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Centralised Company Announcements Office ASX Limited Exchange Centre 20 Bridge Street Sydney NSW 2000

# ZAMIA METALS LIMITED QUARTERLY ACTIVITIES REPORT For the quarter ended 31 December 2012

#### **EXPLORATION FOR COPPER-GOLD**

## **Gold Fields Exploration Progress**

Gold Fields commenced exploration over the nine EPMs that are covered by the Option and JV Agreement with the Company.

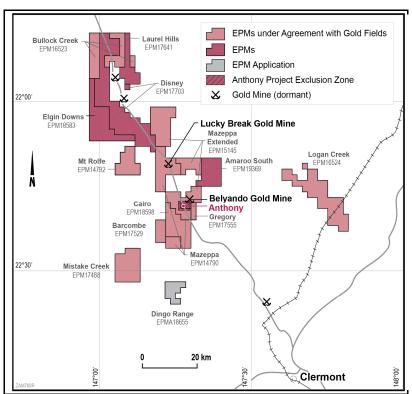


Figure 1 - Zamias tenement package showing the nine EPMs under the Gold Fields Option and Joint Venture Agreement

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During the quarter, all previous exploration data were evaluated and targets were prioritised. Plans were drawn up to fly a detailed helicopter magnetic survey over the Mistake Creek EPM and the eastern two-thirds of the Logan Creek EPM. However the Mistake Creek survey was postponed due to ongoing land access negotiations.

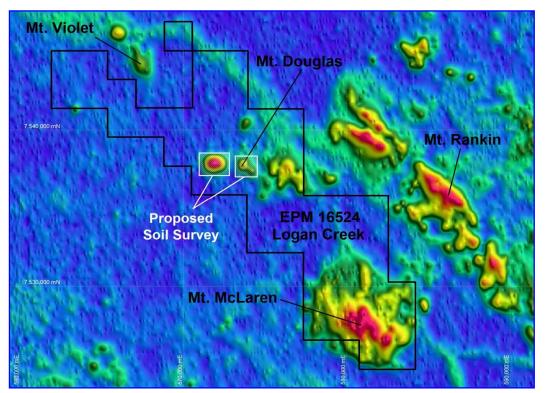


Figure 2 - Location of the proposed soil survey shown on regional radiometric imagery (K-channel).

Exploration activities focussed on Logan Creek (EPM 16524), A soil geochemical program collected 195 samples during October. The target areas of Mt Douglas in the east and Silo Hill+ in the west are underlain by Silver Hills Volcanics and clastic sediments forming the basal portion of the Drummond Basin sequence. These units are known to host fault-hosted epithermal style gold at Mt. Violet, located 9 km along strike to the northwest of Mt. Douglas. The target area straddles a significant unexposed magnetic intrusive body striking easterly across EPM 16524.

Results from the soil survey were encouraging, producing a distinct low sulphidation epithermal signature coincident in Au, Ag, Bi, Hg, Te, Se, Mo and Cu.

At the end of November, a detailed low-level 100m line spacing magnetic survey was flown over the Mt Douglas area, with extensions to the northern tenement boundary. Recorded data highlight a large cohesive magnetic signature that could represent a buried intrusive body at depth. The magnetic feature is associated with a coincident soil geochemical anomaly.

#### EPM 16523 Bullock Creek

Three aero-magnetic target areas were identified in EPM 16523 Bullock Creek (Figure 3) and soil geochemical surveys were carried out in the second half of 2012. Target areas 2 and 3 are being explored for potential gold-silver deposits related to high-level dacitic intrusive bodies. Target area 1 has potential for base metal concentrations associated with two magnetic mafic/ultramafic intrusive bodies.

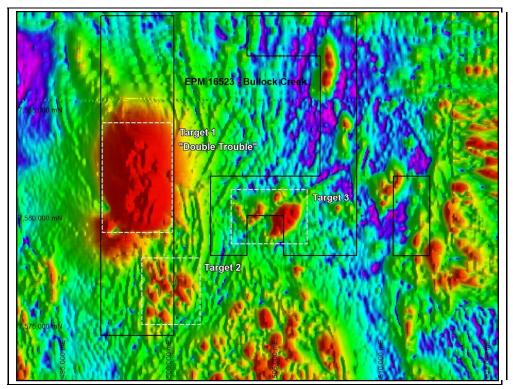


Figure 3 - EPM 16523 Bullock Creek showing target areas covered by soil sampling programs

<u>Target 1 (Double Trouble)</u> - MMI (mobile metal ion) soil geochemistry (acquiring 219 soil samples) yielded maximum results of 1550 ppb Ni and 2240 ppb Cu as well as elevated K (>120 ppm) which define an anomalous area along the northeastern margin of a mafic/ultramafic intrusive body (Figure 3). This area broadly coincides with the only outcrop exposure of the intrusion. Further testing is required to confirm the anomalous results.

<u>Target 2 and Target 3</u>. Results from conventional soil geochemistry (a total of 171 samples) were returned in October 2012. Assay values from Targets 2 and 3 did not detect a significant precious metal or pathfinder element anomaly. Amongst the base metals, molybdenum lacked any significant response while weak anomalies in copper and lead are largely associated with a change in basement geology. Zinc showed the most significant variation amongst all assayed elements but appears largely unrelated to hard rock geology.

In 2013, this EPM will be covered by the Gold Fields exploration program as part of the option agreement.

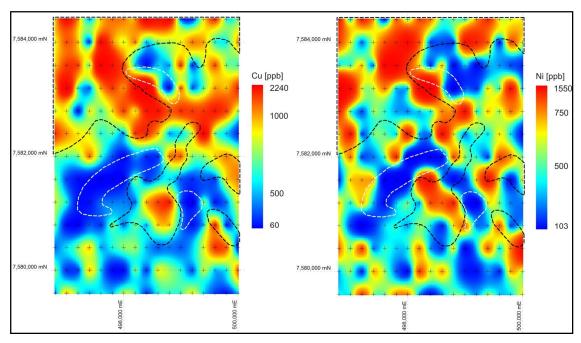


Figure 4 - Gridded MMI soil assay results for Cu (left) and Ni (right) from the **@**ouble Trouble+target

### **EPM 19369 Amaroo South**

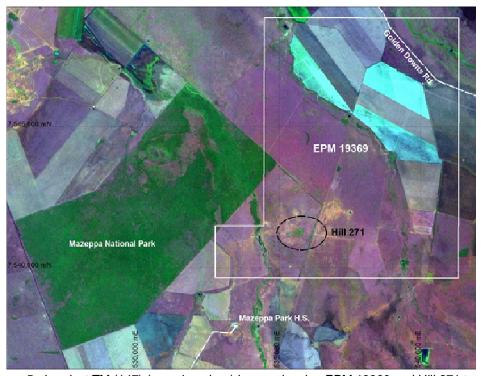


Figure 5 - Landsat TM (147) (pseudo-colour) image showing EPM 19369 and Hill 271 target

A review of all previous exploration was carried out for EPM 19369 during the quarter. This EPM was granted to Zamia in January 2012 and is made up of a promising target area termed historically %dill 271+. As can be seen in Figure 1, EPM 19369 lies adjacent to EPM 15145 to the east. The area is underlain by metamorphic and intrusive rocks of the Precambrian to Ordovician Anakie Inlier, which is mainly covered by thick black soils. The tenement is prospective for Lucky Break-style lode gold deposits and possibly for porphyrystyle deposits.

Previous exploration focussed on an extensive anomalous area (1000m x 50m) of gossanous outcrops which contain reported assays up to 16.7 ppm Au and 12.2% Cu. However these results were not reflected in the four RC percussion holes (totalling 393m) and four RAB holes (totalling 158m) drilled by CRA Exploration in the 1990s. Geochemical anomalies were attributed to supergene enrichment. However, because of the limited and shallow exploration carried out previously, Zamia considers that this area has not been fully tested, particularly at depth.

A reconnaissance visit was carried out in November 2012. A total of eight rock chip samples were assayed for selected elements. Results returned in December confirmed anomalous values of Au, As, Bi, Cu and Pb bound to gossanous siltstone over the Hill 271 prospect area. Follow-up geochemical soil and/ or geophysical surveys are planned in 2013.

#### EPM 17703 Disney and EPM 18583 Elgin Downs

The results of an extensive literature research, based on the Queensland governments exploration database of past company reports, have been compiled for EPM 17703 and EPM 18583. During the previous quarter, interpretation of the aeromagnetic data delineated three target areas for initial geochemical soil sampling and geological mapping (Figure 5). These targets, located in the Silver Hills Volcanics and Drummond Basin sediments, are prospective for porphyry-type copper-gold and epithermal gold-silver deposits.

A conventional soil sampling program, consisting of three survey areas, commenced in October and was completed in early December 2012. Analytical results for target areas 1 and 3 were returned in mid-December. Results for target 2 are pending for the 166 soil samples acquired.

<u>Target 1</u>. 268 soil samples were acquired over dacitic intrusive bodies emplaced along the contact between Drummond Basin acid volcanics and clastic sediments. Analytical results failed to produce a convincing multi-element anomaly. Several isolated gold (max. 18 ppb Au) and arsenic (max. 42 ppm As) anomalies will be followed up by infill sampling in 2013. Also during 2013, the existing grid, with a sample spacing of 200m x 200m, will be extended to the east to cover the area of the previously-identified Bendee and West Microwave Tower prospects.

<u>Target 3</u>. 80 soil samples were acquired over a dacite body intruding Drummond Basin sediments of the Mt. Hall Formation. The intrusive body appears relatively resistant to weathering, forming a low hill surrounded by black soil plains. The soil geochemical results

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reveal a weak arsenic anomaly (max. 44 ppm As) following the eastern contact of the intrusive body, again lacking coincident anomalies of precious metals and pathfinder elements. Weakly elevated gold values (max. 7 ppb Au) are associated with clay-rich black soil samples. No further work is planned for this target area.

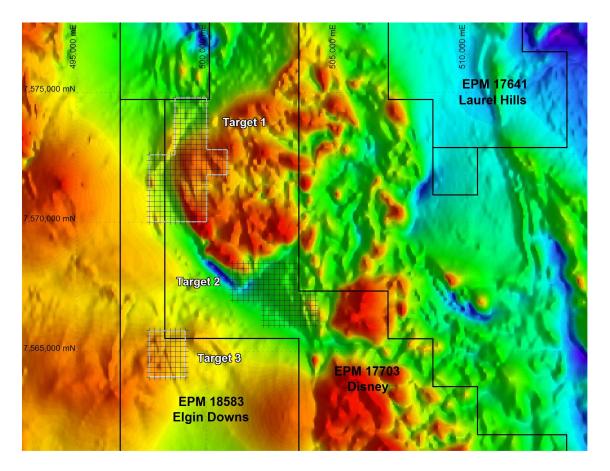


Figure 6 - Soil geochemical grids over three target areas within EPM 17703 and EPM 18583

The soil results suggest the Carboniferous dacite porphyry intrusive bodies targeted by the geochemical survey are not associated with elevated precious or base metal concentrations. This is further underlined by soil geochemical results from targets 2 and 3 on EPM 16523 Bullock Creek, which tested similar intrusive bodies. In 2013, Zamia will investigate structural targets within the Silver Hills Volcanics, interpreted from remote sensing data, located to the south and east of the 2012 target areas.

### **ANTHONY MOLYBDENUM PROJECT**

The Anthony drilling database completed at the end of last quarter was reviewed and various options were considered for possible work on the project during 2013.

## Options include:-

- 1) developing a 3D model for the Anthony resource to better understand the orebody;
- working towards improving the resource definition resulting in moving the JORC compliant resource to the Indicated category;
- 3) drill testing the IP anomaly in the northwest of the identified resource.

#### **CORPORATE ACTIVITIES**

# **Zamia Annual General Meeting (AGM)**

At the Annual General Meeting of Shareholders held on Thursday 29 November 2012, all resolutions put to the AGM were passed.

### The Mining 2012 Resources Convention (Brisbane)

Zamia attended, as an exhibitor, the Mining 2012 Resources Convention in Brisbane over 31 October, 1 & 2 November 2012 in Brisbane.

Ken Maiden

Director, Zamia Metals Limited

#### **Competent Person**

Dr Ken Maiden, MAIG FAusIMM, a Director of Zamia Metals Limited, compiled the geological technical aspects of this report. He has sufficient experience to qualify as a Competent Person as defined in the 2004 edition of the %Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves+ Dr Maiden consents to the inclusion of the matters in the form and context in which they appear and takes responsibility for data quality.