DIVISION OF CORPORATION FINANCE

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

January 3, 2011

Ms. Christina W. Hagan Executive Vice President Dawson Geophysical Company 508 West Wall, Suite 800 Midland, Texas 79701

Re: Dawson Geophysical Company

Form 10-K for Fiscal Year Ended September 30, 2010

Filed November 23, 2010

File No. 1-34404

Dear Ms. Hagan:

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 Fiscal Year Ended September 30, 2010

Business, page 2

Contracts, page 6

1. We note your disclosure on page 8 that your order book consists of written orders or commitments for services that you believe to be firm. Please tell us how you have considered disclosing the dollar amount of backlog orders believed to be firm pursuant to Item 101(c)(viii) of Regulation S-K.

Notes to Financial Statements, page F-8

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Note 1. Summary of Significant Accounting Policies, page F-8

<u>Impairment of Long-Lived Assets, page F-9</u>

2. You indicate on page 4 that you own sufficient recording equipment, energy sources and ancillary vehicles to support 16 seismic crews. However, you indicate that at September 30, 2010, you had 12 active seismic crews, and in your fourth quarter earnings conference call, you indicate that you believe you will be able to maintain 12 active crews in fiscal 2011. Please provide us with a comprehensive analysis of your impairment conclusions related to your recording equipment, energy sources and ancillary vehicles at September 30, 2010 so that we can better understand your disclosure that no impairments were required during fiscal 2010.

Note 11. Net Income (Loss) per Common Share, page F-17

3. We note that you do not appear to disclose the total number of anti-dilutive securities outstanding for each period for which an income statement is presented. Please tell us how you have considered the disclosure requirements of ASC 260-10-50-1(c).

Closing 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 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, 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

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by the Commission or any person under the federal securities laws of the United States.

You may contact Tracie Towner at (202) 551-3744 if you have questions regarding comments on the financial statements and related matters. Please contact me at (202) 551-3299 with any other questions.

Sincerely,

Mark Shannon Branch Chief