

## MARCH 2016 QUARTERLY ACTIVITIES REPORT

*Pivotal quarter for Pilbara with major resource upgrade and Pre-Feasibility Study release paving the way for landmark \$100M capital raising to fast-track the development of Pilgangoora*

### PILGANGOORA LITHIUM-TANTALUM PROJECT (PLS: 100%)

- **Pilgangoora confirmed as the largest new lithium ore (spodumene) deposit in the world** with a further major upgrade in the JORC 2012 Mineral Resource following successful in-fill drilling from October to December 2015. The upgraded resource includes:
  - **A 54% increase in the total Indicated and Inferred Resource to 80.2Mt grading 1.26% Li<sub>2</sub>O (spodumene) containing 1,008,000 tonnes of lithium oxide** with 42.3Mt grading 0.02% Ta<sub>2</sub>O<sub>5</sub> (tantalum) containing 18.3 million pounds of Ta<sub>2</sub>O<sub>5</sub>
- **Pre-Feasibility Study (PFS) confirms technical and financial viability** of a standalone 2Mtpa mining and on-site processing operation at Pilgangoora, with key outcomes including:
  - *Forecast annual production of approximately 330ktpa of 6% spodumene concentrates (48ktpa of Lithium Carbonate Equivalent or LCE) and 274,000lbs pa of tantalite;*
  - *Maiden Ore Reserve of 29.5Mt @ 1.31% Li<sub>2</sub>O and 134ppm Ta<sub>2</sub>O<sub>5</sub>;*
  - *Initial mine life of 15 years with further growth expected;*
  - *Development schedule demonstrates plant commissioning from the 4th Quarter of CY2017;*
  - *Outstanding life-of-mine operating cash costs of only USD\$205/tonne of spodumene concentrate FOB (including by-product credits for Ta<sub>2</sub>O<sub>5</sub> production);*
  - *EBITDA over the first 5 years of operations of approximately A\$120M per annum;*
  - *Project payback in approximately 2 years;*
  - *Project NPV of A\$407M (10% discount rate, post-tax) and IRR of 44% (PFS Reserve basis); and*
  - *Project capital estimate of A\$184M (±25%).*
- **Major new 15,000m RC and diamond drilling program commenced** at Pilgangoora during February as part of the Definitive Feasibility Study (DFS) to in-fill, upgrade and expand the current global Indicated and Inferred Resource and grow the Ore Reserve inventory.
- **Extensional drilling north of the Central Pegmatite has returned further thick intersections of pegmatite** with assays just received from the first 11 holes confirming that the mineralised zones extend to the north and remain open at depth. Significant new intersections include:
  - **19m @ 1.92% Li<sub>2</sub>O** from 90m (PLS431);
  - **24m @ 1.38% Li<sub>2</sub>O and 107ppm Ta<sub>2</sub>O<sub>5</sub>** from 20m (PLS437);
  - **47m @ 1.91% Li<sub>2</sub>O** from 68m (PLS438); and
  - **43m @ 1.72% Li<sub>2</sub>O and 135ppm Ta<sub>2</sub>O<sub>5</sub>** from 20m (PLS440).

### CORPORATE

- **Successful \$100M capital raising announced** subsequent to Quarter-end comprising a heavily oversubscribed \$85M share placement and fully underwritten \$15M Share Purchase Plan.

**\$60M cash on hand** at 22 April 2016, following the conversion of options and convertible notes during the Quarter and settlement of Tranche 1 of the 2 Tranche institutional placement.

## PROJECT DEVELOPMENT ACTIVITIES

### PILGANGOORA LITHIUM-TANTALUM PROJECT (PLS: 100%)

The Definitive Feasibility Study (DFS) on the Company's flagship 100%-owned Pilgangoora Lithium-Tantalum Project in WA's Pilbara region is on track to be completed in Q3 CY2016, paving the way for the finalisation of off-take agreements and project financing – with plant construction targeted to commence in Q1 2017 and early works expected to commence from Q4 2016.

#### *Resource Upgrade*

Following the successful resource extension and in-fill drilling program completed during the December 2015 Quarter, the Company delivered a further significant increase in the Pilgangoora Mineral Resource in February.

The updated Pilgangoora Mineral Resource adds a **54 per cent increase in contained lithium oxide** and a **16 per cent increase in contained tantalite**, based on all drilling information (including historical) including an additional 94 holes drilled between mid-September and December 2015.

The reporting of all domains (capturing material above 0.01% Ta<sub>2</sub>O<sub>5</sub>) results in an Indicated and Inferred Mineral Resource estimate (Table 1) totalling:

- **80.2 million tonnes @ 1.26% Li<sub>2</sub>O containing 1,008,000 tonnes of Li<sub>2</sub>O**

Associated with the lithium resource, there is a corresponding tantalite resource of 42.3 million tonnes @ 0.020% Ta<sub>2</sub>O<sub>5</sub> containing 18.2 million pounds of contained tantalite.

**Table 1: Pilgangoora Project – Mineral Resource Estimate**

Category		Tonnage (million tonnes)	Ta <sub>2</sub> O <sub>5</sub> (ppm)	Li <sub>2</sub> O (%)	Ta <sub>2</sub> O <sub>5</sub> (tonnes)	Ta <sub>2</sub> O <sub>5</sub> (Mlbs)	Li <sub>2</sub> O (T)
Indicated	Ta <sub>2</sub> O <sub>5</sub>	17.9	182		3,255	7.2	
	Li <sub>2</sub> O	35.7		1.31			469,400
Inferred	Ta <sub>2</sub> O <sub>5</sub>	24.3	205		4,995	11.0	
	Li <sub>2</sub> O	44.5		1.21			538,600
TOTAL	Ta <sub>2</sub> O <sub>5</sub>	42.3	195		8,250	18.2	
	Li <sub>2</sub> O	80.2		1.26			1,008,000

Details of the data used for the estimation, site inspection information and the quality control checks completed on the data are documented in the Company's ASX Announcement dated 1 February 2016.

#### *Pre-Feasibility Study*

The Pre-Feasibility Study (PFS) for the Pilgangoora Project was delivered during the March Quarter with outstanding results, confirming that the Project is on track to become a globally significant new mining centre for lithium concentrates for many decades to come.

The PFS – which was completed to a high standard with the assistance of a group of highly experienced independent consultants and contractors – has outlined a robust development with low operating costs, capable of generating exceptional returns for Pilbara shareholders.

The PFS includes an initial maiden Ore Reserve for Pilgangoora of **29.5Mt @ 1.31% Li<sub>2</sub>O and 134ppm Ta<sub>2</sub>O<sub>5</sub>**, underpinning a 2Mtpa standalone mining and processing operation over an initial 15-year mine life. There is considerable potential to extend the mine life and/or increase the production rate in the future, by including additional pit inventory not currently included in the PFS Ore Reserve.

Drilling currently underway (see below) is expected to further increase the resource and reserve inventory across the project, most importantly within the existing defined reserve pit limits.

The key financial parameters of the project include forecast pre-production capital expenditure of ±\$184 million (including mine pre-strip, 2Mtpa Concentrator and all surface infrastructure) and projected annual average EBITDA of A\$103 million per annum based on forecast life-of-mine (LOM) pricing, generating a forecast project Net Present Value (NPV<sub>10%</sub>, post-tax) of A\$407 million and IRR of 44%.

These outcomes are based on a conservative life-of-mine average spodumene price of US\$456/tonne CFR (well below the current spot price of approximately US\$600/tonne). An AUD/USD exchange rate of 0.75c has been applied over the LOM.

Full details of the PFS results are detailed in the Company's ASX Announcement dated 10 March 2016.

### ***Definitive Feasibility Study***

As a result of the significant exploration success achieved during 2015, the Company commenced work towards the delivery of a Definitive Feasibility Study (DFS) from approximately September last year. As such, much of the detailed project work is already well underway with the aim of delivering the DFS at the earliest possible time.

The DFS is expected to be published during the 3<sup>rd</sup> Quarter of 2016.

### ***New Drilling Program Underway***

The Company's 2016 exploration and resource development drilling program commenced at Pilgangoora in February, with five drill rigs on site at the end of the Quarter. As at the date of this report, **95 Reverse Circulation drill-holes have been completed for 10,205m of drilling.**

#### ***Water Bore Drilling***

Initial ground-water exploration activities comprised drill testing of a number potential bore sites within the existing RC drilling database. A number of these holes returned water flows with the potential to be developed as a water source. Exploration for water has also been progressed with the drilling of a number of potential bore sites within E45/2232, where a total of **24 holes have been completed for 2700m.** Five of the target sites have been selected as potential production water bores, and two bores will be pump-tested in May to confirm potential yields.

A combination of site-based water bores, supported by near-field water production bores, is expected to provide sufficient water for the Pilgangoora Project's targeted production activities.

#### ***Diamond Drilling – Metallurgical and Geotechnical***

Two phases of diamond drilling are planned, with the initial program of PQ Diamond Drilling designed to extract samples for further metallurgical test work related to the Definitive Feasibility Study (DFS), and to collect a bulk sample to create concentrate samples for product sales and marketing purposes.

Sites for the diamond drilling were selected based on a pit shell outlining the first five years of mining at Pilgangoora. The PQ diamond drilling program started in late February and is now complete with a **total of 11 holes drilled for 715m**. Pegmatite intersections in two of these holes, generating 1.3 tonnes of ore, have been selected and, in conjunction with a previous 3.2-tonne bulk sample, have been allocated for the Phase 2 HPGR (high-pressure grinding rolls) variability test work program as part of the ongoing DFS.

The other nine PQ holes were drilled in the three ore domains within the current Ore Reserve to obtain representative samples for the first five years of mine life, resulting in a total of 4.9 tonnes of ore being generated. This latter PQ core has been generated to conduct spatial variability metallurgical test-work, a Pilot Plant test-work program to further validate the process flowsheet, and to provide spodumene concentrate samples for marketing purposes. The PQ diamond drilling for the metallurgical test-work program was completed in the first week of April.

The second phase of HQ diamond drilling is currently underway and is primarily being undertaken for geotechnical purposes to provide data for the mining studies being undertaken as part of the DFS.

#### *Reverse Circulation Drilling – Exploration and Resource In-Fill*

Resource extension and exploration RC drilling commenced following the completion of the heritage survey in early March. This program will comprise a total of 86 RC holes for 8800m.

In-fill RC drilling will be carried out on nominal 25m centres over the central parts of the Eastern, Western and Central zones. In addition, the program will target the north-west extensions of the thick pegmatites at the Central prospect (see Figure 1 following), as well as extensions of the mapped pegmatites at the Southern Prospect and Monster Prospects.

The in-fill program will total 62 holes for 6100m. The expectation is that this program will convert a high percentage of the current Indicated Resources to the Measured category in the priority areas, nominally based on the first five years of the mining inventory identified within the Pre-Feasibility Study.



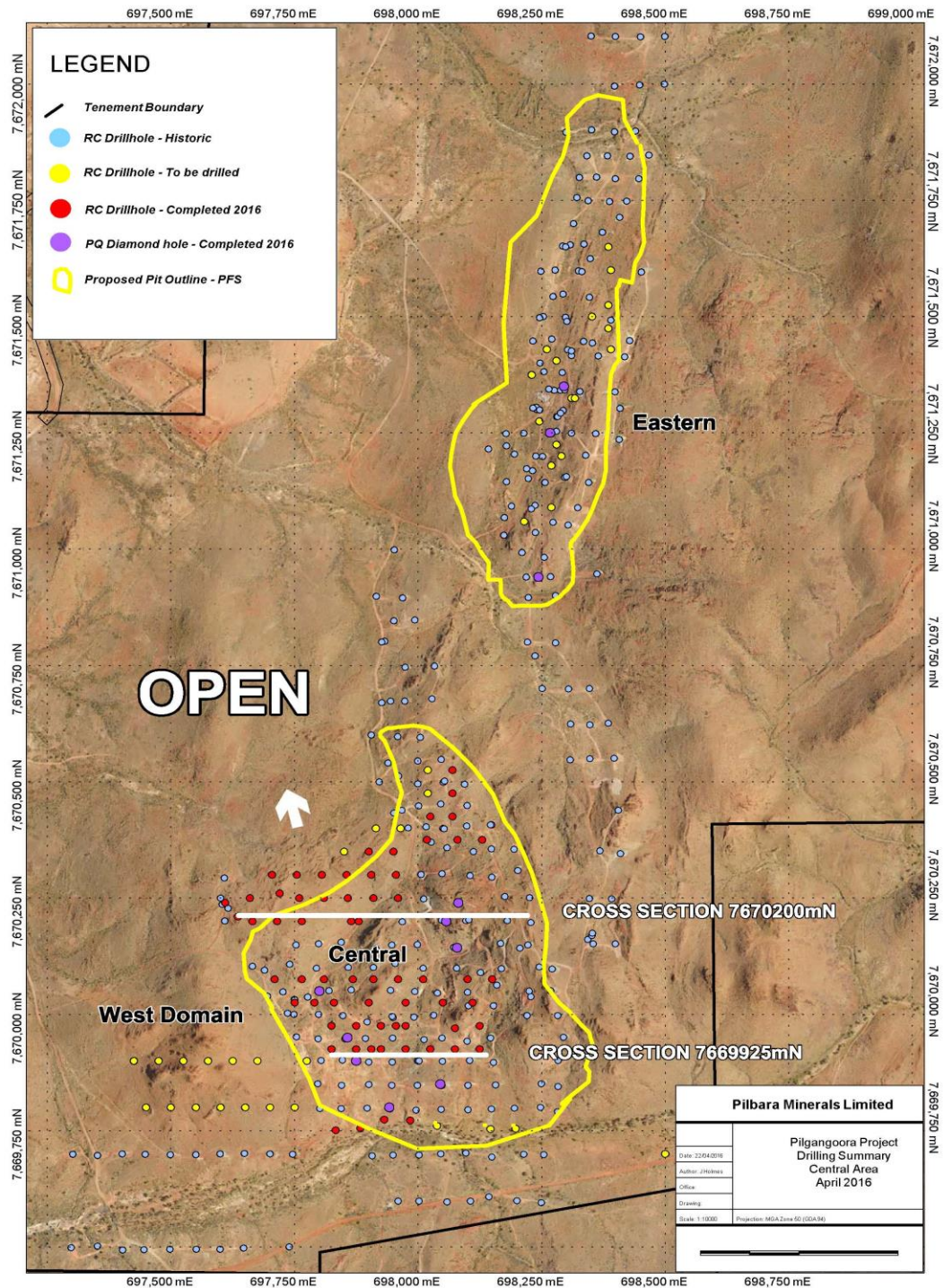


Figure 1: 1:5000 scale showing RC Drill Collars in EL45/2232

### Central and Western In-fill Program

In-fill drilling (PLS403 to PLS433, 25m by 50m) has been completed on sections 7669925mN, 7669975mN, 7670025mN and 7670075mN. The proposed program is now complete with **47 holes drilled for a total of 4847m**.

Significant widths of pegmatite were intersected and assays have recently been received for the first 30 holes. PLS404 returned a near-surface result of 38m @ 1.62% Li<sub>2</sub>O from 20m, confirming the continuity of the Central Pegmatite. The entire pegmatite interval (no lower cut) returned 47m @ 1.54% Li<sub>2</sub>O from 11m – one of the thickest near-surface intersections returned from the project to date (see Figure 2 – Cross-Section 7669925mN for results from PLS403 to PLS410).

PLS420 returned 51m @ 1.43% Li<sub>2</sub>O from 17m. On cross-section 767025mN, PLS420 and the other holes listed below occur on the 25m in-fill sections through to 767075mN, with the assay results from these holes demonstrating excellent continuity, width and grade:

- **37m @ 1.59% Li<sub>2</sub>O from 13m and 119ppm Ta<sub>2</sub>O<sub>5</sub> (PLS411);**
- **23m @ 1.50% Li<sub>2</sub>O from 67m (PLS413);**
- **38m @ 1.59% Li<sub>2</sub>O from 39m (PLS414); and**
- **22m @ 1.62% Li<sub>2</sub>O from 54m (PLS415); and**  
**13m @ 2.02 % Li<sub>2</sub>O from 114m**
- **24m @ 1.29% Li<sub>2</sub>O from 23m and 103ppm Ta<sub>2</sub>O<sub>5</sub> (PLS417);**
- **25m @ 1.68% Li<sub>2</sub>O from 17m (PLS419);**
- **51m @ 1.43% Li<sub>2</sub>O from 17m and 116ppm Ta<sub>2</sub>O<sub>5</sub> (PLS420);**
- **22m @ 1.61% Li<sub>2</sub>O from 74m (PLS423);**
- **19m @ 1.92% Li<sub>2</sub>O from 90m (PLS431).**

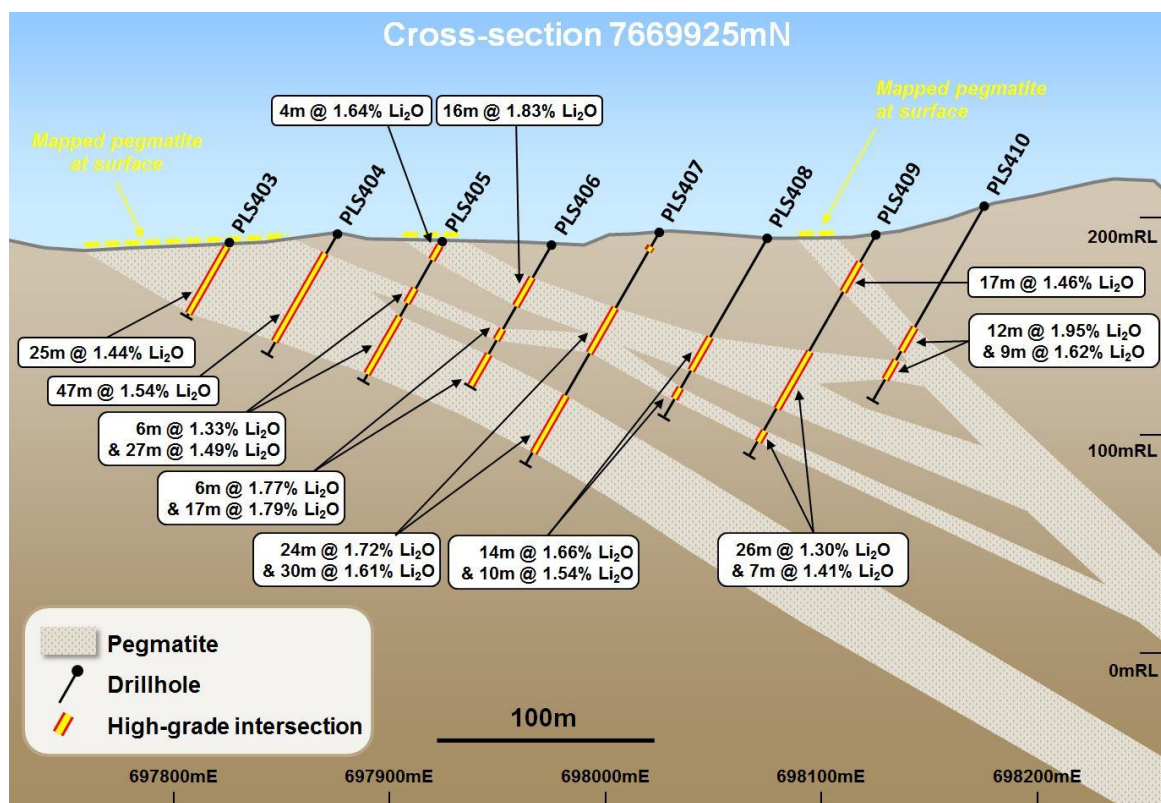


Figure 2: In-fill RC Drill Section 77669925mN, EL45/2232



### Central – North West Extension

Results have also recently been received for the first 12 RC drill holes from a new phase of RC drilling targeting the north-west extension of the known mineralisation within the current Ore Reserve in the Central and Western Pegmatites (see highlighted in Appendix 1 and Figure 1).

The new extensional drilling has been completed on sections 7670050mN, 7670100mN, 76770150mN and 76707200mN. A total of 41 holes are planned for 4490m in the Western and Central Pegmatites system to bring the drill spacing to 50m by 50m. To date, **27 holes have been completed for 3420m** in the Central Pegmatite system targeting the north-west extension. As of the date of this report further assays which are expected to improve the Company's understanding of the potential of this north-west extension, are pending.

Initial results from Cross Section 7670200mN have returned:

- **9m @ 1.56%  $\text{Li}_2\text{O}$  and 139ppm  $\text{Ta}_2\text{O}_5$  from 62m (PLS436);**
- **24m @ 1.38%  $\text{Li}_2\text{O}$  and 107ppm  $\text{Ta}_2\text{O}_5$  from 20m (PLS437);**
- **47m @ 1.91%  $\text{Li}_2\text{O}$  from 68m (PLS438)**
- **5m @ 1.08%  $\text{Li}_2\text{O}$  from 88m (PLS439) and;**  
**13m @ 1.03%  $\text{Li}_2\text{O}$  from 99m**
- **15m @ 1.31%  $\text{Li}_2\text{O}$  from 82m (PLS440) and;**  
**43m @ 1.72%  $\text{Li}_2\text{O}$  and 135ppm  $\text{Ta}_2\text{O}_5$  from 105m**

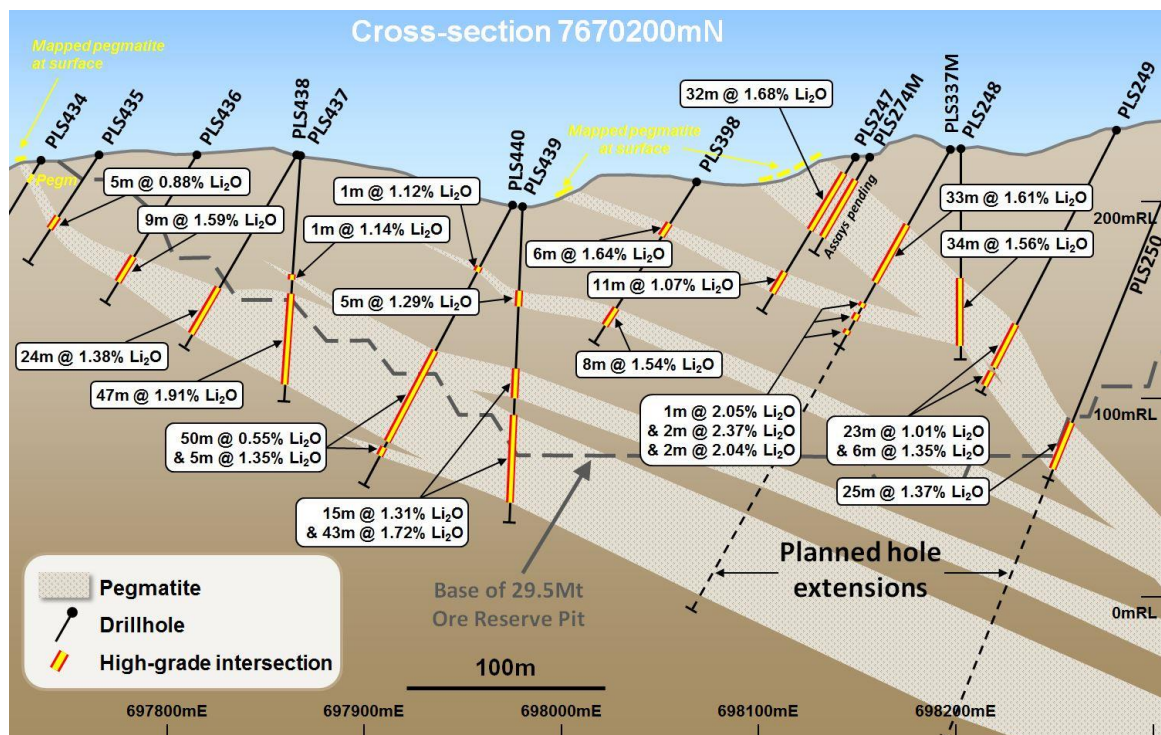


Figure3 : Extension RC Drill Section 7670200mN , EL45/2232

Full intersections and assay results are provided in Table 1 on page 13 onwards of this release.

### **Eastern In-fill Program**

In-fill drilling (25m by 50m) has been completed on several sections along the Eastern Pegmatite in both up-dip and down-dip positions. The expectation is that this program will convert a high percentage of the current Indicated Resources to the Measured category in the priority areas, nominally based on the first five years of mining inventory. To date (19/04/2016) **seven holes have been completed for 605m**, with results pending.

### **Southern Pegmatite**

Exploration In-fill drilling (50m by 50m) has been completed on several sections along the Southern Pegmatite to upgrade the resource category from Inferred to Indicated. **14 holes have been completed for 1333m**, with assay results awaited.

### ***Definitive Feasibility Study***

Significant progress was achieved on all the major components of the Definitive Feasibility Study (DFS) during the Quarter with brief summaries outlined below.

#### *Environmental*

Further surveys were conducted in the Quarter, including completion of the Soils Characterisation Sampling and Report. Desktop studies were completed on the SRE Invertebrates, and Subterranean Stygo fauna and Troglifauna, with the field surveys due to be completed by the end of April.

A Level 2 Terrestrial Fauna Field Survey was completed with the final Report due in at the end of April. There are no threatened ecological fauna communities identified within the Project area.

A Level 2 Flora Field Survey was also completed on additional areas around the airstrip, waste dump area on M45/333 and the site access road from the Great Northern Highway, with a final Report due at the end of May. It is expected that there are no threatened flora communities likely to be identified within the Project area.

#### *Mining*

As a result of the current exploration drilling program, which is expected both to increase the overall resource base and convert Inferred Resources into Indicated Resources, larger pits have been generated in order to develop a Scope of Work (SoW) to allow the Project to tender a Mining Contract.

A short-list has been developed internally with a contractor site visit targeted for the second week in May. The tender process will both identify and determine a preferred contractor for the Project and establish the mining costs to be used in the DFS. It will also allow Pilbara to fast-track project development once final project approvals are received.

#### *Metallurgy*

The DFS Phase 1 test-work program is nearing completion with the following activities undertaken:

- Heavy Media Separation (HMS) process testing to establish the different density operating parameters producing a coarse spodumene concentrate;
- Comminution data, and optimisation of grind size;
- High Pressure Grinding Rolls (HPGR) operating conditions;



- Flotation operating parameters to produce both a technical and chemical grade spodumene concentrate; and
- QEM-Scan mineralogical investigation on the different ore domains.

Planning for the DFS Phase 2 program was completed (based on phase 1 results) with the program commencing at the end of April, with the following work to be undertaken,

- Geochemical Kinetic test work on mine waste, coarse HMS rejects, float tailings
- HMS and flotation spatial variability test work
- Tantalum gravity test work
- Locked cycle flotation testing
- Generating samples for physical testing, i.e. Settling, tailings beach angles, geochemical
- Additional mineralogy

In addition to Phase 2, a Pilot Plant program will also be undertaken with planning well advanced. This program is designed to provide final validation of the flowsheet design and to generate spodumene concentrate samples for marketing purposes. This program will also test the ore variability with approximately 5 tonnes of material, representing the first five years of mine life, to be processed.

#### *Hydrogeology and Hydrology*

All the wet exploration holes have been airlifted to determine potential flow rates with the data used for the Hydrogeological model. Water exploration has also been conducted on tenement with five potential production bores identified (see above), two of which will be developed and pump-tested in May.

A surface Hydrology-Meteorological Desktop Study has been completed and the Hydrology model will be developed once the infrastructure, mine and waste dump designs have been finalised.

#### *Geotechnical*

The geotechnical work currently completed comprises:

- Field survey of the Project area and access road for suitable borrow material for Tailings Management Facility construction and road upgrade;
- Design of geotechnical field sampling program covering the infrastructure sites; and
- Commencement of drilling HQ diamond holes in the planned pit walls.

The field sampling program will be completed in May with drilling of 19 HQ holes covering the infrastructure areas, and the digging of 110 test pits covering the planned infrastructure areas and the access road.

#### *Transport*

Discussions with MRDWA and the Shires have commenced with road network and design upgrades currently being assessed. Qube Bulk have been commissioned to assess the logistics for transport of the concentrate from site to their holding facility in Wedgefield, where the spodumene concentrate will be containerised and transported to the port of Port Hedland for export.

#### *Aboriginal Heritage and Native Title*

Preliminary clearance has been received from the Traditional Owners following numerous site surveys over the proposed disturbance areas. Proposed infrastructure sites for the camp, airstrip, processing plant and potential bore fields at Pilgangoora were included in this heritage survey. Site design works are in progress based on survey results that allow for efficient operation of the mining process. Exploration and resource drilling is continuing and these areas have also been heritage cleared.



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Native Title discussions are scheduled to commence this quarter.

#### *Approvals Process*

Submission of the proposal is intended to the DMP as a Mining Proposal, with all identified risks being addressed to the level required, to appropriately assess the impacts and identify risk mitigation and mine closure measures.

#### **TABBA TABBA TANTALUM PROJECT (PLS 100%)**

After suspending operations at Tabba Tabba in December 2015, the Company completed the previously announced engineering and project review at the site. The engineering review has determined that further expenditure would be required to modify the existing processing plant before the commissioning process could be finalised.

This combined with current tantalum market conditions means that the site will be suspended indefinitely. While Pilbara expects that tantalum market conditions will improve in the medium term, the Company does not expect to see a sustained improvement in market conditions, necessary to support the re-commencement of production at Tabba Tabba this year.

As a by-product of the Pilgangoora mine, the economics of the production of tantalum concentrate at Pilgangoora are vastly superior to Tabba Tabba. Accordingly, the Company will continue to focus its resources and management time on advancing the Pilgangoora Project towards production as rapidly as possible.

## **CORPORATE**

### **\$100M CAPITAL RAISING**

Subsequent to quarter-end, on 7 April 2016 Pilbara announced a placement of 223.68 million fully-paid ordinary shares at an issue price of \$0.38 per share, to qualified institutional and sophisticated investors in Australia and internationally, to raise \$85 million (before costs) ("Placement"). The Company will also undertake a fully underwritten Share Purchase Plan ("SPP") to existing shareholders with registered addresses in Australia and New Zealand, to raise a maximum further amount of \$15 million.

The proceeds of the Placement and the SPP will be used for the following purposes:

- To accelerate drilling to increase Resources and Ore Reserves;
- To complete the Pilgangoora Definitive Feasibility Study (due early Q3 2016);
- To progress discussions with potential customers to convert the MOU's already in place into binding off-take agreements;
- To place orders for long-lead items and progress project early works; and
- General working capital purposes.

The proceeds of the raisings will also ensure that Pilbara has significant balance sheet strength to provide flexibility for project funding for Pilgangoora.

### *Placement Details*

The Placement shares will be issued via two tranches:

- Tranche 1 – unconditional placement of 142 million shares issued under the Company's existing combined placement capacity in accordance with Listing Rules 7.1 and 7.1A (to raise approximately \$54 million) – completed on 14 April 2016; and
- Tranche 2 – conditional placement of 81.68 million shares (to raise approximately \$31 million), subject to shareholder approval at a general meeting of the Company's shareholders to be held in May 2016. A notice of meeting will be dispatched to all shareholders shortly.

Sydney-based Blue Ocean Equities Pty Ltd acted as Sole Lead Manager and Bookrunner to the offer. Numis Securities Limited in London and Union Square Capital Advisors in New York assisted in their respective jurisdictions. Hartleys Limited in Perth supported and participated in the offer.

The Placement is being undertaken to professional and sophisticated investors, including a number of leading Australian and international institutions.

The issue price represents a discount of 9.3% to the 10-day VWAP of Pilbara shares on the ASX of \$0.419 prior to the trading halt on 5 April 2016.

An indicative timetable for the Placement is set out below:

Shares resume trading	7 April 2016
Tranche 1 DvP settlement	13 April 2016
Tranche 1 allotment	14 April 2016
Dispatch of EGM Notice of Meeting	20 April 2016
EGM to approve Tranche 2	24 May 2016
Tranche 2 DvP settlement	27 May 2016
Tranche 2 allotment	30 May 2016

### *Share Purchase Plan*

Pilbara is also offering all of its existing shareholders the opportunity to subscribe for up to \$15,000 worth of shares per eligible shareholder at the same offer price of \$0.38 per share under a Share Purchase Plan ("SPP") to raise up to a maximum total amount of \$15 million.

An underwriting agreement for the SPP has been executed with Blue Ocean Equities Pty Ltd pursuant to which the SPP will be fully underwritten for the full offer of \$15,000,000. The underwriting of the SPP is subject to approval by shareholders at a General Meeting of Shareholders which is planned to be held on 24 May 2016.

The timetable for the SPP offer has been revised to accommodate requirements under the underwriting agreement and is as follows:

Record Date – for participation in SPP	Wednesday 6 April 2016
SPP Opening Date	Wednesday 20 April 2016
Notice Despatch Date - issue of SPP booklet and acceptance form	Wednesday 20 April 2016
SPP Closing Date – last date for acceptances of the SPP to be received	Thursday 18 May 2016
SPP Settlement Date	Wednesday 25 May 2016
Allotment Date	Thursday 26 May 2016
Trading Date – commencement of trading of SPP securities on a normal basis	Thursday 26 May 2016

The SPP is open to all holders of Pilbara shares as at Wednesday 6 April 2016 ("Record Date") with a registered address in Australia or New Zealand. Eligible shareholders are entitled to subscribe for up to a maximum of \$15,000 worth of shares under the SPP. Pilbara reserves the right to scale back applications under the SPP, at its absolute discretion.

At the conclusion of both the Placement and the SPP, Pilbara will have 1,123,512,368 ordinary shares on issue (assuming no other intervening issues).

New shares issued under the SPP will rank equally with the Company's existing ordinary shares on issue.

#### **NEW BROKER RESEARCH**

During the Quarter the Company received positive broker research reports from Foster Stockbroking, Blue Ocean Equities and Beer & Co.

These reports are available to download from the Company's website,  
[www.pilbaraminerals.com.au/research-reports](http://www.pilbaraminerals.com.au/research-reports)

#### **CASH BALANCE**

The Company had a cash balance of \$60 million as at 22 April 2016, following further option conversion and settlement of Tranche 1 of institutional placement.



Table 2 and 3 below lists all recently received assay results from all drill holes in this report.

**Table 2: Drilling Intersections (>1% Li<sub>2</sub>O)**

Hole Id	From (m)	To (m)	Thickness (m)	Li <sub>2</sub> O (%)	Ta <sub>2</sub> O <sub>5</sub> (ppm)
PLS403	3	5	2	1.68	209
PLS403	8	28	20	1.57	77
PLS404	11	17	6	1.53	184
PLS404	20	58	38	1.62	179
PLS405	7	11	4	1.64	97
PLS405	26	31	5	1.43	212
PLS405	40	63	23	1.55	71
PLS405	66	69	3	1.50	211
PLS406	19	34	15	1.90	107
PLS406	46	52	6	1.77	101
PLS406	56	76	20	1.61	94
PLS407	9	10	1	1.1	106
PLS407	42	46	4	2.05	69
PLS407	49	66	17	1.83	88
PLS407	88	115	27	1.7	127
PLS408	53	70	17	1.52	103
PLS408	78	90	12	1.41	108
PLS409	14	31	17	1.46	116
PLS409	64	90	26	1.3	60
PLS409	104	111	7	1.41	116
PLS410	66	78	12	1.95	98
PLS410	82	91	9	1.62	61
PLS411	13	50	37	1.59	94
PLS412	31	46	15	1.45	143
PLS412	54	58	4	1.44	62
PLS412	62	72	10	1.46	73
PLS413	24	28	4	1.63	168
PLS413	46	56	10	1.73	118
PLS413	67	90	23	1.50	90
PLS414	39	77	38	1.59	77
PLS414	85	103	18	1.61	84
PLS415	13	17	4	1.80	118
PLS415	54	76	22	1.62	83
PLS415	106	111	5	2.12	244
PLS415	114	127	13	2.02	62
PLS241M	9	36	27	1.50	172
PLS416	72	82	10	1.70	68
PLS416	86	97	11	1.46	92



# PILBARA MINERALS LIMITED

ACN 112-425-788

Hole Id	From (m)	To (m)	Thickness (m)	Li2O (%)	Ta2O5 (ppm)
PLS417	23	47	24	1.29	103
PLS417	59	63	4	1.35	89
PLS417	90	94	4	1.07	50
PLS418	3	9	6	1.44	151
PLS418	14	15	1	1.12	59
PLS419	4	11	7	1.33	93
PLS419	17	42	25	1.68	92
PLS420	17	68	51	1.43	116
PLS421	15	27	12	1.97	96
PLS421	65	83	18	1.64	107
PLS421	86	107	21	1.90	75
PLS422	1	10	9	1.65	80
PLS422	50	70	20	1.61	86
PLS422	83	126	43	1.62	128
PLS423	7	10	3	1.68	97
PLS423	30	35	5	1.60	59
PLS423	74	96	22	1.61	89
PLS423	99	100	1	1.03	53
PLS430	3	7	4	1.10	90
PLS430	30	31	1	1.49	75
PLS430	83	111	28	1.71	103
PLS430	114	142	28	1.78	113
PLS431	3	7	4	1.14	129
PLS431	30	36	6	1.89	83
PLS431	72	78	6	1.59	45
PLS431	90	109	19	1.92	83
PLS435	40	41	1	1.55	73
PLS435	44	45	1	1.87	142
PLS436	62	71	9	1.56	139
PLS437	77	101	24	1.38	107
PLS438	61	62	1	1.14	84
PLS438	68	115	47	1.91	99
PLS439	36	37	1	1.12	42
PLS439	88	93	5	1.08	43
PLS439	99	112	13	1.03	184
PLS439	138	142	4	1.56	218
PLS440	43	48	5	1.29	106
PLS440	82	97	15	1.31	67
PLS440	105	148	43	1.72	135
PLS442	40	41	1	2.09	79.9
PLS443	80	83	3	1.65	140

Hole Id	From (m)	To (m)	Thickness (m)	Li <sub>2</sub> O (%)	Ta <sub>2</sub> O <sub>5</sub> (ppm)
PLS444	91	101	10	1.85	159
PLS444	104	105	1	1.21	106
PLS448	64	67	3	1.5	37
PLS448	117	128	11	1.8	43
PLS448	134	172	38	1.68	130
PLS548M	3	52	49	1.57	129

**Table 3: Drilling Intersections (>100 ppm Ta<sub>2</sub>O<sub>5</sub>)**

Hole Id	From (m)	To (m)	Thickness (m)	Ta <sub>2</sub> O <sub>5</sub> (ppm)	Li <sub>2</sub> O (%)
PLS403	2	7	5	155	1.03
PLS403	21	22	1	169	1.27
PLS403	25	38	13	137	0.84
PLS404	11	43	32	223	1.37
PLS404	57	61	4	139	0.84
PLS405	9	11	2	133	1.68
PLS405	25	34	9	234	1.05
PLS405	40	41	1	135	1.65
PLS405	66	69	3	211	1.50
PLS406	18	21	3	206	1.57
PLS406	24	25	1	131	2.22
PLS406	33	34	1	127	2.26
PLS406	46	48	2	139	1.41
PLS406	51	53	2	119	1.19
PLS406	56	64	8	116	1.34
PLS406	72	73	1	146	1.70
PLS407	9	10	1	106	1.10
PLS407	42	43	1	110	2.37
PLS407	47	52	5	153	1.57
PLS407	56	57	1	123	1.10
PLS407	64	65	1	127	1.30
PLS407	87	96	9	278	1.43
PLS407	108	109	1	172	1.87
PLS407	117	118	1	190	0.06
PLS408	54	55	1	119	1.89
PLS408	58	59	1	140	1.85
PLS408	65	73	8	124	0.84
PLS408	80	90	10	125	1.54
PLS409	14	18	4	130	1.34
PLS409	21	26	5	135	1.31
PLS409	30	31	1	272	1.64



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Hole Id	From (m)	To (m)	Thickness (m)	Ta <sub>2</sub> O <sub>5</sub> (ppm)	Li <sub>2</sub> O (%)
PLS409	63	64	1	113	0.86
PLS409	88	92	4	178	0.71
PLS409	104	112	8	120	1.25
PLS410	65	69	4	142	1.52
PLS410	77	78	1	134	1.22
PLS410	87	88	1	117	1.80
PLS411	9	11	2	217	0.47
PLS411	14	26	12	129	1.64
PLS411	48	50	2	153	0.95
PLS412	29	34	5	110	1.02
PLS412	40	53	13	268	1.00
PLS412	69	72	3	135	1.33
PLS413	23	29	6	179	1.26
PLS413	46	49	3	129	1.71
PLS413	52	56	4	137	1.80
PLS413	66	75	9	109	1.19
PLS413	80	81	1	108	1.38
PLS413	84	95	11	135	1.07
PLS414	36	43	7	153	0.91
PLS414	49	50	1	139	1.16
PLS414	70	79	9	228	1.18
PLS414	82	89	7	135	1.27
PLS414	99	105	6	146	1.30
PLS415	13	17	4	118	1.80
PLS415	57	70	13	99	1.54
PLS415	105	114	9	216	1.53
PLS415	130	131	1	121	0.39
PLS416	41	42	1	102	0.40
PLS416	68	69	1	112	0.06
PLS416	77	79	2	125	0.77
PLS416	86	91	5	128	1.32
PLS416	97	98	1	168	0.30
PLS241M	9	18	9	90	1.72
PLS241M	21	37	16	261	1.32
PLS417	23	24	1	120	1.29
PLS417	27	40	13	121	1.21
PLS417	44	45	1	113	1.12
PLS417	59	60	1	109	1.21
PLS417	66	67	1	106	1.51
PLS417	77	78	1	105	1.89
PLS417	109	110	1	108	0.0
PLS417	119	131	12	129	0.30
PLS418	0	8	8	171	0.96
PLS418	13	14	1	102	0.58
PLS419	0	4	4	183	0.31





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Hole Id	From (m)	To (m)	Thickness (m)	Ta <sub>2</sub> O <sub>5</sub> (ppm)	Li <sub>2</sub> O (%)
PLS419	10	26	16	156	1.15
PLS420	17	27	10	116	1.18
PLS420	31	46	15	206	1.28
PLS420	68	70	2	141	0.45
PLS421	19	24	5	133	2.10
PLS421	27	28	1	100	0.47
PLS421	75	91	16	154	1.31
PLS421	106	107	1	103	2.00
PLS422	7	9	2	105	0.75
PLS422	48	52	4	107	0.93
PLS422	57	59	2	147	1.36
PLS422	83	111	28	155	1.68
PLS422	122	128	6	128	1.12
PLS423	6	10	4	116	1.43
PLS423	34	35	1	101	1.23
PLS423	75	76	1	172	2.05
PLS423	84	91	7	140	1.55
PLS430	3	8	5	97	1.05
PLS430	12	13	1	115	0.39
PLS430	67	68	1	105	0.37
PLS430	83	84	1	109	1.03
PLS430	97	105	8	118	1.61
PLS430	108	121	13	241	1.53
PLS430	141	145	4	150	0.51
PLS431	4	7	3	158	1.08
PLS431	32	33	1	180	2.43
PLS431	36	37	1	115	0.82
PLS431	106	109	3	176	1.90
PLS434	7	12	5	214	0.14
PLS435	42	45	3	142	0.80
PLS436	59	62	3	112	0.24
PLS436	65	76	11	162	1.07
PLS437	78	79	1	300	0.43
PLS437	85	86	1	132	2.07
PLS437	92	106	14	186	0.66
PLS438	60	64	4	134	0.45
PLS438	68	79	11	148	2.22
PLS438	92	96	4	158	1.98
PLS438	110	116	6	135	0.97
PLS439	86	87	1	150	0.58
PLS439	95	110	15	230	0.84
PLS439	115	116	1	145	0.24
PLS439	133	142	9	176	0.92
PLS440	44	46	2	164	1.30
PLS440	49	50	1	143	0.62

Hole Id	From (m)	To (m)	Thickness (m)	Ta <sub>2</sub> O <sub>5</sub> (ppm)	Li <sub>2</sub> O (%)
PLS440	95	97	2	150	1.08
PLS440	105	107	2	223	2.02
PLS440	111	121	10	196	1.28
PLS440	125	131	6	290	1.68
PLS440	149	151	2	116	0.18
PLS441	0	6	6	356	0.20
PLS442	39	40	1	114	0.41
PLS443	80	85	5	139	1.13
PLS444	86	87	1	203	0.67
PLS444	91	107	16	149	1.39
PLS448	20	21	1	107	0.19
PLS448	24	28	4	118	0.17
PLS448	67	68	1	105	0.93
PLS448	94	95	1	122	0.11
PLS448	106	111	5	527	0.29
PLS448	134	136	2	116	0.72
PLS448	140	150	10	212	1.49
PLS448	153	160	7	192	1.67
PLS448	173	174	1	203	0.39
PLS548M	3	12	9	268	1.11
PLS548M	20	36	16	148	1.61
PLS548M	39	40	1	124	1.96
PLS548M	52	53	1	126	0.52

## 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 the second largest Spodumene (Lithium Aluminium Silicate) project in the world. 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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**LISTING RULE 5.3.3 INFORMATION**

Project	Location	Tenements	Beneficial Interest	Notes	Change in the Quarter
Pilgangoora	Western Australia	E45/2232	100%	Granted	None
Pilgangoora	Western Australia	E45/2241	100%	Granted	None
Pilgangoora	Western Australia	M45/511	100%	Granted	None
Pilgangoora	Western Australia	M45/78	100%	Granted	None
Pilgangoora	Western Australia	M45/333	100%	Granted	None
Pinnacle Hill	Western Australia	E45/3560	100%	Granted	None
Pinga	Western Australia	ELA45/4648		Pending	
Fox Resources JV	Western Australia	E47/1093	45%	JV	None
Fox Resources JV	Western Australia	E47/1094	45%	JV	None
Fox Resources JV	Western Australia	E47/1813	45%	JV	None
Fox Resources JV	Western Australia	E47/1814	45%	JV	None
Fox Resources JV	Western Australia	E47/1815	45%	JV	None
Fox Resources JV	Western Australia	E47/2261	45%	JV	None

**Competent Person's Statement**

*The Company confirms it is not aware of any new information or data that materially affects the information included in the 1<sup>st</sup> February, 2016 Pilgangoora Mineral Resource Estimate and that all material assumptions and technical parameters underpinning the estimate continue to apply and have not materially changed when referring to its resource announcement made on 1<sup>st</sup> February, 2016.*



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*The Company confirms it is not aware of any new information or data that materially affects the information included in the 10th March, 2016 Pilgangoora Mineral 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 maiden reserve announcement made on 10<sup>th</sup> March, 2016.*

*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 Young (Executive and Chief Geologist of Pilbara Minerals Limited). Mr Young is a shareholder of Pilbara Minerals. Mr Young is a member of the Australasian Institute of Mining and Metallurgy 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 Young consents to the inclusion in this report of the matters based on his information in the form and context in which they appear.*



**Appendix 1 – Drilling Information Pilgangoora Lithium – Tantalum Project**

**Central Infill RC drilling completed.**

Hole ID	East GDA94	North GDA94	RL	Dip	Azm	Depth
PLS403	7669925	697825	200	-60	270	40
PLS404	7669925	697875	200	-60	270	64
PLS405	7669925	697925	200	-60	270	75
PLS406	7669925	697975	200	-60	270	76
PLS407	7669925	698025	200	-60	270	124
PLS408	7669925	698075	200	-60	270	96
PLS409	7669925	698125	200	-60	270	117
PLS410	7669925	698175	200	-60	270	102
PLS411	7669975	697825	200	-60	270	60
PLS412	7669975	697875	200	-60	270	80
PLS413	7669975	697925	200	-60	270	100
PLS414	7669975	697975	200	-60	270	111
PLS415	7669975	698025	200	-60	270	131
PLS416	7669970	698075	200	-60	270	114
PLS417	7669975	698125	200	-60	270	137
PLS418	7670025	697750	200	-60	270	30
PLS419	7670025	697790	200	-60	270	54
PLS420	7670025	697830	200	-60	270	90
PLS421	7670025	697900	200	-60	270	118
PLS422	7670025	697975	200	-60	270	138
PLS423	7670025	698050	200	-60	270	114
PLS424	7670025	698110	200	-60	270	10
PLS424A	7670025	698110	200	-60	270	210
PLS425	7670075	697710	200	-60	270	36
PLS426	7670075	697765	200	-60	270	60
PLS427	7670075	697810	200	-60	270	71
PLS428	7670075	697868	200	-60	270	108
PLS429	7670075	697910	200	-60	270	133
PLS430	7670075	697960	200	-60	270	156
PLS431	7670075	698010	200	-60	270	120
PLS432	7670075	698100	200	-60	270	60
PLS433	7670075	698150	200	-60	270	102
PLS488	7669751	697833	200	-60	270	70
PLS489	7669755	697883	200	-60	270	90
PLS490	7669774	697932	200	-60	270	90
PLS491	7669772	697984	200	-60	270	102

**Results Pending, Reported in this ASX release**

**Appendix 1 – cont**

**Central North West Extension RC drilling completed.**

Hole ID	East GDA94	North GDA94	RL	Dip	Azm	Depth
PLS434	7670210	697635	200	-60	270	46
PLS435	7670200	697665	200	-60	270	65
PLS436	7670200	697715	200	-60	270	88
PLS437	7670200	697765	200	-60	270	112
PLS438	7670200	697765	200	-90	0	124
PLS439	7670200	697865	200	-55	270	160
PLS440	7670200	697880	200	-90	0	160
PLS441	7670240	697610	200	-60	270	28
PLS442	7670250	697660	200	-60	270	70
PLS443	7670260	697720	200	-60	270	94
PLS444	7670250	697760	200	-60	270	118
PLS445	7670250	697810	200	-60	270	140
PLS446	7670250	697858	200	-60	270	162
PLS447	7670250	697910	200	-60	270	174
PLS448	7670250	697960	200	-60	270	184
PLS449	7670300	697705	200	-60	270	82
PLS450	7670300	697755	200	-60	270	111
PLS451	7670300	697805	200	-60	270	138
PLS452	7670300	697855	200	-60	270	28
PLS452A	7670300	697855	200	-60	270	166
PLS453	7670300	697905	200	-60	270	184
PLS454	7670300	697955	200	-60	270	178
PLS456	7670350	697900	200	-60	270	178
PLS457	7670350	697950	200	-60	270	184
PLS458	7670400	697915	200	-60	270	65
PLS458A	7670400	697915	200	-60	270	184
PLS459	7670400	697965	200	-60	270	196

**Results Pending, Reported in this ASX release**

**Western Infill RC drilling completed.**

Hole ID	East GDA94	North GDA94	RL	Dip	Azm	Depth
PLS539	7670375	698018	200	-60	270	60
PLS540	7670375	698080	200	-60	270	95
PLS540A	7670375	698080	200	-60	270	105
PLS541	7670375	698130	200	-60	270	121
PLS541A	7670375	698130	200	-60	270	160
PLS542	7670425	698025	200	-60	270	234
PLS543	7670425	698070	200	-60	270	111
PLS544	7670475	698020	200	-60	270	72
PLS545	7670475	698070	200	-60	270	108
PLS546	7670525	698020	200	-60	270	253
PLS547	7670525	698070	200	-60	270	108

**Eastern Infill RC drilling completed.**

Hole ID	East GDA94	North GDA94	RL	Dip	Azm	Depth
PLS460	7671060	698215	200	-60	270	96
PLS461	7671090	698270	200	-60	270	140
PLS465	7671275	698245	200	-60	270	90
PLS468	7671375	698230	200	-60	270	40
PLS469	7671405	698280	200	-60	270	84
PLS470	7671430	698260	200	-60	270	60
PLS473	7671500	698352	200	-60	270	95

**Eastern Infill RC drilling completed.**

Hole ID	East GDA94	North GDA94	RL	Dip	Azm	Depth
PLS502	7667350	698015	200	-60	270	28
PLS503	7667350	698015	200	-60	90	70
PLS505	7667450	698000	200	-60	270	28
PLS506	7667450	698050	200	-60	270	100
PLS507A	7667460	698100	200	-70	90	136
PLS508	7667550	698150	200	-90	100	150
PLS509	7667650	698050	200	-60	90	106
PLS511	7667720	698020	200	-60	270	106
PLS512	7667720	698070	200	-60	270	118
PLS513	7667720	698070	200	-70	90	91
PLS557	7667350	698500	200	-90	0	100
PLS558	7667300	698485	200	-90	0	100
PLS559	7667250	698500	200	-90	0	100
PLS560	7667200	698500	200	-90	0	100

**PQ Diamond Drilling completed**

Hole ID	East GDA94	North GDA94	RL	Dip	Azm	Depth
PLS548M	7670050	697800	200	-60	270	57.3
PLS241M	7670143	698079	200	-60	270	42.1
PLS084M	7669800	697942	200	-60	270	45.5
PLS190M	7669850	698045	200	-60	270	66.4
PLS549M	7669900	697875	200	-60	270	52.5
PLS202M	7669950	697857	200	-60	270	66.3
PLS247M	7670200	698057	200	-60	270	57.4
PLS255M	7670239	698082	200	-60	270	104.4
PLS551M	7670940	698243	200	-60	270	60.4
PLS552M	7671250	698267	200	-60	270	66.4
PLS553M	7671350	698295	200	-70	270	95.2

**Results Pending, Reported in this ASX release.**

## 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) have completed <b>92 RC drill holes for 10 205m and 11 PQ Diamond holes for 715m</b> (as of the 20/4/2016). Results being reported are for 42 RC holes (PLS403 to PLS 388) and a two diamond core (Hole PLS241M and PLS548M), see Appendix 1.
	<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). PQ/HQ 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</i>	PLS holes were all RC, with samples split at the rig, samples are then sent to NAGROM Perth laboratory and analysed for a suite of 18 elements. PQ/HQ Core measured and marked up on site and photographed prior to transport to Perth, where 10mm fillet taken for analysis. Analysis was completed by XRF and ICP techniques.



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Criteria	JORC Code explanation	Commentary
	<i>commodities or mineralisation types (e.g. submarine nodules) may warrant disclosure of detailed information.</i>	
<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 Drilling was completed by a track mounted Schramm T450 with an automated rod-handler system and on-board compressor rated to 1,350cfm/800psi. 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/HQ Diamond Drilling completed by Hydco 1200H with an automated rod-handler system
<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 holes. HQ core sample recovery excellent.
	<i>Measures taken to maximise sample recovery and ensure representative nature of the samples.</i>	Whilst drilling through the pegmatite, 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>	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 hard copy logging sheets and later transferred an Excel spreadsheet. The rock-chip trays are to be stored in PLS Perth office. HQ core was cut and logged in 1 m intervals.
	<i>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</i>	Logging has primarily been quantitative.
	<i>The total length and percentage of the relevant intersections logged.</i>	The database contains lithological data for all holes in the database.

Criteria	JORC Code explanation	Commentary
<b>Sub-sampling techniques and sample preparation</b>	<i>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.</i>	RC samples were generally dry and split at the rig using a cyclone splitter, which is appropriate and industry standard. HQ Core was filleted (sawn), equivalent to a ¼ core size sample taken.
	<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 at ALS Global in Perth WA, for 19 elements using 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 make and model, reading times, calibrations factors applied and their derivation, etc.</i>	No geophysical tools were used to determine any element concentrations used in this resource estimate.
	<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>	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.



Criteria	JORC Code explanation	Commentary
		The PLS drilling contains QC samples (field duplicates, blanks and standards plus laboratory pulp splits, and ALS Global internal standards), and have produced results deemed acceptable.
<b>Verification of sampling and assaying</b>	<i>The verification of significant intersections by either independent or alternative company personnel.</i>	Infill drilling completed by PLS in this program has confirmed the approximate width and grade of historical drilling. PQ diamond holes were completed as twins, and has confirmed the approximate width and grade of previous RC drilling.
	<i>The use of twinned holes.</i>	
	<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 $\text{Li}_2\text{O}$ for the purpose of reporting. The conversion used was $\text{Li}_2\text{O} = \text{Li} \times 2.153$
<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>	PLS holes were surveyed using DGPS in GDA94, Zone 50. 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. 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).
	<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 25m to 200m apart

Criteria	JORC Code explanation	Commentary
	<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.
<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 ALS GLOBAL laboratory

## Section 2 Reporting of Exploration Results

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

Criteria	JORC Code explanation	Commentary
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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 tenement E45/2232, M45/333
	<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.
<b>Drill hole Information</b>	<i>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.</i>	Refer to Appendix 1 this announcement.
<b>Data aggregation methods</b>	<i>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</i>	Length weighed averages used for exploration results reported in Table 2 and 3. Cutting of high grades was not applied in the reporting of intercepts in Table 2 and 3 No metal equivalent values are used.



# PILBARA MINERALS LIMITED

ACN 112-425-788

Criteria	JORC Code explanation	Commentary
	<p>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>	
<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 Table 2 and 3
<b>Diagrams</b>	<p>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.</p>	See Figures 1-3
<b>Balanced reporting</b>	<p>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.</p>	Comprehensive reporting of drill details has been provided in Appendix 1 of this announcement.
<b>Other substantive exploration data</b>	<p>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.</p>	All meaningful & material exploration data has been reported.
<b>Further work</b>	<p>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</p>	The aim is to upgrade the existing JORC compliant resource calculation.



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Criteria	JORC Code explanation	Commentary
	<i>the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</i>	

# Appendix 5B

## Mining exploration entity quarterly report

Introduced 1/7/96. Origin: Appendix 8. Amended 1/7/97, 1/7/98, 30/9/2001.

Name of entity

Pilbara Minerals Limited

ABN

95 112 425 788

Quarter ended ("current quarter")

31 March 2016

### Consolidated statement of cash flows

		Curent quarter	Year to date
		\$A'000	(9 months) \$A'000
<b>Cash flows related to operating activities</b>			
1.1	Receipts from product sales and related debtors	-	-
1.2	Payments for (a) exploration and evaluation	(1,523)	(4,877)
	(b) development	(1,141)	(3,967)
	(c) production	-	-
	(d) administration	(662)	(2,190)
1.3	Dividends received	-	-
1.4	Interest and other items of a similar nature received	26	71
1.5	Interest and other costs of finance paid	(230)	(382)
1.6	Income taxes paid	-	-
1.7	Other	-	4
<b>Net Operating Cash Flows</b>		<b>(3,530)</b>	<b>(11,341)</b>
<b>Cash flows related to investing activities</b>			
1.8	Payment for purchases of: (a)prospects	-	-
	(b) plant and equipment	-	(880)
	(c) other investments –	-	(2,000)
	Tabba Tabba Tantalum Pty Ltd additional 50%		
1.9	Proceeds from sale of: (a)prospects	-	-
	(b)equity investments	-	-
	(c)other fixed assets	-	-
1.10	Loans to Tabba Tabba Tantalum Pty Ltd (prior to acquisition on 25 September 2015)	-	(1,223)
1.11	Loans repaid by other entities	-	-
1.12	Cash obtained on acquisition of additional 50% shareholding in Tabba Tabba Tantalum Pty Ltd (100% owned subsidiary as of 25 September 2015)	-	251
<b>Net investing cash flows</b>		<b>-</b>	<b>(3,852)</b>
1.13	Total operating and investing cash flows (carried forward)	<b>(3,530)</b>	<b>(15,193)</b>

+ See chapter 19 for defined terms.



**Appendix 5B**  
**Mining exploration entity quarterly report**

1.13	Total operating and investing cash flows (brought forward)	(3,530)	(15,193)
<b>Cash flows related to financing activities</b>			
1.14	Proceeds from issues of shares, options etc. (net of capital raising costs)	2,571	19,824
1.15	Proceeds from sale of forfeited shares	-	-
1.16	Proceeds from issues of convertible notes	-	4,000
1.17	Repayment of convertible notes on maturity	-	(175)
1.18	Dividends paid	-	-
1.19	Proceeds from option conversions received in advance of share issue	-	256
	<b>Net financing cash flows</b>	2,571	23,905
	<b>Net increase (decrease) in cash held</b>	(959)	8,712
1.20	Cash at beginning of quarter/year to date	12,887	3,216
1.21	Exchange rate adjustments to item 1.20	-	-
1.22	<b>Cash at end of quarter</b>	11,928	11,928

**Payments to directors of the entity and associates of the directors**

**Payments to related entities of the entity and associates of the related entities**

		Curent quarter \$A'000
1.23	Aggregate amount of payments to the parties included in item 1.2	278
1.24	Aggregate amount of loans to the parties included in item 1.10	-

1.25 Explanation necessary for an understanding of the transactions

**Non-cash financing and investing activities**

2.1 Details of financing and investing transactions which have had a material effect on consolidated assets and liabilities but did not involve cash flows

Nil.

2.2 Details of outlays made by other entities to establish or increase their share in projects in which the reporting entity has an interest

Nil.

**Financing facilities available**

*Add notes as necessary for an understanding of the position.*

	Amount available \$A'000	Amount used \$A'000
3.1	Loan facilities	-
3.2	Credit standby arrangements	-

+ See chapter 19 for defined terms.

### Estimated cash outflows for next quarter

	\$A'000
4.1 Exploration and evaluation	3,900
4.2 Mine Development and pre-production expenditure	
4.3 Administration	620
4.4 Mining operations	280
4.5 Convertible Note redemption and interest	64
<b>Total</b>	<b>4,864</b>

### Reconciliation of cash

Reconciliation of cash at the end of the quarter (as shown in the consolidated statement of cash flows) to the related items in the accounts is as follows.

	Current quarter \$A'000	Previous quarter \$A'000
5.1 Cash on hand and at bank	11,928	12,887
5.2 Deposits at call	-	-
5.3 Bank overdraft	-	-
5.4 Other (provide details)	-	-
<b>Total: cash at end of quarter</b> (item 1.22)	<b>11,928</b>	<b>12,887</b>

### Changes in interests in mining tenements

	Tenement reference	Nature of interest (note (2))	Interest at beginning of quarter	Interest at end of quarter
6.1 Interests in mining tenements relinquished, reduced or lapsed	N/A			
6.2 Interests in mining tenements acquired or increased	N/A			

+ See chapter 19 for defined terms.

**Appendix 5B**  
**Mining exploration entity quarterly report**

**Issued and quoted securities at end of current quarter**

*Description includes rate of interest and any redemption or conversion rights together with prices and dates.*

		Total number	Number quoted	Issue price per security (see note 3) (cents)	Amount paid up per security (see note 3) (cents)
7.1	<b>Preference securities</b> <i>(description)</i>				
7.2	Changes during quarter (a) Increases through issues (b) Decreases through returns of capital, buy-backs, redemptions				
7.3	<b>+Ordinary securities</b>	856,369,784	856,369,784	Fully paid	Fully paid
7.4	Changes during quarter (a) Increases through issues Convertible Note Conversion	13,022,756	13,022,756	\$0.265	\$0.265
	Options Exercised  (b) Decreases through returns of capital, buy-backs	41,658,331	41,658,331	\$0.0616	\$0.0616
7.5	<b>+Convertible debt securities</b> <i>(description)</i>			<i>Issue Price Per Security</i>	<i>Maturity Date</i>
	Unlisted Secured Convertible Notes	1,700,000	-	\$1.00	02/03/2017
		550,000	-	\$1.00	22/12/2016
7.6	Changes during quarter (a) Increases through issues  (b) Decreases through securities matured, converted	(2,300,000) (1,150,000)		\$1.00 \$1.00	02/03/2017 22/12/2016
7.7	<b>Options</b> <i>(description and conversion factor)</i>			<i>Exercise price</i>	<i>Expiry date</i>
		1,250,000	-	\$0.05	22/12/2016
		15,316,667	-	\$0.05	02/03/2017
		21,050,000	-	\$0.10	22/03/2017
		7,833,331	-	\$0.03	25/03/2017
		3,409,090	-	\$0.15	1/12/2017

+ See chapter 19 for defined terms.

7.8	Issued during quarter	-	-	-	-
7.9	Exercised during quarter	(4,375,000)	-	\$0.05	22/12/2016
		(16,433,333)	-	\$0.05	02/03/2017
		(12,850,000)	-	\$0.10	22/03/2017
		(7,999,998)	-	\$0.03	25/03/2017
7.10	Expired during quarter				
7.11	<b>Debentures</b> (totals only)				
7.12	<b>Unsecured notes</b> (totals only)				

## Compliance statement

- 1 This statement has been prepared under accounting policies which comply with accounting standards as defined in the Corporations Act or other standards acceptable to ASX (see note 4).
- 2 This statement does give a true and fair view of the matters disclosed.



Sign here: .  
Company Secretary  
Print name: Alan Boys

Date: 25 April 2016

## Notes

- 1 The quarterly report provides a basis for informing the market how the entity's activities have been financed for the past quarter and the effect on its cash position. An entity wanting to disclose additional information is encouraged to do so, in a note or notes attached to this report.
- 2 The "Nature of interest" (items 6.1 and 6.2) includes options in respect of interests in mining tenements acquired, exercised or lapsed during the reporting period. If the entity is involved in a joint venture agreement and there are conditions precedent which will change its percentage interest in a mining tenement, it should disclose the change of percentage interest and conditions precedent in the list required for items 6.1 and 6.2.
- 3 **Issued and quoted securities** The issue price and amount paid up is not required in items 7.1 and 7.3 for fully paid securities.

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+ See chapter 19 for defined terms.

## Appendix 5B

### Mining exploration entity quarterly report

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- 4 The definitions in, and provisions of, *AASB 1022: Accounting for Extractive Industries* and *AASB 1026: Statement of Cash Flows* apply to this report.
- 5 **Accounting Standards** ASX will accept, for example, the use of International Accounting Standards for foreign entities. If the standards used do not address a topic, the Australian standard on that topic (if any) must be complied with.

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