July 12, 2007

Mr. Karl Hiller Branch Chief Division of Corporation Finance United States Securities and Exchange Commission Washington, D.C. 20549

Re: TGC Industries, Inc. (the "Company")

Form 10-KSB for the Fiscal Year Ended December 31, 2006

Filed March 28, 2007

Form 10-Q for the Quarter Ended March 31, 2007

File No. 0-14908

Dear Mr. Hiller:

We are in receipt of the SEC's comment letter dated July 3, 2007. To facilitate your review of our responses to your letter, our responses have been inserted directly below each comment in the enclosed "reproduction" of the original SEC letter. After we have been advised that the proposed responses are sufficient, we will amend the Company's filings as requested.

In addition to our responses to your comments, we acknowledge the following:

- 1) the Company is responsible for the adequacy and accuracy of the disclosure in the filing;
- 2) 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
- 3) 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.

We appreciate your assistance with our compliance with the applicable disclosure requirements and with the enhancement of the disclosures in our filings. If you have any questions concerning our responses, please contact the undersigned.

Sincerely

/s/ KENNETH USELTON

Kenneth Uselton Chief Financial Officer TGC Industries, Inc.

Enclosure

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

Mail Stop 7010

July 3, 2007

Mr. Kenneth Uselton Chief Financial Officer TGC Industries, Inc. 101 E. Park Blvd. Suite 955 Plano, TX 75074

Re: TGC Industries, Inc.

Form 10-KSB for the Fiscal Year Ended December 31, 2006

Filed March 28, 2007

Form 10-Q for the Quarter ended March 31, 2007

File No. 0-14908

Dear Mr. Uselton:

We have reviewed your Form 10-K for the Fiscal year Ended December 31, 2006 and Form 10-Q for the quarter ended March 31, 2007, and have the following comments. We have limited our review of your filings to those issues we have addressed in our 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.

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 filing. We look forward to working with you in these respects. We welcome any questions you may have about our comments or any other aspect of our review. Feel free to call us at the telephone numbers listed at the end of this letter.

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 reviewed by the staff 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;
- · 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.

You may contact Nasreen Mohammed at (202) 551-3773 if you have questions regarding comments on the financial statements and related matters. Please contact me at (202)-551-3686 with any other questions.

Sincerely,

Karl Hiller Branch Chief

Form 10-KSB for the Year Ended December 31, 2006

Notes to Financial Statements

Note B – Summary of Significant Accounting Policies, page 23

1. We note that you recognize revenue using the percentage-of-completion method, based on units-of-production. Please expand your policy note to disclose the nature of the units, duration of the contracts, and terms of service. Also disclose the method applied in determining earned revenue and the cost of earned revenue, as discussed in paragraphs 79 through 81 of SOP 81-1, as well as your policies relating to combining and segmenting contracts, as discussed in paragraphs 35 through 42 of SOP 81-1, to comply with the guidance in paragraph 21. Further disclosure about revenue and costs arising from claims may be necessary and should be provided, if applicable. You may refer to Appendix C for a summary of the disclosure recommendations in SOP 81-1.

Company Response:

We propose to amend the filing by specifically addressing the revenue recognition for the seismic surveys, as follows:

Revenue Recognition

Seismic Surveys

The Company provides seismic data acquisition survey services to its customers under general service agreements which define certain obligations for the Company and for its customers. A supplemental agreement setting forth the terms of a specific project, which may be cancelled by either party upon 60 days advance written notice, is entered into for every project. These supplemental agreements are either "turnkey" agreements providing for a fixed fee to be paid for each unit of seismic data acquired or "term" agreements providing for a fixed hourly, daily, or monthly fee during the term of the project. The duration of these projects will vary from a few days to several months. The Company recognizes revenue when services are performed under both types of agreements. Services are defined as the commencement of data acquisition. Under turnkey agreements, the total number of units of seismic data to be gathered is set forth in the agreement, and revenue is recognized as services are performed on a per unit of seismic data acquired rate. Under term agreements, revenue is recognized as services are performed based on the time worked rate provided in the term agreement. Under both turnkey and term agreements, cost of earned revenue is recognized by multiplying total estimated agreement cost by the percentage-of-completion of the agreement. The excess of that amount over the cost of earned revenue reported in prior periods is recognized as cost of earned revenue for the period. Agreements are not segmented nor combined for

purposes of calculating percentage of completion. The asset, "Costs and estimated earnings in excess of billings on uncompleted contracts" represents cost incurred on turnkey agreements in excess of billings on those agreements. The liability, "Billings in excess of costs and estimated earnings on uncompleted contracts" represents billings on turnkey agreements in excess of cost on those agreements. Claims have been negligible in 2006 and 2005.

2. We note that you recognize revenues for the sale of gravity data when services are rendered. Please provide more details on the services provided and explain the method of measuring progress as specified in paragraph 45 of SOP 81-1. It should be clear what you are referring to as gravity data, and how this differs from the other services you provide.

Company Response

We propose to amend the filing by specifically addressing the revenue recognition for the gravity data, as follows:

Revenue Recognition

Gravity Data

The Company owns a data bank which contains gravity data, and to a lesser extent magnetic data, from many of the major oil and natural gas producing areas located within the U.S. When an order for gravity data is received, the portion of gravity data requested by the customer is prepared in digital format for licensing and shipment to the customer. This process is performed by an employee in the Company's headquarters office and normally takes a few days at the most. In addition, the licensing of gravity data is not a material part of the Company's revenue. For the year ended December 31, 2006, gravity revenue was only \$500.

Controls and procedures, page 36

3. We note that you evaluated and concluded that the disclosure controls and procedures are effective as of December 31, 2006. However, you have included qualifying language indicating that your control system can provide only reasonable assurance that the objectives are met, also stating that there can be no assurance that any design will succeed in achieving its stated goals under all potential future conditions. Please modify your disclosure to clarify whether your determination that your disclosure controls and procedures are effective has been made at the reasonable assurance level.

Company Response:

We propose to amend Item 8A by adding a sentence at the end of the second paragraph to clarify that our determination that the Company's disclosure controls and procedures are effective has been made at a reasonable assurance level, as follows:

"Notwithstanding the foregoing, the Company's Chief Executive Officer and Principal Financial and Accounting Officer believe that their determination, contained in the preceding paragraph, that the Company's disclosure controls and procedures are effective has been made at a reasonable assurance level."