2 September 2009

### ASX RELEASE

### Phase one drilling intersects 100 metre-wide zone of strong hematite-chlorite alteration with anomalous uranium and copper at the Murphy Uranium Project in the Northern Territory

# Second Phase of drilling to commence in mid September, testing new targets in western part of Project

#### Highlights:

- The first deep drilling program comprising of a 10 hole diamond and reverse circulation program (1887.5 metres) has intersected strong alteration and anomalous uranium at targets UC19 and UC17
- At UC19, MURD002 intersected anomalous uranium and copper associated with greater than 100 metre-wide zone of strong hematite-chlorite alteration in a mafic intrusive within the Westmoreland Sandstone with Cu up to 1.04% and U308 up to 107.4 ppm.
- At UC17, MURD006 intersected anomalous uranium associated with hematitechlorite altered Westmoreland sandstone.
- The following positive indications can be interpreted from the drilling to date
  - A strong association between uranium mineralisation and hematite chlorite alteration, similar to that developed at the Westmoreland deposit located to the east (48m lbs U308 @ 0.09%)
  - A strong association between uranium mineralisation and mafic intrusives, again similar to that developed at the Westmoreland deposit and elsewhere
  - Confirmation that mafic intrusives are much more widespread than first expected in the Westmoreland sandstone in the area, leading to additional likely targets in the project area
  - A strong association between uranium and and lower magnetic susceptibility hematite-chlorite alteration which can be directly targeted in airborne magnetic data in the area
  - The presence of copper at significant grades (maximum over 1%) associated with iron and potassium alteration, which suggests the possible existence of Iron Oxide Copper Gold Uranium mineralisation of the Olympic Dam type.
- Second Phase of drilling to commence in mid September, testing new targets in western part of Project

"This is the first deep drill program in a new district with little or no previous exploration, and we have intersected a wide alteration zone with significant amounts of uranium and copper," said Dr Rick Valenta, Managing Director of Bondi Mining Ltd. "The drill results confirm very strongly that the right sort of mineralising processes are going on, and have produced insights that will lead to higher confidence drill targets. Furthermore, the results have given us knowledge that will make it much easier in future to directly target mineralisation in our high resolution airborne magnetic data – an advantage that we can use in subsequent drill campaigns."



**Bondi Mining Ltd ("Bondi" - ASX symbol – BOM)** is pleased to announce the results of the first phase of drilling on its 100%-owned Murphy Project.

Fig. 1. Regional location of Murphy project relative to uranium deposits in the area

The Murphy project is prospective for high grade basement unconformity-style uranium mineralisation of the type occurring at Jabiluka and Ranger, as well as sandstone-hosted unconformity-style mineralisation of the type developed at the Westmoreland project to the east of Murphy.



Fig.2. Location of areas drilled during phase one of the Murphy drill program

# **Drilling Program**

The first phase of the 2009 program was designed to test a number of drill targets which were defined on the basis of a combination of magnetics, Radon track etch anomalism,

soil geochemical anomalies, and in some cases anomalous uranium and clay alteration in aircore scout drilling.

## Results

**At UC19**, four holes were drilled for a total of 449.5 metres of reverse circulation drilling and 711 metres of diamond drilling. The drilling was designed to test anomalous uranium and clay alteration intersected in scout drilling, first testing the structural position of the sandstone-hosted Westmoreland-style mineralisation and then continuing down to test the interpreted position of unconformity mineralisation.

The longest drillhole (MURD002) reached a depth of 556 metres and intersected two thick mafic intrusives within the Westmoreland sandstone sequence. The second mafic intrusive showed strong hematite-chlorite alteration associated with minor carbonate veins, and there were three zones of anomalous copper and uranium within the altered dyke, which returned the following results:

- 4 metres at 47.8 ppm U308 and 0.6 % Cu from 446 metres in hole MURD002 including 2 metres at 85.3 ppm U308 and 1 % Cu from 447 metres, in turn including 1m at 107.4 ppm U308 and 0.99% Cu from 447m.
- 19 metres at 26.4 ppm U3O8 and 0.2 % Cu from 476 metres in hole MURD002 including 4 metres at 63.8 ppm U3O8 and 0.4 % Cu from 480 metres in hole MURD002
- 4 metres at 8.1 ppm U3O8 and 0.2 % Cu from 407 metres in hole MURD002

These intersections are open in both directions along strike and there is a strong likelihood that similar alteration, possibly with higher and more continuous grades, may be present nearby at much shallower depths. The mafic intrusives appear to strike east northeast and dip steeply to the north, based on drilling and geophysical modelling. Based on this interpretation, the true width of the deeper mafic intrusive intersection is slightly greater than 100m, all of which is logged as containing hematite-chlorite alteration. Additional samples from within the alteration zone are currently being collected, and will be submitted for analysis with the next 10 days.

The association between uranium mineralisation and the mafic intrusives is significant, in that there is a similar strong association at both the Westmoreland and Nabarlek deposits. The deep drilling has shown that mafic intrusives are much more widespread in the area than first thought. This is very encouraging, since mafic dykes and sills are widely acknowledged to be an important factor in the localising of uranium mineralisation of the unconformity and sandstone style.

It is also significant that the altered and mineralised intrusive had a much lower magnetic susceptibility, confirming that uranium mineralisation can be targeted in the area by looking for demagnetization in airborne magnetic datasets.

On the basis of these new insights, the company is currently undertaking a reinterpretation of the subsurface geology of the area which has already highlighted a number of new near-surface targets.

In addition, the company is reinterpreting the patterns of copper zoning displayed in surface geochemistry and scout drilling, on the basis of the observed association between copper and uranium in the new drilling.



*Fig.3. Cross section showing interpreted geology and gamma log results from the UC19 area. Black regions on the drill traces show areas sampled for the current set of results. Sampling is under way for the remaining portions of the alteration zone.* 



Fig.4. Core photos of one of the altered sections of gabbroic intrusive which contain anomalous copper and uranium, showing intense hematite-chlorite alteration and carbonate veining **At UC17** three holes were drilled for a total of 265 metres of reverse circulation drilling and 288 metres of diamond drilling. The drilling was designed to test a soil geochemical uranium anomaly developed of the southern extension of the Emu fault. The deepest drillhole in the area (MURD006) reached a depth of 270.5 metres and drilled through a thick interval of Westmoreland sandstone on the west side of the fault. An anomalous uranium interval of 1 metre at 15.1 ppm U308 from 249 to 250 metres was intersected in the deeper part of the hole, associated with hematite-chlorite alteration similar to that developed at the Westmoreland deposit further to the east.

The association of uranium with hematite-chlorite alteration is very similar to that developed at Laramide's Westmoreland deposit, giving further support to the idea that similar mineralisation could be developed in the Murphy area.

Three RC holes were also drilled at target UC25, for a total of 174 metres. All three drillholes in this area intersected basement granite, with no strong uranium anomalies.



Fig.5. Cross section showing interpreted geology and gamma log results from the UC17 area. Black regions on the drill traces show areas sampled for the current set of results.

The Murphy project is the subject of a Letter of Agreement between Bondi and Japan Oil, Gas and Metals National Corporation (JOGMEC) wherein JOGMEC can earn a 51% undivided interest in the project by funding AUD \$3 million in exploration over four years. Bondi is the operator of the exploration program. The project has also received the support of two drilling grants of \$100,000 each from the NT Government under the "Bringing Forward Discovery Program".

Bondi Mining Ltd is a Brisbane-based exploration company with a focus on high-grade cycle-proof uranium targets with world class size potential. Bondi's Australian uranium portfolio is currently focused on the Murphy project in the Northern Territory, and the company is currently undertaking generative programs aimed at augmenting its current

portfolio, with a strong focus on resource-visible projects. The company also retains a significant land holding in the gold-prospective Georgetown region of Queensland.

All queries to:

.

Rick Valenta, Managing Director (07) 3369 4000

info@bondimining.com.au

#### www.bondimining.com.au

The exploration data and results contained in this report are based on information reviewed by Dr Rick Valenta, a fellow of the Australian Institute of Mining and Metallurgy. He is Managing Director of the Company and has sufficient experience which is relevant to the styles of mineralisation and types of deposits under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the December 2004 edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (the JORC Code). Dr Valenta has consented to the inclusion in this release of the matters based on his information in the form and context in which it appears.

Hole	Easting	Northing	Dip	Azimuth	EOH
MURD001	643335	8038009	-60	210	331.4
MURD002	643447	8038216	-60	210	556.1
MURD003	643522	8038335	-60	180	150
MURD004	642873	8038265	-60	175	123.1
MURD005	669200	8049702	-90	0	102
MURD006	668790	8049700	-90	0	270.5
MURD007	668999	8049698	-90	0	180.5
MURD008	667833	8022136	-60	250	72
MURD009	668701	8020274	-60	225	48
MURD010	668797	8020447	-60	225	54