



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

DIVISION OF
CORPORATION FINANCE

May 20, 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
Amendment No. 1 to Registration Statement on Form S-1
Filed May 2, 2014
File No. 333-195062**

Dear Mr. Roane:

We have reviewed your amendment 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.

Amendment No. 1 to Registration Statement on Form S-1

Business, page 89

Cotton Valley—Terryville Complex Horizontal Redevelopment, page 91

1. We note the table of performance parameters on page 92 including “Estimated Ultimate Recovery” or EUR as “sum of total gross remaining reserves attributable to each location in our reserve report and cumulative sales from such location.” Please amend your document here, in your glossary page A-1 and elsewhere as appropriate to disclose, if true, that EUR, as used here, includes only proved reserves. If not true, please expand this section and the glossary to define this term.

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Index to Financial Statements, page F-1

2. Please update to provide financial statements and corresponding disclosures throughout your filing to comply with Rule 3-12 of Regulation S-X. Similar updating is required for the pro forma financial information under Rule 11-02(c) of Regulation S-X.

Exhibits

3. We note your response to prior comment 8 but do not see the tax sharing agreement incorporated by reference in your exhibit index. We also note that the related disclosure was deleted on page 141. Please advise.

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.

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

cc: John Goodgame
Akin Gump Strauss Hauer & Feld LLP