

GOLD FIELDS LTD

Form 6-K

May 11, 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 2009

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- \_\_\_\_\_

**MEDIA RELEASE  
GOLD FIELDS AND BUENAVENTURA ANNOUNCE MAJOR  
GOLD DISCOVERY IN SOUTHERN PERU**

*Johannesburg, 11 May 2010:* Chucapaca's joint venture partners, Gold Fields Limited (51%) (Gold Fields) (JSE, NYSE, NASDAQ Dubai: GFI) and Compañía de Minas Buenaventura S.A.A. (49%) (Buenaventura, BVN), are pleased to announce the discovery of a major gold-copper-silver deposit in their Chucapaca project area (CPA) in southern Peru.

Called the Canahuire deposit, it has a Mineral Resource estimate of 5.6 million gold equivalent ounces 1 (Table 1), with mineralisation potential beyond the extent of current drilling. The Inferred Mineral Resource for Canahuire is approximately 83.7 Mt at 1.9 g/t gold, 0.09% copper and 8.2 g/t silver for a total of 5.6 million gold equivalent (AuEq 1) ounces.

**Table 1: Chucapaca Project, Canahuire Deposit Inferred Mineral Resource (1 May 2010)\***

**Tonnes  
(Mt)  
Grade Au  
(g/t)  
Grade Ag  
(g/t)  
Grade  
Cu (%)  
Grade AuEq  
1  
(g/t)  
Metal AuEq  
1  
(Moz)  
83.7  
1.9  
8.2  
0.09  
2.1  
5.6**

*\* These Mineral Resources are not Mineral Reserves and do not have demonstrated economic viability. Attributable metal to Gold Fields and Buenaventura is 2.9 Moz AuEq 1 and 2.8 Moz AuEq 1, respectively. The Mineral Resource is reported at a 0.67 g/t gold equivalent cut-off grade constrained within an optimised pit shell. The pit shell is based on price assumptions of US\$1,150/oz gold, US\$3.00/lb copper and US\$17/oz silver. The Mineral Resource estimate, which is reported in accordance with the South African Code for the Reporting of Exploration Results, Mineral Resources and Mineral Reserves, 2007 Edition (SAMREC code), is reported without dilution or ore loss.*

In a joint statement Nick Holland, Chief Executive Officer of Gold Fields, and Roque Benavides, Chief Executive Officer of Buenaventura, said: "Canahuire is a highly promising gold discovery in an emerging gold district in South America. Geological indications are that there is significant upside at the Canahuire deposit, as well as at other targets within the project area. This is an important growth opportunity for Gold Fields and Buenaventura, and, could also make a significant contribution to the economic development of our community partners in the Moquegua region."

The Canahuire deposit is one of several targets in the 12,700 ha CPA, which is on average 4,800 m high and located in the Altiplano area of southern Peru, 120 km northeast of the city of Moquegua. Both joint venture partners have independently consolidated a significant portfolio of concessions adjacent to the CPA and are advancing exploration on these concessions.

Tommy McKeith, Executive Vice president for Exploration and Business Development of Gold Fields commented: "Delineating a 5.6 Moz AuEq1 resource in only 18 months from the first hole is a remarkable achievement by the exploration team. The Canahuire interim scoping study is on track for completion by June 2010 and, subject to a positive economic outcome, we will commence pre-feasibility in July 2010."

While our initial focus is on the Canahuire deposit, we will at the same time continue to explore the potential of the rest of the CPA," said Cesar Vidal, Buenaventura's Executive Vice President for Exploration.

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The geometry of mineralisation in Canahuire indicates it is amenable to open-pit mining. The proposed process consists of crushing and grinding with flotation to produce a smelter-grade copper-gold concentrate followed by carbon in leach (CIL) extraction from flotation tails. Recovery assumptions are for 77% gold, 82% copper and 44% silver recoveries respectively.

- Drillhole sample and grade analysis data used in the Mineral Resource estimate have been verified through quality assurance and quality control programmes.
- The resource estimation has been independently audited by AMEC, which has also been engaged to complete the Interim Scoping Study.
- The Mineral Resource is relatively insensitive to variations in metal prices and operating costs. A 25% decrease in metal pricing results in a 13.0% decrease in Mineral Resource tonnes, a 9.3% improvement in average AuEq 1 grade and a 4.9% decline in AuEq 1 ounces above cut-off grade.

The joint venture company, Canteras del Hallazgo S.A.C (CDH), recently filed a modification to the Environmental Impact Assessment with the Peru Ministry of Energy and Mines to permit expanded activities for further scoping and in-fill drilling and, which details the company's commitment to environmental best practice. Drilling activities will recommence after permitting approval is obtained, which is expected by July 2010, and will focus on defining extensions of mineralisation towards the west. In the interim drilling is underway to test other exploration targets within the CPA.

Since exploration started at Chucapaca, CDH has worked closely with key stakeholders, particularly local communities, by providing open and transparent information. Agreements have been reached with the Corire, Santiago de Oyo Oyo and Chucapaca communities, which facilitate the continuation of exploration activities and studies. These agreements provide for health and education programmes in collaboration with the appropriate authorities, sustainable development programmes identified by the communities, participatory work and a variety of training initiatives.

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*Gold equivalent grade was calculated based on gold, silver and copper grades normalised to the differentials of metal prices and recoveries for silver and copper (detailed in this release). Assuming the metal prices net of offsite costs and recoveries as listed in this release.*

## **Enquiries to Gold Fields**

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## 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](http://www.goldfields.co.za)

### **About Buenaventura**

major holder of mining rights in Peru. The Company is engaged in the mining, processing, development and exploration of gold and silver and other metals via wholly owned mines, as well as through its participation in joint exploration projects. Buenaventura's annual gold equivalent production is 1.2 million ounces. It currently operates several mines in Peru (Orcopampa, Poracota, Uchucchacua, Antapite, Julcani and Recuperada) and has controlling interests in two mining companies (CEDIMIN and El Brocal), as well as minority interests in several other mining companies in Peru. The Company owns 43.65% in precious metal producer Minera Yanacocha S.R.L., a partnership with Newmont Mining Corporation, and 19.26% in Sociedad Minera Cerro Verde, an important Peruvian copper producer. Buenaventura is listed on the New York Stock Exchange (NYSE). For more information please visit the website at [www.buenaventura.com](http://www.buenaventura.com)

*The information in this media release that relates to the Mineral Resources is based on information compiled by Matthew Dusci, AIG, Exploration Manager Peru and General Manager CDH, who has overall responsibility and accountability for the Canahuire Project, in terms of the SAMREC Code 2007. Alex Trueman, P.Geo., MAusIMM(CP), Principal Resource Geologist, is accountable for the Mineral Resource estimation. Both are full time employees of Gold Fields and qualify as Competent Persons as defined in the SAMREC Code. Mr Dusci and Mr Trueman consent to the inclusion in the press release of the matters based on their information in the form and context in which it appears.*

*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 Resources", 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.*

**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: 11 May 2010

**GOLD FIELDS LIMITED**

By:

Name: Mr W J Jacobsz

Title: Senior Vice President: Investor  
Relations and Corporate Affairs