UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

Post-Effective Amendment No. 1

on FORM S-8

to FORM S-4

REGISTRATION STATEMENT UNDER THE SECURITIES ACT OF 1933

DAWSON GEOPHYSICAL COMPANY

(Exact name of Registrant as specified in its charter)

Texas

(State or other jurisdiction of incorporation or organization)

74-2095844

(I.R.S. Employer Identification Number)

508 West Wall, Suite 800 Midland, Texas 79701

(Address of principal executive offices, including zip code)

Amended and Restated Dawson Geophysical Company 2006 Stock and Performance Incentive Plan (Full Title of the Plan)

Stephen C. Jumper Chairman of the Board, President and Chief Executive Officer Dawson Geophysical Company 508 West Wall, Suite 800 Midland, Texas 79701 (432) 684-3000

(Name, address and telephone number, including area code, of agent for service)

Copy to:

Neel Lemon

Baker Botts L.L.P. 2001 Ross Avenue, Suite 600 Dallas, Texas 75201-2980 Telephone: (214) 953-6500 Facsimile: (214) 953-6503

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, or a smaller reporting company. See the definitions of "large accelerated filer," "accelerated filer," "non-accelerated filer," and "smaller reporting company" in Rule 12b-2 of the Exchange Act. (Check One):

Large Accelerated Filer o Accelerated Filer x

Non-accelerated Filer o Smaller Reporting Company o

CALCULATION OF REGISTRATION FEE

Title of Each Class of Securities to be Registered	Amount to be Registered (1)	Proposed Maximum Offering Price per Share (3)	Proposed Maximum Aggregate Offering Price (3)	Amount of Registration Fee (3)
Common Stock (par value \$0.01 per share)				_
Amended and Restated Dawson Geophysical Company	261 711(2)	27/	27/1	27/1
2006 Stock and Performance Incentive Plan	361.511(2)	N/A	N/A	N/A

- Pursuant to Rule 416(a) under the U.S. Securities Act of 1933, as amended (the "Securities Act"), this Registration Statement includes any additional shares of the Common Stock, par value \$0.01 per share ("Registrant Common Stock"), of Dawson Geophysical Company, a Texas corporation previously known as TGC Industries, Inc. (the "Registrant"), that may be issued pursuant to any stock split, stock dividend or similar transaction with respect to these shares.
- Includes 361,511 shares of Registrant Common Stock issuable pursuant to awards granted under the Dawson Geophysical Company 2006 Stock and Performance Incentive Plan, which the Registrant assumed in connection with the merger of one of the Registrant's subsidiaries with Dawson Operating Company, a Texas corporation previously known as Dawson Geophysical Company. The merger closed on February 11, 2015. The 361,511 shares of Registrant Common Stock issuable pursuant to outstanding awards granted under the Dawson Geophysical Company 2006 Stock and Performance Incentive Plan includes 160,424 shares of Registrant Common Stock issuable pursuant to outstanding stock options granted prior to the merger and 201,087 shares of Registrant Common Stock reserved for issuance pursuant to other outstanding awards granted prior to the merger.
- These shares were registered under the Registrant's Registration Statement on Form S-4 (File No. 333-199922) filed under the Securities Act with the Securities and Exchange Commission on November 6, 2014, as amended by Pre-Effective Amendments Nos. 1 and 2 filed on December 16, 2014 and December 30, 2014, respectively. All filing fees payable in connection with the issuance of these shares were previously paid in connection with the filing of the Registration Statement on Form S-4.

Explanatory Note

Dawson Geophysical Company, a Texas corporation previously known as TGC Industries, Inc. (the "Registrant"), hereby amends its Registration Statement on Form S-4 (File No. 333-199922) filed under the U.S. Securities Act of 1933, as amended (the "Securities Act"), with the Securities and Exchange Commission (the "SEC") on November 6, 2014, as amended by Pre-Effective Amendments Nos. 1 and 2 filed on December 16, 2014 and December 30, 2014, respectively (the "Form S-4"), by filing this Post-Effective Amendment No. 1 on Form S-8 to Form S-4 (this "Post-Effective Amendment") relating to shares of the Registrant's common stock, par value \$0.01 per share ("Registrant Common Stock"), issuable pursuant to the Dawson Geophysical Company 2006 Stock and Performance Incentive Plan (the "Dawson Operating Plan"). All such shares were previously registered on the Form S-4 but will be subject to issuance pursuant to this Post-Effective Amendment.

On February 11, 2015, pursuant to the terms of the Agreement and Plan of Merger, dated October 8, 2014, by and among the Registrant, Dawson Operating Company, a Texas corporation previously known as Dawson Geophysical Company ("Dawson Operating"), and Riptide Acquisition Corp., a Texas corporation and wholly owned subsidiary of the Registrant ("Merger Sub"), Dawson Operating merged with and into Merger Sub, with Dawson Operating surviving the Merger and continuing as a direct wholly owned subsidiary of the Registrant (the "Merger"). As consideration for the Merger, each holder of Dawson Operating's common stock, par value \$0.33 1/3 per share ("Dawson Operating Common Stock"), is entitled to receive 1.760 shares of Registrant Common Stock for each share of Dawson Operating Common Stock owned (the "Exchange Ratio").

At the effective time of the Merger (the "Effective Time"), the following actions occurred with respect to Dawson Operating's outstanding equity awards issued under the Dawson Operating Plan (collectively, the "Outstanding Dawson Operating Equity Awards"): (i) each outstanding stock option vested and became fully exercisable, and to the extent unexercised, each such stock option was assumed by the Registrant and converted into stock options to purchase shares of Registrant Common Stock on substantially the same terms as those in effect immediately prior to the Effective Time, except that the number of shares of Registrant Common Stock issuable and the exercise price were adjusted by the Exchange Ratio and (ii) outstanding shares of restricted stock and restricted stock unit awards that had not vested as of the Effective Time were assumed by the Registrant and will continue pursuant to their terms, provided that Registrant Common Stock, as adjusted by the Exchange Ratio, will replace the Dawson Operating Common Stock subject to such awards.

This Post-Effective Amendment is being filed solely for the purpose of registering up to 361,511 shares of Registrant Common Stock issuable under the Dawson Operating Plan in connection with the Outstanding Dawson Operating Equity Awards.

PART I

INFORMATION REQUIRED IN THE SECTION 10(a) PROSPECTUS

Information required by Part I to be contained in the Section 10(a) Prospectus is omitted from this Registration Statement in accordance with Rule 428 under the Securities Act of 1933, and the "Note" to Part I of Form S-8.

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PART II

INFORMATION REQUIRED IN THE REGISTRATION STATEMENT

Item 3. Incorporation of Documents by Reference

The following documents, as filed by the Registrant (File No. 1-32472) with the SEC, are incorporated by reference in this Registration Statement:

- (a) The Registrant's Annual Report on Form 10-K for the year ended December 31, 2013, filed by the Registrant with the SEC on March 17, 2014 (the "Annual Report");
- (b) The portions of the Registrant's Definitive Proxy Statement on Schedule 14A, filed by the Registrant with the SEC on April 30, 2014, that were incorporated by reference into the Annual Report;
- (c) The Registrant's Quarterly Report on Form 10-Q for the quarterly period ended March 31, 2014, filed by the Registrant with the SEC on May 8, 2014;
- (d) The Registrant's Quarterly Report on Form 10-Q for the quarterly period ended June 30, 2014, filed by the Registrant with the SEC on August 11, 2014;
- (e) The Registrant's Quarterly Report on Form 10-Q for the quarterly period ended September 30, 2014, filed by the Registrant with the SEC on November 10, 2014;
- (f) The Registrant's Current Reports on Form 8-K filed by the Registrant with the SEC on June 6, 2014, September 19, 2014, October 9, 2014, November 17, 2014, December 2, 2014, January 5, 2015, January 13, 2015, February 9, 2015 and February 11, 2015 (in each case only to the extent filed and not furnished); and
- (g) The description of Registrant Common Stock contained in the Form S-4, including any amendments or reports filed for the purpose of updating such description.

All reports and other documents filed by the Registrant with the SEC pursuant to Sections 13(a), 13(c), 14, and 15(d) of the Exchange Act subsequent to the date of this Registration Statement and prior to the filing of a post-effective amendment that indicates that all securities offered have been sold or that deregisters all securities then remaining unsold shall, except to the extent otherwise provided by Regulation S-K or any other rule promulgated by

the SEC, be deemed to be incorporated by reference in this Registration Statement and to be part hereof from the date of filing of such documents. Any statements contained in a document incorporated or deemed to be incorporated by reference shall be deemed to be modified or superseded to the extent that a statement contained herein or in any other document subsequently filed or incorporated by reference herein modifies or supersedes such statement. Any statement so modified or superseded shall not be deemed, except as so modified or superseded, to constitute a part of this Registration Statement.

Notwithstanding the foregoing, information furnished under Items 2.01 and 7.01 of any Current Report on Form 8-K, including exhibits related to those items, is not incorporated by reference in this Registration Statement or any related prospectus.

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Item 4 Description of Securities.

Not Applicable.

Item 5. Interests of Named Experts and Counsel.

Not Applicable.

Item 6. Indemnification of Directors and Officers.

Texas Law and the Company's Governing Documents

The Registrant is incorporated under the laws of the State of Texas. The discussion below summarizes the material indemnification provisions of the Registrant's amended and restated certificate of formation, amended and restated bylaws and Chapters 7 and 8 of the Texas Business Organizations Code (the "TBOC").

Chapter 8 of the TBOC requires a Texas corporation to indemnify a director, former director or delegate thereof against reasonable expenses actually incurred by such person in connection with a proceeding in which such person is a respondent because such person is or was a director or delegate thereof if such person is wholly successful, on the merits or otherwise, in the defense of the proceeding. Further, Chapter 8 of the TBOC permits a Texas corporation to indemnify a director, former director or delegate thereof who was, is, or is threatened to be made a respondent in a proceeding against judgments and expenses that are reasonable and actually incurred by such person in connection with such proceeding if it is determined that: (1) such person (a) acted in good faith, (b) reasonably believed, in the case of conduct in such person's official capacity, that such person's conduct was in the corporation's best interest and, in any other case, that such person's conduct was not opposed to the corporation's best interests, and (c) in the case of a criminal proceeding, did not have a reasonable cause to believe such person's conduct was unlawful and (2) with respect to expenses, the amount of such expenses is reasonable.

Under Chapter 8 of the TBOC, indemnification of a person that is found liable to a Texas corporation or found liable because such person improperly received a personal benefit (1) is limited to reasonable expenses actually incurred, (2) does not include a judgment, a penalty, a fine, or an excise or similar tax and (3) may not be made if such person has been found liable for (a) willful or intentional misconduct in the performance of any duties to the corporation, (b) breach of any duty of loyalty owed to the corporation or (c) an act or omission not committed in good faith that constitutes a breach of any duty owed by such person to the corporation.

Chapter 8 of the TBOC permits a Texas corporation to pay or reimburse reasonable expenses incurred by a present director or delegate thereof who was, is, or is threatened to be made a respondent in a proceeding in advance of the final disposition of the proceeding without making the required determinations after the corporation receives (1) a written affirmation by such person of such person's good faith belief that the person has met the standard of conduct necessary for indemnification and (2) a written undertaking by or on behalf of such person to repay the amount paid or reimbursed if the final determination is that the person has not met that standard or that indemnification is prohibited by Chapter 8 of the TBOC.

Chapter 8 of the TBOC permits a Texas corporation to indemnify and advance expenses to persons other than present or former directors, including officers, employees or agents, as provided by the corporation's governing documents or contract, among other means, and requires that a corporation indemnify an officer to the same extent that indemnification is required under the TBOC.

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Chapter 8 of the TBOC provides that a Texas corporation has the power to purchase and maintain insurance on behalf of its directors, officers, employees or agents against liabilities (1) asserted against such person in his or her capacity or (2) arising out of his or her status as a director, officer, employee or agent of the company. A Texas corporation has this power whether or not the corporation has the power to indemnify such person against the liability under Chapter 8 of the TBOC.

Section 6.b of the Registrant's amended and restated certificate of formation and Section 8.6 of the Registrant's amended and restated bylaws, respectively, provide that the Registrant has the authority to, and shall, indemnify its directors and officers to the fullest extent permitted by Texas law.

Chapter 7 of the TBOC provides that a certificate of formation or other governing document may provide that a director of a Texas corporation is not liable, or is liable only to the extent provided by the certificate of formation or other governing document, to the corporation or its shareholders for monetary damages for an act or omission by such person in such person's capacity as a director of the corporation. However, a Texas corporation may not eliminate or limit the liability of a director to the extent such director is found liable under applicable law for:

- · a breach of the director's duty of loyalty to the corporation or its shareholders;
- · an act or omission not in good faith that constitutes a breach of duty of the director to the corporation or which involves intentional misconduct or a knowing violation of law;

- a transaction from which the director received an improper personal benefit, regardless of whether the benefit resulted from an action taken within the scope of the director's duties; or
- an act or omission for which the liability of a director is expressly provided by an applicable statute.

Section 6.j of the Registrant's amended and restated certificate of formation eliminates the personal liability for monetary damages for an act or omission of a director to the fullest extent permitted by Texas law.

The indemnification rights set forth above are not exclusive of any other right which an indemnified person may have or may hereafter acquire under any statute. Any repeal or amendment of the Registrant's amended and restated certificate of formation by the Registrant's shareholders will be prospective only and will not adversely affect any limitation on the personal liability of a director arising from an act or omission occurring prior to the time of such repeal or amendment.

Indemnification Agreements

The Registrant has also entered into indemnification agreements (each, individually, an "Indemnification Agreement," and collectively, the "Indemnification Agreements") with each of Craig W. Cooper, William J. Barrett, James K. Brata, Christina W. Hagan, Gary M. Hoover, Ph.D., Stephen C. Jumper, Allen T. McInnes, Ph.D., Ted R. North, James W. Thomas, C. Ray Tobias, Wayne A. Whitener, Daniel G. Winn and Mark A. Vander Ploeg (each, individually, an "Indemnitee," and collectively, the "Indemnitees"). Pursuant to the Indemnification Agreements, the Registrant agreed to indemnify each Indemnitee to the fullest extent permitted by applicable law against any and all expenses arising from any Proceeding (as defined in the Indemnification Agreements) in which an Indemnitee was, is or will be involved as a party or otherwise by reason of any Indemnitee's service as, or actions taken while (i) a director or officer of the Registrant or (ii) at the request of the Registrant as a director, officer, employee or agent of another corporation, partnership, joint venture, trust or other enterprise. Following a request by an Indemnitee the Registrant is required to advance (within five (5) days of receipt of such request) to such Indemnitee any and all expenses relating to the Indemnitee's defense of such Proceeding, subject to the Indemnitee's compliance with certain provisions of the TBOC.

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The obligations of the Registrant to provide indemnification under the Indemnification Agreements is subject to a determination in accordance with Section 8.103(a)(1) or (2) of the TBOC.

Any costs and expenses that an Indemnitee is entitled to under the Indemnification Agreements will not be exclusive to any other rights to which the Indemnitee may currently or in the future be entitled under any provision of applicable law, the Registrant's amended and restated certificate of formation, the Registrant's amended and restated bylaws or otherwise. The Registrant is not required to indemnify an Indemnitee to the extent such indemnification conflicts with Texas law.

Each of the Indemnification Agreements will continue until the earlier of (i) the sixth (6th) anniversary after the Indemnitee has ceased to occupy the position or have the relationships described in the Indemnification Agreement that qualifies the Indemnitee for indemnification or (ii) the final termination of all Proceedings with respect to the Indemnitee commenced in such six (6) year period.

Insurance

The Registrant also maintains insurance for its officers and directors against certain liabilities, including liabilities under the Exchange Act, the premiums of which the Registrant pays. The effect of these policies is to indemnify any of the Registrant's officers and directors against expenses, judgments, attorney's fees and other amounts paid in settlements incurred by an officer or director upon a determination that such person acted in good faith.

Item 7. Exemption From Registration Claimed.

Not Applicable.

Item 8. Exhibits.

The list of exhibits is set forth under "Exhibit Index" at the end of this Post-Effective Amendment and is incorporated herein by reference.

Item 9. Undertakings.

- (a) The undersigned registrant hereby undertakes:
- (1) To file, during any period in which offers or sales are being made, a post-effective amendment to this registration statement:
 - (i) To include any prospectus required by section 10(a)(3) of the Securities Act;
 - (ii) To reflect in the prospectus any facts or events arising after the effective date of the registration statement (or the most recent post-effective amendment thereof) which, individually or in the aggregate, represent a fundamental change in the information set forth in the registration statement. Notwithstanding the foregoing, any increase or decrease in volume of securities offered (if the total dollar value of securities offered would not exceed that which was registered) and any deviation from the low or high end of the estimated maximum offering range may be reflected in the form of a prospectus filed with the SEC pursuant to Rule 424(b) if, in the aggregate, the changes in volume and price represent no more than a 20% change in the maximum aggregate offering price set forth in the "Calculation of Registration Fee" table in the effective registration statement;

(iii) To include any material information with respect to the plan of distribution not previously disclosed in the registration statement or any material change to such information in the registration statement;

provided, however, that the undertakings set forth in paragraphs (i) and (ii) above do not apply if the information required to be included in a post-effective amendment by those paragraphs is contained in periodic reports filed with or furnished to the SEC by the registrant pursuant to Section 13 or Section 15(d) of the Exchange Act that are incorporated by reference in the registration statement.

- (2) That, for the purpose of determining any liability under the Securities Act, each such post-effective amendment shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.
- (3) To remove from registration by means of a post-effective amendment any of the securities being registered which remain unsold at the termination of the offering.
- (b) The undersigned registrant hereby undertakes that, for purposes of determining any liability under the Securities Act, each filing of the registrant's annual report pursuant to Section 13(a) or Section 15(d) of the Exchange Act (and, where applicable, each filing of an employee benefit plan's annual report pursuant to Section 15(d) of the Exchange Act) that is incorporated by reference in this registration statement shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.
- (h) Insofar as indemnification for liabilities arising under the Securities Act may be permitted to directors, officers and controlling persons of the registrant pursuant to the provisions described under Item 6 above, or otherwise, the registrant has been advised that in the opinion of the SEC such indemnification is against public policy as expressed in the Securities Act and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the registrant of expenses incurred or paid by a director, officer or controlling person of the registrant in the successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, the registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the Securities Act and will be governed by the final adjudication of such issue.

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SIGNATURES

Pursuant to the requirements of the Securities Act, the Registrant certifies that it has reasonable grounds to believe that it meets all of the requirements for filing on Form S-8 and has duly caused this Registration Statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Midland, State of Texas, on February 12, 2015.

DAWSON GEOPHYSICAL COMPANY

By: /s/ Stephen C. Jumper

Stephen C. Jumper

Chairman of the Board, President and Chief Executive Officer

Pursuant to the requirements of the U.S. Securities Act of 1933, this Registration Statement on Form S-8 has been signed by the following persons in the capacities and on the dates indicated.

Each person whose signature appears below, except those individuals who have had this document signed on their behalf pursuant to a duly executed power of attorney, appoints Stephen C. Jumper and Christina W. Hagan, and each of them, each of whom may act without the joinder of the others, as his/her true and lawful attorneys-in-fact and agents, with full power of substitution and resubstitution, for him/her and in his/her name, place and stead, in any and all capacities, to sign any and all amendments (including post-effective amendments) to this registration statement and any registration statement for the same offering filed pursuant to Rule 462 under the U.S. Securities Act, and to file the same with all exhibits thereto and all documents in connection therewith with the U.S. Securities and Exchange Commission, granting unto said attorneys-in-fact and agents full power and authority to do and perform each and every act and thing requisite and necessary to be done, as fully and for all intents and purposes as the undersigned might or could do in person, hereby ratifying and confirming all that said attorneys-in-fact and agents or their substitutes may lawfully do or cause to be done by virtue hereof.

Signature	Title	Date	
/s/ Stephen C. Jumper Stephen C. Jumper	Chairman of the Board, President and Chief Executive Officer (Principal Executive Officer)	February 12, 2015	
/s/ Wayne A. Whitener Wayne A. Whitener	Vice Chairman	February 12, 2015	
/s/ James K. Brata James K. Brata	Executive Vice President and Chief Financial Officer (Principal Financial Officer and Principal Accounting Officer)	February 12, 2015	
/s/ Craig W. Cooper Craig W. Cooper	Director	February 12, 2015	
/s/ William J. Barrett*	Director	February 12, 2015	

/s/ Gary M.	Hoover	Director	February 12, 2015		
Gary M. Ho	oover, Ph.D				
		8			
/s/ Allen T.	McInnes*	Director	February 12, 2015		
	cInnes, Ph.D				
/s/ Ted R. North Ted R. North		Director	February 12, 2015		
/s/ Mark Vander Ploeg Mark Vander Ploeg		Director	February 12, 2015		
indicated at Exchange (bove by asterisks, pursuant to a p Commission as an exhibit hereto.		alf of the registrant and on behalf of each of the above-named persons strant and such persons, previously filed with the Securities and		
Way	Wayne A. Whitener				
Atto	rney-in-Fact				
		9			
		INDEX TO EXHIB	SITS		
Exhibit					
No.	_	Descr	iption		
4.1*		difficate of Formation, filed as Exhibit 3.1 to ust 8, 2013, and incorporated herein by reference.	the Registrant's Quarterly Report on Form 10-Q for the quarter enderence.		
4.2*		to the Amended and Restated Certificate of v 11, 2015, and incorporated herein by refer	Formation, filed as Exhibit 3.1 to the Registrant's Current Report on rence.		
4.3*	Bylaws, as amended and restated March 25, 2009, filed as Exhibit 3.1 to the Registrant's Current Report on Form 8-K, filed on March 31, 2009 (File No. 001-32472), and incorporated herein by reference.				
4.4*	Amendment to Bylaws, filed as Exhibit 3.2 to the Registrant's Current Report on Form 8-K, filed on February 11, 2015, and incorporated herein by reference.				
4.5*	Form of Specimen Stock Certificate, filed as Exhibit 4.1 to the Registrant's Current Report on Form 8-K, filed on February 11, 2015, and incorporated herein by reference.				
5.1*	Opinion of Haynes and Boone, LLP, filed as Exhibit 5.1 to the Registrant's Pre-Effective Amendment No. 1 to Registration Statement on Form S-4, filed on December 16, 2014 (File No. 333-199922), and incorporated herein by reference.				
23.1*	Consent of Haynes and Boone, LLP (included in Exhibit 5.1).				
23.2	Consent of Lane Gorman Trubitt, PLLC, independent registered public accounting firm.				
24.1*	Powers of Attorney, filed as Exhibit 24.1 to the Registrant's Registration Statement on Form S-4, filed on November 6, 2014 (File No. 333-199922), and incorporated herein by reference.				
24.2	Powers of Attorney (incorporated by reference to Part II of this Post-Effective Amendment on Form S-8 to Form S-4).				
99.1*	Amended and Restated Dawson Geophysical Company 2006 Stock and Performance Incentive Plan (filed on February 11, 2015 as Exhibit 10.1 to the Registrant's Current Report on Form 8-K and incorporated herein by reference).				
99.2*	Form of Restated Indemnification Agreement, attached as Annex I to the Registrant's Registration Statement on Form S-4, filed on November 6, 2014 (File No. 333-199922), and incorporated herein by reference.				
* Ir		s indicated.			

Consent of Independent Registered Public Accounting Firm

We hereby consent to the use in this Post-Effective Amendment No. 1 on Form S-8 of Dawson Geophysical Company of our report dated March 17, 2014, relating to the consolidated financial statements and the effectiveness of internal control over financial reporting of TGC Industries, Inc. and subsidiaries as of December 31, 2012 and 2013 and for the years ended December 31, 2011, 2012 and 2013, incorporated herein by reference.

/s/ LANE GORMAN TRUBITT, PLLC

Dallas, Texas February 11, 2015