



DIVISION OF
CORPORATION FINANCE

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

April 15, 2014

Via E-mail

Mr. Kyle N. Roane
Vice President, General Counsel and Corporate Secretary
Memorial Resource Development Corporation
1301 McKinney Street, Suite 2100
Houston, Texas 77010

**Re: Memorial Resource Development Corporation
Registration Statement on Form S-1
Filed April 4, 2014
File No. 333-195062**

Dear Mr. Roane:

We have reviewed your registration statement 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 by amending your registration statement and providing the requested information. 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 registration statement and the information you provide in response to these comments, we may have additional comments.

Registration Statement on Form S-1

General

1. We may have additional comments once you supply the information you omit throughout the prospectus, file all omitted exhibits and any material contracts, supply the partnership agreement, and update the disclosure as necessary. Please remember to allow enough time to respond to all such staff comments. Also please provide updated information regarding the status of your NASDAQ listing application, promptly provide any omitted disclosure which has not been omitted pursuant to Securities Act Rule 430A, and update your disclosure accordingly.

Reserves, page 6

2. Please expand your footnote, under this heading and elsewhere as applicable, to disclose the amount of estimated future income tax expense that would have been included for the periods presented if you were not a tax exempt entity.

Management's Discussion and Analysis of Financial Condition and Results of Operations, page 60

Year Ended December 31, 2013 Compared to the Year Ended December 31, 2012, page 71

3. We note from your discussion that "Distributions to the Funds" during 2013 were \$732.4 million and that the sources pertaining to these distributions consisted of monies generated from borrowings, sales of properties to third parties, and sales of common units. Please expand your discussion, where applicable, to explain the circumstances under which distributions are made to the Funds. In addition, please review your characterization of these distributions for consistency. In this regard, it appears these distributions are characterized on page F-24 as "Distributions to Members" whereas page 70 makes reference to "Distribution to Funds."

Management, page 120

Compensation Discussion and Analysis, page 124

4. Provide the information required by Item 402 for the Predecessor as you have for the other disclosure regarding the Company. The staff does not concur with your apparent belief that no quantified disclosure is required because you "were formed in January 2014.....Accordingly, we are not presenting any compensation for historical periods." We note that the operations of the Company, and its management, will be essentially the same as those of the Predecessor.
5. In response to prior comment 16 from our letter to you dated March 5, 2014, you state that you do not expect to enter into employment agreements with your named executive officers. Address whether the compensation arrangements and employment agreements while continue with the Company and, if so, file those as exhibits and provide the disclosure required by Item 402 of Regulation S-K. To the extent applicable after the offering, please describe any overlap with the current employment agreements with MRD, LLC.

Also, we note that such officers also serve the similar positions at Memorial Production Partners GP LLC, which will become one of your wholly subsidiaries as result of this offering. Please address how you intend to compensate your officers, given the current arrangement in which Memorial Production Partners LP reimburses GP LLC for compensation expenses.

Memorial Resource Development LLC (Predecessor) Annual Financial Statements

Statements of Consolidated and Combined Cash Flows, page F-24

6. Please tell us why you believe the classification of “Additions to restricted cash” as an investing activity is the most appropriate classification given your disclosure on page 54 that “\$50 million of restricted cash is held in the debt service reserve account to secure payments of interest and certain other payments on the PIK notes.”

Notes to Condensed Consolidated and Combined Financial Statements

Note 12. Related Party Transactions, page F-54

Net Profits Interest Sold to NGP, page F-56

7. Your disclosure on page F-57 indicates that your consolidated and combined financial statements have been retrospectively revised for the repurchase of net profits interests on February 28, 2014. Please clarify for us why your historical financial statements account for a transaction that had not occurred as of the fiscal year ended December 31, 2013. Refer to FASB ASC 805-50-25-2.

Exhibits

8. Please file all agreements required to be filed by Item 601(b)(10) of Regulation S-K, or revise your exhibit index to include all agreements that you intend to file as exhibits. For example, we note your references to the following agreements:
- Your sale agreements with Energy Transfer Equity, LP and Phillips 66 (page 109);
 - MRD, LLC’s omnibus, tax sharing, and beta management agreements with Memorial Production Partners, LP, which you will assume (page 132);
 - Applicable employment agreements with your named executive officers; and
 - Gas Processing Agreement between WildHorse Resources and PennTex North Louisiana, LLC (page 134).

Alternatively, please provide your analysis as to why you do not intend to file any such agreements as material contracts pursuant to Item 601(b)(10) of Regulation S-K.

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 Act of 1933 and all applicable Securities 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.

Notwithstanding our comments, in the event you request acceleration of the effective date of the pending registration statement please provide a written statement from the company acknowledging that:

- should the Commission or the staff, acting pursuant to delegated authority, declare the filing effective, it does not foreclose the Commission from taking any action with respect to the filing;
- the action of the Commission or the staff, acting pursuant to delegated authority, in declaring the filing effective, does not relieve the company from its full responsibility for the adequacy and accuracy of the disclosure in the filing; and
- the company may not assert staff comments and the declaration of effectiveness as a defense in any proceeding initiated by the Commission or any person under the federal securities laws of the United States.

Please refer to Rules 460 and 461 regarding requests for acceleration. We will consider a written request for acceleration of the effective date of the registration statement as confirmation of the fact that those requesting acceleration are aware of their respective responsibilities under the Securities Act of 1933 and the Securities Exchange Act of 1934 as they relate to the proposed public offering of the securities specified in the above registration statement. Please allow adequate time for us to review any amendment prior to the requested effective date of the registration statement.

You may contact Svitlana Sweat, Staff Accountant, at (202) 551-3326 or Jennifer O'Brien, Staff Accountant, at (202) 551-3721 if you have questions regarding comments on the financial statements and related matters. You may contact Ronald Winfrey, Petroleum Engineer, at (202) 551-3704 with questions about engineering comments. Please contact Caroline Kim, Attorney-Advisor, at (202) 551-3878 or, in her absence, the undersigned at (202) 551-3740 with any other questions.

Sincerely,

/s/H. Roger Schwall

H. Roger Schwall
Assistant Director

Mr. Kyle Roane
Memorial Resource Development Corp.
April 15, 2014
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cc: John Goodgame
Akin Gump Strauss Hauer & Feld LLP