ION GEOPHYSICAL CORP
Form 424B5
February 15, 2018

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Registration No. 333-213769

This preliminary prospectus supplement relates to an effective registration statement under the Securities Act of 1933, but the information in this preliminary prospectus supplement is not complete and may be changed. This preliminary prospectus supplement and the accompanying prospectus are not an offer to sell and are not soliciting an offer to buy these securities in any jurisdiction where the offer or sale is not permitted.

SUBJECT TO COMPLETION, DATED FEBRUARY 15, 2018

PRELIMINARY PROSPECTUS SUPPLEMENT
(To Prospectus Dated November 23, 2016)

Shares of Common Stock

Warrants to Purchase up to Shares of Common Stock

We are offering shares of our common stock and warrants to purchase up to shares of our common stock. Each share of our common stock is being sold together with a warrant to purchase share of our common stock. Each full warrant will have an exercise price of $ per share and will be exercisable during the period commencing on February , 2018 and ending on , 2019. The shares of our common stock and warrants are immediately separable and will be issued separately, but will be purchased together in this offering. The shares of our common stock issuable from time to time upon exercise of the warrants are also being offered pursuant to this prospectus supplement and the accompanying prospectus.

There is no established public trading market for the warrants and we do not expect a market to develop. Without an active trading market, we expect the liquidity of the warrants will be limited.

Investing in our common stock and warrants involves risks. See "Risk Factors" beginning on page S-6 of this prospectus supplement and on page 6 of the accompanying prospectus, and the other risk factors incorporated by reference into this prospectus supplement.

	Per Share and Related Warrant	Total
Public offering price		
Underwriting discounts(1)		
Proceeds, before expenses, to us		

(1) We have also agreed to issue to Oppenheimer & Co. Inc. warrants to purchase up to shares of our common stock, which equates to 1.0% of the number of shares of our common stock to be issued and sold in this offering, and to reimburse certain of its expenses. See "Underwriting" beginning on page S-13 of this prospectus for additional information regarding compensation payable to the underwriters. This registration statement also relates to the warrants issued to Oppenheimer & Co. Inc. and the shares issuable upon exercise thereof.

The underwriters have the option to purchase up to an additional shares of our common stock and related warrants on the same terms and conditions as set forth herein, within 30 days from the date of this prospectus supplement.

The underwriters expect to deliver the shares of our common stock and related warrants on or about February , 2018. Delivery of the warrants will be made by physical delivery of warrant certificates.

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

Sole Book-Running Manager

Oppenheimer & Co.

Co-Manager

Janney Montgomery Scott

The date of this prospectus supplement is February , 2018

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ABOUT THIS PROSPECTUS SUPPLEMENT

This prospectus supplement and the accompanying prospectus form part of a registration statement on Form S-3 that we filed with the Securities and Exchange Commission (the "SEC"), using a "shelf" registration process. This document is in two parts. The first part is this prospectus supplement, which describes the specific terms of this offering. The second part is the accompanying prospectus, which gives more general information, some of which may not apply to this offering. Generally, when we refer to the "prospectus," we are referring to both parts combined. If information in this prospectus supplement varies or conflicts with information in the accompanying prospectus, you should rely on the information in this prospectus supplement.

You should rely only on the information contained or incorporated by reference in this prospectus supplement or any "free writing prospectus" we may authorize to be delivered to you. We have not, and the underwriter has not, authorized anyone to provide you with information that is different. If anyone provides you with different or inconsistent information, you should not rely on it. This prospectus supplement is not an offer to sell or a solicitation of an offer to buy our common stock in any jurisdiction where such offer or any sale would be unlawful. You should not assume that the information contained in this prospectus supplement, the accompanying prospectus, any free writing prospectus or the information incorporated by reference herein is accurate as of any date other than its respective date. Our business, financial condition, results of operations and prospects may have changed since such dates. If any statement in any such document is inconsistent with a statement in another such document having a later date for example, a document incorporated by reference in this prospectus supplement or the accompanying prospectus the statement in the document having the later date modifies or supersedes the earlier statement.

Neither we, nor the underwriter, nor any of our or its respective representatives are making any representation to you regarding the legality of an investment in our common stock by you under applicable laws. You should consult with your own advisors as to legal, tax, business, financial and related aspects of an investment in our common stock.

This prospectus supplement and the accompanying prospectus contain 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 or will be filed as exhibits to the registration statement of which this prospectus is a part or as exhibits to documents incorporated by reference herein, and you may obtain copies of those documents as described below under the headings "Where You Can Find More Information" and "Incorporation by Reference." The industry and market data and other statistical information contained in the documents we incorporate by reference are based on our own estimates, independent publications, government publications, and reports by market research firms or other published independent sources, and, in each case, are believed by us to be reasonable estimates. Although we believe these sources are reliable, we have not independently verified the information.

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FORWARD-LOOKING STATEMENTS

The information discussed in this prospectus supplement, the accompanying prospectus, our filings with the SEC and our public releases include "forward-looking statements" within the meaning of Section 27A of the Securities Act of 1933, as amended (the "Securities Act"), and Section 21E of the Securities Exchange Act of 1934, as amended (the "Exchange Act"), the Private Securities Litigation Reform Act of 1995 (the "PSLRA") or in releases made by the SEC. Such forward-looking statements involve known and unknown risks, uncertainties and other important factors that could cause the actual results, performance or achievements of Ion 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:

- any additional damages or adverse rulings in the WesternGeco litigation and future potential adverse effects on our financial results and 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 availability of cash to fund our operations and pay our obligations;
- facing a significant debt maturity in 2018;
- 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 in our E&P Technology & Services segment;
- 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;

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- 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;
- expectations regarding the impact of the U.S. Tax Cuts and Jobs Act;
- anticipated results with respect to certain estimates we make for financial accounting purposes; and
- compliance with the U.S. Foreign Corrupt Practices Act and other applicable U.S. and foreign laws prohibiting corrupt payments to government officials and other third parties.

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 supplement, the accompanying prospectus, and in the documents incorporated by reference herein 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 supplement, the accompanying prospectus, and in the documents that we include or incorporate by reference herein, including our Annual Report on Form 10-K for the fiscal year ended December 31, 2017 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.

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PROSPECTUS SUPPLEMENT SUMMARY

This summary highlights information contained elsewhere in this prospectus supplement and the accompanying prospectus. It does not contain all of the information that you should consider before making an investment decision. You should carefully read this prospectus supplement, the accompanying prospectus, and the documents incorporated by reference for a more complete understanding of our business and this offering. Please read "Risk Factors" on page S-6 of this prospectus supplement and on page 6 of the accompanying prospectus and the risk factors described under the heading "Risk Factors" included in Item 1A of our Annual Report on Form 10-K for the period ending December 31, 2017, which is incorporated by reference in this prospectus supplement, for more information about important factors that you should consider before investing in our common stock.

Unless otherwise indicated, this prospectus supplement assumes no exercise of the warrants offered hereby.

Unless otherwise indicated, the terms "we," "us" and "our" mean ION Geophysical Corporation, a Delaware corporation, and its subsidiaries and predecessors.

ION GEOPHYSICAL CORPORATION

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.

Principal Executive Offices

Our corporate headquarters is located at 2105 CityWest Blvd., Suite 100, Houston, Texas 77042, and our phone number is (281) 933-3339. We are incorporated in the State of Delaware and our company website can be found at www.iongeo.com.

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The Offering

Issuer	ION Geophysical Corporation
Shares of Common Stock Offered	shares of common stock.
Common Stock Outstanding Immediately Following this Offering	shares (if the underwriters exercise their option to purchase additional shares in full).
Warrants Offered	Warrants to purchase up to shares of common stock. Each share of our common stock is being sold together with a warrant to purchase share of our common stock. Each full warrant will have an exercise price of $ per share, and will be exercisable during the period commencing on February , 2018 and ending on , 2019. This prospectus supplement also relates to the offering of the shares of common stock issuable upon exercise of the warrants. The exercise price of the warrants and the number of shares into which the warrants may be exercised are subject to adjustment in certain circumstances.
Option to Purchase Additional Shares and Warrants	The underwriters also have the option to purchase up to an additional shares of common stock and the related warrants from us on the same terms.
Use of Proceeds	We expect to receive net proceeds of approximately $ million from this offering, after deducting underwriting discounts and estimated offering expenses, excluding the proceeds, if any, from the exercise of the warrants offered hereby. We intend to use the net proceeds from this offering to pay our Senior Secured Third-Priority Lien Notes due May 15, 2018, which have an outstanding balance of $28.5 million as of February 8, 2018. We expect to use the remaining net proceeds from this offering for general corporate purposes, which may include capital expenditures, working capital or investments in our subsidiaries. We may invest funds not required immediately for such purposes in marketable securities and short-term investments. Please read "Use of Proceeds" in this prospectus supplement for more information.
Risk Factors	Investing in our common stock and warrants involves risks. Please read "Risk Factors" on page S-6 of this prospectus supplement, page 6 of the accompanying prospectus and in the documents incorporated by reference, as well as the other cautionary statements throughout this prospectus supplement and the accompanying prospectus, for a discussion of factors you should carefully consider before deciding to invest in our common stock and warrants.
Exchange Listing	Our common stock is listed on the NYSE under the ticker symbol "IO."

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RISK FACTORS

An investment in our securities and securities exercisable for or convertible into our common stock involves risks. You should carefully consider all of the information contained in or incorporated by reference into this prospectus supplement and other information that may be incorporated by reference into this prospectus supplement as provided under "Incorporation by Reference," including our Annual Report on Form 10-K, our Quarterly Reports on Form 10-Q and our Current Reports on Form 8-K. This prospectus supplement also contains forward-looking statements that involve risks and uncertainties. Please read "Forward-Looking Statements." Our actual results could differ materially from those anticipated in the forward-looking statements as a result of certain factors, including the risks described elsewhere in this prospectus supplement, the accompanying prospectus and in the documents incorporated by reference into this prospectus supplement. New risk factors emerge from time to time, and it is not possible for us to predict all risk factors. If any of these risks occur, our business, financial condition or results of operation could be adversely affected.

The market price for our common stock may be volatile and subject to future declines.

The market price of our shares of common stock may be volatile and be subject to wide fluctuations. Fluctuations in our stock price may be unrelated to or not otherwise reflect our historical financial performance and condition and prospects. The stock market in general can experience considerable price and volume fluctuations due to changes in general economic conditions or other factors beyond our control, which could impact the future market price of our shares of common stock. We cannot assure you that the market price of our shares of common stock will not be volatile or fluctuate or decline significantly in the future.

Sales of our common stock may depress the price of our common stock and be dilutive to holders of our common stock.

We cannot predict the effect, if any, that future issuances or sales of our common stock, preferred stock, warrants, or debt securities convertible into or exercisable or exchangeable for common stock, including sales of our common stock in this offering, or the availability of our securities for future issuance or sale, will have on the market price of shares of our common stock. Issuances or sales of substantial amounts of our common stock, preferred stock, warrants, or debt securities convertible into or exercisable or exchangeable for common stock, including sales of our common stock in this offering or upon exercise of the warrants offered hereby, or the perception that such issuances or sales might occur, could negatively impact the market price of our common stock and the terms upon which we may obtain additional equity financing in the future. Preferred stock we issue will generally be senior to our common stock with respect to dividends and liquidation rights. The issuance of any additional shares of our common stock or securities convertible into or exchangeable for common stock or that represent the right to receive common stock, or the exercise of such securities, could be substantially dilutive to holders of our common stock, including purchasers of common stock in this offering. The vesting of any restricted stock and restricted stock units granted to directors, executive officers and other employees, and other issuances of our common stock could have an adverse effect on the market price of our common stock, and the existence of our common stock reserved for issuance under our 2013 Long-Term Incentive Plan may adversely affect the terms upon which we may be able to obtain additional capital through the sale of equity securities.

We have broad discretion in the use of the net proceeds of this offering and may not use them effectively.

We expect to receive net proceeds of approximately $ million from this offering, after deducting underwriting discounts and estimated offering expenses, excluding the proceeds, if any, from

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the exercise of the warrants offered hereby. We intend to use the net proceeds from this offering to pay our Senior Secured Third-Priority Lien Notes due May 15, 2018, which have an outstanding balance of $28.5 million as of February 8, 2018. We expect to use the remaining net proceeds from this offering for general corporate purposes, which may include capital expenditures, working capital or investments in our subsidiaries. Our management will have broad discretion in the application of the net proceeds from this offering and could spend the proceeds in ways that do not improve our results of operations or enhance the value of our common stock. The failure by management to apply these funds effectively could result in financial losses that could have a material adverse effect on our business and cause the price of our common stock to decline.

One of our investors may exercise its rights to participate in the offering.

Under the terms of our Investor Rights Agreement with BGP, Inc., China National Petroleum Corporation, we have an obligation to offer BGP the ability to purchase its pro rata portion of any securities that we issue, subject to certain exceptions. As a result, BGP has a contractual right to purchase approximately 13% of the shares that we sell under this prospectus. We have provided notice to BGP of our intention to commence sales of our shares under this prospectus and advised it that we will provide it with notice of sales that we do make so that BGP can determine whether to exercise its right to purchase its pro rata portion of the shares sold under this prospectus. If BGP exercises their contractual right, we may issue to BGP at a price of no less than the price to the public of the shares offered hereby, the minimum number of shares required to satisfy our obligation under the Investor Rights Agreement. Depending upon the amount of shares and warrants issued in the offering, we may have to issue to BGP unregistered shares, and thereafter register the resale of such shares.

The recently passed comprehensive tax reform legislation could adversely affect our business and financial condition.

On December 22, 2017, President Trump signed into law new legislation that significantly revises the Internal Revenue Code of 1986, as amended. The newly enacted federal income tax law, among other things, contains significant changes to corporate taxation, including reduction of the corporate tax rate from a top marginal rate of 35% to a flat rate of 21%, limitation of the tax deduction for net interest expense to 30% of adjusted earnings (except for certain small businesses), limitation of the deduction for net operating losses to 80% of current year taxable income and elimination of net operating loss carrybacks, in each case, for losses arising in taxable years beginning after December 31, 2017 (though any such net operating losses may be carried forward indefinitely), one time taxation of offshore earnings at reduced rates regardless of whether they are repatriated, elimination of U.S. tax on foreign earnings (subject to certain important exceptions), immediate deductions for certain new investments instead of deductions for depreciation expense over time, and modifying or repealing many business deductions and credits. Notwithstanding the reduction in the corporate income tax rate, the overall impact of the new federal tax law is uncertain and our business and financial condition could be adversely affected. In addition, it is uncertain how various states will respond to the newly enacted federal tax law. The impact of this tax reform on holders of our common stock is also uncertain and could be adverse. We urge our stockholders to consult with their legal and tax advisors with respect to this legislation and the potential tax consequences of investing in or holding our common stock.

Holders of our warrants will generally not have rights as a common stockholder until such holders exercise their warrants and acquire our common stock.

Except as set forth in the warrants, holders of warrants acquire shares of our common stock upon exercise of the warrants, holders of warrants will generally not have rights with respect to the shares of our common stock underlying such warrants. Upon exercise of the warrants, the holders thereof

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will be entitled to exercise the rights of a common stockholder only as to matters for which the record date occurs after the exercise date.

Due to the speculative nature of warrants, there is no guarantee that it will ever be profitable for investors in the offering to exercise their warrants.

Investors in this offering may exercise their right to acquire the shares of common stock underlying their warrants at any time after the date of issuance by paying an exercise price of $ per share (which is equal to % of the public offering price of the shares being offered pursuant to this prospectus), prior to their expiration on , 2019, after which date any unexercised warrants will expire and have no further value. There can be no assurance that the market price of our common stock will ever equal or exceed the exercise price of the warrants, and, consequently, whether it will ever be profitable for investors to exercise their warrants.

There is no public market for the warrants being offered in this offering.

There is no established public trading market for warrants being offered in this offering and we do not expect a market to develop. In addition, we do not intend to apply to list warrants on any securities exchange or nationally recognized trading system, including the NYSE. Without an active market, the liquidity of the warrants will be limited.

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USE OF PROCEEDS

We expect to receive net proceeds of approximately $ million from this offering, after deducting underwriting discounts and estimated offering expenses, excluding the proceeds, if any, from the exercise of the warrants offered hereby. The principal purpose of this offering is to pay our Senior Secured Third-Priority Lien Notes due May 15, 2018. At February 8, 2018, the outstanding balance of the Senior Secured Third-Priority Lien Notes was $28.5 million and bore interest at a rate of 8.125% per annum and is payable semiannually in arrears on May 15 and November 15 of each year during their term. We expect to use the remaining net proceeds from this offering for general corporate purposes, which may include capital expenditures, working capital or investments in our subsidiaries. We may invest funds not required immediately for such purposes in marketable securities and short-term investments.

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DILUTION

Our net tangible book value as of December 31, 2017 was approximately $5.05 million, or $0.42 per share. Net tangible book value per share is determined by dividing our total tangible assets, less total liabilities, by the number of shares of our common stock outstanding. Dilution with respect to net tangible book value per share represents the difference between the amount per share paid by purchasers of shares of common stock in this offering and the net tangible book value per share of our common stock immediately after this offering assuming no value is attributed to the warrants, and such warrants are accounted for and classified as equity.

After giving effect to the sale of shares of our common stock and warrants to purchase shares of our common stock in this offering at an assumed offering price of $ per share and related warrant, the last reported sale price of our common stock on the NYSE on February , 2018, and after deducting the underwriting discount and estimated offering expenses payable by us, our as adjusted net tangible book value as of December 31, 2017 would have been approximately $ million, or $ per share. This represents an immediate increase in net tangible book value of $ per share to existing stockholders and immediate dilution of $ per share to investors participating in this offering. The following table illustrates this dilution on a per share basis:

Assumed public offering price per share and related warrant		$
Net tangible book value per share of as December 31, 2017	$ 0.42	
Increase in net tangible book value per share attributable to this offering	$	
As adjusted net tangible book value per share as of December 31, 2017, after giving effect to this offering		$
Dilution per share to investors purchasing our common stock and warrants in this offering		$

If the underwriters exercise in full their option to purchase an additional shares of common stock and related warrants at the public offering price of $ per share, our adjusted net tangible book value as of December 31, 2017, after giving effect to this offering, would have been approximately $ per share, representing an increase in net tangible book value of approximately $ per share to existing stockholders and immediate dilution in net tangible book value of approximately $ per share to investors participating in this offering.

The above discussion and table are based on 10,618,552 shares outstanding as of December 31, 2017, and exclude:

- 890,341 shares of common stock issuable upon the exercise of stock options outstanding as of December 31, 2017, having a weighted average exercise price of $36.17 per share;
- 15,164 shares of common stock issuable upon the vesting of restricted stock units outstanding as of December 31, 2017; and
- an aggregate of 495,644 shares of common stock reserved for future issuance under our equity incentive and employee stock purchase plans as of December 31, 2017.

To the extent that options or warrants outstanding as of December 31, 2017 have been or may be exercised or other shares issued, investors purchasing our common stock in this offering may experience further dilution. In addition, we may choose to raise additional capital due to market conditions or strategic considerations even if we believe we have sufficient funds for our current or future operating plans. To the extent that additional capital is raised through the sale of equity or convertible debt securities, the issuance of these securities could result in further dilution to our stockholders.

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DESCRIPTION OF SECURITIES WE ARE OFFERING

Common stock

The material terms and provisions of our common stock are described under the caption "Description of Capital Stock" in the accompanying prospectus beginning on page 7. As of February 8, 2017, we had 12,022,201 shares of our common stock outstanding. Our common stock is listed on the NYSE under the symbol "IO".

Warrants

Duration and Exercise Price: By means of this prospectus supplement, we are offering warrants to purchase up to shares of our common stock. Each warrant has an exercise price of $ per share, exercisable on February , 2018 and will expire on , 2019.

Exercisability: The warrants may be exercised, in whole or in part, by delivering to the Company a written notice of election to exercise the warrant and delivering to the Company cash payment of the exercise price, if applicable. The exercise price and the number of shares of our common stock issuable upon exercise of the warrants is subject to adjustment in the event of certain subdivisions and combinations, including by any stock split or reverse stock split, stock dividend, recapitalization or otherwise. In addition, the Company has the right at any time during the term of the warrants to reduce the then-existing exercise price to any amount and for any period of time deemed appropriate by our board of directors.

Cashless Exercise: If, at any time during the term of the warrants, the issuance of shares of our common stock upon exercise of the warrants is not covered by an effective registration statement, the holder is permitted to effect a cashless exercise of the warrants (in whole or in part) in which case the holder would receive upon such exercise the net number of shares of common stock determined according to the formula set forth in the warrant. Shares issued pursuant to a cashless exercise would be issued pursuant to the exemption from registration provided by Section 3(a)(9) of the Securities Act, and thus the shares of common stock issued upon such cashless exercise would take on the characteristics of the warrants being exercised, including, for purposes of Rule 144(d) promulgated under the Securities Act, a holding period beginning from the original issuance date of the warrants.

Transferability: Subject to applicable laws, the warrants may be offered for sale, sold, transferred or assigned without our consent. However, as of the date of this prospectus supplement there is no established trading market for the warrants and it is not expected that a trading market for the warrants will develop in the future.

Listing: We will not apply to list the warrants on the NYSE. We do not intend to list the warrants on any securities exchange or other quotation system.

Rights as a stockholder: Except as set forth in the warrants or by virtue of such holders' ownership of shares of our common stock, the holders of the warrants do not have the rights or privileges of holders of our common stock, including any voting rights, until they exercise the warrants.

Limitations on Exercise: The exercise of the warrants may be limited in certain circumstances if, after giving effect to such exercise, the holder or any of its affiliates would beneficially own (as determined in accordance with the terms of the warrants) more than 4.99% (or, at the election of the holder, 9.99%) of our outstanding common stock immediately after giving effect to the exercise.

Fundamental Transactions: In the event of a fundamental transaction, as described in the warrants and generally including any merger or consolidation with or into another entity, the holders of the warrants shall have the right to exercise the warrant concurrent with the closing of the fundamental transaction and receive, the same amount and kind of securities, cash or property as it would have

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been entitled to receive upon the occurrence of such fundamental transaction if it had been, immediately prior to such fundamental transaction, the holder of shares of common stock issuable upon exercise in full of the warrant. In addition, in certain circumstances as described in the warrant, the holder will have the right to require us to repurchase their warrants at their fair value using the Black Scholes option pricing formula.

Dividends and Other Distributions: If we declare or make any dividend or other distribution of our assets to holders of shares of our common stock (including any distribution of cash, stock or other securities, property, options, evidence of indebtedness or any other assets), then, subject to certain limitation on exercise described in the warrants, each holder of a warrant shall receive the distributed assets that such holder would have been entitled to receive in the distribution had the holder exercised the warrant immediately prior to the record date for the distribution.

The foregoing summary of certain terms and provisions of the warrants that are being offered hereby is not complete and is subject to, and is qualified in its entirety by the provisions of the warrant agreements governing the terms of the warrants, the forms of which will be filed as exhibits to a Current Report on Form 8-K that we will file in connection with this offering. Prospective investors should carefully review the terms and provisions of the warrant agreements and forms of the warrants for a complete description of the terms and conditions of the warrants.

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UNDERWRITING

We entered into an underwriting agreement with the underwriters named below on 2018. Oppenheimer & Co. Inc. is acting as representative of the underwriters. The underwriters' obligations are several, which means that each underwriter is required to purchase a specified number of shares and related warrants but is not responsible for the commitment of any other underwriter to purchase shares and related warrants. Subject to the terms and conditions of the underwriting agreement, each underwriter has severally agreed to purchase the number of shares and related warrants set forth opposite its name below:

Underwriter	Number of Shares	Number of Warrants
Oppenheimer & Co. Inc.		
Janney Montgomery Scott LLC		
Total		

The underwriters have agreed to purchase all of the shares offered by this prospectus (other than those covered by the option described below) if any are purchased.

The shares of common stock and related warrants offered hereby are expected to be ready for delivery on or about , 2018 against payment in immediately available funds. Delivery of the warrants will be made by physical delivery of warrant certificates.

The underwriters are offering the shares and related warrants subject to various conditions and may reject all or part of any order. The representative of the underwriters has advised us that the underwriters propose to offer the shares and related warrants directly to the public at the public offering price that appears on the cover page of this prospectus supplement. After the shares and related warrants are released for sale to the public, the representative may change the offering price and other selling terms at various times. The underwriters may offer the shares of common stock and related warrants to securities dealers at the public offering price less a concession not in excess of $ per share.

We have granted the underwriters an option to purchase additional shares and warrants. This option, which is exercisable for up to 30 days after the date of this prospectus supplement, permits the underwriters to purchase a maximum of additional shares and additional warrants from us. If the underwriters exercise all or part of this option, they will purchase shares and/or warrants covered by the option at the public offering price that appears on the cover page of this prospectus supplement, less the underwriting discounts and commissions. The underwriters have severally agreed that, to the extent the option is exercised, they will each purchase a number of additional shares and/or warrants proportionate to the underwriter's initial amount reflected in the foregoing table.

The following table provides information regarding the amount of the discounts and commissions to be paid to the underwriters by us, before expenses:

	Per Share	Total Without Exercise of Underwriters' Option	Total With Full Exercise of Underwriters' Option
Public offering price	$	$	$
Underwriting discounts and commissions	$	$	$
Proceeds, before expenses, to us	$	$	$

We have also agreed to issue to Oppenheimer & Co. Inc. warrants to purchase up to shares of our common stock, which equates to 1.0% of the number of shares of our common stock to be issued and sold in this offering. The exercise price of the warrants shall be equal to $ per share

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of Common Stock. The representative's warrants have been deemed underwriting compensation by FINRA and are therefore subject to a 180-day lock-up pursuant to Rule 5110(g)(1) of FINRA's Rules.

We estimate that our total expenses of the offering, excluding the estimated underwriting discounts and commissions, will be approximately $, which includes the fees and expenses for which we have agreed to reimburse the underwriters, provided that any such fees and expenses in excess of an aggregate of $180,000 will be subject to prior written approval by the Company.

We have agreed to indemnify the underwriters against certain liabilities, including liabilities under the Securities Act.

We and our officers and directors have agreed to a 90-day "lock-up" with respect to shares of our common stock and other of our securities that they beneficially own, including securities that are convertible into shares of common stock and securities that are exchangeable or exercisable for shares of common stock. This means that, subject to certain exceptions, for a period of 90 days following the date of this prospectus supplement, we and such persons may not offer, sell, pledge or otherwise dispose of these securities without the prior written consent of Oppenheimer & Co. Inc. Among the exceptions to the lock-up agreement, we may issue to BGP at a price of no less than the price to the public of the shares offered hereby, up to 13% of the number of shares we sell pursuant to this prospectus supplement in order to satisfy our obligation under the Investor Rights Agreement.

Rules of the Securities and Exchange Commission may limit the ability of the underwriters to bid for or purchase shares before the distribution of the shares is completed. However, the underwriters may engage in the following activities in accordance with the rules:

Stabilizing transactions The underwriters may make bids or purchases for the purpose of pegging, fixing or maintaining the price of the shares, so long as stabilizing bids do not exceed a specified maximum.

Over-allotments and syndicate covering transactions The underwriters may sell more shares of our common stock in connection with this offering than the number of shares than they have committed to purchase. This over-allotment creates a short position for the underwriters. This short sales position may involve either "covered" short sales or "naked" short sales. Covered short sales are short sales made in an amount not greater than the underwriters' over-allotment option to purchase additional shares in this offering described above. The underwriters may close out any covered short position either by exercising its over-allotment option or by purchasing shares in the open market. To determine how it will close the covered short position, the underwriters will consider, among other things, the price of shares available for purchase in the open market, as compared to the price at which it may purchase shares through the over-allotment option. Naked short sales are short sales in excess of the over-allotment option. The underwriters must close out any naked short position by purchasing shares in the open market. A naked short position is more likely to be created if the underwriters are concerned that, in the open market after pricing, there may be downward pressure on the price of the shares that could adversely affect investors who purchase shares in this offering.

Passive market making Market makers in the shares who are underwriters or prospective underwriters may make bids for or purchases of shares, subject to limitations, until the time, if ever, at which a stabilizing bid is made.

Similar to other purchase transactions, the underwriters' purchases to cover the syndicate short sales or to stabilize the market price of our common stock may have the effect of raising or maintaining the market price of our common stock or preventing or mitigating a decline in the market price of our common stock. As a result, the price of the shares of our common stock may be higher than the price that might otherwise exist in the open market. The imposition of a penalty bid might also have an effect on the price of the shares if it discourages resales of the shares.

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Neither we nor the underwriters make any representation or prediction as to the effect that the transactions described above may have on the price of the shares. These transactions may occur on the New York Stock Exchange or otherwise. If such transactions are commenced, they may be discontinued without notice at any time.

Electronic Delivery of Preliminary Prospectus: A prospectus supplement in electronic format may be delivered to potential investors by the underwriters participating in this offering. The prospectus supplement in electronic format will be identical to the paper version of such preliminary prospectus supplement. Other than the prospectus supplement in electronic format, the information on any underwriter's website and any information contained in any other website maintained by the underwriters is not part of this prospectus supplement, the accompanying prospectus or the registration statement of which this prospectus supplement and the accompanying prospectus form a part.

Notice to Non-U.S. Investors

Canada. The common stock may be sold only to purchasers purchasing, or deemed to be purchasing, as principal that are accredited investors, as defined in National Instrument 45-106 *Prospectus Exemptions* or subsection 73.3(1) of the *Securities Act* (Ontario), and are permitted clients, as defined in National Instrument 31-103 *Registration Requirements, Exemptions and Ongoing Registrant Obligations*. Any resale of the common stock must be made in accordance with an exemption from, or in a transaction not subject to, the prospectus requirements of applicable securities laws.

Securities legislation in certain provinces or territories of Canada may provide a purchaser with remedies for rescission or damages if this prospectus supplement (including any amendment thereto) contains a misrepresentation, provided that the remedies for rescission or damages are exercised by the purchaser within the time limit prescribed by the securities legislation of the purchaser's province or territory. The purchaser should refer to any applicable provisions of the securities legislation of the purchaser's province or territory for particulars of these rights or consult with a legal advisor.

Pursuant to section 3A.3 of National Instrument 33-105 *Underwriting Conflicts* (NI 33-105), the underwriters are not required to comply with the disclosure requirements of NI 33-105 regarding underwriter conflicts of interest in connection with this offering.

United Kingdom. Each of the underwriters represents and agrees that:

it has not made or will not make an offer of the securities to the public in the United Kingdom within the meaning of section 102B of the Financial Services and Markets Act 2000 (as amended) (FSMA) except to legal entities which are authorized or regulated to operate in the financial markets or, if not so authorized or regulated, whose corporate purpose is solely to invest in securities or otherwise in circumstances which do not require the publication by us of a prospectus pursuant to the Prospectus Rules of the Financial Services Authority (FSA);

it has only communicated or caused to be communicated and will only communicate or cause to be communicated an invitation or inducement to engage in investment activity (within the meaning of section 21 of FSMA) to persons who have professional experience in matters relating to investments falling within Article 19(5) of the Financial Services and Markets Act 2000 (Financial Promotion) Order 2005 or in circumstances in which section 21 of FSMA does not apply to us; and

it has complied with and will comply with all applicable provisions of FSMA with respect to anything done by it in relation to the securities in, from or otherwise involving the United Kingdom.

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Switzerland. The securities will not be offered, directly or indirectly, to the public in Switzerland and this prospectus does not constitute a public offering prospectus as that term is understood pursuant to article 652a or 1156 of the Swiss Federal Code of Obligations.

European Economic Area. In relation to each Member State of the European Economic Area (the "EEA") which has implemented the European Prospectus Directive (each, a "Relevant Member State"), an offer of our shares may not be made to the public in a Relevant Member State other than:

to any legal entity which is a qualified investor, as defined in the European Prospectus Directive;

to fewer than 100 or, if the Relevant Member State has implemented the relevant provision of the 2010 PD Amending Directive, 150 natural or legal persons (other than qualified investors as defined in the European Prospectus Directive), subject to obtaining the prior consent of the relevant dealer or dealers nominated by us for any such offer; or

in any other circumstances falling within Article 3(2) of the European Prospectus Directive, provided that no such offer of our shares shall require us or teh underwriter to publish a prospectus pursuant to Article 3 of the European Prospectus Directive or supplement prospectus pursuant to Article 16 of the European Prospectus Directive

For the purposes of this description, the expression an "offer to the public" in relation to the securities in any Relevant Member State means the communication in any form and by any means of sufficient information on the terms of the offer and the securities to be offered so as to enable an investor to decide to purchase or subscribe for the securities, as the expression may be varied in that Relevant Member State by any measure implementing the European Prospectus Directive in that member state, and the expression "European Prospectus Directive" means Directive 2003/71/EC (and amendments hereto, including the 2010 PD Amending Directive, to the extent implemented in the Relevant Member State) and includes any relevant implementing measure in each Relevant Member State. The expression 2010 PD Amending Directive means Directive 2010/73/EU.

Israel. In the State of Israel this prospectus shall not be regarded as an offer to the public to purchase shares of common stock under the Israeli Securities Law, 5728 1968, which requires a prospectus to be published and authorized by the Israel Securities Authority, if it complies with certain provisions of Section 15 of the Israeli Securities Law, 5728 1968, including, inter alia, if: (i) the offer is made, distributed or directed to not more than 35 investors, subject to certain conditions (the "Addressed Investors"); or (ii) the offer is made, distributed or directed to certain qualified investors defined in the First Addendum of the Israeli Securities Law, 5728 1968, subject to certain conditions (the "Qualified Investors"). The Qualified Investors shall not be taken into account in the count of the Addressed Investors and may be offered to purchase securities in addition to the 35 Addressed Investors. The company has not and will not take any action that would require it to publish a prospectus in accordance with and subject to the Israeli Securities Law, 5728 1968. We have not and will not distribute this prospectus or make, distribute or direct an offer to subscribe for our common stock to any person within the State of Israel, other than to Qualified Investors and up to 35 Addressed Investors.

Qualified Investors may have to submit written evidence that they meet the definitions set out in of the First Addendum to the Israeli Securities Law, 5728 1968. In particular, we may request, as a condition to be offered common stock, that Qualified Investors will each represent, warrant and certify to us and/or to anyone acting on our behalf: (i) that it is an investor falling within one of the categories listed in the First Addendum to the Israeli Securities Law, 5728 1968; (ii) which of the categories listed in the First Addendum to the Israeli Securities Law, 5728 1968 regarding Qualified Investors is applicable to it; (iii) that it will abide by all provisions set forth in the Israeli Securities Law, 5728 1968 and the regulations promulgated thereunder in connection with the offer to be issued common stock; (iv) that the shares of common stock that it will be issued are, subject to exemptions available under the Israeli Securities Law, 5728 1968: (a) for its own account; (b) for investment purposes only; and (c) not issued with a view to resale within the State of Israel, other

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than in accordance with the provisions of the Israeli Securities Law, 5728 1968; and (v) that it is willing to provide further evidence of its Qualified Investor status. Addressed Investors may have to submit written evidence in respect of their identity and may have to sign and submit a declaration containing, inter alia, the Addressed Investor's name, address and passport number or Israeli identification number.

We have not authorized and do not authorize the making of any offer of securities through any financial intermediary on our behalf, other than offers made by the underwriters and their respective affiliates, with a view to the final placement of the securities as contemplated in this document. Accordingly, no purchaser of the shares, other than the underwriters, is authorized to make any further offer of shares on our behalf or on behalf of the underwriters.

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LEGAL MATTERS

The validity of the securities offered hereby and certain legal matters will be passed upon for us by our counsel, Locke Lord LLP, Houston, Texas. Proskauer Rose LLP, New York, New York, will act as counsel for the underwriters.

EXPERTS

The financial statements, schedule, and management's assessment of the effectiveness of internal control over financial reporting incorporated by reference in this prospectus supplement 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.

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WHERE YOU CAN FIND MORE INFORMATION

We file annual, quarterly and other reports and other information with the SEC. You may read and copy any document we file at the SEC's public reference room at 100 F Street, N.E., Washington, D.C. 20549. Please call the SEC at 1-800-732-0330 for information on the public reference room. You can also find our filings on the Securities and Exchange Commission's website at http://www.sec.gov and on our website at http://www.iongeo.com. Information contained on our website is not part of this prospectus supplement, unless specifically so designated and filed with the SEC. In addition, our reports and other information about us can be inspected at the New York Stock Exchange, 20 Broad Street, New York, New York 10005.

We have filed with the SEC a registration statement on Form S-3 relating to the securities covered by this prospectus supplement. This prospectus supplement is a part of the registration statement and does not contain all the information in the registration statement. You may review a copy of the registration statement at the SEC's public reference room in Washington, D.C., as well as through the SEC's website.

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INCORPORATION BY REFERENCE

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

Our Annual Report on Form 10-K for the fiscal year ended December 31, 2017, filed with the SEC on February 8, 2018, as amended by Amendment No. 1 on Form 10-K/A for the fiscal year ended December 31, 2017, filed with the SEC on February 12, 2018 (File No. 001-12691); and

A description of our capital stock contained in our Form 8-A filed with the SEC 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).

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 supplement and prior to the termination of each offering under this prospectus supplement 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 supplement 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, 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 supplement.

This prospectus supplement incorporates documents by reference that are not delivered with the prospectus supplement. 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.

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PROSPECTUS

$100,000,000

Common Stock
Preferred Stock
Debt Securities
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Purchase Contracts
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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 November 22, 2016 was $7.40 per share.

The aggregate market value of our outstanding common stock held by non-affiliates was $51,488,356 based on 12,072,954 shares of outstanding common stock as of November 22, 2016, of which approximately 6,957,886 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 November 23, 2016.

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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."

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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;

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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, June 30 and September 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.

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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, June 30, 2016 and September 30, 2016, filed with the Commission on May 5, 2016, August 4, 2016 and November 3, 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, September 23, 2016, November 18, 2016 and November 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

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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, 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.

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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 AND RATIO OF EARNINGS TO FIXED CHARGES

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

	Nine Months Ended September 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)		(3)	(3)	(3)	(3)	7.67	4.93
Ratio of earnings to fixed charges(2)		(3)	(3)	(3)	(3)	8.99	5.69
Deficiency of earnings available to cover combined fixed charges and preferred dividends	(52,520)	(21,110)	(57,451)	(184,489)		
Deficiency of earnings available to cover fixed charges	(52,520)	(21,110)	(57,451)	(178,477)		

(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) The ratio of earnings to fixed charges represents the number of times that fixed charges are covered by earnings.

(3) 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 rows below.

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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 12,072,954 shares of common stock, and no shares of preferred stock, outstanding as of November 22, 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.

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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.

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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.

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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

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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;

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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.

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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);

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(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

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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

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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

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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

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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

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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;

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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.

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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.

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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.

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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

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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.

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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 Corporation's Current Report on Form 8-K dated November 23, 2016, 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.

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Shares of Common Stock

Warrants to Purchase up to Shares of Common Stock

PRELIMINARY PROSPECTUS SUPPLEMENT

Sole Book-Running Manager

Oppenheimer & Co.

Co-Manager

Janney Montgomery Scott

February , 2018