

DAWSON GEOPHYSICAL CO

Form S-4/A

August 29, 2011

Table of Contents

As filed with the Securities and Exchange Commission on August 29, 2011.

Registration No. 333-174843

**UNITED STATES SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549**

**AMENDMENT NO. 3
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)*

1382

*(Primary Standard Industrial
Classification Code Number)*

75-0970548

*(I.R.S. Employer
Identification Number)*

**508 West Wall, Suite 800
Midland, Texas 79701
(432) 684-3000**

(Address, including zip code, and telephone number, including area code, of registrant's principal executive offices)

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

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

Copies to:

**Neel Lemon
Sarah Rechter
Baker Botts L.L.P.
2001 Ross Avenue
Dallas, Texas 75201
(214) 953-6500**

**Wayne A. Whitener
President and Chief Executive
Officer
TGC Industries, Inc.
101 E. Park Blvd., Suite 955
Plano, Texas 75074
(972) 881-1099**

**Rice M. Tilley, Jr.
Bruce Newsome
Haynes and Boone, LLP
2323 Victory Avenue, Suite 700
Dallas, Texas 75219
(214) 651-5000**

Approximate date of commencement of the proposed sale of the securities to the public: As soon as practicable after this registration statement becomes effective and upon completion of the merger described in the enclosed document.

If the securities being registered on this Form are being offered in connection with the formation of a holding company and there is compliance with General Instruction G, check the following box.

If this Form is filed to register additional securities for an offering pursuant to Rule 462(b) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering.

If this Form is a post-effective amendment filed pursuant to Rule 462(d) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering.

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 and smaller reporting company in Rule 12b-2 of the Exchange Act. (Check one):

Large accelerated filer Accelerated filer Non-accelerated filer Smaller reporting company
(Do not check if a smaller reporting company)

If applicable, place an X in the box to designate the appropriate rule provision relied upon in conducting this transaction:

Exchange Act Rule 13e-4(i) (Cross-Border Issuer Tender Offer)

Exchange Act Rule 14d-1(d) (Cross-Border Third-Party Tender Offer)

The Registrant hereby amends this Registration Statement on such date or dates as may be necessary to delay its effective date until the Registrant shall file a further amendment which specifically states that this Registration Statement shall thereafter become effective in accordance with Section 8(a) of the Securities Act of 1933, as amended, or until this Registration Statement shall become effective on such date as the Securities and Exchange Commission, acting pursuant to Section 8(a), may determine.

Table of Contents

The information in this joint proxy statement/prospectus is not complete and may be changed. We may not sell these securities until the registration statement filed with the Securities and Exchange Commission is effective. This preliminary joint proxy statement/prospectus is not an offer to sell these securities and we are not soliciting an offer to buy these securities in any state where the offer or sale is not permitted.

SUBJECT TO COMPLETION, DATED AUGUST 29, 2011

PROPOSED MERGER YOUR VOTE IS VERY IMPORTANT

To the shareholders of Dawson Geophysical Company and TGC Industries, Inc.:

On March 21, 2011, Dawson Geophysical Company, or Dawson, and TGC Industries, Inc., or TGC, announced our proposed merger. The boards of directors of Dawson and TGC have each approved an agreement and plan of merger, as amended, or the merger agreement, pursuant to which 6446 Acquisition Corp., or Merger Sub, a newly formed wholly owned subsidiary of Dawson, will be merged with and into TGC, with TGC surviving the merger as a direct wholly owned subsidiary of Dawson.

This joint proxy statement/prospectus describes the terms of the merger agreement and the merger, including the reasons the merger was proposed, the negotiation process that led to entry into the merger agreement, and other background information. We are sending you this joint proxy statement/prospectus and related materials in connection with the solicitation of proxies by the boards of directors of Dawson and TGC for use at their special meetings of shareholders, both to be held on [], 2011. At the special meetings, among other items, the shareholders of Dawson and TGC will be asked to approve proposals relating to the merger. These proposals are discussed in greater detail in the remainder of this joint proxy statement/prospectus. We urge you to read carefully this joint proxy statement/prospectus and the documents incorporated by reference into it.

If the proposed merger is completed, then pursuant to the merger agreement, each holder of shares of TGC common stock will be entitled to receive 0.188 shares of Dawson common stock for each share of TGC common stock owned, as well as cash payable in lieu of fractional shares pursuant to the terms of the merger agreement.

We anticipate that, immediately following completion of the merger, current Dawson shareholders will own approximately 68% of the outstanding shares of Dawson common stock and TGC shareholders will own approximately 32% of the outstanding shares of Dawson common stock.

Dawson shareholders will continue to own their existing shares of Dawson common stock. Dawson's common stock is listed on NASDAQ under the symbol DWSN. TGC's common stock is listed on NASDAQ under the symbol TGE.

Dawson is holding a special meeting of its shareholders to approve the issuance of shares of Dawson common stock in connection with the proposed merger. Certain executive officers and directors of Dawson who own, in the aggregate, approximately 3.8% of the currently outstanding shares of Dawson common stock have entered into a voting agreement with TGC. Pursuant to and subject to the terms of the voting agreement, those directors and executive officers have agreed, among other things, to vote their shares of Dawson common stock in favor of the issuance of shares of Dawson common stock in connection with the proposed merger at the Dawson special meeting.

TGC is holding a special meeting of its shareholders to approve the merger agreement. Certain executive officers and directors of TGC and their affiliates who own, in the aggregate, approximately 28.7% of the currently outstanding shares of TGC common stock have entered into voting agreements with Dawson. Pursuant to and subject to the terms of those voting agreements, those directors and executive officers and their affiliates have agreed, among other things, to vote their shares of TGC common stock in favor of approval of the merger agreement at the TGC special meeting.

The obligations of Dawson and TGC to complete the merger are subject to the satisfaction or waiver of several conditions. We cannot complete the merger unless, among other things:

the holders of at least a majority of the outstanding shares of Dawson common stock present in person or represented by proxy and entitled to vote at the Dawson special meeting, assuming a quorum is present, approve the issuance of shares of Dawson common stock in connection with the proposed merger; and

the merger agreement is approved by the holders of at least 80% of the outstanding shares of TGC common stock.

All Dawson and TGC shareholders are invited to attend their company's special meeting in person. **Your vote is very important, regardless of the number of shares you own.** Whether or not you expect to attend either special meeting in person, please submit a proxy to vote your shares as promptly as possible so that your shares may be represented and voted at the Dawson or TGC special meeting, as applicable, by signing, dating and returning the enclosed proxy card, by calling the toll-free telephone number, or by using the Internet as described in the instructions included with your proxy card.

This document is a prospectus relating to the shares of Dawson common stock to be issued pursuant to the merger and a proxy statement for each of Dawson and TGC to solicit proxies for their respective special meetings of shareholders. This document contains answers to frequently asked questions and a summary of the important terms of the merger, the merger agreement and related matters, followed by a more detailed discussion.

For a discussion of certain significant matters that you should consider before voting, see Risk Factors beginning on page 27.

We look forward to the successful completion of the merger.

Sincerely,
Stephen C. Jumper
President and Chief Executive Officer
Dawson Geophysical Company

Sincerely,
Wayne A. Whitener
President and Chief Executive Officer
TGC Industries, Inc.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of the Dawson common stock to be issued pursuant to the merger or passed upon the adequacy or accuracy of this joint proxy statement/prospectus. Any representation to the contrary is a criminal offense.

This joint proxy statement/prospectus is dated [], 2011 and is first being mailed to shareholders on or about [], 2011.

Table of Contents

ADDITIONAL INFORMATION

This joint proxy statement/prospectus incorporates important business and financial information about Dawson and TGC from other documents that are not included in or delivered with this joint proxy statement/prospectus. This information is available to you without charge upon your request. You can review documents incorporated by reference in this joint proxy statement/prospectus free of charge through the Securities and Exchange Commission, or the SEC, website (<http://www.sec.gov>). You can also obtain the documents incorporated by reference into this document by requesting them in writing or by telephone from the appropriate company at the following addresses and telephone numbers:

Dawson Geophysical Company

508 West Wall, Suite 800

Midland, Texas 79701

Telephone: (432) 684-3000

or

Morrow & Co., LLC

470 West Avenue, 3rd Floor

Stamford, CT 06902

Banks and brokers call collect: (203) 658-9400

Shareholders Please Call Toll Free: (800) 607-0088

TGC Industries, Inc.

101 East Park Blvd., Suite 955

Plano, Texas 75074

Telephone: (972) 881-1099

or

D.F. King & Co., Inc.

48 Wall Street, 22nd Floor

New York, New York 10005

Banks and brokers call collect: (212) 269-5550

Others call toll-free: (800) 967-4617

You will not be charged for any of the documents that you request. Shareholders requesting documents should do so by [], 2011, in order to receive them before the applicable special meeting.

For more information, see *Where You Can Find More Information* beginning on page 153.

This document does not constitute an offer to sell, or a solicitation of an offer to buy, any securities, or the solicitation of a proxy, in any jurisdiction to or from any person to whom it is unlawful to make any such offer or solicitation in such jurisdiction. Information contained in this document regarding Dawson has been provided by Dawson and information contained in this document regarding TGC has been provided by TGC.

VOTING BY TELEPHONE, INTERNET OR MAIL

Shareholders of record of either Dawson or TGC may submit their proxies by:

Telephone. You can vote by telephone by calling the toll-free number (800) 690-6903 in the United States, Canada or Puerto Rico on a touch-tone telephone. You will then be prompted to enter the control number printed on either Dawson's or TGC's proxy card, as applicable, and to follow the subsequent instructions. Telephone voting is available 24 hours a day until 11:59 p.m. New York City time on [], 2011. If you vote by telephone, you do not need to return your proxy card or voting instruction card.

Internet. You can vote over the Internet by accessing the website at <http://www.proxyvote.com> and following the instructions on the secure website. Internet voting is available 24 hours a day until 11:59 p.m. New York City time on [], 2011. If you vote over the Internet, you do not need to return your proxy card or voting instruction card.

Mail. You can vote by mail by completing, signing, dating and mailing your proxy card or voting instruction card in the postage-paid envelope included with this joint proxy statement/prospectus.

If you hold your shares through a bank, broker, custodian or other record holder:

Please refer to your company's proxy card or voting instruction form or the information forwarded by your bank, broker, custodian or other record holder to see which voting methods are available to you.

Table of Contents

DAWSON GEOPHYSICAL COMPANY
508 West Wall, Suite 800
Midland, TX 79701
432-684-3000

NOTICE OF SPECIAL MEETING OF SHAREHOLDERS
TO BE HELD ON [], 2011

To the Shareholders of Dawson Geophysical Company:

We will hold a special meeting of the shareholders of Dawson Geophysical Company, or Dawson, at the offices of Baker Botts L.L.P. at 2001 Ross Avenue, Suite 1100, Dallas, Texas at [] a.m., central time, on [], 2011 for the following purposes:

to approve the issuance of shares of Dawson common stock to TGC shareholders pursuant to the terms of the Agreement and Plan of Merger, dated March 20, 2011, by and among Dawson, TGC Industries, Inc., or TGC, and 6446 Acquisition Corp., a wholly owned subsidiary of Dawson, as amended; and

to approve adjournments of the special meeting, if necessary or appropriate, to permit the solicitation of additional proxies if there are not sufficient votes at the time of the special meeting to adopt the foregoing proposal.

Only holders of record of Dawson common stock at the close of business on August 29, 2011, the record date for the special meeting, are entitled to receive this notice and to vote their shares at the special meeting or at any adjournment or postponement of the special meeting.

We cannot complete the merger unless holders of a majority of all outstanding shares of Dawson common stock present in person or represented by proxy and entitled to vote at the special meeting, assuming a quorum is present, vote to approve the issuance of shares of Dawson common stock in connection with the proposed merger.

For more information about the merger and the other transactions contemplated by the merger agreement, please review the accompanying joint proxy statement/prospectus and the merger agreement attached to it as Annex A.

Dawson's board of directors recommends that Dawson shareholders vote FOR approval of the issuance of shares of Dawson common stock to TGC shareholders pursuant to the merger agreement and FOR any adjournment of the Dawson special meeting, if necessary or appropriate, to permit further solicitation of proxies.

By Order of the Board of Directors,

Christina W. Hagan
Secretary

DATED this [] day of [], 2011

IMPORTANT

Edgar Filing: DAWSON GEOPHYSICAL CO - Form S-4/A

Your vote is important. Whether or not you plan to attend the special meeting, please complete, sign and date the enclosed proxy and return it promptly in the enclosed postage-paid envelope. You may also cast your vote by telephone or over the Internet by following the instructions on your proxy card. If you vote by telephone or over the Internet, you do not need to submit your proxy card. **Remember, your vote is important, so please act today!**

Table of Contents

**TGC INDUSTRIES, INC.
101 E. Park Blvd., Suite 955
Plano, Texas 75074
(972) 881-1099**

**NOTICE OF SPECIAL MEETING OF SHAREHOLDERS
TO BE HELD ON [], 2011**

To the Shareholders of TGC Industries, Inc.:

We will hold a special meeting of the shareholders of TGC Industries, Inc., or TGC, at the offices of Haynes and Boone LLP at 2323 Victory Avenue, Suite 700, Dallas, Texas at [] a.m., central time, on [], 2011 for the following purposes:

to approve the Agreement and Plan of Merger, dated March 20, 2011, by and among TGC, Dawson Geophysical Company, or Dawson, and 6446 Acquisition Corp., a wholly owned subsidiary of Dawson, as amended;

to approve a non-binding advisory resolution on certain compensation to be paid by TGC to TGC's named executive officers upon consummation of the merger; and

to approve adjournments of the special meeting, if necessary or appropriate, to permit the solicitation of additional proxies if there are not sufficient votes at the time of the special meeting to approve the merger agreement.

Only holders of record of TGC common stock at the close of business on August 29, 2011, the record date for the special meeting, are entitled to receive this notice and to vote their shares at the special meeting or at any adjournment or postponement of the special meeting.

We cannot complete the merger unless holders of at least 80% of all outstanding shares of TGC common stock vote to approve the merger agreement. However, approval by TGC shareholders of certain compensation to be paid by TGC to TGC's named executive officers upon consummation of the merger is not a condition to the merger. Accordingly, even if TGC shareholders do not approve such compensation, if all closing conditions to the merger are satisfied, Dawson and TGC will be obligated to close the merger, and TGC named executive officers will be paid such compensation.

For more information about the merger and the other transactions contemplated by the merger agreement, including the payment of certain compensation to be paid by TGC to TGC's named executive officers upon consummation of the merger, please review the accompanying joint proxy statement/prospectus and the merger agreement attached to it as Annex A.

TGC's board of directors recommends that TGC shareholders vote FOR approval of the merger agreement, FOR approval of the non-binding advisory resolution on certain compensation to be paid by TGC to TGC's named executive officers upon consummation of the merger and FOR adjournments of the TGC special meeting, if necessary or appropriate, to permit further solicitation of proxies. In considering the recommendations of the TGC board of directors, TGC shareholders should be aware that members of TGC's board of directors and its executive officers have agreements and arrangements that provide them with interests in the merger that are different from, or in addition to, those of TGC shareholders. See The Merger

Conflicts of Interests beginning on page 92.

By Order of the Board of Directors,

James K. Brata
Secretary

DATED this [] day of [], 2011

IMPORTANT

Your vote is important. Whether or not you plan to attend the special meeting, please complete, sign and date the enclosed proxy and return it promptly in the enclosed postage-paid envelope. You may also cast your vote by telephone or over the Internet by following the instructions on your proxy card. If you vote by telephone or over the Internet, you do not need to submit your proxy card. Please do not send any stock certificates at this time. **Remember, your vote is important, so please act today!**

Table of Contents**TABLE OF CONTENTS**

	Page
<u>QUESTIONS AND ANSWERS ABOUT THE MERGER</u>	v
<u>SUMMARY</u>	1
<u>The Parties to the Merger Agreement</u>	1
<u>The Merger</u>	1
<u>Recommendations of the Dawson Board of Directors</u>	3
<u>Recommendations of the TGC Board of Directors</u>	3
<u>Opinion of Raymond James & Associates, Inc., Financial Advisor to Dawson</u>	3
<u>Opinion of Southwest Securities, Inc., Financial Advisor to TGC</u>	4
<u>Ownership of Dawson Following the Merger</u>	4
<u>Board of Directors and Management of Dawson Following the Merger</u>	4
<u>The Dawson Special Meeting</u>	5
<u>The TGC Special Meeting</u>	5
<u>Record Date</u>	5
<u>Votes Required to Approve the Proposals</u>	5
<u>Outstanding Shares and Share Ownership of Management</u>	6
<u>Conditions to Completion of the Merger</u>	6
<u>Regulatory Requirements</u>	7
<u>Termination of the Merger Agreement</u>	8
<u>Termination Fee and Expense Reimbursement</u>	9
<u>Conflicts of Interests</u>	10
<u>Acquisition Proposals</u>	10
<u>Risk Factors</u>	11
<u>Material U.S. Federal Income Tax Consequences of the Merger</u>	11
<u>Accounting Treatment</u>	12
<u>Listing of Dawson Common Stock and Delisting and Deregistration of TGC Common Stock</u>	12
<u>Appraisal Rights</u>	12
<u>Comparison of Shareholder Rights</u>	12
<u>FINANCIAL SUMMARY</u>	13
<u>Selected Historical Financial Data of Dawson</u>	13
<u>Selected Historical Consolidated Financial Data of TGC</u>	17
<u>Selected Unaudited Pro Forma Condensed Combined Consolidated Financial and Other Information</u>	20
<u>COMPARATIVE PER SHARE MARKET PRICE AND DIVIDEND INFORMATION</u>	22
<u>Dawson Historical Market Price Data and Dividends</u>	22
<u>TGC Historical Market Price Data and Dividends</u>	23
<u>Value of Merger Consideration</u>	23
<u>Comparative Per Share Information</u>	24
<u>UNAUDITED COMPARATIVE PER SHARE DATA</u>	25
<u>RISK FACTORS</u>	27
<u>CAUTIONARY STATEMENTS CONCERNING FORWARD-LOOKING STATEMENTS</u>	34
<u>THE DAWSON SPECIAL MEETING</u>	36
<u>Date, Time and Place</u>	36
<u>Purpose</u>	36

Table of Contents

	Page
<u>Board Recommendations</u>	36
<u>Record Date; Outstanding Shares; Shares Entitled to Vote</u>	36
<u>Quorum</u>	36
<u>Required Vote</u>	37
<u>Tabulation of the Votes</u>	37
<u>Stock Ownership of and Voting by Dawson's Directors and Executive Officers</u>	37
<u>Voting of Shares by Holders of Record</u>	37
<u>Voting of Shares Held in Street Name</u>	38
<u>Revocability of Proxies; Changing Your Vote</u>	39
<u>Solicitation of Proxies</u>	39
<u>No Other Business</u>	39
<u>Adjournments and Postponements</u>	39
<u>Assistance</u>	40
<u>DAWSON PROPOSAL 1 APPROVAL OF THE ISSUANCE OF SHARES OF DAWSON COMMON STOCK TO TGC SHAREHOLDERS PURSUANT TO THE MERGER AGREEMENT</u>	41
<u>DAWSON PROPOSAL 2 ADJOURNMENT OF THE DAWSON SPECIAL MEETING</u>	42
<u>THE TGC SPECIAL MEETING</u>	43
<u>Date, Time and Place</u>	43
<u>Purpose</u>	43
<u>Board Recommendations</u>	43
<u>Record Date; Outstanding Shares; Shares Entitled to Vote</u>	43
<u>Quorum</u>	43
<u>Required Vote</u>	44
<u>Tabulation of the Votes</u>	44
<u>Stock Ownership of and Voting by TGC's Directors and Executive Officers</u>	44
<u>Voting of Shares by Holders of Record</u>	44
<u>Voting of Shares Held in Street Name</u>	45
<u>Revocability of Proxies; Changing Your Vote</u>	46
<u>Solicitation of Proxies</u>	46
<u>No Other Business</u>	46
<u>Adjournments and Postponements</u>	47
<u>Assistance</u>	47
<u>TGC PROPOSAL 1 APPROVAL OF THE MERGER AGREEMENT</u>	48
<u>TGC PROPOSAL 2 NON-BINDING, ADVISORY VOTE ON APPROVAL OF CERTAIN COMPENSATION TO BE PAID BY TGC TO TGC'S NAMED EXECUTIVE OFFICERS</u>	49
<u>TGC PROPOSAL 3 ADJOURNMENT OF THE TGC SPECIAL MEETING</u>	51
<u>THE PARTIES TO THE MERGER</u>	52
<u>THE MERGER</u>	54
<u>Overview</u>	54
<u>Background of the Merger</u>	54
<u>Dawson's Reasons for the Merger and Recommendation of Dawson's Board of Directors</u>	63
<u>TGC's Reasons for the Merger and Recommendation of TGC's Board of Directors</u>	68
<u>Certain Information Provided by the Parties</u>	71
<u>Opinion of Dawson's Financial Advisor</u>	75

Table of Contents

	Page
<u>Opinion of TGC's Financial Advisor</u>	81
<u>Stock Ownership of Directors and Executive Officers of Dawson and TGC</u>	89
<u>Merger Consideration</u>	89
<u>Accounting Treatment</u>	90
<u>Listing of Dawson Common Stock and Delisting and Deregistration of TGC Common Stock</u>	91
<u>Restrictions on Sales of Shares of Dawson Common Stock Received in the Merger</u>	91
<u>Opinions as to Material U.S. Federal Income Tax Consequences of the Merger</u>	91
<u>Ownership of Dawson Following the Merger</u>	91
<u>Board of Directors and Management of Dawson Following the Merger</u>	91
<u>Conflicts of Interests</u>	92
<u>Appraisal Rights</u>	97
<u>Regulatory Requirements</u>	97
<u>Dividend Policy</u>	97
<u>THE MERGER AGREEMENT</u>	98
<u>Merger</u>	98
<u>Effective Time; Closing</u>	98
<u>Governance Matters</u>	99
<u>Merger Consideration</u>	99
<u>Effect of the Merger on TGC's Equity Awards</u>	100
<u>Payment of Merger Consideration</u>	100
<u>Representations and Warranties</u>	102
<u>Definition of Material Adverse Effect</u>	104
<u>Covenants and Agreements</u>	104
<u>Conditions to Completion of the Merger</u>	112
<u>Termination of the Merger Agreement</u>	114
<u>Termination Fee and Expense Reimbursement</u>	116
<u>Amendments, Extensions and Waivers</u>	118
<u>Specific Performance</u>	118
<u>Governing Law</u>	118
<u>THE TGC SHAREHOLDER VOTING AGREEMENTS</u>	119
<u>No Disposition</u>	119
<u>Voting of Shares of TGC Common Stock</u>	119
<u>Irrevocable Proxy</u>	119
<u>Termination of the TGC Shareholder Voting Agreements</u>	120
<u>Shareholder Capacity</u>	120
<u>Specific Performance</u>	120
<u>Governing Law</u>	120
<u>THE DAWSON SHAREHOLDER VOTING AGREEMENT</u>	121
<u>No Disposition</u>	121
<u>Voting of Shares of Dawson Common Stock</u>	121
<u>Irrevocable Proxy</u>	121
<u>Termination of the Dawson Shareholder Voting Agreement</u>	122
<u>Shareholder Capacity</u>	122
<u>Specific Performance</u>	122

Table of Contents

	Page
<u>Governing Law</u>	122
<u>THE EMPLOYMENT AGREEMENTS</u>	123
<u>Term</u>	123
<u>Duties and Compensation</u>	123
<u>Termination of the Employment Agreements</u>	123
<u>Payment upon Termination</u>	125
<u>Restrictive Covenants</u>	125
<u>Governing Law</u>	126
<u>Description of Specific Employment Agreements</u>	126
<u>MATERIAL U.S. FEDERAL INCOME TAX CONSEQUENCES OF THE MERGER</u>	127
<u>General</u>	127
<u>Qualification of the Merger as a Reorganization and Tax Opinions</u>	128
<u>Material U.S. Federal Income Tax Consequences if the Merger Fails to Qualify as a Tax-Free Reorganization</u>	129
<u>Backup Withholding and Information Reporting</u>	129
<u>Reporting Requirements</u>	129
<u>COMPARISON OF SHAREHOLDER RIGHTS</u>	130
<u>EXPERTS</u>	135
<u>UNAUDITED PRO FORMA CONDENSED COMBINED CONSOLIDATED FINANCIAL INFORMATION</u>	136
<u>LEGAL MATTERS</u>	149
<u>DATES FOR SUBMISSION OF SHAREHOLDER PROPOSALS FOR THE 2011 ANNUAL MEETINGS</u>	150
<u>Dawson</u>	150
<u>TGC</u>	150
<u>HOUSEHOLDING OF JOINT PROXY STATEMENT/PROSPECTUS</u>	152
<u>WHERE YOU CAN FIND MORE INFORMATION</u>	153
LIST OF ANNEXES	
<u>Annex A-1 Agreement and Plan of Merger</u>	A-1-1
<u>Annex A-2 Amendment to Agreement and Plan of Merger</u>	A-2-1
<u>Annex B Opinion of Raymond James & Associates, Inc.</u>	B-1
<u>Annex C Opinion of Southwest Securities, Inc.</u>	C-1
<u>Annex D Form of TGC Shareholder Voting Agreement</u>	D-1
<u>Annex E Form of Dawson Shareholder Voting Agreement</u>	E-1
<u>Annex F Form of Employment Agreement</u>	F-1
<u>Annex G Form of Indemnification Agreement</u>	G-1
<u>EX-5.1</u>	
<u>EX-8.1</u>	
<u>EX-8.2</u>	
<u>EX-23.4</u>	
<u>EX-23.5</u>	
<u>EX-99.1</u>	
<u>EX-99.2</u>	
<u>EX-99.3</u>	
<u>EX-99.4</u>	

Table of Contents

QUESTIONS AND ANSWERS ABOUT THE MERGER

*The following are brief answers to common questions that you may have regarding the proposals being considered at the special meeting of Dawson shareholders, which we refer to as the Dawson special meeting, and the special meeting of TGC shareholders, which we refer to as the TGC special meeting. Dawson and TGC urge you to read carefully this entire joint proxy statement/prospectus because the information in this section may not provide all the information that might be important to you in determining how to vote. Additional important information is also contained in the annexes to, and the documents incorporated by reference in, this joint proxy statement/prospectus. See *Where You Can Find More Information* beginning on page 153.*

In this joint proxy statement/prospectus, unless the context otherwise requires, Dawson refers to Dawson Geophysical Company, a Texas corporation, Merger Sub refers to 6446 Acquisition Corp., a Texas corporation and wholly owned subsidiary of Dawson, TGC refers to TGC Industries, Inc., a Texas corporation, and its consolidated subsidiaries, the merger agreement refers to the Agreement and Plan of Merger, dated March 20, 2011, by and among Dawson, Merger Sub and TGC, as amended by Amendment to Agreement and Plan of Merger, dated August 23, 2011, and as it may be further amended from time to time, and the merger refers to the merger of Merger Sub with and into TGC, as contemplated by the merger agreement. A copy of the original merger agreement is attached as Annex A-1 to this joint proxy statement/prospectus and a copy of Amendment to Agreement and Plan of Merger is attached as Annex A-2 to this joint proxy statement/prospectus.

Q: Why am I receiving this document?

A: You are receiving this joint proxy statement/prospectus because you are a shareholder of record of either Dawson or TGC as of August 29, 2011, the record date for the special meetings.

Dawson has agreed to acquire TGC by means of a merger of Merger Sub with and into TGC, with TGC surviving the merger as a wholly owned subsidiary of Dawson.

In order to complete the merger, among other conditions, Dawson shareholders must vote to approve the issuance of shares of Dawson common stock to TGC shareholders pursuant to the merger agreement. In addition, TGC shareholders must vote to approve the merger agreement. Dawson and TGC will hold separate special meetings to obtain these approvals.

At the TGC special meeting, TGC shareholders will also be voting on a non-binding advisory resolution on certain compensation to be paid by TGC to TGC's named executive officers upon consummation of the merger. However, approval by TGC shareholders of such compensation is not a condition to the merger. Accordingly, even if TGC shareholders do not approve such compensation, if all closing conditions to the merger are satisfied, Dawson and TGC will be obligated to close the merger, and TGC's named executive officers will be paid such compensation.

This joint proxy statement/prospectus, which you should read carefully, contains important information about the merger, the merger agreement and the special meetings of Dawson and TGC shareholders. Dawson and TGC are each delivering this document to their shareholders because it is a proxy statement being used by the board of directors of both Dawson and TGC to solicit proxies of shareholders in connection with their respective special meetings. In addition, this document is a prospectus being delivered to TGC shareholders because Dawson is offering shares of its common stock to TGC shareholders in exchange for their shares of TGC common stock in connection with the proposed merger.

Q: What will happen in the merger?

A: In the merger, Merger Sub will be merged with and into TGC, with TGC surviving as a direct wholly owned subsidiary of Dawson. After the merger, the current shareholders of Dawson and the current shareholders of TGC will be the shareholders of Dawson.

Q: What are holders of Dawson common stock being asked to vote on?

A: Holders of Dawson common stock are being asked to:

v

Table of Contents

approve the issuance of shares of Dawson common stock to TGC shareholders pursuant to the terms of the merger agreement; and

approve adjournments of the Dawson special meeting, if necessary or appropriate, to permit the solicitation of additional proxies if there are insufficient votes at the time of the Dawson special meeting to adopt the foregoing proposal.

Q: What are holders of TGC common stock being asked to vote on?

A: Holders of TGC common stock are being asked to:

approve the merger agreement;

approve the non-binding advisory resolution on certain compensation to be paid by TGC to TGC's named executive officers upon consummation of the merger; and

approve adjournments of the TGC special meeting, if necessary or appropriate, to permit the solicitation of additional proxies if there are insufficient votes at the time of the TGC special meeting to approve the merger agreement.

Q: Why have Dawson and TGC decided to merge?

A: Dawson and TGC believe that the merger will provide strategic and financial benefits to their shareholders, clients and employees, including:

increased data acquisition crew capacity, with a combined crew count of 21 crews, as currently configured, in the continental United States and six in Canada, as well as combined channel counts in excess of 210,000 and more than 200 vibrator energy source units;

a more diversified client mix, including increased geographical diversity and access to the Canadian market;

expanded service offerings, including those leveraging TGC's dynamite source and shot-hole drilling capabilities;

strong prospects for an expanded client base and product offering to allow for new business relationships not available to either company on a stand-alone basis;

greater crew efficiencies gained through the ability to reconfigure crews, leverage and share equipment and personnel resources, including by leveraging Canadian resources during summer thaw periods;

a continued balance of oil and natural gas projects and assignments, particularly in oil and liquid-rich basins;

expanded support functions, including permit, survey, maintenance repair facilities and in-house trucking capabilities;

better market position to meet client needs with an increased ability to service seismic projects in a timely manner and to provide higher resolution images with expanded channel counts, particularly with respect to unconventional reservoirs;

increased opportunities to scale and align crew size with project size;

the shareholders of Dawson and TGC will have the opportunity to participate in the equity value of the combined companies and have the benefit of the increased public market liquidity resulting from the combined companies larger public float and market cap; and

opportunities for cost savings and revenue generation through enhanced operational logistics.

Q: Why am I being asked to cast a non-binding vote to approve certain compensation to be paid by TGC to TGC's named executive officers upon consummation of the merger?

Table of Contents

A: New SEC rules resulting from The Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010, which we refer to as the Dodd-Frank Act, require TGC to seek a non-binding vote from its shareholders with respect to certain compensation that will be paid to TGC's named executive officers by TGC upon consummation of the merger. Accordingly, in compliance with the Dodd-Frank Act, we are asking TGC shareholders to approve such compensation. However, even if TGC shareholders do not approve such compensation, if all closing conditions to the merger are satisfied, Dawson and TGC will be obligated to close the merger, and TGC's named executive officers will be paid such compensation.

Q: Why is my vote important?

A: Completion of the merger requires the approval of the shareholders of Dawson and TGC at their respective special meetings. If you do not return your proxy card by mail or submit your proxy by telephone or over the Internet or vote in person at the special meetings, it may be difficult for Dawson and TGC to obtain the necessary quorum to hold their special meetings.

In addition, since approval of the merger agreement by the shareholders of TGC requires the affirmative vote of at least 80% of the outstanding shares of TGC common stock, if you are a TGC shareholder and you fail to vote, that will have the same effect as a vote **AGAINST** approval of the merger agreement.

Whether you are a Dawson or TGC shareholder, if you abstain from voting, that will have the same effect as a vote **AGAINST** each of the matters proposed at the applicable special meeting.

Dawson's board of directors recommends that Dawson shareholders vote FOR approval of the issuance of shares of Dawson common stock to TGC shareholders pursuant to the merger agreement and FOR approval of any adjournment of the Dawson special meeting, if necessary or appropriate, to permit further solicitation of proxies.

TGC's board of directors recommends that TGC shareholders vote FOR approval of the merger agreement, FOR approval of the non-binding advisory resolution on certain compensation to be paid by TGC to TGC's named executive officers upon consummation of the merger and FOR approval of any adjournment of the TGC special meeting, if necessary or appropriate, to permit further solicitation of proxies.

As described under the headings TGC Proposal 2 Non-Binding, Advisory Vote on Approval of Certain Compensation to be Paid by TGC to TGC's Named Executive Officers and The Merger Conflicts of Interests beginning on pages 49 and 92, respectively, of this joint proxy statement/prospectus, TGC's directors and executive officers will receive financial benefits that are different from, or in addition to, those of TGC's shareholders.

No matter how many shares you own of either Dawson or TGC common stock, your vote is important and you are encouraged to vote.

Q: What will I receive in the merger in exchange for my shares of TGC common stock?

A: Under the merger agreement, TGC shareholders will receive 0.188 shares of Dawson common stock for every one share of TGC common stock they own, provided that the average of the volume weighted average price of Dawson common stock on NASDAQ during the 10 consecutive trading days ending on [], 2011 (which is the date that is two business days prior to the date of the special meetings) is equal to or greater than \$32.54 but less

than or equal to \$52.54. We refer to the number of shares of Dawson common stock that TGC shareholders will receive for each share of TGC common stock they hold as the exchange ratio. In addition, we refer to the 10 consecutive trading day average of the volume weighted average price of Dawson common stock calculated as described above as the 10-day average VWAP of Dawson common stock.

In the event that the 10-day average VWAP of Dawson common stock as of [], 2011 is less than \$32.54 or greater than \$52.54, the parties, at their respective option, will be entitled to terminate the transaction following two business days of good faith negotiations to determine a modified, mutually acceptable

Table of Contents

exchange ratio. See The Merger Agreement Merger Consideration Determination of the Exchange Ratio on page 99.

If the exchange ratio is modified, Dawson and TGC will each disclose the adjustment on a current report on Form 8-K and in a press release and will recirculate this joint proxy statement/prospectus or a supplement thereto and resolicit proxies.

The 10-day average VWAP of Dawson common stock as of March 18, 2011, the last trading day prior to announcement of the transaction, was \$44.16. The 10-day average VWAP of Dawson common stock as of the date of this joint proxy statement/prospectus was \$[], which is within the trading range required to prevent the exchange ratio from being renegotiated or the merger agreement being terminated.

Dawson will not issue any fractional shares of its common stock in connection with the proposed merger. For each fractional share that would otherwise be issued, Dawson will pay cash (without interest) in an amount equal to the product of the fractional share and the closing price for shares of Dawson common stock on NASDAQ on the business day immediately prior to the closing date of the merger. See The Merger Agreement Merger Consideration Fractional Shares on page 100.

We anticipate that upon completion of the transaction, Dawson will have approximately 11.7 million shares of common stock outstanding, with current Dawson shareholders owning approximately 68% of the combined company and current TGC shareholders owning approximately 32%.

For additional information regarding what TGC shareholders will be entitled to receive pursuant to the merger, see The Merger Merger Consideration on page 89.

Q: What is the value of the merger consideration that TGC shareholders are to receive?

A: The number of shares of Dawson common stock to be issued in the merger for each share of TGC common stock is fixed (except in the event of any stock split, reverse stock split, stock dividend, combination, reclassification, recapitalization or other similar transaction or event with respect to Dawson common stock or TGC common stock) and will not be adjusted for changes in the market price of either Dawson common stock or TGC common stock unless the 10-day average VWAP of Dawson common stock as of [], 2011 is less than \$32.54 or greater than \$52.54. Accordingly, any change in the price of Dawson common stock prior to the merger will affect the market value of the merger consideration that TGC shareholders will receive as a result of the merger. For additional information regarding the value of the merger consideration, see The Merger The Merger Consideration The Number of Shares of Dawson Common Stock to be Issued in the Merger for Each Share of TGC Common Stock is Fixed on page 90.

The 10-day average VWAP of Dawson common stock as of March 18, 2011, the last trading day prior to announcement of the transaction, was \$44.16. The 10-day average VWAP of Dawson common stock as of the date of this joint proxy statement/prospectus was \$[]. However, you should obtain current stock price quotations for Dawson common stock and TGC common stock before voting. Dawson common stock and TGC common stock are listed on NASDAQ under the symbols DWSN and TGE, respectively.

In the event that the 10-day average VWAP of Dawson common stock as of [], 2011 is less than \$32.54 or greater than \$52.54, the parties, at their respective option, will be entitled to terminate the transaction following two business days of good faith negotiations to determine a modified, mutually acceptable exchange ratio.

If the exchange ratio is modified, Dawson and TGC will each disclose the adjustment on a current report on Form 8-K and in a press release and will recirculate this joint proxy statement/prospectus or a supplement thereto and resolicit proxies.

Q: How likely is it that the 10-day average VWAP of Dawson common stock as of [], 2011 will not be in the designated range, thereby meaning that the exchange ratio will need to be renegotiated or the merger agreement will be terminated?

A: We cannot predict what the trading price of Dawson common stock will be at the effective time of the merger or what the 10-day average VWAP of Dawson common stock will be as of [], 2011. The

Table of Contents

10-day average VWAP of Dawson common stock as of the date of this joint proxy statement/prospectus was \$[], which is within the trading range required to prevent the exchange ratio from being renegotiated or the merger agreement being terminated.

For additional information regarding how the 10-day average VWAP of Dawson common stock will be calculated, see *The Merger* *The Merger Consideration* *The Number of Shares of Dawson Common Stock to be Issued in the Merger for Each Share of TGC Common Stock is Fixed* on page 90.

Q: Will Dawson shareholders receive any additional shares as a result of the merger?

A: No. Dawson shareholders will not receive any additional shares of Dawson common stock as a result of the merger.

Q: What will happen to shares of Dawson common stock in the merger?

A: Holders of shares of Dawson common stock will continue to own their existing shares, which will not be converted or canceled in the merger. In the merger, each outstanding share of TGC common share will be converted into the right to receive 0.188 shares of Dawson common stock provided that the 10-day average VWAP of Dawson common stock as of [], 2011 is equal to or greater than \$32.54 but less than or equal to \$52.54. As of August 5, 2011, there were 7,910,885 shares of Dawson common stock, 19,239,967 shares of TGC common stock and outstanding stock options to acquire up to 705,440 shares of TGC common stock outstanding. Based on such number of shares and options outstanding, there would be an aggregate of approximately 11,660,622 shares of Dawson common stock outstanding after completion of the merger, of which approximately 68% of those outstanding shares would be held by current Dawson shareholders and the remaining approximate 32% would be held by current TGC shareholders.

Q: Will the merger affect the board of directors or officers of Dawson after the merger?

A: Yes. Under the merger agreement, Dawson has agreed to take all necessary actions to cause, as of the effective time of the merger, the Dawson board of directors to include as Dawson directors Wayne A. Whitener and Allen T. McInnes, each of whom is currently a director of TGC. We expect that the current directors of Dawson will continue to serve as directors of Dawson after the merger. Accordingly, in order to accommodate the two additional directors, at the effective time of the merger, the Dawson board of directors will increase in size to 10 directors. See *The Merger Agreement* *Governance Matters* on page 99.

The current officers of Dawson will continue to serve as the officers of Dawson after the merger is complete.

Q: Who is entitled to vote at the Dawson special meeting and the TGC special meeting?

A: *Dawson shareholders:* The record date for the Dawson special meeting is August 29, 2011. Only holders of record of shares of Dawson common stock outstanding and entitled to vote as of the close of business on the record date are entitled to notice of, and to vote at, the Dawson special meeting or any adjournment or postponement of the Dawson special meeting.

TGC shareholders: The record date for the TGC special meeting is August 29, 2011. Only holders of record of shares of TGC common stock outstanding and entitled to vote as of the close of business on the record date are entitled to notice of, and to vote at, the TGC special meeting or any adjournment or postponement of the TGC special meeting.

Q: What vote of Dawson shareholders is required to approve the transaction with TGC?

A: The affirmative vote of a majority of shares of Dawson common stock present in person or represented by proxy and entitled to vote at the Dawson special meeting, in which a quorum is present, is required to approve the issuance of shares of Dawson common stock to TGC shareholders pursuant to the merger agreement.

Any adjournment of the Dawson special meeting, if necessary or appropriate to solicit additional proxies, requires the affirmative vote of the holders of Dawson common stock representing a majority of the votes

Table of Contents

present in person or represented by proxy and entitled to vote at the Dawson special meeting, whether or not a quorum exists.

At the close of business on August 29, 2011, the record date for the Dawson special meeting, directors and executive officers of Dawson had the right to vote []% of the outstanding shares of Dawson common stock. Certain of those executive officers and directors, who collectively owned approximately []% of the shares of Dawson common stock outstanding on such date, have entered into a voting agreement with TGC, which we refer to as the Dawson shareholder voting agreement. Pursuant to and subject to the terms of the Dawson shareholder voting agreement, those directors and executive officers have agreed, among other things, to vote their shares of Dawson common stock in favor of approval of the issuance of shares of Dawson common stock in connection with the proposed merger at the Dawson special meeting. For additional information on the Dawson shareholder voting agreement, see *The Dawson Shareholder Voting Agreement* beginning on page 121.

For additional information on the vote required to approve the issuance of shares of Dawson common stock in connection with the proposed merger, see *The Dawson Special Meeting* beginning on page 36.

Q: How does the Dawson board of directors recommend that Dawson shareholders vote with respect to the proposed merger?

A: Dawson's board of directors recommends that Dawson shareholders vote **FOR** approval of the issuance of shares of Dawson common stock to TGC shareholders pursuant to the merger agreement. For additional information on the recommendation of Dawson's board of directors, see *The Merger Dawson's Reasons for the Merger and Recommendation of Dawson's Board of Directors* beginning on page 63.

Q: What vote of TGC shareholders is required to approve the transaction with Dawson and to approve the non-binding advisory resolution on certain compensation to be paid by TGC to TGC's named executive officers upon consummation of the merger?

A: The affirmative vote of at least 80% of the outstanding shares of TGC common stock is required to approve the merger agreement.

The affirmative vote of a majority of shares of TGC common stock present in person or represented by proxy and entitled to vote at the TGC special meeting, in which a quorum is present, is required to approve the non-binding advisory resolution on certain compensation to be paid by TGC to TGC's named executive officers upon consummation of the merger. However, approval by TGC shareholders of such compensation is not a condition to the merger. Accordingly, even if TGC shareholders do not approve such compensation, if all closing conditions to the merger are satisfied, Dawson and TGC will be obligated to close the merger, and TGC named executive officers will be paid such compensation.

Any adjournment of the TGC special meeting, if necessary or appropriate to solicit additional proxies, requires the affirmative vote of the holders of TGC common stock representing a majority of the votes present in person or represented by proxy and entitled to vote at the TGC special meeting, whether or not a quorum exists.

At the close of business on August 29, 2011, the record date for the TGC special meeting, directors and executive officers of TGC and their respective affiliates had the right to vote []% of the outstanding shares of TGC common stock. Those executive officers and directors and their affiliates have entered into voting agreements with Dawson, which we refer to as the TGC shareholder voting agreements. Pursuant to and subject to the terms of the TGC shareholder voting agreements, those directors and executive officers and their respective affiliates have agreed, among other things, to vote their shares of TGC common stock in favor of approval of the merger

agreement at the TGC special meeting. For additional information on the TGC shareholder voting agreements, see The TGC Shareholder Voting Agreements beginning on page 119.

For additional information on the vote required to approve the merger agreement, see The TGC Special Meeting beginning on page 43.

Table of Contents

Q: How does the TGC board of directors recommend that TGC shareholders vote with respect to the proposed merger and the non-binding advisory resolution on certain compensation to be paid by TGC to TGC's named executive officers upon consummation of the merger?

A: TGC's board of directors recommends that TGC shareholders vote **FOR** approval of the merger agreement. For additional information on the recommendation of TGC's board of directors, see *The Merger TGC's Reasons for the Merger and Recommendation of TGC's Board of Directors* beginning on page 68.

In addition, TGC's board of directors recommends that TGC shareholders vote **FOR** approval of the non-binding advisory resolution on certain compensation to be paid by TGC to TGC's named executive officers upon consummation of the merger.

You should note that TGC's directors and executive officers have interests in the merger as directors or officers that are different from, or in addition to, the interests of other TGC shareholders. For information relating to the interests of TGC's directors and executive officers in the merger, see *The Merger Conflicts of Interests* beginning on page 92.

Q: What constitutes a quorum for the special meetings?

A: With respect to each special meeting, a majority of the outstanding shares of common stock entitled to vote at the close of business on the record date being present in person or represented by proxy constitutes a quorum for the special meeting. While abstentions will be counted for purposes of determining whether a quorum is present, broker non-votes (which are described below) will not.

Q: When and where are the special meetings?

A: The Dawson special meeting will take place at the offices of Baker Botts L.L.P. at 2001 Ross Avenue, Suite 1100, Dallas, Texas at [] a.m., central time, on [], 2011. For additional information relating to the Dawson special meeting, see *The Dawson Special Meeting* beginning on page 36.

The TGC special meeting will take place at the offices of Haynes and Boone LLP at 2323 Victory Avenue, Suite 700, Dallas, Texas at [] a.m., central time, on [], 2011. For additional information relating to the TGC special meeting, see *The TGC Special Meeting* beginning on page 43.

Q: Is the consummation of the merger subject to any conditions other than the approval of Dawson and TGC shareholders?

A: Yes. In addition to Dawson and TGC shareholder approval, the consummation of the merger is contingent upon the satisfaction or, to the extent permitted by law, waiver of the following conditions:

clearance under the Hart-Scott-Rodino Antitrust Improvements Act of 1976, or HSR Act;

the absence of any judgment, injunction, order or decree in effect, or any law, statute, rule or regulation enacted, that prohibits the consummation of the merger;

the effectiveness of a registration statement on Form S-4 of which this joint proxy statement/prospectus forms a part and the authorization of the listing of the shares of Dawson common stock to be issued in the merger on NASDAQ;

receipt by each party of an opinion from its counsel, in a form and substance reasonably satisfactory to that party, dated as of the closing date of the merger, to the effect that (1) the merger will be treated as a tax-free reorganization within the meaning of Section 368(a) of the Internal Revenue Code, or the Code, and (2) no gain or loss will be recognized for United States federal income tax purposes by the shareholders of TGC upon the exchange of shares of TGC common stock for shares of Dawson common stock pursuant to the proposed merger;

certain officers of TGC having entered into employment agreements with TGC, as the surviving entity of the merger, as of the effective time of the merger;

receipt by TGC of certain third party consents;

Table of Contents

receipt by TGC, as of the closing date, of a reconfirmation from its financial advisor that the exchange ratio is fair, from a financial point of view, to TGC shareholders, which opinion is referred to as the reconfirmation opinion; and

other customary conditions, including the absence of a material adverse effect with respect to either TGC's or Dawson's respective businesses.

If any of the conditions set forth above fail to occur and such conditions are not waived, the merger will not be consummated and the merger agreement will terminate. Either party may waive any of their respective conditions if the law allows such party to do so, and this could include a waiver by TGC of its condition that it shall have received, as of the closing date, a reconfirmation from its financial advisor that the exchange ratio is fair, from a financial point of view, to TGC shareholders. Accordingly, even if TGC's financial advisor failed to provide the reconfirmation opinion, or determined that the exchange ratio was no longer fair, from a financial point of view, to TGC shareholders, TGC could nonetheless waive the condition and the consummation of the merger would occur with no consequences to the condition having not been satisfied. However, TGC does not anticipate waiving the condition relating to the reconfirmation opinion. If either party were to waive a condition, the consummation of the merger would occur without the condition having been met. Neither Dawson nor TGC can give any assurance regarding when or if all of the conditions to the merger will be either satisfied or waived or that the merger will occur as intended.

The proposal relating to the approval of certain compensation to be paid by TGC to TGC's named executive officers upon consummation of the merger is a non-binding advisory resolution and is not a condition to the merger. Accordingly, even if TGC shareholders do not approve such compensation, if all closing conditions to the merger are satisfied, Dawson and TGC will be obligated to close the merger, and TGC named executive officers will be paid such compensation.

For additional information on the conditions to the consummation of the merger, see The Merger Agreement Conditions to Completion of the Merger beginning on page 112.

Q: What do I need to do now?

A: After reading and considering carefully the information contained in this joint proxy statement/prospectus, please vote promptly by calling the toll-free number listed on your proxy card, accessing the Internet website listed on your proxy card or completing, signing, dating and returning your proxy card in the enclosed postage-paid envelope. If you hold your stock in street name through a bank, broker or other nominee, you must direct your bank, broker or other nominee to vote in accordance with the instructions you have received from your bank, broker or other nominee. Submitting your proxy by telephone, Internet or mail or directing your bank, broker or other nominee to vote your shares will ensure that your shares are represented and voted at the special meeting.

For additional information on voting procedures, see The Dawson Special Meeting beginning on page 36 or The TGC Special Meeting beginning on page 43, as applicable.

Q: How will my proxy be voted?

A: If you vote by telephone, over the Internet or by completing, signing, dating and returning your signed proxy card, your proxy will be voted in accordance with your instructions. The proxy confers discretionary authority to the named proxies. If you are a Dawson shareholder and you complete, sign, date and return your proxy card and do not indicate how you want to vote, your shares will be voted **FOR** approval of the issuance of shares of

Dawson common stock to TGC shareholders pursuant to the merger agreement and **FOR** the adjournment of the Dawson special meeting, if necessary or appropriate, to permit further solicitation of proxies. If you are a TGC shareholder and you complete, sign, date and return your proxy card and do not indicate how you want to vote, your shares will be voted **FOR** approval of the merger agreement, **FOR** approval of the non-binding advisory resolution on certain compensation to be paid by TGC to TGC's named executive officers upon consummation of the merger and **FOR** the adjournment of the TGC special meeting, if necessary or appropriate, to permit further solicitation of proxies.

Table of Contents

For additional information on voting procedures, see The Dawson Special Meeting beginning on page 36 or The TGC Special Meeting beginning on page 43, as applicable.

Q: What if my bank, broker or other nominee holds my shares in street name ?

A: If a bank, broker or other nominee holds your shares for your benefit but not in your own name, your shares are in street name. In that case, your bank, broker or other nominee will send you a voting instruction form to use in voting your shares. The availability of telephone and Internet voting depends on the voting procedures of your bank, broker or other nominee. Please follow the instructions on the voting instruction form they send you. If your shares are held in the name of your bank, broker or other nominee and you wish to vote in person at your special meeting, you must contact your bank, broker or other nominee and request a document called a legal proxy. You must bring this legal proxy to your respective special meeting in order to vote in person.

Q: What if I don't provide my bank, broker or other nominee with instructions on how to vote?

A: Generally, a bank, broker or other nominee may vote the shares that it holds for you only in accordance with your instructions. However, if your bank, broker or other nominee has not received your instructions, your bank, broker or other nominee has the discretion to vote on certain matters that are considered routine. A broker non-vote occurs if your bank, broker or other nominee cannot vote on a particular matter because your bank, broker or other nominee has not received instructions from you and because the proposal is not routine. **None of the matters being presented to shareholders for a vote at the special meetings of Dawson and TGC is considered a routine matter. Therefore, your bank, broker or other nominee will not be permitted to vote at the special meeting without instruction from you as the beneficial owner of the shares of Dawson or TGC common stock.**

If you do not instruct your bank, broker or other nominee on how you want your shares of Dawson common stock or TGC common stock, as applicable, to be voted, it may be difficult for Dawson and TGC to obtain the necessary quorum to hold their special meetings because broker non-votes will not be counted for purposes of determining whether a quorum is present at either special meeting.

In addition, even if there is a quorum present at the TGC special meeting, a broker non-vote will have the same effect as a vote **AGAINST** approval of the merger agreement. Assuming a quorum is present at the TGC special meeting, a broker non-vote will have no effect on the proposal to approve the non-binding advisory resolution on certain compensation to be paid by TGC to TGC's named executive officers upon consummation of the merger. Whether or not a quorum is present at the TGC special meeting, a broker non-vote will have no effect on the adjournment proposal.

In the case of Dawson shareholders, assuming a quorum is present at the Dawson special meeting, a broker non-vote will have no effect on the proposal to issue shares of Dawson common stock pursuant to the merger agreement. Whether or not a quorum is present at the Dawson special meeting, a broker non-vote will have no effect on the adjournment proposal.

For additional information on voting procedures, see The Dawson Special Meeting beginning on page 36 or The TGC Special Meeting beginning on page 43, as applicable.

Q: What if I mark abstain when voting?

A:

If you mark abstain when voting, your abstention will still be counted in determining whether a quorum is present at the applicable special meeting. However, abstentions will have the same effect as a vote **AGAINST** all the matters being considered at the applicable special meeting. Accordingly, if you are a Dawson shareholder, your abstention will have the same effect as a vote **AGAINST** approval of the issuance of shares of Dawson common stock pursuant to the merger agreement and **AGAINST** adjournment of the Dawson special meeting, and if you are a TGC shareholder, your abstention will have the same effect as a vote **AGAINST** approval of the merger agreement, **AGAINST** approval of the non-binding advisory resolution on certain compensation to be paid by TGC to TGC's named executive officers upon consummation of the merger, and **AGAINST** adjournment of the TGC special meeting.

Table of Contents

Q: What should I do if I receive more than one set of voting materials for the Dawson special meeting or the TGC special meeting?

A: You may receive more than one set of voting materials for the Dawson special meeting or the TGC special meeting, including multiple copies of this joint proxy statement/prospectus and multiple proxy cards or voting instruction cards. For example, if you hold your shares of Dawson common stock or TGC common stock in more than one brokerage account, you will receive a separate voting instruction card for each brokerage account in which you hold shares. If you are a holder of record and your shares of Dawson common stock or TGC common stock are registered in more than one name, you will receive more than one proxy card. Please submit each separate proxy or voting instruction card that you receive by following the instructions set forth in each separate proxy or voting instruction card.

Q: What can I do if I want to change or revoke my vote?

A: Regardless of the method you used to cast your vote, if you are a holder of record, you may change your vote:

by completing, signing, dating and returning a new proxy card with a later date so that it is received prior to the applicable special meeting;

by calling the toll-free number listed on the proxy card or by accessing the Internet website listed on the proxy card by 11:59 p.m. New York City time on [], 2011; or

by attending the Dawson special meeting or TGC special meeting, as applicable, and voting by ballot in person at the special meeting.

You may also revoke your proxy card by sending a notice of revocation, which must be received prior to the applicable special meeting, to the designated representative of Dawson or TGC, as applicable, at the address provided under *Where You Can Find More Information* beginning on page 153. Your attendance at the Dawson or TGC special meeting, as applicable, will not, by itself, revoke any proxy that you have previously submitted unless you also vote by ballot in person at the applicable special meeting.

If you hold your shares in *street name* and wish to change or revoke your vote, please refer to the information on the voting instruction form included with these materials and forwarded to you by your bank, broker, custodian or other record holder to see your voting options.

For additional information on voting procedures, see *The Dawson Special Meeting* beginning on page 36 or *The TGC Special Meeting* beginning on page 43, as applicable.

Q: Is the merger expected to be taxable to TGC shareholders?

A: The merger is intended to qualify as a tax-free reorganization under Section 368(a) of the Code. It is a condition to closing of the merger that counsel for Dawson and TGC deliver opinions to the effect that the merger will qualify as such a reorganization. While the condition is waivable, neither Dawson nor TGC intends to waive this closing condition. If either party were to waive the condition, and the resulting change in tax consequences to TGC shareholders would be material, Dawson and TGC will recirculate this joint proxy statement/prospectus or a supplement thereto and resolicit proxies.

Assuming that the merger qualifies as a tax-free reorganization and that you are a U.S. person, then you generally will not recognize any gain or loss, except with respect to cash you receive in lieu of fractional shares of Dawson common stock.

You should read *Material U.S. Federal Income Tax Consequences of the Merger* beginning on page 127 for a description of the material U.S. federal income tax consequences of the merger. Tax matters can be complicated, and the tax consequences of the merger to you will depend on your particular situation. **You are urged to consult your tax advisor to determine the tax consequences of the merger to you.**

Table of Contents

Q: What will happen to TGC's stock options and restricted stock in the merger?

A: As a result of the merger, each outstanding stock option for TGC common stock granted by TGC pursuant to a benefit plan will become fully vested prior to the effective time of the merger. Stock options for TGC common stock will, if not exercised prior to the effective time of the merger, be converted into stock options for Dawson common stock on terms substantially identical to those in effect immediately prior to the effective time of the merger, with the number of shares of Dawson common stock issuable and the exercise price being adjusted by the exchange ratio.

Immediately prior to the effective time of the merger, each outstanding award of restricted stock granted by TGC pursuant to an employee benefit plan will become fully vested and each holder of such formerly restricted shares will have the right to participate in the merger as a holder of TGC common stock.

For more information, see *The Merger Agreement – Effect of the Merger on TGC's Equity Awards* beginning on page 100.

Q: What will happen if TGC shareholders do not approve the compensation to be paid by TGC to TGC's named executive officers upon consummation of the merger, but all closing conditions to the merger are satisfied?

A: The proposal relating to the approval of certain compensation to be paid by TGC to TGC's named executive officers upon consummation of the merger is a non-binding advisory resolution and is not a condition to the merger. Even if TGC shareholders do not approve such compensation, if all closing conditions to the merger are satisfied, Dawson and TGC will be obligated to close the merger, and TGC named executive officers will be paid such compensation.

For more information, see *TGC Proposal 2 – Non-Binding, Advisory Vote on Approval of Certain Compensation to be paid by TGC to TGC's Named Executive Officers* and *The Merger – Conflicts of Interests* beginning on pages 49 and 92, respectively.

Q: If I am a holder of TGC common stock with shares represented by stock certificates, should I send in my TGC stock certificates now?

A: **NO, TGC SHAREHOLDERS SHOULD NOT SEND STOCK CERTIFICATE(S) WITH THE PROXY CARD(S).** If the merger is completed, Dawson will send TGC shareholders written instructions for sending in their stock certificates or, in the case of book-entry shares, for surrendering their book-entry shares. See *The TGC Special Meeting – Solicitation of Proxies* beginning on page 46, and *The Merger Agreement – Payment of Merger Consideration – Exchange Procedures* beginning on page 101.

Q: Are Dawson and TGC shareholders entitled to exercise dissenters' or appraisal rights?

A: No. Neither Dawson nor TGC shareholders are entitled to any appraisal or dissenters' rights.

Q: Are there any risks in the merger that I should consider?

A: Yes. There are risks associated with all business combinations, including the proposed merger. We have described certain of these risks and other risks in more detail under *Risk Factors* beginning on page 27.

Q: When do you expect to complete the merger?

A: Dawson and TGC anticipate the closing of the merger to be completed third quarter of 2011, subject to the required shareholder approvals and satisfaction or waiver of the other closing conditions to the transaction, including regulatory clearance. For additional information on the conditions to the consummation of the merger, see *The Merger Agreement – Conditions to Completion of the Merger* beginning on page 112.

Q: Where can I find more information about the companies?

A: Both Dawson and TGC file periodic reports and other information with the SEC. You may read and copy this information at the SEC's public reference facility. Please call the SEC at 1-800-SEC-0330 for information about this facility. This information is also available through the SEC's website at <http://www.sec.gov>. Both companies also maintain websites. You can obtain Dawson's SEC filings at

Table of Contents

<http://www.dawson3d.com> and you can obtain TGC's SEC filings at <http://www.tgcseismic.com>. Neither Dawson nor TGC intends for information contained on or accessible through their respective websites to be part of this joint proxy statement/prospectus, other than the documents that they file with the SEC that are incorporated by reference into this joint proxy statement/prospectus.

In addition, you may obtain some of this information directly from the companies. For a more detailed description of the information available, see "Where You Can Find More Information" beginning on page 153.

Q: Whom should I call if I have questions about the special meeting or the merger?

A: Dawson shareholders should call Morrow & Co., LLC, Dawson's proxy solicitor, at (800) 607-0088.

TGC shareholders should call D.F. King & Co., Inc., TGC's proxy solicitor, at (800) 967-4617.

If you have more questions about the merger, please call the corporate secretary of Dawson at (432) 684-3000 or the corporate secretary of TGC at (972) 881-1099.

Table of Contents

SUMMARY

This summary highlights selected information from this document and may not contain all of the information that is important to you. To understand the merger fully and for a more complete description of the terms of the merger, you should read carefully this entire document, including the annexes to this document, and the other available information referred to under "Where You Can Find More Information" beginning on page 153. We encourage you to read the merger agreement, the legal document governing the merger, which is attached as Annex A to, and incorporated by reference into, this joint proxy statement/prospectus. We have included page references in the discussion below to direct you to more complete descriptions of the topics presented in this summary.

The Parties to the Merger Agreement (Page 52)

Dawson Geophysical Company
508 West Wall, Suite 800
Midland, Texas 79701
(432) 684-3000

Dawson Geophysical Company, a Texas corporation, is the leading provider of U.S. onshore seismic data acquisition services as measured by the number of active data acquisition crews. Founded in 1952, Dawson acquires and processes 2-D, 3-D and multi-component seismic data solely for its clients, ranging from major oil and gas companies to independent oil and gas operators as well as providers of multi-client data libraries.

Dawson's common stock is listed on NASDAQ under the symbol DWSN.

TGC Industries, Inc.
101 East Park Blvd., Suite 955
Plano, Texas 75074
(972) 881-1099

TGC Industries, Inc., a Texas corporation, and its wholly owned subsidiary, Eagle Canada, Inc., a Delaware corporation, are primarily engaged in the geophysical service business of conducting 3-D surveys for clients in the oil and gas business.

TGC's common stock is listed on NASDAQ under the symbol TGE.

6446 Acquisition Corp.
508 West Wall, Suite 800
Midland, Texas 79701
(432) 684-3000

6446 Acquisition Corp., a Texas corporation and direct, wholly owned subsidiary of Dawson, was formed solely for the purpose of consummating the merger. Merger Sub has not carried on any activities to date, except for activities incidental to its formation and activities undertaken in connection with the transactions contemplated by the merger agreement.

The Merger (Page 54)

Subject to the terms and conditions of the merger agreement and in accordance with Texas law, Merger Sub will be merged with and into TGC, with TGC surviving as a direct, wholly owned subsidiary of Dawson. Upon completion of the merger, TGC's common stock will no longer be publicly traded.

A copy of the merger agreement is attached as Annex A to, and incorporated by reference into, this joint proxy statement/prospectus. You should read the merger agreement carefully because it is the legal document that governs the merger.

Table of Contents

Merger Consideration (Page 89)

Under the merger agreement, TGC shareholders will receive 0.188 shares of Dawson common stock for every one share of TGC common stock they own, provided that the 10-day average VWAP of Dawson common stock as of [], 2011 (which is the date that is two business days prior to the date of the special meetings) is equal to or greater than \$32.54 but less than or equal to \$52.54.

In the event that the 10-day average VWAP of Dawson common stock as of [], 2011 is outside of that range, the parties, at their respective option, will be entitled to terminate the transaction following two business days of good faith negotiations to determine a modified, mutually acceptable exchange ratio.

If the exchange ratio is modified, Dawson and TGC will each disclose the adjustment on a current report on Form 8-K and in a press release and will recirculate this joint proxy statement/prospectus or a supplement thereto and resolicit proxies.

Dawson will not issue any fractional shares of its common stock in connection with the proposed merger. For each fractional share that would otherwise be issued, Dawson will pay cash (without interest) in an amount equal to the product of the fractional share and the closing price for shares of Dawson common stock on NASDAQ on the business day immediately prior to the closing date of the merger.

The Number of Shares of Dawson Common Stock to Be Issued in the Merger Is Fixed, and Therefore the Value of the Merger Consideration Will Fluctuate with the Market Price of Dawson Common Stock (Page 90)

The number of shares of Dawson common stock to be issued in the merger for each share of TGC common stock is fixed (except in the event of any stock split, reverse stock split, stock dividend, combination, reclassification, recapitalization or other similar transaction or event with respect to Dawson common stock or TGC common stock) and will not be adjusted for changes in the market price of either Dawson common stock or TGC common stock unless the 10-day average VWAP of Dawson common stock as of [], 2011 is less than \$32.54 or greater than \$52.54. Accordingly, any change in the price of Dawson common stock prior to the merger will affect the market value of the merger consideration that TGC shareholders will receive as a result of the merger. Any fluctuation in the price of TGC common stock will have no effect on the exchange ratio or the value of the merger consideration.

The 10-day average VWAP of Dawson common stock as of March 18, 2011, the last trading day prior to announcement of the transaction, was \$44.16. The 10-day average VWAP of Dawson common stock as of the date of this joint proxy statement/prospectus was \$[]. However, you should obtain current stock price quotations for Dawson common stock and TGC common stock before voting. Dawson common stock and TGC common stock are listed on NASDAQ under the symbols DWSN and TGE, respectively.

In the event that the 10-day average VWAP of Dawson common stock as of [], 2011 is less than \$32.54 or greater than \$52.54, the parties, at their respective option, will be entitled to terminate the transaction following two business days of good faith negotiations to determine a modified, mutually acceptable exchange ratio.

If the exchange ratio is modified, Dawson and TGC will each disclose the adjustment on a current report on Form 8-K and in a press release and will recirculate this joint proxy statement/prospectus or a supplement thereto and resolicit proxies.

Treatment of TGC Stock Options and Restricted Stock (Page 100)

As a result of the merger, each outstanding stock option for TGC common stock granted by TGC pursuant to a benefit plan will become fully vested prior to the effective time of the merger. Stock options for TGC common stock will, if not exercised prior to the effective time of the merger, be converted into stock options for Dawson common stock on terms substantially identical to those in effect immediately prior to the effective time of the merger, with the number of shares of Dawson common stock issuable and the exercise price being adjusted by the exchange ratio.

Table of Contents

Immediately prior to the effective time of the merger, each outstanding award of restricted stock granted by TGC pursuant to an employee benefit plan will become fully vested and each holder of such formerly restricted shares will have the right to participate in the merger as a holder of TGC common stock.

Dawson's Reasons for the Merger (Page 63)

In evaluating the merger, the Dawson board of directors consulted with Dawson's management, as well as Dawson's legal and financial advisors and, in reaching its decision to approve the merger agreement and the transactions contemplated thereby and to recommend that Dawson shareholders approve the issuance of shares of Dawson common stock pursuant to the merger agreement, reviewed a significant amount of information and considered a number of factors, including those listed in *The Merger Dawson's Reasons for the Merger and Recommendation of Dawson's Board of Directors* beginning on page 63.

TGC's Reasons for the Merger (Page 68)

In the course of reaching its decision to approve the merger agreement and related transactions and to recommend that TGC shareholders approve the merger agreement, the TGC board of directors consulted with members of TGC's management and TGC's legal and financial advisors, reviewed a significant amount of information and considered a number of factors, including those listed in *The Merger TGC's Reasons for the Merger and Recommendation of TGC's Board of Directors* beginning on page 68.

Recommendations of the Dawson Board of Directors (Page 63)

Dawson's board of directors has adopted a resolution approving the merger agreement and has determined that the merger agreement is advisable and in the best interests of Dawson and its shareholders and **recommends that Dawson shareholders vote FOR approval of the issuance of Dawson common stock to TGC shareholders pursuant to the merger agreement and FOR approval of any adjournment of the special meeting, if necessary or appropriate to solicit additional proxies.** See *The Merger Background of the Merger* beginning on page 54.

Recommendations of the TGC Board of Directors (Page 68)

TGC's board of directors has adopted a resolution approving the merger agreement and has determined that the merger agreement is advisable and in the best interests of TGC and its shareholders and **recommends that TGC shareholders vote FOR approval of the merger agreement, FOR approval of the non-binding advisory resolution on certain compensation to be paid by TGC to TGC's named executive officers upon consummation of the merger and FOR approval of any adjournment of the special meeting, if necessary or appropriate to solicit additional proxies.** See *The Merger Background of the Merger* beginning on page 54.

As described under the headings *TGC Proposal 2 Non-Binding, Advisory Vote on Approval of Certain Compensation to be Paid by TGC to TGC's Named Executive Officers* and *The Merger Conflicts of Interests* beginning on pages 49 and page 92, of this joint proxy statement/prospectus, TGC's directors and executive officers will receive financial benefits that are different from, or in addition to, those of TGC's shareholders.

Opinion of Raymond James & Associates, Inc., Financial Advisor to Dawson (Page 75)

In deciding to approve the merger agreement and recommend the issuance of shares of Dawson common stock pursuant to the merger agreement, Dawson considered an opinion from its financial advisor, Raymond James & Associates, Inc., or Raymond James. Raymond James rendered its opinion to Dawson's board of directors that, as of March 20, 2011, based upon and subject to the qualifications, limitations and assumptions stated in its opinion, the

exchange ratio pursuant to the merger agreement was fair, from a financial point of view, to Dawson.

Table of Contents

The full text of the written opinion of Raymond James, dated March 20, 2011, is attached as Annex B to this joint proxy statement/prospectus. Raymond James provided its opinion for the information and assistance of Dawson's board of directors in connection with its consideration of the merger. The Raymond James opinion is not a recommendation as to how any holder of Dawson common stock should vote with respect to the approval of the issuance of shares of Dawson common stock pursuant to the merger agreement or any other matter.

Pursuant to a letter agreement dated February 15, 2011, Dawson engaged Raymond James to render an opinion to the Dawson board of directors as to the fairness, from a financial point of view, of the consideration to be paid by Dawson in connection with the proposed merger. As compensation for its services in connection with the proposed merger, Dawson paid Raymond James \$350,000 upon the delivery of Raymond James' fairness opinion and will pay Raymond James an additional \$900,000 if the merger is consummated. In addition, Dawson has agreed to reimburse Raymond James for up to \$50,000 of its reasonable out-of-pocket expenses, including attorneys' fees and disbursements, and to indemnify Raymond James and related persons against various liabilities.

Opinion of Southwest Securities, Inc., Financial Advisor to TGC (Page 81)

In deciding to recommend approval of the merger agreement, TGC considered an opinion from its financial advisor, Southwest Securities, Inc., or Southwest Securities. Southwest Securities rendered its opinion to TGC's board of directors that, as of March 20, 2011, based upon and subject to the qualifications, limitations and assumptions stated in its opinion, the exchange ratio to be received by TGC shareholders was fair, from a financial point of view, to such shareholders.

The full text of the written opinion of Southwest Securities, dated March 20, 2011, is attached as Annex C to this joint proxy statement/prospectus. Southwest Securities provided its opinion for the information and assistance of TGC's board of directors in connection with its consideration of the merger. The Southwest Securities opinion is not a recommendation as to how any holder of TGC common stock should vote with respect to the approval of the merger agreement or any other matter.

Pursuant to a letter agreement dated February 17, 2011, TGC engaged Southwest Securities to render an opinion to the TGC board of directors as to the fairness, from a financial point of view, of the consideration to be received by the TGC common shareholders in connection with the proposed merger. As compensation for its services in connection with the proposed merger, TGC paid Southwest Securities \$100,000 upon execution of the letter agreement and an additional \$225,000 upon the delivery of Southwest Securities' fairness opinion. If the merger is completed, TGC has agreed to pay Southwest Securities an additional \$25,000. Under certain circumstances associated with the transaction, TGC has agreed to pay Southwest Securities additional fees for financial advisory services. In addition, TGC has agreed to reimburse Southwest Securities for its reasonable out-of-pocket expenses, including attorneys' fees and disbursements, and to indemnify Southwest Securities and related persons against various liabilities.

Ownership of Dawson Following the Merger (Page 91)

We anticipate that upon completion of the merger, Dawson will have approximately 11.7 million shares of common stock outstanding, with current Dawson shareholders owning approximately 68% of the combined company and current TGC shareholders owning approximately 32%.

Board of Directors and Management of Dawson Following the Merger (Page 91)

Under the merger agreement, Dawson has agreed to take all necessary actions to cause, as of the effective time of the merger, the Dawson board of directors to include as Dawson directors Wayne A. Whitener and Allen T. McInnes, each of whom is currently a director of TGC. We expect that the current directors of Dawson will continue to serve as

directors of Dawson after the merger. Accordingly, in order to accommodate the two additional directors, at the effective time of the merger, the Dawson board of directors will increase in size to 10 directors.

Table of Contents

The current officers of Dawson will continue to serve as the officers of Dawson after the merger is complete. In addition, Mr. Whitener, TGC's current President and Chief Executive Officer, will continue to serve as President of TGC, which after the transaction will be a wholly owned subsidiary of Dawson.

The Dawson Special Meeting (Page 36)

Dawson will hold its special meeting of shareholders at the offices of Baker Botts L.L.P. at 2001 Ross Avenue, Suite 1100, Dallas, Texas at [] a.m., central time, on [], 2011 for the following purposes:

to approve the issuance of shares of Dawson common stock to TGC shareholders pursuant to the merger agreement; and

to approve any adjournments of the special meeting, if necessary or appropriate to solicit additional proxies in favor of the foregoing proposal.

The TGC Special Meeting (Page 43)

TGC will hold its special meeting of shareholders at the offices of Haynes and Boone at 2323 Victory Avenue, Suite 700, Dallas, Texas at [] a.m., central time, on [], 2011 for the following purposes:

to approve the merger agreement;

to approve a non-binding advisory resolution on certain compensation to be paid by TGC to TGC's named executive officers upon consummation of the merger; and

to approve any adjournments of the special meeting, if necessary or appropriate to solicit additional proxies in favor of approval of the merger agreement.

Record Date (Page 36 for Dawson and page 43 for TGC)

You may vote at the special meeting of Dawson shareholders if you owned shares of Dawson common stock at the close of business on August 29, 2011, the record date for the Dawson special meeting.

You may vote at the special meeting of TGC shareholders if you owned shares of TGC common stock at the close of business on August 29, 2011, the record date for the TGC special meeting.

Votes Required to Approve the Proposals (Page 37 for Dawson and page 44 for TGC)

Dawson. Approval by Dawson shareholders of either the issuance of shares of Dawson common stock pursuant to the merger agreement, for which a quorum is required, or any adjournment of the Dawson special meeting, if necessary or appropriate to solicit additional proxies, requires the affirmative vote of a majority of the shares of Dawson common stock present in person or represented by proxy and entitled to vote at the Dawson special meeting. Each share of Dawson common stock outstanding as of the record date is entitled to one vote at the Dawson special meeting.

If a Dawson shareholder abstains when voting, that action will be the equivalent of a vote **AGAINST** all of the matters to be voted upon at the Dawson special meeting. Assuming a quorum is present at the Dawson special meeting, a broker non-vote will have no effect on the proposal to issue shares of Dawson common stock pursuant to the merger agreement. Whether or not a quorum is present at the Dawson special meeting, a broker non-vote will have no effect on the adjournment proposal.

An abstention occurs when a shareholder votes to abstain on one or more of the proposals and returns a proxy card or is present in person at the special meeting. Broker non-votes occur when a bank, broker or other nominee returns a proxy but does not have authority to vote on a particular proposal in its discretion and the beneficial owner of the shares has not provided voting instructions.

TGC. Approval by TGC shareholders of the merger agreement requires the affirmative vote of at least 80% of the outstanding shares of TGC common stock. Approval by TGC shareholders of (1) the non-binding advisory resolution on certain compensation to be paid by TGC to TGC's named executive officers upon

Table of Contents

consummation of the merger and (2) any adjournment of the TGC special meeting, if necessary or appropriate to solicit additional proxies, requires the affirmative vote of a majority of shares of TGC common stock present in person or represented by proxy and entitled to vote at the TGC special meeting. Each share of TGC common stock outstanding as of the record date is entitled to one vote at the TGC special meeting.

If a TGC shareholder abstains when voting, that action will be the equivalent of a vote **AGAINST** all of the matters to be voted upon at the TGC special meeting. Assuming a quorum is present at the TGC special meeting, a broker non-vote will be the equivalent of a vote **AGAINST** approval of the merger agreement, but will have no effect on the proposal to approve the non-binding advisory resolution on certain compensation to be paid by TGC to TGC's named executive officers upon consummation of the merger. Whether or not a quorum is present at the TGC special meeting, a broker non-vote will have no effect on the adjournment proposal.

An abstention occurs when a shareholder votes to abstain on one or more of the proposals and returns a proxy card or is present in person at the special meeting. Broker non-votes occur when a bank, broker or other nominee returns a proxy but does not have authority to vote on a particular proposal in its discretion and the beneficial owner of the shares has not provided voting instructions.

Outstanding Shares and Share Ownership of Management (Page 37 for Dawson and page 44 for TGC)

Dawson: As of August 29, 2011, the record date for the Dawson special meeting, there were [] shares of Dawson common stock outstanding.

At the close of business on the record date for the Dawson special meeting, directors and executive officers of Dawson beneficially owned and were entitled to vote [] shares of Dawson common stock, collectively representing approximately []% of the shares of Dawson common stock outstanding on that date. Pursuant to and subject to the terms of the Dawson shareholder voting agreement, certain of those executive officers and directors, who collectively owned approximately []% of the shares of Dawson common stock outstanding on the record date of the Dawson special meeting, have agreed, among other things, to vote their shares of Dawson common stock in favor of approval of the issuance of shares of Dawson common stock in connection with the proposed merger at the Dawson special meeting. For additional information on the Dawson shareholder voting agreement, see *The Dawson Shareholder Voting Agreement* beginning on page 121.

TGC: As of August 29, 2011, the record date for the TGC special meeting, there were [] shares of TGC common stock outstanding.

At the close of business on the record date for the TGC special meeting, directors and executive officers of TGC beneficially owned and were entitled to vote [] shares of TGC common stock, collectively representing approximately []% of the shares of TGC common stock outstanding on that date. Pursuant to and subject to the terms of the TGC shareholder voting agreements, those executive officers and directors and their affiliates have agreed, among other things, to vote their shares of TGC common stock in favor of approval of the merger agreement at the TGC special meeting. For additional information on the TGC shareholder voting agreements, see *The TGC Shareholder Voting Agreement* beginning on page 119.

Conditions to Completion of the Merger (Page 112)

The merger will be completed only if the conditions to the merger are satisfied or waived (if legally permissible), including the following:

the approval of the issuance of shares of Dawson common stock pursuant to the merger agreement by Dawson shareholders;

the approval of the merger agreement by TGC shareholders;

clearance under the HSR Act;

Table of Contents

the absence of any judgment, injunction, order or decree in effect, or any law, statute, rule or regulation enacted, that prohibits the consummation of the merger;

the effectiveness of a registration statement on Form S-4 of which this joint proxy statement/prospectus forms a part and the authorization of the listing of the shares of Dawson common stock to be issued in the merger on NASDAQ;

receipt by each party of an opinion from its counsel, in a form and substance reasonably satisfactory to that party, dated as of the closing date of the merger, to the effect that (1) the merger will be treated as a tax-free reorganization within the meaning of Section 368(a) of the Code and (2) no gain or loss will be recognized for United States federal income tax purposes by the shareholders of TGC upon the exchange of shares of TGC common stock for shares of Dawson common stock pursuant to the proposed merger;

certain officers of TGC having entered into employment agreements with TGC, as the surviving entity of the merger, as of the effective time of the merger;

receipt by TGC of certain third party consents;

receipt by TGC of the reconfirmation opinion, which is a reconfirmation from TGC's financial advisor, as of the closing date, that the exchange ratio is fair, from a financial point of view, to TGC shareholders which will involve an updated review and analysis of the items set forth in the bullet points listed on page 81 under **THE MERGER - Opinion of TGC's Financial Advisor** as and to the extent TGC's financial advisor deems appropriate; and

other customary conditions, including the absence of a material adverse effect with respect to either TGC's or Dawson's respective businesses.

If any of the conditions set forth above fail to occur and such conditions are not waived, the merger will not be consummated and the merger agreement will terminate. Either party may waive any of their respective conditions if the law allows such party to do so, and this could include a waiver by TGC of its condition that it shall have received, as of the closing date, a reconfirmation from its financial advisor that the exchange ratio is fair, from a financial point of view, to TGC shareholders. Accordingly, even if TGC's financial advisor failed to provide the reconfirmation opinion, or determined that the exchange ratio was no longer fair, from a financial point of view, to TGC shareholders, TGC could nonetheless waive the condition and the consummation of the merger would occur with no consequences to the condition having not been satisfied. However, TGC does not anticipate waiving the condition relating to the reconfirmation opinion. If either party were to waive a condition, the consummation of the merger would occur without the condition having been met. Neither Dawson nor TGC can give any assurance regarding when or if all of the conditions to the merger will be either satisfied or waived or that the merger will occur as intended.

The proposal relating to the approval of certain compensation to be paid by TGC to TGC's named executive officers upon consummation of the merger is a non-binding advisory resolution and is not a condition to the merger. Accordingly, even if TGC shareholders do not approve such compensation, if all closing conditions to the merger are satisfied, Dawson and TGC will be obligated to close the merger, and TGC named executive officers will be paid such compensation.

Regulatory Requirements (Page 97)

The merger is subject to compliance with the HSR Act. On March 23, 2011, Dawson and TGC made their respective filings under the HSR Act with the Antitrust Division of the United States Department of Justice, which is referred to as the Antitrust Division in this joint proxy statement/prospectus, and the United States Federal Trade Commission, which is referred to as the FTC in this joint proxy statement/prospectus. On April 22, 2011, Dawson withdrew its filing and re-filed its notification with the FTC and the Antitrust Division on April 26, 2011. The transaction is currently under review by the Antitrust Division. Under the HSR Act, the merger may not be completed until the required 30-day HSR waiting period from the date of Dawson's re-filing has expired or been terminated. On May 26, 2011, the waiting period under the HSR Act was extended by the Antitrust Division's issuance of a request for additional information, also known as a second request. As a result of the second

Table of Contents

request, the waiting period under the HSR Act has been extended until 30 days after substantial compliance with the second request, unless the parties enter into a consent decree or the Antitrust Division concludes its investigation and grants early termination of the second waiting period. Dawson and TGC are currently responding to the second request and are committed to working cooperatively with the Antitrust Division staff as it conducts its review of the proposed acquisition. However there can be no assurances as to when clearance from the Antitrust Division will be obtained, if at all.

Termination of the Merger Agreement (Page 114)

Dawson and TGC can mutually agree to terminate the merger agreement at any time. Either Dawson or TGC can unilaterally terminate the merger agreement in various circumstances, including the following:

the merger has not occurred on or before the business day immediately following the later of the date of the Dawson and TGC special meetings (or October 31, 2011 if all conditions, other than (1) clearance under the HSR Act or (2) the absence of any judgment, injunction, order or decree in effect, or any law, statute, rule or regulation enacted, that prohibits the consummation of the merger, have been or are capable of being fulfilled);

TGC shareholders have failed to approve the merger agreement at the TGC special meeting;

Dawson shareholders have failed to approve the issuance of Dawson common stock pursuant to the merger agreement at the Dawson special meeting;

a governmental authority shall have issued an order, decree or ruling or taken any other action permanently restraining, enjoining or otherwise prohibiting the merger and that order, decree, ruling or other action shall have become final and nonappealable;

the 10-day average VWAP of Dawson common stock as of [], 2011 is less than \$32.54 or greater than \$52.54 and the parties have failed, after two business days of good faith negotiation, to agree on a new exchange ratio;

the other party has breached or failed to perform any of its representations and warranties, covenants or agreements in the merger agreement such that the conditions to the closing of the merger agreement would fail and that breach or failure is incapable of being cured prior to the termination date or is not cured within 30 days after notice of the breach or failure to perform;

either party's board of directors changes, or fails to reaffirm when requested by the other party, its recommendation that shareholders approve the matters relating to the proposed merger;

prior to obtaining the required approval of its shareholders, the terminating party enters into a binding definitive agreement providing for a superior proposal (as defined in The Merger Agreement Covenants and Agreements No Solicitation), as long as the terminating party has complied in all respects with the non-solicitation provisions of the merger agreement and the terminating party pays the other party a termination fee of \$2.35 million and reimburses the other party for up to \$1.5 million of its out-of-pocket expenses;

TGC shall have not received the reconfirmation opinion and all other mutual conditions to the closing of the merger have been satisfied; or

on or after September 29, 2011 if the 21st business day after the date that the mailing of the proxy statement/prospectus is required to be initiated to its shareholders would be after October 28, 2011, provided

the reason for the terminating party's special meeting not being held on or prior to October 28, 2011 is not due to the failure of the terminating party to perform or observe in any material respect any of its obligations under the merger agreement.

Table of Contents

Termination Fee and Expense Reimbursement (Page 116)

TGC is required to pay Dawson a termination fee of \$2.35 million in the event the merger agreement is terminated if:

an acquisition proposal relating to at least 50% of TGC's common stock or assets is made public and subsequent to such public announcement,

the merger agreement is terminated due to (1) the merger not closing on or before the business day immediately following the later of the date of the Dawson and TGC special meetings (or, in certain circumstances, October 31, 2011), (2) TGC shareholders not approving the merger agreement or (3) TGC breaching or failing to perform any of its representations and warranties, covenants or agreements in the merger agreement, and

TGC enters into a definitive agreement relating to an acquisition proposal within one year after termination of the merger agreement;

TGC's board of directors changes, or fails to reaffirm when requested by Dawson, its recommendation that TGC shareholders approve the merger agreement; or

TGC enters into a superior proposal.

TGC is also required to pay Dawson a termination fee of \$3.125 million in the event the merger agreement is terminated because TGC does not receive the reconfirmation opinion and all other mutual conditions to closing have been satisfied, including the required approval of TGC's shareholders.

Except as described above, TGC is not required to pay Dawson a termination fee in the event TGC shareholders do not approve the merger agreement.

Dawson is required to pay TGC a termination fee of \$2.35 million in the event the merger agreement is terminated if:

an acquisition proposal relating to at least 50% of Dawson's common stock or assets is made public and subsequent to such public announcement,

the merger agreement is terminated due to (1) the merger not closing on or before the business day immediately following the later of the date of the Dawson and TGC special meetings (or, in certain circumstances, October 31, 2011), (2) Dawson shareholders not approving the issuance of shares of Dawson common stock pursuant to the merger agreement or (3) Dawson breaching or failing to perform any of its representations and warranties, covenants or agreements in the merger agreement, and

Dawson enters into a definitive agreement relating to an acquisition proposal within one year after termination of the merger agreement;

Dawson's board of directors changes, or fails to reaffirm when requested by TGC, its recommendation that Dawson shareholders approve the issuance of shares of Dawson common stock in connection with the proposed merger; or

Dawson enters into a superior proposal.

Except as described above, Dawson is not required to pay TGC a termination fee in the event Dawson shareholders do not approve the issuance of shares of Dawson common stock pursuant to the merger agreement.

Furthermore, either Dawson or TGC will have to pay to the other party out-of-pocket expenses, including all fees and expenses payable to all legal, accounting, financial, public relations and other professional advisors arising out of, in connection with, or related to the merger, up to a maximum of \$1.5 million in the aggregate, if the merger agreement is terminated under certain circumstances.

Table of Contents

Conflicts of Interests (Page 92)

TGC's directors and executive officers have interests in the merger that are different from, or in addition to, the interests of holders of TGC common stock. These interests include certain TGC directors and executive officers being entitled to receive certain benefits in connection with the proposed merger. Some of these benefits include the following:

the accelerated vesting of TGC's options to purchase shares of TGC common stock held by TGC's directors and executive officers beginning 30 days prior to the effective time of the merger and the right to receive the merger consideration in respect of any such options that are exercised prior to the effective time of the merger;

the extension of the 90-day exercise period beginning at the closing of the merger for stock options with an exercise price greater than the value of the underlying option on March 20, 2011 that are held by TGC directors who will no longer be directors of TGC or Dawson after the effective time, until September 19, 2012, the date on which the options would have expired had there been no merger;

certain bonuses to be paid to TGC's named executive officers upon completion of the merger;

shares of Dawson restricted stock to be granted to TGC's named executive officers upon completion of the merger; and

employment agreements between TGC's named executive officers and TGC, as the surviving entity of the merger.

Dawson's board of directors was aware of these interests and considered them, among other matters, in making its recommendation that Dawson shareholders vote in favor of approval of the issuance of shares of Dawson common stock pursuant to the merger agreement. See *The Merger Dawson's Reasons for the Merger and Recommendation of Dawson's Board of Directors* beginning on page 63.

TGC's board of directors was aware of these interests and considered them, among other matters, in making its recommendation that TGC shareholders vote in favor of approval of the merger agreement. See *The Merger TGC's Reasons for the Merger and Recommendation of TGC's Board of Directors* beginning on page 68.

Acquisition Proposals (Page 106)

Dawson and TGC have agreed not to, and to cause their respective subsidiaries, directors, officers, employees or agents or any investment banker, financial advisor, attorney, accountant or other advisor or representative not to, solicit, initiate, approve, endorse, recommend, or encourage, or take any other action designed to, or which would reasonably be expected to, facilitate, any inquiry or the making or announcement of any proposal or offer that constitutes, or that would reasonably be expected to lead to, an acquisition proposal (as defined in *The Merger Agreement Covenants and Agreements No Solicitation*).

Prior to obtaining the required approval from their respective shareholders, Dawson and TGC are permitted to:

(1) furnish information and access in response to a written request for information or access to any person making an acquisition proposal which was not solicited, initiated, knowingly encouraged, or knowingly facilitated by Dawson or TGC, as applicable, and (2) participate in discussions and negotiate with such person concerning any such unsolicited acquisition proposal if the following conditions are met:

Dawson or TGC, as applicable, has not breached its non-solicitation covenant contained in the merger agreement in any material respect;

Table of Contents

the board of directors of Dawson or TGC, as applicable, determines in good faith, after receipt of advice from outside counsel and its financial advisor, that such acquisition proposal constitutes or is reasonably likely to lead to a superior proposal; and

Dawson or TGC, as applicable, enters into a customary confidentiality agreement with the person making such acquisition proposal, and all such information provided to such person has previously been provided to or is provided to the other party concurrently with its provision to such person.

Also, Dawson's and TGC's respective boards of directors may not change, or fail to reaffirm when requested by the other party, their recommendation to shareholders or terminate the merger agreement and enter into an agreement in respect of another acquisition proposal unless (1) such change in or failure to reaffirm its recommendation is made prior to obtaining the required approval from their respective shareholders and (2) the following conditions are met: (A) an acquisition proposal has been made and not withdrawn, (B) Dawson's or TGC's board of directors, as the case may be, determines in good faith, after receipt of advice from outside counsel and a financial advisor of nationally recognized reputation, that such acquisition proposal constitutes a superior proposal, (C) Dawson's or TGC's board of directors, as the case may be, determines in good faith, after receipt of advice from outside counsel, that the failure to take such action would be reasonably likely to result in a breach of fiduciary duties to the shareholders of Dawson or TGC, as applicable, and (D) in the case of terminating the merger agreement to enter into an acquisition proposal, Dawson or TGC, as applicable, has paid the other party a termination fee equal to \$2.35 million and up to \$1.5 million of the other party's out-of-pocket expenses. In addition, no party's board of directors may change, or fail to reaffirm, its recommendation or terminate the merger agreement and enter into an agreement in respect of another acquisition proposal:

until after the third business day following the delivery of notice of intent to change its recommendation or terminate the merger agreement and enter into an agreement providing for a superior proposal by the party taking such action, which we refer to as the no-shop party;

unless during such three business day period, the no-shop party shall, and shall cause its financial and legal advisors to, upon the other party's request, discuss with the other party in good faith any adjustments to the terms and conditions of the merger agreement that the other party may propose in response to the superior proposal; and

if, prior to the expiration of such three business day period, the other party makes a proposal to adjust the terms and conditions of merger agreement that the no-shop party's board of directors determines in good faith, after receipt of advice from outside legal counsel and a financial advisor of nationally recognized reputation, to be at least as favorable as the superior proposal.

However, the other party will not have an exclusive right to match any superior proposal if the no-shop party's board of directors determines in good faith, after receipt of advice from a financial advisor of nationally recognized reputation, that a superior proposal, if consummated, would result in such no-shop party's shareholders receiving consideration valued at 115% or more of the consideration to be received by such no-shop party's shareholders pursuant to the transactions contemplated by the merger agreement, as such consideration may have then been modified by the other party in response to such acquisition proposal.

Risk Factors (Page 27)

In deciding how to vote your Dawson or TGC shares, you should read carefully this entire joint proxy statement/prospectus, including the documents incorporated by reference herein and the Annexes hereto, and

especially consider the factors discussed in the section titled Risk Factors. These risks include possible difficulties in Dawson's ability to integrate effectively the businesses of Dawson and TGC, two companies that have previously operated independently.

Material U.S. Federal Income Tax Consequences of the Merger (Page 127)

Dawson and TGC each expect the merger to be a tax-free reorganization pursuant to Section 368(a) of the Code to the extent TGC shareholders receive Dawson common stock pursuant to the merger.

Table of Contents

It is a condition to the closing of the merger that counsel for Dawson and TGC deliver opinions to the effect that the merger will qualify as such a reorganization. While the condition is waivable, neither Dawson nor TGC intends to waive this closing condition. If either party were to waive the condition, and the resulting change in tax consequences to TGC shareholders would be material, Dawson and TGC have undertaken to recirculate this joint proxy statement/prospectus or a supplement thereto and resolicit proxies.

Please review carefully the information under the caption **Material U.S. Federal Income Tax Consequences of the Merger** for a description of the material U.S. federal income tax consequences of the merger. The tax consequences to you will depend on your own situation. **You are urged to consult your tax advisor for a full understanding of the tax consequences of the merger to you.**

Accounting Treatment (Page 90)

The merger will be accounted for as an acquisition of TGC by Dawson using the **acquisition** method of accounting.

Listing of Dawson Common Stock and Delisting and Deregistration of TGC Common Stock (Page 91)

It is a condition to the merger that the shares of common stock to be issued by Dawson pursuant to the merger agreement be authorized for listing on NASDAQ subject to official notice of issuance. The shares of common stock to be issued by Dawson pursuant to the merger agreement will trade under the symbol **DWSN** and will be fully interchangeable with the Dawson common stock currently trading under that symbol.

Shares of TGC common stock are currently traded on NASDAQ under the symbol **TGE**. If the merger is completed, TGC common stock will no longer be listed on NASDAQ and will be deregistered under the Securities Exchange Act of 1934, as amended, or the Exchange Act, and TGC will no longer file periodic reports with the SEC.

Appraisal Rights (Page 97)

Neither Dawson nor TGC shareholders are entitled to any appraisal or dissenters' rights in connection with the proposed merger.

Comparison of Shareholder Rights (Page 130)

Dawson and TGC are both Texas corporations. Upon completion of the merger, the holders of TGC common stock will become holders of Dawson common stock and their rights will continue to be governed by the Texas Business Organizations Code, but will also be governed by Dawson's second restated articles of incorporation and second amended and restated bylaws, as amended. TGC shareholders should consider that Dawson's second restated articles of incorporation and second amended and restated bylaws, as amended, differ in some material respects from TGC's restated articles of incorporation and amended and restated bylaws.

Table of Contents**FINANCIAL SUMMARY****Selected Historical Financial Data of Dawson**

The following tables set forth Dawson's selected historical financial information that has been derived from Dawson's audited financial statements as of September 30, 2010, 2009, 2008, 2007 and 2006 and for the years then ended and from the unaudited financial statements as of June 30, 2011 and 2010 and for the nine months then ended. This disclosure does not include the effects of the merger. You should read this financial information in conjunction with Management's Discussion and Analysis of Financial Condition and Results of Operations and the financial statements and notes thereto in Dawson's Annual Report on Form 10-K for the fiscal year ended September 30, 2010 and in Dawson's Quarterly Report on Form 10-Q for the quarterly period ended June 30, 2011, incorporated by reference in this joint proxy statement/prospectus. See "Where You Can Find More Information" beginning on page 153.

The results of operations for the historical periods included in the following table are not necessarily indicative of the results to be expected for future periods.

Statement of Operations Data

	Nine Months Ended		Year Ended September 30,				
	2011	2010	2010	2009	2008	2007	2006
Operating revenue	\$ 249,023,000	\$ 146,093,000	\$ 205,272,000	\$ 243,995,000	\$ 324,926,000	\$ 257,763,000	\$ 168,550,000
Operating costs							
Operating expenses	225,324,000	133,245,000	185,588,000	192,839,000	237,484,000	190,117,000	125,840,000
Depreciation and amortization	9,396,000	5,281,000	7,131,000	7,856,000	6,762,000	6,195,000	4,800,000
Administrative expenses	22,767,000	20,188,000	27,126,000	26,160,000	24,253,000	18,103,000	13,350,000
Operating income	257,487,000	158,714,000	219,845,000	226,855,000	268,499,000	214,415,000	143,990,000
Income from operations	(8,464,000)	(12,621,000)	(14,573,000)	17,140,000	56,427,000	43,348,000	24,550,000
Income tax expense	636,000	301,000	583,000	575,000	(20,000)	1,110,000	650,000
Income tax benefit	(7,828,000)	(12,320,000)	(13,990,000)	17,715,000	56,407,000	44,458,000	25,210,000
Income before income tax	1,638,000	4,379,000	4,638,000	(7,493,000)	(21,400,000)	(17,300,000)	(9,350,000)
(Loss) income	(6,190,000)	(7,941,000)	(9,352,000)	10,222,000	35,007,000	27,158,000	15,850,000
(Loss) income per common share	(0.79)	(1.02)	(1.20)	1.31	4.57	3.57	
(Loss) income per common share	(0.79)	(1.02)	(1.20)	1.30	4.53	3.54	

Table of Contents**Balance Sheet Data (at period end)**

	June 30,		September 30,				
	2011	2010	2010	2009	2008	2007	2006
Assets:							
Cash							
Accounts receivable	\$ 12,004,000	\$ 27,207,000	\$ 29,675,000	\$ 36,792,000	\$ 8,311,000	\$ 14,875,000	\$ 8,000,000
Investments		20,056,000	20,012,000	25,267,000			6,400,000
Prepaid expenses and other assets	84,451,000	52,877,000	57,726,000	40,106,000	76,221,000	56,707,000	46,000,000
Deferred tax	11,936,000	8,183,000	7,856,000	7,819,000	877,000	815,000	600,000
Current assets	1,545,000	1,062,000	1,764,000	1,694,000	873,000	693,000	1,000,000
Plant and equipment, net	109,936,000	109,385,000	117,033,000	111,678,000	86,282,000	73,090,000	62,800,000
Intangible assets	151,375,000	121,771,000	118,043,000	125,479,000	147,339,000	122,772,000	86,500,000
Other assets	261,311,000	231,156,000	235,076,000	237,157,000	233,621,000	195,862,000	149,400,000
Liabilities:							
Accounts payable	23,078,000	12,958,000	14,274,000	6,966,000	15,308,000	12,816,000	16,200,000
Banking line of credit						5,000,000	
Accrued costs and other	2,940,000	1,951,000	3,625,000	2,720,000	3,363,000	2,325,000	1,900,000
Deferred revenue	8,400,000	8,993,000	7,963,000	10,600,000	14,869,000	14,263,000	4,100,000
Other liabilities	5,031,000		204,000	2,230,000	993,000	2,922,000	800,000
Current liabilities	5,264,000						
Long-term liabilities	44,713,000	23,902,000	26,066,000	22,516,000	34,533,000	37,326,000	23,200,000
Other liabilities	11,163,000						
Tax liability	20,444,000	16,006,000	18,785,000	16,262,000	13,128,000	9,381,000	6,900,000
Other equity	184,991,000	191,248,000	190,225,000	198,379,000	185,960,000	149,155,000	119,200,000
Other liabilities and equity	261,311,000	231,156,000	235,076,000	237,157,000	233,621,000	195,862,000	149,400,000

Statement of Cash Flows Data

	Nine Months Ended		Year Ended September 30,				
	2011	2010	2010	2009	2008	2007	2006
Cash flows (used) provided by operating	\$ (469,000)	\$ 1,472,000	\$ 6,244,000	\$ 54,598,000	\$ 50,930,000	\$ 51,427,000	\$ 25,743,000

ivities							
sh flows							
d in							
esting							
ivities	(33,926,000)	(11,057,000)	(13,365,000)	(26,538,000)	(53,240,000)	(51,664,000)	(21,031,000)
sh flows							
vided							
ed) by							
ancing							
ivities	16,724,000		4,000	421,000	(4,254,000)	7,048,000	549,000
ital							
penditures,							
of							
ncash							
ital							
penditures	(55,307,000)	(16,585,000)	(18,835,000)	(4,192,000)	(53,269,000)	(58,701,000)	(35,477,000)

Dawson Recent Developments

On August 9, 2011, Dawson filed with the SEC its Quarterly Report on Form 10-Q for the quarter ended June 30, 2011. The following is a summary of Dawson's unaudited results for the quarter and the nine months ended June 30, 2011 and 2010. This summary is not intended to be a comprehensive statement of Dawson's unaudited financial results for these periods. Full financial results are included in Dawson's Quarterly Report on Form 10-Q for the quarter ended June 30, 2011.

Table of Contents

	Three Months Ended June 30,		Nine Months Ended June 30,	
	2011	2010	2011	2010
	(Unaudited)	(Unaudited)	(Unaudited)	(Unaudited)
Operating revenues	\$ 98,033,000	\$ 61,178,000	\$ 249,023,000	\$ 146,093,000
Income (loss) from operations	898,000	(1,571,000)	(8,464,000)	(12,621,000)
Net income (loss)	\$ 334,000	\$ (1,019,000)	\$ (6,190,000)	\$ (7,941,000)
Basic income (loss) per common share	\$ 0.04	\$ (0.13)	\$ (0.79)	\$ (1.02)
Diluted income (loss) per common share	\$ 0.04	\$ (0.13)	\$ (0.79)	\$ (1.02)
Weighted average equivalent common shares outstanding-assuming dilution	7,925,181	7,779,256	7,801,396	7,776,740

Dawson's operating revenues for the first nine months of fiscal 2011 increased 70% to \$249,023,000 from \$146,093,000 for the first nine months of fiscal 2010. For the three months ended June 30, 2011, operating revenues totaled \$98,033,000 as compared to \$61,178,000 for the same period of fiscal 2010, a 60% increase. The revenue increase for the fiscal 2011 periods is primarily the result of increasing the active crew count to fourteen working crews, including the two formerly provisional crews added during the second fiscal quarter, increasing channel count per crew and significantly higher third-party charges, which constituted one-half of the growth in revenues during these periods. The third-party charges are related to the use of helicopter support services, specialized survey technologies and dynamite energy sources. The increased level of the third-party charges is driven by Dawson's continued operations in areas with limited access such as the Appalachian Basin, Oklahoma, East Texas and Arkansas. Dawson is reimbursed for these charges by its clients.

Dawson's operating expenses for the nine months ended June 30, 2011 totaled \$225,324,000 as compared to \$133,245,000 for the same period of fiscal 2010, an increase of 69%. Operating expenses for the three months ended June 30, 2011 increased 58% to \$85,431,000 as compared to \$54,098,000 for the same period of fiscal 2010. The increase for the nine months ended June 30, 2011 compared to the nine months ended June 30, 2010 was primarily due to the addition of field personnel and other expenses associated with operating fourteen data acquisition crews during fiscal 2011, significantly higher third-party expenses, along with an overall increase in operating activity during the period. As discussed above, reimbursed expenses have a similar impact on operating costs.

Earnings per share for the third quarter of fiscal 2011 were \$0.04 compared to a loss per share of \$0.13 for the third quarter of fiscal 2010. EBITDA for the third quarter of fiscal 2011 was \$8,821,000 compared to \$5,591,000 in the same quarter of fiscal 2010, an increase of 58 percent. Net loss for the period decreased to \$6,190,000 in 2011 from \$7,941,000 in 2010. Loss per share for the first nine months of fiscal 2011 was \$0.79 compared to a loss per share of \$1.02 for the first nine months of fiscal 2010. EBITDA for the fiscal 2011 nine month period increased to \$14,939,000 compared to \$7,868,000 in the same period of fiscal 2010, an increase of 90 percent.

Dawson's fiscal third quarter and nine month results also included approximately \$1,465,000 and \$2,421,000, or \$0.19 per share and \$0.31 per share, respectively, of expenses related to the merger, and \$884,000 and \$2,579,000, respectively, of depreciation charges related to Dawson's continued investment in new recording equipment and energy source units.

During the third fiscal quarter, Dawson purchased the 14,850 single-channel OYO GSR units it had initially leased in its second fiscal quarter by exercising the purchase option under the lease agreement. The conversion of the equipment lease to a purchase resulted in an increase of approximately \$0.02 per share per month of depreciation charges and a decrease of approximately \$0.06 per share per month of lease expense for each month of the quarter (as compared to March 2011, the month in which the equipment was initially

Table of Contents

leased). The purchase of the equipment was financed through a new term loan facility in the amount of \$16,427,000. Dawson still retains its \$20,000,000 revolving facility, and at the date of this joint proxy statement/prospectus, no amounts were drawn under the revolving facility.

Dawson's order book has grown to its highest level since late fiscal 2008 with added projects in the Eagle Ford, Bakken, Niobrara and Avalon liquids and oil-rich shales. Drilling activity remains relatively high in the Marcellus, Barnett and Haynesville natural gas shales while demand is increasing in many conventional oil basins. Pricing and contract terms are showing continued improvements as activity levels in the lower 48 states continue to increase. Dawson continues to operate on several projects contracted in early 2010 with less favorable contract terms, and believes it will complete work on these projects during calendar 2011. Demand for Dawson's services remains strong. Although Dawson's clients may cancel their service contracts on short notice, Dawson's order book currently reflects commitments sufficient to maintain full operation of fourteen crews through the end of calendar 2011.

During the third fiscal quarter, Dawson's Board of Directors approved a \$5,000,000 increase to its capital budget and approved the purchase of the previously leased OYO GSR equipment, bringing the total amount of Dawson's fiscal 2011 capital budget to \$61,918,000. As of the date of this joint proxy statement/prospectus, Dawson has spent \$56,264,000 of the capital budget primarily to purchase 2,000-station OYO GSR four-channel recording system along with three-component geophones, 24,850 single-channel OYO GSR recording boxes, additional conventional geophones, cables for existing systems, vehicles to improve our fleet and ten INOVA vibrator energy source units. Dawson will use the remaining balance of its fiscal 2011 capital budget for maintenance capital purposes.

The financial information set forth in this Dawson Recent Developments section regarding EBITDA (defined as earnings before interest, income taxes, depreciation and amortization expense) may be considered a non-GAAP financial measure. Dawson provided this information because Dawson believes it could be useful in evaluating Dawson's operating performance. EBITDA should not be considered in isolation from, or as a substitute for, financial information presented in compliance with GAAP, and EBITDA as used by Dawson may not be comparable to similarly titled amounts used by other companies. The below table reconciles Dawson's EBITDA for the three- and nine-months ended June 30, 2011 and 2010 to Dawson's net income (loss) during the same period.

Reconciliation of EBITDA to Net Income (Loss)

	Three Months Ended		Nine Months Ended	
	June 30,		June 30,	
	2011	2010	2011	2010
	(In thousands)		(In thousands)	
Net income (loss)	\$ 334	\$ (1,019)	\$ (6,190)	\$ (7,941)
Depreciation	7,900	7,016	22,767	20,188
Income tax expense (benefit)	587	(406)	(1,638)	(4,379)
EBITDA	\$ 8,821	\$ 5,591	\$ 14,939	\$ 7,868

Table of Contents**Selected Historical Consolidated Financial Data of TGC**

The following tables set forth TGC's selected historical consolidated financial information that has been derived from TGC's audited consolidated financial statements as of December 31, 2010, 2009, 2008, 2007 and 2006 and for the years then ended and from the unaudited consolidated financial statements as of June 30, 2011 and 2010 and for the six months then ended. This disclosure does not include the effects of the merger. You should read this financial information in conjunction with Management's Discussion and Analysis of Financial Condition and Results of Operations and the consolidated and condensed consolidated financial statements and notes thereto in TGC's Annual Report on Form 10-K for the fiscal year ended December 31, 2010 and in TGC's Quarterly Report on Form 10-Q for the quarterly period ended June 30, 2011, incorporated by reference in this joint proxy statement/prospectus. See "Where You Can Find More Information" beginning on page 153.

The results of operations for the historical periods included in the following table are not necessarily indicative of the results to be expected for future periods.

Statement of Operations Data

	Quarter Ended		Year Ended December 31,				
	2011	2010	2010	2009	2008	2007	2006
Operating revenue	\$ 30,215,516	\$ 22,480,784	\$ 108,318,801	\$ 90,431,899	\$ 86,769,742	\$ 90,395,872	\$ 67,760,300
Operating costs							
Depreciation and amortization							
Selling, general and administrative							
Depreciation and amortization							
Total operating costs	29,001,672	23,869,149	108,171,166	85,523,788	74,315,075	77,053,658	53,360,710
Income (loss) from operations	1,213,844	(1,388,365)	147,635	4,908,111	12,454,667	13,342,214	14,399,590
Interest expense	191,856	214,202	790,417	1,020,681	929,656	604,616	780,780
Income (loss) before income tax	1,021,988	(1,602,567)	(642,782)	3,887,430	11,525,011	12,737,598	13,618,810
Income tax expense (benefit)	435,213	(391,961)	579,900	2,007,811	4,626,569	5,130,165	5,507,380
Net income (loss)	586,775	(1,210,606)	(1,222,682)	1,879,619	6,898,442	7,607,433	8,111,430
Basic income (loss) per common share(1)	0.03	(0.06)	(0.06)	0.10	0.36	0.40	0.40
Diluted income (loss) per common share(1)	0.03	(0.06)	(0.06)	0.10	0.36	0.40	0.40

- (1) All per share amounts for the periods presented above have been adjusted to reflect stock dividends paid to TGC shareholders of record during the applicable periods.

Table of Contents**Balance Sheet Data (at period end)**

	June 30,				December 31,		
	2011	2010	2010	2009	2008	2007	2006
Current assets:							
Cash and cash equivalents	\$ 21,929,881	\$ 21,733,209	\$ 13,072,503	\$ 25,504,149	\$ 24,114,351	\$ 4,503,826	\$ 9,388,760
Trade accounts receivable, net of allowance for doubtful accounts	12,685,452	10,680,928	17,166,709	9,455,224	5,853,908	12,153,498	7,448,600
Prepaid and estimated earnings in excess of obligations on completed contracts	2,091,496	1,824,010	4,578,580	474,059	2,300,985	535,143	989,450
Prepaid expenses and other assets	2,410,028	2,383,901	1,600,450	648,872	718,301	712,614	508,920
Prepaid federal and state income tax		121,162	1,219,165	943,600	1,220,154	100,418	192,780
Total current assets	39,116,857	36,743,210	37,637,407	37,025,904	34,207,699	18,005,499	18,528,520
Property, plant and equipment, net	50,042,291	45,368,405	49,715,626	47,583,333	50,632,563	42,930,385	37,648,640
Goodwill and other intangible assets	265,092	1,443,338	262,364	1,440,488	250,659	226,172	222,340
Total assets	89,424,240	83,554,953	87,615,397	86,049,725	85,090,921	61,162,056	56,399,520
Current liabilities:							
Trade accounts payable	2,763,767	6,110,218	9,261,238	4,126,474	4,569,911	2,931,264	4,951,980
Accrued liabilities	2,564,116	1,230,915	1,808,149	1,337,437	863,756	1,724,078	1,111,020
Estimated earnings in excess of obligations and estimated earnings on completed contracts	5,892,432	5,929,448	5,486,017	7,077,941	5,776,444	3,340,220	6,159,510
Federal and state income taxes payable	1,252,757						415,500
Current maturities of long-term debt and notes payable	6,143,315	7,205,679	6,316,852	6,407,892	5,171,872	3,301,903	3,629,390
Current maturities of capital lease obligations	1,216,533	872,839	1,071,263	780,526	856,673	1,218,737	1,082,720
Total current liabilities	19,832,920	21,349,099	23,943,519	19,730,270	17,238,656	12,516,202	17,350,140
Total liabilities	2,940,461	3,374,660	4,718,492	5,875,390	10,851,621	3,090,191	2,046,900

Notes payable, less current maturities							
Capital lease obligations, less current maturities	1,567,919	934,898	1,302,963	631,757	600,214	679,074	1,017,150
Long-term deferred liability	4,908,469	5,769,420	4,787,623	7,117,030	5,973,000	1,955,047	942,150
Shareholders equity	60,174,471	52,126,876	52,862,800	52,695,278	50,427,430	42,921,542	35,043,150
Total liabilities and shareholders equity	89,424,240	83,554,953	87,615,397	86,049,725	85,090,921	61,162,056	56,399,520

Statement of Cash Flows Data

	Quarter Ended June 30,		Year Ended December 31,				
	2011	2010	2010	2009	2008	2007	2006
Cash flows provided by operating activities	\$ 24,373,937	\$ 1,799,951	\$ 5,160,283	\$ 20,698,122	\$ 33,860,082	\$ 14,839,414	\$ 28,684,807
Cash flows used in investing activities	(10,899,117)	(1,140,204)	(8,055,970)	(10,942,164)	(6,078,536)	(12,661,703)	(22,889,549)
Cash flows used in financing activities	(4,629,309)	(4,342,126)	(9,549,811)	(8,367,479)	(8,171,021)	(7,062,654)	(5,905,898)
Capital expenditures, paid in cash	(11,067,278)	(1,185,821)	(8,220,293)	(1,349,972)	(6,322,048)	(13,008,088)	(21,219,238)

TGC Recent Developments

On August 9, 2011, TGC filed with the SEC its Quarterly Report on Form 10-Q for the quarter ended June 30, 2011. The following is a summary of TGC's unaudited results for the quarter and the six months ended June 30, 2011 and 2010. This summary is not intended to be a comprehensive statement of TGC's unaudited financial results for these periods. Full financial results are included in TGC's Quarterly Report on Form 10-Q for the quarter ended June 30, 2011.

TGC's revenues were \$30.2 million for the quarter ended June 30, 2011, compared to \$22.5 million for the quarter ended June 30, 2010. In response to growing customer demand, TGC added an eighth seismic crew in the U.S. during the second quarter of 2011, compared to operating six seismic crews in the U.S. during the second quarter of 2010. In Canada, as a result of the spring thaw, the number of working crews wound down

Table of Contents

to zero during the quarter ended June 30, 2011. However, as a result of new business awarded in Canada, two crews were returned to operation towards the end of the quarter.

Cost of services as a percentage of revenues declined to 72.6% for the quarter ended June 30, 2011 as compared to 81.6% in the quarter ended June 30, 2010. Selling, general and administrative expenses were \$2.3 million for the quarter ended June 30, 2011 compared to \$1.7 million in the quarter ended June 30, 2010. As a percentage of revenues, selling, general and administrative expenses for the quarter ended June 30, 2011 fell to 7.5% from 7.8% in the quarter ended June 30, 2010. The \$2.3 million of selling, general and administrative expenses for the quarter ended June 30, 2011 included merger related costs of approximately \$528,000, or \$0.03 per share.

Net income in the quarter ended June 30, 2011, which includes transaction related costs related to the merger of \$528,000, grew to \$0.6 million, or \$0.03 per diluted share, from a net loss of \$1.2 million, or (\$0.06) per share, in the quarter ended June 30, 2010. In the quarter ended June 30, 2011, TGC recorded income tax expense of \$0.4 million, an effective tax rate of 42.6%, compared to an income tax benefit of \$0.4 million in the quarter ended June 30, 2010, an effective tax benefit rate of 24.5%. EBITDA (a non-GAAP number) increased 150% to \$6.0 million for the quarter ended June 30, 2011 compared to \$2.4 million in the quarter ended June 30, 2010. EBITDA margin in the quarter ended June 30, 2011 increased by 915 basis points to 19.8% from 10.7% in the same period of 2010.

TGC's revenues for the six months ended June 30, 2011 grew 52% to \$80.5 million from \$52.8 million for the six months ended June 30, 2010. Cost of services as a percentage of revenues decreased to 69.9% in the six months ended June 30, 2011 from 79.4% in the six months ended June 30, 2010. Selling, general and administrative expenses were \$4.8 million, or 5.9% of revenues, in the six months ended June 30, 2011 compared to \$3.4 million, or 6.5% of revenues, in the six months ended June 30, 2010. The \$4.8 million of selling, general and administrative expenses for the six months ended June 30, 2011 included merger related costs of approximately \$1,112,000, or \$0.06 per share.

Net income for the six months ended June 30, 2011 was \$6.4 million, or \$0.33 per diluted share, compared to net loss of \$0.7 million, or (\$0.03) per share, for the six months ended June 30, 2010. Results for the six months ended June 30, 2011 include \$1.1 million of transaction costs related to the merger. EBITDA for the six months ended June 30, 2011 increased 162% to \$19.5 million, or 24.2% of revenues, compared to \$7.4 million, or 14.1% of revenues, in same period of 2010.

TGC's backlog was \$56 million at June 30, 2011. In July 2011, TGC purchased another 5,000 channel geospace seismic recorder wireless recording program. At June 30, 2011, TGC has approximately \$22 million in cash.

The financial information set forth in this TGC Recent Developments section regarding EBITDA (defined as earnings before interest, income taxes, depreciation and amortization expense) is a non-GAAP financial measure. TGC believes that an understanding of TGC's performance is enhanced by disclosing EBITDA as a reasonable basis for comparison of TGC's on going results of operations. EBITDA should not be considered a substitute for GAAP-basis measures and results. TGC's calculation of EBITDA may not be comparable to EBITDA for other companies. The table below reconciles TGC's EBITDA for the three and six months ended June 30, 2011 and 2010 to TGC's net income (loss) during the same periods.

TGC Industries, Inc.
Reconciliation of EBITDA to Net Income

Three Months Ended		Six Months Ended	
June 30,		June 30,	
2011	2010	2011	2010

Edgar Filing: DAWSON GEOPHYSICAL CO - Form S-4/A

Net income (loss)	\$ 586,775	\$ (1,210,606)	\$ 6,350,509	\$ (660,099)
Depreciation	4,778,547	3,789,217	9,241,426	7,656,931
Interest expense	191,856	214,202	382,696	429,814
Income tax expense (benefit)	435,213	(391,961)	3,494,821	(3,021)
EBITDA	\$ 5,992,391	\$ 2,400,852	\$ 19,469,452	\$ 7,423,625

Table of Contents

Selected Unaudited Pro Forma Condensed Combined Consolidated Financial and Other Information

The following selected unaudited pro forma combined financial and other information is based on the historical financial and other information of Dawson and the historical consolidated financial and other information of TGC incorporated by reference into this joint proxy statement/prospectus and has been prepared to reflect the proposed merger of Merger Sub with and into TGC. The data in the selected unaudited pro forma condensed combined consolidated balance sheet as of June 30, 2011 assumes the proposed merger of Merger Sub with and into TGC was completed on that date. The data in the selected unaudited pro forma condensed combined consolidated statement of operations for the year ended September 30, 2010 and for the nine months ended June 30, 2011 assumes the proposed merger was completed on October 1, 2009, the first day of Dawson's 2010 fiscal year.

The selected unaudited pro forma condensed combined consolidated financial and other information should be read in conjunction with the unaudited pro forma condensed combined consolidated financial information, including the notes thereto, beginning on page 136, the historical financial statements and related notes thereto of Dawson and TGC, which are incorporated by reference from their respective Annual Reports on Form 10-K for the fiscal years ended September 30, 2010 and December 31, 2010, respectively, as well as Dawson's and TGC's respective Quarterly Reports on Form 10-Q for the period ended June 30, 2011, and other information included in or incorporated by reference into this joint proxy statement/prospectus. See "Where You Can Find More Information" beginning on page 153.

The selected unaudited pro forma condensed combined consolidated financial and other information has been prepared for illustrative purposes only and is not necessarily indicative of the financial position or results of operations of Dawson had (1) the proposed merger of Merger Sub with and into TGC occurred on June 30, 2011 and/or (2) the proposed merger of Merger Sub with and into TGC occurred on October 1, 2009.

The historical financial information has been adjusted in the selected unaudited pro forma condensed combined consolidated financial information to give effect to pro forma events that are (1) directly attributable to the merger, (2) factually supportable, and (3) with respect to the statement of operations, expected to have a continuing impact on the combined results. All pro forma financial information uses Dawson's period-end dates and no adjustments were made to TGC's information for its different period-end dates.

The pro forma adjustments reflecting the completion of the proposed merger of Merger Sub with and into TGC have been, and the proposed merger will be, accounted for under the acquisition method of accounting under U.S. Generally Accepted Accounting Principles, or GAAP, whereby the total purchase price is allocated to the assets acquired and liabilities assumed based on their respective fair values determined on the acquisition date. The purchase price will be determined on the basis of the fair value of common shares of Dawson on the date the transaction is consummated plus the fair value of any other consideration transferred. The estimated purchase price for this selected unaudited pro forma condensed combined consolidated financial information was based on the exchange ratio of 0.188 and the number of TGC shares outstanding and the closing price of Dawson common stock as of August 5, 2011. The estimated purchase price does not include an estimate of cash payable in lieu of fractional shares which is required pursuant to the terms of the merger agreement, as information is not readily available to estimate such amount. Dawson anticipates that the amount of any such cash payment will be immaterial. At this time, Dawson has not performed detailed valuation analyses to determine the fair values of TGC's assets and liabilities, and accordingly, the selected unaudited pro forma condensed combined consolidated financial information includes a preliminary allocation of the purchase price based on assumptions and estimates which, while considered reasonable under the circumstances, are subject to changes and such changes may be material. Additionally, Dawson has not yet performed the necessary analysis to identify all of the adjustments that may be required to conform TGC's accounting policies to

Dawson s or to identify other items that could significantly impact the purchase price allocation or the assumptions and adjustments made in preparation of this selected unaudited pro forma condensed combined consolidated financial information. Upon completion of detailed valuation analyses, there may be additional increases or decreases to the recorded book values of TGC s assets and liabilities, including, but not limited to, property, plant and equipment and intangible assets that will give rise to future amounts of depreciation and amortization expenses or credits that are not reflected in the information contained in this

Table of Contents

selected unaudited pro forma condensed combined consolidated financial information. In addition, the estimated purchase price itself is preliminary and will be adjusted based upon the price per share of Dawson common stock on the date the merger is completed, the number of shares of TGC common stock outstanding on the same date, and, should the 10-day average VWAP of Dawson common stock be less than \$32.54 or greater than \$52.54, any adjustment to the exchange ratio that may be negotiated as provided in the merger agreement. Accordingly, once the necessary procedures have been performed, the final purchase price has been determined and the purchase price allocation has been completed, actual results may differ materially from the information presented in this selected unaudited pro forma condensed combined consolidated financial information.

Additionally, Dawson expects to incur costs associated with integrating the operations of Dawson and TGC. The selected unaudited pro forma condensed combined consolidated financial and other information does not reflect the cost of any integration activities or benefits from the merger that may be derived from any integration activities, both of which may have a material effect on the results of operations in periods following the completion of the merger. In addition, the selected unaudited pro forma condensed combined consolidated financial and other information does not include one-time costs directly attributable to the transaction, employee retention costs or professional fees incurred by Dawson or TGC pursuant to provisions contained in the merger agreement, as those costs are not considered part of the purchase price.

	Nine Months Ended June 30, 2011	Year Ended September 30, 2010
--	--	--

Pro Forma Income Statement Data:

Operating revenue	\$ 370,605,000	\$ 323,875,000
Income (loss) from operations	7,860,000	(17,266,000)
Income (loss) before income tax	8,343,000	(16,879,000)
Net income (loss)	4,629,000	(11,995,000)
Basic income (loss) per common share	0.41	(1.05)
Diluted income (loss) per common share	0.40	(1.05)

	As of June 30, 2011
--	--------------------------------

Pro Forma Balance Sheet Data:

Total current assets	\$ 149,725,000
Net property, plant and equipment	229,682,000
Intangibles	22,850,000
Goodwill	41,224,000
Total assets	443,842,000
Total current liabilities	65,139,000
Total shareholders' equity	319,847,000
Total liabilities and shareholders' equity	443,842,000

Other Information

Dawson	TGC	Pro Forma Combined
--------	-----	--------------------

Crew counts(1)	14	10	24
Total channels(1)	161,000	77,000	248,000

(1) As of June 30, 2011.

Table of Contents**COMPARATIVE PER SHARE MARKET PRICE AND DIVIDEND INFORMATION****Dawson Historical Market Price Data and Dividends**

Dawson's common stock is listed on NASDAQ under the symbol DWSN. The following table sets forth the high and low trading prices per share of Dawson common stock on NASDAQ for the periods shown. You are urged to obtain current market quotations before making any decision with respect to the merger.

Fiscal Year Ended	Dawson Common Stock	
	High	Low
September 30, 2009:		
First Quarter	\$ 46.15	\$ 14.31
Second Quarter	22.23	9.96
Third Quarter	31.42	13.13
Fourth Quarter	35.98	23.60
September 30, 2010:		
First Quarter	29.61	21.00
Second Quarter	32.00	21.68
Third Quarter	31.22	20.58
Fourth Quarter	26.91	20.05
September 30, 2011:		
First Quarter	31.90	24.16
Second Quarter	50.81	30.50
Third Quarter	47.02	29.53
Fourth Quarter (through August 26, 2011)	42.23	30.47

The closing price of Dawson common stock on NASDAQ on March 18, 2011, the last full trading day prior to the public announcement of the merger, was \$42.54. The closing price of Dawson common stock on NASDAQ on [], 2011, the last practicable full trading day prior to the mailing of this joint proxy statement/prospectus, was \$[].

Dawson has paid neither cash nor stock dividends on its common stock since becoming a public company and has no plans to do so in the foreseeable future. Payment of any dividends in the future, however, is in the discretion of Dawson's board of directors and will depend on Dawson's financial condition, results of operations, capital and legal requirements, and other factors deemed relevant by Dawson's board of directors. Earnings, if any, are expected to be retained to fund Dawson's future operations.

Table of Contents**TGC Historical Market Price Data and Dividends**

TGC's common stock is listed on NASDAQ under the symbol TGE. The following table sets forth the high and low trading prices per share of TGC common stock on NASDAQ for the periods shown. You are urged to obtain current market quotations before making any decision with respect to the merger.

Fiscal Year Ended	TGC Common Stock	
	High	Low
December 31, 2009:		
First Quarter	\$ 2.93	\$ 1.69
Second Quarter	5.75	2.13
Third Quarter	5.17	3.30
Fourth Quarter	5.03	3.61
December 31, 2010:		
First Quarter	4.64	3.52
Second Quarter	4.40	2.82
Third Quarter	4.00	2.82
Fourth Quarter	3.87	3.07
December 31, 2011:		
First Quarter	7.97	3.59
Second Quarter	8.74	5.46
Third Quarter (through August 26, 2011)	7.84	5.50

The closing price of TGC common stock on NASDAQ on March 18, 2011, the last full trading day prior to the public announcement of the merger, was \$6.83. The closing price of TGC common stock on NASDAQ on [], 2011, the last practicable full trading day prior to the mailing of this joint proxy statement/prospectus, was \$[].

TGC has not paid cash dividends on its common stock in the past, and TGC does not anticipate paying any cash dividends in the foreseeable future. In the event the merger is not consummated, payment of any cash dividends in the future, however, will be in the discretion of TGC's board of directors and will depend on TGC's financial condition, results of operations, capital and legal requirements, and other factors deemed relevant by TGC's board of directors. Earnings, if any, are expected to be retained to fund TGC's future operations.

TGC has paid 5% stock dividends to its shareholders in recent years.

Value of Merger Consideration

The following table presents the implied value of one share of TGC common stock, the aggregate number of shares of Dawson common stock to be issued to TGC shareholders in connection with the merger and the approximate percentage ownership of the combined entity that would be held by current TGC shareholders upon completion of the merger, in each case, reflecting the fluctuating value of Dawson common stock that TGC shareholders would receive for each share of TGC common stock if the merger is completed (1) on March 18, 2011, the last full trading day before the public announcement of the proposed merger, (2) on [], 2011, the last practicable full trading day prior to the mailing of this joint proxy statement based on the 10-day average VWAP of Dawson common stock on [], 2011

(3) at a 10-day average VWAP of Dawson common stock of \$52.54 (which is the maximum 10-day average VWAP in the pricing range) and (4) at a 10-day average VWAP of Dawson common stock of \$32.54 (which is the minimum 10-day average VWAP in the pricing range).

As reflected in the table below, while the value of Dawson common stock that TGC shareholders would receive for each share of TGC common stock fluctuates based on the 10-day average VWAP of Dawson common stock at each measurement date, the number of shares to be issued to TGC shareholders, and the

Table of Contents

percentage ownership that TGC shareholders will have in the combined entity after completion of the merger, is fixed.

	Dawson Common Stock Price	Merger Exchange Ratio	Implied Value of One Share of TGC Common Stock	Aggregate Number of Shares of Dawson Common Stock to be Issued to TGC Shareholders	Approximate Percentage Ownership of TGC Shareholders in the Combined Entity
Price of Dawson common stock on March 18, 2011	\$ 42.54	0.188x	\$ 8.00	3,753,685	32%
10-day average VWAP of Dawson common stock on [], 2011	[]	0.188x	[]	3,753,685	32%
Maximum 10-day average VWAP of Dawson common stock	52.54	0.188x	9.88	3,753,685	32%
Minimum 10-day average VWAP of Dawson common stock	32.54	0.188x	6.12	3,753,685	32%

Comparative Per Share Information

The following table presents:

the closing prices per share and aggregate market value of Dawson common stock and TGC common stock, in each case based on the last reported sales prices as reported by NASDAQ, on (1) March 18, 2011, the last full trading day before the public announcement of the proposed merger, and (2) [], 2011, the last practicable full trading day prior to the mailing of this joint proxy statement/prospectus; and

the equivalent price per share and equivalent market value of shares of TGC common stock, reflecting the fluctuating value of Dawson common stock that TGC shareholders would receive for each share of TGC common stock if the merger were completed on either March 18, 2011 or [], 2011. The equivalent price per share of TGC common stock is calculated assuming that the 10-day average VWAP of Dawson common stock as of March 18, 2011 or [], 2011, as applicable, is equal to or greater than \$32.54 but less than or equal to \$52.54, and is equal to the closing price of a share of Dawson common stock on the applicable date multiplied by 0.188.

	Dawson Historical	TGC Historical	TGC Equivalent
March 18, 2011			
Closing price per common share	\$ 42.54	\$ 6.83	\$ 8.00

Market value of common stock (in millions)(1)	336.9	131.2	153.7
[], 2011			
Closing price per common share	[]	[]	[]
Market value of common stock (in millions)(2)	[]	[]	[]

(1) Based on 7,918,989 shares of Dawson common stock and 19,212,708 shares of TGC common stock outstanding as of March 18, 2011 (excluding outstanding shares held in treasury).

(2) Based on [] shares of Dawson common stock and [] shares of TGC common stock outstanding as of [], 2011 (excluding outstanding shares held in treasury).

Number of Record and Beneficial Owners

As of August 29, 2011, there were approximately [] record holders of Dawson common stock and approximately [] record holders of TGC common stock. Both companies believe there are a number of additional beneficial holders of their respective shares.

Table of Contents**UNAUDITED COMPARATIVE PER SHARE DATA**

The following tables set forth for the periods presented certain per share data separately for Dawson and TGC on a historical basis, on an unaudited pro forma combined basis per share of Dawson common stock and on an unaudited pro forma combined basis per equivalent share of TGC common stock. The following unaudited pro forma combined per share information should be read in conjunction with the unaudited pro forma condensed combined consolidated financial information, including the notes thereto, beginning on page 136, the historical financial statements and related notes thereto of Dawson and TGC, which are incorporated by reference from their respective Annual Reports on Form 10-K for the fiscal years ended September 30, 2010 and December 31, 2010, respectively, as well as their respective Quarterly Reports on Form 10-Q for the quarterly period ended June 30, 2011, and other information included in or incorporated by reference into this joint proxy statement/prospectus. See **Where You Can Find More Information** beginning on page 153.

The unaudited pro forma combined data per equivalent share of TGC common stock has been calculated on the basis of the unaudited pro forma combined per share Dawson common stock amounts, multiplied by the exchange ratio of 0.188. The exchange ratio represents the number of shares of Dawson common stock that each TGC shareholder would receive upon completion of the merger, provided the 10-day average VWAP of Dawson common stock as of [], 2011 is equal to or greater than \$32.54 but less than or equal to \$52.54. The unaudited pro forma combined data per equivalent share of TGC common stock data shows how each share of TGC common stock would have participated in the income from continuing operations and book value of Dawson if the companies had been consolidated for accounting and financial reporting purposes as of October 1, 2009 for the year ended September 30, 2010 and the nine months ended June 30, 2011 in the case of per share net income data, and as of June 30, 2011 in the case of per share book value data. These amounts, however, are not intended to reflect future per share levels of income from continuing operations and book value of Dawson following consummation of the merger.

The unaudited pro forma combined per share information is based on the historical financial statements of Dawson and TGC and on publicly available information and certain assumptions and adjustments as discussed in **Unaudited Pro Forma Condensed Combined Consolidated Financial Information** beginning on page 136, including assumptions relating to the allocation of the consideration paid for the assets and liabilities of TGC based on preliminary estimates of their fair value. This unaudited pro forma combined per share information is provided for illustrative purposes only and is not necessarily indicative of what the operating results or financial position of Dawson or TGC would have been had the merger and related transactions been completed at the beginning of the periods or on the dates indicated, nor is it necessarily indicative of any future operating results or financial position. Dawson and TGC may have performed differently had they been combined during the periods presented.

Dawson	TGC	Dawson Pro Forma	TGC Pro Forma
Historical per Share Data	Historical per Share Data	Combined per Share Data	Combined per Share Data

As of or for the Year Ended**September 30, 2010:**

Income from continuing operations per common share:

Edgar Filing: DAWSON GEOPHYSICAL CO - Form S-4/A

Basic(1)	\$ (1.20)	\$ (0.06)	\$ (1.05)	\$ (0.20)
Diluted(1)	(1.20)	(0.06)	(1.05)	(0.20)
Total tangible book value per common share	29.75	4.56	N/A	N/A
Book value of shareholders' equity per common share(2)	24.07	2.67	N/A	N/A

(1) The pro forma combined consolidated statement of income for the year ended September 30, 2010 was prepared by combining Dawson's historical statement of income for the year ended September 30, 2010

Table of Contents

and TGC's historical consolidated statement of income for the year ended December 31, 2010, adjusted to give effect to pro forma events that are (a) directly attributable to the merger, (b) factually supportable and (c) expected to have a continuing impact on combined results.

- (2) Historical book value per share is computed by dividing shareholders' equity by the number of shares of Dawson or TGC common stock outstanding, as applicable.

	Dawson	TGC	Dawson Pro	TGC Pro
	Historical per	Historical	Forma	Forma
	Share Data	per Share	Combined per	Combined
		Data	Share Data	per
			Share Data	Share Data
As of or for the Nine Months Ended				
June 30, 2011:				
Income from continuing operations per common share:				
Basic(1)	\$ (0.79)	\$ 0.37	\$ 0.41	\$ 0.08
Diluted(1)	(0.79)	0.36	0.40	0.08
Total tangible book value per common share	33.03	4.65	38.50	7.24
Book value of shareholders' equity per common share(2)	23.38	3.12	27.75	5.22

- (1) The pro forma combined consolidated statement of income for the nine months ended June 30, 2011 was prepared by combining Dawson's historical statement of income for the nine months ended June 30, 2011 and TGC's historical consolidated statement of income for the fourth quarter ended December 31, 2010 and the year-to-date period ended June 30, 2011, adjusted to give effect to pro forma events that are (a) directly attributable to the merger, (b) factually supportable and (c) expected to have a continuing impact on combined results.
- (2) Historical book value per share is computed by dividing shareholders' equity by the number of shares of Dawson or TGC common stock outstanding, as applicable. Pro forma book value per share is computed by dividing pro forma total equity by the pro forma number of shares of Dawson common stock that would have been outstanding as of June 30, 2011.

Table of Contents

RISK FACTORS

*In addition to the other information contained or incorporated by reference into this joint proxy statement/prospectus, including the matters addressed in **Cautionary Statements Concerning Forward-Looking Statements** on page 34 of this joint proxy statement/prospectus, you should carefully consider the following risk factors in determining whether to vote for approval of the merger agreement. You should also read and consider the risk factors associated with each of the businesses of Dawson and TGC because these risk factors may affect the operations and financial results of Dawson after the merger. Those risk factors may be found in Dawson's Annual Report on Form 10-K for the year ended September 30, 2010, and in TGC's Annual Report on Form 10-K for the year ended December 31, 2010, each of which is on file with the SEC and is incorporated by reference into this joint proxy statement/prospectus.*

The merger is subject to certain closing conditions which may not be satisfied, and as a result, the merger may not be completed.

The closing of the merger is subject to certain customary closing conditions, including, among other things:

the approval of the issuance of shares of Dawson common stock pursuant to the merger agreement by Dawson shareholders;

the approval of the merger agreement by TGC shareholders;

clearance under the HSR Act;

the absence of any judgment, injunction, order or decree in effect, or any law, statute, rule or regulation enacted, that prohibits the consummation of the merger;

the effectiveness of a registration statement on Form S-4 of which this joint proxy statement/prospectus forms a part and the authorization of the listing of the shares of Dawson common stock to be issued in the merger on NASDAQ;

receipt by each party of an opinion from its counsel, in a form and substance reasonably satisfactory to that party, dated as of the closing date of the merger, to the effect that (1) the merger will be treated as a tax-free reorganization within the meaning of Section 368(a) of the Code and (2) no gain or loss will be recognized for United States federal income tax purposes by the shareholders of TGC upon the exchange of shares of TGC common stock for shares of Dawson common stock pursuant to the proposed merger;

certain officers of TGC having entered into employment agreements with TGC, as the surviving entity of the merger, as of the effective time of the merger;

receipt by TGC of certain third party consents;

receipt by TGC of the reconfirmation opinion, which is a reconfirmation from TGC's financial advisor, as of the closing date, that the exchange ratio is fair, from a financial point of view, to TGC shareholders; and

other customary conditions, including the absence of a material adverse effect with respect to either TGC's or Dawson's respective businesses.

There can be no assurance that all these closing conditions will be met, and if they are not all met (or waived to the extent they can be waived by the applicable party), the merger will not be completed.

Dawson and TGC must obtain required approvals and governmental and regulatory clearances to complete the merger, which, if delayed, not granted or granted with unacceptable conditions, may jeopardize or delay the merger, result in additional expenditures of money and resources and/or reduce the anticipated benefits of the merger.

The merger is subject to customary closing conditions. These closing conditions include, among others, the receipt of required approvals of the respective shareholders of Dawson and TGC at their respective special meetings and clearance under the HSR Act.

Table of Contents

The Antitrust Division has broad discretion in administering the governing regulations of the HSR Act. As a condition to its clearance of the merger, the Antitrust Division may impose requirements, limitations or costs or require divestitures or place restrictions on the conduct of Dawson's business after consummation of the merger. These requirements, limitations, costs, divestitures or restrictions could jeopardize or delay the consummation of the merger or may reduce the anticipated benefits of the business combination. While Dawson and TGC have each agreed to use their reasonable best efforts to obtain the necessary clearance from the Antitrust Division, neither Dawson nor TGC is obligated to divest or hold separate any assets or any portion of any business of Dawson or of TGC or any of its subsidiaries or limit in any respect the ownership or operation by Dawson or TGC or any of its subsidiaries of any asset or any portion of any business of Dawson or TGC or any of its subsidiaries. In addition, Dawson has the right, but not the obligation, to oppose by refusing to consent to, through litigation or otherwise, any request, attempt or demand by the Antitrust Division or any other governmental authority or other person for any divestiture, hold separate condition or any other restriction with respect to any assets, businesses or product lines of either Dawson or TGC.

On May 26, 2011, the waiting period under the HSR Act was extended by the Antitrust Division's issuance of a second request. Dawson and TGC are currently responding to the second request.

The date that TGC shareholders will receive the merger consideration is uncertain.

The date that TGC shareholders will receive the merger consideration depends on the completion date of the merger, which is uncertain. While we expect to complete the merger during the third calendar quarter of 2011, the completion date of the merger might be later than expected because of delays in obtaining shareholder and governmental approvals or because of unforeseen events. On May 26, 2011, the waiting period under the HSR Act was extended by the Antitrust Division's issuance of a second request. Dawson and TGC are currently responding to the second request.

In no event will the merger be completed later than October 31, 2011 unless Dawson and TGC otherwise agree.

Because the market price of Dawson common stock will fluctuate, TGC shareholders cannot be sure of the aggregate value of the merger consideration they will receive.

The number of shares of Dawson common stock to be issued in the merger for each share of TGC common stock is fixed (except in the event of any stock split, reverse stock split, stock dividend, combination, reclassification, recapitalization or other similar transaction or event with respect to Dawson common stock or TGC common stock) and will not be adjusted for changes in the market price of either Dawson common stock or TGC common stock unless the 10-day average VWAP of Dawson common stock as of [], 2011 (which is the date that is two business days prior to the date of the special meetings) is less than \$32.54 or greater than \$52.54, in which case the parties may negotiate a new exchange ratio or other agreement with respect to the consideration to be provided in the merger or may, pursuant and subject to the terms of the merger agreement, terminate the transaction. Accordingly, any change in the price of Dawson common stock prior to the merger will affect the market value of the merger consideration that TGC shareholders will receive as a result of the merger.

The dollar value of the consideration received by TGC shareholders receiving consideration of Dawson common stock will depend upon the market value of Dawson common stock at the effective time of the merger, and such dollar value may be different from, and lower than, the dollar value of the merger consideration today. Moreover, the 10-day average VWAP of Dawson common stock as of [], 2011 will likely vary from the market price of Dawson common stock on the date the merger agreement was announced, on the date that this joint proxy statement/prospectus is mailed to TGC shareholders, on the date of the special meetings and after the closing of the merger.

Because the date that the merger becomes effective may be later than the date of the special meetings, at the time of the TGC special meeting, TGC shareholders will not know the exact market value of the Dawson common stock that they will receive upon completion of the merger.

In the event that the 10-day average VWAP of Dawson common stock as of [], 2011 is less than \$32.54 or greater than \$52.54, the parties, at their respective option, will be entitled to terminate the

Table of Contents

transaction following two business days of good faith negotiations to determine a modified, mutually acceptable exchange ratio. See The Merger Agreement Merger Consideration Determination of the Exchange Ratio on page 99.

Whether or not the merger is completed, the announcement and pendency of the merger could cause disruptions in the businesses of Dawson and TGC, which could have an adverse effect on each of their respective businesses, financial results and stock prices.

Whether or not the merger is completed, the announcement and pendency of the merger could cause disruptions in the businesses of Dawson and TGC. Dawson and TGC have each diverted significant management resources in an effort to complete the merger and are each subject to restrictions contained in the merger agreement on the conduct of each of their respective businesses, all of which could result in an adverse effect on each of Dawson's and TGC's respective businesses, financial results and stock prices.

TGC may have difficulty attracting, motivating and retaining employees in light of the merger, and the anticipated benefits of the merger could be reduced.

Uncertainty about the effect of the merger on TGC's employees may have an adverse effect on TGC and the anticipated benefits of the merger. While it is a condition to the merger that certain officers of TGC enter into employment agreements with TGC, as the surviving entity of the merger, the uncertainty involving the merger may impair TGC's ability to attract, retain and motivate other key personnel until the merger is completed. Employee retention may be particularly challenging during the pendency of the merger, as employees may experience uncertainty about their future roles with Dawson or TGC, as the surviving entity of the merger.

The success of the merger will depend in part on the retention of personnel necessary to the business and operations of TGC. If TGC and Dawson are unable to retain key personnel, Dawson could face disruptions in its operations, loss of existing clients and loss of expertise or know-how.

The merger agreement restricts Dawson's and TGC's ability to pursue alternatives to the merger and requires Dawson and TGC to pay a termination fee to the other party of \$2.35 million if it does.

The merger agreement contains non-solicitation provisions that, subject to limited fiduciary exceptions, restrict Dawson's and TGC's ability to initiate, solicit or encourage or take any action to facilitate, discuss, negotiate or accept a competing third party proposal to acquire 20% or more of Dawson's or TGC's, as applicable, assets, revenues, net income or equity securities. Although the board of directors of each of Dawson and TGC is permitted to change its recommendation that shareholders approve the matters relating to the proposed merger if it determines in good faith that these actions are reasonably likely to be required to comply with its fiduciary duties and certain other conditions, doing so in specified situations would require such party to pay the other party a termination fee of \$2.35 million.

Additionally, these non-solicitation provisions could discourage a potential acquirer that might have an interest in acquiring all or a significant part of Dawson or TGC from considering or proposing that acquisition, even if it were prepared to pay consideration with a higher per share cash or market value than the consideration contemplated by the merger agreement or might result in a potential competing acquirer proposing to pay a lower per share price to acquire Dawson or TGC than it might otherwise have proposed to pay because of the added expense of the termination fee that may become payable in certain circumstances.

TGC's directors and executive officers have interests in the merger that are different from, and in addition to, the interests of other TGC shareholders.

When considering the recommendation of TGC's board of directors that TGC shareholders vote in favor of approval of the merger agreement, TGC shareholders should be aware that directors and executive officers of TGC have interests in the merger that are different from, or in addition to, the interests of a shareholder of TGC. In particular, directors and executive officers of TGC have rights to acceleration of stock options and other benefits triggered prior to or upon completion of the merger and have rights to continued indemnification and insurance coverage after the completion of the merger. In addition, certain executive officers of TGC will enter into employment arrangements with TGC, as the surviving entity of the merger, effective as of the

Table of Contents

closing of the merger, and will receive bonuses from TGC upon the closing of the merger. TGC's board of directors was aware of these interests and considered them, among other things, in evaluating and negotiating the merger agreement and the merger and in making its recommendation that TGC shareholders vote in favor of the adoption of the merger agreement. See "The Merger - Conflicts of Interests" beginning on page 92.

Failure to complete the merger could negatively impact the stock price and the future business and financial results of Dawson, TGC or both.

If the merger is not completed, Dawson and TGC will have incurred significant costs, including the diversion of management resources, for which they will have received little or no benefit and would have exposed themselves to a number of risks, including the following:

each of Dawson and TGC may experience negative reactions from its clients and employees;

the current market price of each of Dawson's and TGC's common stock may reflect a market assumption that the merger will occur and a failure to complete the merger could result in a negative perception by the stock market and a resulting decline in the market price of Dawson's common stock or TGC's common stock;

certain costs relating to the merger, including certain investment banking, financing, legal and accounting fees and expenses, must be paid even if the merger is not completed; and

there may be substantial disruption to each company's business and distraction of each company's management and employees from day-to-day operations because matters related to the merger (including integration planning) may require substantial commitments of time and resources, which could otherwise have been devoted to other opportunities that could have been beneficial to the companies.

In addition, TGC may be required to pay Dawson a termination fee of \$2.35 million or \$3.125 million and reimburse Dawson's expenses up to \$1.5 million and Dawson may be required to pay TGC a termination fee of \$2.35 million and reimburse TGC's expenses up to \$1.5 million if the merger agreement is terminated, depending on the specific circumstances of the termination. For a detailed description of the circumstances in which such termination fees will be paid, see "The Merger Agreement - Termination Fee and Expense Reimbursement" beginning on page 116.

The market for Dawson common stock may be adversely affected by the issuance of shares pursuant to the proposals before Dawson shareholders.

If the merger is consummated, Dawson will issue an estimated 3.75 million shares of Dawson common stock to TGC shareholders, based on the number of shares of TGC common stock and options to acquire TGC common stock outstanding on August 5, 2011. The increase in the number of outstanding shares of Dawson common stock may lead to sales of such stock or the perception that such sales may occur, either of which may adversely affect the market for, and the market price of, Dawson common stock.

The issuance of shares of Dawson common stock to TGC shareholders in the merger will substantially reduce the percentage ownership interest of current Dawson shareholders; additionally, TGC shareholders, who will own approximately 32% of Dawson common stock immediately after the merger, will exercise significantly less influence over management after the merger.

If the merger is consummated, Dawson will issue an estimated 3.75 million shares of Dawson common stock to TGC shareholders, based on the number of shares of TGC common stock and options to acquire TGC common stock outstanding on August 5, 2011. Based on the number of shares of Dawson and TGC common stock outstanding on

August 5, 2011, legacy Dawson shareholders will own, in the aggregate, approximately 68% of the shares of Dawson common stock outstanding immediately after the merger, and former TGC shareholders, who collectively own 100% of TGC common stock, will own, in the aggregate, approximately 32% of shares of Dawson common stock outstanding immediately after the merger.

The issuance of shares of Dawson common stock to TGC shareholders in the merger will cause a significant reduction in the relative percentage interest of current Dawson shareholders in earnings, voting, liquidation value and book and market value of Dawson. Additionally, immediately after the completion of the

Table of Contents

merger, TGC shareholders will have significantly less influence over the management and policies of Dawson than they currently have over the management and policies of TGC.

As a result of these reduced ownership percentages, both Dawson and TGC shareholders will have less influence on the management and policies of Dawson following the merger than they now have with respect to their respective companies. If Dawson and TGC are unable to realize the benefits currently anticipated from the merger, Dawson and TGC shareholders will experience dilution of their ownership interest without receiving any commensurate benefit.

Dawson's actual financial position and results of operations may differ materially from the unaudited pro forma financial data included herein.

The unaudited pro forma financial data included herein are presented for illustrative purposes only and are not necessarily indicative of what Dawson's actual financial position or results of operations would have been had the merger been completed on the dates indicated. These data reflect adjustments, which are based upon preliminary estimates, to allocate the purchase price to TGC's net assets. The purchase price allocation reflected in this document is preliminary, and final allocation of the purchase price will be based upon the actual purchase price and the fair value of the assets and liabilities of TGC as of the date of the completion of the merger. In addition, subsequent to the closing date of the merger, there may be further refinements of the purchase price allocation as additional information becomes available.

Accordingly, the final purchase accounting adjustments might differ materially from the pro forma adjustments reflected herein. See "Selected Unaudited Pro Forma Condensed Combined Consolidated Financial Information," beginning on page 20, and "Unaudited Comparative Per Share Data," beginning on page 22, for more information.

The market price of Dawson common stock after the merger might be affected by factors different from, or in addition to, those currently affecting the respective market prices of Dawson and TGC common stock.

The businesses of Dawson and TGC differ and, accordingly, the results of operations of Dawson and the market price of Dawson common stock after the merger may be affected by factors different from, or in addition to, those currently affecting the independent results of operations of each of Dawson and TGC. For a discussion of the businesses of Dawson and TGC and of factors to consider in connection with those businesses, see the documents incorporated by reference into this document and referred to under "Where You Can Find More Information" beginning on page 153.

Dawson may not pay dividends in the foreseeable future, and current TGC shareholders may have to rely on increases in the trading price of Dawson common stock for returns on their investment following the merger.

TGC shareholders have historically received a 5% stock dividend from TGC. Dawson shareholders have never received a cash or stock dividend since Dawson became a publicly traded company and Dawson does not anticipate paying any dividends in the foreseeable future. Accordingly, former TGC shareholders who become shareholders of Dawson may not receive cash or stock dividends, and they (and other Dawson shareholders) may have to rely on increases in the trading price of Dawson common stock for any returns on their investment.

After completion of the merger, Dawson may fail to realize the anticipated benefits of the merger, which could adversely affect the value of Dawson's common stock.

The success of the merger will depend, in part, on Dawson's ability to manage effectively the businesses of Dawson and TGC and realize the anticipated benefits from the acquisition of TGC. As of the date of this joint proxy statement/prospectus, Dawson believes that these benefits, which include the expansion of Dawson's geographic diversity, an increase in Dawson's utilization rates due to an expanded order book and the ability to enhance

efficiencies because of logistical improvements, are achievable. However, it is possible that Dawson will not be able to achieve these benefits fully, or at all, or will not be able to achieve them within the anticipated timeframe. Dawson and TGC have operated and, until the completion of the merger,

Table of Contents

will continue to operate, independently, and there can be no assurance that their businesses can be integrated successfully. If Dawson's expectations as to the benefits of the merger turn out to be incorrect, or Dawson is not able to successfully integrate the businesses of Dawson and TGC for any other reason, the financial and operating results and the value of Dawson's common stock (including the stock issued as a portion of the merger consideration) may be adversely affected.

While it is a condition to the merger that certain key employees of TGC enter into employment agreements with TGC, as the surviving entity of the merger, it is possible that the integration process could result in the loss of other key TGC employees, as well as the disruption of each company's ongoing businesses or inconsistencies in standards, controls, procedures and policies. Specific issues that must be addressed upon completion of the merger in order to realize the anticipated benefits of the merger include, among other things:

integrating the companies' strategies, cultures and operations;

retaining existing TGC and Dawson clients and suppliers;

adopting best practices across the combined entity and harmonizing the companies' operating practices, employee development and compensation programs, internal controls and other policies, procedures and processes;

integrating the companies' corporate, administrative and information technology infrastructure; and

managing any tax costs or inefficiencies associated with integration.

In addition, at times, the attention of certain members of Dawson's management and TGC's management, and the resources of the two companies, may be focused on business aspects related to the merger and the integration of the businesses of the two companies and diverted from day-to-day business operations.

Our results of operations could be materially adversely affected if we were required to recognize asset impairments of intangibles or goodwill associated with the merger.

If the merger is consummated, we expect that the intangibles and goodwill associated with the acquisition of TGC will be significant assets on our consolidated balance sheet. We currently anticipate our intangibles and goodwill associated with such acquisition to be \$64,074,000. See Unaudited Pro Forma Condensed Combined Consolidated Financial Information Unaudited Pro Forma Condensed Combined Consolidated Balance Sheet as of June 30, 2011 on page 138. However, future events, including our financial performance, market valuation of us or comparable companies, loss of a significant client's business, failure to realize the benefits of the merger, or strategic decisions, could cause us to conclude that impairment indicators exist and that the asset values associated with long-lived assets, including intangibles and goodwill, may need to be impaired. If we are forced to impair intangibles, goodwill or any other long-lived asset, these noncash asset impairments could negatively affect in a material manner our results of operations in the period in which they are recorded, and the larger the amount of any impairment that may be taken, the greater the impact such impairment would have on our results of operations, with the maximum current impairment being \$64,074,000. See discussion of Impairment of Long-Lived Assets included in Critical Accounting Policies of our Annual Report on Form 10-K for the year ended September 30, 2010.

The unaudited prospective financial information of each of Dawson and TGC included in this joint proxy statement/prospectus involves risks, uncertainties and assumptions, many of which are beyond the control of Dawson and TGC, respectively. As a result, such information may not prove to be accurate and is not necessarily indicative of current values or future performance.

The unaudited prospective financial information of each of Dawson and TGC contained in The Merger Certain Information Provided by the Parties Dawson Unaudited Prospective Financial Information and The Merger Certain Information Provided by the Parties TGC Unaudited Prospective Financial Information, and referred to in The Merger Opinion of Dawson s Financial Advisor and The Merger Opinion of TGC s Financial Advisor, involves uncertainties and assumptions and is not a guarantee of future performance. The future financial results of Dawson and TGC and, if the merger is completed, the combined company, may materially differ from those expressed in the unaudited prospective financial information due to factors that are beyond Dawson s and TGC s ability to control or predict. Neither Dawson

Table of Contents

nor TGC can provide any assurance that Dawson's or TGC's unaudited prospective financial information will be realized or that Dawson's or TGC's future financial results will not materially vary from the applicable unaudited prospective financial information. The unaudited prospective financial information covers multiple years, and the information by its nature becomes subject to greater uncertainty with each successive year. The unaudited prospective financial information does not reflect Dawson's or TGC's current estimates and does not take into account any circumstances or events occurring after the date it was prepared.

More specifically, the unaudited prospective financial information:

necessarily makes numerous assumptions, many of which are beyond the control of Dawson or TGC and may not prove to be accurate;

does not necessarily reflect revised prospects for Dawson's or TGC's respective businesses, changes in general business or economic conditions, or any other transaction or event that has occurred or that may occur and that was not anticipated at the time the unaudited prospective financial information was prepared;

is not necessarily indicative of future performance, which may be significantly more favorable or less favorable than is reflected in the unaudited prospective financial information; and

should not be regarded as a representation that the unaudited prospective financial information will be achieved.

The unaudited prospective financial information was not prepared with a view toward public disclosure or compliance with published guidelines of the SEC or the American Institute of Certified Public Accountants for preparation and presentation of prospective financial information or GAAP and does not reflect the effect of any proposed or other changes in GAAP that may be made in the future.

The rights of TGC shareholders will be governed by Dawson's Second Restated Articles of Incorporation and Second Amended and Restated Bylaws.

Both Dawson and TGC are Texas corporations and are therefore governed by Texas law. However, if the merger is consummated, all TGC shareholders will become Dawson shareholders and their rights as shareholders will be governed by Dawson's second restated articles of incorporation and second amended and restated bylaws, as amended. There are material differences between the current rights of TGC shareholders, which are governed by TGC's restated articles of incorporation and amended and restated bylaws, and the rights of holders of Dawson common stock. See "Comparison of Shareholder Rights" beginning on page 130.

If the merger does not qualify as a reorganization under Section 368(a) of the Code, TGC shareholders may be required to pay substantial U.S. federal income taxes.

As a condition to the completion of the merger, each of Baker Botts L.L.P., tax counsel to Dawson, and Haynes and Boone, LLP, tax counsel to TGC, will have delivered an opinion, dated as of the closing date of the merger, that the merger will be treated for U.S. federal income tax purposes as a reorganization within the meaning of Section 368(a) of the Code. These opinions will be based on certain assumptions and representations as to factual matters from Dawson, Merger Sub and TGC, as well as certain covenants and undertakings by Dawson, Merger Sub and TGC. If any of the assumptions, representations, covenants or undertakings is incorrect, incomplete, inaccurate or is violated in any material respect, the validity of the conclusions reached by counsel in their opinions would be jeopardized. Additionally, an opinion of counsel represents counsel's best legal judgment but is not binding on the United States Internal Revenue Service, or IRS, or any court, so there can be no certainty that the IRS will not challenge the

conclusions reflected in the opinions or that a court will not sustain such a challenge. If the IRS or a court determines that the merger should not be treated as a reorganization, a holder of TGC common stock would recognize taxable gain or loss upon the exchange of TGC common stock for Dawson common stock pursuant to the merger. See Material United States Federal Income Tax Consequences beginning on page 127.

Table of Contents

CAUTIONARY STATEMENTS CONCERNING FORWARD-LOOKING STATEMENTS

The Private Securities Litigation Reform Act of 1995 provides safe harbor provisions for forward-looking information. Forward-looking information is based on projections and estimates, not historical information. Some statements in this joint proxy statement/prospectus and the documents incorporated by reference in this joint proxy statement/prospectus are forward-looking and use words like may, may not, believes, do not believe, expects, expect, anticipates, do not anticipate, and other similar expressions. In particular, the forward-looking statements contained in this joint proxy statement/prospectus include but are not limited to statements regarding:

the expected closing date of the merger;

the anticipated benefits of the merger; and

the expected tax treatment of the merger for U.S. federal income tax purposes.

Dawson and TGC may also provide oral or written forward-looking information in other materials they release to the public. Forward-looking information involves risk and uncertainties and reflects Dawson's and TGC's, as applicable, best judgment based on current information. The results of operations and business strategies of Dawson and TGC, and the plans and objectives for the future operation of Dawson following the merger and the integration of the businesses of Dawson and TGC, can be affected by inaccurate assumptions that are made or by known or unknown risks and uncertainties. In addition, other factors may affect the accuracy of forward-looking information. As a result, no forward-looking information can be guaranteed. Actual events and the results of operations may vary materially.

Neither Dawson nor TGC assumes any responsibility to publicly update any forward-looking statements regardless of whether factors change as a result of new information, future events, or for any other reason. You should review any additional disclosures Dawson and TGC make in their press releases and Forms 10-K, 10-Q, and 8-K filed with or furnished to the SEC. We also suggest that you listen to Dawson's and TGC's earnings release conference calls with financial analysts.

The following important factors, in addition to those discussed under Risk Factors and elsewhere in this joint proxy statement/prospectus and the documents incorporated by reference in this joint proxy statement/prospectus, could cause actual results to differ materially from those expressed in or implied by forward-looking statements:

Factors relating to the merger:

whether the merger will be consummated, including whether we will receive the required clearance under the HSR Act;

the failure to receive the required shareholder and regulatory approvals for the merger or to satisfy all of the closing conditions to the merger;

the timing of the completion of the merger;

the value of the merger consideration and the likelihood that the exchange ratio will not need to be renegotiated;

changes in economic, business, competitive and/or regulatory factors;

changes in both companies' businesses during the period between now and the completion of the merger might have adverse impacts on Dawson following the merger;

attrition in key clients, partners, personnel and other relationships relating to the merger;

the expenses of the merger being greater than anticipated, including as a result of unexpected factors or events;

the exposure to litigation, including the possibility that litigation relating to the merger could delay or impede the completion of the merger;

Table of Contents

the integration of TGC's business and operations with those of Dawson taking longer than anticipated, being costlier than anticipated and having unanticipated adverse results relating to Dawson's or TGC's existing businesses; and

uncertainty of the expected financial performance of Dawson following completion of the proposed transaction, which may differ significantly from the pro forma financial data contained in this joint proxy statement/prospectus;

Factors relating to Dawson's and TGC's respective businesses:

the potential for fluctuations in oil and natural gas prices;

the dependence upon energy industry spending for seismic data acquisition services;

the potential for data acquisition contract delays, reductions or cancellation;

high fixed costs of operations;

external factors affecting either company's crews, such as weather interruptions and inability to obtain land access rights of way;

whether Dawson or TGC enter into turnkey or dayrate contracts;

crew productivity;

the limited number of clients;

the credit risk related to clients; and

the availability of capital resources.

See [Where You Can Find More Information](#) beginning on page 153.

Table of Contents

THE DAWSON SPECIAL MEETING

Dawson's board of directors is using this document to solicit proxies from Dawson shareholders for use at the Dawson special meeting. In addition, this document constitutes a prospectus covering the issuance of Dawson common stock pursuant to the merger agreement.

Date, Time and Place

The special meeting of Dawson's shareholders will be held at the offices of Baker Botts L.L.P. at 2001 Ross Avenue, Suite 1100, Dallas, Texas at [] a.m., central time, on [], 2011.

Purpose

The purpose of the Dawson special meeting is as follows:

1. to approve the issuance of shares of Dawson common stock to TGC shareholders pursuant to the merger agreement; and
2. to approve adjournments of the special meeting, if necessary or appropriate, to permit the solicitation of additional proxies if there are not sufficient votes at the time of the special meeting to adopt the foregoing proposal.

Board Recommendations

Dawson's board of directors has adopted a resolution approving the merger agreement and has determined that the merger agreement is advisable and in the best interests of Dawson and its shareholders and **recommends that Dawson shareholders vote FOR approval of the issuance of Dawson common stock to TGC shareholders pursuant to the merger agreement and FOR approval of any adjournment of the special meeting, if necessary or appropriate to solicit additional proxies.** See The Merger Background of the Merger and The Merger Dawson's Reasons for the Merger and Recommendation of Dawson's Board of Directors beginning on pages 54 and 63, respectively.

Record Date; Outstanding Shares; Shares Entitled to Vote

The record date for the Dawson special meeting is August 29, 2011. Only holders of record of Dawson common stock at the close of business on the record date are entitled to notice of, and to vote at, the Dawson special meeting. At the close of business on the record date, there were [] shares of Dawson common stock issued and outstanding held by approximately [] holders of record. Dawson believes there are a number of additional beneficial holders of its shares. Each share of Dawson common stock entitles the holder of that share to one vote on each matter submitted for shareholder approval.

Quorum

A quorum of shareholders is required for Dawson shareholders to take action on the proposal to approve the issuance of Dawson common stock to TGC shareholders pursuant to the merger agreement at the Dawson special meeting, but not to approve any adjournment of the meeting. The presence at the special meeting, in person or represented by proxy, of the holders of a majority of the outstanding shares of Dawson common stock entitled to vote at the close of business on the record date will constitute a quorum. Proxies received but marked as abstentions, if any, will be

included in the calculation of the number of shares considered to be present at the meeting for quorum purposes. With respect to broker non-votes, the issuance of shares of Dawson common stock pursuant to the merger agreement as well as the adjournment of the special meeting are not considered routine matters. Therefore, your bank, broker or other nominee will not be permitted to vote on such proposals without instruction from you as the beneficial owner of the shares of Dawson common stock. Further, in the event there are any broker non-votes, such votes will not count for purposes of determining whether a quorum is present at the special meeting.

Table of Contents

Required Vote

The affirmative vote of a majority of shares of Dawson common stock present in person or represented by proxy and entitled to vote at the Dawson special meeting, in which a quorum is present, is required to approve the issuance of shares of Dawson common stock to TGC shareholders pursuant to the merger agreement. Abstentions will have the same effect as a vote **AGAINST** approval of the issuance of shares of Dawson common stock pursuant to the merger agreement. Assuming a quorum is present at the Dawson special meeting, broker non-votes and shares not in attendance at the Dawson special meeting will have no effect on the outcome of any vote to approve the issuance of shares of Dawson common stock.

Any adjournment of the special meeting, if necessary or appropriate to solicit additional proxies, requires the affirmative vote of the holders of Dawson common stock representing a majority of the votes present in person or represented by proxy at the special meeting and entitled to vote, whether or not a quorum exists, without further notice other than by announcement made at the special meeting, so long as no new record date is set. Abstentions will have the same effect as a vote **AGAINST** the proposal to adjourn the Dawson special meeting, while broker non-votes and shares not in attendance at the special meeting will have no effect on the outcome of any vote to adjourn the Dawson special meeting.

Tabulation of the Votes

Dawson has appointed Broadridge Financial Solutions, Inc. to serve as the Inspector of Election for the Dawson special meeting. Broadridge will independently tabulate affirmative and negative votes and abstentions.

Stock Ownership of and Voting by Dawson's Directors and Executive Officers

At the close of business on August 29, 2011, the record date for the Dawson special meeting, directors and executive officers of Dawson beneficially owned and were entitled to vote [] shares of Dawson common stock, collectively representing approximately []% of the shares of Dawson common stock outstanding on that date. Pursuant to and subject to the terms of the Dawson shareholder voting agreement, certain of those executive officers and directors, who collectively owned approximately []% of the shares of Dawson common stock outstanding on the record date of the Dawson special meeting, have agreed, among other things, to vote their shares of Dawson common stock in favor of approval of the issuance of shares of Dawson common stock in connection with the proposed merger at the Dawson special meeting. For additional information on the Dawson shareholder voting agreement, see *The Dawson Shareholder Voting Agreement* beginning on page 121.

Voting of Shares by Holders of Record

If you are entitled to vote at the Dawson special meeting and hold your shares in your own name, you can submit a proxy or vote in person by completing a ballot at the Dawson special meeting. However, Dawson encourages you to submit a proxy before the Dawson special meeting even if you plan to attend the Dawson special meeting in order to ensure that your shares are voted. A proxy is a legal designation of another person to vote your shares of Dawson common stock on your behalf. If you hold shares in your own name, you may submit a proxy for your shares by:

Telephone. You can vote by telephone by calling the toll-free number (800) 690-6903 in the United States, Canada or Puerto Rico on a touch-tone telephone. You will then be prompted to enter the control number printed on Dawson's proxy card, as applicable, and to follow the subsequent instructions. Telephone voting is available 24 hours a day until 11:59 p.m. New York City time on [], 2011. If you vote by telephone, you do

not need to return your proxy card or voting instruction card.

Internet. You can vote over the Internet by accessing the website at <http://www.proxyvote.com> and following the instructions on the secure website. Internet voting is available 24 hours a day until

Table of Contents

11:59 p.m. New York City time on [], 2011. If you vote over the Internet, you do not need to return your proxy card or voting instruction card.

Mail. You can vote by mail by completing, signing, dating and mailing your proxy card or voting instruction card in the postage-paid envelope included with this joint proxy statement/prospectus.

When a shareholder submits a proxy by telephone or through the Internet, his or her proxy is recorded immediately. Dawson encourages its shareholders to submit their proxies using these methods whenever possible. If you submit a proxy by telephone or the Internet website, please do not return your proxy card by mail.

All shares represented by each properly executed and valid proxy received before the Dawson special meeting will be voted in accordance with the instructions given on the proxy. If a Dawson shareholder executes a proxy card without giving instructions, the shares of Dawson common stock represented by that proxy card will be voted **FOR** approval of the issuance of shares of Dawson common stock pursuant to the merger agreement and **FOR** the proposal to approve any adjournment of the special meeting, if necessary or appropriate to solicit additional proxies in favor of the foregoing proposal.

Your vote is important. Accordingly, please submit your proxy by telephone, through the Internet or by mail, whether or not you plan to attend the meeting in person. Proxies must be received by [], 11:59 p.m. New York City time local time, on [], 2011.

Voting of Shares Held in Street Name

Dawson shareholders who hold shares of Dawson common stock in a stock brokerage account or through a bank, broker or other nominee (street name shareholders) who wish to vote at the Dawson special meeting should be provided a voting instruction card by the institution that holds their shares. If this has not occurred, contact the institution that holds your shares. A number of banks and brokerage firms participate in a program that also permits shareholders whose shares are held in street name to direct their vote by telephone or over the Internet. If your shares are held in an account at a bank or brokerage firm that participates in such a program, you may direct the vote of these shares by telephone or over the Internet by following the voting instructions enclosed with the proxy form from the bank or brokerage firm. The Internet and telephone proxy procedures are designed to authenticate shareholders identities, to allow shareholders to give their proxy voting instructions and to confirm that those instructions have been properly recorded. Votes directed by telephone or over the Internet through such a program must be received by 11:59 p.m. on [], 2011. Directing the voting of your shares will not affect your right to vote in person if you decide to attend the Dawson special meeting; however, you must first obtain a signed and properly executed legal proxy from your bank, broker or other nominee to vote your shares held in street name at the Dawson special meeting. Requesting a legal proxy prior to the deadline described above will automatically cancel any voting directions you have previously given by telephone or over the Internet with respect to your shares.

If you do not instruct your bank, broker or other nominee how to vote your shares, your bank, broker or other nominee will not be authorized to vote. If there is a quorum present at the Dawson special meeting, a broker non-vote will have no effect on the proposal to issue shares of Dawson common stock pursuant to the merger agreement. Whether or not there is a quorum present at the Dawson special meeting, a broker non-vote will have no effect on the proposal to adjourn the Dawson special meeting.

If you mark abstain when voting with respect to the proposal to issue shares of Dawson common stock pursuant to the merger agreement or the proposal to adjourn the Dawson special meeting, if necessary or appropriate, to solicit further proxies in connection with the proposal described above, your abstention will have the same effect as a vote

AGAINST such proposal.

Table of Contents

Revocability of Proxies; Changing Your Vote

Regardless of the method you used to cast your vote, if you are a holder of record, you may change your vote:

by completing, signing, dating and returning a new proxy card with a later date so that it is received prior to the Dawson special meeting;

by calling the toll-free number listed on the proxy card or by accessing the Internet website listed on the proxy card by 11:59 p.m. New York City time on [], 2011; or

by attending the Dawson special meeting and voting by ballot in person at the Dawson special meeting.

You may also revoke your proxy card by sending a notice of revocation, which must be received prior to the Dawson special meeting, to the designated representative of Dawson at the address provided under **Where You Can Find More Information** beginning on page 153. Your attendance at the Dawson special meeting will not, by itself, revoke any proxy that you have previously submitted.

If you hold your shares in **street name** and wish to change or revoke your vote, please refer to the information on the voting instruction form included with these materials and forwarded to you by your bank, broker, custodian or other record holder to see your voting options.

Solicitation of Proxies

Dawson is soliciting proxies for the Dawson special meeting from Dawson shareholders. Dawson and TGC are sharing equally in the costs of printing and mailing this joint proxy statement/prospectus. However, Dawson will bear all other costs relating to soliciting proxies from Dawson shareholders. In addition to this mailing, Dawson's directors, officers and employees (who will not receive any additional compensation for their services) may solicit proxies personally, and by telephone, facsimile, courier service, mail, email, Internet, press release or advertisement (including on television, radio, newspapers or other publications of general distribution). Morrow & Co., LLC, which we refer to as Morrow, has been engaged to aid in the distribution and solicitation of proxies. Dawson will pay Morrow a fee of \$12,500, along with a \$5.00 per holder fee for each call made to such holder, and reimburse its out-of-pocket expenses for such items as mailing, copying, faxes and other related matters and will indemnify Morrow against any losses arising out of Morrow's proxy soliciting services on behalf of Dawson. Dawson and its proxy solicitor will also request that banks, brokerage houses and other custodians, nominees and fiduciaries send proxy materials to the beneficial owners of Dawson common stock and will, if requested, reimburse them for their reasonable out-of-pocket expenses in doing so.

Dawson shareholders should not submit any stock certificates with their proxy cards. Dawson shareholders will not need to send in their stock certificates or surrender their book-entry shares.

No Other Business

Under Dawson's second restated articles of incorporation and second amended and restated bylaws, as amended, the business to be conducted at the Dawson special meeting will be limited to the purposes stated in the notice to Dawson shareholders provided with this joint proxy statement/prospectus.

Adjournments and Postponements

Adjournments or postponements may be made for the purpose of, among other things, soliciting additional proxies. Any adjournment may be made from time to time with the approval of a majority of the votes present in person or represented by proxy at the time of the vote, whether or not a quorum exists. Dawson is not required to notify shareholders of any adjournment if the time and place of the adjourned meeting are announced at the meeting at which the adjournment is taken, unless after the adjournment a new record date is fixed for the adjourned meeting.

Table of Contents

In addition, at any time prior to convening the Dawson special meeting, the Dawson special meeting may be postponed without the approval of Dawson shareholders. If postponed, Dawson will publicly announce the new meeting date.

At any adjourned or postponed meeting, Dawson may transact any business that it might have transacted at the original meeting, provided that a quorum is present at such adjourned or postponed meeting. Proxies submitted by Dawson shareholders for use at the Dawson special meeting will be used at any adjournment or postponement of the meeting. References to the Dawson special meeting in this joint proxy statement/prospectus are to such special meeting as adjourned or postponed.

Assistance

If you need assistance in completing your proxy card or have questions regarding the special meeting, please contact Morrow toll-free at (800) 607-0088 (banks and brokers call (800) 654-2468).

Table of Contents

DAWSON PROPOSAL 1 APPROVAL OF THE ISSUANCE OF SHARES OF DAWSON COMMON STOCK TO TGC SHAREHOLDERS PURSUANT TO THE MERGER AGREEMENT

As discussed in this joint proxy statement/prospectus, Dawson is asking its shareholders to approve the issuance of shares of Dawson common stock to TGC shareholders pursuant to the merger agreement. Dawson shareholders should read carefully this joint proxy statement/prospectus in its entirety for more detailed information concerning the merger agreement, which is attached as Annex A to this joint proxy statement/prospectus. Please see the section entitled "The Merger Agreement" beginning on page 98 for additional information and a summary of certain terms of the merger agreement. You are urged to read carefully the entire merger agreement included as Annex A before voting on this proposal.

Approval of this proposal is a condition to the completion of the merger. If the proposal is not approved, the merger will not occur.

The Dawson board of directors recommends that Dawson shareholders vote FOR approval of the issuance of shares of Dawson common stock pursuant to the merger agreement.

Table of Contents

DAWSON PROPOSAL 2 ADJOURNMENT OF THE DAWSON SPECIAL MEETING

If there are insufficient votes at the time of the Dawson special meeting to approve the foregoing proposal, Dawson may propose to adjourn the Dawson special meeting for the purpose of soliciting additional proxies in favor of the foregoing proposal. Dawson does not intend to propose adjournment at the Dawson special meeting if there are sufficient votes to approve the foregoing proposal.

The Dawson board of directors recommends that Dawson shareholders vote FOR any adjournment of the Dawson special meeting, if necessary or appropriate, to permit further solicitation of proxies.

Table of Contents

THE TGC SPECIAL MEETING

TGC's board of directors is using this document to solicit proxies from TGC shareholders for use at the TGC special meeting. In addition, this document constitutes a prospectus covering the issuance of Dawson common stock pursuant to the merger agreement.

Date, Time and Place

The special meeting of TGC's shareholders will be held at the offices of Haynes and Boone LLP at 2323 Victory Avenue, Suite 700, Dallas, Texas at [] a.m., central time, on [], 2011.

Purpose

The purpose of the TGC special meeting is as follows:

1. to approve the merger agreement;
2. to approve a non-binding advisory resolution on certain compensation to be paid by TGC to TGC's named executive officers upon consummation of the merger; and
3. to approve adjournments of the special meeting, if necessary or appropriate, to permit the solicitation of additional proxies if there are not sufficient votes at the time of the special meeting to approve the merger agreement.

Board Recommendations

TGC's board of directors has adopted a resolution approving the merger agreement and has determined that the merger agreement is advisable and in the best interests of TGC and its shareholders and **recommends that TGC shareholders vote FOR approval of the merger agreement, FOR approval of the non-binding advisory resolution on certain compensation to be paid by TGC to TGC's named executive officers upon consummation of the merger and FOR approval of any adjournment of the special meeting, if necessary or appropriate to solicit additional proxies.** See The Merger Background of the Merger and The Merger TGC's Reasons for the Merger and Recommendation of TGC's Board of Directors beginning on page 54 and 68, respectively.

As described under The Merger Conflicts of Interests beginning on page 92, TGC directors and executive officers have agreements and arrangements that provide them with interests in the merger that are different from, or are in addition to, those of TGC shareholders.

Record Date; Outstanding Shares; Shares Entitled to Vote

The record date for the TGC special meeting is August 29, 2011. Only holders of record of TGC common stock at the close of business on the record date are entitled to notice of, and to vote at, the TGC special meeting. At the close of business on the record date, there were [] shares of TGC common stock issued and outstanding held by approximately [] holders of record. TGC believes there are a number of additional beneficial holders of its shares. Each share of TGC common stock entitles the holder of that share to one vote on each matter submitted for shareholder approval.

Quorum

A quorum of shareholders is required for TGC shareholders to take action at the TGC special meeting on the proposal to approve the merger agreement and the proposal to approve the non-binding advisory resolution on certain compensation to be paid by TGC to TGC's named executive officers upon consummation of the merger, but not to approve any adjournment of the meeting. The presence at the special meeting, in person or represented by proxy, of the holders of a majority of the outstanding shares of TGC common stock entitled to vote at the close of business on the record date will constitute a quorum. Proxies received but marked as abstentions, if any, will be included in the calculation of the number of shares considered to be present at the meeting for quorum purposes. With respect to broker non-votes, none of the matters to be considered at the

Table of Contents

TGC special meeting are considered routine matters. Therefore, your bank, broker or other nominee will not be permitted to vote on such proposals without instruction from you as the beneficial owner of the shares of TGC common stock. Further, in the event there are any broker non-votes, such votes will not count for purposes of determining whether a quorum is present at the special meeting.

Required Vote

The affirmative vote of at least 80% of the outstanding shares of TGC common stock is required to approve the merger agreement. Abstentions, broker non-votes and shares not in attendance at the TGC special meeting will have the same effect as a vote **AGAINST** approval of the merger agreement.

The affirmative vote of a majority of the shares of TGC common stock present in person or represented by proxy and entitled to vote at the TGC special meeting, in which a quorum is present, is required to approve the non-binding advisory resolution on certain compensation to be paid by TGC to TGC's named executive officers upon consummation of the merger at the TGC special meeting. Abstentions will have the same effect as a vote **AGAINST** the non-binding advisory resolution on certain compensation to be paid by TGC to TGC's named executive officers upon consummation of the merger. Assuming a quorum is present at the TGC special meeting, broker non-votes and shares not in attendance at the TGC special meeting will have no effect on the outcome of any vote on certain compensation to be paid by TGC to TGC's named executive officers upon consummation of the merger.

Any adjournment of the special meeting, if necessary or appropriate to solicit additional proxies, requires the affirmative vote of the holders of TGC common stock representing a majority of the votes present in person or represented by proxy at the special meeting and entitled to vote, whether or not a quorum exists, without further notice other than by announcement made at the special meeting, so long as no new record date is set. Abstentions will have the same effect as a vote **AGAINST** the proposal to adjourn the TGC special meeting, while broker non-votes and shares not in attendance at the special meeting will have no effect on the outcome of any vote to adjourn the TGC special meeting.

Tabulation of the Votes

TGC has appointed [] to serve as the Inspector of Election for the TGC special meeting. [] will independently tabulate affirmative and negative votes and abstentions.

Stock Ownership of and Voting by TGC's Directors and Executive Officers

At the close of business on August 29, 2011, the record date for the TGC special meeting, directors and executive officers of TGC beneficially owned and were entitled to vote [] shares of TGC common stock, collectively representing approximately []% of the shares of TGC common stock outstanding on that date. Pursuant to and subject to the terms of the TGC shareholder voting agreements, those executive officers and directors and their affiliates have agreed, among other things, to vote their shares of TGC common stock in favor of approval of the merger agreement at the TGC special meeting. For additional information on the TGC shareholder voting agreement, see "The TGC Shareholder Voting Agreement" beginning on page 119.

Voting of Shares by Holders of Record

If you are entitled to vote at the TGC special meeting and hold your shares in your own name, you can submit a proxy or vote in person by completing a ballot at the TGC special meeting. However, TGC encourages you to submit a proxy before the TGC special meeting even if you plan to attend the TGC special meeting in order to ensure that your shares are voted. A proxy is a legal designation of another person to vote your shares of TGC common stock on your

behalf. If you hold shares in your own name, you may submit a proxy for your shares by:

Telephone. You can vote by telephone by calling the toll-free number (800) 690-6903 in the United States, Canada or Puerto Rico on a touch-tone telephone. You will then be prompted to enter the control number printed on TGC's proxy card, as applicable, and to follow the subsequent

Table of Contents

instructions. Telephone voting is available 24 hours a day until 11:59 p.m. New York City time on [], 2011. If you vote by telephone, you do not need to return your proxy card or voting instruction card.

Internet. You can vote over the Internet by accessing the website at <http://www.proxyvote.com> and following the instructions on the secure website. Internet voting is available 24 hours a day until 11:59 p.m. New York City time on [], 2011. If you vote over the Internet, you do not need to return your proxy card or voting instruction card.

Mail. You can vote by mail by completing, signing, dating and mailing your proxy card or voting instruction card in the postage-paid envelope included with this joint proxy statement/prospectus.

When a shareholder submits a proxy by telephone or through the Internet, his or her proxy is recorded immediately. TGC encourages its shareholders to submit their proxies using these methods whenever possible. If you submit a proxy by telephone or the Internet website, please do not return your proxy card by mail.

All shares represented by each properly executed and valid proxy received before the TGC special meeting will be voted in accordance with the instructions given on the proxy. If a TGC shareholder executes a proxy card without giving instructions, the shares of TGC common stock represented by that proxy card will be voted **FOR** approval of the merger agreement, **FOR** approval of non-binding advisory resolution on certain compensation to be paid by TGC to TGC's named executive officers upon consummation of the merger and **FOR** the proposal to approve any adjournment of the special meeting, if necessary or appropriate to solicit additional proxies in favor of approval of the merger agreement.

Your vote is important. Accordingly, please submit your proxy by telephone, through the Internet or by mail, whether or not you plan to attend the meeting in person. Proxies must be received by [], 11:59 p.m. New York City time local time, on [], 2011.

Voting of Shares Held in Street Name

TGC shareholders who hold shares of TGC common stock in a stock brokerage account or through a bank, broker or other nominee (street name shareholders) who wish to vote at the TGC special meeting should be provided a voting instruction card by the institution that holds their shares. If this has not occurred, contact the institution that holds your shares. A number of banks and brokerage firms participate in a program that also permits shareholders whose shares are held in street name to direct their vote by telephone or over the Internet. If your shares are held in an account at a bank or brokerage firm that participates in such a program, you may direct the vote of these shares by telephone or over the Internet by following the voting instructions enclosed with the proxy form from the bank or brokerage firm. The Internet and telephone proxy procedures are designed to authenticate shareholders' identities, to allow shareholders to give their proxy voting instructions and to confirm that those instructions have been properly recorded. Votes directed by telephone or over the Internet through such a program must be received by 11:59 p.m. on [], 2011. Directing the voting of your shares will not affect your right to vote in person if you decide to attend the TGC special meeting; however, you must first obtain a signed and properly executed legal proxy from your bank, broker or other nominee to vote your shares held in street name at the TGC special meeting. Requesting a legal proxy prior to the deadline described above will automatically cancel any voting directions you have previously given by telephone or over the Internet with respect to your shares.

If you do not instruct your bank, broker or other nominee how to vote your shares, your bank, broker or other nominee will not be authorized to vote. Assuming a quorum is present at the TGC special meeting, a broker non-vote will have the same effect as a vote **AGAINST** the proposal to approve the merger agreement, but will have no effect on the proposal to approve the non-binding advisory resolution on certain compensation to be paid by TGC to TGC's named

executive officers upon consummation of the merger. Whether or not a quorum is present at the TGC special meeting, a broker non-vote will have no effect on the adjournment proposal.

If you mark abstain when voting with respect to the proposal to approve the merger agreement, the proposal to approve the non-binding advisory resolution concerning certain compensation to be paid by TGC

Table of Contents