



DIVISION OF
CORPORATION FINANCE
MAIL STOP 7010

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549-7010

May 18, 2006

Mr. Ramiro G. Peru
Executive Vice President and Chief Financial Officer
Phelps Dodge Corporation
One North Central Avenue
Phoenix, AZ 85004

**Re: Phelps Dodge Corporation
Form 10-K for the Fiscal Year Ended December 31, 2005
Filed February 27, 2006
File No. 001-00082**

Dear Mr. Peru:

We have reviewed your Form 10-K for the Fiscal Year Ended December 31, 2005 and have the following comments. We have limited our review of your filing to those issues we have addressed in our comments. Where indicated, we think you should revise your document in response to these comments. If you disagree, we will consider your explanation as to why our comment is inapplicable or a revision is unnecessary. Please be as detailed as necessary in your explanation. In some of our comments, we may ask you to provide us with information so we may better understand your disclosure. After reviewing this information, we may raise additional comments.

Please understand that the purpose of our review process is to assist you in your compliance with the applicable disclosure requirements and to enhance the overall disclosure in your filing. We look forward to working with you in these respects. We welcome any questions you may have about our comments or any other aspect of our review. Feel free to call us at the telephone numbers listed at the end of this letter.

Form 10-K for the Fiscal Year Ended December 31, 2005

Items 1. and 2. Business and Properties, page 1

Phelps Dodge Mining Company, page 2

1. We note you have entered into certain toll arrangements for the processing of copper and molybdenum at your facilities. Please tell us how you account for these arrangements and identify the accounting principles used to support your accounting policy. It may be helpful to describe the significant contractual terms of these toll arrangements to assist us in understanding how these arrangements are accounted for. In your response, please quantify the amounts recorded in your financial statements as of and for the years ended December 31, 2005, 2004 and 2003, as presented in your filing.

Financial Statements

2. Acquisitions and Divestitures, page 109

2. We note you recorded a \$68.3 million extraordinary gain upon the acquisition of a one-third interest in Chino Mines Company from Heisei Minerals Corporation on December 19, 2003. We understand this gain primarily resulted from a difference in the estimates used to determine Heisei's portion of the reclamation obligation, which was funded into a trust at the time of acquisition. Please describe in detail the differences in estimates used in Heisei's valuation of this obligation and your valuation of this obligation on December 19, 2003 that resulted in gain recognition. Additionally, identify the asset retirement obligation related to the reclamation costs associated with the assets held by Chino Mines Company, recorded in your financial statements in accordance with SFAS 143. Identify any difference between the estimates used to calculate the asset retirement obligation under SFAS 143 and the estimates you used to value the obligation on December 19, 2003 at the time of the acquisition transaction.
3. We note you made revisions to the estimated cash flows associated with the asset retirement obligation at the Chino and Tyrone mines in 2003. Tell us if the increase in cash flow estimates was recorded before or after the recognition of the extraordinary gain resulting from the acquisition of Heisei's interest in Chino on December 19, 2003.
4. Tell us if you had any contingent consideration associated with the December 19, 2003 acquisition. Tell us if any of the amounts funded into the trust by Heisei were required to be refunded if the asset retirement obligations were reassessed and adjusted subsequent to the date of the acquisition. Confirm whether you

recorded any adjustments to the allocation of amounts recorded upon acquisition of Heisei's interest subsequent to the date of purchase.

4. Special Items and Provisions, page 110

5. The table presented on page 111 subtotals selective operating and non-operating line items from the income statement. Several amounts presented within this table appear to be non-GAAP financial measures and therefore, are not appropriate disclosures within the footnotes to the financial statements. Please revise your filing to remove these measures from your footnotes as they are not presented in accordance with accounting principles generally accepted in the United States.
6. We note your disclosure of similar non-GAAP financial measures within Management's Discussion and Analysis on page 53. Please revise the title of the non-GAAP amounts currently disclosed as "special items and provisions, net of taxes" as it is easily confused with the line item sharing the same title in your consolidated statements of income, which do not include all items subtotaled on page 53.
7. In addition, it is unclear why you have characterized the nature of these amounts as unpredictable and atypical of your operations. Some of the amounts included in the non-GAAP financial measures have been classified on your consolidated statements of income as operating and therefore do not appear to be atypical of your operations. In addition, based on your results over the past three years presented, the recognition of tax provisions, early debt extinguishments, environmental provisions and legal matters do not appear atypical, rather recurring in nature. Please amend your disclosure to clarify this statement or remove it, if appropriate. Your revised disclosure should clearly describe in detail why you have selected these particular amounts to subtotal and show its effect on your net income results, before and after tax and the per share results.

21. Contingencies, page 129

Asset Retirement Obligations, page 131

8. In the table of changes in asset retirement costs presented on page 132 and the related following disclosures, we note you have written off \$129.7 million in asset retirement costs during fiscal year 2005, primarily due to the asset impairment charges associated with the Tyrone and Cobre mines. In comparison with your disclosures beginning on page 111, we note that of the \$210.5 million impairment to Tyrone assets, \$124.5 million was considered a write off of asset retirement costs and of the \$59.9 million impairment to Cobre assets, \$5.2 million was

considered a write off of asset retirement costs. Tell us how you allocated the impairment charges associated with these assets between the asset retirement costs and the remaining carrying value of the asset.

9. Tell us what method you use to allocate the asset retirement costs associated with your mining assets to expense. Tell us if the systematic and rational methods and time periods used to allocate asset retirement costs to expense are consistent with the methods and useful lives used to depreciate or deplete the associated mining asset. See paragraph 11 of SFAS 143 for further guidance.

Engineering Comments

General

10. For each operating properties, provide the disclosures required by Industry Guide 7 (b). In particular, provide:
 - A description of the facility's location.
 - The major means of access to the property's and the major transportation modes (roads, railroads, rivers, seaports, etc.).
 - Indicate control as to mining concessions, patented or unpatented Federal or State mining claims, or private property. Disclose the total area either in hectares or acres.
 - Include a brief description of the rock formations and mineralization of existing or potential economic significance on the properties.
 - Provide a brief description of size, modernization/physical condition of the plant and/or major equipment, including subsurface improvements and equipment.
 - Provide a description of major equipment and other infrastructure facilities.
 - The source of power and water that can be utilized at the properties.
11. Please modify the maps to a smaller scale, illustrating the major facilities, towns, rivers, and railroads, etc. This will assist in describing the location and access to the property, as required by Instruction 3(B) of Rule 102 of Regulation S-K. Include the present index maps, as they locate the properties within a political unit, such as a state, province or country.
12. You utilize a significant amount of technical terminology that is probably unfamiliar to the average investor. Revise your filing to define technical words through the context of your discussion as much as possible. Provide definitions to the glossary for words that cannot be adequately defined in the text. Include in a glossary only those geologic, technical, or marketing terms not understood by the

average investor that cannot be defined in the text. In addition provide definitions for the all terms used to describe your hedging program, for example: fixed forward, variable forward and spot deferred contracts, put and call options, and mark to market. Please define these terms in such as way that the definitions assist investors in understanding your particular situation.

Business and Properties, page 1

13. Please correct the address for the Securities and Exchange Commission's Public Reading Room to 100 F Street NE, Washington D.C. 20549

Sierrita, page 3

14. Disclose the amount of Copper Sulfate Pentahydrate produced at the Sierrita Mine, disclose separately the amount of product sold, and the average sales price. Did this facility impact the electro-won copper production at Sierrita? Disclose whether the Sierrita mining operations includes ownership or an operating lease of the nearby Twin Buttes mine site. Are production statistics and/or reserves for this property (Twin Buttes) included within the Sierrita production/reserve estimates?

Chino/Cobre, page 4

15. You state that the Cobre operation had an impairment charge of \$115.5 million in 2002. Please generally describe the assets involved with this charge and supplementally provide a table listing the assets and amount impaired. How does this 2002 impairment charge relate to the underground mine operations & reserves? The 2005 review of the Cobre assets, in regard to the regional mining/processing plan, called for an additional \$59.9 million impairment charge due to higher acid costs, increased smelting & freight costs, increased mill restart and operational costs. The 2005 reserves indicate that only run of mine (ROM) leach ore is a reserve and no mineralized material is listed. Explain why the mill is required for this planned operation. Explain how the present acid cost and freight charges have changed in the last three years and how these costs impacted the reserve estimates. Do the reduced reserves/salable pounds also affect this analysis?

Tyrone, page 4

16. You state that the Tyrone operation had impairment charge of \$210.5 million related to the change in the regional mining/processing plan, which resulted in higher acid costs, accelerated and increased reclamation costs to the perimeter stockpiles, and a reduction in the reserve estimate. Generally disclose these

impairment charges in a table and indicate the tonnage, grade, salable copper pounds affected by these reserve reductions. Explain how the present acid cost and freight charges have changed in the last three years and how these costs impacted the reserve estimates. In a table compare the present costs of acid & freight to those costs used to calculate reserves.

Primary Molybdenum Segment, page 6

17. Molybdenum accounts for a quarter of your company's revenue and is a significant by-product of your copper mining operations. Please disclose the mill feed ore tonnage, the molybdenum grade for the Henderson mill, the estimated metallurgical recovery, and the molybdenum pounds produced. In addition disclose the average molybdenum grade and metallurgical recoveries, the pounds molybdenum concentrate produced for the mill ore at the Bagdad, Sierrita, and the Chino Mines. Did Cerro Verde produce a molybdenum concentrate? Is this production part of the future expansion at Cerro Verde?

Phelps Dodge Copper Production by Source, page 9

18. Disclose the effects the concentrate leach project had at the Bagdad Mine. Did this facility change the mill feed/leach tonnage, grades, recoveries, salable copper production? Was this facility more cost effective than conventional process operations, were the freight and smelting costs reduced, and did this facility allow you to process additional lower grade ores? Was there an impact on the reserve estimates due to the change in cost profile?

Ore Reserves, page 14

19. Disclose the cutoff grade used to estimate reserves at your operating properties and distinguish between leach and milling ores. Disclose all relevant economic factors and metallurgical recoveries. In the event a copper equivalent cutoff grade is used, please provide all the economic and metallurgical factors that were used in that calculation.
20. Disclose whether or not a reserve audit has been performed over the last three years

Our Copper Price Protection programs May Cause Significant Volatility in Financial Performance, page 34

21. Summarize by year your commodity hedging experience for the last three years, including the commodities involved, the average prices for production sold under hedging contracts, and losses incurred. Disclose with footnotes any unusual features of your hedging contracts that can materially affect the fair value of a contract.
22. Consistent with FRR 48, under a separate subheading titled "Hedge Policy," outline your purpose and strategy for hedging commodity prices, and disclose your current policy limits on the amount of hedging you do. If you have one, please provide a copy of your formal hedging policy, separate from this filing. Disclose past policies, disclose who sets and changes this policy and discuss your internal controls on hedging activities. Disclose your policy about trading for your own account. Outline your plans for future use of commodity hedging. In that today's hedging positions might be quickly changed or unwound, elaborate on what your long-term policy is on managing your hedging position.

Closing Comments

As appropriate, please amend your filing and respond to these comments within 10 business days or tell us when you will provide us with a response. You may wish to provide us with marked copies of the amendment to expedite our review. Please furnish a cover letter with your amendment that keys your responses to our comments and provides any requested information. Detailed cover letters greatly facilitate our review. Please understand that we may have additional comments after reviewing your amendment and responses to our comments.

We urge all persons who are responsible for the accuracy and adequacy of the disclosure in the filing to be certain that the filing includes all information required under the Securities Exchange Act of 1934 and that they have provided all information investors require for an informed investment decision. Since the company and its management are in possession of all facts relating to a company's disclosure, they are responsible for the accuracy and adequacy of the disclosures they have made.

In connection with responding to our comments, please provide, in writing, a statement from the company acknowledging that:

- the company is responsible for the adequacy and accuracy of the disclosure in the filing;
- staff comments or changes to disclosure in response to staff comments do not foreclose the Commission from taking any action with respect to the filing; and
- the company may not assert staff comments as a defense in any proceeding initiated

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by the Commission or any person under the federal securities laws of the United States.

In addition, please be advised that the Division of Enforcement has access to all information you provide to the staff of the Division of Corporation Finance in our review of your filing or in response to our comments on your filing.

You may contact Shannon Buskirk at (202) 551-3717, or April Sifford, Branch Chief, at (202) 551-3684 if you have questions regarding comments on the financial statements and related matters. You may contact Ken Schuler, Mining Engineer, at (202) 551-3718 with questions about engineering comments. Please contact me at (202) 551-3740 with any other questions.

Sincerely,

H. Roger Schwall
Assistant Director