

ASX: ZGM

28 April 2011

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

## ZAMIA METALS LIMITED QUARTERLY ACTIVITIES REPORT

# For the quarter ended 31 March 2011

### **HIGHLIGHTS**

- On 25 February, Zamia announced an increase in the Inferred Resource of the Anthony molybdenum (Mo) deposit in primary (sulphide) Mo mineralisation to 173 million tonnes (Mt) at 430 parts per million (ppm) Mo, including 20 Mt at 810 ppm Mo.
- Reverse circulation (RC) and diamond drilling continued to intersect good molybdenum (Mo) grades both at depth and laterally.
- The Company raised \$2.949 million via share placements in early April 2011. The funds will be used for working capital purposes, including advancing the Company's exploration projects.

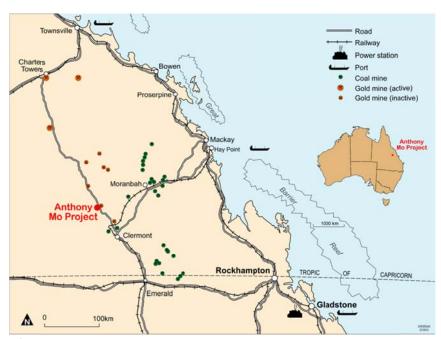


Figure 1. Location map

### ANTHONY MOLYBDENUM PROJECT

## **Resource Upgrade**

On 25 February 2011, Zamia announced a substantial increase in the sulphide Mo Inferred Resource. When near-surface oxide and transition (partly oxidised) material is taken into account, the total resource is 233 Mt at 420 ppm Mo, including a high grade zone of 26 Mt at 780 ppm Mo (see Table 1).

This latest estimate for the Anthony deposit, by resource consultants Hellman & Schofield Pty Ltd (H&S), incorporates drill hole assay data available up to 21 February 2011. Compared to the previously announced resource in September 2010, this represents an overall resource increase of 19% and a 55% increase in high grade sulphide resource above a 600 ppm Mo cut-off grade.

Cut- off grade	Sulphide Resource			Transition and Oxide Resource			Total Resource		
(ppm Mo)	Tonnes (million)	Grade (ppm Mo)	Contained Mo (million lb)	Tonnes (million)	Grade (ppm Mo)	Contained Mo (million lb)	Tonnes (million)	Grade (ppm Mo)	Contained Mo (million lb)
600	20	810	36	6	690	9	26	780	45
400	82	570	103	25	530	29	108	560	132
200	173	430	163	60	400	54	233	420	216

 Table 1.
 Inferred Resource estimates by Hellman & Schofield Pty Ltd, 25 February 2011

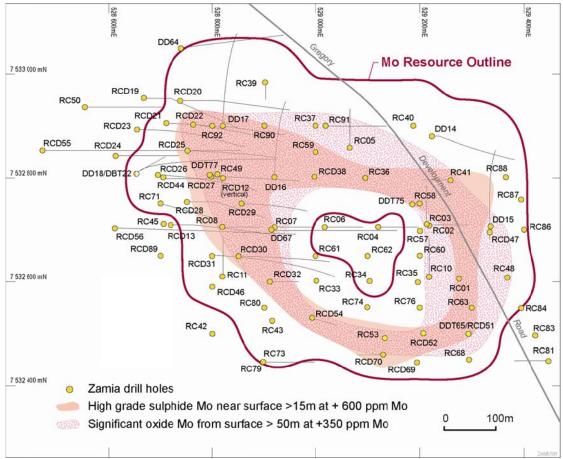


Figure 2. Anthony diamond drill core sampling

## **Current Status of Project**

The objectives of recent and current drilling are:

- To determine the lateral extent of the deposit;
- To extend the resource both laterally and at depth;
- To confirm the results of previous RC drilling by twinning selected holes with diamond coring; and
- To test targets in the area surrounding the Anthony deposit.



**Figure 3.** Anthony project: Drill hole locations and February 2011 resource boundary. Note: Holes RC81, 83, 84 and 86, on the eastern side of the deposit, were drilled subsequent to the announcement of the February resource increase. Their location outside the resource boundary does not indicate that the resource has been closed off at the eastern side

## **Reverse Circulation Drilling**

The current RC resource drilling programme commenced in November 2010 and 26 new holes were completed by the end of March 2011.

Assay results received during the quarter were reported to the ASX on 21 February and 24 March 2011. Assay results for holes RC81, RC83, RC84, RC86 and RC87, testing the eastern edge of the resource, were received in late March 2011. All RC assay results received during the quarter are summarised in Table 2 below.

Hole ID	Depth [m]	Zone	From [m]	To [m]	Thickness [m]	Mo grade [ppm]
RC63	252	oxide	0	54	54	452
		partial	54	81	27	454
		sulphide	81	252	171	558
		incl.	84	90	6	1013
		and	114	120	6	1007
		and	123	144	21	1025
RC68	252	oxide	0	45	45	235
		partial	45	114	69	289
		sulphide	114	252	138	176
RC70	206	oxide	0	66	66	339
		partial	66	102	36	396
		sulphide	102	206	104	549
		incl.	165	171	6	1034
RC73	252	oxide	0	102	102	232
		partial	102	135	33	177
		sulphide	135	252	117	359
RC74	252	oxide	0	69	69	222
		partial	69	90	21	287
		sulphide	90	252	162	239
RC76	246	oxide	0	69	69	229
		partial	69	120	51	222
		sulphide	120	246	126	207
RC79	252	oxide	0	99	99	223
		partial	99	120	21	38
		sulphide	120	252	132	149
RC80	252	oxide	0	90	90	353
		partial	90	120	30	239
		sulphide	120	252	132	306
RC81	252	oxide	0	63	63	50
		partial	63	72	9	36
		sulphide	72	252	180	102
RC83	252	oxide	0	66	66	119
		partial	66	84	18	76
		sulphide	84	252	168	224
		incl.	111	120	9	1287
RC84	252	oxide	0	63	63	342
		partial	63	93	30	316
		sulphide	93	252	159	142
RC86	252	oxide	0	30	30	235
		partial	30	72	42	209
		sulphide	72	252	180	171
RC87	252	oxide	0	30	30	222
		partial	30	63	33	129
		sulphide	63	252	189	211
		incl.	78	90	12	1053

**Table 2.** Assay results for RC holes drilled in the March quarter

## **Diamond Drilling**

Diamond drilling re-commenced at Anthony in January with a programme to complete three twin holes to test the correlation between Mo assays for RC chips and diamond core. Results for these diamond holes drilled during the quarter are tabled below.

Hole ID	Depth [m]	Zone	From [m]	To [m]	Thickness [m]	Mo grade [ppm]
DDT65	152.5	oxide	8	68	68	503
		partial	68	104	36	959
		incl.	78	100	22	1239
		sulphide	104	152.5	48.5	939
		incl.	104	140	36	1168
DDT75	150	oxide	0	74	74	536
		partial	74	108	34	914
		incl.	74	88	24	1007
		sulphide	108	150	42	529
		incl.	108	114	6	1172
DDT77	150	oxide	0	86	86	335
		partial	86	138	52	452
		sulphide	138	150	12	556

**Table 3.** Assay results for twinned diamond holes drilled in the March quarter

Of the five diamond tails (diamond drill extensions to RC holes) aimed at extending the drill depth to greater than 400 metres, four were completed, with the fifth hole in progress at the end of the quarter. Assay results to date have been received for two holes - RCD51 and RCD54 (reported to the ASX on 24 March 2011). A summary of the results, incorporating the top 150 metres of RC drilling are listed in Table 4.

Hole ID	Depth [m]	Zone	From [m]	To [m]	Thickness [m]	Mo grade (ppm)]
RCD51	470	oxide	0	66	66	564
		partial	66	102	36	935
		sulphide	102	294	192	369
		sulphide	294	470	176	242
RCD54	404	oxide	0	99	99	356
		partial	99	108	9	662
		sulphide	108	404	296	550

**Table 4.** Assay results for RC holes with diamond extensions drilled in the March quarter

### **Processing of the Oxide Resource**

A significant part of the oxide Mo resource is located above the near-surface high grade sulphide Mo resource and would need to be mined to access the sulphide resource. As previously reported, initial tests have indicated that (a) oxide material with >400 ppm Mo can be pre-concentrated to a higher grade (>800 ppm Mo), and (b) an acidic leach process can extract around 90% of contained Mo (as reported by two independent laboratories).

During the quarter, additional testing showed that the Mo in solution can be readily removed by a solvent extraction process and then converted to saleable Mo products. A draft processing flow sheet based on tests to date has been produced by an external research laboratory.

The next steps in the evaluation of a possible oxide Mo extraction process include assessing indicative economics of oxide Mo extraction as part of the overall oxidesulphide resource evaluation at Anthony.

## **Scoping Study**

As the resource drilling continues to find significant additional Mo laterally and at depth, scoping study work has been deferred to the second half of 2011.

As reported previously, AMC Mining Consultants have been engaged to develop a mining model so that an initial mine plan and costs can be developed. This model will be modified as new resource and geological data become available. The initial focus of the mining study has been to provide an indication of potential economic depth of mining at today's Mo prices as a guide to optimum depth of drill holes.

AMEC Minproc metallurgical consultants have been engaged to provide indicative processing capital and operating costs based on a preliminary flow sheet.

## **Targets near Anthony**

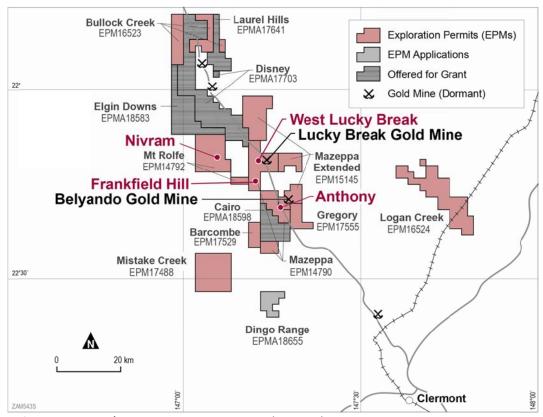
A programme of five diamond scout holes, targeting geophysical anomalies within the Dead Horse Bore intrusive complex and up to 2 km from the Anthony deposit, was completed during the quarter. Results of these holes (DDS66, DDS72, DDS78, DDS82, & DDS85 - not shown on Figure 1) have not yet been received.



Figure 4. Anthony Diamond drilling at night

#### REGIONAL EXPLORATION

Zamia, through its wholly-owned subsidiary Zamia Resources Pty Ltd, has exploration permits and applications covering an area of more than 1300 km<sup>2</sup> (see Figure 3).



**Figure 5.** Zamia's tenement position at end-December 2010. Note: Belyando Gold Mine is not included in Zamia's EPM 15145

## West Lucky Break Prospect (EPM 14790 – Mazeppa)

As reported last quarter, Zamia drilled only one hole of a programme of three before wet weather denied access to the ground. This first hole intersected minor gold concentrations. Further drill testing is now scheduled to commence in April when the ground becomes passable.

### Mount McLaren Prospect (EPM 16524 – Logan Creek)

The recently-granted EPM 16524 (Logan Creek) contains the Mount McLaren porphyry-style prospect where previous explorers had outlined a 1500m diameter circular molybdenum-copper-zinc geochemical anomaly. Previous company exploration data has now been collated and maps have been compiled to outline targets for follow-up exploration.

### Regional Soil and Rotary Air Blast Sampling

A percussion rotary air blast (RAB) or auger drilling programme is planned to test below the black basalt soils that mask the target geology. Targets include aeromagnetic anomalies and structural features within EPMs 14790, 17555, 17488, and 17529. Further to the north on EPM 16523, the large bullseye aeromagnetic anomaly will be initially covered by a broadly spaced soil sampling programme.

### **CORPORATE ACTIVITIES**

### Stakeholder Relations

Zamia has engaged Brisbane-based Hopgood Ganim to produce a draft Conduct and Compensation Agreement that complies with Queensland's new land access legislation. Hopgood Ganim was named a leading energy and resources firm in the 2010 *Doyle's Guide to Queensland's Energy and Resources Lawyers* and had significant input into developing the new legislation.

Draft agreements have been sent to landholders for comment before being finalised.

### **Investor Relations and Promotion**

On 1 April, the Company completed a share placement for the issue of 28,086,000 fully paid ordinary shares to sophisticated investors at an issue price of 10.5 cents per share to raise \$2,949 million.

The placement, which was partially underwritten by Martin Place Securities Pty Ltd (MPS), received strong support from investors and closed oversubscribed. MPS managed the share placements in conjunction with Sinonew Capital Advisory Co Ltd.

The total funds raised from the Placement and the imminent Rights Issue to shareholders will be used for working capital purposes, including continuation of the current drilling programmes on the Company's exploration tenements.

During March the Company, represented by Ken Maiden and Sam Garrett, participated in the Prospectors & Developers Association of Canada 2011 International Convention held in Toronto and Mines & Money Hong Kong. On a trip that also included stopovers in New York, London and Beijing, they held a series of meetings with brokers, investment banks, institutional and private investors, and other industry participants.

### Personnel

Zamia's Manager Business Services participated in a Brisbane workshop and conference that examined recent changes in exploration and mining permit approvals. The event was well attended by industry and several senior government officials presented on a variety of topics with the main theme of assisting industry by reducing the red tape and time required to get these approvals.

## **Health & Safety**

During the quarter, two new field-based employees undertook a 4-wheel-drive safety course in Mackay.

Ken Maiden **Executive Chairman** 

### **Competent Person**

Dr Ken Maiden, MAIG FAusIMM, Executive Chairman of Zamia Metals Limited, compiled the geological technical aspects of this announcement. 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 and "reasonable expectation" assumptions relating to cut-off grades and resource potential.