



DIVISION OF  
CORPORATION FINANCE  
MAIL STOP 7010

UNITED STATES  
SECURITIES AND EXCHANGE COMMISSION  
WASHINGTON, D.C. 20549-7010

February 22, 2007

Mr. David Flake  
Treasurer and Chief Financial Officer  
Basic Earth Science Systems, Inc.  
1801 Broadway, Suite 620  
Denver, CO 80202-3835

**Re: Basic Earth Science Systems, Inc.**  
**Form 10-KSB for the Fiscal Year Ended March 31, 2006**  
**Filed July 14, 2006**  
**Form 10-QSB for the Quarterly Period Ended December 31, 2006**  
**Filed February 15, 2007**  
**File No. 000-07914**

Dear Mr. Flake:

We have reviewed your filings, and have the following comments. We have limited our review of your filings to those issues we have addressed in our comments. Please provide a written response to our comments. 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 filings. 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.

Form 10-KSB for the Fiscal Year Ended March 31, 2006

Notes to Consolidated Financial Statements, page 32

Note 13 – Unaudited Oil and Gas Reserve Information, page 41

1. You explain that management has elected not to incur the additional expense of evaluating properties that contributed marginally to production, and despite your belief that proved undeveloped reserves exist, you have decided not to record such reserves for the years presented. Please tell us what impact the exclusion of

these reserves would have on your financial statements, via the units of production depletion, and what, if any, impact the reserves would have on your ceiling test.

Certifications Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002

2. In a March 4, 2005 Staff Alert entitled Annual Report Reminders, the staff of the Division of Corporation Finance reminded issuers that the certifications required under Exchange Act Rules 13a-14(a) and 15d-14(a) must be in the exact form set forth in Item 601(b)(31) of Regulation S-B. We note that the identification of the certifying individual at the beginning of the certification required by Exchange Act Rule 13a-14(a) also includes the title of the certifying individual. In future filings, the identification of the certifying individual at the beginning of the certification should be revised so as not to include the individual's title.

We also note that you have replaced the word "report" with "annual report" or "quarterly report" in paragraphs 2, 3, and 4 of the certifications in your Form 10-KSB and 10-QSB. Please revise all future certifications to be in the exact form set forth in Item 601 of Regulation S-B.

Form 10-QSB for the Quarterly Period Ended December 31, 2006

Management's Discussion and Analysis and Plan of Operation, page 8

EBITDA, page 8

3. You define your measure of EBITDA as earnings before interest taxes, depreciation, depletion and amortization. However, in your reconciliation of net income to EBITDA, we note you exclude an amount related to the accretion of asset retirement obligations. As your presentation of EBITDA excludes items other than those included in the definition, please revise your terminology to refer to the measure as something other than EBITDA, or remove the amounts related to the accretion of asset retirement obligations from your calculation.
4. We note you present EBITDA as a non-GAAP performance measure. Under certain limited circumstances a non-GAAP performance measure may be adjusted for recurring items; however, companies must meet the burden of demonstrating the usefulness of any measure that excludes recurring items. Refer to Questions 8 and 15 of the Frequently Asked Questions Regarding the Use of Non-GAAP Financial Measures which can be found on our website at the following address:

<http://www.sec.gov/divisions/corpfin/faqs/nongaapfaq.htm>

Please tell us why you believe it is necessary to present your non-GAAP performance measure that excludes recurring items.

5. To the extent you are able to justify the usefulness of your non-GAAP measure, please revise your discussion to explain what you use the measure for, and why you believe it is important to provide such measure to users of your financial statements.

#### Closing Comments

Please respond to these comments within 10 business days or tell us when you will provide us with a response. Please furnish a letter that keys your responses to our comments and provides any requested information. Detailed letters greatly facilitate our review. Please understand that we may have additional comments after reviewing your responses to our 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 all information required under the Securities Exchange Act of 1934 and that they have provided all information investors require for an informed investment decision. 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 connection with responding to our comments, 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.

In addition, please be advised that the Division of Enforcement has access to all information you provide to the staff of the Division of Corporation Finance in our review of your filing or in response to our comments on your filing.

You may contact Mark Wojciechowski at (202) 551-3759, or in his absence, Kimberly Calder, Assistant Chief Accountant, at (202) 551-3701 if you have questions

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regarding comments on the financial statements and related matters. Please contact me at (202) 551-3683 with any other questions.

Sincerely,

Jill Davis  
Branch Chief