



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

DIVISION OF
CORPORATION FINANCE

March 21, 2014

Via E-mail

David L. Roland
General Counsel and Corporate Secretary
ION Geophysical Corporation
2105 CityWest Blvd., Suite 400
Houston, Texas 77042

**Re: ION Geophysical Corporation
Registration Statement on Form S-4
Filed February 25, 2014
File No. 333-194110**

Dear Mr. Roland:

We have limited our review of your registration statement to those issues we have addressed in our 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 by amending your registration statement and providing the requested information. Where 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 registration statement and the information you provide in response to these comments, we may have additional comments.

Registration Statement on Form S-4

Cautionary Statement Regarding Forward Looking Statements, page iii

1. The safe harbor for forward-looking statements provided in the Private Securities Litigation Reform Act of 1995 does not apply to statements made in connection with a tender offer. See Section 27A(b)(2)(C) of the Securities Act and Section 21E(b)(2)(C) of the Exchange Act. Therefore, please delete the reference to the safe harbor or state explicitly that the safe harbor protections it provides do not apply to statements made in connection with the offer.

Exhibit 5.2

2. Please file a revised legality opinion that opines on whether the Louisiana Guarantor Guarantee will be a binding obligation of the Louisiana Guarantor.

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 the information the Securities Act of 1933 and all applicable Securities 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.

Notwithstanding our comments, in the event you request acceleration of the effective date of the pending registration statement please provide a written statement from the company acknowledging that:

- should the Commission or the staff, acting pursuant to delegated authority, declare the filing effective, it does not foreclose the Commission from taking any action with respect to the filing;
- the action of the Commission or the staff, acting pursuant to delegated authority, in declaring the filing effective, does not relieve the company from its full responsibility for the adequacy and accuracy of the disclosure in the filing; and
- the company may not assert staff comments and the declaration of effectiveness as a defense in any proceeding initiated by the Commission or any person under the federal securities laws of the United States.

Please refer to Rules 460 and 461 regarding requests for acceleration. We will consider a written request for acceleration of the effective date of the registration statement as confirmation of the fact that those requesting acceleration are aware of their respective responsibilities under the Securities Act of 1933 and the Securities Exchange Act of 1934 as they relate to the proposed public offering of the securities specified in the above registration statement. Please allow adequate time for us to review any amendment prior to the requested effective date of the registration statement.

Please contact Caroline Kim (Staff Attorney) at (202) 551-3878 or the undersigned at (202) 551-3611 with any questions.

Sincerely,

/s/ A.N. Parker

Anne Nguyen Parker
Branch Chief

cc: Jeff Dobbs
Mayer Brown, LLP