

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

August 29, 2014

Via E-Mail
Mr. Michael F. Doolan
Chief Financial Officer
Molycorp, Inc.
5619 Denver Tech Center Parkway, Suite 1000
Greenwood Village, Colorado 80111

Re: Molycorp, Inc.

Form 10-K for the Fiscal Year Ended December 31, 2013

Filed March 3, 2014

Response letter dated August 13, 2014

File No. 001-34827

Dear Mr. Doolan:

We have reviewed your response letter and have the following comment. In our comment, we may ask you to provide us with information so we may better understand your disclosure.

Please respond to this letter within ten business days by amending your filings, by providing the requested information, or by advising us when you will provide the requested response. If you do not believe our comments apply to your facts and circumstances or do not believe an amendment is appropriate, please tell us why in your response.

After reviewing any amendment to your filings and the information you provide in response to these comments, we may have additional comments.

Form 10-K for the fiscal year ended December 31, 2013

Financial Statements

(16) Stockholder's Equity, page 107

1. We note your response to comment 1 from our letter dated July 30, 2014 and understand that you recorded the correction for the fair value of the share lending arrangements (SLAs) as an out of period adjustment in the second quarter of 2014. As a result of this adjustment, we note you have increased your income tax benefit for the second quarter of 2014 by \$9.6 million. Please address the following points:

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- Provide the detail journal entries you would have recorded had you accounted for the fair value of the share lending arrangements at issuance, explaining the basis for each side of the entry.
- Clarify your tax treatment of the recording of the SLAs, providing details sufficient to understand the reasons why you would have record deferred tax liabilities related to the deferred financing costs.
- Provide further details on why the deferred tax liabilities would have been released in the second quarter of 2013.

You may contact Joanna Lam at (202) 551-3476 or Craig Arakawa, Accounting Branch Chief at (202) 551- 3650 if you have questions regarding comments on the financial statements and related matters.

Sincerely,

/s/Craig Arakawa for

Tia L. Jenkins Senior Assistant Chief Accountant Office of Beverages, Apparel, and Mining