



DIVISION OF CORPORATION FINANCE  
MAIL STOP 7010

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

September 29, 2006

via U.S. mail

Mr. Michael A. Schott  
Corporate Secretary  
Geokinetics Inc.  
One Riverway, Suite 2100  
Houston, TX 77056

**Re: Geokinetics Inc.  
Preliminary Proxy Statement on Schedule 14A  
Filed September 25, 2006  
File No. 0-09268**

Dear Mr. Schott:

We have limited our review of the above filing to the areas upon which we have issued comments. Where indicated, we think you should revise your documents 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 supplemental 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 on any other aspect of our review. Feel free to call us at the telephone numbers listed at the end of this letter.

Preliminary Proxy Statement on Schedule 14A

Proposal 2 – Approval of Amendment of Geokinetics’ 2002 Stock Awards Plan

1. Include an equity compensation plan table pursuant to Item 10 of Schedule 14A.
2. Disclose whether you have any current plans, proposals or arrangements to make any awards under the plan. If so, please disclose and if not, please state that you have no such plans, proposals or arrangements written or otherwise at this time.

Proposal 3 – Charter Amendment to Effect Reverse Stock Split

3. You indicate that fractional shares will receive a cash payment from the company equal to the fair market value of the fractional share. Disclose the number of record holders that you will have if the split is adopted and the number of record holders who will be eliminated as a result of the adoption of the split.
4. We note that a stock split may result in an increased number of authorized but unissued shares of your common stock. Do you have any current plans, proposals or arrangements to issue any of the additional shares? For example, are there any proposals or plans to acquire any business or engage in any investment opportunity with the additional shares? If so, please disclose and if not, please state that you have no such plans, proposals or arrangements written or otherwise at this time.
5. We call your attention to Exchange Act Rule 10b-17, which you should consult in connection with the process of implementing any reverse stock split.
6. Please disclose, in a table or other similar format, the number of shares of your common stock that will be: (i) issued and outstanding; (ii) authorized and reserved for issuance; and (iii) authorized but unreserved as a result of the adoption of a stock split.

Closing Comments

As appropriate, please amend your filing and respond to these comments within 10 business days or tell us when you will provide us with a response. You may wish to provide us with marked copies of the amendment to expedite our review. Please furnish a cover letter with your amendment 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 amendment and 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;

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- 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.

Please contact Jason Wynn at (202) 551-3756 or, in his absence, Tangela Richter, Branch Chief, at (202) 551-3685 with any questions. Direct all correspondence to the following ZIP code: 20549-7010.

Sincerely,

H. Roger Schwall  
Assistant Director

cc: J. Wynn

via facsimile  
James J. Spring, III  
Chamberlain, Hrdlicka, White, Williams & Martin  
(713) 658-2553