



DIVISION OF
CORPORATION FINANCE

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

December 20, 2012

Via E-mail

Robert G. Phillips
Chief Executive Officer
Crestwood Midstream Partners LP
700 Louisiana Street, Suite 2060
Houston, TX 77002

**Re: Crestwood Midstream Partners LP
Form 10-K for the Fiscal Year Ended December 31, 2011
Filed March 1, 2012
File No. 001-33631**

Dear Mr. Phillips:

We have reviewed your filing and have the following comments. We have limited our review to only your financial statements and related disclosures and do not intend to expand our review to other portions of your documents. 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 the Fiscal Year Ended December 31, 2011

Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations, page 37

Overview and Performance Metrics, page 37

1. We note you have Adjusted EBITDA for transaction costs which are described as non-recurring but you have adjusted for them in 2011 and 2010. If the nature of the charge is reasonably likely to recur within 2 years or there was a similar charge or gain within the prior 2 years we do not believe describing the adjustment as non-recurring is appropriate. In future filings please revise your description or explain why you believe such adjustments are non-recurring.

Item 8. Financial Statements and Supplementary Data, page 50

4. Net Income Per Limited Partner Unit, page 64

2. With the view towards enhanced transparency, please disclose how you allocate earnings to IDR holders for the purpose of the two class method EPU calculations for each period presented in future filings. In this regard, tell us what consideration you have given to providing a reconciliation of net income and the allocation of net income (distributions declared versus undistributed net income) to the common units, class C and general partner for purposes of computing net income per unit for each year fiscal year presented.

Item 9A. Controls and Procedures, page 79

Disclosure Controls and Procedures, page 79

3. We note for purposes of determining the effectiveness of your disclosure controls and procedures you have excluded Tristate. Please explain to us your basis for excluding the disclosures required by Item 307 of Regulation S-K. Refer to Section 214.01 of the Compliance and Disclosure Interpretations of Regulation S-K updated July 8, 2011.

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.

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You may contact Scott Stringer, Staff Accountant, at (202) 551-3272 or Robert Babula, Staff Accountant, at (202) 551-3339 if you have questions regarding our comments. Please contact me at (202) 551- 3720 with any other questions.

Sincerely,

/s/ Andrew D. Mew

Andrew D. Mew
Accounting Branch Chief

cc: Kelly Jameson, General Counsel