



DIVISION OF
CORPORATION FINANCE

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

December 30, 2011

Via U.S. Postal Service

J. Mike Stice
Chief Executive Officer
Chesapeake Midstream Partners, L.P.
900 NW 63rd Street
Oklahoma City, OK 73118

**Re: Chesapeake Midstream Partners, L.P.
Form 10-K for the Year Ended December 31, 2010
Filed March 11, 2011
Form 10-Q for the Nine Months Ended September 30, 2011
Filed November 10, 2011
File No. 001-34831**

Dear Mr. Stice:

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 an amendment is appropriate, please tell us why in your response.

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

Form 10-K for the Year Ended December 31, 2010

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

How We Evaluate Our Operations, page 43

Adjusted EBITDA and Distributable Cash Flow, page 43

1. We note your disclosure on page 43 that you define distributable cash flow as Adjusted EBITDA, plus interest income, less cash paid for interest expense, maintenance capital expenditures and income taxes. We further note your quantification of distributable cash flow as \$218,989. Please show us your calculation for distributable cash flow.

Reconciliation to GAAP measures, page 44

2. We note your disclosures concerning the non-GAAP measures Adjusted EBITDA and Distributable Cash Flow. We have the following comments:
 - Your current disclosures indicate that each of these measures is both a measure of operating performance and a measure of liquidity. However, Adjusted EBITDA is only reconciled to net income and Distributable Cash Flow is only reconciled to cash provided by operating activities. Please revise so that the description of these measures is consistent with the reconciliations that you present. Refer to Item 10(e) of Regulation S-K, and show us your proposed revisions to these disclosures.
 - If you propose to revise your disclosures to indicate that Adjusted EBITDA is used solely as a measure of operating performance, please respond to the following comment: We note that your Form S-1 filed on February 16, 2010 and related amendments contained a reconciliation of Adjusted EBITDA to net income as well as to cash provided by operating activities. Please tell us why you no longer believe it appropriate or necessary to provide a reconciliation of Adjusted EBITDA to cash provided by operating activities.

Item 8. Financial Statements and Supplementary Data, page 56

Note 9. Business Combinations, page 75

3. We note your disclosure that the useful life of the customer contract acquired is estimated to be 15 years. We also note your disclosure that you entered into a 10-year, 100 percent fixed-fee gas gathering agreement with Chesapeake. Please explain to us if this is the customer contract that you are amortizing, and revise your disclosures to clarify this matter. If the customer contract that you are amortizing is the agreement with Chesapeake, please further explain to us the apparent inconsistency between the 10 year term and the 15 year useful life.

Note 12. Commitments and Contingencies, page 78

4. We note your disclosure of the future minimum rental payments due under operating leases as of December 31, 2010. Please clarify for us if these amounts include contractual lease obligations with an affiliate of Chesapeake for compression services. If the lease expenses for the compression services are not included here and in the contractual obligations table in Management's Discussion and Analysis of Financial Condition and Results of Operations, please explain to us why you do not believe these expenses should be included.

Note 15. Quarterly Financial Data, page 79

5. Please explain to us why you have not disclosed net income for periods prior to your IPO on August 3, 2010. Refer to Item 302(a)(1) of Regulation S-K.

Item 15. Exhibits and Financial Statements Schedules, page 121

6. We note that you have not provided a consent from your independent auditors as an exhibit to this Form 10-K. It appears that your Form S-8 filed September 13, 2010 triggered the requirement for your auditors to consent to the incorporation by reference of their audit report dated March 11, 2011 included within this Form 10-K. Please tell us where you filed this consent or explain to us why you do not believe a consent is required.

Signatures, page 125

7. It does not appear that your general partner signed the Form 10-K on your behalf. Please advise us as to why it is not necessary for your general partner to do so, given your disclosure that you “have no directors or officers” and the requirements of General Instruction D to Form 10-K. Alternatively, please supplementally confirm, if true, that your general partner signed the Form 10-K on your behalf, the manner in which it did so, and the manner in which you will revise the signature blocks in future filings to clarify this issue, or otherwise advise. Please note that this comment applies to your Forms 10-Q for the fiscal periods ended March 31, 2011, June 30, 2011 and September 30, 2011, as well.

Form 10-Q for the Nine Months Ended September 30, 2011

Item 2. Management’s Discussion and Analysis of Financial Condition and Results of Operations, page 13

Results of Operations – Nine Months Ended September 30, 2011 versus September 30, 2010, page 22

8. Please refer to Item 303(a)(3)(i) and (a)(3)(iii) of Regulation S-K, Item 303(b) of Regulation S-K, and our Release No. 33-8350, available on our website at <http://www.sec.gov/rules/interp/33-8350.htm>. Please revise future filings to quantify the impact of each significant underlying factor that contributed to a significant change in your results of operations. As one example, your tabular presentation of revenue at the bottom of page 22 indicates that revenue related to the Barnett Shale increased 9.7%. Your narrative analysis of this increase indicates that a rate escalation occurred of 2%; however, the remaining increase in revenue of 7.7% is not clearly explained. Specifically, it is unclear what amount of this increase in revenue resulted from throughput related to the contractual minimum volume commitments and what amount of

this increase in revenue resulted from throughput related to additional amounts above and beyond the minimum volume commitments or to other factors. As another example, you indicate that revenue related to the Mid-Continent region increased 12.6%. Your narrative analysis of this increase in revenue indicates that rates were positively impacted by the redetermination of Mid-Continent gathering rates that occurred on January 1, 2011 and the 2.5% rate escalation in the Mid-Continent region. It is unclear from your disclosure if the rate redetermination is a separate event from the 2.5% rate escalation; if so, you should quantify the change in the Mid-Continent gathering rate resulting from the redetermination to clarify how this event impacted revenue. Please ensure that you clearly explain all significant factors that contribute to a significant change in your results of operations, including clearly indicating the extent to which increases in revenue are attributable to changes in rates, clearly indicating the extent to which increases in revenue are attributable to changes in throughput, and clearly indicating why these changes in rates and throughput occurred so that readers have the context to assess the extent to which past performance is indicative of future performance. Please also apply this comment to your analysis of expenses.

Liquidity and Capital Resources, page 23

9. We note your analysis of cash flows on page 24. Please revise future filings to provide a more robust analysis of your historical and expected future sources and uses of liquidity. Please discuss or provide a cross-reference to your discussion of the quantified historical cash inflows resulting from your contractual minimum volume commitments, the quantified historical cash inflows resulting from your other operations, and your quantified historical borrowings or other cash inflows, and clearly explain how these funds were spent during the historical periods. This historical analysis should provide context for your assertion that expected future cash inflows will be sufficient to meet your expected future cash outflows, and any expected significant changes in the amounts of your future cash inflows or cash outflows should be clearly explained. Refer to Section IV of our Release No. 33-8350.

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

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- 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 Lisa Sellars, Staff Accountant, at (202) 551-3348 or me at (202) 551-3737 if you have questions regarding comments on the financial statements and related matters. Please contact Lilyana Peyser, Staff Attorney, at (202) 551-3222 if you have questions regarding any other comments.

Sincerely,

/s/ Jennifer Thompson

Jennifer Thompson
Accounting Branch Chief