

Suite 60, Level 6 Tower Building Chatswood Village 47-53 Neridah Street Chatswood NSW 2067 **T**: + 61 2 8223 3744 **F**: + 61 2 8223 3799 **E**: <u>info@zamia.com.au</u> www.zamia.com.au

31 July, 2014

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

ZAMIA METALS LIMITED QUARTERLY ACTIVITIES REPORT For the quarter ended 30 June 2014

KEY POINTS

- Mining Lease 2312, containing the abandoned Belyando open-cut gold mine, has been cancelled by the Queensland Department of Natural Resources and Mines so the Belyando mine is now included within Zamia's EPM 15145. Previous drilling shows a resource target below the open-cut mine workings.
- A drilling program to test the geophysical Induced Polarisation (IP) anomalies delineated within the Anthony Project Area (EPM 15145) has been carried out.
- At Hill 271 prospect, EPM 19369 *Amaroo South*, one drill hole to test the IP geophysical anomaly was completed.
- Zamia has expanded its tenement portfolio with the grant of EPM 18655 *Dingo Range* on 29 May 2014.



Figure 1. Diamond drill rig at the Anthony Project area in May 2014

BELYANDO GOLD DEPOSIT

The Belyando gold deposit is located about 2.5 km northeast of Zamia's Anthony molybdenum project, within Zamia's EPM 15145 *Mazeppa Extended* (see Figure 2). The Mining Lease ('ML 2312'), not owned by Zamia, that had covered the abandoned open-cut mining operation, has been cancelled by the Queensland Department of Natural Resources and Mines. This area now falls within Zamia's exploration permit as was reported to the ASX on 28 May 2014. For further details see this announcement on www.zamia.com.au.

Total gold production over the mine life has been stated at 85,840 oz gold from combined carbon-inpulp ('CIP') extraction and heap leach operations. Cross-sections of previous drilling, overlain on the open-cut outline, show significant low grade intersections (up to 75m of 0.8 to 1.2 g/t Au) with narrower but significant high-grade zones (6 to 10m of 2.2 to 4 g/t Au) remaining below the current pit. Geological modelling is under way, aimed at identifying likely extensions of the known ore shoots to greater depth and defining new targets down dip and surrounding the mined ore body. A more detailed ASX announcement will be released upon completion of Zamia's assessment of the previous Belyando exploration data.

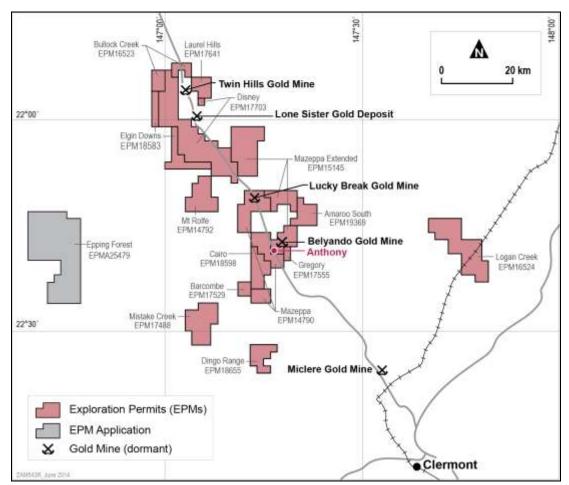


Figure 2. Location of the Belyando gold mine within EPM 15145

ZAMIA'S DRILLING PROGRAM

In May 2014, Zamia Metals Limited (Zamia) drilled four reverse circulation ('RC') percussion/NQ diamond drill holes for a total of 1,256m. The program was designed to test the nature of the IP anomalies at the Anthony (EPM 15145) and Hill 271 (EPM 19369) project areas with the aim of intersecting porphyry-style molybdenum and/ or copper - gold mineralisation.

1. EPM 15145 - Anthony Project Area

The drilling program was designed to test the IP resistivity lows (shown as targets "1" & "2" in Figure 2) surrounding the Anthony molybdenum ('Mo') resource and a satellite IP chargeability high (Figures 3 & 7) located 1 km north-west of the molybdenum deposit.

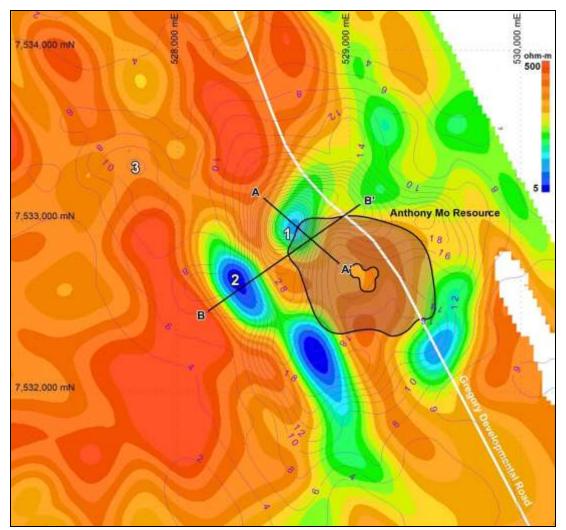


Figure 3. Anthony Project showing IP resistivity model at 300m depth and IP chargeability contours in mauve. Targets are labelled 1 - 3

The Anthony mineralisation is characterised by a resistivity high, surrounded by largely untested zones of low resistivity (shown in blue in Figure 3), best defined at a model depth of 300m. The

resistivity lows were interpreted to represent hydrothermal alteration that has the potential to bear economic molybdenum or copper-gold mineralisation.

Two targets on the north-west flank of the deposit were chosen for drill testing. Target 1 is characterised by an IP resistivity low coincident with the highest model chargeability (~50 mV/V) observed around the deposit. Target 2 is a resistivity low located to the west of the deposit that is characterised by a distinct north-west elongation, interpreted to be possibly related to alteration along a shear zone. Both targets were drilled with RC percussion pre-collars followed by NQ diamond coring, with holes oriented perpendicular to the observed strike of the IP model and angled 65 degrees towards the known Mo mineralisation.

<u>RCD14A099 tested target 1</u> to a depth of 429m intersecting variably altered and hornfelsed Anakie Group meta-siltstones from surface to the end of hole. Assay results confirm the absence of significant ore minerals, with molybdenum concentrations generally below 100 ppm. Slightly elevated copper concentrations of 200 - 800 ppm are common at depths below 150m No copper sulphides were recognised in the core and copper values are suspected to be associated with pyrite in D-veins and/or vein selvedge alteration. Silver and arsenic values, assayed as proxies for gold, are below detection limits. Projected hole traces for RCD14A099 are shown in cross-section (Figure 5).

<u>RCD14A101(A) tested target 2</u>, reaching a depth of 400.4m (~360m vertical) and intersecting mainly biotite-rich diorite from surface to the end of hole, with the exception of a biotite monzonite body intersected from 279 to 315m depth. From surface to 95m depth, the diorite is strongly weathered to clay. Molybdenum assays throughout the hole are below 10 ppm, while copper values typically range from 30 to 200 ppm with a few samples exceeding 400 ppm Cu. Arsenic and silver values are overall below detection (best 0.8 ppm Ag and 340 ppm As at 304 - 306m depth). Projected hole traces for RCD14A101(A) are shown in cross-section (Figure 6).



Figure 4. Zamia Directors and geologists inspecting drill-core from RCD14A099

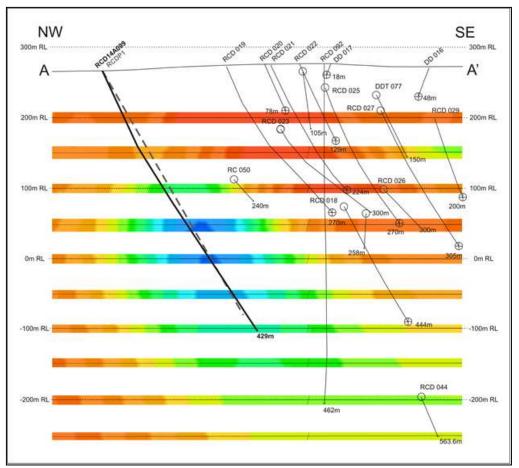


Figure 5. Cross-section A-A' showing the projected traces of hole RCD14A099 (in bold) and previous Zamia drilling over slices of IP resistivity

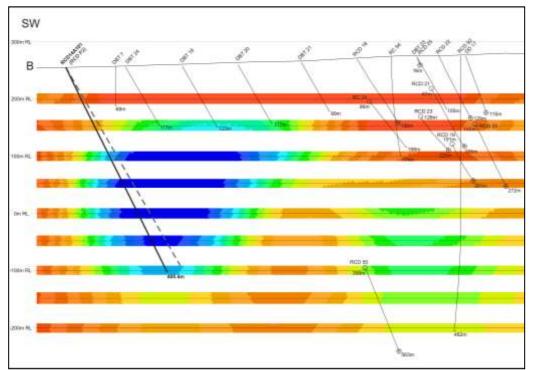


Figure 6. Cross-section B-B' showing the projected traces of hole RCD14A101A (in bold) and previous Zamia drilling over slices of IP resistivity

<u>RCD14A100 tested target 3</u>, which is characterised by a greater than 200m deep, isolated, chargeability high anomaly, located 1 km to the north-west of the Anthony molybdenum resource (Figure 7). The IP anomaly is located in a magnetic low, bounded by aero-magnetic high anomalies to the east and west.

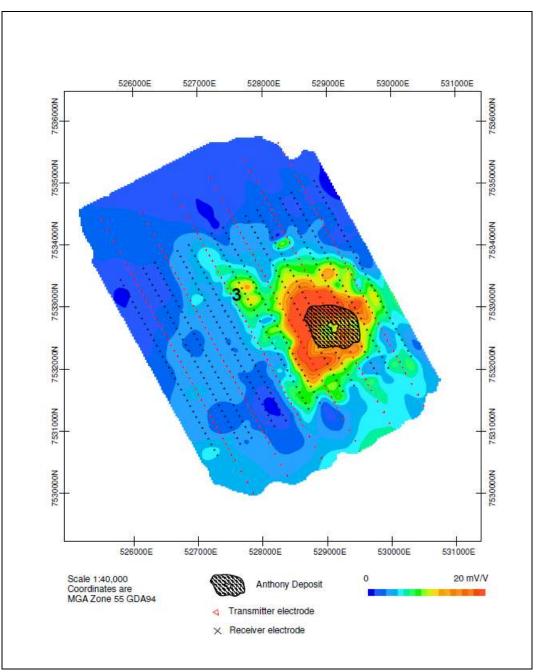


Figure 7. Anthony deposit 3D IP model: Plan of IP chargeability at a depth of 100m

Hole RCD14A100 tested target 3 to a depth of 200m (~160m vertical) intersecting unaltered, progressively hornfelsed meta-siltstone to 87m, and then to 200m a fine-grained pyritic diorite. The diorite is considered to explain the IP chargeability high. The core was not assayed because of the lack of alteration and /or any visible mineralisation.

2. EPM 19369 - Hill 271 Project

The Hill 271 prospect is characterised by Anakie Group meta-siltstone hosting massive quartz veins and gossanous pods, which have significantly elevated surface concentrations of gold ('Au'), arsenic ('As'), bismuth ('Bi') and copper. Encouraged by the presence of pervasive sericite alteration, sulphides, quartz veining and the proximity to the Anthony deposit, Zamia ran a single 1.6 km line of dipole-dipole IP with a dipole spacing of 100m, in November 2013.

The survey results showed a significant IP chargeability response at an estimated depth between 100 and 200m. The chargeability high, located over the hill-top, measures approximately 700m wide, and also has an associated complex resistivity high. The anomaly was drill-tested in May 2014, using a single vertical RC percussion hole, (RC14AS001) to a depth of 211m.

RC14AS001 intersected Anakie Group meta-siltstone and minor, fine meta-sandstone. The metasediments exhibit pyrite plus quartz + sericite/chlorite alteration and veining from surface to a depth of 96m. From 156 to 211m, meta-sediments are essentially unaltered, with minor or no veining and low pyrite content. No intrusive rocks were intersected and no sulphides, except for pyrite and pyrrhotite, were shown to be present.

Three metre composite intervals were analysed for gold (fire assay) as well as for broad-band main and trace elements (ICP-OES following strong acid dissolution). The assays show weakly elevated gold concentrations (up to 0.039 ppm) at 48 - 57m depth as well as an isolated gold high of 0.1 ppm (duplicate 0.12 ppm) at 99 - 102m depth. Elevated silver values at greater than 0.5 ppm (peaking at 2 ppm from 60 - 63m depth) are common between 18 and 102m, but are absent below 102m depth. The assay data (Table 1) indicates a positive correlation between gold and silver values as well as a strong correlation between gold/silver and arsenic, bismuth, iron, copper and sulphur assays (maximum values of 2.2% As, 126 ppm Bi, 9.6% Fe, 522 ppm Cu and 4.9% S). Other base metals (lead, zinc) do not correlate directly with these elements.

From [m]	То [m]	Width [m]	Au [ppm]	Ag [ppm]	As [ppm]	Bi [ppm]	Cu [ppm]
27	36	9	<0.005	0.67	1574	50	106
57	102	45	<0.005	0.67	1728	14	196
99	102	3	0.106	0.7	22700	79	522

Table 1. Significant assay results of Zamia hole RC14AS001 at Hill 271 Project (EPM 19369).

Hole RC14AS001 confirms the findings of previous RC drilling at Hill 271, of weakly elevated gold, silver, arsenic and copper concentrations associated with shallow gossan or ferruginisation and quartz veining. The drill hole failed to explain the cause of the elevated IP chargeability and resistivity at depths of 100 - 200m. The presence of "Anakie style" hallmarks for gold mineralisation as typified at the nearby Lucky Break and Belyando gold mines, support a further review of the results.

EPM 18655 DINGO RANGE

EPM 18655 *Dingo Range* was granted to Zamia on 29 May 2014. The EPM was taken out over a coincident radiometric and magnetic anomaly. A review of exploration carried out by previous explorers is underway ahead of designing an exploration program for this EPM.

CORPORATE ACTIVITIES

Zamia ran a roadshow with stock brokers and financial institutions in Sydney and Melbourne during the Quarter.

The Company has been maintaining contact with potential JV and strategic partners on key Zamia epithermal gold targets at the moment.

E. Keeven

Richard Keevers Chairman, Zamia Metals Limited

Competent Person

Mr Richard Keevers, MAIG FAusIMM, Chairman and 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 2012 edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves". Mr Keevers consents to the inclusion of the matters in the form and context in which they appear and takes responsibility for data quality.



Suite 60, Level 6 Tower Building Chatswood Village 47-53 Neridah Street Chatswood NSW 2067 **T**: + 61 2 8223 3744 **F**: + 61 2 8223 3799 **E**: info@zamia.com.au www.zamia.com.au

JORC Code, 2012 Edition – Table 1 report template

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 (eg 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. Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used. 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 (eg '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 (eg submarine nodules) may warrant disclosure of detailed information. 	 RC percussion and NQ diamond drilling. RC percussion samples were homogenised on 1-metre intervals using a conventional cyclone. 1-metre bulk samples were split using a 3-tier 1/16 riffle splitter. Splits were aggregated into 3-metre samples and re-split using a a 3-tier 1/16 riffle splitter to derive a sample of 2-4kg weight. NQ diamond core was split to half-core and sampled in 2-metre intersections.
Drilling techniques	 Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg 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). 	 A combination of RC percussion (5 inch hammer) and wire-line diamond drilling (NQ2 bit) was used to obtain the samples.
Drill sample recovery	 Method of recording and assessing core and chip sample recoveries and results assessed. Measures taken to maximise sample recovery and ensure representative nature of the samples. Whether a relationship exists between sample recovery and grade 	• Sample weights of the RC percussion bulk rejects were recorded to assess the representative nature of the samples. Geotechnical logging was used to record and assess diamond core sample return and quality.

Criteria	JORC Code explanation	Commentary
	and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.	
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. Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography. The total length and percentage of the relevant intersections logged. 	 RC chip samples were geologically logged (Anthony Project: 1-metre intervals, Hill 271 project: 3-metre intervals) based on a grab samples from the bulk rejects. Summary logs of the diamond core (no fixed intervals) were prepared before core cutting. Geological logging was of a qualitative nature. Geotechnical logs were prepared for diamond core on run-by-run intervals. Geological and geotechnical logging was applied to all available sample material (100%).
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. Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples. 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. Whether sample sizes are appropriate to the grain size of the material being sampled. 	 RC percussion samples were homogenised on 1-metre intervals using a conventional cyclone. 1-metre bulk samples were split using a 3-tier 1/16 riffle splitter. Splits were aggregated into 3-metre samples and re-split using a a 3-tier 1/16 riffle splitter to derive a sample of 2-4kg weight. A conventional diamond saw was used to split the diamond core in two halves in a non-systematic core orientation. Half core was sampled in 2-metre intersections and shipped to the lab for assaying.
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. 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. 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. 	 All sample material was shipped to ALS Chemex in Brisbane for processing and assaying. Samples were ground to a particle size of <75µm and treated by 4-acid dissolution. This method is considered partial since less than 100% of the sample material is dissolved. All samples were assayed using ICP-MS or AES (ALS method ME- MS61) depending on the element assayed. Additional to the internal lab blanks and standards, Zamia added one blank and one standard material sample per 18 drill samples. One duplicate RC percussion sample was assayed for every 33 samples submitted.
Verification of sampling and assaying	 The verification of significant intersections by either independent or alternative company personnel. The use of twinned holes. Documentation of primary data, data entry procedures, data 	• No verification of assay results by alternate method or entity was undertaken, as no significant results were returned. No adjustments were made to the assay data. All assays were stored in electronically in the company's data base. Separate electronic copies of the assay

Criteria	JORC Code explanation	Commentary
	verification, data storage (physical and electronic) protocols.Discuss any adjustment to assay data.	certificates are kept on the companies file server.
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. Specification of the grid system used. Quality and adequacy of topographic control. 	 All collars were located using a hand-held Gramin GPSMAP 60 receiver. Down hole orientation surveys were conducted every 30-50 meters using a Reflex EZ-Shot survey tool. Azimuths were corrected for magnetic declination using information provided by Geoscience Australia.
Data spacing and distribution	 Data spacing for reporting of Exploration Results. 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. Whether sample compositing has been applied. 	• RC samples were composited to 3-metre intercepts. Core samples were sampled and assayed in 2-metre intercepts. This sample spacing is considered sufficiently detailed for a bulk-tonnage porphyry-style mineralisation present at the Anthony Project and targeted at the Hill 271 Project.
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. 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. 	• Orientation studies (2008) of stock-work veins which host the porphyry-style mineralisation at Zamia's Anthony Project have shown no preferred orientation of mineralised fractures and veins. To the best of our knowledge, no sampling bias has been introduced by the orientations of drill holes. At hill 271, the orientation of mineralised structures in not constrained and possible sampling bias can not be assessed.
Sample security	The measures taken to ensure sample security.	• Samples were taken, packaged and dispatched under the supervision of Zamia's senior geologist. Further handling of the samples fell into the responsibility of ALS Chemex staff.
Audits or reviews	• The results of any audits or reviews of sampling techniques and data.	 No audits or reviews of sampling techniques were undertaken during the program in question.

Section 2 Reporting of Exploration Results

(Criteria listed in the preceding section also apply to this section.)

Criteria	JORC Code explanation	Commentary		
Mineral	Type, reference name/number, location and ownership including	The mineral exploration permits discussed (EPM 15145 ans EPM		
tenement and	agreements or material issues with third parties such as joint	19369) are held by Zamia Resources Pty Ltd (100%). No agreements		
land tenure	ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental	or material issues with third parties exist over these tenements. EPM 15145 does overlap national park (<5%), which does not impact the		

Criteria	JORC Code explanation	Commentary
status Exploration done by other parties	 settings. 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. Acknowledgment and appraisal of exploration by other parties. 	 Anthony Project in question. No known issues impeding on the the security of the Zamia's tenure or ability to operate in the area exist. The Anthony Project area was previously explored for gold and copper by Ardepco (1980-82), CRA Exploration (1991-94) and Cyprus Gold (1995-96). The Hill 271 Project was discovered by Burmine Ltd (1987-89) and significant previous exploration on the project was
Geology	• Deposit type, geological setting and style of mineralisation.	 undertaken by CRA Exploration (1991-93). The Anthony Project is a porphyry-style molybdenum deposit hosted in pre-Ordovician Anakie Group meta-sediments. The Hill 271 Project is hosted in the same stratigraphic unit. The style mineralisation at Hill 271 remains under investigation.
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: 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 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. 	 Hole RCD14A099 (Anthony) Easting: 528545mE; Northing: 7533078mN; MGA94, Zone 55S Elevation: 267m RL Dip: -65; Azimuth (true) 130 Hole Length 429m (172m RC) Hole RC14A100 (Anthony) Easting: 527670mE; Northing: 7533315mN; MGA94, Zone 55S Elevation: 253m RL Dip: -65; Azimuth (true) 090 Hole Length 200m RC Hole RCD14A101A (Anthony) Easting: 528210mE; Northing: 7532554mN; MGA94, Zone 55S Elevation: 256m RL Dip: -65; Azimuth (true) 055 Hole Length 400.4m (108m RC) Hole RC14AS001 (Hill 271) Easting: 535820mE; Northing: 7541095mN; MGA94, Zone 55S Elevation: 265m RL Dip: -90; Azimuth (true) 000 Hole Length: 211m RC
Data	In reporting Exploration Results, weighting averaging techniques,	 Averages are based on assays representing intersections or equal

Criteria	JORC Code explanation	Commentary
aggregation methods	 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 (RC percussion – 3 metres; NQ diamond – 2 metres) and are weighted accordingly. At the Anthony Project all averages are based on a cut-off grade of 200ppm molybdenum, unless stated otherwise. No fixed cut-off grades are in use for other projects. Where aggregate intercepts incorporate short lengths of higher grade, these are provided. Refer to Table 1 in the report body. Not applicable.
Relationship between mineralisatio n 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'). 	 All reported intercepts represent down-hole lengths. Existing drill data at Hill 271 is insufficient to assess the preferred shape and orientation of mineralisation or it's relation to the orientation of drill holes.
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.	• Refer to figures 2, 4, 5, 6 and 7 in the report body.
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. 	• The work reported does not include economically significant results. Statistically elevated but sub-economic results are reported where they occur, with all other results representing background values.
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. 	 Results of Zamia's previous work relevant to this report have been discussed in detail within previous releases, in particular ASX: ZGM 30/04/214, 31/01/214 and 20/11/2013.
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 nature and scale of further work at either of the projects havs not been determined.