



# PILBARA MINERALS LIMITED

ACN 112-425-788

ASX ANNOUNCEMENT

9<sup>th</sup> November 2015

## PILGANGOORA: DRILLING DELIVERS WIDEST INTERSECTION TO DATE AS STRONG HIGH-GRADE RESULTS CONTINUE TO FLOW

*LATEST ASSAY RESULTS INCLUDE AN OUTSTANDING NEAR-SURFACE INTERCEPT OF 53M GRADING 1.71% Li<sub>2</sub>O*

### HIGHLIGHTS:

- **Significant new assay results received from ongoing in-fill and extensional drilling at the Central and Western Pegmatites, which remain open at depth and to the north.** New high-grade shallow results feature some of the widest zones (approximate true width) intersected to date, including:
  - **53m @ 1.71% Li<sub>2</sub>O and 82ppm Ta<sub>2</sub>O<sub>5</sub> from 43m (PLS360)**
  - **33m @ 1.61% Li<sub>2</sub>O and 115ppm Ta<sub>2</sub>O<sub>5</sub> from 44m (PLS359)**
  - **15m @ 1.51% Li<sub>2</sub>O and 147ppm Ta<sub>2</sub>O<sub>5</sub> from 60m (PLS361); and  
9m @ 1.36% Li<sub>2</sub>O and 186ppm Ta<sub>2</sub>O<sub>5</sub> from 78m**
  - **26m @ 1.74% Li<sub>2</sub>O and 92ppm Ta<sub>2</sub>O<sub>5</sub> from 0m (PLS201)**
  - **45m @ 1.68% Li<sub>2</sub>O and 96ppm Ta<sub>2</sub>O<sub>5</sub> from 9m (PLS202)**
  - **16m @ 1.61% Li<sub>2</sub>O and 145ppm Ta<sub>2</sub>O<sub>5</sub> from 18m (PLS222); and  
28m @ 1.72% Li<sub>2</sub>O and 103ppm Ta<sub>2</sub>O<sub>5</sub> from 37m**
  - **20m @ 1.64 Li<sub>2</sub>O and 147ppm Ta<sub>2</sub>O<sub>5</sub> from 51m (PLS223); and  
24m @ 1.83% Li<sub>2</sub>O and 93ppm Ta<sub>2</sub>O<sub>5</sub> from 75m**
- **Initial results from reconnaissance RC holes at the Southern prospect return encouraging intersections;**
  - **11m @ 1.87% Li<sub>2</sub>O from 18m (PLS141)**
  - **5m @ 2.14% Li<sub>2</sub>O from 36m (PLS142); and  
16m @ 1.90% Li<sub>2</sub>O from 47m**
  - **7m @ 1.68% Li<sub>2</sub>O from 68m (PLS142A)**
  - **8m @ 1.87% Li<sub>2</sub>O from 34m (PLS146)**
  - **7m @ 1.60% Li<sub>2</sub>O from 1m (PLS149)**
- **Two RC rigs currently operating on site with drilling on track to be completed by early December 2015.** A total of 49 holes for 5923m have already been completed since the resumption of drilling on 12 October.
- **Due to the success of the Central pegmatite drilling, a further two diamond holes are planned to commence in late November.** All of the results will be incorporated in an updated Mineral Resource estimate due in Q1 2016.

Australian strategic metals company Pilbara Minerals Ltd (ASX: PLS) is pleased to advise that it continues to make excellent progress with the resource extension and in-fill drilling program at its flagship 100%-owned **Pilgangoora Spodumene-Tantalum Project**, located near Port Hedland in WA, with latest results including some of the thickest intersections of high-grade mineralisation seen to date at the project.



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Since the resumption of drilling on 12 October, a total of 49 holes have already been completed for a total of 5923m. Results have now been received for a further 15 Reverse Circulation (RC) drill holes covered in this announcement. Drilling continues to return excellent results from both within and outside the current Mineral Resource inventory.

The latest Reverse Circulation drilling in the Central Pegmatite system has intersected **thick zones of high-grade mineralisation to a depth of 180m**. This drilling is also focused on improving the current resource categorisation from Inferred to Indicated by drilling selected zones of the resource on a 50m by 50m in-fill pattern.

## Pilgangoora Reverse Circulation Program – Discussion

Results have now been received for a further 15 RC drill holes (*see highlighted results in Appendix 1*). This latest phase of RC drilling has been focused on testing extensions to the known mineralisation within the Central Pegmatite.

In the Central Pegmatite area, previous drilling along sections 7670000mN and 7670100mN returned excellent results from two shallow-dipping pegmatites. **This pegmatite system remains open down-dip and to the north and west**. Recent drilling on 7670150mN (*see Figure 1*) has continued to intersect the same pegmatite with results indicating that it has thickened substantially in this area, with hole PLS360 returning an outstanding intercept of **53m @ 1.71% Li<sub>2</sub>O and 82ppm Ta<sub>2</sub>O<sub>5</sub> from 43m down-hole**. This is the **widest down-hole (approximate true width) intersection drilled to date at Pilgangoora**.

Further down-dip the pegmatite appears to bifurcate, with PLS361 returning intersections of **15m @ 1.51% Li<sub>2</sub>O from 60m and 9m @ 1.36% Li<sub>2</sub>O from 78m**, however by applying a slightly lower cut-off grade this intersection can be reported as **29m @ 1.30% Li<sub>2</sub>O over the entire pegmatite interval** (*see Figure 1*).

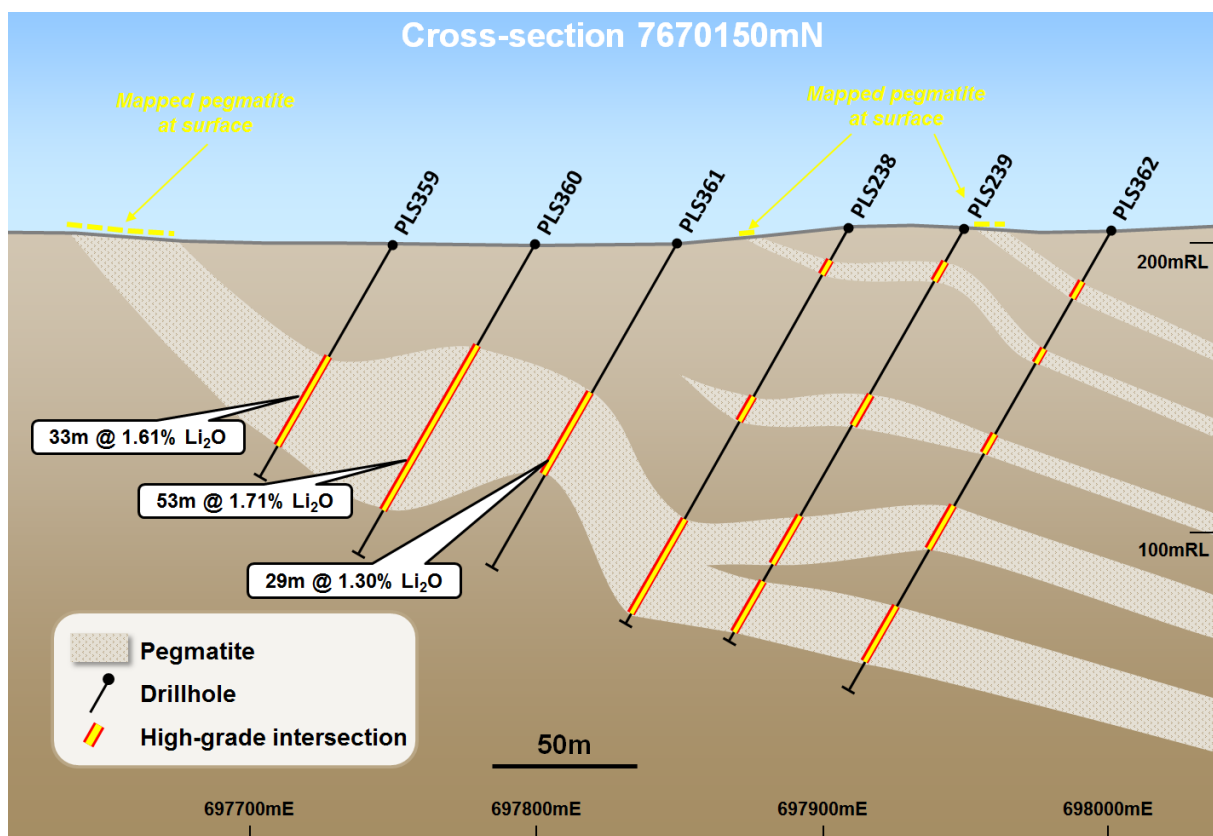


Figure 1: RC Cross Section 7670150mN, EL45/2232

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Pegmatites were intersected in every hole along a 300m cross-section on 7670150mN, again confirming the continuity and shallow-dipping nature of the Central Pegmatites. Assays from PLS238, PLS239 and PLS 362 awaited.

Drill holes PLS201 and PLS202 (see Figure 2) are directly up dip and to the south-west from this zone also resulted in thick near surface intersections of **26m @ 1.74% Li<sub>2</sub>O from 0m and 45m @ 1.68% Li<sub>2</sub>O from 9m** respectively.

Reconnaissance RC drilling was completed at the Southern Prospect approximately 2kms south of the current resource, 6 holes were completed for 566m, results have been returned for the first 5 holes. Significant widths of pegmatite (7 to 16m) were intersected from all holes with grades between **1.60% Li<sub>2</sub>O and 2.14% Li<sub>2</sub>O** (see Figure 3). Further drilling is recommended.

Full intersections and assay results are provided in Table 1 on page 6 onwards of this release.

## Management Comment

Pilbara Minerals' Technical Director, Mr John Young, said the resource in-fill and extensional drilling program at Pilgangoora was continuing to make outstanding progress, with more than half of the planned 11,000m of drilling already complete and the entire program on track to be finished by early December.

"Like all great deposits, Pilgangoora continues to get better the more we drill it – and the latest results from the Central and Western Pegmatites show that we have a genuinely world-class deposit on our hands," he said.

"The latest assays include the thickest intersection of high-grade lithium mineralisation drilled to date at Pilgangoora, giving us significant confidence in the scale, quality and robustness of the deposit. We are continuing to see an impressive flow of high-grade results from the drilling, which we anticipate will continue right up until the end of the year.

"This puts us firmly on track to publish an updated resource estimate in the first quarter of 2016 which will provide the foundation for the Pilgangoora Feasibility Study, which will also get into full swing early next year."

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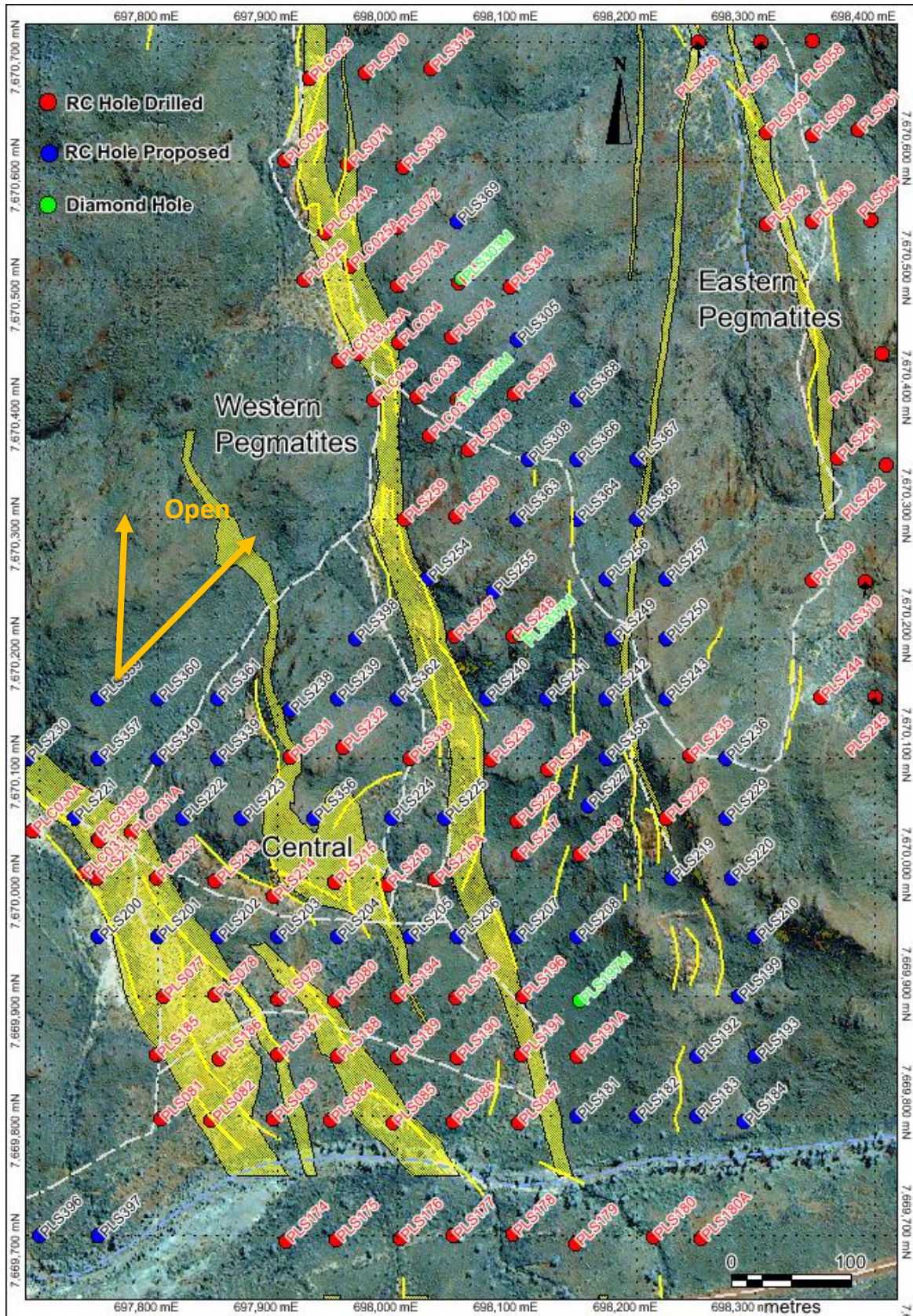


Figure 2: 1:5000 scale, RC drill collars at the Western and Central Pegmatites, EL45/2232



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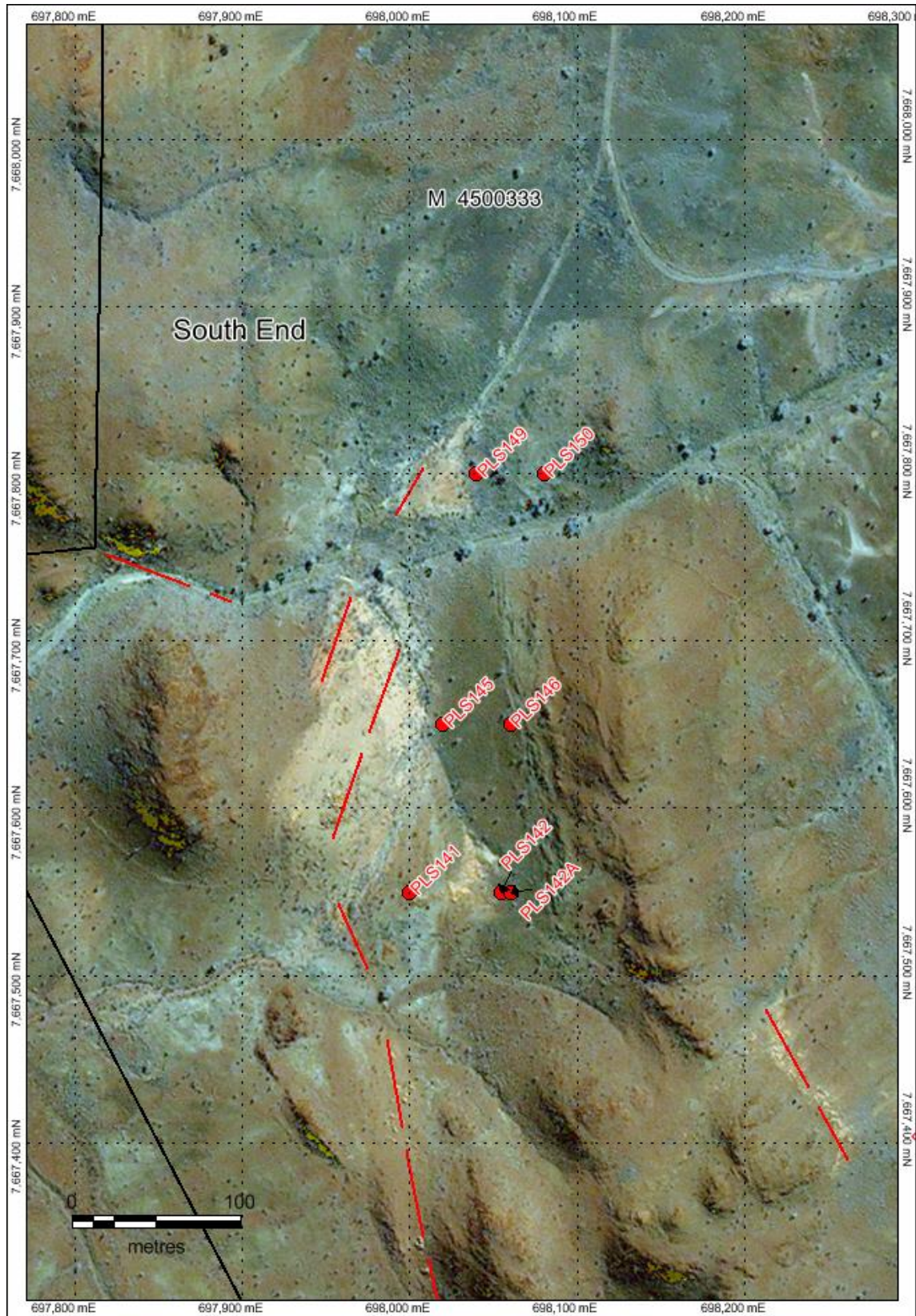


Figure 2: 1:5000 scale, RC drill collars at the Southern Pegmatites, EL45/333



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

**Table 1: 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)
PLS141	18	29	11	1.87	94
PLS142	36	41	5	2.14	76
PLS142	47	63	16	1.90	89
PLS142A	2	3	1	1.61	20
PLS142A	37	38	1	1.10	70
PLS142A	42	47	5	2.17	84
PLS142A	53	55	2	1.71	65
PLS142A	58	63	5	1.36	64
PLS142A	68	75	7	1.68	50
PLS146	34	42	8	1.86	85
PLS146	47	50	3	1.32	57
PLS149	1	8	7	1.60	51
PLS149	11	14	3	1.75	73
PLS201	0	26	26	1.74	92
PLS202	9	54	45	1.68	96
PLS221	4	5	1	1.34	60
PLS222	18	34	16	1.61	145
PLS222	37	65	28	1.72	103
PLS223	52	72	20	1.64	147
PLS223	75	99	24	1.83	93
PLS230	7	19	12	1.28	322
PLS339	29	34	5	1.18	26
PLS339	77	80	3	1.29	153
PLS340	23	28	5	1.64	60
PLS340	37	50	13	1.16	195
PLS340	55	60	5	1.15	68
PLS340	64	65	1	1.05	40
PLS357	33	45	12	1.44	87
PLS357	49	53	4	0.98	53
PLS357	56	64	8	1.65	130
PLS359	44	77	33	1.61	115
PLS360	43	96	53	1.71	82
PLS361	60	75	15	1.51	147
PLS361	78	87	9	1.36	186

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Table 2: 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 (%)
PLS221	0	4	4	80	0.2
PLS141	18	27	9	106	1.79
PLS142	0	2	2	220	0.72
PLS142	40	41	1	110	2.08
PLS142	48	49	1	120	3.24
PLS142	54	57	3	133	1.69
PLS142	61	62	1	120	1.46
PLS142A	4	5	1	110	0.20
PLS142A	39	41	2	120	0.31
PLS142A	44	45	1	180	2.37
PLS146	28	37	9	108	0.40
PLS149	11	12	1	120	1.59
PLS221	0	4	4	80	0.2
PLS221	9	11	2	130	0.43
PLS221	21	22	1	110	0.01
PLS221	32	35	3	177	0.16
PLS222	17	25	8	190	1.28
PLS222	32	51	19	158	1.62
PLS222	61	62	1	130	0.98
PLS222	68	69	1	130	0.12
PLS223	16	26	10	134	0.08
PLS223	52	55	3	217	1.18
PLS223	58	82	24	163	1.66
PLS223	96	100	4	178	1.47
PLS223	105	107	2	160	0.09
PLS230	10	11	1	2960	1.90
PLS230	17	21	4	168	0.56
PLS339	71	85	14	156	0.39
PLS339	99	101	2	235	0.03
PLS339	105	106	1	100	0.08
PLS340	20	21	1	180	0.11
PLS340	40	54	14	199	0.82
PLS340	67	69	2	125	0.09
PLS357	33	38	5	108	1.64
PLS357	60	65	5	282	1.46
PLS359	43	51	8	175	1.49
PLS359	55	56	1	130	2.83
PLS359	63	64	1	100	0.23
PLS359	73	79	6	283	0.81
PLS360	40	42	2	180	0.14
PLS360	66	82	16	117	1.56
PLS360	91	93	2	215	0.63
PLS360	99	104	5	160	0.04
PLS361	65	89	24	178	1.20
PLS361	101	116	15	142	0.24



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## 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 tantalum and lithium. Pilbara is currently developing the Tabba Tabba tantalum deposit, located approximately 50km south-east of Port Hedland. Pilbara is also drilling out the advanced 100%-owned Pilgangoora spodumene-tantalum deposit, located 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.

For further information:

### Investors:

John Young  
Director  
Telephone: +61 (8) 9336 6267  
Mobile: +61 419 954 020

### Media:

Nicholas Read  
Read Corporate  
Tel: +61 (8) 9388 1474  
Mobile: +61 419 929 046

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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 13<sup>th</sup> October, 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 resource announcement made on 13<sup>th</sup> October, 2015.*

*The information in this report that relates to Exploration Results 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.*





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

RC drilling completed.

Hole ID	East GDA94	North GDA94	RL	Dip	Azm	Depth
PLS141	698000	7667550	200	-60	270	100
PLS142	698055	7667550	200	-60	270	90
PLS142A	698060	7667550	200	-60	270	97
PLS146	698060	7667650	200	-60	270	96
PLS149	698040	7667800	200	-60	270	96
PLS150	698080	7667800	200	-60	270	87
PLS200	697750	7669950	200	-60	270	100
PLS201	697800	7669950	200	-60	270	48
PLS202	697850	7669950	200	-60	270	78
PLS203	697900	7669950	200	-60	270	90
PLS204	697950	7669950	200	-60	270	108
PLS205	698010	7669950	200	-60	270	130
PLS206	698050	7669950	200	-60	270	150
PLS207	698100	7669950	200	-60	270	168
PLS208	698150	7669950	200	-60	270	150
PLS193	698300	7669850	200	-60	270	162
PLS181	698150	7669800	200	-60	270	150
PLS221	697730	7670050	200	-60	270	96
PLS222	697820	7670050	200	-60	270	78
PLS223	697870	7670050	200	-60	270	114
PLS230	697690	7670100	200	-60	270	60
PLS357	697745	7670110	200	-60	270	84
PLS340	697800	7670100	200	-60	270	90
PLS339	697850	7670100	200	-60	270	120
PLS359	697750	7670150	200	-60	270	90
PLS360	697800	7670150	200	-60	270	120
PLS361	697850	7670150	200	-60	270	126
PLS238	697915	7670140	200	-60	270	156
PLS239	697950	7670150	200	-60	270	162
PLS362	698000	7670150	200	-60	270	180
PLS240	698075	7670150	200	-60	270	162
PLS369	698050	7670550	200	-60	270	100
PLS305	698100	7670450	200	-60	270	138
PLS368	698150	7670400	200	-60	270	78
PLS368A	698150	7670400	200	-60	270	186
PLS308	698110	7670350	200	-60	270	132
PLS366	698150	7670350	200	-60	270	156
PLS367	698200	7670350	200	-60	270	192
PLS384	699000	7674250	200	-90	0	80
PLS287	699125	7674350	200	-90	0	80
PLS385	699175	7674350	200	-90	0	80
PLS290	699130	7674450	200	-90	0	100



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Hole	East GDA94	North	RL	Dip	Azm	Depth
PLS291	699175	7674450	200	-90	0	154
PLS386	699225	7674450	200	-90	0	184
PLS387	699170	7674550	200	-90	0	88
PLS388	699220	7674550	200	-90	0	141
PLS389	699270	7674550	200	-90	0	178
PLS399	699320	7674550	200	-90	0	184
PLS402	699250	7674450	200	-90	0	134

**Results included in this report**

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## 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 a <b>49 drill holes for 5923m</b> . Results being reported are for 15 RC holes (PLS141 to PLS361), See Highlighted in 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</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. 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.
<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.
	<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.
	<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.
<b>Sub-sampling</b>	<i>If core, whether cut or sawn and whether quarter, half or all core taken.</i>	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
<b>techniques and sample preparation</b>	<i>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>	
	<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 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.
	<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.



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Criteria	JORC Code explanation	Commentary
		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.
<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.
	<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 Li <sub>2</sub> O for the purpose of reporting. The conversion used was Li <sub>2</sub> O = Li x 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 50m to 200m apart



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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 30-60 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 NAGROM laboratory



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## Section 2 Reporting of Exploration Results

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

Criteria	JORC Code explanation	Commentary
<b>Mineral tenement and land tenure status</b>	<i>Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites</i>	PLS owns 100% of 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.





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Criteria	JORC Code explanation	Commentary
<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 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 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.
<b>Relationship between mineralisation widths and intercept lengths</b>	<i>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').</i>	Downhole lengths are reported in Table 1 and 2. Down hole lengths are reported, true widths are not known. The pegmatites dip between 30 and 70 degrees to the east and the majority of drilling is at -60 degrees to the west, so thickness are approximate true widths.
<b>Diagrams</b>	<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
<b>Balanced reporting</b>	<i>Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.</i>	Comprehensive reporting of drill details has been provided in Appendix 1 of this announcement.
<b>Other substantive exploration data</b>	<i>Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density,</i>	All meaningful & material exploration data has been reported.



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Criteria	JORC Code explanation	Commentary
	<i>groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.</i>	
<b>Further work</b>	<i>The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling). Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</i>	The aim is to upgrade the existing JORC compliant resource calculation.

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