



PILBARA MINERALS LIMITED

ACN 112-425-788

ASX ANNOUNCEMENT

9th June 2015

PILGANGOORA LITHIUM PROJECT: NEW THICK, HIGH-GRADE INTERSECTIONS CONFIRM SOUTHERN DEPOSIT EXTENSIONS

EXTENSIONAL DRILLING CONTINUES TO DELIVER EXCELLENT RESULTS POINTING TO FURTHER RESOURCE GROWTH

HIGHLIGHTS:

- **Outstanding results received from the next 23 Reverse Circulation (RC) drill-holes completed** since drilling resumed in May at Pilbara's 100%-owned **Pilgangoora Lithium-Tantalum Project**, located in WA's Pilbara region.
- **The latest results have confirmed the southern extensions of the Priority 3 Area with thick zones of high-grade lithium and tantalum mineralisation intersected in pegmatites.** Significant assays include:
 - **26m @ 1.68% Li₂O and 49ppm Ta₂O₅ from 14m (PLS084), including:**
 - 3m @ 2.08% Li₂O and 40ppm Ta₂O₅ from 20m; and**
 - 4m @ 2.06% Li₂O and 35ppm Ta₂O₅ from 25m;**
 - **14m @ 1.30% Li₂O and 60ppm Ta₂O₅ from 9m (PLS083);**
 - **11m @ 1.79% Li₂O and 59ppm Ta₂O₅ from 46m(PLS087), including:**
 - 4m @ 2.38% Li₂O and 60ppm Ta₂O₅ from 46m**
 - **10m @ 1.38% Li₂O and 70ppm Ta₂O₅ from 10m (PLS090), including:**
 - 2m @ 2.04 Li₂O and 70ppm Ta₂O₅ from 10m**
 - **10m @ 1.61% Li₂O and 50ppm Ta₂O₅ from 20m(PLS095);**
 - **8m @ 1.59% Li₂O and 61ppm Ta₂O₅ from 24m (PLS086);**
 - **8m @ 1.29% Li₂O and 73ppm Ta₂O₅ from 77m(PLS091);**
 - **7m @ 1.86% Li₂O and 50ppm Ta₂O₅ from 44m (PLS081), including:**
 - 2m @ 2.66% Li₂O and 60ppm Ta₂O₅ from 45m;**
 - **7m @ 1.59% Li₂O and 49ppm Ta₂O₅ from 100m (PLS092);**
 - **8m @ 1.48% Li₂O and 55ppm Ta₂O₅ from 12 m (PLS099);**
 - **8m @ 1.65% Li₂O and 43ppm Ta₂O₅ from 33m (PLS100); and**
 - **8m @ 1.22% Li₂O and 56ppm Ta₂O₅ from 55m (PLS101).**
- **37 holes for 3,716m of drilling now completed on 50m by 200m spacings within the Priority 3 Resource Area.** Drilling is continuing in the southern area before the rig is relocated to test northern extensions of the resource.

Australian strategic metals company Pilbara Minerals Ltd (ASX: PLS) is pleased to report further outstanding results from ongoing resource extension drilling at its flagship 100%-owned **Pilgangoora Tantalum-Lithium Project**, located near Port Hedland in WA.

The latest results have confirmed the presence of continuous and robust zones of high-grade lithium mineralisation **grading up to 2.66% lithium oxide (Li₂O)**, highlighting the potential for significant additions to the resource to the south of the Priority 3 Area.



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A program of resource in-fill and extensional drilling resumed at Pilgangoora in early May, with a total of 37 Reverse Circulation drill holes for 3,716m completed to date.

Drilling in the southern extension of the **Priority 3 Area** (see Figure 1) is expected to be completed shortly with assay results received to date for the first 23 RC holes.

Pegmatites containing high grades of lithium and generally lower grade tantalum have been intersected along three lines, 7669900mN, 7669800 and 7679500mN, in the Priority 3 Area, with significant high-grade intersections **grading more than 1.0% Li₂O** returned from this area, including **14m @ 1.30% Li₂O** from 9m (PLS083) and **26m @ 1.68% Li₂O** from 62m (PLS084).

These results are 300m along strike from section 7679900mN, where significant results of **35m @ 1.60% Li₂O** from surface (PLS078), **21m @ 1.69% Li₂O** from 29m (PLS079), and **24m @ 1.35% Li₂O** from 27m (PLS080) have been reported previously (see ASX Release – “Outstanding New Drill Results from Pilgangoora”, 30/4/2015).

Full intersections and assay results are provided in Table 1 on page 5 onwards of this release.

The new phase of resource in-fill and extensional drilling at Pilgangoora builds on the updated Mineral Resource announced on 1st June 2015. The updated Pilgangoora resource comprises Indicated and Inferred Resources of **23.8 million tonnes @ 0.021% Ta₂O₅ containing 11.3 million lbs of Ta₂O₅**. Within the tantalite resource there is a corresponding Lithium resource of **20.5 million tonnes @ 1.16% Li₂O** containing **237,000 tonnes of lithium oxide**.

Pilbara’s Executive Director, Mr Neil Biddle, said the ongoing drilling program was consistent with the Company’s strategy to fast-track the evaluation and development of the large and rapidly growing lithium-tantalum resource at Pilgangoora.

“Drilling continues to expand the deposit in several directions,” he said. “We have now encountered significant zones of robust, high-grade mineralisation to the south-west, well beyond the current resource envelope – confirming the potential for significant extensions to the resource in this area.

“The rig will shortly relocate to test potential northern extensions before returning to do any required in-fill work to underpin the next JORC resource upgrade.”

Pilgangoora Reverse Circulation Program – Detailed Discussion

The Pilgangoora drilling program on Exploration Licences (EL45/2232) re-commenced in May 2015. The drilling to date has confirmed the continuity of mineralisation from 7669900mN to 7660400mN, with this wide-spaced program successfully identifying extensions to the known mineralisation in the Priority 3 Areas (see Figure 1).

Significant higher grade zones returning >1.5% Li₂O (see Table 1, highlighted in yellow) have been intersected in the first 23 holes within the Priority 3 Area. Drilling on the northern lines, 7669800mN and 7669500mN, intersected consistent mineralised down-hole widths of **2-8m of + 2% Li₂O, within broader zones containing lithium grades in excess of 1% Li₂O**.

Assay results have been received for part of section 7669400mN, with significant down-hole widths of pegmatite in excess of 5-13m logged in 10 drill holes PLS0102 to PLS112, confirming the continuity of



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the geology south to 766900mN (see Figure 1) . The pegmatites in this Southern area of M45/333 appear to have steepened and the tenor of tantalum mineralisation (Ta_2O_5) has reduced from north to south, with average grades around 50-70ppm Ta_2O_5 as compared to the overall resource grade of 210ppm Ta_2O_5 .

Assay results are pending from the remaining 10 holes in the Priority 3 Area, which had had no previous drilling activity on M45/333. This area has now been drilled on line spacings of 50m by 200m. The shaded area in Figure 1 highlights the exploration area where drilling is planned in the second half of 2015.

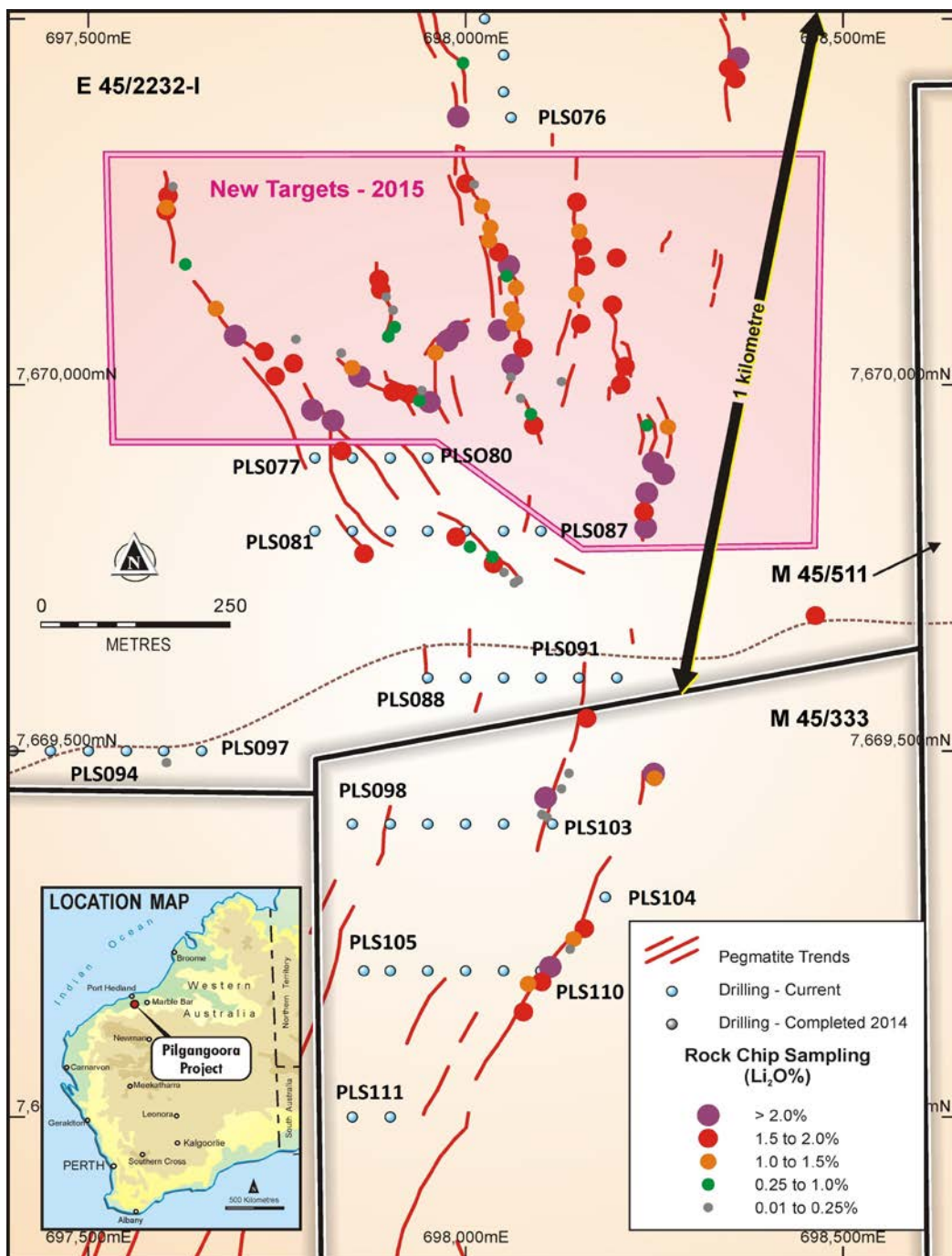


Figure 1 – Pilgangoora RC Collar Locations EL45/2232 and M45/333



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Table 1 below lists all recently received assay results from drill holes PLS081 to PLS097

Table 1: Drilling Intersections (>1% Li₂O)

Hole Id	From (m)	To (m)	Thickness (m)	Li ₂ O (%)	Ta ₂ O ₅ (ppm)
PLS081	44	51	7	1.86	51
inc	45	47	2	2.66	60
PLS082	1	4	3	1.1	47
	56	59	3	1.29	40
PLS083	9	23	14	1.3	60
	70	71	1	1.44	10
PLS084	11	12	1	1.07	100
	14	40	26	1.68	49
inc	20	23	3	2.08	40
	25	29	4	2.06	35
	67	68	1	1.55	100
PLS085	1	3	2	1.09	75
	5	7	2	1.56	110
	9	11	2	1.64	85
	23	24	1	1.11	60
	27	28	1	1.52	30
	33	34	1	1.15	40
	55	59	4	1.23	70
	61	65	4	1.27	55
PLS086	10	14	4	1.74	158
	16	21	5	1.3	32
	24	32	8	1.59	61
	72	76	4	1.02	80
	81	85	4	1.22	67
	86	90	4	1.36	55
PLS087	32	34	2	1.02	40
	42	43	1	1.24	100
	46	57	11	1.79	59
inc	46	50	4	2.38	60
PLS088	4	8	4	1.36	60
	16	17	1	1.06	40
PLS090	10	20	10	1.38	70
inc	10	12	2	2.04	70
	64	65	1	1.7	50
	84	87	3	1.01	30
PLS091	38	39	1	1.91	30
	42	46	4	1.43	73
	77	85	8	1.29	73



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Hole Id	From (m)	To (m)	Thickness (m)	Li ₂ O (%)	Ta ₂ O ₅ (ppm)
PLS092	97	98	1	1.78	40
	100	107	7	1.59	49
	109	110	1	1.28	80
PLS093	18	21	3	1.51	60
	39	40	1	1.81	60
	43	44	1	1.54	40
PLS094	4	6	2	1.13	40
PLS095	8	13	5	1.68	78
	20	30	10	1.61	50
inc	24	26	2	2.15	40
PLS096	22	27	5	1.43	64
	53	54	1	1.35	40
PLS097	69	73	4	1.5	68
PLS097A	NSR				
PLS098	NSR				
PLS099	4	12	8	1.48	54
	91	92	1	1.93	70
PLS100	7	9	2	1.34	70
	33	41	8	1.65	43
	47	48	1	1.54	20
PLS101	9	11	2	1.91	50
	26	29	3	1.53	53
	42	43	1	1.44	160
	55	63	8	1.22	56
	66	67	1	1.03	30
PLS121	NSR				

Table 2: Drilling Intersections (>100ppm Ta₂O₅)

Hole Id	From (m)	To (m)	Thickness (m)	Ta ₂ O ₅ (>100ppm)	Li ₂ O (%)
PLS081	51	52	1	200	0.71
PLS083	7	8	1	210	0.2
	10	11	1	120	1.45
	27	30	3	120	0.25
PLS084	11	14	3	120	0.88
	67	68	1	100	1.55
PLS085	3	6	3	147	0.87
	11	13	2	410	0.4
	34	35	1	150	0.45
	57	61	4	153	0.91



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Hole Id	From (m)	To (m)	Thickness (m)	Ta ₂ O ₅ (>100ppm)	Li ₂ O (%)
PLS086	9	14	5	182	1.41
	22	24	2	125	0.35
	32	33	1	100	0.47
	74	75	1	240	0.27
	81	82	1	100	1.27
	93	94	1	100	0.13
PLS087	42	45	3	113	0.73
PLS088	7	9	2	110	0.92
PLS089	15	16	1	130	0.07
PLS090	63	64	1	110	0.32
	65	66	1	130	0.24
PLS091	79	81	2	150	1.53
PLS095	7	10	3	253	1.3
	13	14	1	130	0.17
	19	21	2	155	1
PLS096	11	12	1	100	0.12
	51	52	1	100	0.67
PLS097	8	11	3	163	0.47
	14	16	2	125	0.55
	17	26	9	197	0.15
	44	47	3	117	0.28
	71	72	1	130	1.72
PLS097A	73	74	1	100	0.92
	79	82	3	110	0.004
	84	86	2	120	0.005
PLS098	87	88	1	120	0.13
	69	70	1	170	0.19
	86	87	1	200	0.39
PLS099	3	4	1	310	0.16
PLS100	32	33	1	140	0.45
PLS101	42	43	1	160	1.44
	54	55	1	190	0.48
	63	64	1	100	0.24
	59	60	1	100	0.37
PLS121	66	68	2	155	0.06
	99	100	1	100	0.02
	99	100	1	100	0.02



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About Pilbara Minerals

Pilbara Minerals (Pilbara) is a mining and exploration company listed on the ASX, specialising in the exploration and development of the specialty metals tantalum and lithium. Pilbara is currently developing the Tabba Tabba Tantalum deposit, located approximately 50km south-east of Port Hedland through a 50% Joint Venture. Pilbara is also drilling out the advanced 100%-owned Pilgangoora tantalum-lithium deposit close to Tabba Tabba.

The primary source of tantalum is from minerals such as tantalite, columbite, wodginite and microlite contained in pegmatite ore bodies. The largest deposits are located in Australia, Brazil and Africa. Tantalum's **major use is** in the production of electronic components, **especially for capacitors**, with additional use in components for chemical plants, nuclear power plants, airplanes and missiles. It is also used as a substitute for platinum.

The tantalum market is boutique in size with around 1,300 tonnes required each year. However the market is rapidly growing due to capacitor use in wireless and handheld devices. PLS's Tabba Tabba Project could supply approximately 7% of the annual market consumption over two years. There are two major buyers of tantalum raw product worldwide: HC Stark and Global Advanced Metals.

Lithium is a soft silvery white metal and has the highest electrochemical potential of all metals. In nature it occurs as compounds within hard rock deposits and salt brines. Lithium and its chemical compounds have a wide range of beneficial properties 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 electric bikes, motor vehicles, buses, trucks and taxis.

Contact:

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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 June 1, 2015 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 maiden resource announcement made on June 1, 2015.

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 (Exploration Manager 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.



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Appendix 1 – Total Drilling Completed 1/06/2015

Hole ID	North GDA94	East GDA94	RL	Dip	AZ	Depth
PLS081	7669801.9	697799.0	182.0	-60	270	100
PLS082	7669800.0	697847.2	181.1	-60	270	100
PLS083	7669800.2	697899.6	182.4	-60	270	100
PLS084	7669800.6	697946.0	181.8	-60	270	100
PLS085	7669798.4	697998.1	182.1	-60	270	100
PLS086	7669799.3	698048.8	182.3	-60	270	103
PLS087	7669798.8	698101.5	181.9	-60	270	100
PLS088	7669601.0	697960.4	183.3	-60	270	100
PLS089	7669601.3	697999.5	184.2	-60	270	100
PLS090	7669601.1	698053.1	185.2	-60	270	100
PLS091	7669601.6	698103.9	183.5	-60	270	100
PLS092	7669607.8	698146.2	182.2	-60	270	116
PLS093	7669601.5	698201.0	184.2	-60	270	100
PLS093A	7669600.0	698250.0	184.2	-60	270	100
PLS121	7669497.2	697444.6	178.9	-60	270	103
PLS094	7669500.2	697498.3	179.1	-60	270	100
PLS095	7669499.5	697551.6	179.3	-60	270	100
PLS096	7669500.3	697598.9	179.5	-60	270	100
PLS097	7669502.4	697646.0	180.6	-60	270	100
PLS097A	7669505.0	697745.0	181.0	-60	270	100
PLS098	7669399.8	697857.0	196.6	-60	270	100
PLS099	7669400.0	697905.3	199.7	-60	270	100
PLS100	7669401.5	697952.3	208.2	-60	270	100
PLS101	7669401.8	697997.5	208.9	-60	270	100
PLS102	7669402.9	698049.9	202.7	-60	270	100
PLS103	7669402.1	698115.8	193.3	-60	270	102
PLS104	7669300.3	698184.3	191.8	-60	270	100
PLS105	7669199.7	697870.5	220.4	-60	270	100
PLS106	7669199.2	697899.5	217.2	-60	270	100
PLS107	7669200.5	697949.1	202.9	-60	270	89
PLS108	7669198.1	697996.9	202.0	-60	270	100
PLS109	7669197.6	698050.0	194.4	-60	270	100
PLS110	7669201.3	698093.7	201.3	-60	270	100
PLS110A	7669210.0	698110.0	201.3	-50	90	100
PLS111	7669002.0	697846.8	206.6	-60	270	100
PLS112	7668997.4	697899.4	200.9	-60	270	103

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	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> Pilbara Minerals Limited (PLS) have completed to 37 drill hole RC program totalling 3186m to the end of May 2015, Results being reported are for the first 23 holes (PLS081 to PLS0101).
	<ul style="list-style-type: none"> Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used. 	<ul style="list-style-type: none"> 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).
	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> 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. Analysis was completed by XRF and ICP techniques.



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Criteria	JORC Code explanation	Commentary
Drilling techniques	<ul style="list-style-type: none"> • <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> 	<ul style="list-style-type: none"> • Drilling was completed by an 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.
Drill sample recovery	<p><i>Method of recording and assessing core and chip sample recoveries and results assessed.</i></p>	<ul style="list-style-type: none"> • Sample recovery was recorded as good for RC holes.
	<ul style="list-style-type: none"> • <i>Measures taken to maximise sample recovery and ensure representative nature of the samples.</i> 	<ul style="list-style-type: none"> • Whilst drilling through the pegmatite, rods were flushed with air after each 6 metre interval.
	<ul style="list-style-type: none"> • <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> 	<ul style="list-style-type: none"> • Samples were dry and recoveries are noted as “good.”
Logging	<ul style="list-style-type: none"> • <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> 	<ul style="list-style-type: none"> • 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..
	<ul style="list-style-type: none"> • <i>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</i> 	<ul style="list-style-type: none"> • Logging has primarily been quantitative.
	<ul style="list-style-type: none"> • <i>The total length and percentage of the relevant intersections logged.</i> 	<ul style="list-style-type: none"> • The database contains lithological data for all holes in the database.
Sub-sampling techniques and sample	<ul style="list-style-type: none"> • <i>If core, whether cut or sawn and whether quarter, half or all core taken.</i> • <i>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</i> • <i>For all sample types, the nature, quality and appropriateness of the</i> 	<ul style="list-style-type: none"> • RC samples were generally dry and split at the rig using a cyclone splitter, which is appropriate and industry standard.



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Criteria	JORC Code explanation	Commentary
preparation	<i>sample preparation technique.</i>	
	<ul style="list-style-type: none"> • <i>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</i> 	<ul style="list-style-type: none"> • PLS samples have field duplicates, field standards and blanks as well as laboratory splits and repeats.
	<ul style="list-style-type: none"> • <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> 	<ul style="list-style-type: none"> • Field duplicates were taken approximately every 20m, and standards and blanks every 50 samples.
Quality of assay data and laboratory tests	<ul style="list-style-type: none"> • <i>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</i> 	<ul style="list-style-type: none"> • PLS samples were assayed at NAGROM Pty Ltd 's Laboratory in Perth WA, for a 18 element suite using XRF on fused beads, and total acid digestion with an ICP finish.
	<ul style="list-style-type: none"> • <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> 	<ul style="list-style-type: none"> • No geophysical tools were used to determine any element concentrations used in this resource estimate.
	<ul style="list-style-type: none"> • <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> 	<ul style="list-style-type: none"> • 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 NAGROM internal standards), and have produced results deemed acceptable.



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Criteria	JORC Code explanation	Commentary
Verification of sampling and assaying	<ul style="list-style-type: none"> The verification of significant intersections by either independent or alternative company personnel. The use of twinned holes. 	<ul style="list-style-type: none"> Infill drilling completed by PLS in this program has confirmed the approximate width and grade of historical drilling. No use of twins
	<ul style="list-style-type: none"> Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols. 	<ul style="list-style-type: none"> An electronic database containing collars, surveys, assays and geology is maintained by Trepanier Pty Ltd, an Independent Geological consultancy.
	<ul style="list-style-type: none"> Discuss any adjustment to assay data. 	<ul style="list-style-type: none"> Li was converted to Li₂O for the purpose of reporting. The conversion used was Li₂O = Li x 2.153
Location of data points	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> 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).
	<ul style="list-style-type: none"> Specification of the grid system used. 	<ul style="list-style-type: none"> The grid used was MGA (GDA94, Zone 50)
	<ul style="list-style-type: none"> Quality and adequacy of topographic control. 	<ul style="list-style-type: none"> The topographic surface used was supplied by GAM
Data spacing and distribution	<ul style="list-style-type: none"> Data spacing for reporting of Exploration Results. 	<ul style="list-style-type: none"> Drilling spacings varied between 50m to 200m apart
	<ul style="list-style-type: none"> Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral 	<ul style="list-style-type: none"> The interpretation of the mineralised domains are supported by a moderate drill spacing, plus both geological zones and assay grades can be



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Criteria	JORC Code explanation	Commentary
	<p><i>Resource and Ore Reserve estimation procedure(s) and classifications applied.</i></p> <ul style="list-style-type: none"> <i>Whether sample compositing has been applied.</i> 	<p>interpreted with confidence.</p> <ul style="list-style-type: none"> No compositing
Orientation of data in relation to geological structure	<ul style="list-style-type: none"> <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> 	<ul style="list-style-type: none"> The mineralisation dips approximately 45-60 degrees at a dip direction of 090 degrees The drilling orientation and the intersection angles are deemed appropriate.
	<ul style="list-style-type: none"> <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> 	<ul style="list-style-type: none"> No orientation-based sampling bias has been identified.
Sample security	<ul style="list-style-type: none"> <i>The measures taken to ensure sample security.</i> 	<ul style="list-style-type: none"> Chain of custody for PLS holes were managed by PLS personnel.
Audits or reviews	<ul style="list-style-type: none"> <i>The results of any audits or reviews of sampling techniques and data.</i> 	<ul style="list-style-type: none"> Sampling techniques for historical assays have not been audited. The collar and assay data have been reviewed by checking all of the data in the digital database against hard copy logs. All PLS assays were sourced directly from the NAGROM laboratory

Section 2 Reporting of Exploration Results

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

Criteria	JORC Code explanation	Commentary
Mineral tenement and land	<ul style="list-style-type: none"> <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> 	<ul style="list-style-type: none"> PLS owns 100% of tenement E45/2232, M45/333



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Criteria	JORC Code explanation	Commentary
tenure status	<ul style="list-style-type: none"> <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> 	<ul style="list-style-type: none"> No known impediments.
Exploration done by other parties	<ul style="list-style-type: none"> <i>Acknowledgment and appraisal of exploration by other parties.</i> 	<ul style="list-style-type: none"> Talison completed RC holes in 2008 GAM completed RC holes between 2010 and 2012.
Geology	<ul style="list-style-type: none"> <i>Deposit type, geological setting and style of mineralisation.</i> 	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> <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.</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> 	<ul style="list-style-type: none"> Refer to Appendix 1 this announcement.
Data aggregation methods	<ul style="list-style-type: none"> <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.</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.</i> 	<ul style="list-style-type: none"> Length weighed averages used for exploration results reported in Table 1 and 2. Cutting of high grades was not applied in the reporting of intercepts in Table 1 and 2 No metal equivalent values are used.



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Criteria	JORC Code explanation	Commentary
	<ul style="list-style-type: none"> The assumptions used for any reporting of metal equivalent values should be clearly stated. 	
Relationship between mineralisation widths and intercept lengths	<ul style="list-style-type: none"> These relationships are particularly important in the reporting of Exploration Results. If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported. If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known'). 	<ul style="list-style-type: none"> Downhole lengths are reported in Table 1 and 2
Diagrams	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> See Figures 1
Balanced reporting	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> Comprehensive reporting of drill details has been provided in Appendix 1 of this announcement.
Other substantive exploration data	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> All meaningful & material exploration data has been reported.
Further work	<ul style="list-style-type: none"> The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling). Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive. 	<ul style="list-style-type: none"> The aim is to upgrade the existing JORC compliant resource calculation.