ION GEOPHYSICAL CORP
Form S-3
September 23, 2016

Use these links to rapidly review the document
Table of Contents

Table of Contents

As filed with the Securities and Exchange Commission on September 23, 2016

Registration No. 333-

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

Form S-3

REGISTRATION STATEMENT
UNDER
THE SECURITIES ACT OF 1933

ION GEOPHYSICAL CORPORATION

(Exact name of registrant as specified in its charter)

Delaware	**22-2286646**
(State or other jurisdiction of incorporation or organization)	(I.R.S. Employer Identification No.)

2105 CityWest Blvd., Suite 100
Houston, Texas 77042
(281) 933-3339
(Address, including zip code, and telephone number, including area code, of registrant's principal executive offices)

Jamey S. Seely
Executive Vice President,
General Counsel and Secretary
ION Geophysical Corporation
2105 CityWest Blvd., Suite 100
Houston, Texas 77042
(281) 933-3339
(Name, address, including zip code, and telephone number, including area code, of agent for service)

Copies to:

J. Eric Johnson
Locke Lord LLP
600 Travis Street, Suite 2800
Houston, Texas 77002
Telephone: (713) 226-1200
Telecopy: (713) 229-2642

Approximate date of commencement of proposed sale to the public:
From time to time after this registration statement becomes effective.

If the only securities being registered on this Form are being offered pursuant to dividend or interest reinvestment plans, please check the following box. o

If any of the securities being registered on this Form are to be offered on a delayed or continuous basis pursuant to Rule 415 under the Securities Act of 1933, other than securities offered only in connection with dividend or interest reinvestment plans, check the following box. ý

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

If this Form is a post-effective amendment filed pursuant to Rule 462(c) 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. o

If this Form is a registration statement pursuant to General Instruction I.D. or a post-effective amendment thereto that shall become effective upon filing with the Commission pursuant to Rule 462(e) under the Securities Act, check the following box. o

If this Form is a post-effective amendment to a registration statement filed pursuant to General Instruction I.D. filed to register additional securities or additional classes of securities pursuant to Rule 413(b) under the Securities Act, check the following box. o

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.

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

CALCULATION OF REGISTRATION FEE

Title of Each Class of Securities to Be Registered(1)	**Proposed Maximum Aggregate Offering Price(2)**	**Amount of Registration Fee(3)**
Common Stock, par value $.01 per share		
Preferred Stock, par value $.01 per share		
Debt Securities		
Warrants		
Subscription Rights		
Purchase Contracts		
Units		
Total	$100,000,000	$10,070

(1)

The securities registered consist of $100,000,000 of an indeterminate number or principal amount of Common Stock, Preferred Stock, Debt Securities, Warrants, Subscription Rights, Purchase Contracts and/or Units, as may be issued from time to time at indeterminate prices. In no event will the aggregate initial offering price of all securities issued from time to time pursuant to this registration statement exceed $100,000,000 or the equivalent thereof in foreign currencies, foreign currency units or composite currencies. This registration statement also covers an indeterminate amount of securities as may be issued in exchange for, or upon conversion or exercise of, as the case may be, the securities registered hereunder.

(2)

The proposed maximum aggregate offering price has been estimated solely for the purpose of calculating the registration fee pursuant to Rule 457(o) of the Securities Act of 1933, as amended, or the Securities Act.

(3)

Calculated in accordance with Rule 457(o) of the Securities Act.

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 or until the Registration Statement shall become effective on such date as the Commission, acting pursuant to said Section 8(a), may determine.

Table of Contents

The information in this 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 prospectus is not an offer to sell these securities and it is not soliciting an offer to buy these securities in any state where the offer or sale is not permitted.

SUBJECT TO COMPLETION, DATED SEPTEMBER 23, 2016

PROSPECTUS

$100,000,000

Common Stock
Preferred Stock
Debt Securities
Warrants
Subscription Rights
Purchase Contracts
Units

We may offer from time to time shares of our common stock, shares of our preferred stock, debt securities, warrants, subscription rights, purchase contracts and units that include any of these securities.

We will provide the specific terms of any Securities to be offered in a supplement to this prospectus. You should read this prospectus and any prospectus supplement carefully before you invest. This prospectus may not be used to offer and sell our securities unless accompanied by a prospectus supplement.

The aggregate initial offering price of the securities that we offer will not exceed $100,000,000. We will offer the securities in amounts, at prices and on terms to be determined at the time of the offering.

Our common stock is quoted on the New York Stock Exchange under the symbol "IO." The last reported sale price of our common stock on September 21, 2016 was $5.73 per share.

The aggregate market value of our outstanding common stock held by non-affiliates was $41,216,715 based on 12,086,530 shares of outstanding common stock as of September 21, 2016, of which approximately 7,193,144 shares were held by non-affiliates, and based on the last reported sale price of our common stock as noted above. Pursuant to General Instruction I.B.6 of Form S-3, in no event will we sell securities pursuant to this prospectus with a value of more than one-third of the aggregate market value of our common stock held by non-affiliates in any 12-month period, so long as the aggregate market value of our common stock held by non-affiliates is less than $75,000,000. In the event that subsequent to the date of this prospectus, the aggregate market value of our outstanding common stock held by non-affiliates equals or exceeds $75,000,000, then the one-third limitation on sales shall not apply to additional sales made pursuant to this prospectus. During the prior 12 calendar months prior to, and including, the date of this prospectus, we have not sold any securities pursuant to General Instruction I.B.6 of Form S-3.

We may offer and sell these securities to or through one or more underwriters, dealers and agents, or directly to purchasers, on a continuous or delayed basis. The prospectus supplement for each offering of securities will describe in detail the plan of distribution.

Investing in our securities involves significant risks that are described in the "Risk Factors" section beginning on page 6 of this prospectus. You should carefully read the risk factors in this prospectus and in any prospectus supplement before making a decision to purchase our securities.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or determined if this prospectus is truthful or complete. Any representation to the contrary is a criminal offense.

The date of this prospectus is , 2016.

Table of Contents

Table of Contents

	Page
ABOUT THIS PROSPECTUS	1
ION GEOPHYSICAL CORPORATION	2
CAUTIONARY NOTE REGARDING FORWARD-LOOKING STATEMENTS	2
WHERE YOU CAN FIND MORE INFORMATION	4
INCORPORATION OF CERTAIN DOCUMENTS BY REFERENCE	4
RISK FACTORS	6
USE OF PROCEEDS	6
RATIO OF EARNINGS TO FIXED CHARGES AND PREFERRED DIVIDENDS	6
DESCRIPTION OF CAPITAL STOCK	7
DESCRIPTION OF DEBT SECURITIES	10
DESCRIPTION OF WARRANTS	20
DESCRIPTION OF SUBSCRIPTION RIGHTS	20
DESCRIPTION OF PURCHASE CONTRACTS	20
DESCRIPTION OF UNITS	21
FORMS OF SECURITIES	21
PLAN OF DISTRIBUTION	22
LEGAL MATTERS	25
EXPERTS	25

Table of Contents

ABOUT THIS PROSPECTUS

This prospectus is part of a registration statement that we filed with the Securities and Exchange Commission, or the Commission, utilizing a "shelf" registration process. Under this shelf registration process, we may sell any combination of the securities described in this prospectus in one or more offerings up to a total dollar amount of $100 million. This prospectus provides you with a general description of the securities we may offer. Each time we sell securities, we will provide a prospectus supplement that will contain specific information about the terms of the offering and the offered securities. This prospectus, together with applicable prospectus supplements, any information incorporated by reference, and any related free writing prospectuses we file with the Commission, includes all material information relating to these offerings and securities. We may also add, update or change in the prospectus supplement any of the information contained in this prospectus or in the documents that we have incorporated by reference into this prospectus, including without limitation, a discussion of any risk factors or other special considerations that apply to these offerings or securities or the specific plan of distribution. If there is any inconsistency between the information in this prospectus and a prospectus supplement or information incorporated by reference having a later date, you should rely on the information in that prospectus supplement or incorporated information having a later date. We urge you to read carefully this prospectus, any applicable prospectus supplement and any related free writing prospectus, together with the information incorporated herein by reference as described under the heading "Incorporation of Certain Documents By Reference," and the additional information described under the heading "Where You Can Find More Information," before buying any of the securities being offered.

You should rely only on the information we have provided or incorporated by reference in this prospectus, any applicable prospectus supplement and any related free writing prospectus. We have not authorized anyone to provide you with different information. No dealer, salesperson or other person is authorized to give any information or to represent anything not contained in this prospectus, any applicable prospectus supplement or any related free writing prospectus.

Neither the delivery of this prospectus nor any sale made under it implies that there has been no change in our affairs or that the information in this prospectus is correct as of any date after the date of this prospectus. You should assume that the information in this prospectus, any applicable prospectus supplement or any related free writing prospectus is accurate only as of the date on the front of the document and that any information we have incorporated by reference is accurate only as of the date of the document incorporated by reference, regardless of the time of delivery of this prospectus, any applicable prospectus supplement or any related free writing prospectus, or any sale of a security.

The registration statement containing this prospectus, including exhibits to the registration statement, provides additional information about us and the securities offered under this prospectus and any prospectus supplement. We have filed and plan to continue to file other documents with the Commission that contain information about us and our business. Also, we will file legal documents that control the terms of the securities offered by this prospectus as exhibits to the reports that we file with the Commission. The registration statement and other reports can be read at the Commission website or at the Commission offices mentioned under the heading "Where You Can Find More Information."

This prospectus contains summaries of certain provisions contained in some of the documents described herein, but reference is made to the actual documents for complete information. All of the summaries are qualified in their entirety by the actual documents. Copies of some of the documents referred to herein have been filed, will be filed or will be incorporated by reference as exhibits to the registration statement of which this prospectus is a part, and you may obtain copies of those documents as described below under "Where You Can Find More Information."

Table of Contents

ION GEOPHYSICAL CORPORATION

ION Geophysical Corporation is a Delaware corporation. Our predecessor entity was incorporated in 1979. We are a global, technology-focused company that provides geoscience technology, services and solutions to the global oil and gas industry. Our offerings are designed to allow oil and gas exploration and production ("E&P") companies to obtain higher resolution images of the Earth's subsurface during E&P operations to reduce their risk in exploration and reservoir development. We acquire, process and interpret seismic data from seismic surveys in regional data programs, which then become part of our multi-client data library. The seismic surveys for our data library business are pre-funded, or underwritten, in part by our customers, and, with the exception of our ocean bottom seismic data acquisition company, OceanGeo B.V., we contract with third party seismic data acquisition companies to shoot and acquire the seismic data, all of which is intended to minimize our risk exposure. We serve customers in most major energy producing regions of the world from strategically located offices on six continents.

As used in this prospectus, the terms "we," "us" and "our" mean ION Geophysical Corporation, a Delaware corporation, and its subsidiaries and predecessors, unless the context indicates otherwise. Our principal executive office is located at 2105 CityWest Blvd., Suite 100, Houston, Texas 77042, and our phone number is (281) 933-3339.

CAUTIONARY NOTE REGARDING FORWARD-LOOKING STATEMENTS

The information discussed in this prospectus, our filings with the Commission and our public releases include "forward-looking statements" within the meaning of Section 27A of the Securities Act of 1933, as amended, or the Securities Act, and Section 21E of the Securities Exchange Act of 1934, as amended, or the Exchange Act, the Private Securities Litigation Reform Act of 1995, or the PSLRA, or in releases made by the Commission. Such forward-looking statements involve known and unknown risks, uncertainties and other important factors that could cause the actual results, performance or achievements of Par and our subsidiaries to differ materially from any future results, performance or achievements expressed or implied by such forward-looking statements. Statements that are not historical fact are forward-looking statements. Forward-looking statements can be identified by, among other things, the use of forward-looking language, such as the words "plan," "believe," "expect," "anticipate," "intend," "estimate," "project," "may," "will," "would," "could," "should," "seeks," or "scheduled to," or other similar words, or the negative of these terms or other variations of these terms or comparable language, or by discussion of strategy or intentions. These cautionary statements are being made pursuant to the Securities Act, the Exchange Act and the PSLRA with the intention of obtaining the benefits of the "safe harbor" provisions of such laws.

The forward-looking statements contained in or incorporated by reference into this prospectus are largely based on our expectations, which reflect estimates and assumptions made by our management. These estimates and assumptions reflect our best judgment based on currently known market conditions and other factors. Although we believe such estimates and assumptions to be reasonable, they are inherently uncertain and involve a number of risks and uncertainties that are beyond our control, including:

- the expected outcome of the WesternGeco litigation and future potential adverse effects on our liquidity;
- future levels of capital expenditures of our customers for seismic activities;
- future oil and gas commodity prices;
- the effects of current and future worldwide economic conditions (particularly in developing countries) and demand for oil and natural gas and seismic equipment and services;
- future cash needs and future availability to fund our operations and pay our obligations;

Table of Contents

the effects of current and future unrest in the Middle East, North Africa and other regions;

the timing of anticipated revenues and the recognition of those revenues for financial accounting purposes;

the effects of ongoing and future industry consolidation, including, in particular, the effects of consolidation and vertical integration in the towed marine seismic streamers market;

the timing of future revenue realization of anticipated orders for multi-client survey projects and data processing work;

future levels of our capital expenditures;

future government regulations, pertaining to the oil and gas industry;

expected net revenues, income from operations and net income;

expected gross margins for our services and products;

future benefits to be derived from our OceanGeo subsidiary;

future seismic industry fundamentals, including future demand for seismic services and equipment;

future benefits to our customers to be derived from new services and products;

future benefits to be derived from our investments in technologies, joint ventures and acquired companies;

future growth rates for our services and products;

the degree and rate of future market acceptance of our new services and products;

expectations regarding E&P companies and seismic contractor end-users purchasing our more technologically-advanced services and products;

anticipated timing and success of commercialization and capabilities of services and products under development and start-up costs associated with their development;

future opportunities for new products and projected research and development expenses;

expected continued compliance with our debt financial covenants;

expectations regarding realization of deferred tax assets; and

anticipated results with respect to certain estimates we make for financial accounting purposes.

Many of these factors are beyond our ability to control or predict. These factors are not intended to represent a complete list of the general or specific factors that may affect us.

In addition, management's assumptions about future events may prove to be inaccurate. All readers are cautioned that the forward-looking statements contained in this prospectus and in the documents incorporated by reference into this prospectus are not guarantees of future performance, and we cannot assure any reader that such statements will be realized or that the forward-looking events and circumstances will occur. Actual results may differ materially from those anticipated or implied in the forward-looking statements due to factors described in "Risk Factors" included elsewhere in this prospectus and in the documents that we include in or incorporate by reference into this prospectus, including our Annual Report on Form 10-K for the fiscal year ended December 31, 2015, our Quarterly Reports on Form 10-Q for the quarterly periods ended March 31 and June 30, 2016, and our subsequent Commission filings. All forward-looking statements speak only as of the date they are made. We do not intend to update or revise any forward-looking statements as a result of new information, future events or otherwise, except as required by law. These cautionary statements qualify all forward-looking statements attributable to us or persons acting on our behalf.

Table of Contents

WHERE YOU CAN FIND MORE INFORMATION

We are subject to the informational requirements of the Exchange Act and, file reports, proxy statements and other information with the Commission as required by the Exchange Act. These reports, proxy statements and other information can be inspected and copied at the Commission's Public Reference room at 100 F Street, N.E., Washington, D.C. 20549. The public may obtain information on the operation of the Public Reference Room by calling the Commission at 1-800-SEC-0330. In addition, the Commission maintains an Internet site at *www.sec.gov* that contains reports, proxy and information statements, and other information regarding issuers that file electronically with the Commission. We maintain a website at *www.iongeo.com.* Information on our website or any other website is not incorporated by reference into this prospectus and does not constitute part of this prospectus.

We have filed a registration statement with the Commission on Form S-3 (including any amendments thereto, known as the registration statement) under the Securities Act with respect to the securities offered hereby. This prospectus does not contain all of the information set forth in the registration statement and the exhibits and schedules thereto. You may refer to the registration statement and the exhibits and schedules thereto for more information about the offered securities and us. Statements made in this prospectus regarding the contents of any contract or document filed as an exhibit to the registration statement are not necessarily complete and, in each instance, reference is hereby made to the copy of such contract or document so filed. Each such statement is qualified in its entirety by such reference.

INCORPORATION OF CERTAIN DOCUMENTS BY REFERENCE

The following documents, which have previously been filed by us with the Commission under the Exchange Act, are incorporated herein by reference:

Our Annual Report on Form 10-K for the fiscal year ended December 31, 2015, filed with the Commission on February 11, 2016 (File No. 001-12691), as amended by our Amendment No. 1 on Form 10-K/A filed with the Commission on February 12, 2016 and our Amendment No. 2 on Form 10-K/A filed with the Commission on June 27, 2016;

Our Quarterly Reports on Form 10-Q for the fiscal periods ended March 31, 2016 and June 30, 2016, filed with the Commission on May 5, 2016 and August 4, 2016 (File No. 001-12691);

A description of our capital stock contained in our Form 8-A filed with the Commission on October 17, 1994, as amended by our Current Reports on Form 8-K filed on March 8, 2002, December 20, 2007, February 28, 2008 and September 23, 2016, (File No. 001-12691); and

Our Current Reports on Form 8-K, filed with the Commission on February 16, 2016, February 29, 2016, March 4, 2016, March 28, 2016, April 12, 2016, April 28, 2016, May 18, 2016, June 2, 2016 and September 23, 2016 (File No. 001-12691) (excluding any information furnished pursuant to Item 2.02 or Item 7.01 of any such Current Report on Form 8-K).

All documents filed by us pursuant to Sections 13(a), 13(c), 14 or 15(d) of the Exchange Act (excluding any information furnished pursuant to Item 2.02 or Item 7.01 on any current report on Form 8-K and any corresponding information furnished under Item 9.01 or included as an exhibit) after the date of the initial registration statement and prior to the effectiveness of the registration statement and after the date of this prospectus and prior to the termination of each offering under this prospectus shall be deemed to be incorporated in this prospectus by reference and to be a part hereof from the date of filing of such documents. Any statement contained herein, or in a document incorporated or deemed to be incorporated by reference herein, shall be deemed to be modified or superseded for purposes of this prospectus to the extent that a statement contained herein or in any subsequently filed document which also is or is deemed to be incorporated by reference herein,

Table of Contents

modifies or supersedes such statement. Any such statement so modified or superseded shall not be deemed, except as so modified or superseded, to constitute a part of this prospectus.

This prospectus incorporates documents by reference that are not delivered with the prospectus. Copies of these documents, other than the exhibits to the documents (unless such exhibits are specifically incorporated by reference in such documents), are available upon written or oral request, at no charge, from us. Requests for such copies should be directed to ION Geophysical Corporation, 2105 CityWest Blvd., Suite 100, Houston, Texas 77042, Attention: General Counsel, telephone number: (281) 933-3339.

Table of Contents

RISK FACTORS

An investment in our securities involves a high degree of risk. You should carefully consider the risk factors and all of the other information included in, or incorporated by reference into, this prospectus, including those risk factors included in our Annual Report on Form 10-K for the year ended December 31, 2015, and our subsequent Commission filings, in evaluating an investment in our securities. If any of these risks were to occur, our business, financial condition or results of operations could be adversely affected. In that case, the trading price of our securities could decline and you could lose all or part of your investment. When we offer and sell any securities pursuant to a prospectus supplement, we may include additional risk factors relevant to such securities in the prospectus supplement.

USE OF PROCEEDS

Unless we inform you otherwise in the prospectus supplement or any pricing supplement, we will use the net proceeds from the sale of the offered securities for general corporate purposes. These purposes may include capital expenditures, repayment or refinancing of indebtedness, acquisitions and repurchases and redemptions of securities. Pending any specific application, we may initially invest funds in short-term marketable securities or apply them to the reduction of indebtedness.

RATIO OF EARNINGS TO FIXED CHARGES AND PREFERRED DIVIDENDS

The following table sets forth our ratio of earnings to fixed charges and preferred dividends for the periods indicated:

	Six Months Ended June 30, 2016	Year Ended December 31, 2015	December 31, 2014	December 31, 2013	December 31, 2012	December 31, 2011
				(in thousands)		
Ratio of earnings to fixed charges and preferred dividends(1)		(2)	(2)	(2)	12.95	5.48
Deficiency of earnings available to cover combined fixed charges and preferred dividends	(57,750)	(21,110)	(106,937)	(214,785)		

(1) The ratio of earnings to fixed charges and the ratio of earnings to combined fixed charges and preferred dividends represent the number of times that fixed charges and combined charges and preferred dividends, respectively, are covered by earnings. We paid preferred dividends in the years ending December 31, 2013, 2012 and 2011.

(2) In each of the noted periods, earnings were negative and calculation of such ratios is not meaningful. The applicable coverage deficiency is presented in the row below.

Table of Contents

DESCRIPTION OF CAPITAL STOCK

We are a Delaware corporation. The total number of shares of all classes of stock that we have authority to issue is 31,666,667, consisting of 26,666,667 shares of common stock, par value $.01 per share, and 5,000,000 shares of preferred stock, par value $.01 per share. We had 12,086,530 shares of common stock, and no shares of preferred stock, outstanding as of September 21, 2016.

In the discussion that follows, we have summarized selected provisions of our certificate of incorporation and our bylaws relating to our capital stock. You should read our certificate of incorporation and bylaws as currently in effect for more details regarding the provisions we describe below and for other provisions that may be important to you. We have filed copies of those documents with the SEC, and they are incorporated by reference as exhibits to the registration statement. Please read "Where You Can Find More Information."

Common Stock

Holders of our common stock are entitled to one vote per share in the election of directors and on all other matters submitted to a vote of stockholders. Such holders do not have the right to cumulate their votes in the election of directors. The holders of stock having a majority of the voting power of the stock entitled to vote at a stockholders meeting, present in person or represented by proxy, shall constitute a quorum for the transaction of business. In all matters other than the election of directors, if a quorum is present, the affirmative vote of the majority of the votes cast by stockholders present in person or represented by proxy at the meeting and entitled to vote on the subject matter shall be the act of the stockholders. Directors are elected by a plurality of the votes of the shares of common stock present in person or represented by proxy. This means that director nominees receiving the highest number of "for" votes will be elected as directors. Under our Corporate Governance Guidelines, any director nominee who receives a greater number of votes "withheld" from his election than votes "for" such election shall promptly tender to the Board his resignation following certification of the results of the stockholder vote. Upon receipt of the resignation, the Governance Committee will consider the resignation offer and recommend to the Board whether to accept it. The Board will act on the Governance Committee's recommendation within 120 days following certification of the stockholder vote.

Holders of our common stock have no redemption or conversion rights, no preemptive or other rights to subscribe for our securities and are not entitled to the benefits of any sinking fund provisions. In the event of our liquidation, dissolution or winding-up, holders of our common stock are entitled to share equally and ratably in all of the assets remaining, if any, after satisfaction of all our debts and liabilities, including any preferred liquidation rights of the holders of our preferred stock, if any. Subject to the prior rights and preferences of the holders of our preferred stock, if any, holders of our common stock are entitled to receive dividends when, as and if declared by our board of directors out of funds legally available therefor.

Preferred Stock

Our certificate of incorporation authorizes our board of directors, subject to any limitations prescribed by law, without further stockholder approval, to establish and to issue from time to time one or more classes or series of preferred stock, par value $0.01 per share, covering up to an aggregate of 5,000,000 shares of preferred stock. Each class or series of preferred stock will cover the number of shares and will have preferences, voting powers, qualifications and special or relative rights or privileges determined by the board of directors, subject to any limitations set forth in our certificate of incorporation, which preferences, powers, qualifications, rights and privileges may include, among others, dividend rights, liquidation preferences, voting rights, conversion rights, preemptive rights and redemption rights.

Table of Contents

Anti-takeover Effects of Our Certificate of Incorporation and Bylaws

Some provisions of our certificate of incorporation and bylaws contain provisions that could make it more difficult to acquire us by means of a merger, tender offer, proxy contest or otherwise, or to remove our incumbent officers and directors. These provisions, summarized below, are expected to discourage coercive takeover practices and inadequate takeover bids. These provisions are also designed to encourage persons seeking to acquire control of us to first negotiate with our board of directors. We believe that the benefits of increased protection of our potential ability to negotiate with the proponent of an unfriendly or unsolicited proposal to acquire or restructure us outweigh the disadvantages of discouraging such proposals because negotiation of such proposals could result in an improvement of their terms.

"Fair price" provision for business combinations with certain stockholders. Our certificate of incorporation prohibits us from engaging in any business combination with a stockholder who beneficially owns 10% or more of our outstanding common stock (an "interested stockholder") unless, subject to certain exceptions, such business combination is approved by the affirmative vote of the holders of not less than 75% of our outstanding common stock, including the affirmative vote of the holders of not less than $66^{2}/_{3}$% of our outstanding common stock not owned, directly or indirectly, by the interested stockholder.

Classified Board. Our board of directors is divided into three classes. Members of each class are elected for staggered three-year terms and serve until their respective successors are duly elected and qualified, unless the director dies, resigns, retires, is disqualified or is removed.

Number of directors. Our bylaws provide that the number of directors may be changed only by a resolution of the board. Any amendment to the bylaws with respect thereto adopted by the stockholders would require the affirmative vote of holders of at least 75% of our outstanding common stock.

Vacancies in the board. Our bylaws provide that vacancies in the board, including newly created directorships, are to be filled by a majority vote of the directors then in office, except as otherwise may be provided for by law.

Stockholder meetings. Our bylaws provide that a special meeting of stockholders may be called only by our board or by a committee of our board.

Requirements for advance notification of stockholder nominations and proposals. Our bylaws establish advance notice procedures with respect to stockholder proposals and the nomination of candidates for election as directors, other than nominations made by or at the direction of our board of directors.

Stockholder action by written consent. Our certificate of incorporation provides that no action that is required or permitted to be taken by our stockholders may be effected by written consent of stockholders in lieu of a meeting of stockholders. This provision, which may not be amended except by the affirmative vote of holders of at least 75% of the voting power of all then outstanding shares of capital stock entitled to vote generally in the election of directors, voting together as a single class, makes it difficult for stockholders to initiate or effect an action by written consent that is opposed by our board of directors.

Amendment of the certificate of incorporation and the bylaws. Our stockholders may adopt, amend or repeal certain provisions of our certificate of incorporation and any provision of our bylaws but only at any regular or special meeting of stockholders by an affirmative vote of holders of at least 75% of the voting power of all then outstanding shares of capital stock entitled to vote generally in the election of directors, voting together as a single class.

Table of Contents

These provisions of our certificate of incorporation and bylaws could have the effect of discouraging others from attempting hostile takeovers and, as a consequence, they may also inhibit temporary fluctuations in the market price of our common stock that often result from actual or rumored hostile takeover attempts. These provisions may also have the effect of preventing changes in our management. It is possible that these provisions could make it more difficult to accomplish transactions which stockholders may otherwise deem to be in their best interests.

Delaware Anti-Takeover Law

We are incorporated in Delaware and are subject to Section 203 of the Delaware General Corporation Law. In general, Section 203 prevents an "interested stockholder" (defined generally as a person owning 15% or more of a corporation's outstanding voting stock) from engaging in a "business combination" with a Delaware corporation for three years following the date such person became an interested stockholder, unless (i) before such person became an interested stockholder, the board of directors of the corporation approved the transaction in which the interested stockholder became an interested stockholder or approved the business combination; (ii) upon consummation of the transaction that resulted in the interested stockholder's becoming an interested stockholder, the interested stockholder owns at least 85% of the voting stock of the corporation outstanding at the time the transaction commenced (excluding stock held by directors who are also officers of the corporation and by employee stock plans that do not provide employees with the right to determine confidentially whether shares held subject to the plan will be tendered in a tender or exchange offer); or (iii) on or subsequent to the date of the transaction in which such person became an interested stockholder, the business combination is approved by the board of directors of the corporation and authorized at a meeting of the stockholders by the affirmative vote of the holders of two-thirds of the outstanding voting stock of the corporation not owned by the interested stockholder.

Director and Officer Liability and Indemnification

Director Liability

Our certificate of incorporation provides that no director shall be personally liable to us or any of our stockholders for monetary damages resulting from breaches of their fiduciary duty as directors, except for:

for any breach of the director's duty of loyalty to us or our stockholders;

for acts or omissions not in good faith or that involve intentional misconduct or a knowing violation of law;

in respect of certain unlawful dividend payments or stock redemptions or repurchases; and

for any transaction from which the director derives an improper personal benefit.

If Delaware law is amended to authorize corporate action further eliminating or limiting the liability of directors, then, in accordance with our certificate of incorporation, the liability of our directors to us or our stockholders will be eliminated or limited to the fullest extent authorized by Delaware law, as so amended. Any repeal or amendment of provisions of our certificate of incorporation limiting or eliminating the liability of directors, whether by our stockholders or by changes in law, or the adoption of any other provisions inconsistent therewith, will (unless otherwise required by law) be prospective only, except to the extent such amendment or change in law permits us to further limit or eliminate the liability of directors on a retroactive basis.

Table of Contents

Director and Officer Indemnification

Our bylaws provides that we will, to the fullest extent authorized or permitted by applicable law, indemnify our current and former directors and officers, as well as those persons who, while directors or officers of our corporation, are or were serving as directors, officers, employees or agents of another entity, trust or other enterprise, in connection with any threatened, pending or completed proceeding, whether civil, criminal, administrative or investigative, against all expense, liability and loss (including, without limitation, attorney's fees, judgments, fines, and penalties and amounts paid in settlement) reasonably incurred or suffered by any such person in connection with any such proceeding. Notwithstanding the foregoing, a person eligible for indemnification pursuant to our bylaws will be indemnified by us in connection with a proceeding initiated by such person only if such proceeding was authorized by our board of directors, except for proceedings to enforce rights to indemnification.

The right to indemnification conferred by our bylaws is a contract right that includes the right to be paid by us the expenses incurred in defending or otherwise participating in any proceeding referenced above in advance of its final disposition, provided, however, that if the Delaware law requires, an advancement of expenses incurred by our officer or director (solely in the capacity as an officer or director of our corporation) will be made only upon delivery to us of an undertaking, by or on behalf of such officer or director, to repay all amounts so advanced if it is ultimately determined that such person is not entitled to be indemnified for such expenses under our bylaws or otherwise.

The rights to indemnification and advancement of expenses will not be deemed exclusive of any other rights which any person covered by our certificate of incorporation may have or hereafter acquire under law, our certificate of incorporation, our bylaws, an agreement, vote of stockholders or disinterested directors, or otherwise.

Our bylaws provide for a right of indemnity to bring a suit in the event a claim for indemnification or advancement of expenses is not paid in full by us within a specified period of time. Our bylaws also permit us to purchase and maintain insurance, at our expense, to protect us and/or any director, officer, employee or agent of our corporation or another entity, trust or other enterprise against any expense, liability or loss, whether or not we would have the power to indemnify such person against such expense, liability or loss under Delaware law.

Listing

Our common stock is listed for quotation on the New York Stock Exchange under the symbol "IO."

Transfer Agent and Registrar

Computershare Investor Service is transfer agent and registrar for our common stock.

DESCRIPTION OF DEBT SECURITIES

Our debt securities, consisting of notes, debentures or other evidences of indebtedness, may be issued from time to time in one or more series pursuant to, in the case of senior debt securities, a senior indenture to be entered into between us and a trustee to be named therein, and in the case of subordinated debt securities, a subordinated indenture to be entered into between us and a trustee to be named therein. The terms of our debt securities will include those set forth in the indentures and those made a part of the indentures by the Trust Indenture Act of 1939, as amended.

Because the following is only a summary of selected provisions of the indentures and the debt securities, it does not contain all information that may be important to you. This summary is not complete and is qualified in its entirety by reference to the base indentures and any supplemental indentures thereto or officer's certificate or board resolution related thereto. We urge you to read the

Table of Contents

indentures because the indentures, not this description, define the rights of the holders of the debt securities. The senior indenture and the subordinated indenture will be substantially in the forms included as exhibits to the registration statement of which this prospectus is a part.

General

The senior debt securities will constitute unsecured and unsubordinated obligations of ours and will rank pari passu with our other unsecured and unsubordinated obligations. The subordinated debt securities will constitute our unsecured and subordinated obligations and will be junior in right of payment to our Senior Indebtedness (including senior debt securities), as described under the heading "Certain Terms of the Subordinated Debt Securities Subordination."

We conduct some of our operations through subsidiaries. Consequently, our ability to pay our obligations, including our obligation to pay principal or interest on the debt securities, to pay the debt securities at maturity or upon redemption or to buy the debt securities may depend on our subsidiaries repaying investments and advances we have made to them, and on our subsidiaries' earnings and their distributing those earnings to us. The debt securities will be effectively subordinated to all obligations (including trade payables and any preferred stock obligations) of our subsidiaries. Our subsidiaries are separate and distinct legal entities and have no obligation, contingent or otherwise, to pay any amounts due on the debt securities or to make funds available to us to do so. Our subsidiaries' ability to pay dividends or make other payments or advances to us will depend on their operating results and will be subject to applicable laws and contractual restrictions. The indentures will not limit our subsidiaries' ability to enter into other agreements that prohibit or restrict dividends or other payments or advances to us, although our other debt obligations may contain provisions that limit our subsidiaries' ability to do so.

The debt securities will be our unsecured obligations. Our secured debt and other secured obligations will be effectively senior to the debt securities to the extent of the value of the assets securing such debt or other obligations.

You should look in the prospectus supplement for any additional or different terms of the debt securities being offered, including the following terms:

- the debt securities' designation;
- the aggregate principal amount of the debt securities;
- the percentage of their principal amount (i.e. price) at which the debt securities will be issued;
- the date or dates on which the debt securities will mature and the right, if any, to extend such date or dates;
- the rate or rates, if any, per year, at which the debt securities will bear interest, or the method of determining such rate or rates;
- the date or dates from which such interest will accrue, the interest payment dates on which such interest will be payable or the manner of determination of such interest payment dates and the record dates for the determination of holders to whom interest is payable on any interest payment date;
- the right, if any, to extend the interest payment periods and the duration of that extension;
- the manner of paying principal and interest and the place or places where principal and interest will be payable;
- provisions for a sinking fund purchase or other analogous fund, if any;

Table of Contents

the period or periods, if any, within which, the price or prices at which, and the terms and conditions upon which the debt securities may be redeemed, in whole or in part, at our option or at your option;

the form of the debt securities;

any provisions for payment of additional amounts for taxes and any provision for redemption, if we must pay such additional amounts in respect of any debt security;

the terms and conditions, if any, upon which we may have to repay the debt securities early at your option;

the currency, currencies or currency units for which you may purchase the debt securities and the currency, currencies or currency units in which principal and interest, if any, on the debt securities may be payable;

the terms and conditions upon which conversion or exchange of the debt securities may be effected, if any, including the initial conversion or exchange price or rate and any adjustments thereto and the period or periods when a conversion or exchange may be effected;

whether and upon what terms the debt securities may be defeased;

any events of default or covenants in addition to or in lieu of those set forth in the indenture;

provisions for electronic issuance of debt securities or for debt securities in uncertificated form; and

any other terms of the debt securities, including any terms which may be required by or advisable under applicable laws or regulations or advisable in connection with the marketing of the debt securities.

We may from time to time, without notice to or the consent of the holders of any series of debt securities, create and issue further debt securities of any such series ranking equally with the debt securities of such series in all respects (or in all respects other than the payment of interest accruing prior to the issue date of such further debt securities or except for the first payment of interest following the issue date of such further debt securities). Such further debt securities may be consolidated and form a single series with the debt securities of such series and have the same terms as to status, redemption or otherwise as the debt securities of such series.

You may present debt securities for exchange and you may present debt securities for transfer in the manner, at the places and subject to the restrictions set forth in the debt securities and the applicable prospectus supplement. We will provide you those services without charge, although you may have to pay any tax or other governmental charge payable in connection with any exchange or transfer, as set forth in the indenture.

Debt securities will bear interest at a fixed rate or a floating rate. Debt securities bearing no interest or interest at a rate that at the time of issuance is below the prevailing market rate (original issue discount securities) may be sold at a discount below their stated principal amount. Special U.S. federal income tax considerations applicable to any such discounted debt securities or to certain debt securities issued at par which are treated as having been issued at a discount for U.S. federal income tax purposes will be described in the applicable prospectus supplement.

Table of Contents

We may issue debt securities with the principal amount payable on any principal payment date, or the amount of interest payable on any interest payment date, to be determined by reference to one or more currency exchange rates, securities or baskets of securities, commodity prices or indices. You may receive a payment of principal on any principal payment date, or a payment of interest on any interest payment date, that is greater than or less than the amount of principal or interest otherwise payable on such dates, depending on the value on such dates of the applicable currency, security or basket of securities, commodity or index. Information as to the methods for determining the amount of principal or interest payable on any date, the currencies, securities or baskets of securities, commodities or indices to which the amount payable on such date is linked and certain additional tax considerations will be set forth in the applicable prospectus supplement.

Certain Terms of the Senior Debt Securities

Covenants

Unless otherwise indicated in a prospectus supplement, the senior debt securities will not contain any financial or restrictive covenants, including covenants restricting either us or any of our subsidiaries from incurring, issuing, assuming or guaranteeing any indebtedness secured by a lien on any of our or our subsidiaries' property or capital stock, or restricting either us or any of our subsidiaries from entering into sale and leaseback transactions.

Consolidation, Merger and Sale of Assets

Unless we indicate otherwise in a prospectus supplement, we may not consolidate with or merge into any other person, in a transaction in which we are not the surviving corporation, or convey, transfer or lease our properties and assets substantially as an entirety to any person, unless:

- the successor entity, if any, is a U.S. corporation, limited liability company, partnership or trust (subject to certain exceptions provided for in the senior indenture);
- the successor entity assumes our obligations on the senior debt securities and under the senior indenture;
- immediately after giving effect to the transaction, no default or event of default shall have occurred and be continuing; and
- certain other conditions are met.

No Protection in the Event of a Change of Control

Unless otherwise indicated in a prospectus supplement with respect to a particular series of senior debt securities, the senior debt securities will not contain any provisions which may afford holders of the senior debt securities protection in the event we have a change in control or in the event of a highly leveraged transaction (whether or not such transaction results in a change in control).

Events of Default

An event of default for any series of senior debt securities is defined under the senior indenture as being:

(1) our default in the payment of principal or premium on the senior debt securities of such series when due and payable whether at maturity, upon acceleration, redemption, or otherwise;

(2) our default in the payment of interest on any senior debt securities of such series when due and payable, if that default continues for a period of 30 days (or such other period as may be specified for such series);

Table of Contents

(3) our default in the performance of or breach of any of our other covenants or agreements in the senior indenture applicable to senior debt securities of such series, other than a covenant breach which is specifically dealt with elsewhere in the senior indenture, and that default or breach continues for a period of 90 consecutive days after we receive written notice from the trustee or from the holders of 25% or more in aggregate principal amount of the senior debt securities of such series;

(4) there occurs any other event of default provided for in such series of senior debt securities;

(5) a court having jurisdiction enters a decree or order for:

(a) relief in respect of our company in an involuntary case under any applicable bankruptcy, insolvency or other similar law now or hereafter in effect;

(b) appointment of a receiver, liquidator, assignee, custodian, trustee, sequestrator or similar official for our company or for all or substantially all of our property and assets; or

(c) the winding up or liquidation of our affairs and such decree or order shall remain unstayed and in effect for a period of 60 consecutive days; or

(6) we:

(a) commence a voluntary case under any applicable bankruptcy, insolvency or other similar law now or hereafter in effect, or consent to the entry of an order for relief in an involuntary case under any such law;

(b) consent to the appointment of or taking possession by a receiver, liquidator, assignee, custodian, trustee, sequestrator or similar official of ours for all or substantially all of our property and assets; or

(c) effect any general assignment for the benefit of creditors.

The default by us under any other debt, including any other series of debt securities, may not necessarily be a default under the senior indenture.

If an event of default other than an event of default specified under clauses (5) or (6) above occurs with respect to a series of senior debt securities and is continuing under the senior indenture, then, and in each and every such case, either the trustee or the holders of not less than 25% in aggregate principal amount of such series then outstanding under the senior indenture (each such series voting as a separate class) by written notice to us and to the trustee, if such notice is given by the holders, may, and the trustee at the request of such holders shall, declare the principal amount of and accrued interest, if any, on such senior debt securities to be immediately due and payable.

If an event of default specified under clauses (5) or (6) above occurs with respect to us, the entire principal amount of, and accrued interest, if any, on each series of senior debt securities then outstanding shall become immediately due and payable without any declaration or other act by the trustee or any holder.

Upon any such acceleration, the principal amount of and accrued interest, if any, on such senior debt securities shall be immediately due and payable. Unless otherwise specified in the prospectus supplement relating to a series of senior debt securities originally issued at a discount, the amount due upon acceleration shall include only the original issue price of the senior debt securities, the amount of original issue discount accrued to the date of acceleration and accrued interest, if any.

Upon certain conditions, declarations of acceleration may be rescinded and annulled and past defaults may be waived by the holders of a majority in aggregate principal amount of all the senior debt securities of such series affected by the default, each series voting as a separate class (or, of all the senior debt securities, as the case may be, voting as a single class). Furthermore, subject to various

Table of Contents

provisions in the senior indenture, the holders of at least a majority in aggregate principal amount of a series of senior debt securities, by notice to the trustee, may waive an existing default or event of default with respect to such senior debt securities and its consequences, except a default in the payment of principal of or interest on such senior debt securities or in respect of a covenant or provision of the senior indenture which cannot be modified or amended without the consent of the holders of each such senior debt security. Upon any such waiver, such default shall cease to exist, and any event of default with respect to such senior debt securities shall be deemed to have been cured, for every purpose of the senior indenture; but no such waiver shall extend to any subsequent or other default or event of default or impair any right consequent thereto. See also " Modification and Waiver" below.

The holders of at least a majority in aggregate principal amount of a series of senior debt securities may direct the time, method and place of conducting any proceeding for any remedy available to the trustee or exercising any trust or power conferred on the trustee with respect to such senior debt securities. However, the trustee may refuse to follow any direction that conflicts with law or the senior indenture, that may involve the trustee in personal liability, or that the trustee determines in good faith may be unduly prejudicial to the rights of holders of such series of senior debt securities not joining in the giving of such direction and may take any other action it deems proper that is not inconsistent with any such direction received from holders of such series of senior debt securities. A holder may not pursue any remedy with respect to the senior indenture or any series of senior debt securities unless:

the holder gives the trustee written notice of a continuing event of default;

the holders of at least 25% in aggregate principal amount of such series of senior debt securities make a written request to the trustee to pursue the remedy in respect of such event of default;

the requesting holder or holders offer the trustee indemnity satisfactory to the trustee against any costs, liability, or expense;

the trustee does not comply with the request within 60 days after receipt of the request and the offer of indemnity; and

during such 60-day period, the holders of a majority in aggregate principal amount of such series of senior debt securities do not give the trustee a direction that is inconsistent with the request.

These limitations, however, do not apply to the right of any holder of a senior debt security to receive payment of the principal of or interest, if any, on such senior debt security, or to bring suit for the enforcement of any such payment, on or after the due date for the senior debt securities, which right shall not be impaired or affected without the consent of the holder.

The senior indenture requires certain of our officers to certify, on or before a fixed date in each year in which any senior debt security is outstanding, as to their knowledge of our compliance with all conditions and covenants under the senior indenture.

Discharge and Defeasance

The senior indenture provides that, unless the terms of any series of senior debt securities provide otherwise, we may discharge our obligations with respect to a series of senior debt securities and the senior indenture with respect to such series of senior debt securities if:

we pay or cause to be paid, as and when due and payable, the principal of and any interest on all senior debt securities of such series outstanding under the senior indenture;

all senior debt securities of such series previously authenticated and delivered, with certain exceptions, have been delivered to the trustee for cancellation; or

Table of Contents

the senior debt securities of such series mature within one year or all of them are to be called for redemption within one year under arrangements satisfactory to the trustee for giving the notice of redemption, and we irrevocably deposit in trust with the trustee, as trust funds solely for the benefit of the holders of the senior debt securities of such series, for that purpose, the entire amount in cash or, in the case of any series of senior debt securities payments on which may only be made in U.S. dollars, U.S. government obligations (maturing as to principal and interest in such amounts and at such times as will insure the availability of cash sufficient), after payment of all federal, state and local taxes or other charges and assessments in respect thereof payable by the trustee, to pay principal of and interest on the senior debt securities of such series to maturity or redemption, as the case may be, and to pay all other sums payable by us under the senior indenture.

With respect to the first and second bullet points, only our obligations to compensate and indemnify the trustee and our right to recover unclaimed money held by the trustee under the senior indenture shall survive. With respect to the third bullet point, certain rights and obligations under the senior indenture (such as our obligation to maintain an office or agency in respect of such senior debt securities, to have moneys held for payment in trust, to register the transfer or exchange of such senior debt securities, to deliver such senior debt securities for replacement or to be canceled, to compensate and indemnify the trustee and to appoint a successor trustee, and our right to recover unclaimed money held by the trustee) shall survive until such senior debt securities are no longer outstanding. Thereafter, only our obligations to compensate and indemnify the trustee and our right to recover unclaimed money held by the trustee shall survive.

Unless the terms of any series of senior debt securities provide otherwise, on the 121st day after the date of deposit of the trust funds with the trustee, we will be deemed to have paid and will be discharged from any and all obligations in respect of the series of senior debt securities provided for in the funds, and the provisions of the senior indenture will no longer be in effect with respect to such senior debt securities ("legal defeasance"); provided that the following conditions shall have been satisfied:

we have irrevocably deposited in trust with the trustee as trust funds solely for the benefit of the holders of the senior debt securities of such series, for payment of the principal of and interest on the senior debt securities of such series, cash in an amount or, in the case of any series of senior debt securities, the payments on which can only be made in U.S. dollars, U.S. government obligations (maturing as to principal and interest at such times and in such amounts as will insure the availability of cash) or a combination thereof sufficient (in the opinion of a nationally recognized firm of independent public accountants expressed in a written certification thereof delivered to the trustee), after payment of all federal, state and local taxes or other charges and assessments in respect thereof payable by the trustee, to pay and discharge the principal of and accrued interest on the senior debt securities of such series to maturity or earlier redemption, as the case may be, and any mandatory sinking fund payments on the day on which such payments are due and payable in accordance with the terms of the senior indenture and the senior debt securities of such series;

such deposit will not result in a breach or violation of, or constitute a default under, the senior indenture or any other material agreement or instrument to which we are a party or by which we are bound;

we shall have delivered to the trustee either an officer's certificate and an opinion of counsel that the holders of the senior debt securities of such series will not recognize income, gain or loss for federal income tax purposes as a result of our exercising our option under this provision of the senior indenture and will be subject to federal income tax on the same amount and in the

Table of Contents

same manner and at the same times as would have been the case if such deposit and defeasance had not occurred or a ruling by the Internal Revenue Service to the same effect; and

we have delivered to the trustee an officer's certificate and an opinion of counsel, in each case stating that all conditions precedent provided for in the senior indenture relating to the contemplated defeasance of the senior debt securities of such series have been complied with.

Subsequent to the legal defeasance above, certain rights and obligations under the senior indenture (such as our obligation to maintain an office or agency in respect of such senior debt securities, to have moneys held for payment in trust, to register the exchange of such senior debt securities, to deliver such senior debt securities for replacement or to be canceled, to compensate and indemnify the trustee and to appoint a successor trustee, and our right to recover unclaimed money held by the trustee) shall survive until such senior debt securities are no longer outstanding. After such senior debt securities are no longer outstanding, only our obligations to compensate and indemnify the trustee and our right to recover unclaimed money held by the trustee shall survive.

Modification and Waiver

We and the trustee may amend or supplement the senior indenture or the senior debt securities without the consent of any holder:

to convey, mortgage or pledge any assets as security for the senior debt securities of one or more series;

to evidence the succession of another corporation to us, and the assumption by such successor corporation of our covenants, agreements and obligations under the senior indenture;

to cure any ambiguity, defect, or inconsistency in the senior indenture or in any supplemental indenture, or to conform the senior indenture or the senior debt securities to the description of senior debt securities of such series set forth in this prospectus or a prospectus supplement;

to comply with the provisions described under " Consolidation, Merger and Sale of Assets";

to evidence and provide for the acceptance of appointment hereunder by a successor trustee, or to make such changes as shall be necessary to provide for or facilitate the administration of the trusts in the senior indenture by more than one trustee;

to provide for or add guarantors with respect to the senior debt securities of any series;

to establish the form or forms or terms of the senior debt securities as permitted by the senior indenture;

to make any change that is necessary or desirable provided that such change shall not adversely affect the interests of the holders of the senior debt securities of any series in any material respect;

to add to our covenants such new covenants, restrictions, conditions or provisions for the protection of the holders, and to make the occurrence, or the occurrence and continuance, of a default in any such additional covenants, restrictions, conditions or provisions an event of default;

to make any change to the senior debt securities of any series so long as no senior debt securities of such series are outstanding; or

to make any change that does not adversely affect the rights of any holder.

Other amendments and modifications of the senior indenture or the senior debt securities issued may be made, and our compliance with any provision of the senior indenture with respect to any series

Table of Contents

of senior debt securities may be waived, with the consent of the holders of not less than a majority of the aggregate principal amount of the outstanding senior debt securities of all series affected by the amendment or modification (voting as one class); provided, however, that each affected holder must consent to any modification, amendment or waiver that:

changes the stated maturity of the principal of, or any installment of interest on, any senior debt securities of such series;

reduces the principal amount of, or premium, if any, or interest on, any senior debt securities of such series;

changes the place or currency of payment of principal of, or premium, if any, or interest on, any senior debt securities of such series;

changes the provisions for calculating the optional redemption price, including the definitions relating thereto;

changes or impairs the right of holders to receive payment or to institute suit for the enforcement of any payment of any senior debt securities of such series on or after the due date therefor;

reduces the above-stated percentage of outstanding senior debt securities of such series, the consent of whose holders is necessary to modify or amend or to waive certain provisions of or defaults under the senior indenture;

waives a default in the payment of principal of or interest on the senior debt securities; or

modifies any of the provisions described in this paragraph, except to increase any required percentage or to provide that certain other provisions cannot be modified or waived without the consent of the holder of each senior debt security of such series affected by the modification.

It shall not be necessary for the consent of the holders under this section of the senior indenture to approve the particular form of any proposed amendment, supplement or waiver, but it shall be sufficient if such consent approves the substance thereof. After an amendment, supplement or waiver under this section of the senior indenture becomes effective, the trustee must give to the holders affected thereby certain notice briefly describing the amendment, supplement or waiver. We will mail supplemental indentures to holders upon request. Any failure by the trustee to give such notice, or any defect therein, shall not, however, in any way impair or affect the validity of any such supplemental indenture or waiver.

No Personal Liability of Incorporators, Stockholders, Officers, Directors

The senior indenture provides that no recourse shall be had under or upon any obligation, covenant, or agreement of ours in the senior indenture or any supplemental indenture, or in any of the senior debt securities or because of the creation of any indebtedness represented thereby, against any incorporator, stockholder, officer or director of ours or of any successor person thereof under any law, statute or constitutional provision or by the enforcement of any assessment or by any legal or equitable proceeding or otherwise. Each holder, by accepting the senior debt securities, waives and releases all such liability.

Concerning the Trustee

The senior indenture provides that, except during the continuance of a default, the trustee will not be liable except for the performance of such duties as are specifically set forth in the senior indenture. If an event of default has occurred and is continuing, the trustee will exercise such rights and powers

Table of Contents

vested in it under the senior indenture and will use the same degree of care and skill in its exercise as a prudent person would exercise under the circumstances in the conduct of such person's own affairs.

We may have normal banking relationships with the trustee under the senior indenture in the ordinary course of business.

Unclaimed Funds

All funds deposited with the trustee or any paying agent for the payment of principal, interest, premium or additional amounts in respect of the senior debt securities that remain unclaimed for two years after the maturity date of such senior debt securities will be repaid to us upon our request. Thereafter, any right of any noteholder to such funds shall be enforceable only against us, and the trustee and paying agents will have no liability therefor.

Governing Law

The senior indenture and the debt securities will be governed by, and construed in accordance with, the internal laws of the State of New York.

Certain Terms of the Subordinated Debt Securities

Other than the terms of the subordinated indenture and subordinated debt securities relating to subordination, or otherwise as described in the prospectus supplement relating to a particular series of subordinated debt securities, the terms of the subordinated indenture and subordinated debt securities are identical in all material respects to the terms of the senior indenture and senior debt securities. Additional or different subordination terms may be specified in the prospectus supplement applicable to a particular series.

Subordination

The indebtedness evidenced by the subordinated debt securities is subordinate to the prior payment in full of all our Senior Indebtedness, as defined in the subordinated indenture. During the continuance beyond any applicable grace period of any default in the payment of principal, premium, interest or any other payment due on any of our Senior Indebtedness, we may not make any payment of principal of, or premium, if any, or interest on the subordinated debt securities. In addition, upon any payment or distribution of our assets upon any dissolution, winding up, liquidation or reorganization, the payment of the principal of, or premium, if any, and interest on the subordinated debt securities will be subordinated to the extent provided in the subordinated indenture in right of payment to the prior payment in full of all our Senior Indebtedness. Because of this subordination, if we dissolve or otherwise liquidate, holders of our subordinated debt securities may receive less, ratably, than holders of our Senior Indebtedness. The subordination provisions do not prevent the occurrence of an event of default under the subordinated indenture.

The term "Senior Indebtedness" of a person means with respect to such person the principal of, premium, if any, interest on, and any other payment due pursuant to any of the following, whether outstanding on the date of the subordinated indenture or incurred by that person in the future:

all of the indebtedness of that person for money borrowed, including any indebtedness secured by a mortgage or other lien which is (i) given to secure all or part of the purchase price of property subject to the mortgage or lien, whether given to the vendor of that property or to another lender, or (ii) existing on property at the time that person acquires it;

all of the indebtedness of that person evidenced by notes, debentures, bonds or other securities sold by that person for money;

Table of Contents

all of the lease obligations which are capitalized on the books of that person in accordance with generally accepted accounting principles;

all indebtedness of others of the kinds described in the first two bullet points above and all lease obligations of others of the kind described in the third bullet point above, which the person, in any manner, assumes or guarantees or that the person in effect guarantees through an agreement to purchase, whether that agreement is contingent or otherwise; and

all renewals, extensions or refundings of indebtedness of the kinds described in the first, second or fourth bullet point above and all renewals or extensions of leases of the kinds described in the third or fourth bullet point above;

unless, in the case of any particular indebtedness, lease, renewal, extension or refunding, the instrument or lease creating or evidencing it or the assumption or guarantee relating to it expressly provides that such indebtedness, lease, renewal, extension or refunding is not superior in right of payment to the subordinated debt securities. Our senior debt securities constitute Senior Indebtedness for purposes of the subordinated debt indenture.

DESCRIPTION OF WARRANTS

We may issue warrants to purchase common stock, preferred stock, subscription rights, purchase contracts or units that are registered pursuant to the registration statement to which this prospectus relates. We may issue warrants independently or together with other securities that are registered pursuant to the registration statement to which this prospectus relates. Warrants sold with other securities may be attached to or separate from the other securities. We may issue a series of warrants under a separate warrant agreement between us and a warrant agent that we will name in a prospectus supplement. We will describe the particular terms of any warrants and the applicable warrant agreements in the applicable prospectus supplement.

DESCRIPTION OF SUBSCRIPTION RIGHTS

We may issue subscription rights to purchase common stock, preferred stock, warrants or other securities that are registered pursuant to the registration statement to which this prospectus relates. We may issue subscription rights independently or together with any other securities that are registered pursuant to the registration statement to which this prospectus relates and which may or may not be transferable by the security holder receiving the subscription rights in such offering. In connection with any offering of subscription rights, we may enter into a standby arrangement with one or more underwriters or other investors pursuant to which the underwriters or other investors may be required to purchase any securities remaining unsubscribed for after such offering. We will describe the particular terms of any subscription rights in a prospectus supplement.

DESCRIPTION OF PURCHASE CONTRACTS

We may issue purchase contracts obligating holders to purchase from us, and us to sell to the holders, a specified number, or amount, of securities at a future date or dates. We may issue the purchase contracts independently or as part of units consisting of a purchase contract and an underlying security covered by this prospectus, a U.S. Treasury security or another U.S. government or agency obligation. The holder of the unit may be required to pledge the security, the U.S. Treasury security or the other U.S. government or agency obligation to secure its obligations under the purchase contract. We will describe the particular terms of any purchase contracts in a prospectus supplement.

Table of Contents

DESCRIPTION OF UNITS

We may issue units consisting of one or more shares of common stock, preferred stock, warrants, subscription rights, purchase contracts, or any combination of such securities that are registered pursuant to the registration statement to which this prospectus relates. We will describe the particular terms of any units in a prospectus supplement.

FORMS OF SECURITIES

Each debt security, warrant, subscription right, purchase contract and unit will be represented either by a certificate issued in definitive form to a particular investor or by one or more global securities representing the entire issuance of securities. Certificated securities in definitive form and global securities will be issued in registered form. Definitive securities name you or your nominee as the owner of the security, and in order to transfer or exchange these securities or to receive payments other than interest or other interim payments, you or your nominee must physically deliver the securities to the trustee, registrar, paying agent or other agent, as applicable. Global securities name a depositary or its nominee as the owner of the securities represented by these global securities. The depositary maintains a computerized system that will reflect each investor's beneficial ownership of the securities through an account maintained by the investor with its broker/dealer, bank, trust company or other representative. Any specific terms of the depositary arrangement with respect to any securities to be represented by a registered global security will be described in the prospectus supplement relating to those securities.

Table of Contents

PLAN OF DISTRIBUTION

We may sell our securities from time to time through underwriters, dealers or agents or directly to purchasers, in one or more transactions at a fixed price or prices, which may be changed, or at market prices prevailing at the time of sale, at prices related to such prevailing market prices or at negotiated prices (or through any other method described in a prospectus supplement). We may also sell our securities upon the exercise of subscription or other similar rights that may be distributed to security holders. We may use these methods in any combination.

We will describe the terms of the offering of the securities in a prospectus supplement, information incorporated by reference or any related free writing prospectus, including, but not limited to:

- the name or names of any underwriters, dealers or agents;
- the purchase price of the securities and the net proceeds we will receive from the sale;
- any underwriting discounts and other items constituting underwriters' compensation;
- any discounts or concessions allowed or reallowed or paid to dealers;
- any commissions paid to agents; and
- any securities exchange or market on which the securities may be listed.

Only underwriters we name in the prospectus supplement, information incorporated by reference or any related free writing prospectus are underwriters of the securities offered thereby.

The distribution of securities may be effected, from time to time, in one or more transactions, including, but not limited to:

- block transactions (which may involve crosses) and transactions on the New York Stock Exchange or any other organized market where the securities may be traded;
- purchases by a broker-dealer as principal and resale by the broker-dealer for its own account pursuant to a prospectus supplement;
- ordinary brokerage transactions and transactions in which a broker-dealer solicits purchasers;
- sales "at the market" to or through a market maker or into an existing trading market, on an exchange or otherwise; and
- sales in other ways not involving market makers or established trading markets, including direct sales to purchasers.

By Underwriters

We may use an underwriter or underwriters in the offer or sale of our securities. If we use an underwriter or underwriters, the offered securities will be acquired by the underwriters for their own account. We will include the names of the specific managing underwriter or underwriters, as well as any other underwriters, and the terms of the transactions, including the compensation the underwriters and dealers will

receive, in the prospectus supplement. The underwriters will use this prospectus and the prospectus supplement to sell our securities.

We may also sell securities pursuant to one or more standby agreements with one or more underwriters in connection with the call, redemption or exchange of a specified class or series of any of our outstanding securities. The underwriter or underwriters would also agree, if applicable, to convert or exchange any securities of the class or series held or purchased by the underwriter or underwriters into or for our common stock or other security. The underwriter or underwriters may assist in the solicitation of conversions or exchanges by holders of the class or series of securities.

Table of Contents

By Dealers

We may use a dealer to sell our securities. If we use a dealer, we, as principal, will sell our securities to the dealer. The dealer will then resell our securities to the public at varying prices that the dealer will determine at the time it sells our securities. We will include the name of the dealer and the terms of our transactions with the dealer in the prospectus supplement.

If we offer securities in a subscription rights or similar offering to our existing security holders, we may enter into a standby underwriting agreement with dealers, acting as standby underwriters. We may pay the standby underwriters a commitment fee for the securities they commit to purchase on a standby basis. If we do not enter into a standby underwriting arrangement, we may retain a dealer-manager to manage a subscription rights or similar offering for us.

By Agents

We may designate agents to solicit offers to purchase our securities. We will name any agent involved in offering or selling our securities and any commissions that we will pay to the agent in the prospectus supplement. Unless we indicate otherwise in the prospectus supplement, our agents will act on a best efforts basis for the period of their appointment. Our agents may be deemed to be underwriters under the Securities Act of any of our securities that they offer or sell.

By Delayed Delivery Contracts

We may authorize our agents and underwriters to solicit offers by certain institutions to purchase our securities at the public offering price under delayed delivery contracts. If we use delayed delivery contracts, we will disclose that we are using them in the prospectus supplement and will tell you when we will demand payment and delivery of the securities under the delayed delivery contracts. These delayed delivery contracts will be subject only to the conditions that we set forth in the prospectus supplement. We will indicate in the prospectus supplement the commission that underwriters and agents soliciting purchases of our securities under delayed delivery contracts will be entitled to receive.

Direct Sales

We may directly solicit offers to purchase our securities, and we may directly sell our securities to institutional or other investors, including our affiliates. We will describe the terms of our direct sales in the prospectus supplement. We may also sell our securities upon the exercise of rights which we may issue.

General Information

Underwriters, dealers and agents that participate in the distribution of our securities may be underwriters as defined in the Securities Act, and any discounts or commissions they receive and any profit they make on the resale of the offered securities may be treated as underwriting discounts and commissions under the Securities Act. Any underwriters or agents will be identified and their compensation described in a prospectus supplement. We may indemnify agents, underwriters, and dealers against certain civil liabilities, including liabilities under the Securities Act, or make contributions to payments they may be required to make relating to those liabilities. Our agents, underwriters, and dealers, or their affiliates, may be customers of, engage in transactions with, or perform services for us in the ordinary course of business.

Each series of securities offered by this prospectus (other than common stock) may be a new issue of securities with no established trading market. Any underwriters to whom securities offered by this prospectus are sold by us for public offering and sale may make a market in the securities offered by this prospectus, but the underwriters will not be obligated to do so and may discontinue any market

Table of Contents

making at any time without notice. No assurance can be given as to the liquidity of the trading market for any securities offered by this prospectus.

Representatives of the underwriters through whom our securities are sold for public offering and sale may engage in over-allotment, stabilizing transactions, syndicate short covering transactions and penalty bids in accordance with Regulation M under the Exchange Act. Over-allotment involves syndicate sales in excess of the offering size, which creates a syndicate short position. Stabilizing transactions permit bids to purchase the offered securities so long as the stabilizing bids do not exceed a specified maximum. Syndicate covering transactions involve purchases of the offered securities in the open market after the distribution has been completed in order to cover syndicate short positions. Penalty bids permit the representative of the underwriters to reclaim a selling concession from a syndicate member when the offered securities originally sold by such syndicate member are purchased in a syndicate covering transaction to cover syndicate short positions. Such stabilizing transactions, syndicate covering transactions and penalty bids may cause the price of the offered securities to be higher than it would otherwise be in the absence of such transactions. These transactions may be effected on a national securities exchange and, if commenced, may be discontinued at any time.

Underwriters, dealers and agents may be customers of, engage in transactions with or perform services for, us and our subsidiaries in the ordinary course of business.

Table of Contents

LEGAL MATTERS

Certain legal matters in connection with the securities offered hereby will be passed on for us by Locke Lord LLP, Houston, Texas. Any underwriters will be advised about other issues relating to any offering by their own legal counsel.

EXPERTS

The audited consolidated financial statements as of December 31, 2015 and 2014, and for the years then ended, schedule, and management's assessment of the effectiveness of internal control over financial reporting as of December 31, 2015, incorporated by reference in this prospectus and elsewhere in the registration statement have been so incorporated by reference in reliance upon the reports of Grant Thornton LLP, independent registered public accountants, upon the authority of said firm as experts in accounting and auditing.

The consolidated financial statements of ION Geophysical Corporation for the year ended December 31, 2013, appearing in ION Geophysical Corporations Annual Report (Form 10-K) for the year ended December 31, 2015, have been audited by Ernst & Young LLP, independent registered public accounting firm, as set forth in their report thereon, included therein, and incorporated herein by reference, and are included in reliance upon such report given on the authority of such firm as experts in accounting and auditing.

Table of Contents

PART II

INFORMATION NOT REQUIRED IN PROSPECTUS

Item 14. ***Other Expenses of Issuance and Distribution.***

The following table sets forth the various expenses, all of which will be borne by us, in connection with the sale and distribution of the securities being registered, other than the underwriting discounts and commissions. All amounts shown are estimates except for the Securities and Exchange Commission registration fee.

Securities and Exchange Commission registration fee	$	10,070
Accounting fees and expenses	$	*
Legal fees and expenses	$	*
Printing and engraving expenses	$	*
Miscellaneous	$	*
Total	$	*

* These fees are calculated based on the amount and type of securities offered and the number of issuances of securities hereunder and accordingly cannot be estimated at this time.

Item 15. ***Indemnification of Directors and Officers.***

Section 145 of the General Corporation Law of the State of Delaware, or the DGCL, permits a corporation to indemnify any person who was or is a party or is threatened to be made a party to any threatened, pending or completed action, suit or proceeding, whether civil, criminal, administrative or investigative, by reason of the fact that he is or was a director, officer, employee or agent of the corporation or is or was serving at the request of the corporation as a director, officer, employee or agent of another corporation, partnership, joint venture, trust or other enterprise against expenses (including attorneys' fees), judgments, fines and amounts paid in settlement actually and reasonably incurred by him in connection with such action.

In an action brought to obtain a judgment in the corporation's favor, whether by the corporation itself or derivatively by a stockholder, the corporation may only indemnify for expenses, including attorneys' fees, actually and reasonably incurred in connection with the defense or settlement of such action, and the corporation may not indemnify for amounts paid in satisfaction of a judgment or in settlement of the claim. In any such action, no indemnification may be paid in respect of any claim, issue or matter as to which such person shall have been adjudged liable to the corporation except as otherwise approved by the Delaware Court of Chancery or the court in which the claim was brought. In any other type of proceeding, the indemnification may extend to judgments, fines and amounts paid in settlement, actually and reasonably incurred in connection with such other proceeding, as well as to expenses (including attorneys' fees).

The statute does not permit indemnification unless the person seeking indemnification has acted in good faith and in a manner he reasonably believed to be in, or not opposed to, the best interests of the corporation and, in the case of criminal actions or proceedings, the person had no reasonable cause to believe his conduct was unlawful. There are additional limitations applicable to criminal actions and to actions brought by or in the name of the corporation. The determination as to whether a person seeking indemnification has met the required standard of conduct is to be made (i) by a majority vote of a quorum of disinterested members of the board of directors, (ii) by independent legal counsel in a written opinion, if such a quorum does not exist or if the disinterested directors so direct, or (iii) by the stockholders.

Table of Contents

Our certificate of incorporation provides that directors shall have no personal liability to the Company or its stockholders for monetary damages for breach of fiduciary duty as a director to the maximum extent permitted by the DGCL. Our bylaws provide that we will indemnify our directors, officers, employees and agents against certain liabilities that they may incur in their capacities as directors, officers, employees and agents to the maximum extent permitted by the DGCL. We have director and officer liability insurance policies that provide coverage of up to $70 million.

Item 16. ***Exhibits.***

Exhibit No.	Description of Exhibit
1.1(1)	Form of Underwriting Agreement.
3.1	Restated Certificate of Incorporation of the Company (incorporated by reference to Exhibit 3.4 to the Company's Current Report on Form 8-K filed on September 24, 2007).
3.2	Certificate of Amendment to the Restated Certificate of Incorporation of the Company dated effective February 2, 2016 (incorporated by reference to Exhibit 3.2 to the Company's Annual Report on Form 10-K/A filed on February 12, 2016).
3.3	Certificate of Amendment to the Restated Certificate of Incorporation of the Company dated effective February 4, 2016 (incorporated by reference to Exhibit 3.3 to the Company's Annual Report on Form 10-K/A filed on February 12, 2016).
3.4	Amended and Restated Bylaws of the Company (incorporated by reference to Exhibit 3.5 to the Company's Current Report on Form 8-K filed on September 24, 2007).
3.5(1)	Form of Certificate of Designations for Preferred Stock, including specimen preferred stock certificate.
4.1	Specimen Stock Certificate (incorporated by reference to Exhibit 4.1 to the Company's Current Report on Form 8-K filed on September 23, 2016).
4.2(2)	Form of Senior Indenture, including form of Senior Note.
4.3(2)	Form of Subordinated Indenture, including form of Subordinated Note.
4.4(1)	Form of Warrant Agreement, including form of Warrant.
4.5(1)	Form of Subscription Rights Agreement, including form of Subscription Rights Certificate.
4.6(1)	Form of Purchase Contract, including form of Purchase Contract Certificate.
4.7(1)	Form of Unit Agreement, including form of Unit Certificate.
5.1(2)	Opinion of Locke Lord LLP with respect to legality of the securities, including consent.
12.1(2)	Statement of Computation of Ratio of Earnings to Fixed Charges.
23.1(2)	Consent of Grant Thornton LLP.
23.2(2)	Consent of Ernest & Young LLP.
23.3(2)	Consent of Locke Lord LLP (included in Exhibit 5.1).
24.1(2)	Power of Attorney (contained in signature pages).
25.1(3)	Form T-1 Statement of Eligibility and Qualification of the Trustee.

(1) We will file as an exhibit to a post-effective amendment to this registration statement or a current report on Form 8-K (i) any underwriting agreement relating to securities offered hereby, (ii) the

Table of Contents

instruments setting forth the terms of any preferred stock, warrants, subscription rights, purchase contracts or units, (iii) any additional required opinion of counsel as to the legality of the securities offered hereby, or (iv) any required opinion of counsel as to certain tax matters relative to securities offered hereby.

(2) Filed herewith.

(3) To be filed in accordance with the requirements of the Trust Indenture Act.

Item 17. ***Undertakings.***

(a) The undersigned registrant hereby undertakes:

(1) To file, during any period in which offers or sales are being made, a post-effective amendment to this registration statement:

(i) To include any prospectus required by section 10(a)(3) of the Securities Act of 1933;

(ii) To reflect in the prospectus any facts or events arising after the effective date of the registration statement (or the most recent post-effective amendment thereof) which, individually or in the aggregate, represent a fundamental change in the information set forth in the registration statement. Notwithstanding the foregoing, any increase or decrease in volume of securities offered (if the total dollar value of securities offered would not exceed that which was registered) and any deviation from the low or high end of the estimated maximum offering range may be reflected in the form of prospectus filed with the Commission pursuant to Rule 424(b) if, in the aggregate, the changes in volume and price represent no more than 20% change in the maximum aggregate offering price set forth in the "Calculation of Registration Fee" table in the effective registration statement;

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

provided, *however*, that paragraphs (a)(1)(i), (a)(1)(ii) and (a)(1)(iii) of this section do not apply if the information required to be included in a post-effective amendment by those paragraphs is contained in reports filed with or furnished to the Commission by the registrant pursuant to section 13 or section 15(d) of the Securities Exchange Act of 1934 that are incorporated by reference in the registration statement, or is contained in a form of prospectus filed pursuant to Rule 424(b) that is part of the registration statement.

(2) That, for the purpose of determining any liability under the Securities Act of 1933, each such post-effective amendment shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial *bona fide* offering thereof.

(3) To remove from registration by means of a post-effective amendment any of the securities being registered which remain unsold at the termination of the offering.

(4) That, for the purpose of determining liability under the Securities Act of 1933 to any purchaser:

(i) If the registrant is relying on Rule 430B:

(A) Each prospectus filed by the registrant pursuant to Rule 424(b)(3)shall be deemed to be part of the registration statement as of the date the filed prospectus was deemed part of and included in the registration statement; and

Table of Contents

(B) Each prospectus required to be filed pursuant to Rule 424(b)(2), (b)(5), or (b)(7) as part of a registration statement in reliance on Rule 430B relating to an offering made pursuant to Rule 415(a)(1)(i), (vii), or (x) for the purpose of providing the information required by section 10(a) of the Securities Act of 1933 shall be deemed to be part of and included in the registration statement as of the earlier of the date such form of prospectus is first used after effectiveness or the date of the first contract of sale of securities in the offering described in the prospectus. As provided in Rule 430B, for liability purposes of the issuer and any person that is at that date an underwriter, such date shall be deemed to be a new effective date of the registration statement relating to the securities in the registration statement to which that prospectus relates, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof. Provided, however, that no statement made in a registration statement or prospectus that is part of the registration statement or made in a document incorporated or deemed incorporated by reference into the registration statement or prospectus that is part of the registration statement will, as to a purchaser with a time of contract of sale prior to such effective date, supersede or modify any statement that was made in the registration statement or prospectus that was part of the registration statement or made in any such document immediately prior to such effective date; or

(ii) If the registrant is subject to Rule 430C, each prospectus filed pursuant to Rule 424(b) as part of a registration statement relating to an offering, other than registration statements relying on Rule 430B or other than prospectuses filed in reliance on Rule 430A, shall be deemed to be part of and included in the registration statement as of the date it is first used after effectiveness. Provided, however, that no statement made in a registration statement or prospectus that is part of the registration statement or made in a document incorporated or deemed incorporated by reference into the registration statement or prospectus that is part of the registration statement will, as to a purchaser with a time of contract of sale prior to such first use, supersede or modify any statement that was made in the registration statement or prospectus that was part of the registration statement or made in any such document immediately prior to such date of first use.

(5) That, for the purpose of determining liability of the registrant under the Securities Act of 1933 to any purchaser in the initial distribution of the securities:

The undersigned registrant undertakes that in a primary offering of securities of the undersigned registrant pursuant to this registration statement, regardless of the underwriting method used to sell the securities to the purchaser, if the securities are offered or sold to such purchaser by means of any of the following communications, the undersigned registrant will be a seller to the purchaser and will be considered to offer or sell such securities to such purchaser:

(i) Any preliminary prospectus or prospectus of the undersigned registrant relating to the offering required to be filed pursuant to Rule 424;

(ii) Any free writing prospectus relating to the offering prepared by or on behalf of the undersigned registrant or used or referred to by the undersigned registrant;

(iii) The portion of any other free writing prospectus relating to the offering containing material information about the undersigned registrant or its securities provided by or on behalf of the undersigned registrant; and

(iv) Any other communication that is an offer in the offering made by the undersigned registrant to the purchaser.

Table of Contents

(b) The undersigned registrant hereby undertakes that, for purposes of determining any liability under the Securities Act of 1933, each filing of the registrant's annual report pursuant to section 13(a) or section 15(d) of the Securities Exchange Act of 1934 (and, where applicable, each filing of an employee benefit plan's annual report pursuant to section 15(d) of the Securities Exchange Act of 1934) that is incorporated by reference in the registration statement shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial *bona fide* offering thereof.

(c) The undersigned registrant hereby undertakes to supplement the prospectus, after the expiration of the subscription period, to set forth the results of the subscription offer, the transactions by the underwriters during the subscription period, the amount of unsubscribed securities to be purchased by the underwriters, and the terms of any subsequent reoffering thereof. If any public offering by the underwriters is to be made on terms differing from those set forth on the cover page of the prospectus, a post-effective amendment will be filed to set forth the terms of such offering.

(d) If and when applicable, the undersigned registrant hereby undertakes to file an application for the purpose of determining the eligibility of the trustee to act under subsection (a) of Section 310 of the Trust Indenture Act in accordance with the rules and regulations prescribed by the Commission under Section 305(b)(2) of the Act.

(e) Insofar as indemnification for liabilities arising under the Securities Act of 1933 may be permitted to directors, officers and controlling persons of the registrant pursuant to the foregoing provisions, or otherwise, the registrant has been advised that in the opinion of the Securities and Exchange Commission such indemnification is against public policy as expressed in the Act and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the registrant of expenses incurred or paid by a director, officer or controlling person of the registrant in the successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, the registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the Act and will be governed by the final adjudication of such issue.

Table of Contents

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, the registrant certifies that it has reasonable grounds to believe that it meets all of the requirements for filing on Form S-3 and has duly caused this registration statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the city of Houston, State of Texas, on the 23rd day of September, 2016.

ION GEOPHYSICAL CORPORATION

By: /s/ JAMEY S. SEELY

Jamey S. Seely
Executive Vice President, General Counsel and Corporate Secretary

POWER OF ATTORNEY AND SIGNATURES

We the undersigned officers and directors of ION Geophysical Corporation, hereby, severally constitute and appoint R. Brian Hanson and Jamey S. Seely, each of them singly, our true and lawful attorneys with full power to them and each of them singly, to sign for us and in our names in the capacities indicated below, the registration statement on Form S-3 filed herewith and any and all pre-effective and post-effective amendments to said registration statement and any subsequent registration statement for the same offering which may be filed under Rule 462(b) and generally to do all such things in our names and on our behalf in our capacities as officers and directors to enable ION Geophysical Corporation to comply with the provisions of the Securities Act of 1933, and all requirements of the Securities and Exchange Commission, hereby ratifying and confirming our signatures as they may be signed by our said attorneys, or any of them, to said registration statement and any and all amendments thereto or to any subsequent registration statement for the same offering which may be filed under Rule 462(b).

Pursuant to the requirements of the Securities Act of 1933, this registration statement has been signed by the following persons in the capacities and on the dates indicated.

Signature	Title	Date
/s/ R. BRIAN HANSON R. Brian Hanson	Chief Executive Officer President and Director (Principal Executive Officer)	September 23, 2016
/s/ STEVEN A. BATE Steven A. Bate	Executive Vice president and Chief Financial Officer (Principal Financial Officer)	September 23, 2016
/s/ SCOTT SCHWAUSCH Scott Schwausch	Vice President and Corporate Controller (Principal Accounting Officer)	September 23, 2016
/s/ JAMES M. LAPEYRE, JR. James M. Lapeyre, Jr.	Chairman of the Board	September 23, 2016

Table of Contents

Signature	Title	Date
/s/ DAVID H. BARR David H. Barr	Director	September 23, 2016
/s/ HAO HUIMIN Hao Huimin	Director	September 23, 2016
/s/ MICHAEL C. JENNINGS Michael C. Jennings	Director	September 23, 2016
/s/ FRANKLIN MYERS Franklin Myers	Director	September 23, 2016
/s/ S. JAMES NELSON, JR. S. James Nelson, Jr.	Director	September 23, 2016
/s/ JOHN N. SEITZ John N. Seitz	Director	September 23, 2016

Table of Contents

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(2) Filed herewith.

(3) To be filed in accordance with the requirements of the Trust Indenture Act.