



ASX:ZGM

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

## **MORE HIGH GRADE MOLYBDENUM IN THREE DIRECTIONS AT ANTHONY**

Diamond and reverse circulation drilling has been continuing at Zamia's Anthony molybdenum discovery north of Clermont in central Queensland.

Latest assay results from four diamond drill (DD) hole extensions and two new reverse circulation (RC) holes showed increased depth of sulphide molybdenum (Mo) mineralisation and high grade intersections of plus 1000 parts per million (ppm) Mo in the north, south and east of the deposit.

### **HIGHLIGHTS**

- **Following its extension, DD18 now has a 477 metre (m) continuous intersection assaying 572 ppm sulphide Mo including separate 116m, 14m, 6m and 4m intersections assaying above 1000ppm Mo**
- **RCD20 now has 607m averaging 341ppm sulphide Mo including 8m and 4m intersections above 1000ppm Mo**
- **RC59 assayed 738ppm oxide Mo for 84m from surface as well as 123m at 544ppm sulphide Mo including 906ppm Mo in the last 9m of the hole**
- **RCD51 assayed 695ppm Mo from surface to 102m in the oxide/partially oxidised zone and now has 192m at 369ppm sulphide Mo including 15m and 8m intersections above 1000ppm Mo**
- **RCD54 in the southern high grade zone now has 296m at 551ppm sulphide Mo including a 9m and four separate 4m intersections above 1000ppm Mo**
- **RC58 assayed 670ppm Mo for 93m in the oxide/partially oxidised zone from surface, including a 9m interval above 1000ppm Mo. In the sulphide zone there was 57m at 547ppm sulphide Mo including 9m and 3m intersections above 1000ppm Mo**
- **Overall exploration results support initial processing of 1000ppm sulphide Mo as mill feed based on a combination of the 1000ppm Mo zones and pre-concentration of lower grade Mo (400 - 500ppm) which surrounds these higher grade zones**
- **Initial acid based leaching tests of the near surface oxide molybdenum at Anthony has resulted in over 90% Mo extraction at two different laboratories**
- **Diamond and RC drilling are continuing at Anthony and its surrounding areas with the objective of extending the Anthony resource and to test for other porphyry deposits in the area**

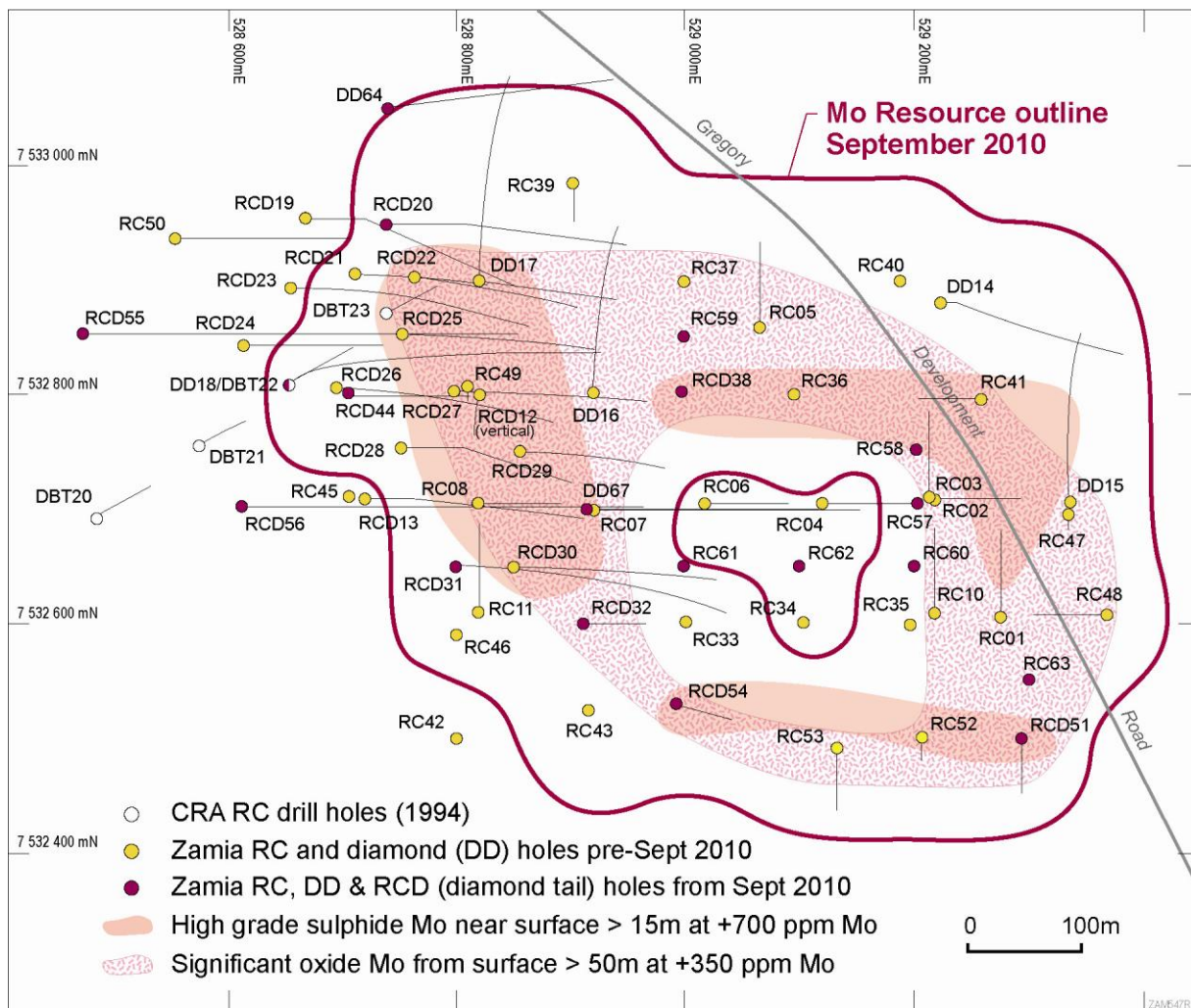


Figure 1: Drill hole location map showing significant surface oxide zones and relatively shallow high grade sulphide zones underneath

## SUMMARY OF ASSAY RESULTS

The latest assays, as summarised in tables 1 and 2, together with previous results, indicate that there is a significant “donut” of +350ppm oxide Mo from surface as well as the underlying sulphide resource (See Figure 1).

The significant assay results from the latest holes are summarised below in the context of previous results at Anthony:

### Northern high grade zone:

DD18 now has a 477m intersection averaging 572 ppm sulphide Mo including a continuous 116 metre (m) interval at 1018ppm Mo and additional separate 14m, 6m, 4m and five 2m intervals at +1000ppm Mo

RCD20 now has a 607m intersection averaging 341ppm sulphide Mo including 8m, 4m and four 2m intervals at +1000ppm Mo

New reverse circulation hole RC59 assayed an average 738ppm oxide Mo for the first 84m from surface, including a 6m interval at over 1000ppm from 12m. This hole’s 123m sulphide zone assayed an average 544ppm Mo with the last 9m of the hole assaying 906ppm Mo

from 213 to 222m. This indicates that there is likely to be more sulphide molybdenum at depth.

#### **Southern high grade zone:**

After the diamond extension of RCD51, there is now a 192m sulphide intersection averaging 369ppm Mo including separate 15m and 8m intersections at +1000ppm Mo. Previously this hole assayed 695ppm Mo from surface to 102m in the oxidised/partially oxidised zone, including 12m and 18m intersections at +1000ppm Mo.

After the diamond extension of RCD54 there is now a 296m sulphide intersection averaging 551ppm Mo including separate 9m, four 4m, two 3m and five 2m intervals assaying at +1000ppm Mo.

#### **Eastern high grade zone:**

New reverse circulation hole RC58 assayed an average 672ppm oxide Mo for the first 60m from surface, including 9m and 3m intersections at +1000ppm. In the sulphide zone there was a 57m intersection averaging 547ppm Mo including 9m and 3m intersections at +1000ppm Mo.

### **POSITIVE OUTLOOK FOR ANTHONY**

Following the release of these assay results Dr Ken Maiden, Executive Chairman, commented:

“The results enhance the positive outlook we have had for Anthony. The prospect of increasing the size of the resource as well as the extra high grade intersections, are expected to further improve the economic potential of the project. Based on these assays reported today and the significant results we reported on 13 December 2010, we expect to announce an updated resource estimate in the next few weeks.

As previously reported, in any future possible mining operation we would expect to process through the flotation plant a significant tonnage assaying around 1000ppm Mo. The feedstock is likely to be a combination of high grade ore and output from pre-concentration of +450ppm Mo material which usually surrounds the high grade zones. This approach should lower our capital and operating costs per unit Mo output. Based on external laboratory tests, the product concentrate should exceed 50% Mo.

Another exciting factor is that it looks increasingly likely we will be able to extract the substantial oxide molybdenum which sits above the sulphide resource. Two laboratories have reported around 90% Mo extraction using an acidic based leaching process and one has indicated that it is possible to selectively extract the Mo from the leach solution. While we have yet to finalise the oxide process and assess the project economics, there are two factors in its favour. The oxide ore would need to be mined to access the sulphide molybdenum in any event and also we anticipate that the molybdenum leaching product would have a higher value than the sulphide product.

We have also begun diamond drilling of geophysical and geochemical targets around Anthony to test for other porphyry deposits.”

**Table 1: Summary of latest assays for diamond holes**

Hole	Average dip (degrees)	Zone	From (m)	To (m)	Length (m)	Mo (ppm)
<b>DD18</b>	50	Oxide/partial	0	63	63	40
		Sulphide	63	540	477	572
including			204	320	<b>116</b>	<b>1018</b>
incl			356	362	<b>6</b>	<b>1023</b>
incl			370	374	<b>4</b>	<b>1080</b>
incl			400	402	<b>2</b>	<b>1320</b>
incl			454	468	<b>14</b>	<b>1009</b>
incl			474	476	<b>2</b>	<b>1175</b>
incl			498	500	<b>2</b>	<b>1055</b>
incl			516	518	<b>2</b>	<b>1165</b>
incl			538	540	<b>2</b>	<b>1280</b>
			540	630 EOH	90	123
<b>RCD20</b>	54	Oxide/partial	0	102	102	242
including			99	102	<b>3</b>	<b>1100</b>
		Sulphide	102	709	607	341
including			253	255	<b>2</b>	<b>1090</b>
incl			353	357	<b>4</b>	<b>1120</b>
incl			459	467	<b>8</b>	<b>1034</b>
incl			557	559	<b>2</b>	<b>1285</b>
incl			597	599	<b>2</b>	<b>1235</b>
incl			707	709	<b>2</b>	<b>1890</b>
			709	721 EOH	12	181
<b>RCD51</b>	82	Oxide/partial	0	102	102	695
including			33	45	<b>12</b>	<b>1034</b>
incl			84	102	<b>18</b>	<b>1364</b>
		Sulphide	102	294	192	369
including			120	135	<b>15</b>	<b>1041</b>
incl			272	280	<b>8</b>	<b>1036</b>
			294	498 EOH	204	230
<b>RCD54</b>	75	Oxide/partial	0	108	108	382
including			105	108	<b>3</b>	<b>1310</b>
		Sulphide	108	404 EOH	296	551
including			123	132	<b>9</b>	<b>1125</b>
incl			153	156	<b>3</b>	<b>1285</b>
incl			168	171	<b>3</b>	<b>1005</b>
incl			238	242	<b>4</b>	<b>1318</b>
incl			256	260	<b>4</b>	<b>1106</b>
incl			276	280	<b>4</b>	<b>1056</b>
incl			306	308	<b>2</b>	<b>1200</b>
incl			334	336	<b>2</b>	<b>1385</b>
incl			342	344	<b>2</b>	<b>1060</b>
incl			358	360	<b>2</b>	<b>1050</b>
incl			362	366	<b>4</b>	<b>1259</b>
incl			370	372	<b>2</b>	<b>1060</b>

Note: EOH is end of hole

**Table 2: Summary of latest assays for new RC holes**

Hole	Average dip (degrees)	Zone	From (m)	To (m)	Length (m)	Mo (ppm)
<b>RC57</b>	90	Oxide/partial	0	96	96	315
		Sulphide	96	177	81	218
			177	240 EOH	63	117
<b>RC58</b>	90	Oxide/partial	0	93	93	670
		including	54	57	<b>3</b>	<b>1045</b>
		incl	69	78	<b>9</b>	<b>1032</b>
		Sulphide	93	150	57	547
		including	99	102	<b>3</b>	<b>1018</b>
		incl	141	150	<b>9</b>	<b>1037</b>
			150	224 EOH	74	232
<b>RC59</b>	90	Oxide/partial	0	99	99	683
		including	12	18	<b>6</b>	<b>1006</b>
		Sulphide	99	222 EOH	123	544
		including	216	219	3	<b>1135</b>
<b>RC60</b>	90	Oxide/partial	0	99	99	351
		Sulphide	99	252 EOH	153	126
<b>RC61</b>	90	Oxide/partial	0	105	105	214
		Sulphide	105	126	21	266
			126	252 EOH	126	63
<b>RC62</b>	90	Oxide/partial	0	78	78	110
		Sulphide	78	252 EOH	174	71

## FUTURE PROGRAMME

Zamia plans to carry out the following work during the first half of 2011:

- Continue detailed exploration of the Anthony molybdenum deposit to determine its extent, both laterally and at depth.
- Update the Anthony resource estimation as further assays become available.
- Carry out sufficient metallurgical testwork on both primary (sulphide) and secondary (oxide) material to determine the optimum processes for producing saleable products.
- Complete a scoping study for a molybdenum mining and processing operation based on the Anthony resource. The scoping study will include preliminary mine planning, processing options, infrastructure requirements and options, environmental study, preliminary CAPEX and OPEX estimates, and preliminary financial analysis.
- Continue exploration, including diamond drilling, around Anthony to test for other porphyry deposits.

- Continue to test other targets (for gold, molybdenum and copper) within the Clermont district.



Ken Maiden  
Executive Chairman

#### **About Zamia (ASX: ZGM)**

Zamia listed on the ASX in January 2007, and holds a portfolio of Exploration Permits for Minerals in the Clermont district of central Queensland. In 2008, Zamia discovered the Anthony molybdenum deposit by drilling on a soil geochemical target. Diamond drilling confirmed the presence of a large porphyry-style deposit. After a delay of almost 12 months caused by the global financial crisis, evaluation of the Anthony deposit recommenced in late 2009. Zamia remains focussed on the Clermont district. As a result of the Anthony discovery, Zamia has identified other targets with potential for molybdenum, gold and possibly copper.

#### **About Molybdenum**

Molybdenum, a metal with an extremely high melting point, is widely used in the steel industry as it improves the strength of steels at high temperature as well as strength to weight ratios and corrosion resistance. It also has uses as a catalyst in petroleum refining, in the production of electrodes and filaments, as a high temperature lubricant and as a fertiliser.

Global demand for molybdenum has been predicted to grow at 4 - 5% per year over the next twenty years. Molybdenum is currently trading at around US\$16 /lb (US\$35,000 /tonne). Industry experts forecast prices around US\$20 /lb (US\$44,000 /tonne) in 2011.

For further information on Zamia and molybdenum, visit the website [www.zamia.com.au](http://www.zamia.com.au)

#### **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.