

ASX RELEASE

Wednesday 18th May 2016

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PILGANGOORA: LATEST DRILLING EXPANDS CENTRAL PEGMATITE FURTHER AND PAVES WAY FOR MAJOR RESOURCE AND RESERVE UPGRADE

Significant extensions to Central Pegmatite to be included in Definitive Feasibility Study

HIGHLIGHTS:

- The latest DFS drilling at Pilgangoora has confirmed significant north-western extensions of the Central Pegmatite, with numerous thick intersections of pegmatite (down-hole widths of up to 58m) encountered well beyond the boundary of the conceptual open pit at the Central Pegmatite (See results summaries and tables in this release). Significant new intersections include:
 - 58m @ 1.69% Li₂O from 131m (PLS459)
 - 37m @ 1.85% Li₂O from 106m (PLS456) and; 8m @ 2.11% Li₂O and 119ppm Ta₂O₅ from 147m and; 15m @ 1.72% Li₂O and 113ppm Ta₂O₅ from 160m
 - 30m @ 1.92% Li₂O from 96m (PLS453); and 23m @ 1.92% Li₂O and 106ppm Ta₂O₅ from 129m; and 8m @ 1.68% Li₂O from 155m
 - 20m @ 1.80% Li₂O and 141ppm Ta₂O₅ from 127m (PLS454)

These extensions will be considered for inclusion within an expanded Central Pit design, which may result in a significant upgrade in the Ore Reserves that will underpin the Pilgangoora Definitive Feasibility Study, due for release in Q3 2016.

- In-fill/exploration drilling along the Western Pegmatite has returned thick intersections of pegmatite at depth (interpreted to be the Central lodes), from drill hole PLS546, which returned a total pegmatite intersection of 53m @ 1.27% Li₂O, confirming that the Central pegmatites extend north and remain open along strike and at depth beyond the current resource.
- The positive outcomes of the current drilling programs have the potential to significantly enhance project economics, expand the future production rate at Pilgangoora and increase the mine life well beyond the current 15 years as defined by the March 2016 Pre-Feasibility Study.

Australian strategic metals company Pilbara Minerals Ltd (ASX: PLS) is pleased to advise that ongoing resource drilling being conducted along the Central and Western pegmatites at its 100%-owned **Pilgangoora Lithium-Tantalum Project** near Port Hedland in WA is continuing to deliver impressive results, paving the way for a substantial upgrade in Resources and Reserves.

Amongst other significant developments, the latest drilling has outlined important extensions of the mineralisation to the north of the Central pegmatite, well beyond the conceptual pit design for the Central Open Pit in the March 2016 Pre-Feasibility Study.

This strategically important outcome is expected to result in a significant increase in the scale of the Central Pit and a substantial upgrade in the Mineral Resource and Ore Reserve inventory for inclusion in the upcoming Definitive Feasibility Study, which remains on track for delivery in August this year.



In turn, these positive developments have the potential to enhance project economics, expand the future production rate at Pilgangoora and increase mine life well beyond the current 15 years.

The Company's 2016 exploration and resource development drilling program commenced at Pilgangoora in February, with five drill rigs on site. The Phase 1 program is now complete, with a total of 130 **Reverse Circulation (RC) drill-holes completed for 14,093m of drilling.**

As a result of the continued success of the drilling program, which has defined northern extensions of the Central Pegmatites well beyond the planned open pit (current reserve), a further 16,000m of drilling is now underway (as announced in the ASX Release dated 2nd May 2016) with six rigs on site – two of which are operating on a 24/7 basis. As part of the Definitive Feasibility Study, HQ diamond drilling for geotechnical purposes is also ongoing with 11 holes completed so far for 1,135m.

Central – North-West Extension

Numerous thick intersections of pegmatite have been returned from extensional drilling north of the Central Pegmatite on sections 7670300mN to 7670400mN, below the base of the conceptual Central open pit design in the PFS. Significant new intersections from drilling in this area include:

- 58m @ 1.69% Li20 from 131m (PLS459)
- 37m @ 1.85% Li₂O from 106m (PLS456) and;
 8m @ 2.11% Li₂O and 119ppm Ta₂O₅ from 147m and;
 15m @ 1.72% Li₂O and 113ppm Ta₂O₅ from 160m
- 5m @ 1.19% Li₂O and 140ppm Ta₂O₅ from 82m (PLS451); and 30m @ 1.79% Li₂O and 166ppm Ta₂O₅ from 90m
- **35m @ 1.75% Li₂O and 113ppm Ta₂O₅** from 113m (PLS452)
- 30m @ 1.92% Li₂O from 96m (PLS453); and
 23m @ 1.92% Li₂O and 106ppm Ta₂O₅ from 129m; and
 8m @ 1.68% Li₂O from 155m
- 20m @ 1.80% Li₂O and 141ppm Ta₂O₅ from 127m (PLS454)



Further results have also been received from RC drilling targeting the north-west extension of the known mineralisation, from 7670300mN and 7670525mN (see Figures 1 and 2). Hole PLS546 was completed as part of the Western in-fill program and extended and successfully intersected the Central pegmatite at depth (+150m), approximately 200m north of the current drilling on cross section 7670300mN (see results from PLS542 announced in ASX release dated 2nd May 2016). Results from this hole are set out below:

PLS546		6m @ 1.29% Li₂O and 96ppm Ta₂O₅ from 159m; and
	-	3m @ 1.26% Li₂O and 152ppm Ta₂O₅ from 183m; and
	-	15m @ 1.85% Li₂O and 163ppm Ta₂O 5 from 194m; and
		17m @ 1.55 Li₂O and 146ppm Ta₂O₅ from 212m; and
		9m @ 1.01% Li₂O and 126ppm Ta₂O 5 from 237m.

The results from PLS546 are reported using a >1% Li₂O and, when reported using >0.5% Li₂O it has a widths and grade of **37m @ 1.54% Li₂O. and a lower zone of 9m @ 1.01% Li₂O** (See Figure 2) as a total pegmatite intersection it has a width and grade of **53m @ 1.27% Li₂O**. PLS 546 has confirmed the grade and the potential of this zone to add significant resources to the Pilgangoora Lithium-Tantalum Project.



Figure1: Extensional RC Drill Section 7670300mN, EL45/2232







Figure 2: Extensional RC Drill Section 7670500mN, EL45/2232

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

Central, Western and Eastern In-fill Programs

In-fill drilling on 50m by 25m centres (PLS403 to PLS433, PLS 691 and PLS692, PLS539 to PLS547, PLS460-PLS477) has been completed on over the Central and Western pegmatites within the current pit design. This program is designed to covert a significant portion of the Indicated category in the resource statement to Measured.

Results from a further 13 holes have been received with assay results continuing to demonstrate excellent continuity, width and grade. Highlights of this drilling include:

- 12m @ 1.42% Li₂O from 79m (PLS490)
- 25m @ 1.47% Li₂O and 124ppm Ta₂O₅ from 79m (PLS543)
- 16m @ 1.94% Li₂O from 72m (PLS547); and 9m @ 1.51% Li₂O and 160ppm Ta₂O₅ from 92m
- 11m @ 1.60% Li₂O and 187ppm Ta₂O₅ from 19m (PLS460); and 5m @ 1.89% Li₂O and 201ppm Ta₂O₅ from 38m
- 23m @ 1.71% Li₂O and 202ppm Ta₂O₅ from 76m (PLS461); and 10m @ 1.74% Li₂O and 166ppm Ta₂O₅ from 103m;
- 6m @ 1.70% Li₂O and 154ppm Ta₂O₅ from 11m (PLS469); and 9m @ 2.13% Li₂O and 268ppm Ta₂O₅ from 25m
- 9m @ 1.96% Li₂O and 200ppm Ta₂O₅ from 51m (PLS473); and 18m @ 1.54% Li₂O and 236ppm Ta₂O₅ from 72m



Management Comment

Pilbara's Managing Director and CEO, Mr Ken Brinsden, said the delineation of significant north-western extensions of the Central Pegmatite from the current drilling was a strategically important development for the Pilgangoora Project with the potential to deliver a range of positive outcomes as part of the upcoming Definitive Feasibility Study.

"Thick zones of high-grade mineralisation have now been encountered well beyond the boundary of the conceptual open pit for the Central Pegmatite defined in the recent Pre-Feasibility Study, which is the largest open pit at the project and will provide the bulk of production in the early years of operations.

"While there is further work to be done, there is a high likelihood that this material will be able to be incorporated in the updated Ore Reserve – resulting in a significant expansion of the Central pit which in turn should grow our Ore Reserves and mine life.

"Recent drilling has also continued to demonstrate excellent continuity, width and grade of mineralisation within the current pit design over the Central and Western pegmatites. This program is successfully converting a significant portion of the current Indicated Resource to the Measured category to underpin the upcoming Definitive Feasibility Study," he added.

"The outstanding success of the drilling so far this year has prompted Pilbara to immediately approve a further sizeable program, with drilling set to continue for the next 4-6 weeks.

"All of the results from the drilling through until June will be incorporated in a major resource upgrade planned for July, which will in turn facilitate an updated Ore Reserve for inclusion in the DFS."





Figure 3: 1:5000 scale – RC Drill Collars in Central Area EL45/2232



Table 1 and 2 below 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 (%)	Ta₂O₅ (ppm)
PLS451	82	87	5	1.19	140
PLS451	90	120	30	1.79	166
PLS451	123	124	1	1.01	72
PLS452	94	101	7	1.82	68
PLS452	113	148	35	1.75	113
PLS452	156	160	4	1.19	272
PLS453	96	126	30	1.92	63
PLS453	129	152	23	1.92	106
PLS453	155	163	8	1.68	46
PLS453	172	173	1	1.40	220
PLS454	127	147	20	1.80	141
PLS456	106	143	37	1.85	97
PLS456	147	155	8	2.11	119
PLS456	160	175	15	1.72	113
PLS459	65	70	5	1.96	161
PLS459	107	114	7	1.59	106
PLS459	131	189	58	1.69	89
PLS460	19	30	11	1.60	187
PLS460	38	43	5	1.89	201
PLS460	59	63	4	1.81	237
PLS461	18	21	3	2.45	427
PLS461	62	69	7	1.87	122
PLS461	76	99	23	1.71	202
PLS461	103	113	10	1.74	166
PLS468	4	8	4	1.36	243
PLS468	24	26	2	1.80	480
PLS469	11	17	6	1.70	154
PLS469	25	34	9	2.13	268
PLS469	44	49	5	1.65	170
PLS469	58	59	1	1.03	95
PLS469	70	71	1	1.96	230
PLS470	26	27	1	1.03	100
PLS470	42	48	6	1.26	146
PLS470	51	53	2	1.10	157
PLS473	51	60	9	1.96	200
PLS473	72	90	18	1.54	236
PLS473	98	99	1	1.23	341



Hole Id	From (m)	To (m)	Thickness (m)	Li₂O (%)	Ta₂O₅ (ppm)
PLS488	53	61	8	1.74	100
PLS489	3	12	9	1.37	66
PLS489	51	52	1	1.51	215
PLS490	17	29	12	1.42	91
PLS491	23	27	4	1.06	67
PLS491	41	42	1	1.27	59
PLS491	45	47	2	1.30	70
PLS508	86	87	1	1.44	185
PLS508	105	111	6	1.12	72
PLS508	116	119	3	1.32	48
PLS509	43	58	15	1.34	55
PLS509	61	65	4	1.46	118
PLS509	69	73	4	1.71	78
PLS509	81	82	1	1.23	72
PLS509	85	91	6	1.11	90
PLS511	0	24	24	1.61	70
PLS511	73	74	1	1.64	88
PLS512	29	30	1	1.29	60
PLS512	42	44	2	1.85	42
PLS512	75	82	7	1.54	65
PLS512	90	91	1	1.27	75
PLS513	26	37	11	1.78	84.45
PLS513	51	52	1	1.46	64.1
PLS513	55	57	2	1.27	107.95
PLS513	61	62	1	1.01	230
PLS513	65	66	1	1.16	42.1
PLS540	63	65	2	2.10	109
PLS540	74	77	3	1.81	45
PLS540	82	84	2	1.97	106
PLS540	88	90	2	2.03	60
PLS540A	66	68	2	1.65	93
PLS540A	74	79	5	1.82	103
PLS540A	83	91	8	1.80	110
PLS541	0	1	1	1.77	86
PLS541	91	104	13	1.19	76
PLS541A	92	105	13	1.25	75
PLS541A	126	131	5	2.09	110
PLS541A	134	141	7	1.66	153
PLS544	28	46	18	1.83	121
PLS543	79	104	25	1.47	124
PLS545	77	78	1	1.18	50



Hole Id	From (m)	To (m)	Thickness (m)	Li₂O (%)	Ta₂O₅ (ppm)
PLS545	93	99	6	1.24	168
PLS546	116	117	1	2.56	330
PLS546	154	155	1	2.52	172
PLS546	159	165	6	1.29	96
PLS546	183	186	3	1.26	152
PLS546	194	209	15	1.85	163
PLS546	212	229	17	1.55	146
PLS546	237	243	6	1.21	122
PLS547	72	88	16	1.94	93
PLS547	92	101	9	1.51	160
PLS084M	11	37	26	1.41	58
PLS202M	10	56	46	1.76	104
PLS549M	2	33	31	1.57	139
PLS549M	37	43	6	1.63	76
PLS553M	21.2	38	16.8	1.57	227
PLS553M	67	72.53	5.53	1.36	464
PLS553M	78.6	82.77	4.17	1.99	233
PLS553M	88.8	89.9	1.1	1.42	311

Table 2: Drilling Intersections (>100 ppm Ta₂O₅)

Hole Id	From (m)	To (m)	Thickness (m)	Ta₂O₅ (ppm)	Li ₂ O (%)
PLS453	124	126	2	190	2.25
PLS453	130	143	13	131	1.94
PLS453	170	179	9	146	0.49
PLS454	123	127	4	127	0.4
PLS454	134	137	3	112	1.97
PLS454	140	149	9	235	1.17
PLS456	112	113	1	149	2.8
PLS456	119	128	9	149	2.12
PLS456	132	133	1	165	1.14
PLS456	140	149	9	264	1.35
PLS456	155	162	7	216	1.1
PLS456	174	176	2	294	0.92
PLS459	65	73	8	142	1.4
PLS459	84	85	1	121	0.41
PLS459	111	113	2	210	1.17
PLS459	131	133	2	119	1.42
PLS459	137	138	1	165	2.05
PLS459	141	159	18	131	1.57
PLS459	184	189	5	105	1.49



Hole Id	From (m)	To (m)	Thickness (m)	Ta₂O₅ (ppm)	Li ₂ O (%)
PLS460	5	6	1	119	0.28
PLS460	19	29	10	199	1.51
PLS460	33	47	14	236	1.00
PLS460	59	63	4	237	1.81
PLS461	18	22	4	357	1.92
PLS461	27	31	4	329	0.32
PLS461	62	68	6	127	1.89
PLS461	76	99	23	202	1.71
PLS461	102	113	11	163	1.65
PLS468	3	9	6	242	0.95
PLS468	23	28	5	366	1.16
PLS468	33	37	4	233	0.50
PLS469	11	17	6	154	1.70
PLS469	25	36	11	272	1.85
PLS469	40	48	8	144	0.98
PLS469	54	56	2	201	0.33
PLS469	63	74	11	231	0.58
PLS470	6	11	5	202	0.52
PLS470	27	32	5	139	0.45
PLS470	38	45	7	232	0.83
PLS470	50	54	4	131	0.82
PLS473	51	60	9	200	1.96
PLS473	72	102	30	205	1.19
PLS488	20	22	2	1779	0.07
PLS488	57	61	4	137	2.06
PLS489	1	2	1	110	0.02
PLS489	5	6	1	122	0.9
PLS489	44	47	3	168	0.39
PLS489	50	52	2	169	0.91
PLS490	5	8	3	136	0.21
PLS490	15	20	5	161	1.04
PLS491	27	28	1	107	0.67
PLS491	42	45	3	201	0.26
PLS491	49	50	1	152	0.06
PLS508	86	87	1	185	1.44
PLS508	93	94	1	100	0.09
PLS508	105	106	1	122	2.39
PLS508	121	122	1	101	0.26
PLS509	54	55	1	100	2.56
PLS509	61	65	4	118	1.46
PLS509	71	72	1	118	1.01
PLS509	85	86	1	102	2.17



Hole Id	From (m)	To (m)	Thickness (m)	Ta₂O₅ (ppm)	Li ₂ O (%)
PLS511	4	7	3	94	1.64
PLS511	12	13	1	106	3.06
PLS512	17	26	9	125	0.44
PLS512	94	98	4	97	0.27
PLS512	103	104	1	101	0.17
PLS513	27	32	5	102	1.92
PLS513	38	47	9	161	0.41
PLS513	52	57	5	116	0.77
PLS513	61	63	2	175	0.78
PLS540	62	66	4	112	1.26
PLS540	80	87	7	113	0.88
PLS540A	63	67	4	126	0.66
PLS540A	74	76	2	150	2.04
PLS540A	80	86	6	162	1.23
PLS540A	92	93	1	112	0.09
PLS541	91	93	2	115	1.14
PLS541	99	102	3	93	1.19
PLS541A	104	105	1	103	1.29
PLS541A	126	128	2	150	1.59
PLS541A	131	139	8	160	1.24
PLS546	116	117	1	330	2.56
PLS546	129	131	2	197	0.44
PLS546	152	155	3	94	0.98
PLS546	161	163	2	134	1.54
PLS546	183	185	2	188	1.39
PLS546	192	201	9	204	1.69
PLS546	205	223	18	269	1.50
PLS546	241	244	3	213	0.58
PLS543	81	82	1	117	1.89
PLS543	90	105	15	164	1.47
PLS544	28	45	17	123	1.84
PLS545	73	76	3	107	0.44
PLS545	80	84	4	174	0.08
PLS545	87	97	10	171	0.41
PLS547	72	73	1	150	1.74
PLS547	83	101	18	147	1.40
PLS549M	0.8	18	17.2	175	1.40
PLS549M	29	35	6	194	1.00
PLS549M	42	46.14	4.14	158	0.75
PLS557	24	25	1	133	0.00
PLS202M	16	17	1	105	1.98
PLS202M	22	35	13	178	1.64



Hole Id	From (m)	To (m)	Thickness (m)	Ta₂O₅ (ppm)	Li ₂ O (%)
PLS202M	39	40	1	107	1.55
PLS202M	54	56.7	2.7	101	1.52
PLS553M	21.2	38	16.8	227	1.57
PLS553M	67	72.53	5.53	464	1.36
PLS553M	78.6	82.77	4.17	233	1.99
PLS553M	88.8	89.9	1.1	311	1.42

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



The Company confirms it is not aware of any new information or data that materially affects the information included in the 10th March, 2016 Pilgangoora Mineral Reserve Estimate and that all material assumptions and technical parameters underpinning the estimate continue to apply and have not materially changed when referring to its maiden reserve announcement made on 10th March, 2016.

The information in this report that relates to Exploration Results and Exploration Targets is based on and fairly represents information and supporting documentation prepared by Mr John Young (Executive and Chief Geologist of Pilbara Minerals Limited). Mr Young is a shareholder of Pilbara Minerals. Mr Young is a member of the Australasian Institute of Mining and Metallurgy and has sufficient experience of relevance to the styles of mineralisation and types of deposits under consideration, and to the activities undertaken to qualify as Competent Persons as defined in the 2012 Edition of the Joint Ore Reserves Committee (JORC) Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Specifically, Mr Young consents to the inclusion in this report of the matters based on his information in the form and context in which they appear.

Hole ID	North GDA94	East GDA94	RL	Dip	AZ	DEPTH
CENTRAL ZONE -	NORTH WEST EXTE	NSION				
PLS434	7670210	697635	200	-60	270	46
PLS435	7670200	697665	200	-60	270	65
PLS436	7670200	697715	200	-60	270	88
PLS437	7670200	697765	200	-60	270	112
PLS438	7670200	697765	200	-90	0	124
PLS439	7670200	697865	200	-55	270	160
PLS440	7670200	697880	200	-90	0	160
PLS441	7670240	697610	200	-60	270	28
PLS442	7670250	697660	200	-60	270	70
PLS443	7670260	697720	200	-60	270	94
PLS444	7670250	697760	200	-60	270	118
PLS445	7670250	697810	200	-60	270	140
PLS446	7670250	697858	200	-60	270	162
PLS447	7670250	697910	200	-60	270	174
PLS448	7670250	697960	200	-60	270	184
PLS449	7670300	697705	200	-60	270	83
PLS450	7670300	697755	200	-60	270	111
PLS451	7670300	697805	200	-60	270	138
PLS452	7670300	697855	200	-60	270	28
PLS452A	7670300	697855	200	-60	270	166
PLS453	7670300	697905	200	-60	270	184
PLS454	7670300	697955	200	-60	270	178
PLS456	7670350	697900	200	-60	270	178
PLS457	7670350	697950	200	-60	270	184
PLS458	7670400	697915	200	-60	270	65
PLS458A	7670400	697915	200	-60	270	184
PLS459	7670400	697965	200	-60	270	196
						3420

Appendix 1 – Phase1 Drilling Information Pilgangoora Lithium – Tantalum Project



PILGANGOORA CREEK INFILL LINE									
Hole ID	North GDA94	East GDA94	RL	Dip	AZ	DEPTH			
PLS488	7669751	697833	200	-60	270	66			
PLS489	7669755	697883	200	-60	250	90			
PLS490	7669774	697932	200	-60	240	90			
PLS491	7669772	697984	200	-60	240	102			
PLS492	7669760	698038	200	-60	245	106			
PLS494	7669753	698147	200	-60	250	142			
PLS495	7669754	698198	200	-60	250	106			
						702			

WEST DOMAIN - NORTH EXTENSION									
Hole ID	North GDA94	East GDA94	RL	Dip	AZ	DEPTH			
PLS524	7669800	697450	200	-60	270	94			
PLS525	7669800	697500	200	-60	270	100			
PLS526	7669800	697550	200	-60	270	100			
PLS527	7669800	697600	200	-60	270	100			
PLS528	7669800	697650	200	-60	270	100			
PLS529	7669800	697700	200	-60	270	100			
PLS530	7669800	697750	200	-60	270	100			
						694			

EASTERN PEGMATITE - NORTHERN INFILL								
Hole ID	North GDA94	East GDA94	RL	Dip	AZ	DEPTH		
PLS478	7672200	698410	200	-60	270	61		
PLS479	7672200	698460	200	-60	270	82		
						143		

CENTRAL DOMAIN - 25m INFILL						
Hole ID	North GDA94	East GDA94	RL	Dip	AZ	DEPTH
PLS403	7669925	697825	200	-60	270	40
PLS404	7669925	697875	200	-60	270	64
PLS405	7669925	697925	200	-60	270	75
PLS406	7669925	697975	200	-60	270	76
PLS407	7669925	698025	200	-60	270	124
PLS408	7669925	698075	200	-60	270	96
PLS409	7669925	698125	200	-60	270	117
PLS410	7669925	698175	200	-60	270	102
PLS411	7669975	697825	200	-60	270	60
PLS412	7669975	697875	200	-60	270	80
PLS413	7669975	697925	200	-60	270	100



CENTRAL DOMAIN - 25m INFILL cont						
North GDA94	East GDA94	RL	Dip	AZ	DEPTH	
PLS414	7669975	697975	200	-60	270	111
PLS415	7669975	698025	200	-60	270	131
PLS416	7669970	698075	200	-60	270	114
PLS417	7669975	698125	200	-60	270	137
PLS418	7670025	697750	200	-60	270	30
PLS419	7670025	697790	200	-60	270	54
PLS420	7670025	697830	200	-60	270	90
PLS421	7670025	697900	200	-60	270	118
PLS422	7670025	697975	200	-60	270	138
PLS423	7670025	698050	200	-60	270	114
PLS424	7670025	698110	200	-60	270	10
PLS426	7670075	697765	200	-60	270	60
PLS427	7670075	697810	200	-60	270	71
PLS428	7670075	697868	200	-60	270	120
PLS429	7670075	697910	200	-60	270	133
PLS430	7670075	697960	200	-60	270	156
PLS431	7670075	698010	200	-60	270	120
PLS432	7670075	698100	200	-60	270	60
PLS433	7670075	698150	200	-60	270	126
PLS691	7670200	697740	200	-57	135	210
PLS692	7670150	697800	200	-50	160	132
						3415

WESTERN PEGMATITE - 25m INFILL						
Hole ID	North GDA94	East GDA94	RL	Dip	AZ	DEPTH
PLS539	7670375	698018	200	-60	270	60
PLS540	7670375	698080	200	-60	270	95
PLS540A	7670375	698080	200	-60	270	105
PLS541	7670375	698130	200	-60	270	121
PLS541A	7670375	698130	200	-60	270	160
PLS542	7670425	698025	200	-60	270	234
PLS543	7670425	698070	200	-60	270	111
PLS544	7670475	698020	200	-60	270	72
PLS545	7670475	698070	200	-60	270	108
PLS546	7670525	698020	200	-60	270	252
PLS547	7670525	698070	200	-60	270	108
						1426



EASTERN PEGMATITE - 25m INFILL						
Hole ID	North GDA94	East GDA94	RL	Dip	AZ	DEPTH
PLS460	7671060	698215	200	-60	270	96
PLS461	7671090	698270	200	-60	270	140
PLS462	7671180	698270	200	-60	270	150
PLS463	7671200	698290	200	-60	270	170
PLS464	7671225	698280	200	-60	270	148
PLS465	7671275	698245	200	-60	270	90
PLS466	7671325	698310	200	-60	270	120
PLS467	7671325	698317	200	-90	0	120

EASTERN PEGMATITE - 25m INFILL						
Hole ID	North GDA94	East GDA94	RL	Dip	AZ	DEPTH
PLS468	7671375	698230	200	-60	270	40
PLS469	7671405	698280	200	-60	270	84
PLS470	7671430	698260	200	-60	270	60
PLS471	7671430	698390	200	-60	270	136
PLS472	7671475	698385	200	-60	270	132
PLS473	7671500	698352	200	-60	270	110
PLS474	7671525	698385	200	-60	270	128
PLS476	7671600	698390	200	-60	270	145
PLS477	7671650	698385	200	-60	270	57
						1926

THE MONSTER						
Hole ID	North GDA94	East GDA94	RL	Dip	AZ	DEPTH
PLS518	7674200	698780	200	-90	0	40
PLS519	7674200	698830	200	-90	0	94
PLS520	7674200	698880	200	-90	0	64
PLS521	7674250	699060	200	-90	0	100
PLS522	7674250	699110	200	-90	0	94
						392

SOUTH END - RESOURCE EXTENSION						
Hole ID	North GDA94	East GDA94	RL	Dip	AZ	DEPTH
PLS502	7667350	698015	200	-60	270	28
PLS503	7667350	698015	200	-60	90	70
PLS505	7667450	698000	200	-60	270	28
PLS506	7667450	698050	200	-60	270	100
PLS507A	7667460	698100	200	-70	90	136
PLS508	7667550	698150	200	-90	100	150
PLS509	7667650	698050	200	-60	90	106



SOUTH END - RESOURCE EXTENSION						
Hole ID	North GDA94	East GDA94	RL	Dip	AZ	DEPTH
PLS511	7667720	698020	200	-60	270	106
PLS512	7667720	698070	200	-60	270	118
PLS513	7667720	698070	200	-70	90	91
PLS557	7667350	698500	200	-90	0	100
PLS558	7667300	698485	200	-90	0	100
PLS559	7667250	698500	200	-90	0	100
PLS560	7667200	698500	200	-90	0	100
						1333

EAST						
Hole ID	North GDA94	East GDA94	RL	Dip	AZ	DEPTH
PLS496	7668660	697850	200	-60	270	100
PLS497	7668660	697900	200	-60	270	100
PLS498	7668660	697950	200	-60	270	112
						312

SOUTH EASTERN PEGMATITE						
Hole ID	North GDA94	East GDA94	RL	Dip	AZ	DEPTH
PLS499	7669700	698500	200	-60	270	100
PLS500	7669710	698550	200	-60	270	106
PLS501	7669700	698600	200	-60	270	124
						330

Hole ID	DOMAIN	North GDA94	East GDA94	RL	Dip	AZ	DEPTH	
GEOTECH -	GEOTECH - HQ DRILLING PROGRAM							
	CENTRAL ZONE - NORTH							
PLS455M	WEST EXTENSION	7670350	697850	200	-60	270	156.3	
	CENTRAL ZONE - EAST							
PLS244M	WALL	7670151	698354	200	-60	270	141.6	
	CENTRAL ZONE - EAST							
PLS554M	WALL	7670553	698138	200	-60	240	111.3	
	CENTRAL ZONE -							
PLS493M	PILGANGOORA CREEK	7669751	698092	200	-60	240	114.5	
PLS537M	WESTERN	7669900	697725	200	-60	270	100	
PLS475M	EASTERN - EAST WALL	7671575	698405	200	-60	270	166.5	
PLS273M	EASTERN -NORTH WALL	7671996	698398	200	-60	240	96.6	
PLS555M	EASTERN - WEST WALL	7671004	698093	200	-60	270	90.6	
PLS556M	EASTERN - WEST WALL	7671396	698169	200	-60	90	102.5	
PLS484M	EASTERN -NORTH WALL	7672400	698575	200	-60	270	55.3	
PGPQ004	SOUTH EAST WALL	7669564	697685	200	-60	270	33.46	
							1135	



JORC Code, 2012 Edition – Table 1 report

Section 1 Sampling Techniques and Data

(Criteria in this section apply to all succeeding sections.)

Criteria	JORC Code explanation	Commentary
Sampling techniques	Nature and quality of sampling (e.g. cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.	Pilbara Minerals Limited (PLS) have completed 130 RC drill holes for 14,093m and 11 PQ Diamond holes for 715m and 11 HQ Diamond holes for 1135m(as of the 12/5/2016). Results being reported are for 29 RC holes (PLS451-PLS454, PLS456, PLS459-PLS461, PLS468-PS470, PLS473, PLS488-PLS491, PLS508- PLS513,PS540-PLS547) and a four diamond core (Hole PLS084M, PLS202M, PLS549M and PLS553M), see Appendix 1.
	Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.	PLS RC holes were sampled every metre, with samples split on the rig using a cyclone splitter. The sampling system consisted of a rig mounted cyclone with cone splitter and dust suppression system. The cyclone splitter was configured to split the cuttings at 85% to waste (to be captured in 600mm x 900mm green plastic mining bags) and 15% to the sample port in draw-string calico sample bags (10-inch by 14-inch). PQ/HQ Core measured and marked up on site and photographed prior to transport to Perth.
	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	PLS holes were all RC, with samples split at the rig, samples are then sent to NAGROM Perth laboratory and analysed for a suite of 18 elements. PQ/HQ Core measured and marked up on site and photographed prior to transport to Perth, where 10mm fillet taken for analysis. Analysis was completed by XRF and ICP techniques.



Criteria	JORC Code explanation	Commentary
	commodities or mineralisation types (e.g. submarine nodules) may warrant disclosure of detailed information.	
Drilling techniques	Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (e.g. core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).	RC Drilling was completed by a track mounted Schramm T450 with an automated rod-handler system and on-board compressor rated to 1,350cfm/800psi. Drilling used a reverse circulation face sampling hammer. The sampling system consisted of a rig mounted cyclone with cone splitter and dust suppression system. PQ/HQ Diamond Drilling completed by Hydco 1200H with an automated rod- handler system
Drill sample recovery	Method of recording and assessing core and chip sample recoveries and results assessed.	Sample recovery was recorded as good for RC holes. HQ core sample recovery excellent.
	Measures taken to maximise sample recovery and ensure representative nature of the samples.	Whilst drilling through the pegmatite, rods were flushed with air after each 6 metre interval.
	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.	Samples were dry and recoveries are noted as "good."
Logging	Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.	1m samples were laid out in lines of 20 or 30 samples with cuttings collected and geologically logged for each interval and stored in 20 compartment plastic rock-chip trays with hole numbers and depth intervals marked (one compartment per 1m). Geological logging information was recorded directly onto hard copy logging sheets and later transferred an Excel spreadsheet. The rock-chip trays are to be stored in PLS Perth office. HQ core was cut and logged in 1 m intervals.
	Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.	Logging has primarily been quantitative.
	The total length and percentage of the relevant intersections logged.	The database contains lithological data for all holes in the database.



Criteria	JORC Code explanation	Commentary
Sub- sampling techniques and sample preparation	If core, whether cut or sawn and whether quarter, half or all core taken. If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry. For all sample types, the nature, quality and appropriateness of the sample preparation technique.	RC samples were generally dry and split at the rig using a cyclone splitter, which is appropriate and industry standard. HQ Core was filleted (sawn), equivalent to a ¼ core size sample taken.
	Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.	PLS samples have field duplicates, field standards and blanks as well as laboratory splits and repeats.
	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.	Field duplicates were taken approximately every 20m, and standards and blanks every 50 samples.
	Whether sample sizes are appropriate to the grain size of the material being sampled.	Drilling sample sizes are considered to be appropriate to correctly represent the tantalum and lithium mineralization at PIIgangoora based on the style of mineralization (pegmatite) and the thickness and consistency of mineralization.
Quality of assay data and laboratory tests	The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.	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.
	For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.	No geophysical tools were used to determine any element concentrations used in this resource estimate.
	Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.	PLS duplicates of the samples were taken at twenty metre intervals with blanks and standards inserted every 50m. Comparison of duplicates by using a scatter chart to compare results show the expected strong linear relationship reflecting the strong repeatability of the sampling and analysis process.



Criteria	JORC Code explanation	Commentary
		The PLS drilling contains QC samples (field duplicates, blanks and standards plus laboratory pulp splits, and ALS Global internal standards), and have produced results deemed acceptable.
Verification of sampling and assaying	The verification of significant intersections by either independent or alternative company personnel. The use of twinned holes.	Infill drilling completed by PLS in this program has confirmed the approximate width and grade of historical drilling. PQ diamond holes were completed as twins, and has confirmed the approximate width and grade of previous RC drilling.
	Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.	An electronic database containing collars, surveys, assays and geology is maintained by Trepanier Pty Ltd, an Independent Geological consultancy.
	Discuss any adjustment to assay data.	Li was converted to Li_2O for the purpose of reporting. The conversion used was $Li_2O = Li \times 2.153$
Location of data points	Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.	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).
	Specification of the grid system used.	The grid used was MGA (GDA94, Zone 50)
	Quality and adequacy of topographic control.	The topographic surface used was supplied by GAM
Data spacing and distribution	Data spacing for reporting of Exploration Results.	Drilling spacings varied between 25m to 200m apart



Criteria	JORC Code explanation	Commentary
	Whether the data spacing and distribution is sufficient to establish the	The interpretation of the mineralised domains are supported by a moderate
	degree of geological and grade continuity appropriate for the Mineral	drill spacing, plus both geological zones and assay grades can be interpreted with confidence
	applied.	with confidence.
	Whether sample compositing has been applied.	No compositing
Orientation	Whether the orientation of sampling achieves unbiased sampling of	The mineralisation dips approximately 45-60 degrees at a dip direction of 090
of data in	possible structures and the extent to which this is known, considering the	degrees
relation to	deposit type.	
structure		
Siluciaic		
	If the relationship between the drilling orientation and the orientation of	No orientation-based sampling bias has been identified.
	key mineralised structures is considered to have introduced a sampling	
	bias, this should be assessed and reported if material.	
Sample	The measures taken to ensure sample security.	Chain of custody for PLS holes were managed by PLS personnel.
security		
Audits or	The results of any audits or reviews of sampling techniques and data.	Sampling techniques for historical assays have not been audited.
reviews		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



Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites	PLS owns 100% of tenement E45/2232, M45/333
	The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.	No known impediments.
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	Talison completed RC holes in 2008 GAM completed RC holes between 2010 and 2012.
Geology	Deposit type, geological setting and style of mineralisation.	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	A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes, including easting and northing of the drill hole collar, elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar, dip and azimuth of the hole, down hole length and interception depth plus hole length. If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.	Refer to Appendix 1 this announcement.
Data aggregation methods	In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated. Where aggregate intercepts incorporate short lengths of high grade	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.



Criteria	JORC Code explanation	Commentary
	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.	
Relationship	These relationships are particularly important in the reporting of	Downhole lengths are reported in Table 2 and 3
between	Exploration Results.	
mineralisatio	If the geometry of the mineralisation with respect to the drill hole angle is	
n widths and	known, its nature should be reported.	
intercept	If it is not known and only the down hole lengths are reported, there	
lengths	should be a clear statement to this effect (eg 'down hole length, true	
	width not known').	
Diagrams	Appropriate maps and sections (with scales) and tabulations of	See Figures 1-3
	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.	
Balanced	Where comprehensive reporting of all Exploration Results is not	Comprehensive reporting of drill details has been provided in Appendix 1 of
reporting	practicable, representative reporting of both low and high grades and/or	this announcement.
	widths should be practiced to avoid misleading reporting of Exploration	
	Results.	
Other	Other exploration data, if meaningful and material, should be reported	All meaningful & material exploration data has been reported.
substantive	including (but not limited to): geological observations; geophysical survey	
exploration	results; geochemical survey results; bulk samples – size and method of	
data	treatment; metallurgical test results; bulk density, groundwater,	
	geotechnical and rock characteristics; potential deleterious or	
	contaminating substances.	
Further work	The nature and scale of planned further work (eg tests for lateral	The aim is to upgrade the existing JORC compliant resource calculation.
	extensions or depth extensions or large-scale step-out drilling).	
	Diagrams clearly highlighting the areas of possible extensions, including	



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