
QUARTERLY ACTIVITIES REPORT

QUARTER ENDED 30 SEPTEMBER 2014

Pivotal quarter for Pilbara with Tabba Tabba Tantalum Project on track for production and cash-flow and drilling underway to grow tantalum-lithium resources

PROJECT DEVELOPMENT

- ❖ **Drilling completed at the Tabba Tabba Tantalum Project with highly encouraging assays of up to 5,070ppm Ta₂O₅ (tantalum)** returned from mineralised zones outside of the current resource model, with results including:
 - **5m @ 1,856ppm Ta₂O₅ incl. 3m @ 2,860ppm Ta₂O₅** from 7m (TTRC1435);
 - **7m @ 1,361ppm Ta₂O₅ incl. 5m @ 1,836ppm Ta₂O₅** from 7m (TTRC1410);
 - **4m @ 505ppm Ta₂O₅ incl. 1m @ 1,290ppm Ta₂O₅** from 23m (TTRC1428); and
 - **9m @ 463ppm Ta₂O₅ incl. 3m @ 853ppm Ta₂O₃** from 17m (TTRC1434).
- ❖ **Results confirm robustness and grade of the initial Tabba Tabba Ore Reserve** (133kt @ 1,290ppm Ta₂O₅ for 455,000lbs of contained Ta₂O₅) ahead of the planned start-up of mining in Q4 2014.
- ❖ **Works Approval, Mine Plan, Mine Closure Plan and Operating Permit** Documentation submitted to the Department of Minerals & Energy and Department of Environmental Regulation.
- ❖ **Pilbara Minerals and its Joint Venture partner Nagrom are continuing to fast-track the development**, with the processing plant currently in the commissioning phase and mine camp installation nearing completion.

EXPLORATION

- ❖ Highly encouraging assays of **up to 3.9% Li₂O (lithium) and 1,100ppm Ta₂O₅ (tantalum)** reported from recent and historical rock chip sampling at the **Pilgangoora Lithium-Tantalum Project**.
- ❖ **Mapped tantalite and spodumene zones** within pegmatites extending for over 7km provide focus for aggressive drilling programs in 2014-2015. **Drilling to commence shortly at Pilgangoora** following receipt of all statutory approvals.

CORPORATE

- ❖ Successful completion of a **Share Purchase Plan (SPP)**, which closed on 23 July with an **outstanding response from shareholders**, raising a total of \$3M including shortfall applications.

PROJECT DEVELOPMENT ACTIVITIES – AUSTRALIA

Tabba Tabba Joint Venture (PLS 50%, Nagrom Mining Pty Ltd 50%)

Tabba Tabba Drilling

During the September Quarter, Pilbara completed **38 Reverse Circulation (RC) holes for a total of 1,386m** at the Tabba Tabba Project (see Figure 1 below).

The program was designed to test extensions to the known mineralisation, as well as in-fill the existing mine reserve model to assist with grade control and provide additional resource information prior to the planned commencement of mining and production later this year.

All assay results from this program were received during the Quarter, with the results including numerous intercepts above the resource lower cut-off grade of 100ppm Ta₂O₅ and also numerous intercepts above the Mining Reserve lower cut-off grade of 275ppm.

The results reflect the very robust and high-grade nature of the current Mining Reserve, supporting the Company's early production plans.

Assays returned individual intercepts of up to **5,070ppm Ta₂O₅**, consistent with the interpreted resource and reserve model. Highlights are presented below, clearly illustrating the high-grade nature of this deposit (refer to ASX Release – 27 October 2014: **OUTSTANDING DRILLING RESULTS REVEAL MORE HIGH-GRADE TANTALUM AT TABBA TABBA PROJECT, WA**).

TTRC1404:	5m @ 524ppm Ta ₂ O ₅ including 1m @ 1910ppm Ta ₂ O ₅ from 46m
TTRC1406:	4m @ 455ppm Ta ₂ O ₅ including 2m @ 725ppm Ta ₂ O ₅ from 44m
TTRC1410:	7m @ 1361ppm Ta ₂ O ₅ including 5m @ 1836ppm Ta ₂ O ₅ from 7m
TTRC1418:	4m @ 505ppm Ta ₂ O ₅ including 1m @ 1290ppm Ta ₂ O ₅ from 23m
TTRC1421:	12m @ 567ppm Ta ₂ O ₅ , including 4m @ 1255ppm Ta ₂ O ₅ from 6m
TTRC1434:	9m @ 463ppm Ta ₂ O ₅ , including 3m @ 853ppm Ta ₂ O ₅ from 17m
TTRC1435:	5m @ 1856 ppm Ta ₂ O ₅ , including 3m @ 2860ppm Ta ₂ O ₅ from 7m

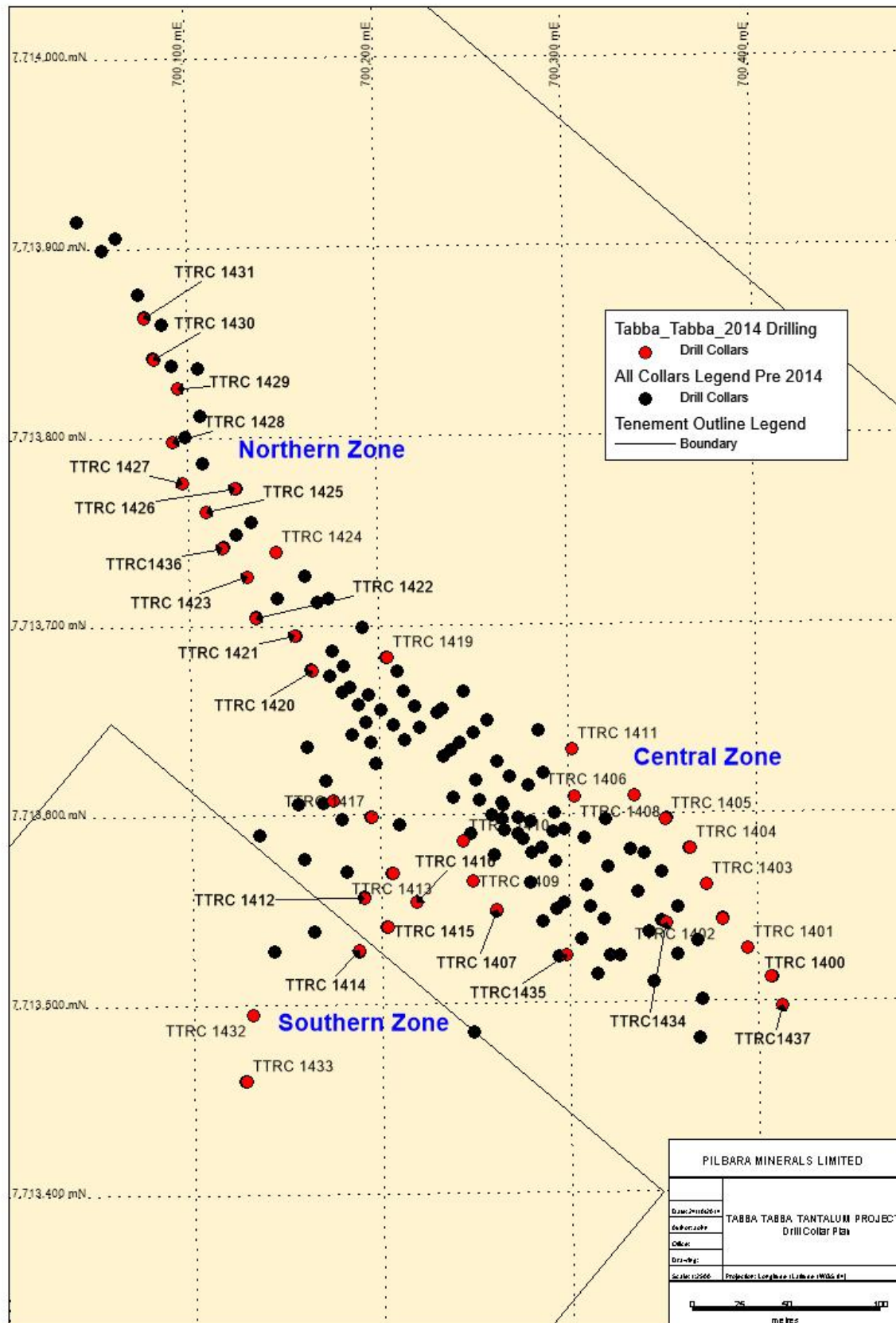


Figure 1 –Tabba Tabba Drill Hole Location Plan

Development Progress

The proposed site for the mine camp at Wallareenya Station is located just 15km from the Tabba Tabba mine site. Progress has been made with the construction (see Figure 2) with five ensuite accommodation units now installed. Once completed, the camp will have a total of 20 ensuite rooms. The upgrade of the access road from Wallareenya to Tabba Tabba is underway using Day Contracting.



Figure 2– Installation of accommodation units at Wallareenya Station, the proposed site of the mine camp for the Tabba Tabba Tantalum Project

Plant Construction

The individual plant components are complete with the final sections being sent out for sandblasting and painting. The plant breaks down into 13 sections and can be transported on regular escorted trucks. Commissioning of a number of the individual sections has commenced.

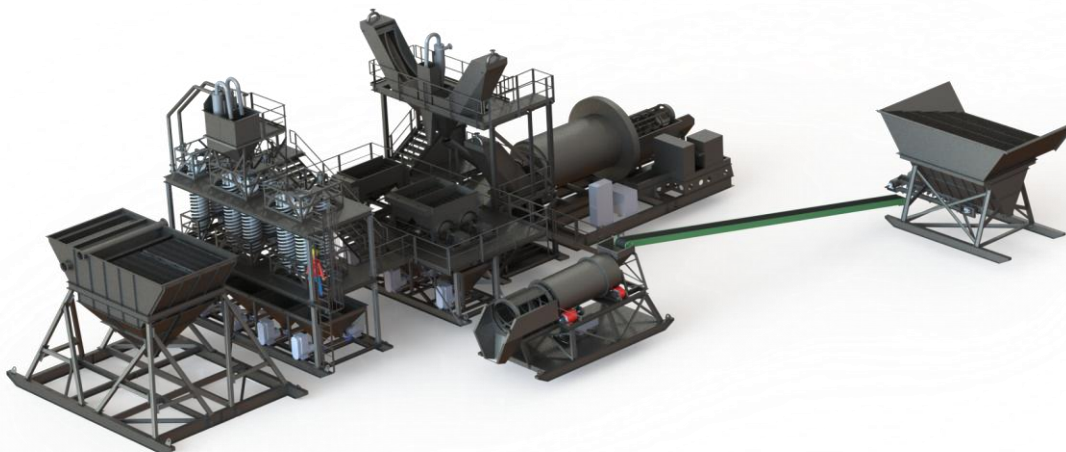


Figure 4 –Tabba Tabba Processing Plant

Works Approval

Regulatory approval documentation for the Tabba Tabba Project was submitted in July by Perth-based environmental management consultants, Clark Lindbeck & Associates Pty Ltd. The **Mine Plan** and **Mine**

Closure Plan were completed and submitted in July 2014. Approval of these documents is expected shortly. **Works Approval** and supporting documentation was lodged with the Department of Environmental Regulation on 4th July 2014. This is a nominal 3-month approval period based on public advertising and consultation followed by third party response. Approval is expected in November.

EXPLORATION

Pilgangoora Tantalum-Lithium Project

The Pilgangoora Lithium-Tantalum Project is located about 25km north-east of the world-class Wodgina Tantalum mine owned by Global Advanced Metals Wodgina Ltd (GAMW) and 82km SSE of Port Hedland. Pilgangoora has had several phases of tin-tantalite alluvial and eluvial placer mining which has occurred intermittently from 1947 until 1992. The Project comprises two Exploration Licences (E45/2232 and E45/2241) and three Mining Leases (M45/78, M45/333 and M45/511). The current Pilgangoora Tantalum-Lithium resource area (which hosts an Inferred Resource of 10.4M tonnes @ 0.024% Ta₂O₅ for 5,500,000lbs Ta₂O₅, including 8.6M tonnes @ 1.01% Li₂O for 87,000 tonnes of lithium) lies within E45/2232.

Reconnaissance Rock Chip Program

A reconnaissance rock chip program was completed at the Pilgangoora Tantalum-Lithium Project during the Quarter, designed to verify historical mapping and sampling results which identified several large pegmatites within the Pilgangoora tenement package.

Assays from this program confirmed rock chip grades of up to **3.9% Li₂O and 1,100ppm Ta₂O₅** and verified the substantial historic database received from Global Advanced Metals Wodgina Ltd (GAMW).

A total of 15 rock chip samples were taken focusing on mapping pegmatites outside of the main area targeted by historical GAMW drilling. Analysis was completed by Nagrom Laboratories using their Tin Suite by XRF analysis and Mixed Acid Digest with ICP finish (refer ASX Release – 16 October 2014: **STRONG ROCK CHIP RESULTS HIGHLIGHT SIGNIFICANT POTENTIAL TO EXPAND PILGANGOORA TANTALUM-LITHIUM PROJECT**). Encouraging results were returned at the northern and southern ends of the pegmatite field. (See Table 1).

Historical Rock Chip Sampling

Extensive rock chip sampling has been completed by Sons of Gwalia Wodgina (SGW) and Global Advanced Metals Wodgina Ltd (GAMW) since 2002. The historical database consists of 485 rock chip samples collected between 2002 and 2006 by SGW and between 2009 and 2013 by GAMW. (ASX Release; **STRONG ROCK CHIP RESULTS HIGHLIGHT SIGNIFICANT POTENTIAL TO EXPAND PILGANGOORA TANTALUM-LITHIUM PROJECT**)

Historical rock chip results from the **Northern Zone** totalling 115 samples returned an average grade of 1.54% Li₂O and 405ppm Ta₂O₅ (See Figure 5). Two additional pegmatites have been identified 250m to the east and 300m to the north-east, where 17 rock chip samples **returned average grades of 557ppm Ta₂O₅**. RC drilling is planned for this area in 2015.

In the **Central Zone**, mapping and sampling (See Figure 6) indicates that there are at least six separate pegmatites in this area. A total of 104 rock chip samples were collected by SGW, using a lower cut of 0.7%

Li₂O and 100ppm Ta₂O₅, 78 rock chip samples returned an average grade of **2.01% Li₂O** and 56 rock chips returned an average grade of 249ppm Ta₂O₅.



Figure 5: Photograph of southern pegmatite and Sample PROC11

Table 1 – Pilgangoora Rock Chip Results

Sample ID	East (GDA94)	North (GDA94)	Rock Description	Li (ppm)	Li ₂ O (%)	Ta ₂ O ₅ (%)	Ta ₂ O ₅ (ppm)
PROC001	699076	7674423	ALBITIC PEG, WITH PINK KUNZITE	10360	2.23	0.006	60
PROC002	699063	7674401	AP0-GRANITIC PEG FINE GR MICACEOUS FOLIATION	1990	0.43	0.008	80
PROC003	699037	7674357	ALBITIC PEGMATITE COARSE GR	10320	2.22	0.009	90
PROC004	699031	7674352	MEDIUM GRAINED PEG WITH FINER GR GREEN GR SERICITIC - SPODUMENE	250	0.05	0.022	220
PROC005	699008	7674338	FINE GRAINED PEG WITH FINE GR APPLE GREEN SPODUMENE	210	0.05	0.007	70
PROC006	698954	7674304	SILICIFIED PEG with PINK FLUORITE AND GREEN GRANULAR SPODUMENE	4050	0.87	0.015	150
PROC007	698070	7669734	FINE GRANED FOLDED AND INTER- BEDDED QUARTZITE	310	0.07	0.006	60
PROC008	698036	7669766	ALBITIZED PEG WITH COARSE GR SPOD	3430	0.74	0.007	70
PROC009	698070	7669734	FINE GRAINED QUARTZITE	120	0.03	<0.001	<10
PROC010	689514	7671020	ALBITIZED PEG GRANULAR	30	0.01	<0.001	<10
PROC011	697837	7667734	ALBITIZED PEG MASSIVE	10510	2.26	0.036	360
PROC012	697872	7667728	PEG WITH SPODUMENE & ALBITE	620	0.13	0.005	50
PROC013	697972	7667671	ALBITE RICH, +SPODUMENE	910	0.20	0.013	130

PROC014	697960	7667590	MASSIVE PEGMATITE, WEATHERED	10410	2.24	0.003	30
PROC015	697880	7667730	SILICA INCLUSION IN PEG	700	0.15	0.002	20

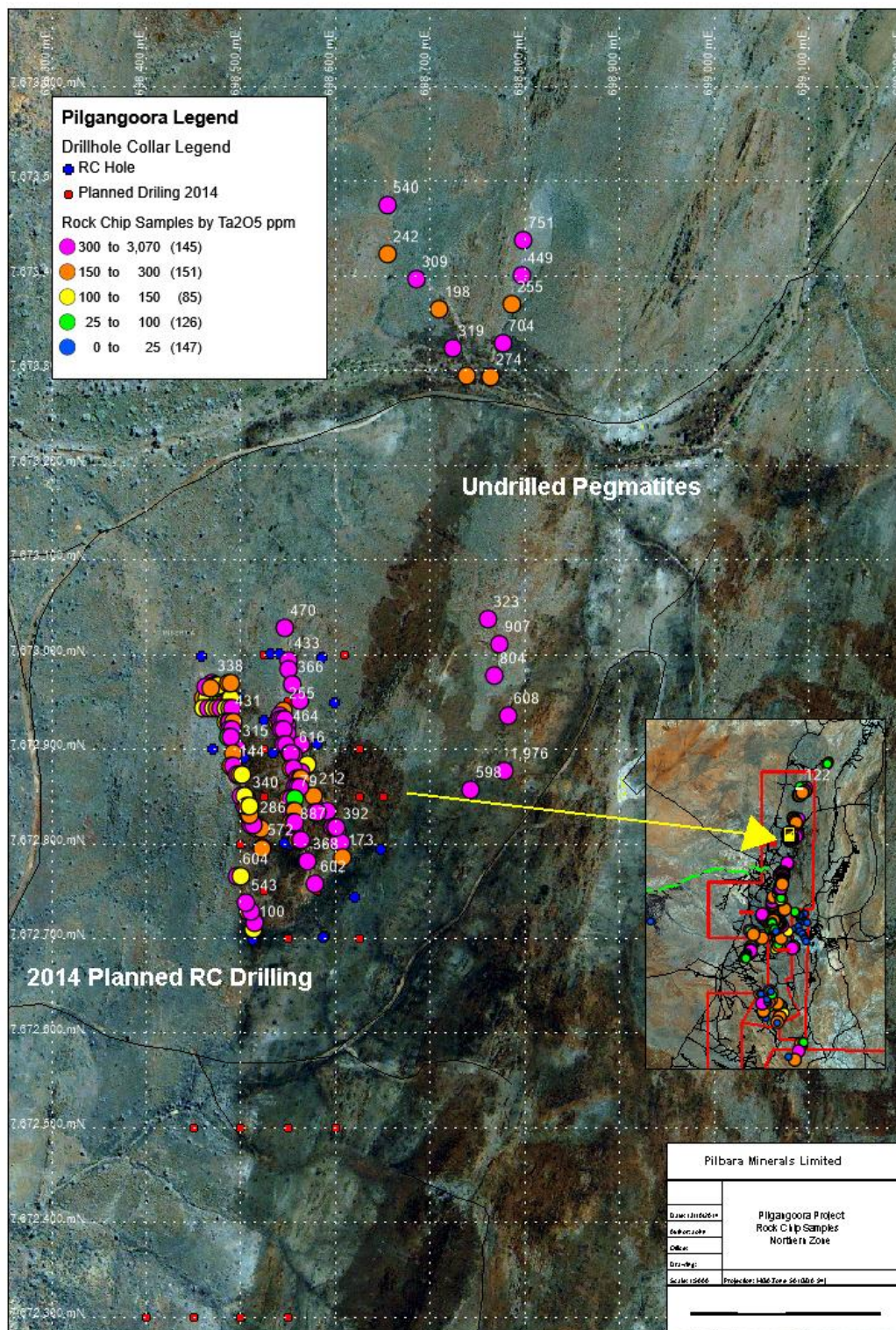


Figure 6: T_{a2}O₅ rock chip results for the Northern Zone

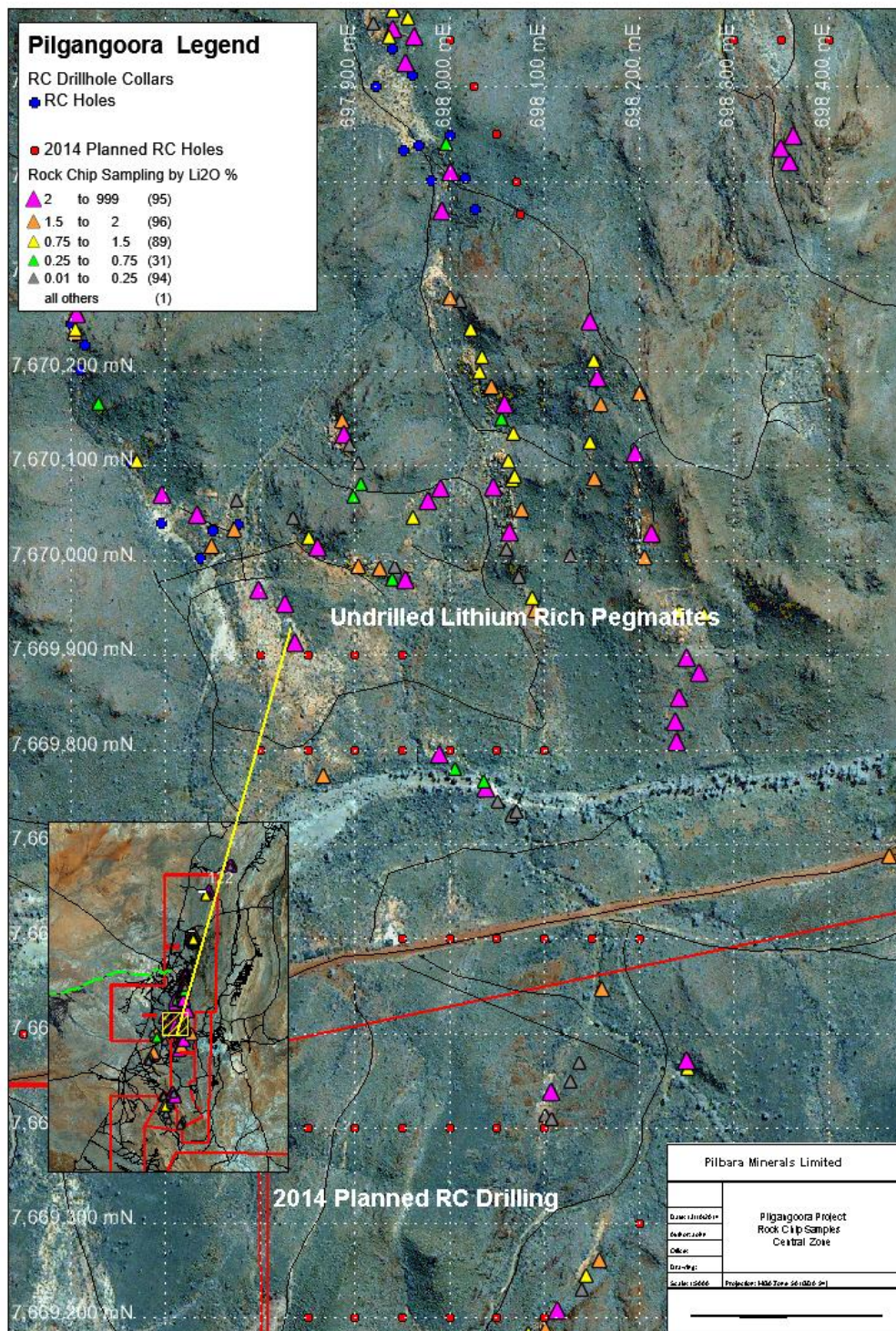


Figure 7: Li₂O rock chip results for the Central Area

Pilgangoora Drilling

Pilgangoora drilling is set to commence in early November, comprising a planned 112-hole program for a total of 10,348m. The Program of Work (POW) has been approved. RC drilling will initially focus on the higher-grade tantalum lenses to test the validity of the exploration target, then the program will move onto extensional drilling in both the Northern and Southern Zones (see Figure 7). Exploration results from the initial phase of RC drilling are expected to be available in December 2014. Pilbara has set a longer-term objective of defining a global scale hard rock lithium and tantalum resource.

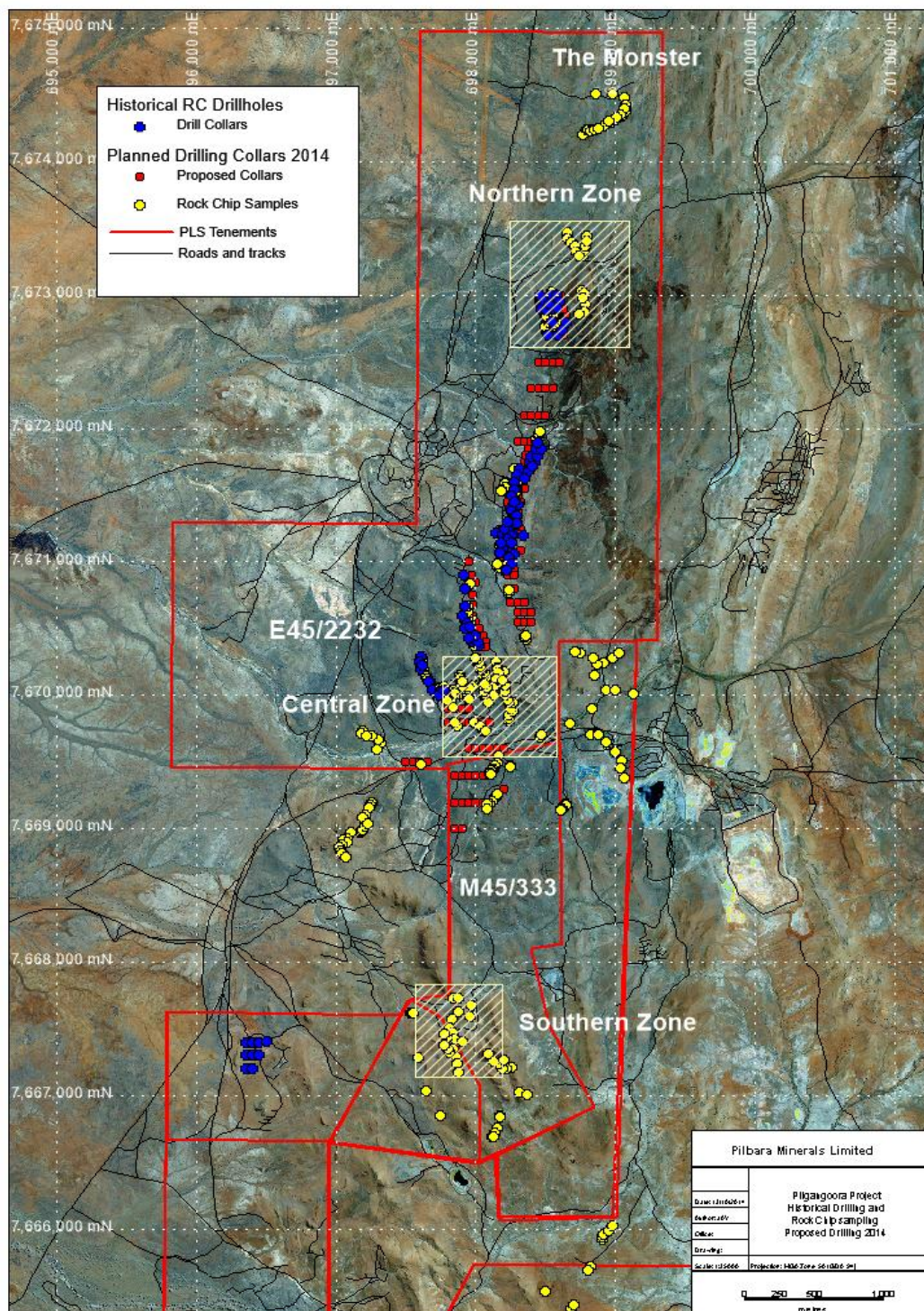


Figure 8: Location Plan of Exploration Activities at Pilgangoora

WEST PILBARA JV (PLS 60%, FXR 40% FARMING-IN)

See Fox Resources Limited Quarterly Report (ASX: FXR) for work completed in the Quarter.

CORPORATE

Share Purchase Plan

During the Quarter, Pilbara successfully raised more than \$3 million from existing and new investors.

The funds were raised through a highly successful Share Purchase Plan (SPP) and the subsequent placement of shortfall applications received under the SPP, which were well in excess of the available shortfall.

The SPP closed on Wednesday, 23 July with a 75% take-up by existing shareholders, raising a total of \$1.3 million and leaving an available shortfall of \$500,000. The Company subsequently received total shortfall applications of \$1,735,250.

Pilbara satisfied these shortfall applications using its shareholder-approved placement capacity from the May 30 shareholder meeting and its full 15% placement capacity.

Together with the \$920,000 raised through the share placement to sophisticated and professional investors completed on 30 June 2014, the Company has now raised a total of almost \$4 million.

Following completion of the SPP and shortfall placement, Pilbara Minerals now has a total of 594,050,561 shares on issue.

Cash Balance

The Company had a cash balance of \$3,025,920 as at September 30, 2014.

LISTING RULE 5.3.3 INFORMATION

Project	Location	Tenements	Beneficial Interest	Notes	Change in the Quarter
Malaumanda	Papua New Guinea	EL1915	100%		None
Malaumanda	Papua New Guinea	EL1916	100%		None
Malaumanda	Papua New Guinea	ELA2071	NA	Application	None
Fox Resources JV	Western Australia	E47/1093	60%	JV	None
Fox Resources JV	Western Australia	E47/1094	60%	JV	None
Fox Resources JV	Western Australia	E47/1097	60%	JV	Surrendered
Fox Resources JV	Western Australia	E47/1813	60%	JV	None
Fox Resources JV	Western Australia	E47/1814	60%	JV	None
Fox Resources JV	Western Australia	E47/1815	60%	JV	None
Fox Resources JV	Western Australia	E47/2261	60%	JV	None

Competent Person's Statement

The company confirms it is not aware of any new information or data that materially affects the information included in the June 17th, 2014 Pilgangoora Mineral Resource Estimate and that all material assumptions and technical parameters underpinning the estimate continue to apply and have not materially changed when referring to its maiden resource announcement made on 17th June.

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.