



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

DIVISION OF
CORPORATION FINANCE

September 24, 2012

Via E-mail

Mr. Randy Neely
Chief Financial Officer
Zodiac Exploration Inc.
Suite 400, 1324-17 Avenue S.W.
Calgary, AB T2T 5S8
Canada

**Re: Zodiac Exploration Inc.
Form 40-F for Fiscal Year Ended September 30, 2011
Filed March 14, 2012
File No. 1-35201**

Dear Mr. Neely:

We have reviewed your filing and have the following comments. In some of our comments, 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 filing, 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 filing and the information you provide in response to these comments, we may have additional comments.

Statement of Reserves Data and Other Oil & Gas Information, page 17

1. We note your statement that you wish to incorporate by reference a "statement of reserves data and other oil and gas information in Form 51-101F1 and the corresponding report of management and the directors on oil and gas disclosure in Form 51-101F3 for the year ended September 30, 2011[.]" which you filed pursuant to Canadian law. Please revise your Form 40-F to include this information. You may not incorporate by reference documents filed in other jurisdictions. See General Instruction B(5) to Form 40-F.

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 the information the Securities Exchange Act of 1934 and all applicable Exchange Act rules require. 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 responding to our comments, please provide a written 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.

Please contact Alexandra M. Ledbetter (Staff Attorney) at (202) 551-3317 or me at (202) 551-3611 with any questions.

Sincerely,

/s/ A.N. Parker

Anne Nguyen Parker
Branch Chief