



DIVISION OF
CORPORATION FINANCE

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549-4628

May 14, 2010

Mr. Gary Brown
Chief Financial Officer
Silver Wheaton Corp.
Suite 3150, 666 Burrard Street
Vancouver, BC Canada V6C 2X8

**Re: Silver Wheaton Corp.
Form 40-F for the Fiscal Year Ended December 31, 2009
Filed March 31, 2010
File No. 1-32482**

Dear Mr. Brown:

We have reviewed your filing and have the following comments. We have limited our review of your filing to those issues we have addressed in our comments. Please provide a written response to our comments. 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.

Engineering Comments

Form 40-F for Fiscal Year Ending December 31, 2009

Acquisition of Silverstone Resources Corp page 5

1. In reference to your description of the Aljustrel property we note you describe the property as "not currently operating." In addition, we note you claim proven or probable reserves for the property on your reserves disclosure. Please tell us why you believe that these quantities meet the definition of a reserve.

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2. We note you disclose 924.8 million ounces of proven and probable silver reserves in your reserves table. Please explain if the copper and zinc ounces included in this total were determined on a silver equivalent basis.

Closing Comments

Please respond to these comments within 10 business days or tell us when you will provide us with a response. Please furnish a letter that keys your responses to our comments and provides any requested information. Detailed letters greatly facilitate our review. Please understand that we may have additional comments after reviewing your 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 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 John Coleman, Mining Engineer, at (202) 551-3610 with questions about these engineering comments. Please contact me at (202) 551-3740 with any other questions.

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Sincerely,

H. Roger Schwall
Assistant Director