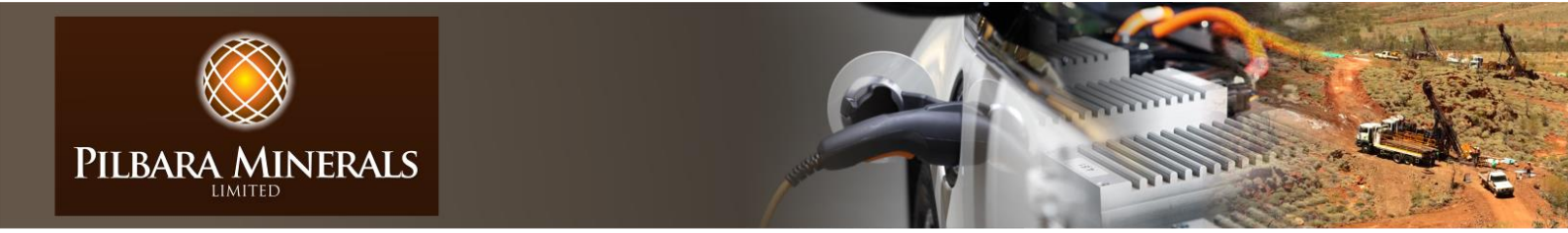

ASX/Media Announcement **13 December 2017**

NEW DISCOVERIES, EXTENSIONAL DRILLING SUCCESS PROVIDE STRONG SUPPORT FOR STAGE 2 EXPANSION AT PILGANGOORA LITHIUM-TANTALUM PROJECT

Updated Mineral Resource in Q1 2018 to underpin ongoing Definitive Feasibility Study on the Stage 2 expansion of the Pilgangoora Project to 5Mtpa

- **Strategic development and extensional drilling define new zones of high-grade pegmatite mineralisation at Far East, Monster, West End and Central.**
- **Extensional drilling north of the Central Zone has intersected a thick, high-grade footwall zone which is outside of the current Mineral Resource. Results include from this area include:**
    - **27m @ 1.68% Li_2O and 71ppm Ta_2O_5 from 258m (PLS1050)**
    - **21m @ 1.67% Li_2O and 95ppm Ta_2O_5 from 178m (PLS1049)***
    - **20 m @ 1.62% Li_2O and 123ppm Ta_2O_5 from 141m (PLS1048)***
- **Monster continues to deliver impressive results with a new thick, near-surface zone of mineralisation intersected to the north of the current pit design. Results include:**
    - **22m @ 1.15% Li_2O and 179ppm Ta_2O_5 from 10m (PLS1052)***
    - **14m @ 1.38% Li_2O and 161ppm Ta_2O_5 from 14m (PLS1090)***
- **Resource in-fill and extensional drilling at the Far East prospect has further defined this new zone, which remains open to the south. Results include:**
    - **11m @ 1.61% Li_2O and 62ppm Ta_2O_5 from 189m (PLS1052)**
    - **8m @ 1.86% Li_2O and 73ppm Ta_2O_5 from 31m (PLS1090)**
- **The results will be incorporated in an updated Mineral Resource estimate in Q1 2018 which will underpin the ongoing Stage 2 expansion Definitive Feasibility Study (DFS).**

* *Refer to September Quarterly Activities Report lodged on 26 October 2017.*

Australian lithium developer Pilbara Minerals Limited (ASX: PLS) ("**Pilbara Minerals**" or "**the Company**") is pleased to report final results from the recently completed 2017 exploration and resource extension drilling programs at its 100%-owned Pilgangoora Lithium-Tantalum Project in Western Australia. The results continue to demonstrate the world-class endowment of the Pilgangoora deposit and provide strong support for the ongoing Stage 2 Definitive Feasibility Study ("**DFS**").

New zones of high-grade pegmatite mineralisation have been defined across multiple prospects, with thick zones of high-grade mineralisation also intersected outside of the current Mineral Resource at the Central Zone and Monster deposit. Results from the program will be incorporated into an updated Mineral Resource estimate scheduled for completion in Q1 2018. Additional in-fill RC drilling is scheduled to commence in January 2018.

Studies are underway to increase production capacity of the Pilgangoora Project to 5Mtpa, rather than 4Mtpa as originally contemplated, once operations have commenced early next year at the initial targeted production rate of 2Mtpa (approximately 330,000tpa of spodumene concentrate per annum).

Pilbara Minerals' Managing Director and CEO, Ken Brinsden, said the results marked the completion of another highly successful exploration field season at Pilgangoora in 2017.

"The resource growth at Pilgangoora in the past three years has been nothing short of remarkable and continues to demonstrate that this is a Tier-1 hard rock lithium-tantalum deposit which is yet to reach its full potential," he said.

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"The exploration and development drilling programs completed this year are expected to add significantly to the Pilgangoora Mineral Resource over and above the existing 156Mt Resource and 80Mt Ore Reserve which underpin the Stage 1 development. We expect to finalise an updated Mineral Resource in the first quarter of next year which will underpin a new Ore Reserve as part of the Stage 2 DFS due for completion by mid-year.

"The latest drilling results clearly demonstrate the scaleability of the deposit and provide strong impetus for our plans to lift our Stage 2 production rate to 5Mtpa, equivalent to approximately 800,000 tonnes per annum of spodumene concentrate.

"Given the rapid escalation in customer demand, the robust outlook for the lithium market and continued increases in the Resource and Ore Reserve, we have every reason to believe that Pilgangoora's production can continue to grow in the future, subject of course to completing the appropriate studies," added Mr Brinsden.

Exploration Drilling

RC drilling was undertaken over a number of prospects including Far East, Monster, West End and Central (see Figure 1). The drilling program was undertaken by Strike Drilling Pty Ltd using a KWL1000 truck-mounted rig and SDR04 rig mounted on a VD3000 Marooka track base.

The drill holes were designed to test a number of new targets and extensions to the existing resource base. All up a total of 82 holes for an advance of 11,319m were completed.

Several encouraging new zones of thick near surface pegmatite mineralisation have been identified at West End and Monster North. In addition, high grade thick intercepts have been returned from the north extension of the Central Pit.

Results to date include 27m @ 1.68% Li_2O from the north extension of Central Pit area and 22m @1.15% Li_2O in a new pegmatite sheet at Monster. Drilling results continue to demonstrate significant widths and grades including:

- ***27m @ 1.68% Li_2O from 258m and 71ppm Ta_2O_5*** *(PLS1050);*
- ***25m @ 1.48% Li_2O from 92m and 82ppm Ta_2O_5*** *(PLS1017);*
- ***20m @ 1.62% Li_2O from 141m and 123ppm Ta_2O_5*** *(PLS1048);**
- ***12m @ 1.99% Li_2O from 184m and 97ppm Ta_2O_5*** *(PLS1045);* and*
- ***22m @ 1.15% Li_2O from 10m and 179ppm Ta_2O_5*** *(PLS1052).**

Additional RC exploration drilling is currently being planned for Q1 2018 as part of the Stage 2 expansion project with the key objective being to upgrade current Inferred Resources to the Indicated and Measured category. This information, together with the results from the current drilling program, will form the basis of an expanded Mineral Resource in Q1 2018 and an updated Ore Reserve estimation for the Stage 2 expansion project in Q2 2018.

Stage 2 Expansion case – Diamond Drilling

A PQ diamond drilling program has recently commenced at the Central and Eastern prospects. Drill core from this program will be used for additional metallurgical test work as part of the Stage 2 expansion DFS.

Mt Francisco

While the Company had expected to obtain access to the Mt Francisco Project for exploration drilling during 2017, the process for securing such access to the project area has taken longer than expected.

The Company continues to engage in access negotiations with the Kariyarra Native Title Claimant Group and the Mugarinya Community Association, who are the entrusted reserve custodians in the Mt Francisco Project area. The Company remains optimistic of obtaining such access rights in the short to near term and looks forward to working collaboratively with the Kariyarra Native Title Claimant Group and the Mugarinya Community Association. A request for Entry Permit has also been lodged with the Aboriginal Lands Trust (ALT), and is expected to be assessed shortly.

Geological studies are currently underway in preparation for the 2018 field program. Proposed exploration including detailed geological mapping and surface sampling is anticipated to commence in early 2018 following

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receipt of regulatory approvals and the abovementioned consents. This will be followed up by targeted drilling programs and resource estimation during the course of the 2018 calendar year.

Competent Person's Statement:

The information in this report that relates to Exploration Results and Exploration Targets is based on and fairly represents information and supporting documentation prepared by Mr John Holmes (Exploration Manager of Pilbara Minerals Limited). Mr Holmes is a shareholder of Pilbara Minerals. Mr Holmes is a member of the Australasian Institute of Geoscientists 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 a Competent Person 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 Holmes consents to the inclusion in this report of the matters based on his information in the form and context in which they appear.

The Company confirms it is not aware of any new information or data that materially affects the information included in the 25 January 2017 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 25 January 2017.

The Company confirms it is not aware of any new information or data that materially affects the information included in the 29 June 2017 Pilgangoora Ore 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 resource announcement made on 29 June 2017.

Additional 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 among the largest Spodumene (Lithium Aluminium Silicate) projects 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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FORWARD LOOKING STATEMENTS AND IMPORTANT NOTICE

This announcement may contain some references to forecasts, estimates, assumptions and other forward-looking statements. Although the Company believes that its expectations, estimates and forecast outcomes are based on reasonable assumptions, it can give no assurance that they will be achieved. They are indicative and may be affected by a variety of variables and changes in underlying assumptions that are subject to risk factors associated with the nature of the business, which could cause actual results to differ materially from those expressed herein. All references to dollars ($) and cents in this announcement are to Australian currency, unless otherwise stated.

Investors should make and rely upon their own enquiries before deciding to acquire or deal in the Company's securities.

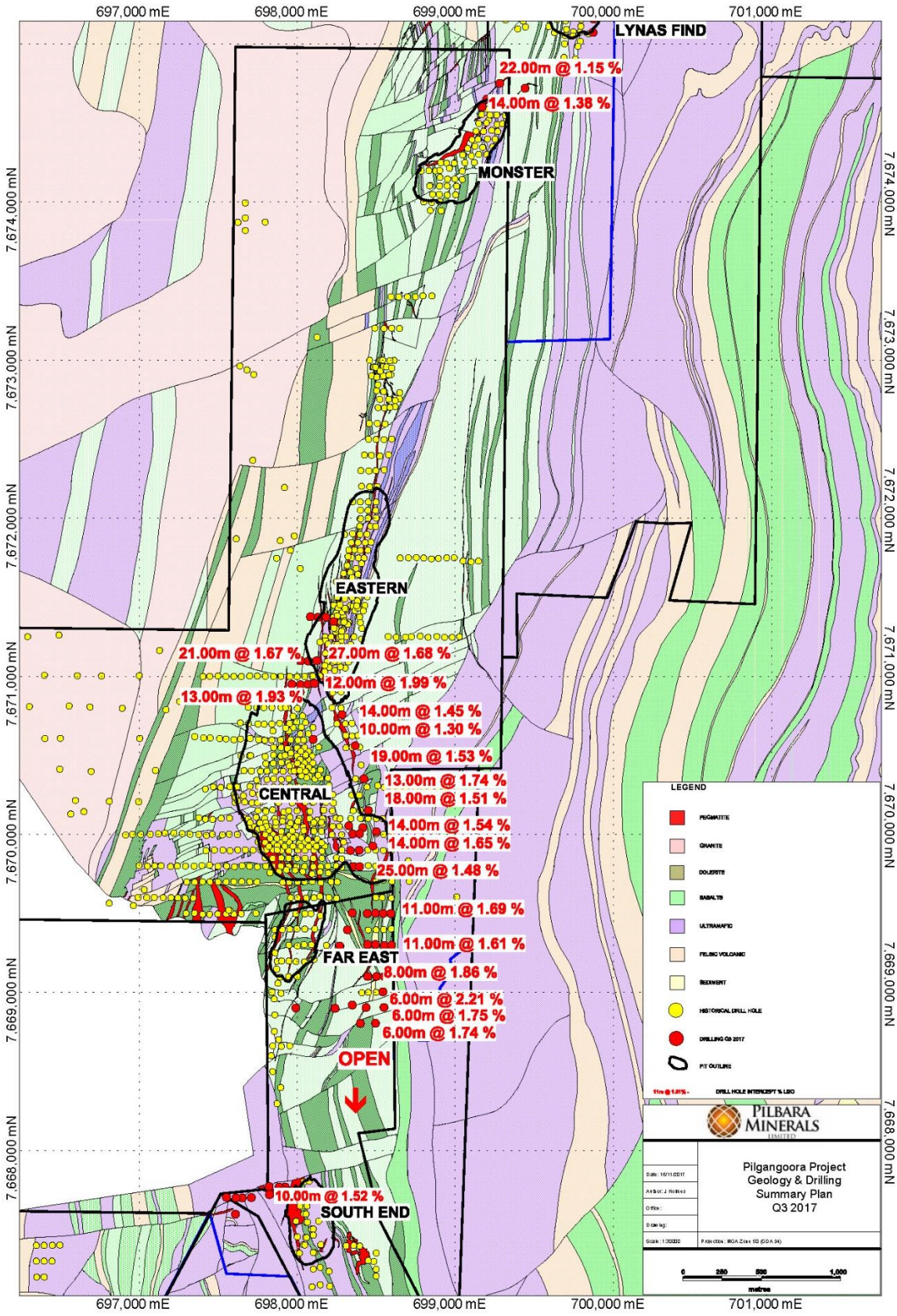

Figure 1 – Pilgangoora Project – Drilling Summary Q3 2017

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Appendix 1 – Q3 2017 Exploration Drill Hole Collars

Hole ID	East GDA94	North GDA94	RL	Dip	Azm	Depth
PLS1000	697920	7667717	198	-60	270	82
PLS1001	697865	7667726	197	-60	270	50
PLS1002	697824	7667720	196	-60	270	22
PLS1003	697924	7667769	203	-60	270	94
PLS1004	697885	7667768	209	-60	270	158
PLS1005	697822	7667772	217	-60	270	142
PLS1006	697710	7667701	200	-60	270	75
PLS1007	697653	7667699	197	-60	270	144
PLS1008	697612	7667700	197	-60	270	106
PLS1009	697552	7667703	194	-60	270	100
PLS1012	697609	7667596	194	-60	270	94
PLS1015	698326	7670053	228	-60	270	66
PLS1016	698415	7670041	226	-60	270	170
PLS1017	698501	7670016	200	-60	280	160
PLS1018	698350	7670002	226	-60	270	100
PLS1019	698395	7670003	228	-60	270	112
PLS1023	698337	7669896	203	-60	270	70
PLS1024	698392	7669899	216	-60	270	96
PLS1027	698355	7669797	187	-60	270	52
PLS1028	698395	7669795	187	-60	270	64
PLS1029	698183	7671373	190	-60	270	75
PLS1030	698130	7671373	188	-60	270	75
PLS1031	698083	7671375	188	-60	270	100
PLS1032	698231	7671345	193	-60	270	108
PLS1033	698122	7671099	204	-60	270	100
PLS1034	698071	7671095	202	-60	270	125
PLS1035	698023	7671097	200	-60	270	165
PLS1036	698100	7670600	200	-60	270	185
PLS1044	697898	7670850	193	-60	270	119
PLS1045	698018	7670899	203	-60	270	218
PLS1046	697970	7670897	203	-60	270	192
PLS1047	697916	7670895	194	-60	270	130
PLS1048	697967	7670948	197	-60	270	176
PLS1049	698021	7670946	199	-60	270	222
PLS1050	698067	7670948	192	-60	270	293
PLS1051	698109	7670954	190	-60	270	150
PLS1052	699199	7674650	202	-60	270	100
PLS1054	699296	7674649	206	-60	270	130
PLS1058	699281	7674751	197	-60	270	128
PLS1067	699440	7674719	207	-90	0	100
PLS1069	699873	7675158	202	-90	0	76
PLS1071	699872	7675073	221	-90	0	150
PLS1078	698283	7670757	200	-60	270	421
PLS1079	698367	7670560	206	-60	270	475
PLS1080	698422	7670350	222	-60	270	499
PLS1081	698450	7670151	233	-60	270	475

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Hole ID	East GDA94	North GDA94	RL	Dip	Azm	Depth
PLS1082	698479	7669926	203	-60	270	458
PLS1088	699866	7675261	201	-90	0	58
PLS1089	699874	7675221	204	-90	0	46
PLS1090	699169	7674601	205	-60	270	76
PLS1091	697916	7667747	201	-60	270	55
PLS1092	697917	7667711	198	-60	220	52
PLS807	698443	7669500	190	-60	220	142
PLS808	698495	7669501	193	-60	270	200
PLS809	698543	7669499	197	-60	270	100
PLS810	698594	7669498	193	-60	270	200
PLS815	698445	7669303	196	-60	270	140
PLS816	698495	7669302	199	-60	270	148
PLS817	698552	7669297	198	-60	270	190
PLS818	698597	7669298	202	-60	270	230
PLS822	698445	7669101	202	-60	270	130
PLS823	698501	7669100	203	-60	270	148
PLS824	698549	7669100	205	-60	270	112
PLS977	698542	7669003	212	-60	270	109
PLS978	697991	7668900	234	-60	270	46
PLS983	698240	7668898	216	-60	270	90
PLS985	698348	7668919	203	-60	270	136
PLS987	698435	7668903	198	-60	270	136
PLS989	698549	7668904	213	-60	270	200
PLS990	698400	7668802	201	-60	270	172
PLS992	698495	7668804	205	-60	270	190
PLS994	698348	7669502	192	-60	270	95
PLS995	698319	7669395	190	-60	270	68
PLS996	698270	7669293	195	-60	270	30
PLS996A	698269	7669293	195	-60	270	56
PLS997	698248	7669202	207	-60	270	70
P1-07	682200	7657476	200	-90	0	84
P1-08	682400	7656304	200	-90	0	72
P1-09	682600	7655025	200	-90	0	72
P1-10	686419	7667203	200	-90	0	96
P2-03	684386	7667736	200	-90	0	78
P2-04	682603	7665431	200	-90	0	90

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Appendix 2 – Q3 2017 Drill Hole Intersection Summary (0.5% Li2O cut)

Hole ID	From (m)	To (m)	Thickness (m)	Li2O %	Ta2O5 (ppm)
PLS808	16	20	4	1.65	65
PLS810	150	158	8	1.69	57.13
PLS815	6	13	7	1.14	59.43
PLS816	34	40	6	1.35	70
PLS816	49	53	4	1.43	45.5
PLS817	120	123	3	1.76	73
PLS817	129	135	6	0.82	69.33
PLS817	177	179	2	1.35	32
PLS818	189	200	11	1.61	62.55
PLS822	19	24	5	0.81	103.4
PLS822	111	112	1	1.2	78
PLS823	31	39	8	1.86	73.5
PLS823	136	137	1	1.7	74
PLS824	57	59	2	0.57	91.5
PLS824	105	107	2	0.69	26.5
PLS977	82	88	6	2.21	58.17
PLS978	36	39	3	1.07	61.33
PLS983	64	65	1	0.54	76
PLS985	32	33	1	1.35	51
PLS985	76	77	1	0.82	54
PLS985	88	90	2	1.8	54.5
PLS987	49	53	4	1.56	59.75
PLS987	104	108	4	1.72	109.75
PLS987	114	118	4	1.28	69.5
PLS989	121	127	6	1.75	43.67
PLS989	185	188	3	1.04	60.33
PLS989	193	195	2	1.45	67
PLS990	62	65	3	1.21	50.67
PLS990	95	101	6	1	42.33
PLS990	120	122	2	0.76	119
PLS992	110	116	6	1.74	46.33
PLS992	161	165	4	1.11	77.25
PLS995	62	63	1	0.79	64
PLS996A	48	51	3	1.85	94
PLS997	65	66	1	0.56	9
PLS1000	24	27	3	0.85	66.67
PLS1000	30	31	1	0.77	70
PLS1001	11	16	5	0.88	46.4

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Hole ID	From (m)	To (m)	Thickness (m)	Li2O %	Ta2O5 (ppm)
PLS1004	64	70	6	1.19	79.83
PLS1004	128	131	3	1.14	59.67
PLS1004	135	142	7	1.14	34.57
PLS1005	22	31	9	1.44	76.44
PLS1005	47	56	9	1.18	47.22
PLS1005	80	90	10	1.52	52.4
PLS1005	96	97	1	1.08	82
PLS1007	81	88	7	1.53	90.29
PLS1007	117	124	7	1.21	59.86
PLS1007	131	134	3	0.8	57.67
PLS1008	51	52	1	1.78	63
PLS1008	80	81	1	1.27	54
PLS1009	5	7	2	1.37	109.5
PLS1009	10	15	5	1.02	74.6
PLS1009	25	28	3	1.41	84
PLS1016	38	42	4	0.43	174.5
PLS1016	124	130	6	1.87	75.17
PLS1017	92	117	25	1.48	82
PLS1018	0	12	12	2.02	324.83
PLS1018	61	66	5	2.05	113.2
PLS1019	24	27	3	1.31	270.33
PLS1019	103	106	3	0.78	75.67
PLS1023	40	45	5	1.96	83.8
PLS1024	10	15	5	1.32	259.4
PLS1024	81	88	7	1.64	88.86
PLS1027	41	49	8	1.66	85.5
PLS1028	9	10	1	0.65	193
PLS1028	48	60	12	1.36	102.83
PLS1029	10	11	1	0.51	2
PLS1029	21	27	6	1.72	198.17
PLS1030	33	35	2	0.72	366.5
PLS1032	6	10	4	1.35	208
PLS1032	23	41	18	0.89	214.37
PLS1032	62	63	1	1.23	177
PLS1032	80	81	1	0.71	11
PLS1032	84	85	1	0.67	275
PLS1032	88	89	1	1.25	33
PLS1036	70	78	8	0.95	97.38
PLS1036	90	96	6	0.98	117
PLS1036	105	109	4	1.41	212.5
PLS1036	130	146	16	1.17	99.38
PLS1044	15	16	1	0.55	35
PLS1044	95	104	9	0.87	175.56
PLS1044	108	114	6	1.04	71.5

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Hole ID	From (m)	To (m)	Thickness (m)	Li2O %	Ta2O5 (ppm)
PLS1045	76	81	5	1.83	256.6
PLS1045	96	99	3	1.61	123.67
PLS1045	184	196	12	1.99	97
PLS1045	204	215	11	1.62	388.64
PLS1046	10	13	3	1.75	146.33
PLS1046	39	43	4	0.63	199.25
PLS1046	125	126	1	0.51	4
PLS1046	151	164	13	1.93	122.15
PLS1046	173	182	9	1.73	367.33
PLS1047	106	120	14	0.99	97.71
PLS1048	30	36	6	0.96	182.67
PLS1048	114	115	1	0.87	83
PLS1048	141	161	20	1.62	122.75
PLS1049	42	43	1	0.7	78
PLS1049	74	81	7	0.71	179.71
PLS1049	90	93	3	1.42	85
PLS1049	158	160	2	1.25	126
PLS1049	178	199	21	1.67	95.19
PLS1049	205	220	15	1.31	214.4
PLS1050	66	67	1	1.06	247
PLS1050	74	81	7	1.03	63.43
PLS1050	87	88	1	0.58	136
PLS1050	122	127	5	1.19	285
PLS1050	130	133	3	1.14	109.33
PLS1050	138	142	4	1.05	67.25
PLS1050	194	196	2	1.17	114.5
PLS1050	207	209	2	0.6	328.5
PLS1050	223	228	5	1.3	125
PLS1050	235	245	10	1.67	62
PLS1050	253	254	1	0.68	90
PLS1050	258	285	27	1.68	71.41
PLS1051	90	93	3	1.03	226.67
PLS1051	98	105	7	1.92	150.29
PLS1051	119	121	2	1.4	157.5
PLS1051	142	143	1	0.78	110
PLS1052	10	32	22	1.15	179.05
PLS1052	48	50	2	1.31	52
PLS1054	42	43	1	0.65	431
PLS1054	81	88	7	0.94	143.43
PLS1054	99	100	1	0.53	95
PLS1078	27	34	7	1.57	220
PLS1078	40	43	3	1.07	230
PLS1078	72	74	2	0.76	233
PLS1078	195	197	2	1.64	106
PLS1078	228	242	14	1.45	74.21

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Hole ID	From (m)	To (m)	Thickness (m)	Li2O %	Ta2O5 (ppm)
PLS1078	322	325	3	0.6	41
PLS1078	350	360	10	1.3	109.4
PLS1078	372	374	2	0.72	102
PLS1079	16	26	10	0.72	124.9
PLS1079	88	93	5	1.6	91.6
PLS1079	122	126	4	1.22	163.75
PLS1079	242	248	6	1.41	104.5
PLS1079	289	295	6	0.98	78.5
PLS1079	358	364	6	1.24	74.17
PLS1079	447	466	19	1.53	57.74
PLS1080	15	16	1	0.61	318
PLS1080	29	32	3	1.94	267.33
PLS1080	168	181	13	1.74	70.92
PLS1080	368	371	3	1.53	66
PLS1080	375	376	1	0.79	72
PLS1080	477	495	18	1.51	45.72
PLS1081	109	110	1	0.98	196
PLS1081	153	160	7	2.04	58
PLS1081	327	341	14	1.54	79.14
PLS1081	448	462	14	1.65	46.86
PLS1082	68	84	16	1.17	70.69
PLS1082	302	305	3	0.52	74.33
PLS1082	403	411	8	1.32	66.38
PLS1082	446	449	3	1.69	78
PLS1090	0	6	6	1.19	82.17
PLS1090	45	59	14	1.38	161
PLS1091	6	12	6	0.68	88
PLS1091	32	39	7	1.04	54.43
PLS1091	47	53	6	1.24	48.67

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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
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 **82 RC drill holes for 11319m and 244 RC Grade Control holes for 7247m during Q3 2017.** Results are being reported are for 82 exploration RC holes see Appendices 1 and 2.
	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 commodities or mineralisation types (e.g. submarine nodules) may warrant disclosure of detailed information.*	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.
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 Strike Drilling Pty Ltd using a KWL1000 truck mounted rig and an SDR04 rig mounted on a VD3000 Marooka track base. RC grade control drilling was undertaken by Mt Magnet Drilling Pty Ltd using an RC450 track mounted Schramm drill rig. Drilling used a reverse circulation face sampling hammer. The sampling system

Criteria	JORC Code explanation	Commentary
		consisted of a rig mounted cyclone with cone splitter and dust suppression 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.
	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 digital logging system and information validated and transferred electronically to Database administrators in Perth. The rock-chip trays are to be stored on site at Pilgangoora.
	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.
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.
	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.

Criteria	JORC Code explanation	Commentary
	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 PIlgangoora 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 NAGROM Perth laboratory and analysed for a suite of 18 elements via 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. 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.
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.

Criteria	JORC Code explanation	Commentary
	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 x 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 12m to 200m apart
	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.	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.
	Whether sample compositing has been applied.	No compositing
Orientation of data in relation to geological structure	*Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.*	The mineralisation dips approximately 45-60 degrees at a dip direction of 090 degrees The drilling orientation and the intersection angles are deemed appropriate.
	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.	No orientation-based sampling bias has been identified.

Criteria	JORC Code explanation	Commentary
Sample security	*The measures taken to ensure sample security.*	Chain of custody for PLS holes were managed by PLS personnel.
Audits or reviews	*The results of any audits or reviews of sampling techniques and data.*	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 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 tenements M45/1256, M45/333, M45/511, Application for M45/1259
	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 Appendices 1 and 2.

Criteria	JORC Code explanation	Commentary
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 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.*	Length weighed averages used for exploration results reported in Appendix 2. Cutting of high grades was not applied in the reporting of intercepts in Appendix 2. No metal equivalent values are used.
Relationship between mineralisation widths and intercept lengths	*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').*	Downhole lengths are reported in Appendix 2.
Diagrams	*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.*	See Figure 1
Balanced reporting	*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.*	Comprehensive reporting of drill details has been provided in Appendix 2.
Other substantive exploration data	*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.*	All meaningful & material exploration data has been reported.
Further work	*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.*	The aim is to upgrade the existing JORC compliant resource calculation.