

HARMONY GOLD MINING CO LTD

Form 6-K

July 29, 2010

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

Form 6-K

REPORT OF FOREIGN PRIVATE ISSUER PURSUANT TO
RULE 13a-16 OR 15d-16 UNDER THE SECURITIES
EXCHANGE ACT OF 1934

For

29 July 2010

**Harmony Gold Mining Company
Limited**

Randfontein Office Park
Corner Main Reef Road and Ward Avenue
Randfontein, 1759
South Africa

(Address of principal executive offices)

(Indicate by check mark whether the registrant files or will file annual reports under cover of Form 20-F or Form 40-F.)

Form 20-F Form 40-F

(Indicate by check mark whether the registrant by
furnishing the information contained in this form
is also thereby furnishing the information to the
Commission pursuant to Rule 12g3-2(b) under the
Securities Exchange Act of 1934.)

Yes No

**Issued by Harmony Gold
Mining Company Limited
29 July 2010**

For more details contact:

**Graham Briggs
Chief Executive Officer
on +27 (0)83 265 0274**

or

**Marian van der Walt
Executive: Corporate and
Investor Relations
on +27 (0)82 888 1242**

or

**Esha Brijmohan
Investor Relations Officer
on +27 (0)82 759 1775**

**Corporate Office:
Randfontein Office Park
P O Box 2
Randfontein
South Africa 1760**

T

+27 (11) 411 2000

www.harmony.co.za

JSE: HAR

NYSE: HMY

ISIN No.: ZAE000015228

**Promising future for Wafi-Golpu as Harmony reports further significant
increase in the Mineral Resource**

Mineral Resource of 16 Moz of gold and 4.8 Mt of copper

1

Johannesburg, Thursday, 29 July 2010. Harmony Gold Mining Company Limited (Harmony) is pleased to announce a significant increase in the Mineral Resource at the Wafi-Golpu porphyry copper-gold project in Papua New Guinea (PNG), which is part of the company's 50/50 joint venture with Newcrest Mining Limited. The mineral resource for Wafi-Golpu now contains 16 million ounces (Moz) of gold and 4.8 million tonnes (Mt) of copper. Expressed as gold equivalents, this resource amounts to 38.5 Moz of gold, which spells an exciting and promising future for this project and also provides great opportunities for investors.

The increase in the Mineral Resource is due to the discovery of a new zone of mineralisation directly adjacent to the previously defined Golpu resource. The mineralisation has been extended by the drilling along strike to the northeast and at depth. The estimate is based on an additional 19 179 m of drilling in 22 PQ/HQ/NQ diamond drill holes.

Contained metal at Golpu only, has increased from the 2007 mineral resource (163Mt at 0.57 g/t Au, 1.08% Cu, 132 ppm Mo) as follows:

- Gold increased from 3.0 to 8.8 Moz of gold;
- copper increased from 1.8 to 4.8 Mt of copper;
- molybdenum increased from 22 to 55 kt of molybdenum; and
- on a gold equivalent basis the deposit increased to 30.9 Moz Au equivalent.

Harmony CEO Graham Briggs says, “These results have a profoundly positive impact on our future resource base and drilling results continue to prove that investing in exploration was a very good long term decision”.

The drill programme at Golpu is testing an exploration target in the range of 500 to 800 Mt at high grades of between 0.7% and 1.1% copper (Cu) and 0.5 to 0.7g/t gold (Au) for 8 to 18 Moz of gold and 3.5 to 8.8 Mt of copper. This target includes the current resource

2

.

Briggs adds, “We have now added significant size to what is one of the highest grade copper gold porphyries in South East Asia and potential for further growth in this Mineral Resource remains highly promising.”

Over the broader project area including the Wafi gold deposit, a number of targets have been earmarked for follow-up testing, with several that already contain significant gold intercepts. At Golpu, the mineralised footprint of the deposit now extends over 700m of strike and remains open to the north and at depth. The ongoing drilling programme, involving five drill rigs continues to expand high-grade zones of mineralised porphyry.

Below is a diagram of the schematic section 21000N indicating the new resource outline

Wafi-Golpu project mineral resource

1,2

as at 30 June 2010

Deposit

Tonnes

Gold

Copper

Gold

Copper

Gold

equivalent*

(Mt)

g/t

%

Moz

Kt

Moz

Golpu 501

0.54

0.95

8.8

4767

30.9

Nambonga 40 0.79 0.22 1.0 86 1.4

Wafi 96

1.55

4.8

4.8

Wafi Link

7

6.62

1.4

1.4

Total

644

0.77

0.75

16

4853

38.5

*Gold equivalent is calculated using a gold price of US\$950/oz Au and \$4 412/t Cu at 100% recovery for both metals

Golpu mineral resource

1

, by resource classification

Resource

Code

Lode

Tonnes

(Mt)

Grade

Cu (%)

Grade

Au (g/t)

Grade Mo

(ppm)

Contained

Cu ('000 t)

Contained

Au (Moz)

Contained

Mo ('000 t)

Indicated

Supergene

5

2.53

0.44

68

120

0.1

0.3

Porphyry

85

1.32

0.66

110

1,122

1.8

9.3

Subtotal Indicated

90

1.38

0.65

108

1,242

1.9

9.7

Inferred

Supergene

9

0.77

0.45

65

68
0.1
0.6
Porphyry
88
1.82
1.10
42
1,606
3.1
3.7
Metasediment
314
0.59
0.36
132
1,851
3.6
41.5
Subtotal Inferred
411
0.86
0.52
111
3,525
6.9
45.7
Total
501
0.95
0.54
111
4,767
8.8
55.4

Ends.

Note: The Measured and Indicated Mineral Resources are inclusive of those Mineral Resources modified to produce the Ore

Reserves. The estimates of Ore Reserves and Mineral Resources in this statement were prepared in accordance with the

standards set out in the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves – The

JORC Code" (December 2004) as published by the Joint Ore Reserve Committee of the Australian Institute of Mining and

Metallurgy, Australian Institute of Geoscientists and Minerals Council of Australia (JORC) The JORC Code is the accepted

reporting standard for the Australian Stock Exchange (ASX).

The Exploration Results, Mineral Resources and Ore Reserves in the summary tables are based on information compiled by

Michael Smith who is a corporate member of the Australian Institute of Mining and Metallurgy and is a Competent Person' as

defined by the code for reporting of Mineral Resources and Ore Reserves in relation to the mineralisation being reported on and consents to the inclusion in the report of the matters based on his information in the form and context in which it appears. Michael

Smith is a full-time employee of Harmony Gold (PNG Services) (Pty) Ltd.

1

Expressed in 100% terms. Harmony's interest is 50%.

2

Refer to

www.harmony.co.za

for details on Wafi Resources and the Golpu exploration target guidance.

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

Dated: July 29, 2010

Harmony Gold Mining Company Limited

By: /s/ Hannes Meyer

Name: Hannes Meyer

Title: Financial Director