



ASX/Media Announcement

13 October 2016

NEW ZONES OF THICK, HIGH-GRADE MINERALISATION INTERSECTED OUTSIDE KNOWN RESOURCE AT PILGANGOORA

New phase of sterilisation and strategic development drilling defines new pegmatites

HIGHLIGHTS:

- Exceptional results generated from recently commenced sterilisation and strategic development drilling at the Far East and South End pegmatite zones, at the 100%-owned Pilgangoora Lithium-Tantalum Project.
- Results from the Far East zone have extended the mineralisation to both the north and south.
- Numerous wide, shallow intercepts of lithium (down-hole widths of 10-22m) returned from a single, large pegmatite in the Far East zone which extends over 1,000m. Significant new intercepts include:
 - 27m @ 1.73% Li₂O from 47m (PLS798);
 - 19m @ 1.56% Li₂O from 75m (PLS799);
 - 22m @ 1.89% Li₂O from 44m (PLS801);
 - 19m @ 1.85% Li₂O and 104ppm Ta₂O₅ from 87m (PLS802);
 - 14m @ 2.14% Li₂O from 42m (PLS827);
 - 19m @ 1.53% Li₂O from 82m (PLS913);
 - 18m @ 1.28% Li₂O from 79m (PLS944); and
 - 13m @ 1.41% Li₂O and 108ppm Ta₂O₅ from 133m (PLS945).
- Resource extension drilling at South End indicates that the pegmatite remains open to the south, with significant widths of high-grade mineralisation returned, including:
 - 13m @ 1.79% Li₂O from 121m (PLS911);
 - 26m @ 1.53% Li₂O from 34m (PLS513A); 7m @ 1.51% Li₂O from 64m (PLS513A) and
 - 7m @ 1.52% Li₂O from 1m (PLS909).
- The results, which will assist with waste dump design and final pit design, will be incorporated in an updated Mineral Resource estimate at the end of 2016.

Australian lithium developer Pilbara Minerals Ltd (ASX: PLS) is pleased to report outstanding new results from recently commenced sterilisation and strategic development and resource extension drilling program at its 100%-owned **Pilgangoora Lithium-Tantalum Project**, located near Port Hedland in WA.

Results have been received for the first 22 Reverse Circulation (RC) drill holes completed as part of a new drilling program initiated in September. Drilling is targeting extensions to known near-surface pegmatites that have the potential to add material tonnes to the existing resource base and assist with final pit designs, as well as sterilisation drilling to define final locations for key site infrastructure including waste dumps.

Recent drilling at both the Far East and South End pegmatites has continued to identify significant thick zones of high-grade mineralisation well beyond the current resource boundaries at the Central Pegmatite. Results from the Far East zone have now defined lithium mineralisation in a single pegmatite which extends over 1km and drilling at South End has indicated that the mineralisation continues to the south with a thick zone of up to 26m width. Pilbara's Managing Director and CEO, Mr Ken Brinsden, said the new phase of drilling was continuing to reinforce the sheer scale of the Pilgangoora pegmatite field, and the significant potential for further resource growth.

“Most of the drilling we are now doing is designed to assist our mine design team by sterilising locations for key surface infrastructure and helping to finalise open pit designs,” he said. “It seems that wherever we drill, we find more pegmatites – a nice problem to have but one that needs to be fully dealt with before we start construction.

“For example, we knew about the presence of the Far East Zone but we needed to fully evaluate this area as it trends into the proposed location of some of our key waste dumps. As it has transpired, the recent drilling has extended this zone for over a 1km strike length and it remains open. This has the potential to make a material contribution to our overall resource, but will also shape our mine infrastructure planning.

“Overall, the recent drilling has continued to highlight the presence of numerous large lithium-bearing pegmatites outside of the existing resource boundary,” he said. “Pilgangoora is already established as one of the largest hard-rock lithium deposits in the world, but we still have plenty of additional pegmatite targets that have received little or no drill testing – plus we will have all of the additional Dakota Minerals tenure to test in the future, plus the Dakota resource itself.

“While our main focus remains on the financing, development and delivery of the project, we will continue to run a strategic exploration effort aimed at growing our high-grade resource and reserve inventory and reinforcing Pilgangoora’s position as a leading low-cost lithium production project,” he added.

Exploration Drilling

The Far East Pegmatite Zone (previously referred to as the South Eastern Pegmatite) was discovered in July 2016 and is located along the eastern flank of the main resource area at Pilgangoora, approximately 300m from the proposed Central Pit (see Figure 1).

The Far East Zone has minimal surface outcrop exposed over 200m, but drilling has revealed a continuous pegmatite measuring over 1km in length (4m-27m width), with high-grade zones of mineralisation. This zone remains open to the north (see Figure 2). Significant intersections from the Far East Pegmatite Zone include:

- **27m @ 1.73% from 47m (PLS798);**
- **19m @ 1.56% Li_2O from 75m (PLS799) and;**
8m @ 1.37% Li_2O from 97m
- **22m @ 1.89% Li_2O from 44m (PLS801);**
- **19m @ 1.85% Li_2O and 104ppm Ta_2O_5 from 87m (PLS802);**
- **9m @ 1.71% Li_2O from 140m (PLS803A);**
- **9m @ 1.63% Li_2O from 81m (PLS813);**
- **9m @ 1.36% Li_2O from 183m (PLS814);**
- **14m @ 2.14% Li_2O from 42m (PLS827);**
- **19m @ 1.53% Li_2O from 82m (PLS913);**
- **18m @ 1.28% Li_2O from 79m (PLS944) and**
7m @ 1.38% Li_2O from 100m and;
- **13m @ 1.41% Li_2O and 108ppm Ta_2O_5 from 133m (PLS945).**

At the South End Pit area, which forms part of the proposed mining area outlined in the September 2016 Definitive Feasibility Study (see Figure 2), results have been received for the first 4 holes of the resource extension drilling program. This drilling has returned significant widths of lithium mineralisation including **26m @ 1.53% Li_2O from 34m from PLS513A** and **13m @ 1.79% Li_2O from 121m from PLS911**. This pegmatite zone remains open to the south.

Based on these latest results from the resource extension drilling, the current Mineral Resource for South End will be remodelled and alterations will be required to the final pit design and waste dump location.

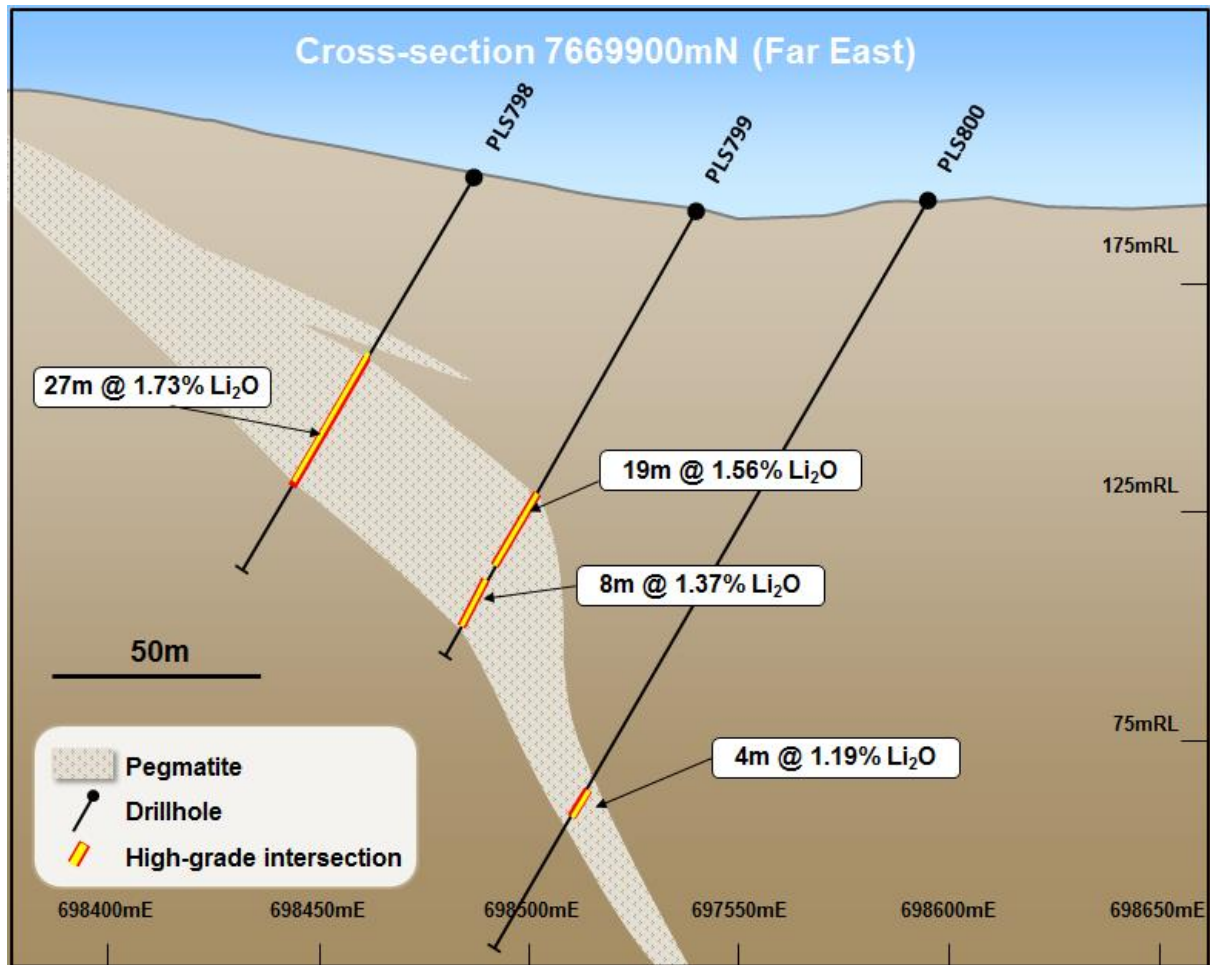


Figure 1: New RC Drilling, Far East Pegmatite, EL45/2232 & M45/333

Forward Program

To date 69 holes have been completed for 8,230m, with approximately 4,000m of drilling remaining under the original drilling program. Two RC drilling rigs are currently on site, and it is anticipated that the RC program will be extended by a further 2,000m to facilitate additional resource extension drilling at the Southern Pegmatite system, immediately east of Altura Mining Limited's (ASX: AJM) resource area.

A number of thick, high-grade intersections released by Altura have highlighted the potential for an extension of Altura's resource onto Pilbara's M45/511 tenement (see page 9 of Altura's ASX Release: "Revised Mineral Resource and Ore Reserve Estimates", 22nd September 2016). Pilbara has recently signed a co-operation agreement with Altura Mining (see ASX Announcement – 25 August 2016) formalising a framework for ongoing co-operation between the two companies. Part of this agreement is a Memorandum of Understanding (MOU) to jointly evaluate the potential to expand or jointly exploit the pegmatite system that is shared across the tenement boundaries.

Further drilling will also be required to define extensions to the new Far East Pegmatite Zone, which remains open both to the north and south.

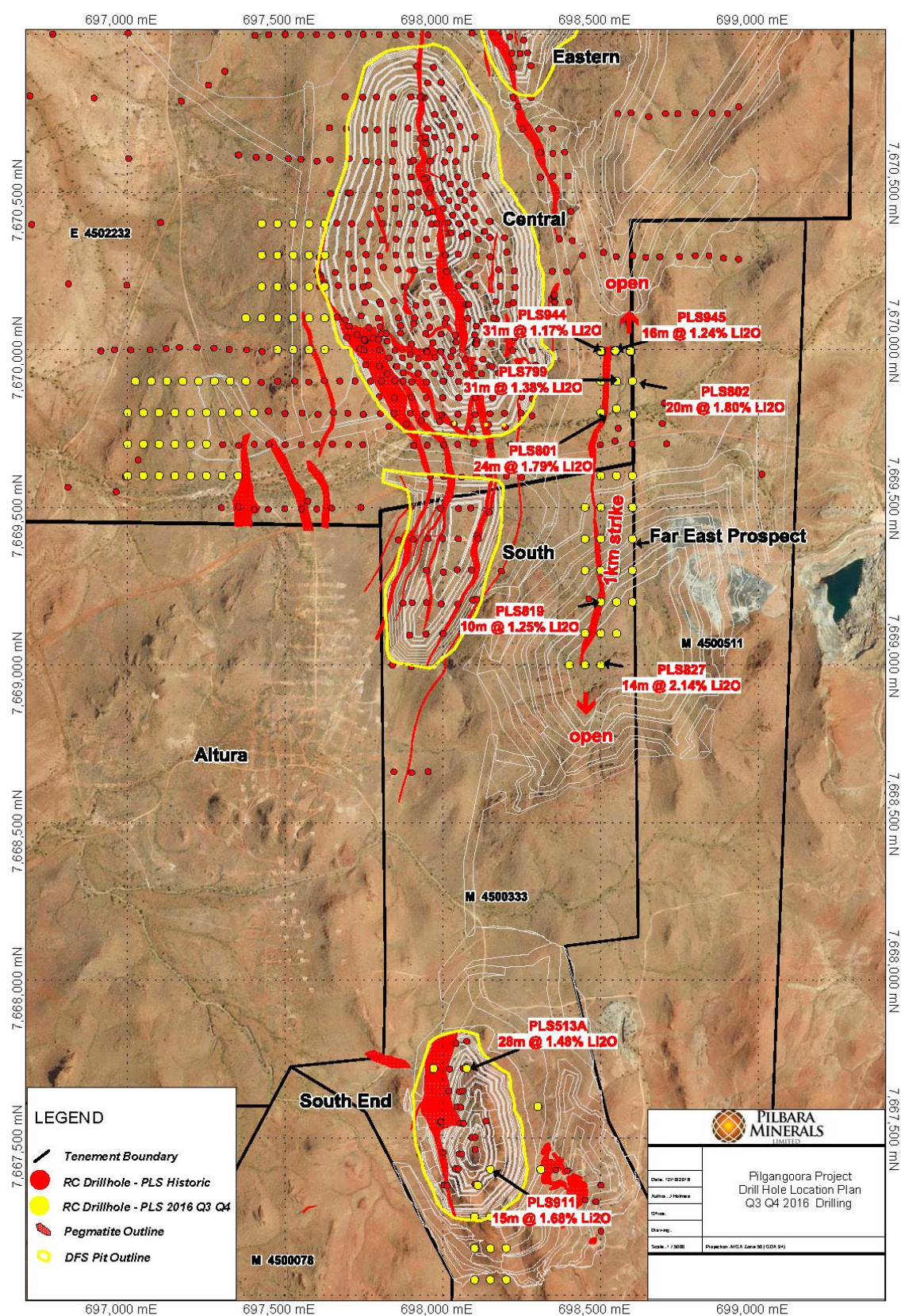


Figure 2: 1:5000 scale – Far East Drilling and South End Extension RC Drill Collars, with significant intercepts >0.5% Li₂O

Appendix 1 – Table 1 lists all recently received assay results from all drill holes in this report.

Table 1: Drilling Intersections (>1% Li₂O)

Hole ID	From (m)	To (m)	Thickness (m)	Li ₂ O (%)	Ta ₂ O ₅ (ppm)
PLS513A	34	60	26	1.53	84
PLS513A	64	71	7	1.51	91
PLS798	47	74	27	1.73	98
PLS799	75	94	19	1.56	79
PLS799	97	105	8	1.37	106
PLS800	152	156	4	1.19	89
PLS801	44	66	22	1.89	86
PLS802	87	106	19	1.85	104
PLS803A	140	149	9	1.71	75
PLS805	27	32	5	1.67	85
PLS811	14	17	3	2.16	69
PLS812	21	28	7	1.46	81
PLS813	81	90	9	1.63	83
PLS814	183	192	9	1.36	81
PLS819	30	37	7	1.49	65
PLS820	135	136	1	1.23	108
PLS820	139	144	5	2.06	69
PLS825	24	26	2	1.79	71
PLS825	94	95	1	1.46	91
PLS826	40	45	5	1.98	116
PLS826	114	115	1	1.36	161
PLS827	42	56	14	2.14	74
PLS827	142	145	3	2.63	80
PLS909	1	8	7	1.65	81
PLS909	68	77	9	1.07	62
PLS910	128	139	11	1.04	62
PLS911	121	134	13	1.79	60

Table 2: Drilling Intersections (>100ppm Ta₂O₅)

Hole ID	From (m)	To (m)	Thickness (m)	Ta ₂ O ₅ (ppm)	Li ₂ O (%)
PLS513A	37	38	1	120	2.05
PLS513A	52	67	15	114	1.04
PLS513A	84	86	2	118	0.13
PLS513A	89	91	2	122	0.23
PLS798	52	57	5	121	2.02
PLS798	61	66	5	155	0.9
PLS798	72	74	2	113	1



Hole ID	From (m)	To (m)	Thickness (m)	Ta2O5 (ppm)	Li2O (%)
PLS799	75	81	6	104	2.06
PLS799	90	91	1	110	1.12
PLS799	97	106	9	106	1.24
PLS801	43	51	8	104	2.07
PLS801	56	59	3	106	1.74
PLS801	64	65	1	110	0.80
PLS802	87	90	3	124	2.12
PLS802	94	107	13	113	1.76
PLS803A	140	141	1	110	1.51
PLS803A	150	151	1	110	0.09
PLS804	11	12	1	137	0.04
PLS805	31	32	1	121	2.30
PLS812	26	30	4	98	0.84
PLS813	84	87	3	115	1.69
PLS814	185	187	2	106	1.41
PLS820	135	136	1	108	1.23
PLS820	139	140	1	109	1.03
PLS825	92	93	1	135	0.32
PLS826	41	43	2	175	2.05
PLS826	114	117	3	133	0.92
PLS827	48	53	5	98	1.96
PLS827	146	147	1	103	0.09
PLS909	1	2	1	117	1.74
PLS909	7	8	1	107	2.26
PLS909	44	46	2	110	0.14
PLS909	50	51	1	113	0.52
PLS909	61	68	7	101	0.21
PLS909	76	77	1	120	1.98
PLS910	141	142	1	191	0.04
PLS911	125	126	1	124	1.96
PLS913	86	87	1	116	2.17
PLS914	121	123	2	146	1.19
PLS944	78	87	9	106	1.22
PLS944	91	92	1	119	1.31
PLS944	97	98	1	111	0.93
PLS945	133	147	14	100	1.32
PLS945	151	152	1	147	0.04

Appendix 1 – Drilling Information Pilgangoora Lithium – Tantalum Project

Far East						
Hole ID	North GDA94	East GDA94	RL	Dip	AZ	DEPTH
PLS803	7669800	698600	200	-60	270	60
PLS798*	7669900	698500	200	-60	270	100
PLS799*	7669900	698550	200	-60	270	112
PLS800*	7669900	698600	200	-60	270	190
PLS801*	7669800	698500	200	-60	270	100
PLS802*	7669800	698550	200	-60	270	112
PLS803A*	7669800	698600	200	-60	270	154
PLS804*	7669600	698500	200	-60	270	100
PLS805*	7669600	698550	200	-60	270	100
PLS806	7669600	698600	200	-60	270	112
PLS811*	7669400	698450	200	-60	270	100
PLS812*	7669400	698500	200	-60	270	100
PLS813*	7669400	698550	200	-60	270	100
PLS814	7669400	698600	200	-60	270	200
PLS819*	7669200	698500	200	-60	270	100
PLS820*	7669200	698550	200	-60	270	154
PLS825*	7669000	698400	200	-60	270	106
PLS826*	7669000	698450	200	-60	270	106
PLS827*	7669000	698500	200	-60	270	152
PLS944	7670000	698500	200	-60	270	112
PLS945	7670000	698550	200	-60	270	160
PLS946	7670000	698600	200	-60	270	169

- Results reported in this announcement

SOUTH END						
Hole ID	North GDA94	East GDA94	RL	Dip	AZ	DEPTH
PLS513E	7667720	698075	200	-60	90	60
PLS909*	7667720	697970	200	-60	270	88
PLS513A*	7667720	698075	200	-60	90	220
PLS910*	7667600	698300	200	-60	270	178
PLS911*	7667400	698150	200	-90	0	160
PLS134E	7667400	698310	200	-60	270	178
PLS504A	7667350	698110	200	-60	90	184
PLS912	7667250	698100	200	-60	270	100
PLS913	7667250	698150	200	-60	270	112
PLS914	7667250	698200	200	-60	270	160
PLS915	7667150	698100	200	-60	270	118
PLS916	7667150	698150	200	-60	270	148
PLS917	7667150	698200	200	-60	270	118

- Results reported in this announcement

WEST DOMAIN						
Hole ID	North GDA94	East GDA94	RL	Dip	AZ	DEPTH
PLS828	7670000	697475	200	-60	270	100
PLS829	7670000	697525	200	-60	270	160
PLS830	7670000	697575	200	-60	270	170
PLS831	7670000	697625	200	-60	270	100
PLS832	7670100	697375	200	-60	270	102
PLS833	7670100	697425	200	-60	270	112
PLS834	7670100	697475	200	-60	270	154
PLS835	7670100	697525	200	-60	270	190
PLS843	7670300	697425	200	-60	270	100
PLS844	7670300	697475	200	-60	270	100
PLS845	7670300	697525	200	-60	270	100
PLS846	7670300	697575	200	-60	270	100
PLS847	7670300	697625	200	-60	270	112

EASTERN PEGMATITE – NORTHERN EXTENSION						
Hole ID	North GDA94	East GDA94	RL	Dip	AZ	DEPTH
PLS888	7673200	698500	200	-60	270	100
PLS889	7673200	698550	200	-60	270	100
PLS890	7673200	698600	200	-60	270	100
PLS891	7673200	698650	200	-60	270	118

PILGANGOORA CREEK WEST						
Hole ID	North GDA94	East GDA94	RL	Dip	AZ	DEPTH
PLS853	7669600	697000	200	-60	270	81
PLS854	7669600	697050	200	-60	270	103
PLS855	7669600	697100	200	-60	270	142
PLS856	7669600	697150	200	-60	270	196
PLS857	7669600	697200	200	-60	270	125
PLS858	7669600	697250	200	-60	270	130
PLS859	7669600	697300	200	-60	270	112
PLS860	7669600	697350	200	-60	270	112
PLS867	7669800	697000	200	-60	270	100
PLS868	7669800	697050	200	-60	270	100
PLS869	7669800	697100	200	-60	270	100
PLS870	7669800	697150	200	-60	270	100
PLS871	7669800	697200	200	-60	270	100
PLS872	7669800	697250	200	-60	270	100
PLS873	7669800	697300	200	-60	270	100
PLS874	7669800	697350	200	-60	270	112
PLS875	7669800	697400	200	-60	270	106

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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COMPETENT PERSON'S STATEMENT

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 (Technical Director 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.



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	<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 69 RC drill holes for 8230m Results for 22 holes are being reported, 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).
	<i>Aspects of the determination of mineralisation that are Material to the Public Report. In cases where 'industry standard' work has been done this would be relatively simple (e.g. 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (e.g. submarine nodules) may warrant disclosure of detailed information.</i>	PLS holes were all RC, with samples split at the rig, samples are then sent to ALS Perth laboratory and analysed for a suite of 19 elements.
Drilling techniques	<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</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

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Criteria	JORC Code explanation	Commentary
	<i>standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc.).</i>	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	<i>Method of recording and assessing core and chip sample recoveries and results assessed.</i>	Sample recovery was recorded as good for RC holes.
	<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."
Logging	<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.
	<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.
Sub-sampling techniques and sample preparation	<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.
	<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.

Criteria	JORC Code explanation	Commentary
	<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.
Quality of assay data and laboratory tests	<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 (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. 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. 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.
Verification of sampling and assaying	<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.
	<i>The use of twinned holes.</i>	PQ diamond holes were completed as twins, and has confirmed the approximate width and grade of previous RC drilling.
	<i>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</i>	An electronic database containing collars, surveys, assays and geology is maintained by Trepanier Pty Ltd, an Independent Geological consultancy.
	<i>Discuss any adjustment to assay data.</i>	Li was converted to Li ₂ O for the purpose of reporting. The conversion used was Li ₂ O = Li x 2.153
Location of data points	<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.

Criteria	JORC Code explanation	Commentary
		Measurements were recorded at the bottom of each hole. Drill hole collar locations will be surveyed at the end of the program by a differential GPS (DGPS).
	<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 was calculated by a detailed Aerial survey completed by PLS
Data spacing and distribution	<i>Data spacing for reporting of Exploration Results.</i>	Drilling spacings varied between 25m to 200m apart
	<i>Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.</i>	The interpretation of the mineralised domains are supported by a moderate drill spacing, plus both geological zones and assay grades can be interpreted with confidence.
	<i>Whether sample compositing has been applied.</i>	No compositing
Orientation of data in relation to geological structure	<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.
Sample security	<i>The measures taken to ensure sample security.</i>	Chain of custody for PLS holes were managed by PLS personnel.

Criteria	JORC Code explanation	Commentary
Audits or reviews	<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
Mineral tenement and land tenure status	<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.
Exploration done by other parties	<i>Acknowledgment and appraisal of exploration by other parties.</i>	Talison completed RC holes in 2008 GAM completed RC holes between 2010 and 2012.
Geology	<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.
Drill hole Information	<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</i>	Refer to Appendix 1 this announcement.

Criteria	JORC Code explanation	Commentary
	<i>azimuth of the hole, down hole length and interception depth plus hole length.</i> <i>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>	
Data aggregation methods	<i>In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. cutting of high grades) and cut-off grades are usually Material and should be stated.</i> <i>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.</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.
Relationship between mineralisation widths and intercept lengths	<i>These relationships are particularly important in the reporting of Exploration Results.</i> <i>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</i> <i>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').</i>	Downhole lengths are reported in Table 1 and 2
Diagrams	<i>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.</i>	See Figures 1-3
Balanced reporting	<i>Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.</i>	Comprehensive reporting of drill details has been provided in Appendix 1 of this announcement.

Criteria	JORC Code explanation	Commentary
Other substantive exploration data	<i>Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.</i>	All meaningful & material exploration data has been reported.
Further work	<i>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.</i>	The aim is to upgrade the existing JORC compliant resource calculation.

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