AVZ Minerals Limited

Quarterly Report for the Period Ending 31 December 2016

27 January 2017

Companies Announcements Office
Australian Securities Exchange
Level 6, 20 Bridge Street
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HIGHLIGHTS

- **AVZ completed the acquisition of a 100% interest in the Manono Extension Lithium, Tin and Tantalum Project in the south of the Democratic Republic of Congo.**
    - **The Project comprises two granted exploration permits covering 242.25 km^2, surrounding the world class historic Manono Mine. The Manono Mine is potentially one of the largest lithium rich pegmatite deposits in the world.**
    - **Preliminary work has confirmed the potential for lithium bearing pegmatites within the Project area as extensions to the main Manono Pegmatite.**
- **AVZ completed the acquisition of a 60% interest in seven additional exploration licences in the south of the Democratic Republic of Congo.**
    - **The licences cover a total of approximately 1,172km^2 within the prospective mid-Proterozoic Kibaran Belt, which regionally hosts the world class historic Manono Mine.**
    - **Preliminary work has identified anomalous mineralization on two of the permits, with results indicative of pegmatite intrusives with an REE signature.**
- **Completion of placement of 44.583 million shares at 1.2 cents raising $535,000.**

The Board is pleased to provide the following report on activities to be read in conjunction with the Appendix 5B for the quarter ending 31 December 2016.

Manono Extension Project

During the quarter, the Company completed the acquisition of the Manono Extension Project (Project) in the south of the Democratic Republic of Congo (DRC). The Project is considered prospective for lithium, tin and tantalum and comprises two granted exploration permits (PRs 4029 and 4030) covering 242.25 km^2 and surrounding the world class historic Manono Mine. The Manono Mine is potentially one of the largest lithium rich pegmatite deposits in the world.

The Project is situated approximately 500km north of Lubumbashi town, within the Tanganyika province in the south of the Democratic Republic of Congo. The Project is located adjacent to the town of Manono, which lies on the western bank of the Lukushi, a tributary of the Luvua River.

The Project lays within the mid-Proterozoic Kibaran Belt - an intracratonic domain, stretching for over 1,000km through Katanga and into southwest Uganda representing a world scale crustal feature. The belt strikes predominantly SW-NE and is truncated by the N-S to NNW-SSE trending Western Rift system

The geology of the Manono area is not well documented. The Manono pegmatites are hosted by a series of quartzitic mica schists of the Lower Kibaran and are associated with volcanic and intrusive rocks of mainly doleritic composition. The schists observed in the vicinity of the Manono mine are generally steeply dipping in contrast to the sub-horizontal attitude of the pegmatite intrusion.

Within the Project there are two primary targets that have been delineated from the photo-geological interpretation (completed in 2014) that potentially represent the strike extensions of the Manono pegmatite to the NE and to the SW.

Initial reconnaissance mapping has identified the SW pegmatite body and extensive lateritic cover over the NE extension area. A total of 18 samples were collected from the SW pegmatite and from soils and lateritic material.

SW Extension Target

Within the SW extension corridor, a pegmatite body was mapped of approximately 800m strike length and 200m width. This body straddles the western licence boundary, with approximately 600m of strike contained within PR4030.

The SW pegmatite is a very highly weathered Calcic feldspar (albite)-quartz-muscovite pegmatite with parallels in mineralization characteristics to the main Kitatolo pegmatites, such as the development of large platy microcline feldspars crystals with a columnar nature. Given that the main Manono pegmatites appear to be a laccolith, this recently discovered pegmatite body in the SW may represent the southern extension to the main Kitatolo orebody within a well defined structural corridor.

The presence of lithium in spodumene is hard to determine in extremely weathered units due to the volatile nature of lithium and its propensity to easily weather to clay. Selected samples of extremely weathered material in this area have returned anomalous levels of base metals at up to 6 times background and rare earth elements of up to 2 times background, as well as low level anomalism of

Lithium of up to 2 times background. The presence of tin, tantalum and rare earths at elevated levels could be indicative of pathfinder elements for lithium mineralization.

NW Extension Target

Within the NW extension target area there is a well developed soil cover underneath which there appears to be a well developed lateritic cover. Profile sections observed in areas of artisanal workings suggest soils are around 0.5m thick and laterite between 2 and 3m thick.

This regolith profile masks the underlying rock units and thus easy identification of any potential pegmatite bodies requires more penetrative exploration methods such as pitting or drilling. Conversely, this profile will have protected any pegmatites present from historical discovery and development. The most significant geological feature found within the target area was a laterite developed in an east west orientation with a length of approximately 2km by 1.5km. Laterites are commonly associated with pegmatite implacement.

A sample of lateritic material taken from this area was submitted for analysis. It contains higher levels of base metals as well as elevated rare earth elements. The combination of elevated elements as reported is suggestive of the laterite 'robbing' the host lithological units of their constituent elements, which is suggestive of potential for 'blind' mineralization to lay beneath the lateritic cover. Further investigation is required to fully understand this mineralization signature.

Acquisition Agreement

AVZ issued the vendor Medidoc FZE (Medidoc) 30,000,000 fully paid ordinary shares in the Company and paid Medidoc US$200,000 in cash. AVZ will issue Medidoc a further 20,000,000 fully paid ordinary shares in the Company if AVZ continues to hold the Project after 30 April 2017.

Katanga Regional Project

During the quarter AVZ also completed the acquisition of seven additional exploration licences (**Licences**) within the mid-Proterozoic Kibaran Belt in the south of the Democratic Republic of Congo known to host lithium bearing pegmatites.

The Licences are located in essentially three clusters within the Katanga province. The first cluster (of three licences) is located approximately 100km to the south/south west of the historical Manono mine surrounding the town of Mulongo, the second and single licence some 50km east of Manono and the third cluster of three licences, approximately 250km north/north east of Manono. The licences have a total land area coverage of approximately 1,172km^2.

The Licences all lay within the highly prospective mid-Proterozoic Kibaran Belt (refer above). The geology of the Licences is not well documented, however there are several reports from local geologists of pegamatite outcropping within the host quartzitic mica schists of the Lower Kibaran within some of the licences. Others exhibit encouraging geology with potential for pegmatites.

To the Company's knowledge, there has been no sampling or drilling activity on the Licences by previous licence holders. As part of an initial review, the Company completed site visits to the four southern licences (PRs 12436, 12450, 12454 and 12459). The objective of the site visits was to assess these licences for potential pegmatite mineralisation. Twenty seven samples were collected of either rock outcrop, soils or lateritic material as part of the reconnaissance field work.

Lithologies encountered within the two permits PR 12450 and PR 12454 are typical Kibaran system rocks consisting of sedimentary metamorphics especially quartzites, micaschists, pegmatites as well as a sandstone sequence similar to those found near Manono.

As was expected, results from the sampling show anomalism, within this heavily weathered terrain, is low level and usually running within 2 to 3 times background for the elements of interest. Specifically, PR12454 returned elevated Ba, Sr, Zn, LiO2 (4 times background) Sn, Ta and Ce and additionally, slightly anomalous levels of Hf, Gd, La, Nd and others. PR12436 also has samples reporting anomalous levels of Ba, Sn, Li, Ce, Gd, Ho, La, Th and Yt. The results on both permits are indicative of pegmatite intrusives with a REE signature accompanied by weakly elevated Sn levels. No significant results have been reported for the other southern licences (PR12450 and PR12459) which may in part be due to a lack of outcrop and presence of recent soil cover.

Acquisition Agreement

AVZ acquired a 60% in the Licences from the current interest holders La Congolaise D'exploitation Miniere SA (**Cominiere**) and Dathomir Mining Ressources SARL (**Dathomir**) whereby AVZ paid Dathomir A$500,000 in cash. The interests of the parties in the Licences are AVZ 60%, Cominiere 30% and Dathomir 10%. AVZ is responsible for funding expenditure to completion of a feasibility study. AVZ can relinquish its interest in any of Licences at any time.

Capital Raising

AVZ completed a placement on 5 December 2016 by the issue of 44,583,333 shares at an issue price of 1.2 cents per share to raise $535,000.

Exploration projects – Namibia

Activities undertaken in Namibia during the period involved planning and pursuing the renewal of its exploration licences.

For further information about AVZ is available at www.avzminerals.com.au

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Competent Person Statement

The information in this report that relates to the Manono Extension Project and the Katanga Regional Project was previously reported by the Company in compliance with JORC 2012 in market releases dated 31 October 2016 and 28 November 2016 respectively. The Company confirms that it is not aware of any new information or data that materially affects the information included in the market releases dated 31 October 2016 and 28 November 2016.

Information required under Listing Rule 5.3.3

List of current mining and exploration tenements (as at 31 December 2016):

Country / Project	Tenement	Interest	Status
DRC – Manono Extension	PR 4029, PR 4030	100%	Granted
DRC-Katanga Regional	PR 12206, PR 12436, PR 12449, PR 12450, PR 12454, PR 12459, PR 12461	60%	Granted
Namibia - Tumba	EPL 4436	95%	Granted (renewal lodged)
Namibia - Himba	EPL 4283	95%	Application
	EPL 4284	95%	Application
	EPL 4285	95%	Application

Key

EPL: Exploration Licence

PR: Permis de Recherches