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The Manager Australian Stock Exchange Limited Level 4, 20 Bridge Street Sydney, NSW. 2000

Dear Sir/Madam

# LINGIG PORPHYRY COPPER DISCOVERY

Medusa Mining Limited ("Medusa" or the "Company") advises that drilling will commence at the Lingig Porphyry Copper Discovery in the first quarter of 2008. The first drill hole will repeat and drill past the 1974 bottom of hole intersection of 150 metres of 0.4% copper with increasing grades down the hole. Detailed compilation of historical drilling and mapping data has been recently completed and is provided in this announcement.

# **KEY POINTS:**

- The 150 metre intersection ended in high grade mineralisation at a pre-set depth of 250 metres with the last 2 metres containing 4.93% copper, 0.4 g/t gold and 10 g/t silver;
- The bottom 52 metres of the hole encountered higher grade mineralisation of 0.65% copper in a phylitically altered quartz diorite intruding overlying altered doleritic and basaltic rocks; and
- A 98 metre wide halo of 0.27% copper mineralisation within the immediately overlying altered volcanic host rocks suggests an intense mineralising system.

# Background

The Das-Agan project consists of Mining Production Sharing Agreement application ("APSA") number 000024-XIII situated in Surigao del Sur province in east Mindanao. This consists of two parcels and totalling 8,019 hectares, one to the north and one to the south-east of the Co-O mine and millsite as shown on Figure 1.

The Lingig porphyry copper discovery is contained in the south-eastern parcel of the MPSA application.





Figure 1: Location map

The Lingig area was located as a result of an aid programme between Filipino and Japanese geologists and technicians in 1972 to 1974 over eastern Mindanao (Dept of Natural Resources, 1974). An initial 3,000 km<sup>2</sup> prospective area was located by geological and geochemical surveys and was subjected to additional geological mapping and geochemistry. A smaller 170 km<sup>2</sup> area was selected and subjected to detailed geological mapping and geochemistry followed by Induced Polarisation ("IP") geophysical surveys.

A programme of five holes with pre-set depths of 250 metres was completed on five different targets.

### **Geology and drilling results**

Figure 2 shows the current geology of the area as well as copper soil geochemistry and contoured resisitivity and frequency effect results of the Induced Polarisation survey. The surface mapping and drilling suggests that this is an intrusive complex with dacite, dolerite, diorite and quartz diorite rocks intruding a basaltic sequence.



Figure 2: Geological map of the Lingig area

Epithermal veins up to 1 metre wide are generally gold poor and relatively base metal enriched. They have been worked sporadically by local prospectors.

In 1997 Barrick Gold Philippines assessed the project for its gold potential through mapping and the collection of 110 rock samples. This work identified a circular feature (Fig. 2) that contains most of the mapped argillic alteration and a large elongate quartz veined breccia measuring 750 metres x 1,200 metres and located approximately 1,500 metres south of drill hole DDH1.

Sampling returned gold values between 0.1 and 1.3 g/t gold. Fresh rocks with disseminated grains of sphalerite (zinc) and galena (lead) were found to have higher gold values ranging from 0.3 to 1.3 g/t gold than intensely weathered rocks. The lead-zinc association is consistent with generally accepted metal zoning that occurs around the periphery of porphyry copper deposits

In addition, within the circular feature, a second zone of silicified rocks with quartz stockworking was identified over an area of approximately 500 metres x 600 metres which assayed from 0.03 to 1.5 g/t gold.

Recent reconnaissance has located bleached and silica–clay altered rocks with quartz veinlets approximately 300 metres to the north of DDH1.

#### Drill hole DDH1

After passing through 100 metres of propylitically and argillically altered doleritic and basaltic rocks with erratic copper mineralisation, drill hole **DDH1** intersected disseminated and stringer style pyrite and chalcopyrite mineralisation for 98 metres in increasingly argillically altered basaltic and doleritic rocks before entering higher grade mineralisation in phylitically altered quartz diorite porphyry. The graphic log of the drill hole is shown in Figure 3.

Depth (metres)	Intersection	Host rocks, alteration & mineralisation
0 to 100	Erratic values to 0.89% Cu	Propylitically (chlorite and epidote) and argillically altered dolerite and basalt with disseminated and stringer pyrite, rare chalcopyrite.
100 to 198	98 metres @ 0.27% Cu	Propylitically and argillically (clay) altered dolerite and basalt with a moderate increase of disseminated and stringer pyrite and chalcopyrite.
198 to 250	52 metres @ 0.65% Cu	Phylitically altered (silica-sericite) quartz diorite porphyry with disseminated and stringer pyrite and chalcopyrite increasing with depth.
Incl. 248 to 250	2 metres @ 4.93% Cu,	
[End of Hole]	0.4g/t Au,10g/t Ag	
TOTAL: 100 to 250	150 metres @ 0.40% Cu	

Table I: Summary of intersections in drill hole DDH 1

The DDH1 drill hole results bode well for a fully preserved porphyry copper deposit which is exhibiting increasing grades with depth, and suggests that DDH1's pre-set depth stopped short of the high grade core that is commonly present in these styles of deposit. Further drilling at this site was recommended but not carried out. The other four holes to the south intersected minor copper mineralisation.

#### Drill holes DDH2 to DDH5

**DDH2** intersected quartz diorite intruded by diorite dykes from 11 metres to the bottom of the hole at 250 metres. Both rock types exhibit weak propylitic alteration. Minor copper mineralisation of 0.16% was encountered from 16 to 20 metres and 0.24% from 48 to 50 metres.

**DDH3** intersected basaltic rocks from nine metres to the end of the hole at 250 metres and which have been intruded by doleritic and quartz diorite dykes. The rocks have been affected by weak chloritisation and rare epidotisation. Minor pyrite occurs along fractures and pyrite-chalcopyrite stringers are rare with the highest copper value of 0.99% at 12 to 14 metres and all other values are less than 0.1% copper.

**DDH4** intersected basaltic and doleritic rocks from 7.5 metres to 96 metres and quartz diorite to the bottom of the hole at 250 metres. The quartz diorite exhibits an upper chilled margin and is cut by quartz diorite dykes at 138 and 216 metres. Except for one assay of 0.69% copper at 128 metres, all other copper values are less than 0.1% copper.

**DDH5** intersected dolerite from 15.20 metres to 69 metres, quartz diorite to 210 metres and dolerite to the end of the hole at 250 metres. The dolerite's alteration is propylitic and of a similar intensity as in holes DDH3 and DDH4. Hydrothermal alteration of the quartz diorite is weak. Copper mineralisation was encountered from 15.20 metres to 34 metres with 18.80 metres at 0.34%, from 52 to 54 metres with 2 metres at 0.69%, 68 to 70 metres with two metres at 0.69% and four metres from 230 to 234 metres with 0.34%. All other intervals were less than 0.1% copper.



Figure 3: Lingig DDH 1 graphic log.

#### **Discussion**

Drill hole DDH1 has intersected the top of a mineralised copper-gold-silver quartz diorite porphyry. The other drill holes indicate varying degrees of low intensity alteration and minor copper mineralisation probably associated with lithothogy boundaries and faults.

Of particular note is the 98 metre disseminated copper halo above the quartz diorite, suggestive of an intense mineralising system, as well as the erratic copper values in the propylitic alteration envelope above this disseminated zone. This has similarities to the Lutopan orebody of the Atlas Toledo Mine where ore grade replacement mineralisation is hosted in volcanics for a width of 120 metres along a strike length of 900 metres (Mines & Geosciences Bureau, 1986). The Atlas Toledo orebodies are also similarly bounded by two parallel northeast-trending faults as seen at Lingig.

Diorite and quartz diorite intrusive rocks are commonly closely associated with many porphyry copper deposits in the Philippines. Some examples are the Tampakan Deposit (resources of 2 billion tonnes at 0.59% copper and 0.23 g/t gold, <u>www.indophil.com</u> and Middleton et al., 2004), the Boyongan Deposit (resources of 300 million tonnes at 0.6% copper and 1.0 g/t gold, <u>www.mgb.gov.ph</u>, <u>www.philexmining.com.ph</u>), the Atlas Toledo deposits (resources of 1.53 billion tonnes at 0.41% copper and 0.24 g/t gold, <u>www.atlasphilippines.com</u>), the Hinoba-an Deposit (resources of 293 million tonnes at 0.36% copper, <u>www.copperresources.com</u>), and others.

It is also noteworthy that copper mineralisation is more common in DDH5 than DDH2 to DDH4 and that DDH5 is located on the edge of the circular feature and its contained extensive argillic alteration zone and large breccia and stockwork bodies.

Yours faithfully

Geoff Davis Managing Director

#### **References:**

**Department of Natural Resources, 1974:** Report on Geological Survey of Eastern Mindanao, Phase III. **Middleton C., Buenavista A., Rohrlach B., Gonzalez J., Subang L., & Moreno G., 2004:** A Geological Review of the Tampakan Copper-Gold Deposit, Southern Mindanao, Philippines.

Mines and Geosciences, Ministry of Natural Resources, 1986: Geology and Mineral Resources of the Philippines, Vol. II.

Information in this report relating to Exploration Results is based on information compiled by Mr Geoff Davis, who is a member of The Australian Institute of Geoscientists. Mr Davis is the Managing Director of Medusa Mining Limited and has sufficient experience which is relevant to the style of mineralisation and type of deposits under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2004 Edition of the "Australian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves". Mr Davis consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.