



DIVISION OF
CORPORATION FINANCE

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

July 9, 2010

Richard J. Rinberg
Chief Executive Officer
Zion Oil & Gas, Inc.
6510 Abrams Road, Suite 300
Dallas, Texas 75231

Re: Zion Oil & Gas, Inc.
Form 10-K for Fiscal Year Ended December 31, 2009
Filed March 16, 2010
File No. 1-33228

Dear Mr. Rinberg:

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.

General

1. We note the prospectus supplements pursuant to Rule 424(b)(3) and Rule 424(b)(5) dated April 28, 2010. We are unable to locate unqualified legality opinions for these securities offerings covered by the shelf registration statement filed on Form S-3, file number 333-164563, declared effective on April 16, 2010. Please file the unqualified opinions in a Form 8-K or by post-effective amendment, or advise. For guidance, please refer to Question 212.05 of the Securities Act Rules Compliance and Disclosure Interpretations, available on our website at: <http://www.sec.gov/divisions/corpfin/cfguidance.shtml>.

Signatures, page 49

2. The signature blocks for your directors and officers are missing conformed signatures. Please provide us with a photocopy of the manually signed signature page dated March 16, 2010.

3. In future filings, please include a signature block for Ms. Green to sign in her individual capacity as your principal financial officer and your principal accounting officer, as opposed to (or in addition to) the signature block in which she signs for the company. Refer to General Instruction D.2 to Form 10-K.

Closing 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 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 Tracey L. McNeil at (202) 551-3392, Alexandra M. Ledbetter at (202) 551-3317, or me at (202) 551-3740 with any questions.

Sincerely,

H. Roger Schwall
Assistant Director