



DIVISION OF  
CORPORATION FINANCE

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

September 5, 2012

Via E-Mail

Steven W. Peterson  
Chief Financial Officer  
Mesa Laboratories, Inc.  
12100 West Sixth Avenue  
Lakewood, Colorado 80228

**Re: Mesa Laboratories, Inc.**  
**Form 10-K for the year ended March 31, 2012**  
**Filed June 29, 2012**  
**Form 10-Q for the quarter ended June 30, 2012**  
**Filed August 10, 2012**  
**File No. 000-11740**

Dear Mr. Peterson:

We have reviewed your letter dated August 22, 2012 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-Q for the quarter ended June 30, 2012

Item 4. Controls and Procedures, page 16

1. We noted your disclosure that:

Our management evaluated, with the participation of our Chief Executive Officer and Chief Financial Officer, the effectiveness of our *internal control over financial reporting* as of June 30, 2012. Based on that evaluation, our management concluded that our *internal control over financial reporting* was effective at June 30, 2012.

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It does not appear as though management provided a conclusion regarding the effectiveness of your disclosure controls and procedures. Please amend your filing to provide a conclusion regarding the effectiveness of your disclosure controls and procedures. Refer to Item 307 of Regulation S-K.

You may contact Eric Atallah, Staff Accountant at (202) 551-3663 or Jay Webb, Reviewing Accountant at (202) 551-3603 if you have questions regarding comments on the financial statements and related matters. Please call me at (202) 551-3643 with any other questions.

Sincerely,

/s/ Jay Webb "for"

Kevin L. Vaughn  
Accounting Branch Chief