

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

January 30, 2009

Christina W. Hagan Chief Financial Officer Dawson Geophysical Company 508 West Wall, Suite 800 Midland, Texas 79701

Re: Dawson Geophysical Company

Form 10-K for the Fiscal Year Ended September 30, 2008

Filed December 9, 2008

Response Letter Dated January 23, 2009

File No. 0-10144

Dear Ms. Hagan:

We have reviewed your response letter and have the following 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.

Definitive Proxy Statement on Schedule 14A filed on December 16, 2008

Short-Term Incentive Compensation, page 8

1. We note your response to our previous comment 5. Please provide greater detail on the formula used to determine the distributions of the bonus pool to eligible employees. For example, please explain if the variables in the formula are weighted. Further, provide disclosure, in table format or otherwise, of the actual value of each variable for each named executive officer.

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.

Christina W. Hagan Dawson Geophysical Company January 30, 2009 Page 2

Please contact Sean Donahue at (202) 551-3579 or John Madison at (202) 551-3296 with any other questions.

Sincerely,

H. Roger Schwall Assistant Director

cc: Sean Donahue John Madison