



DIVISION OF
CORPORATION FINANCE

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

July 29, 2010

Mr. Scott D. Sheffield
Chairman and Chief Executive Officer
Pioneer Southwest Energy Partners L.P.
5205 N. O'Connor Blvd., Suite 200
Irving, Texas 75039

Re: Pioneer Southwest Energy Partners L.P.
Form 10-K for the Fiscal Year Ended December 31, 2009
Filed March 1, 2010
Form 10-Q for the Fiscal Quarter Ended March 31, 2010
Filed May 6, 2010
File No. 001-34032

Dear Mr. Sheffield:

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.

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

Item 2. Properties

Reserve Estimation Procedures and Audits, page 38

1. While we understand that there are fundamentals of physics, mathematics and economics that are applied in the estimation of reserves, we are not aware of an official industry compilation of such “generally accepted petroleum engineering and evaluation principles”. With a view toward possible disclosure, please explain to us the basis for concluding that such principles have been sufficiently established so as to judge that the reserve information has been prepared in conformity with such principles. This comment applies also to Exhibit 99.1.

Item 7. Management’s Discussion and Analysis of Financial Condition and Results of Operations, page 47

Results of Operations, page 49

2. We note that you often refer to two or more factors that contributed to material changes over the reported periods. Please revise your disclosure to quantify the amount of the changes contributed by each of the factors or events that you identify. Please refer to Section III.D of SEC Interpretive Release 33-6835 (May 18, 1989), which may be found at <http://www.sec.gov/rules/interp/33-6835.htm>, for further guidance.

Financial Statements

Note B – Summary of Significant Accounting Policies

Oil and gas properties, page 70

3. You state here that capitalized costs relating to proved properties are depleted using the units-of-production method based on proved reserves. Expand this section to indicate, if true, that capitalized costs of exploratory wells and development costs are depreciated by the unit-of-production method based on proved *developed* reserves. Refer to the requirements of ASC 932-360-35-7.

Exhibit 99.1

4. We note in your independent third-party engineers’ audit of your estimates of proved reserves, in their opinion they concluded that, “the estimates of PSE's proved reserves and future revenue shown herein are, in the aggregate, reasonable and have been

Mr. Scott D. Sheffield
Pioneer Southwest Energy Partners L.P.
July 29, 2010
Page 3

prepared in accordance with generally accepted petroleum engineering and evaluation principles.” The Society of Petroleum Engineers’ guidance specifies that "reasonable" agreement requires no aggregate difference larger than 10%. Please confirm to us that there was no aggregate difference that exceeded this threshold or, if there was, explain to us the underlying reasons for such difference and how you and your third-party engineers addressed it.

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.

You may contact Suying Li at (202) 551-3335, Sandy Eisen at (202) 551-3864, or Chris White, Branch Chief, at (202) 551-3461 if you have questions regarding comments on the financial statements and related matters. Please contact Doug Brown at (202) 551-3265, Alexandra Ledbetter at (202) 551-3317, or me at (202) 551-3745 with any other questions.

Sincerely,

H. Roger Schwall
Assistant Director