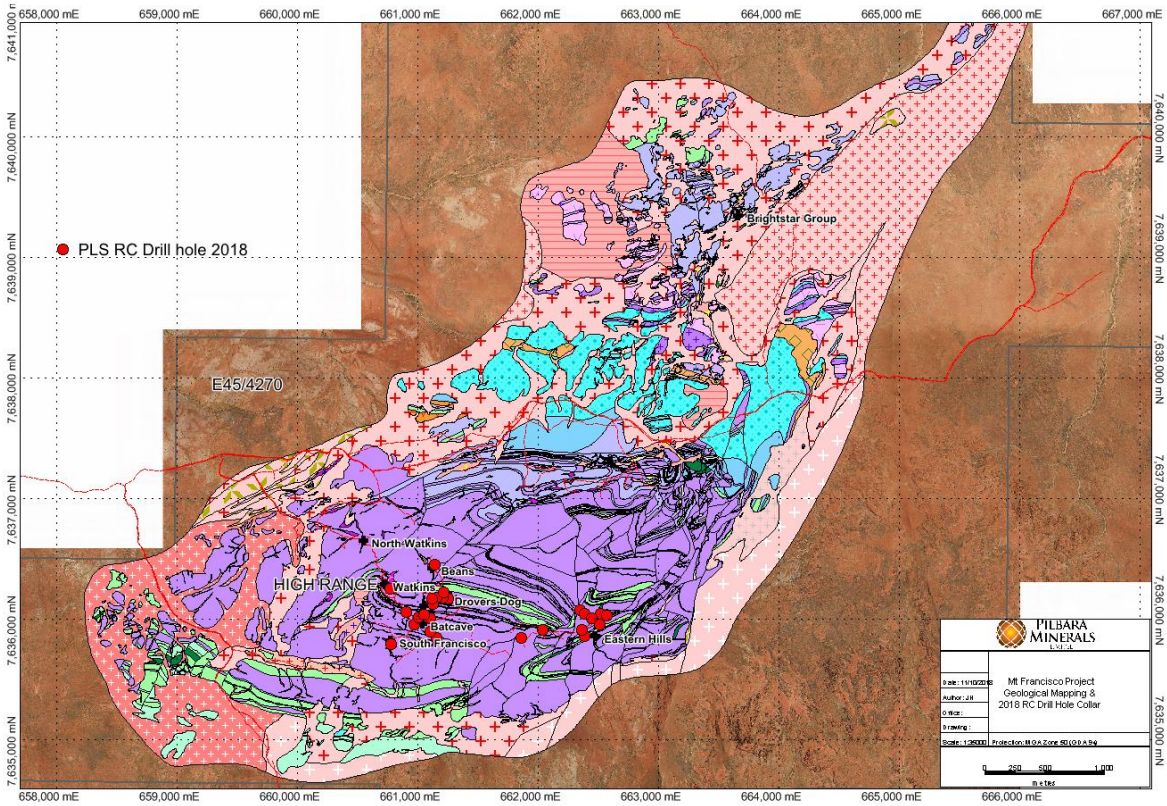

Figure 5: Mt Francisco Geological Mapping and 2018 RC Drill Hole Collar

6. CORPORATE

6.1 Proceeds from sales

During the Quarter, Pilbara Minerals received cash totalling US$12.2M from Atlas Iron for DSO material sold under the terms of a mine gate DSO Sale Agreement (*refer ASX announcements dated 20 December 2017 and 18 June 2018*).

At Quarter-end, the Company had also recognised receivables of US$1.8M for DSO material sold to Atlas, for which it expects to receive cash subsequent to the Quarter-end.

Proceeds from the first shipment of spodumene concentrate, which departed for the Company's offtake partners in north Asia on 2 October 2018, is expected to be received during the December 2018 Quarter.

6.2 BNP Paribas working capital and foreign exchange hedging facilities

During the Quarter, Pilbara Minerals executed a US$15M working capital facility and foreign exchange hedging facility with BNP Paribas, a globally recognised bank with a stable A credit rating from Standards and Poor (S&P) and a stable Aa3 from Moody's.

The facilities have been established to support prudent risk and capital management during Pilbara Minerals' growth phase, and they coincide with the commissioning and ramp up phases for Stage 1 of the Pilgangoora Lithium-Tantalum project and the proposed Stage 2, 5Mtpa expansion.

6.3 NAIF concessional loan facility of A$19.5 million

During the Quarter, Pilbara Minerals received indicative approval from the Australian Government's Northern Australia Infrastructure Facility ("NAIF") for a A$19.5M concessional loan facility to assist in funding the upgrade of the Pippingarra Road, a public road connecting the Pilgangoora project to port infrastructure in Port Hedland.

The funding will enable Pilbara Minerals to increase haulage payloads of product from the Pilgangoora project to Port Hedland port via larger trailer configurations, thereby improving the operation. Pippingarra Road will also facilitate the proposed Stage 2, 5Mtpa expansion of the Pilgangoora project.

The NAIF concessional loan is subject to final documentation and customary conditions precedent to drawdown, including final sign off from the Western Australian State Government.

6.4 Stage 2 funding

Having released the Stage 2, 5Mtpa DFS results during the Quarter and commenced commissioning and ramp up of Stage 1 of the Pilgangoora project, the Company is now targeting a final investment decision (FID) by the Board for Stage 2 in the coming weeks following which it will seek to finalise Stage 2 funding during the December 2018 Quarter.

During the Quarter, Pilbara Minerals continued to make progress with a number of funding alternatives for Stage 2, including debt and/or offtake prepayment funding from customers linked to accessing 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.

6.5 Cash balance

The Company had a cash balance of A$90.6M as at 30 September 2018 (A$120M as at 30 June 2018).

Major items of cash outflow during the Quarter included A$43.1M on the construction, development, commissioning and ramp up of Stage 1 of the Pilgangoora project, A$4.5M on DSO mining costs, A$4.1M in interest and financing payments largely associated with the USD senior secured bond facility, A$3.5M on payroll, administration and corporate costs and A$2.8M on exploration and evaluation work primarily in relation to the Pilgangoora project (including associated feasibility studies) and Mt Francisco exploration.

The Company received net proceeds of A$16.4M mainly from the sale of DSO material to Atlas Iron during the Quarter and also completed the final drawdown of A$12.2M from its US$100M senior secured bond facility.

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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 (full-time Exploration and Geology 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. 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 17 September 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 17 September 2018.

The Company confirms it is not aware of any new information or data that materially affects the information included in the 17 September 2018 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 17 September 2018.

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 September 2018

Tenement	Location	Status	Registered Holder	PLS beneficial holding at start 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%
L45/396	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%
L45/449	Pilgangoora	Application	Pilgangoora Operations Pty Ltd	100%	100%
L45/450	Pilgangoora	Application	Pilgangoora Operations Pty Ltd	100%	100%
L45/453	Pilgangoora	Application	Pilbara Minerals Limited	100%	100%
L45/454	Pilgangoora	Application	Pilbara Minerals Limited	100%	100%
M45/1256	Pilgangoora	Granted	Pilbara Minerals Limited	100%	100%
M45/1266	Pilgangoora	Granted	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					
L45/473	Pilgangoora	Application	Pilgangoora Operations Pty Ltd	0%	100%
E45/5332	Pilgangoora	Application	Pilbara Minerals Limited	0%	100%
TENEMENTS DISPOSED OF DURING THE QUARTER					
L45/388	Pilgangoora	Granted	Pilbara Minerals Limited	100%	0%

Appendix 2 – Drill Hole Collar Table

Mt Francisco

Hole ID	Hole Type	MGA Easting	MGA Northing	RL	Dip	AZM	Hole Depth (m)
MTF011	RC	660770	7636251	300	-60	1.40	100
MTF018	RC	661137	7636454	267	-90	1.40	100
MTF025	RC	661215	7636221	299	-90	1.40	100
MTF027	RC	661115	7636175	304	-90	0.00	100
MTF032	RC	661124	7636133	306	-90	0.00	100
MTF038	RC	661052	7636039	296	-90	1.40	100
MTF045	RC	661001	7636018	303	-90	1.40	100
MTF050	RC	661151	7636179	309	-90	0.00	100
MTF051	RC	661201	7636180	311	-90	0.00	106
MTF052	RC	661250	7636171	312	-90	0.00	148
MTF057	RC	661099	7636011	305	-90	1.40	100
MTF071	RC	661101	7635900	305	-90	0.00	112
MTF078	RC	661037	7635757	302	-90	1.40	100
MTF086	RC	660907	7636063	298	-90	0.00	100
MTF089	RC	660967	7635955	311	-90	0.00	100
MTF090	RC	660774	7635800	296	-90	0.00	124
MTF115	RC	662222	7635841	314	-90	1.40	70
MTF117	RC	662359	7635913	314	-90	1.40	154
MTF119	RC	662481	7635976	316	-60	136.40	148
MTF120	RC	662441	7636005	316	-90	1.40	148
MTF121	RC	662379	7636042	313	-90	1.40	148
MTF122	RC	662345	7636078	312	-90	1.40	148
MTF123	RC	662564	7636028	313	-60	136.40	154
MTF124	RC	662519	7636043	309	-90	1.40	148

Appendix 3 – Table of Results

RC Drill Hole Intercepts – Li_2O

Hole ID	From (m)	To (m)	Thickness (m)	Li_2O %
MTF011	50	51	1	0.38
MTF011	55	56	1	0.22
MTF011	75	77	2	0.29
MTF018	19	21	2	0.37
MTF032	71	73	2	0.41
MTF032	76	77	1	0.23
MTF038	0	1	1	0.21
MTF050	8	9	1	0.38
MTF051	49	50	1	0.21
MTF052	58	63	5	0.45
MTF057	23	24	1	0.2
MTF086	29	30	1	0.29
MTF089	50	51	1	0.23
MTF089	80	81	1	0.27
MTF090	94	95	1	0.44
MTF090	105	106	1	0.26
MTF122	70	73	3	0.23

RC Drill Hole Intercepts – Ta_2O_5

Hole ID	From (m)	To (m)	Thickness	Ta_2O_5 ppm
MTF086	29	31	2	252.16
MTF025	58	63	5	247.88
MTF052	78	81	3	203.92
MTF050	84	86	2	174.01
MTF090	40	43	3	167.29
MTF057	73	75	2	165.46
MTF025	35	39	4	163.02
MTF057	24	27	3	146.94
MTF027	13	17	4	139.82
MTF090	102	103	1	134.32
MTF032	69	77	8	129.44
MTF038	1	2	1	129.44
MTF057	35	36	1	128.22
MTF050	21	24	3	127.4
MTF032	14	25	11	124.33
MTF025	81	83	2	123.33
MTF027	32	36	4	120.58

MTF051	96	99	3	117.23
MTF071	24	30	6	115.19
MTF051	15	18	3	108.68
MTF018	11	20	9	104.06
MTF038	39	55	16	103.95
MTF057	51	52	1	103.79
MTF052	63	67	4	101.35
MTF052	112	114	2	100.74

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
Sampling techniques	• *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.*	• The Mt Francisco Project has been sampled using a series of reverse circulation ("RC") holes and surface geochemistry. • Talison Minerals Pty Ltd ("Talison") conducted reconnaissance and surface geochemistry programs in 2007 and 2008. • In 2010 Talison changed its name to Global Advanced Metals ("GAM"). • GAM completed 114 RC holes for 7,015m between 2010 and 2012. • Pilbara Minerals Limited ("PLS") has completed a total of 24 RC holes for 2,808 metres in 2018. • PLS collected 1,156 soil samples on a 200 x 100m grid in 2018.
	• *Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.*	• GAM RC holes were all sampled every metre, with samples split on the rig using a cyclone splitter. • PLS RC holes were all sampled every metre within pegmatite zones and two metres into footwall & hanging wall country rock for the 2018 drilling. • 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 (12-inch by 15-inch). • PLS completed composite surface sampling on a 200m x 100m grid.
	• *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.*	• Talison/GAM holes are all RC, with samples split at the rig sent for analysis at Talison's Greenbushes laboratory and analysed by XRF for a suite of 36 elements. • PLS RC samples were split at the rig and sent to the Nagrom laboratory in Perth and analysed by XRF and ICP for a suite of 14 elements. • PLS surface samples were sent to Nagrom laboratory in Perth and analysed by a mixed acid digest with ICP finish.

Criteria	JORC Code explanation	Commentary
Drilling techniques	• *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.).*	• The specific drilling rig used in 2010 and 2011 campaigns is not noted in any reports, the drilling was completed by VM Drilling and ADS Drilling. • RC Drilling in 2018 was completed Mt Magnet Drilling Pty Ltd using an RC300-2 track mounted Hydco-custom made 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.
Drill sample recovery	• *Method of recording and assessing core and chip sample recoveries and results assessed.*	• Recoveries for the majority of the historical holes are not known. • Sample recovery for PLS 2018 holes were recorded as good for RC holes.
	• *Measures taken to maximise sample recovery and ensure representative nature of the samples.*	• Whilst drilling through the pegmatite, rods were flushed with air after each metre drilled for PLS holes. • Loss of fines as dust was reduced by injecting water into the sample pipe before it reached the cyclone. This minimises the possibility of a positive bias whereby fines are lost, and heavier, tantalum bearing material, is retained.
	• *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.*	• No material bias has been identified.
Logging	• *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.*	• 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 stored on site at Pilgangoora in a secured containerised racking library.
	• *Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography.*	• 1m samples were laid out in lines of 20 or 30 samples, with RC chips collected and geologically logged for each interval and stored in 20 compartment plastic rock-chip trays annotated with hole numbers and depth intervals (one compartment per 1m composite). Geological logging information from GAM was recorded directly into an Excel spreadsheet using a Panasonic Toughbook laptop computer. • For all PLS logging data was directly entered into the OCRIS data logging system to streamline data entry to the DataShed database management system.

Criteria	JORC Code explanation	Commentary
		• The GAM rock-chip trays were later stored onsite at Wodgina in one of the exploration department sea containers. • The PLS rock-chip trays are all stored in racks in a secure sea container at Pilgangoora.
	• *The total length and percentage of the relevant intersections logged.*	• The database contains lithological data for all holes in the database.
Sub-sampling techniques and sample preparation	• *If core, whether cut or sawn and whether quarter, half or all core taken.* • *If non-core, whether riffled, tube sampled, rotary split, etc. and whether sampled wet or dry.* • *For all sample types, the nature, quality and appropriateness of the sample preparation technique.*	• RC samples collected by Talison/GAM were generally dry and split at the rig using a cyclone splitter. • RC samples collected by PLS were virtually all dry and split at the rig using a cone splitter mounted directly beneath the cyclone. • PLS surface samples comprise approximately 200 grams of lag material (>0.5mm <2.0mm). Samples were collected at 25m intervals and composited every 100m on 200m line spacings.
	• *Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.*	• PLS samples have field duplicates as well as laboratory splits and repeats. • PLS RC drilling contains QC samples (field duplicates and laboratory pulp splits, selected CRM's & blanks), and have produced results deemed acceptable. • QAQC has been undertaken on the Nagrom results from the 2018 drilling, with duplicates and standards showing consistent precision and accuracy.
	• *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.*	• For the PLS RC drilling, field duplicates were collected every 20m, and splits were undertaken at the sample prep stage every other 20m.
	• *Whether sample sizes are appropriate to the grain size of the material being sampled.*	• The Talison/GAM/PLS drilling sample sizes are considered to be appropriate to correctly represent the potential lithium-tantalite mineralisation based on the style of mineralisation (pegmatite), and the thickness and consistency of mineralisation.
Quality of assay data and laboratory tests	• *The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total*	• The Talison/GAM samples were assayed by the Greenbushes Laboratory, for a 36 element suite using XRF on fused beads. • PLS samples were assayed by NAGROM Perth laboratory and analysed for a suite of 14 elements via ME-MS91 Sodium Peroxide for ICPMS finish and Peroxide fusion with an ME-ICP89 ICPAES finish.

Criteria	JORC Code explanation	Commentary
	• *For geophysical tools, spectrometers, handheld XRF instruments, etc., the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.*	• No geophysical tools were used to determine any element concentrations used in this resource estimate.
	• *Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.*	• GAM Greenbushes laboratory splits of the samples were taken at twenty metre intervals with a repeat/duplicate analysis also occurring every 20m and offset to the lab splits by 10 samples. In total, one field duplicate series, one splits series and one lab duplicate/repeat series were used for quality control purposes assessing different stages in the sampling process. This methodology was used for the samples from the 2010 and 2012 drilling programs. Comparison of these splits and duplicates by using a scatter chart to compare results show a strong linear relationship reflecting the strong repeatability of the analysis process. • PLS RC drilling contains QC samples (field duplicates and laboratory pulp splits, selected CRM's for PLS & blanks) and have produced results deemed acceptable.
Verification of sampling and assaying	• *The verification of significant intersections by either independent or alternative company personnel.* • *The use of twinned holes.*	• Selected drill holes in the 2018 RC program completed by PLS twinned historical RC holes completed by GAM/Talison.
	• *Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.*	• An electronic database containing collars, surveys, assays and geology for the GAM data was compiled from open file reports. • All PLS assays were sourced directly from NAGROM as certified laboratory files in 2018.
	• *Discuss any adjustment to assay data.*	• Tantalum was reported as Ta_2O_5 %. Lithium reported as Li_2O for the RC drilling results. Lithium and Tantalum reported in ppm for the surface geochemistry results.
Location of data points	• *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.*	• Method of survey for the Talison/GAM holes was not specified in reports. • PLS drill hole collar locations were surveyed at the end of the program using a dual channel DGPS with +/- 10cm accuracy on northing, easting & RL by PLS personnel. • Downhole surveying was carried out by Mt Magnet Drilling using a Reflex Magshot survey tool at nominal intervals of 30m. • PLS surface samples were located with a handheld GPS +/- 4 to 5m accuracy.

Criteria	JORC Code explanation	Commentary
	• *Specification of the grid system used.*	• The grid used was MGA (GDA94, Zone 50)
	• *Quality and adequacy of topographic control.*	• The topographic surface used was a 50cm resolution Digital Surface Model (DSM) derived by stereoscopic photogrammetric processes from 5cm resolution imagery. • Surveyed DGPS drill hole collar elevation data was then compared to this surface and found to have an average difference of -0.7m. The differences in RL has been attributed to pad preparation which was done post generation of the DSM.
Data spacing and distribution	• *Data spacing for reporting of Exploration Results*	• Drilling spacings vary between 50m to 200m apart. • PLS surface samples were collected at 25m intervals and composited at 100m centres on 200m line spacings.
	• *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.*	• The continuity of the mineralisation has been interpreted from the geology of the pegmatite sheets, which in some cases can be mapped on surface. • Other Targets including Eastern Hills were derived from the detailed geological mapping undertaken by ARC Minerals for PLS in 2018.
	• *Whether sample compositing has been applied.*	• No compositing was necessary for the RC Drilling, as all samples were taken at 1m intervals. Surface samples were composited with 50gm sub-samples collected every 25m and a composited 200gm sample collected every 100m.
Orientation of data in relation to geological structure	• *Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.*	• The majority of pegmatite mineralisation dips sub horizontally with some zones sub vertical at various strike angles. • The majority of the 2018 RC drilling was completed using a vertical holes due to the variable pegmatite orientation, intersection angles are deemed appropriate.
	• *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.*	• No orientation-based sampling bias has been identified.
Sample security	• *The measures taken to ensure sample security.*	• Talison sampling security measures are unknown but assumed to be equal to industry standards since the drilling is as recent as 2009. • Chain of custody for GAM holes were managed by GAM personnel. Samples were delivered to the Greenbushes laboratory by GAM personnel where samples were analysed. • Chain of custody for PLS holes were managed by PLS personnel. Samples for

Criteria	JORC Code explanation	Commentary
		analysis were delivered to the Regal Transport Depot in Port Hedland by PLS personnel. Samples were delivered from the Regal Transport Depot in Perth to the Nagrom laboratory in Kelmscott by Regal Transport courier truck in 2018.
Audits or reviews	• *The results of any audits or reviews of sampling techniques and data.*	• The collar and assay data have been reviewed by compiling a SQL relational database. This allowed some minor sample numbering discrepancies to be identified and amended. • Drilling locations and survey orientations have been checked visually in 3 dimensions and found to be consistent. • All GAM assays were sourced directly from open file reports. It has not been possible to check these with the original digital assay files.

Section 2 Reporting of Exploration Results

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

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	• *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*	• E45/4270 is joint registered in the name of Atlas Iron Limited and Pilbara Minerals Limited. • PLS entered into a binding farm-out and joint venture agreement with Atlas Iron Limited to acquire an initial 51% interest in the Project. • PLS can increase its interest in the project to 70% through exploration expenditure of $1M. • PLS may then earn an additional 10% upon completion of a DFS and decision to mine.
	• *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.*	• No known impediments.
Exploration done by other parties	• *Acknowledgment and appraisal of exploration by other parties.*	• GAM completed surface sampling, geological mapping and RC drilling between 2010 and 2012.
Geology	• *Deposit type, geological setting and style of mineralisation.*	• The Mt Francisco pegmatites are part of the later stages of intrusion of Archaean granitic batholiths into Archaean

Criteria	JORC Code explanation	Commentary
		metagabbros and metavolcanics. Tantalum and tin mineralisation occurs in zoned pegmatites that have intruded mafic and ultramafic volcanic rocks.
Drill hole Information	• *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.* • *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.*	• Refer to Appendix 2 of this report. • Refer to Appendix 3 of this report.
Data aggregation methods	• *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.* • *The assumptions used for any reporting of metal equivalent values should be clearly stated.*	• Length weighed averages used for exploration results. Cutting of high grades was not applied in the reporting of intercepts in Appendix 3. • No metal equivalent values are used.
Relationship between mineralisation widths and intercept lengths	• *These relationships are particularly important in the reporting of Exploration Results.* • *If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.* • *If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (e.g. 'down hole length, true width not known').*	• Downhole lengths are reported in Appendix 2 of this report. • All pegmatite pulps from the GAM drilling between 2010 and 2012 were not analysed for Li_2O. • Selected zones from some of the RC chip trays retained from the GAM drilling were subsequently analysed for Li_2O as previously reported.
Diagrams	• *Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.*	• Refer to Figures 3 and 4.
Balanced reporting	• *Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced avoiding misleading reporting of Exploration Results.*	• Comprehensive reporting of drilling details of all holes from the 2018 drilling campaign is reported in the quarterly activities statement.
Other substantive exploration data	• *Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey*	• All meaningful & material exploration data has been reported.

Criteria	JORC Code explanation	Commentary
	results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.	
Further work	• *The nature and scale of planned further work (e.g. 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.*	• Further work includes assessment of the geological model developed from the detailed mapping program in conjunction with the surface geochemistry and drilling results.