



DIVISION OF
CORPORATION FINANCE

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

December 21, 2012

Via E-mail

Michael L. Hodges
Chief Financial Officer
Rex Energy Corporation
476 Rolling Ridge Drive, Suite 300
State College, Pennsylvania 16801

Re: Rex Energy Corporation
Form 10-K for the Fiscal Year ended December 31, 2011
Filed March 15, 2012
Form 10-Q for the Fiscal Quarter ended September 30, 2012
Filed November 9, 2012
Form 8-K filed November 13, 2012
File No. 1-33610

Dear Mr. Hodges:

We have reviewed your filings 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 filings, 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 amendments are appropriate, please tell us why in your response.

After reviewing any amendments to your filings and the information you provide in response to these comments, we may have additional comments.

Form 10-K for the Fiscal Year ended December 31, 2011

Financial Statements, page 70

Note 21 - Oil and Natural Gas Reserve Quantities (unaudited), page 115

1. We note your disclosure stating "The majority of our positive revision of estimated proved reserves occurred in our Marcellus Shale properties, where our average per well estimated ultimate recovery ("EUR") increased from 4.4 Bcfe to 5.3 Bcfe in our operated areas and from 3.0 Bcf to 4.2 Bcf in our non-operated areas. In total, our positive revisions in our Marcellus operations accounted for 84% of all revisions." Please expand your disclosure to explain the reasons that your estimated ultimate recovery increased to

comply with FASB ASC 932-235-50-5. As you may know, we previously advised you of the need to provide meaningful disclosure about significant revisions in our comment letter dated December 29, 2010. Tell us your plans to address this ongoing concern.

2. We note your disclosure on page 117 stating “In the Illinois Basin, we successfully booked estimated proved reserves as a result of our ASP pilot, which were classified as extensions and discoveries.” Tell us why you have not reported this change as a separate improved recovery line item, or if not significant as a revision of prior estimates, to comply with FASB ASC 932-235-50-5b.

Form 10-Q for the Fiscal Quarter ended September 30, 2012

Note 15 - Equity Method Investments, page 27

Keystone Midstream Services, LLC, page 27

3. Please explain to us how you considered FASB ASC 840-10-15 and FASB ASC 840-40 in your accounting for the sale of you interest in Keystone Midstream and the related capacity reservation transaction discussed on page 22.

Form 8-K filed November 13, 2012

4. We note your disclosure that finding and development cost per unit of production is a non-GAAP measure and that you have provided two such measures and also non-GAAP PV-10, all without the reconciliation required by Regulation G. If you are unable to comply with this guidance you should refrain from disclosing non-GAAP measures.

We urge all persons who are responsible for the accuracy and adequacy of the disclosure in the filings to be certain that the filings include 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 filings;
- staff comments or changes to disclosure in response to staff comments do not foreclose the Commission from taking any action with respect to the filings; 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.

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You may contact Michael Fay, Staff Accountant, at (202) 551-3812 if you have questions regarding comments on the financial statements and related matters. Please contact me at (202) 551-3686 with any other questions.

Sincerely,

/s/ Karl Hiller

Karl Hiller
Branch Chief