

GOLD FIELDS LTD

Form 6-K

May 20, 2010

FORM 6-K

SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

Report of Foreign Private Issuer

Pursuant to Rule 13a-16 or 15d-16

of the Securities Exchange Act of 1934

For the month of May 2010

Commission File Number 1-31318

Gold Fields Limited

(Translation of registrant's name into English)

150 Helen Rd.

Sandown, Sandton 2196

South Africa

(Address of principal executive offices)

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

Form 20-F..x... Form 40-F.....

Indicate by check mark if the registrant is submitting the Form 6-K in paper as permitted by Regulation S-T Rule 101(b)(1): _____

Indicate by check mark if the registrant is submitting the Form 6-K in paper as permitted by Regulation S-T Rule 101(b)(7): _____

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

Yes No ..x...

If "Yes" is marked, indicate below the file number assigned to the registrant in connection with Rule 12g3-2(b): 82- _____

Directors: A J Wright (Chairman), N J Holland

†**

(Chief Executive Officer), P A Schmidt** (Chief Financial Officer), K Ansah

#

, C A Carolus,

R Dañino*, A R Hill

≠

, R P Menell, D N Murray, D M J Ncube, R L Pennant-Rea

†

, C I von Christierson, G M Wilson

†

British,

≠

Canadian,

#

Ghanaian, *Peruvian, ** Executive Director

Corporate Secretary: C Farrel

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MEDIA RELEASE
GOLD FIELDS DRILLS OUT 1 MOZ MINERAL
RESOURCE AT HAMLET, ST IVES

Johannesburg, 20 May 2010: Gold Fields Limited (Gold Fields) (JSE, NYSE, NASDAQ Dubai: GFI) is pleased to announce a substantial increase in the Mineral Resource at Hamlet, an emerging gold deposit in the Argo-Athena camp at its St Ives Gold Mine in Western Australia.

Exploration drilling over the past year has led to an increase in Indicated and Inferred Mineral Resources at the Hamlet deposit, which is now reported as 6.62 Mt at 4.86 g/t for a total of 1.03 million ounces. The Mineral Resource estimate has been independently audited by Optiro, a Perth-Based minerals industry consulting and advisory organisation.

After Athena, Hamlet is the second major discovery in the developing Argo-Athena camp in the last two years and is the result of an extensive investment in the St Ives' near-mine exploration programme.

Table 1: Hamlet Project, Mineral Resources (18 May 2010)*

| Resource Category | Tonnes (Mt) | Grade (g/t) | Gold (Koz) |
|--------------------------|--------------------|--------------------|-------------------|
| Indicated | 2.43 | 4.22 | 330 |
| Inferred | 4.19 | 5.20 | 700 |
| TOTAL | 6.62 | 4.86 | 1,030 |

** The Mineral Resource is reported at a nominal 0.60 g/t gold cut-off grade, for shallow resources, constrained within an optimised pit shell and 2.4 g/t cut-off for the underground resources within conceptual stope shapes. It is expected that the majority of the resource will be mined by underground methods. The pit shell is based on price assumptions of US\$1,150/oz (A\$1,375/oz) gold. The Mineral Resource estimate is reported in accordance with the South African Code for the Reporting of Exploration Results, Mineral Resources and Mineral Reserves, 2007 Edition (SAMREC Code) and is reported without unplanned dilution or ore loss.*

The Hamlet deposit is located approximately 1km to the east of the new Athena underground mine and 12km south of the Lefroy Mill. Athena and Hamlet are part of a larger mineralised system in the Argo-Athena camp, which is being actively explored by the near

mine exploration team.

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“This milestone highlights the potential of the developing Argo-Athena camp, which now has an estimated endowment¹ of about 4 Moz, and is a credit to the excellent work done by the near mine exploration team,” commented Nick Holland, Chief Executive Officer of Gold Fields.

An initial Indicated and Inferred Mineral Resource for the Hamlet Deposit of 2.1 Mt at 3.65 g/t for 251 Koz was reported in Gold Fields’ Mineral Resource and Mineral Reserve declaration for the 2009 financial year. Drilling since July 2009 has focussed on shallow mine-definition and extensional drilling aimed at defining the size and content of the deposit. A total of 41,900m of RC (reverse circulation) drilling and 45,700m of diamond core drilling was completed in 10 months. The deposit consists of an upper and lower lode; the lodges have been defined over 600m of strike and to a vertical depth of 800m. The deposit remains open at depth. Drilling to further expand the resource and support a feasibility study is underway and a construction decision is planned for the first half of calendar 2011.

Gold Fields recently intersected the first ore on the margins of the main ore body in underground development at the new Athena mine. The decline and mine development are progressing on time and within budget and full production remains on schedule for mid-calendar 2011. The Athena infrastructure, currently under development, was positioned to provide a potential underground access to the Hamlet deposit, which would enable the rapid development of the project on completion of a successful feasibility study.

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Endowment is defined here as all Inferred, Indicated and Measured Mineral Resources and past production

Enquiries to Gold Fields

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The information in this media release that relates to the Mineral Resources is based on information compiled by Malcolm Jolly Pr. Sci. Nat, Manager Mineral Resources who has overall responsibility and accountability for the St Ives area, St Ives, Mathew Briggs, MAusIMM, Exploration Manager for St Ives, who has overall responsibility and accountability for the Hamlet exploration project, in terms of the SAMREC Code 2007. John Donaldson, MAusIMM, Principal Resource Geologist, is accountable for the Mineral Resource estimation. All are full time employees of Gold Fields and qualify as Competent Persons as defined in the SAMREC Code. Messrs Jolly,

Briggs & Donaldson consent to the inclusion in the press release of the matters based on their information in the form and context in which it appears.

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The United States Securities and Exchange Commission (SEC) permits mining companies, in their filings with the SEC, to disclose only those mineral deposits that a company can economically and legally extract or produce from. Certain terms are used in this release, such as “Mineral Resource”, that the SEC guidelines strictly prohibit companies from including in filings. US investors are urged to consider closely the disclosure in our Form 20-F.

Notes to editors

About Gold Fields

Gold Fields is one of the world's largest unhedged producers of gold with attributable production of 3.6 million ounces* per annum from nine operating mines in South Africa, Ghana, Australia and Peru. Gold Fields also has an extensive growth pipeline with both greenfields and near mine exploration projects at various stages of development. Gold Fields has total attributable Mineral Reserves of 81 million ounces and Mineral Resources of 271 million ounces. Gold Fields is listed on JSE Limited (primary listing), the New York Stock Exchange (NYSE), the Dubai International Financial Exchange (DIFX), the Euronext in Brussels (NYX) and the Swiss Exchange (SWX). For more information please visit the Gold Fields website at www.goldfields.co.za

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.

Date: 20 May 2010

GOLD FIELDS LIMITED

By:

Name: Mr W J Jacobsz

Title: Senior Vice President: Investor
Relations and Corporate Affairs