



DIVISION OF  
CORPORATION FINANCE  
Mail Stop 3030

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

March 16, 2010

VIA U.S. Mail and Facsimile

Alberto R. Santa Ines  
Chief Financial Officer  
3240 Whipple Road  
Union City, CA 94587

**Re: Abaxis, Inc.**  
**Form 10-K for the fiscal year ended March 31, 2009**  
**Filed June 12, 2009**  
**Form 10-Q for the fiscal quarter ended December 31, 2009**  
**File No. 0-19720**

Dear Mr. Santa Ines:

We have reviewed your response dated March 9, 2010 and related filings and have the following comments. Where indicated, we think you should revise your future filings in response to these comments. If you disagree, we will consider your explanation as to why our comment is inapplicable or a revision is unnecessary. Please be as detailed as necessary in your explanation. In some of our comments, we may ask you to provide us with information so we may better understand your disclosure. After reviewing this information, we may raise additional comments.

Please understand that the purpose of our review process is to assist you in your compliance with the applicable disclosure requirements and to enhance the overall disclosure in your filing. We look forward to working with you in these respects. We welcome any questions you may have about our comments or any other aspect of our review. Feel free to call us at the telephone numbers listed at the end of this letter.

Response letter dated March 9, 2010

1. As requested in our letter dated February 24, 2009, please provide, in writing, a 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.

We see that the current representations are from company's counsel.

Form 10-Q for the fiscal quarter ended December 31, 2009

Critical Accounting Policies

2. We note the discussion on page 31 regarding the decrease in warranty reserves. Please consider enhancing your discussion of warranty reserves within critical accounting policies in future filings to disclose the critical judgments considered in decreasing the warranty reserve during the current period.

Results of Operations, page 21

Cost of Revenues and Gross Profit, page 27

3. We reference the disclosure that cost of revenues includes cost associated with warranty repairs. In this regard, we see that you recorded a \$668,000 reversal of warranty reserves during the three months ended December 31, 2009 which appears to have had a material impact on cost of sales as a percentage of revenues and on gross profit for the three and nine month period. However, we do not see where this was discussed as a contributing factor in your discussion of cost of revenues or gross profit. Please revise future filings to disclose the reason for this reversal and to clarify how changes in estimates and other items of a judgmental nature impact your results of operations. In addition, to the extent that the impact of these items is non-recurring, please disclose that fact.
4. We see from your disclosure that the decrease in cost of revenues as a percentage of total revenues is attributed to lower manufacturing costs on VetScan chemistry analyzers and veterinary reagent discs. Please tell us and revise future filings to disclose the reason that manufacturing costs decreased and whether these

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efficiencies are expected to continue into future periods. In this regard, we see that finished goods inventory increased during the period. Discuss if the increase in production had a significant impact on the decrease of manufacturing costs.

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As appropriate, please respond to these comments within 10 business days or tell us when you will provide us with a response. Please furnish a cover letter that keys your responses to our comments and provides any requested information. Detailed cover letters greatly facilitate our review. Please understand that we may have additional comments after reviewing your responses to our comments.

You may contact Kristin Lochhead at (202) 551-3664 or me at (202) 551-3676 if you have questions regarding comments on the financial statements and related matters. If you have other questions, please contact Louis Rambo at (202) 551-3289 or Tim Buchmiller at (202) 551-3635.

Sincerely,

Brian Cascio  
Accounting Branch Chief