

HARMONY GOLD MINING CO LTD

Form 6-K

March 31, 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 31 March 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
31 March 2010
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or

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www.harmony.co.za**

JSE: HAR

NYSE: HMY

NASDAQ: HMY

ISIN No.: ZAE000015228

Production update for third quarter FY2010

Continued focus on improvement, despite challenges

Johannesburg, Wednesday 31 March 2010. Harmony Gold Mining Company Limited (Harmony) announces that the past quarter saw continued focus on safety and disciplined mining, but was not without its challenges.

Based on preliminary estimates, gold production for the quarter decreased between 1,000kg and 1,300kg compared with the previous quarter.

Loss-making shafts that were closed during the quarter resulted in a reduction of approximately 620kg of gold, as compared with the previous quarter. Restructuring costs in respect of these closures amount to approximately R120 million. Going forward, only care and maintenance costs for the closed shafts will be incurred. "Longer term the effect of this decision will be shown to have been the correct one, lowering the cash costs and eliminating losses, however, the first 3 to 6 months of these decisions are always painful", said Harmony's Chief Executive Officer, Graham Briggs.

The remaining loss in kilograms was from South African operations, of which the main contributing operations to this decrease include Tshepong, Masimong, Joel and Kusasalethu (previously known as Elandsrand). Tshepong and Masimong had a slow start-up after the Christmas break. Joel saw lower grades, mainly as a result of the commissioning of the plant and Kusasalethu faced ore-pass problems during the quarter, which are being investigated.

Hidden Valley continued its commissioning process, with the silver flotation circuit being commissioned in the March quarter. As mentioned in the previous quarter, we expect the Hidden Valley mine and processing plant to reach its original design capacity and throughput in the June 2010 quarter. The mine's March quarter results will be capitalised.

“This has been a difficult quarter. Shortly after having recorded 99 days fatality-free, a fatal accident occurred at Evander. Slow start ups following the Christmas break and the closure of shafts resulted in a decrease in forecasted production and Kusasalethu, in particular, had a disappointing quarter. Our management team is

working hard to try and understand the ore pass situation better and aims to find a solution as soon as possible. Having just visited Hidden Valley, good progress is being made in dealing with the commissioning phase. In general, we expect to see improved results during the June 2010 quarter, with all of our management teams dedicated to meeting production targets,” Briggs said.

Harmony’s results for the third quarter of FY2010 ending 31 March 2010 will be announced on Monday, 10 May 2010 at 09h00 and 15h00 SA time. For more information, visit www.harmony.co.za ends.

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: March 31, 2010

Harmony Gold Mining Company Limited

By:

/s/

Hannes Meyer

Name:

Hannes Meyer

Title: Financial Director