



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

DIVISION OF  
CORPORATION FINANCE

January 27, 2011

Via U.S. Mail and Facsimile

Daniel Churay, President and CEO  
Rex Energy Corporation  
476 Rolling Ridge Drive, Suite 300  
State College, PA 16801  
Facsimile: (814) 278-7286

**Re: Rex Energy Corporation  
Annual Report on Form 10-K  
Filed March 3, 2010  
File No. 001-33610  
Definitive Proxy Statement on Form 14A  
Filed April 30, 2010  
File No. 001-33610**

Dear Mr. Churay:

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.

Annual Report on Form 10-K for Fiscal Year Ended December 31, 2009

Properties, page 32

1. We note your response number 3. Explain to us in more detail how you utilize seismic and microseismic operations and reservoir simulation modeling to estimate your reserves.

Definitive Proxy Statement filed April 30, 2010

Compensation Discussion and Analysis, page 17

2009 Compensation Program, page 21

Long Term Incentive Compensation, page 24

2. We note your response to prior comment 9. However, you did not provide an example disclosure as requested by prior comment 7. Please advise or provide us with the requested disclosure.

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 Caroline Kim at (202) 551-3878 or, in her absence, the undersigned at (202) 551-3745 with any questions.

Sincerely,

H. Roger Schwall  
Assistant Director