



DIVISION OF  
CORPORATION FINANCE

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

August 9, 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**  
**File No. 000-11740**

Dear Mr. Peterson:

We have reviewed your filing 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-K for the fiscal year ended March 31, 2012

General

1. We note that as of September 30, 2011 you determined that the aggregate market value of your common stock held by non-affiliates was approximately \$64.0 million. Please provide us with your calculation of your public float held by non-affiliates as of September 30, 2011. Refer to Item 10(f)(1) of Regulation S-K and clarify your current and future eligibility as a smaller reporting company based on the aforementioned guidance.

Item 9A. Controls and Procedures, page 37

2. We noted your disclosure that:

Our management evaluated, with the participation of our Chief Executive Officer and Chief Financial Officer, the effectiveness of the design and operation of our *disclosure controls and procedures* as of March 31, 2012. Based on that evaluation, our management concluded that our *internal control over financial reporting* was effective at March 31, 2012.

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.

Form 8-K/A filed July 27, 2012

Exhibit 99.3

3. We note that you have provided pro forma balance sheets as of March 31, 2012 and March 31, 2011. We also note that you have provided pro forma income statements for the years ended March 31, 2012 and March 31, 2011. Please explain to us how you considered the guidance in Rule 8-05(b) of Regulation S-X which indicates that you were only required to file a March 31, 2012 pro forma balance sheet and a pro forma income statement for your fiscal year ended March 31, 2012.

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 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 contact me at (202) 551-3643 with any other questions.

Sincerely,

/s/ Jay Webb “for”

Kevin L. Vaughn  
Accounting Branch Chief