



DIVISION OF  
CORPORATION FINANCE

UNITED STATES  
SECURITIES AND EXCHANGE COMMISSION  
WASHINGTON, D.C. 20549-4628

August 22, 2011

Via E-Mail

Richard F. Miles  
President and Chief Executive Officer  
Geokinetics, Inc.  
1500 City West Blvd.  
Suite 800  
Houston, TX 77042

**Re: Geokinetics, Inc.  
Form 10-K for the Fiscal Year Ended December 31, 2010  
Filed April 1, 2011  
File No. 001-33460**

Dear Mr. Miles:

We have limited our review of your filing to your contacts with countries that have been identified as state sponsors of terrorism and we have the following comments. Our review with respect to this issue does not preclude further review by the Assistant Director group with respect to other issues. At this juncture, we are asking you to provide us with information so we may better understand your disclosure.

Please respond to this letter within ten business days 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, please tell us why in your response.

After reviewing the information you provide in response to these comments, we may have additional comments.

General

1. Please update us on your contacts with Iran and Syria since your letter to us of January 19, 2006. As you know, these countries are designated as state sponsors of terrorism by the State Department, and are subject to U.S. economic sanctions and export controls. We note from your 10-K that in February 2010 you acquired the onshore seismic acquisition and multi-client library business of Petroleum Geo-Services. We note from the website of Petroleum Geo-Services that it acquired and interpreted data from areas that included parts of Syria. We also note from an April 2011 news company profile that your major customers include

Petrobras, Eni S.p.A, BP and Sonangol, companies reported to conduct business in Iran, Syria and/or Cuba. Tell us whether any of these customers are the large customers discussed on page 11.

Cuba is also identified by the State Department as a state sponsor of terrorism, and is subject to U.S. asset and export controls. Please describe to us the nature and extent of your past, current, and anticipated contacts with Iran, Syria and Cuba, whether through affiliates, subsidiaries, or other direct or indirect arrangements. Your response should describe any services or products you have provided to Iran, Syria and Cuba and any agreements, commercial arrangements, or other contacts you have had with the governments of these countries, or entities controlled by their governments.

2. Please discuss the materiality of your contacts with Iran, Syria and Cuba described in response to the foregoing comment and whether those contacts constitute a material investment risk for your security holders. You should address materiality in quantitative terms, including the approximate dollar amounts of any associated revenues, assets, and liabilities for the last three fiscal years and the subsequent interim period. Also, address materiality in terms of qualitative factors that a reasonable investor would deem important in making an investment decision, including the potential impact of corporate activities upon a company's reputation and share value. Various state and municipal governments, universities, and other investors have proposed or adopted divestment or similar initiatives regarding investment in companies that do business with U.S.-designated state sponsors of terrorism. Your materiality analysis should address the potential impact of the investor sentiment evidenced by such actions directed toward companies that have operations associated with Iran, Syria and Cuba.

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 the 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

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- 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.

Please contact Jennifer Hardy, Special Counsel, at (202) 551-3767 or me at (202) 551-3470 if you have any questions about the comments or our review.

Sincerely,

/s/ Cecilia Blye

Cecilia Blye, Chief  
Office of Global Security Risk

cc: Roger Schwall  
Assistant Director  
Division of Corporation Finance