

BHP BILLITON LTD  
Form 6-K  
July 28, 2005

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**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

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July 28, 2005

**BHP Billiton**

**Limited**

(Translation of registrant's name into English) 180 Lonsdale Street Melbourne VIC 3000 Australia

(Address of principal executive office)

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 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 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

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

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Date 28 July 2005  
Number 31/05

**BHP BILLITON QUARTERLY REPORT ON EXPLORATION  
AND DEVELOPMENT ACTIVITIES  
April 2005 - June 2005**

This report covers exploration and development activities for the quarter ended 30 June 2005. Unless otherwise stated, BHP Billiton's interest in the projects referred to in this report is 100 per cent, and references to quarters are based on

calendar years.

As highlighted in last quarter's report, global demand for raw materials remains strong and the consequent increased project construction activity across the industry continues to drive tight labour markets and increasing input costs, with a weak US dollar adding further cost pressure. These pressures are particularly acute in Australia. In this environment, BHP Billiton remains committed to working with its suppliers, contractors and other stakeholders to mitigate the effect of these cost pressures where possible. However, some BHP Billiton projects are expected to run over original Board approved budgets and cost reviews are being conducted at some projects. Despite these challenging conditions, all of our projects are tracking in line or ahead of schedule.

Two projects were commissioned during the quarter, Dendrobium (Australia) and Panda Underground (Canada), bringing to eight the total commissioned during the 2005 financial year.

### PETROLEUM DEVELOPMENT

Atlantis South Development, Gulf of Mexico, USA (BHP Billiton 44%, non-operated)

In February 2005, BHP Billiton approved a revised budget of US\$1.1 billion for the development of the Atlantis South oil and gas reserves. The Atlantis South development will have a gross nameplate daily capacity of 200,000 barrels of oil and 180 million cubic feet of natural gas. During the quarter the production platform's hull and topsides facilities were delivered to the construction yards in Texas, USA and integration work has commenced. The project remains on schedule for first production in the third quarter of 2006.

North West Shelf expansion, Australia (BHP Billiton 16.67%, non-operated)

In June 2005, BHP Billiton announced the approval of an expansion to the liquefied natural gas (LNG) processing facilities at the North West Shelf Project in Western Australia. The project includes the construction of a fifth liquefaction processing train with a gross capacity of 4.2 million tonnes per annum, additional processing facilities and associated infrastructure. At its completion, the expansion will increase the gross production capacity of the North West Shelf Project to 15.9 million tonnes of LNG per annum. The engineering, procurement and construction management contracts have been let and engineering and procurement activities are underway. BHP Billiton's share of development costs, based on the operator's estimate, is approximately US\$250 million. First production is expected by late 2008.

Neptune Development, Gulf of Mexico, USA (BHP Billiton 35%, operated)

In June 2005, BHP Billiton announced the approval of the Neptune oil and gas development in the Gulf of Mexico. The project includes the construction, installation, and operation of a stand-alone platform and associated subsea system with seven wells. The facility will have a gross nameplate daily capacity of 50,000 barrels of oil and 50 million cubic feet of gas per day. Detailed design is underway and major equipment and fabrication contracts have been placed. Development costs are estimated at US\$850 million (BHP Billiton share US\$300 million) with first production expected by the end of 2007.

### MINERALS DEVELOPMENT

#### Aluminium

Worsley Development Capital Projects (DCP), Australia (BHP Billiton 86%)

The Worsley Alumina DCP were approved in May 2004 with a budget of US\$192 million (US\$165 million BHP Billiton share). The projects will increase alumina capacity by 250,000 tonnes per annum (215,000 tonnes per annum

BHP Billiton share) to a capacity of 3.5 million tonnes per annum (3.01 million tonnes per annum BHP Billiton share). Overall the projects are greater than 48 per cent complete. Engineering and procurement activities are substantially complete and construction activities are progressing, with all major contractors now mobilised and working on site. Commissioning of the DCP is scheduled for the first quarter of 2006.

#### Base Metals

##### Escondida Norte, Chile (BHP Billiton 57.5%)

The development of the Escondida Norte pit, located approximately 5 kilometres north of the existing Escondida mining operations, was approved in June 2003. Pre-mine waste stripping continued during the quarter with total material movement of 198 million tonnes to the end of June 2005. Field activities are now focussed on pre commissioning and commissioning activities, with the control system for the integration of the Escondida Norte ore into the existing mineral distribution system ready for implementation. Overall project progress is on schedule to meet first ore delivery to the crusher in the fourth quarter of 2005. Development costs are estimated at US\$400 million (BHP Billiton share US\$230 million).

##### Escondida Sulphide Leach, Chile (BHP Billiton 57.5%)

The Escondida Sulphide Leach project was approved in April 2004. The project will produce 180,000 tonnes (103,500 tonnes BHP Billiton share) of copper cathode per annum, utilising a bacterially assisted leaching process on low-grade run-of-mine ore from both the Escondida and Escondida Norte pits. The resulting solutions will then be treated in conventional solvent extraction and electrowinning plants. During the quarter, the installation of the leach pad was completed, and ore stacking of the pad commenced. Construction activities underway include the continuation of civil works and structural steel erection in the solvent extraction, electrowinning and desalination plants. Development costs are estimated at US\$870 million (US\$500 million BHP Billiton share) and production is scheduled to begin during the second half of 2006.

##### Spence, Chile

The Spence Project, approved in October 2004, will be a new open cut mine with associated plant facilities capable of producing 200,000 tonnes per annum of copper cathode through a combination of chemical and bacterial leaching. All major equipment is currently being fabricated and continues to arrive on site. Construction of mine infrastructure has commenced and the major earthworks contracts are underway, with earthworks for the crushing, solvent extraction and electrowinning plants complete. The construction camp and temporary office facilities are now operational and the power line and main substation are being tested ahead of planned first power. Development costs are estimated at US\$990 million and production is scheduled to begin during the last quarter of 2006.

#### Carbon Steel Materials

##### Rapid Growth Project 2,

##### **Australia (BHP Billiton 85%)**

The Rapid Growth Project 2 (RGP2) was approved in October 2004. The project comprises increases in mine, rail and port capacity through the development of Ore Body 18, purchase of additional rolling stock and a new car dumper at Finucane Island. Engineering activities are substantially complete, tendering and procurement processes are well advanced and site activities are proceeding to schedule. The project will increase installed capacity at Western Australian Iron Ore to 118 million tonnes per annum by the second half of 2006. Development costs are estimated at US\$575 million (BHP Billiton share US\$489 million).

Diamonds and Specialty Products

Panda Underground Project, EKATI Diamond Mine, Canada (BHP Billiton 80%)

The Panda Underground Project, approved in May 2004, is a 2,600 tonnes per day sub-level retreat mine that will deliver approximately 4.6 million tonnes of ore and 4.7 million carats of high value Panda diamonds to the EKATI process plant over a 6 year production life. Underground pre-production development is complete and all remaining large equipment was successfully delivered to the mine site during the eight week 2005 winter ice road season. The production ramp-up phase is underway and tracking well, with full production expected in early 2006. Development costs are estimated at US\$182 million (BHP Billiton share US\$146 million). As the project's production ramp up has successfully commenced, it will no longer be included in this report.

Stainless Steel Materials

Ravensthorpe Nickel Project, Australia

The Ravensthorpe Nickel Project was approved in March 2004. The project includes the development of a mine, treatment plant and associated infrastructure near Ravensthorpe in Western Australia. The Ravensthorpe processing plant will produce a mixed nickel-cobalt hydroxide intermediate product (MHP). Engineering and procurement activities are proceeding to schedule. On site, bulk earthworks are effectively complete as are approximately 50 per cent of concrete works. Construction contracts are underway, with four steel erection contractors mobilised and operational at site. Given the current Australian construction market, a review of project costs is underway. The first shipment of MHP is expected by the second quarter of 2007.

Yabulu Extension Project, Australia

The Yabulu Extension Project was approved in March 2004. The metal refining section of the QNI Yabulu refinery near Townsville in Queensland is being expanded to process up to 220,000 tonnes of MHP. This additional processing capacity will increase refinery production to 76,000 tonnes of nickel and 3,500 tonnes of cobalt. Engineering and procurement activities are proceeding to schedule. Site construction contracts are progressing well and detailed tie-in planning is advancing. Given the current Australian construction market, a review of project costs is underway. First nickel metal production is expected from the expanded Yabulu refinery by late 2007.

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PETROLEUM EXPLORATION

Exploration and appraisal wells drilled during the quarter or in the process of drilling as at 30 June 2005.

| WELL            | LOCATION                                  | BHP BILLITON EQUITY              | STATUS                             |
|-----------------|---|----------------------------------|------------------------------------|
| Joseph          | Gulf of Mexico, High Island Block 10L     | 20% BHP Billiton; Shell operator | Temporarily plugged and abandoned. |
| Blackbeard West | Gulf of Mexico, South Timbalier Block 168 | 5% BHP Billiton; Exxon operator  | Drilling ahead.                    |

|              |   |  |   |
|--------------|---|--|---|
| Mustang      | Gulf of Mexico,<br>West Cameron 77<br>OCS-G-9387 #2 | 43.66% BHP Billiton<br>and operator    | Hydrocarbons<br>encountered. Preparing to<br>run completion and<br>sidetrack. |
| Knotty Head  | Gulf of Mexico,<br>Green Canyon 512                 | 25% BHP Billiton;<br>Unocal operator   | Hydrocarbons<br>encountered in secondary<br>target. Drilling ahead.           |
| Cascade-2    | Gulf of Mexico,<br>Walker Ridge 206                 | 50% BHP Billiton<br>and operator       | Hydrocarbons<br>encountered. Running<br>logs.                                 |
| Mad Dog Deep | Gulf of Mexico,<br>Green Canyon 826                 | 23.9% BHP Billiton;<br><br>BP operator | Drilling ahead.   |
| Little Burn  | Gulf of Mexico,<br>Green Canyon 282                 | 60% BHP Billiton<br>and operator       | Drilling ahead.   |
| Bonsai       | Gulf of Mexico,<br>Atwater Valley 398               | 34% BHP Billiton;<br>BP operator       | Drilling ahead.   |
| Shenzi-5     | Gulf of Mexico,<br>Green Canyon 654                 | 44% BHP Billiton<br>and operator       | Hydrocarbons<br>encountered. Temporarily<br>plugged and abandoned.            |
| Langdale     | Australia / Asia<br>Exmouth Plateau                 | 40% BHP Billiton<br>and operator       | Plugged and abandoned.<br>Hydrocarbons<br>encountered.                        |

### MINERALS EXPLORATION

The Minerals Exploration group of BHP Billiton continued to pursue global exploration opportunities for key commodities of interest utilising both in-house capabilities and the Junior Alliance Programme.

Exploration drilling continued on diamond targets in Canada, Namibia and Angola; and on porphyry copper targets in Chile and Peru. Exploration for iron ore, coal and bauxite was undertaken in a number of regions including Australia, Brazil and West Africa. The integration of the ex-WMC nickel portfolio will see a significant increase in BHP Billiton exploration activities in Western Australia, where a major exploration office will be located.

### EXPLORATION EXPENDITURE

During the quarter, BHP Billiton spent US\$56 million on minerals exploration, of which US\$55 million was expensed (US\$149 million gross and US\$147 million expensed year to date), and US\$137 million on petroleum exploration, of which US\$70 million was expensed (US\$380 million gross and US\$202 million expensed year to date).

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Further information on BHP Billiton can be found on our Internet site: <http://www.bhpbilliton.com>

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BHP Billiton Limited ABN 49 004 028 077

Registered in Australia  
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BHP Billiton Plc Registration number 3196209

Registered in England and Wales  
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The BHP Billiton Group is headquartered in Australia

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**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.

BHP Billiton Limited

Date: 28 July 2005

By: Karen Wood

Name: Karen Wood  
Title: Company Secretary