



DIVISION OF  
CORPORATION FINANCE

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

August 20, 2009

Ms. Sandra Green  
Chief Financial Officer  
Zion Oil & Gas, Inc.  
6510 Abrams Rd., Suite 300  
Dallas, TX 75231

**Re: Zion Oil & Gas, Inc.**  
**Form S-3 Filed July 29, 2009**  
**File No. 333-160871**

Dear Ms. Green:

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. 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 S-3 Filed July 29, 2009

1. Please explain your basis for using Form S-3 to register the subject offering. In order to rely on General Instruction I.B.4(a)(1), the subscription rights to purchase shares of your common stock must be currently outstanding. If there is another provision of Form S-3 that you believe allows you to utilize this registration form, please advise. Otherwise, we believe your transaction should be re-filed on an appropriate form such as Form S-1.

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2. Please provide signatures from your principal financial officer, and your controller or principal accounting officer, as well as your principal executive officer.

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 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.

Please contact Norman Gholson at (202) 551-3237 or me at (202) 551-3611 with any other questions.

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Sincerely,

Anne Nguyen Parker  
Branch Chief