

ION GEOPHYSICAL CORP  
Form 10-Q  
May 03, 2018

UNITED STATES  
SECURITIES AND EXCHANGE COMMISSION  
WASHINGTON, DC 20549

FORM 10-Q

QUARTERLY REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934  
FOR THE QUARTERLY PERIOD ENDED MARCH 31, 2018

OR  
TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

COMMISSION FILE NUMBER: 1-12691

ION GEOPHYSICAL CORPORATION  
(EXACT NAME OF REGISTRANT AS SPECIFIED IN ITS CHARTER)

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

2105 CityWest Blvd.

Suite 100

Houston, Texas 77042-2839  
(Address of principal executive offices) (Zip Code)

REGISTRANT'S TELEPHONE NUMBER, INCLUDING AREA CODE: (281) 933-3339

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes  No

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files). Yes  No

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

Large accelerated filer  Accelerated filer

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

Emerging growth company

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act.

..

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act).

Yes  No

At May 1, 2018, there were 13,909,509 shares of common stock, par value \$0.01 per share, outstanding.



ION GEOPHYSICAL CORPORATION AND SUBSIDIARIES  
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## PART I. FINANCIAL INFORMATION

## Item 1. Financial Statements

ION GEOPHYSICAL CORPORATION AND SUBSIDIARIES  
CONDENSED CONSOLIDATED BALANCE SHEETS  
(UNAUDITED)

	March 31, 2018	December 31, 2017
	(In thousands, except share data)	
<b>ASSETS</b>		
Current assets:		
Cash and cash equivalents	\$ 50,750	\$ 52,056
Accounts receivable, net	29,750	19,478
Unbilled receivables	16,349	37,304
Inventories	14,728	14,508
Prepaid expenses and other current assets	5,754	7,643
Total current assets	117,331	130,989
Deferred income tax asset	1,877	1,753
Property, plant, equipment and seismic rental equipment, net	50,007	52,153
Multi-client data library, net	84,433	89,300
Goodwill	25,188	24,089
Intangible assets, net	1,374	1,666
Other assets	843	1,119
Total assets	\$ 281,053	\$ 301,069
<b>LIABILITIES AND EQUITY</b>		
Current liabilities:		
Current maturities of long-term debt	\$ 1,014	\$ 40,024
Accounts payable	22,817	24,951
Accrued expenses	26,195	38,697
Accrued multi-client data library royalties	28,324	27,035
Deferred revenue	11,330	8,910
Total current liabilities	89,680	139,617
Long-term debt, net of current maturities	116,916	116,720
Other long-term liabilities	12,938	13,926
Total liabilities	219,534	270,263
Equity:		
Common stock, \$0.01 par value; authorized 26,666,667 shares; outstanding 13,909,509 and 12,019,701 shares at March 31, 2018 and December 31, 2017, respectively	139	120
Additional paid-in capital	950,464	903,247
Accumulated deficit	(873,347)	(854,921)
Accumulated other comprehensive loss	(17,054)	(18,879)
Total stockholders' equity	60,202	29,567
Noncontrolling interest	1,317	1,239
Total equity	61,519	30,806
Total liabilities and equity	\$ 281,053	\$ 301,069

See accompanying Footnotes to Unaudited Condensed Consolidated Financial Statements.



ION GEOPHYSICAL CORPORATION AND SUBSIDIARIES  
CONDENSED CONSOLIDATED STATEMENTS OF OPERATIONS  
(UNAUDITED)

	Three Months Ended March 31,	
	2018	2017
	(In thousands, except per share data)	
Service revenues	\$25,086	\$23,828
Product revenues	8,422	8,728
Total net revenues	33,508	32,556
Cost of services	22,329	22,299
Cost of products	4,326	4,156
Gross profit	6,853	6,101
Operating expenses:		
Research, development and engineering	4,255	3,495
Marketing and sales	5,098	4,486
General, administrative and other operating expenses	10,140	12,032
Total operating expenses	19,493	20,013
Loss from operations	(12,640 )	(13,912 )
Interest expense, net	(3,836 )	(4,464 )
Other expense, net	(791 )	(5,068 )
Loss before income taxes	(17,267 )	(23,444 )
Income tax expense (benefit)	1,072	(418 )
Net loss	(18,339 )	(23,026 )
Net income attributable to noncontrolling interest	(87 )	(316 )
Net loss attributable to ION	\$(18,426)	\$(23,342)
Net loss per share:		
Basic	\$(1.44 )	\$(1.98 )
Diluted	\$(1.44 )	\$(1.98 )
Weighted average number of common shares outstanding		
Basic	12,813	11,818
Diluted	12,813	11,818

See accompanying Footnotes to Unaudited Condensed Consolidated Financial Statements.

ION GEOPHYSICAL CORPORATION AND SUBSIDIARIES  
 CONDENSED CONSOLIDATED STATEMENTS OF COMPREHENSIVE LOSS  
 (UNAUDITED)

	Three Months Ended	
	March 31,	
	2018	2017
	(In thousands)	
Net loss	\$ (18,339)	\$ (23,026)
Other comprehensive loss, net of taxes, as appropriate:		
Foreign currency translation adjustments	1,825	517
Comprehensive net loss	(16,514 )	(22,509 )
Comprehensive income attributable to noncontrolling interest	(87 )	(316 )
Comprehensive net loss attributable to ION	\$ (16,601)	\$ (22,825)

See accompanying Footnotes to Unaudited Condensed Consolidated Financial Statements.

ION GEOPHYSICAL CORPORATION AND SUBSIDIARIES  
CONDENSED CONSOLIDATED STATEMENTS OF CASH FLOWS  
(UNAUDITED)

	Three Months Ended March 31,	
	2018	2017
	(In thousands)	
Cash flows from operating activities:		
Net loss	\$(18,339)	\$(23,026)
Adjustments to reconcile net loss to cash provided by operating activities:		
Depreciation and amortization (other than multi-client data library)	2,523	4,677
Amortization of multi-client data library	9,793	9,258
Stock-based compensation expense	812	634
Accrual for loss contingency related to legal proceedings	—	5,000
Deferred income taxes	(117	) (1,909
Change in operating assets and liabilities:		
Accounts receivable	(10,084	) 4,756
Unbilled receivables	20,919	(5,348
Inventories	(164	) (274
Accounts payable, accrued expenses and accrued royalties	(10,155	) (2,488
Deferred revenue	2,381	7,193
Other assets and liabilities	3,039	3,368
Net cash provided by operating activities	608	1,841
Cash flows from investing activities:		
Cash invested in multi-client data library	(9,240	) (3,363
Purchase of property, plant, equipment and seismic rental assets	(61	) (49
Net cash used in investing activities	(9,301	) (3,412
Cash flows from financing activities:		
Payments under revolving line of credit	(10,000	) —
Payments on notes payable and long-term debt	(29,144	) (1,706
Net proceeds from issuance of stock	47,219	—
Other financing activities	(575	) (286
Net cash provided by (used in) financing activities	7,500	(1,992
Effect of change in foreign currency exchange rates on cash, cash equivalents and restricted cash	(113	) 409
Net decrease in cash, cash equivalents and restricted cash	(1,306	) (3,154
Cash, cash equivalents and restricted cash at beginning of period	52,419	53,433
Cash, cash equivalents and restricted cash at end of period	\$51,113	\$50,279

The following table is a reconciliation of cash and cash equivalents to total cash, cash equivalents, and restricted cash:

	Three months ended March 31,	
	2018	2017
	(In thousands)	
Cash and cash equivalents	\$50,750	\$49,640
Restricted cash included in prepaid expenses and other current assets	60	285
Restricted cash included in other long-term assets	303	354
Total cash, cash equivalents, and restricted cash shown in statement of cash flows	\$51,113	\$50,279

Short-term restricted cash included in prepaid expenses and other current assets and long-term restricted cash included in other assets are primarily used to secure standby and commercial letters of credit.

See accompanying Footnotes to Unaudited Condensed Consolidated Financial Statements.





ION GEOPHYSICAL CORPORATION AND SUBSIDIARIES  
FOOTNOTES TO UNAUDITED CONDENSED CONSOLIDATED FINANCIAL STATEMENTS

(1) Basis of Presentation

The condensed consolidated balance sheet of ION Geophysical Corporation and its subsidiaries (collectively referred to as the “Company” or “ION,” unless the context otherwise requires) at December 31, 2017 has been derived from the Company’s audited consolidated financial statements at that date. The condensed consolidated balance sheet at March 31, 2018, and the condensed consolidated statements of operations, comprehensive loss and cash flows for the three months ended March 31, 2018 and 2017, are unaudited. In the opinion of management, all adjustments (consisting of normal recurring accruals) considered necessary for a fair presentation have been included. The results of operations for the three months ended March 31, 2018, are not necessarily indicative of the operating results for a full year or of future operations.

The Company’s financial statements reflect a non-redeemable noncontrolling interest in a majority-owned affiliate which is reported as a separate component of equity in “Noncontrolling interest” in the condensed consolidated balance sheets. The activity for this noncontrolling interest relates to proprietary processing projects in Brazil.

These condensed consolidated financial statements have been prepared using accounting principles generally accepted in the United States for interim financial information and the instructions to Form 10-Q and applicable rules of Regulation S-X of the Securities and Exchange Commission (the “SEC”). Certain information and footnote disclosures normally included in annual financial statements presented in accordance with accounting principles generally accepted in the United States have been omitted. The accompanying condensed consolidated financial statements should be read in conjunction with the Company’s Annual Report on Form 10-K as amended for the year ended December 31, 2017.

(2) Recent Accounting Pronouncements

In February 2016, the Financials Account Standards Board (“FASB”) issued Accounting Standards Update (“ASU”) 2016-02, “Leases (Topic 842)” which introduces the recognition of lease assets and lease liabilities by lessees for those leases classified as operating leases under previous guidance. The guidance will be effective for annual reporting periods beginning after December 15, 2018 and interim periods within those fiscal years with early adoption permitted. The Company will adopt ASU 2016-02 on January 1, 2019. The Company is currently evaluating its operating leases related to offices, processing centers, warehouse spaces and, to a lesser extent, certain equipment. The Company expects the recording of these leases as right-of-use assets and liabilities will result in a material impact on its consolidated balance sheet. However, the Company expects the income statement recognition to appear similar to its current methodology.

On January 1, 2018, the Company adopted FASB Accounting Standard Codification (“ASC”) Topic 606, “Revenue from Contracts with Customers” and all the related amendments using the modified retrospective method. The adoption did not have a material impact to the Company’s revenue recognition policy under the previous standard (ASC 605) and adoption of the new standard, ASC 606, did not result in an adjustment to the Company’s beginning retained earnings balance.

On January 1, 2018, the Company adopted ASU 2016-18, Statement of Cash Flows - “Restricted Cash (a consensus of the FASB Emerging Issues Task Force) (ASU 2016-18)”, using a retrospective transition method to each period presented. The new standard no longer requires the Company to present transfers between cash and cash equivalents and restricted cash in the statement of cash flows. Adoption of the new standard resulted in a decrease of \$0.1 million in net cash provided by operating activities as previously reported for the three months ended March 31, 2017. See the consolidated statement of cash flows above which includes a reconciliation of cash and cash equivalents to total cash, cash equivalents, and restricted cash.

(3) Segment Information

The Company evaluates and reviews its results based on three business segments: E&P Technology & Services, Operations Optimization (formerly referred to as E&P Operations Optimization), and Ocean Bottom Integrated Technologies (formerly referred to as Ocean Bottom Seismic Services). The Company measures segment operating results based on income (loss) from operations.



The following table is a summary of segment information (in thousands):

	Three Months Ended			
	March 31,			
	2018	2017		
Net revenues:				
E&P Technology & Services:				
New Venture	\$13,726	\$6,949		
Data Library	5,948	10,606		
Total multi-client revenues	19,674	17,555		
Imaging Services	4,894	5,755		
Total	24,568	23,310		
Operations Optimization:				
Devices	4,158	4,990		
Optimization Software & Services	4,782	4,256		
Total	8,940	9,246		
Ocean Bottom Integrated Technologies	—	—		
Total	\$33,508	\$32,556		
Gross profit (loss):				
E&P Technology & Services	\$4,343	\$4,010		
Operations Optimization	4,311	4,787		
Ocean Bottom Integrated Technologies	(1,801 )	(2,696 )		
Total	\$6,853	\$6,101		
Gross margin:				
E&P Technology & Services	18	% 17	%	
Operations Optimization	48	% 52	%	
Ocean Bottom Integrated Technologies	—	% —	%	
Total	20	% 19	%	
Income (loss) from operations:				
E&P Technology & Services	\$(794 )	\$(1,096 )		
Operations Optimization	786	1,549		
Ocean Bottom Integrated Technologies	(2,829 )	(4,008 )		
Support and other	(9,803 )	(10,357 )		
Loss from operations	(12,640 )	(13,912 )		
Interest expense, net	(3,836 )	(4,464 )		
Other expense, net	(791 )	(5,068 )		
Loss before income taxes	\$(17,267)	\$(23,444)		

#### (4) Revenue From Contracts With Customers

The Company derives revenue from the sale or license of (i) multi-client and proprietary surveys, licenses of “on-the-shelf” data libraries and imaging services, within its E&P Technologies & Services segment; (ii) seismic data acquisition systems and other seismic equipment, (iii) seismic command and control software systems and software solutions for operations management within its Operations Optimization segment; and (iv) fully-integrated OBS solutions that include survey design and planning and data acquisition within its Ocean Bottom Integrated Technologies segment. All revenues of the E&P Technology & Services and Ocean Bottom Integrated Technologies segments and the services component of revenues for the Optimization Software & Services group as part of the Operations Optimization segment are classified as services revenues. All other revenues are classified as product revenues.

The Company uses a five-step model to determine proper revenue recognition from customer contracts. Revenue is recognized when (i) a contract is approved by all parties; (ii) the goods or services promised in the contract are identified; (iii) the consideration we expect to receive in exchange for the goods or services promised is determined; (iv) the consideration is allocated to the goods and services in the contract; and (v) control of the promised goods or services is transferred to the customer. The Company does not disclose the value of contractual future performance obligations with an original expected length of one year or less.

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Multi-Client and Proprietary Surveys, and Imaging Services - As multi-client seismic surveys are being designed, acquired or processed (the “New Venture” phase), the Company enters into non-exclusive licensing arrangements with its customers, who pre-fund or underwrite these programs in part. License revenues from these surveys are recognized during the New Venture phase as the seismic data is acquired and/or processed on a proportionate basis as work is performed and control is transferred to the customer. Under this method, the Company recognizes revenue based upon quantifiable measures of progress, such as kilometers acquired or surveys of performance completed to date. Upon completion of a multi-client seismic survey, it is considered “on-the-shelf,” and licenses to the survey data are granted to customers on a non-exclusive basis.

The Company also performs seismic surveys, imaging and other services under contracts to specific customers, whereby the seismic data is owned by those customers. The Company recognizes revenue as the seismic data is acquired and/or processed on a proportionate basis as work is performed. The Company uses quantifiable measures of progress consistent with its multi-client seismic surveys.

Acquisition Systems and Other Seismic Equipment - For sales of seismic data acquisition systems and other seismic equipment, the Company recognizes revenue when control of the goods has transferred to the customer. Transfer of control generally occurs when (i) the Company has a present right to payment; (ii) the customer has legal title to the asset; (iii) the Company has transferred physical possession of the asset; (iv) the customer has significant rewards of ownership; and/or (v) the customer has accepted the asset.

Software - Licenses for the navigation, survey and quality control software systems provide the customer with a right to use the software. The Company offers usage-based licenses under which it receives a monthly fee based on the number of vessels and licenses used. For these usage-based licenses, revenue is recognized as the performance obligations are performed over the contract term, which is generally two to five years. In addition to usage-based licenses, the Company offers perpetual software licenses as it exists when made available to the customer. Revenue from these licenses is recognized upfront at the point in time when the software is made available to the customer. These arrangements generally include the Company providing related services, such as training courses, engineering services and annual software maintenance. The Company allocates consideration to each element of the arrangement based upon directly observable or estimated standalone selling prices. Revenue is recognized for these services as control transfers to the customer over time.

Ocean Bottom Integrated Technologies - The Company recognizes revenue as the seismic data is acquired and control transfers to the customer. The Company uses quantifiable measures of progress consistent with our multi-client surveys. In connection with acquisition contracts, the Company may receive revenues for preparation and mobilization of equipment and personnel, capital improvements to vessels, or demobilization activities. The Company defers the revenues earned and incremental costs incurred that are directly related to these activities and recognize such revenues and costs over the primary contract term of the acquisition project as we transfer the goods and services to the customer. The Company recognizes the costs of relocating vessels without contracts to more promising market sectors as such costs are incurred.

#### Revenue by Geographic Area

The following table is a summary of net revenues by geographic area (in thousands):

	Three Months Ended March 31,	
	2018	2017
Net revenues by geographic area:		
Latin America	\$9,852	\$6,585
North America	8,048	7,395
Europe	5,549	5,636
Africa	5,019	560
Asia Pacific	3,934	4,823
Middle East	749	580
CIS	357	6,977
Total	\$33,508	\$32,556

See Footnote 3 “Segment Information” of Footnotes to Unaudited Condensed Financial Statements for revenue by segment for the periods ended March 31, 2018 and 2017.

Unbilled Receivables

Unbilled receivables relate to revenues recognized on multi-client surveys, imaging services and Devices equipment repairs on a proportionate basis, and on licensing of multi-client data libraries for which invoices have not yet been presented to

the customer. The following table is a summary of unbilled receivables (in thousands):

	March 31, December 31,	
	2018	2017
New Venture	\$ 10,734	\$ 33,183
Imaging Services	5,412	4,121
Devices	203	—
Total	\$ 16,349	\$ 37,304

The changes in unbilled receivables were as follows (in thousands):

Unbilled Receivables at December 31, 2017	\$37,304
Recognition of unbilled receivables	25,843
Revenues billed to customers	(46,798 )
Unbilled Receivables at March 31, 2018	\$16,349

#### Deferred Revenue

Billing practices are governed by the terms of each contract based upon achievement of milestones or pre-agreed schedules. Billings do not necessarily correlate with revenue recognized on a proportionate basis as work is performed and control is transferred to the customer. Deferred revenue represents cash received in excess of revenue not yet recognized as of the reporting period, but will be recognized in future periods. The following table is a summary of deferred revenues (in thousands):

	March 31, December 31,	
	2018	2017
New Venture	\$ 9,611	\$ 6,548
Imaging Services	453	676
Devices	360	633
Optimization Software & Services	906	1,053
Total	\$ 11,330	\$ 8,910

The changes in deferred revenues were as follows (in thousands):

Deferred revenue at December 31, 2017	\$8,910
Cash collected in excess of revenue recognized	10,083
Recognition of deferred revenue <sup>(a)</sup>	(7,663 )
Deferred revenue at March 31, 2018	\$11,330

<sup>(a)</sup> The majority of deferred revenue recognized relates to Company's new venture and imaging services groups. The Company expects to recognize all deferred revenue over the next 12 months.

#### (5) Long-term Debt

The following table is a summary of long-term debt obligations, net (in thousands):

Obligations (in thousands)	March 31,	December 31,
	2018	2017
Senior secured second-priority lien notes (maturing December 15, 2021)	\$120,569	\$ 120,569
Senior secured third-priority lien notes (redeemed on March 26, 2018)	—	28,497
Revolving line of credit (maturing August 22, 2019)	—	10,000
Equipment capital leases and other debt	1,014	1,661
Costs associated with issuances of debt	(3,653 )	(3,983 )
Total	117,930	156,744
Current portion of long-term debt and lease obligations	(1,014 )	(40,024 )
Non-current portion of long-term debt and lease obligations	\$116,916	\$ 116,720





### Revolving Credit Facility

In August 2014, ION Geophysical Corporation and its material U.S. subsidiaries, GX Technology Corporation, ION Exploration Products (U.S.A.), Inc., and I/O Marine Systems, Inc. (collectively, the “Subsidiary Borrowers”; ION Geophysical Corporation and the Subsidiary Borrowers are, collectively, the “Borrowers”) entered into a Revolving Credit and Security Agreement with PNC Bank, National Association (“PNC”), as agent (the “Original Credit Agreement”). The Original Credit Agreement was amended by the First Amendment to Revolving Credit and Security Agreement in August 2015 (the “First Amendment”) and the Second Amendment (as defined below) (the Original Credit Agreement, as amended by the First Amendment, and the Second Amendment, is herein called the “Credit Facility”).

The Credit Facility is available to provide for the Borrowers’ general corporate needs, including working capital requirements, capital expenditures, surety deposits and acquisition financing. The maximum amount of the revolving line of credit under the Credit Facility is the lesser of \$40.0 million or a monthly borrowing base.

In April 2016, the Borrowers and PNC entered into a second amendment (the “Second Amendment”) to the Credit Facility. The Second Amendment, among other things:

- increased the applicable margin for loans by 0.50% per annum (from 2.50% per annum to 3.00% per annum for alternate base rate loans and from 3.50% per annum to 4.00% per annum for LIBOR-based loans);
- increased the minimum excess availability threshold to avoid triggering the agent’s rights to exercise dominion over cash and deposit accounts and increases certain of the thresholds upon which such dominion ceases;
- increased the minimum liquidity threshold to avoid triggering ION Geophysical Corporation’s obligation to calculate and comply with the existing fixed charge coverage ratio and increased certain of the thresholds upon which such required calculation and compliance cease;
- established a reserve that was to reduce the amount available to be borrowed by the aggregate amount owing under all Third Lien Notes that remained outstanding (if any) on or after February 14, 2018 (i.e., 90 days prior to the stated maturity of the Third Lien Notes);
- increased the maximum amount of certain permitted junior indebtedness to \$200.0 million (from \$175.0 million);
- incorporated technical and conforming changes to reflect that the Second Lien Notes and the remaining Third Lien Notes (and any permitted refinancing thereof or subsequently incurred replacement indebtedness meeting certain requirements) constitute permitted indebtedness;
- clarified the circumstances and mechanics under which ION Geophysical Corporation may prepay, repurchase or redeem the Second Lien Notes, the remaining Third Lien Notes and certain other junior indebtedness;
- modified the cross-default provisions to incorporate defaults under the Second Lien Notes, the remaining Third Lien Notes and certain other junior indebtedness; and
- eliminated the potential early commitment termination date and early maturity date that would otherwise have occurred ninety (90) days prior to the maturity date of the Third Lien Notes if any of the Third Lien Notes then remained outstanding.

The borrowing base under the Credit Facility will increase or decrease monthly using a formula based on certain eligible receivables, eligible inventory and other amounts, including a percentage of the net orderly liquidation value of the Borrowers’ multi-client library (not to exceed \$15.0 million for the multi-client data library data component).

As of March 31, 2018, the borrowing base under the Credit Facility was \$23.6 million, and there was no indebtedness under the Credit Facility. Even though the Company experienced an increase in its accounts and unbilled receivables from one year ago, those increases were part of the Company’s foreign operations which are not included in the borrowing base calculation. The Credit Facility is scheduled to mature on August 22, 2019.

The obligations of Borrowers under the Credit Facility are secured by a first-priority security interest in 100% of the stock of the Subsidiary Borrowers and 65% of the equity interest in ION International Holdings L.P. and by substantially all other assets of the Borrowers.

The Credit Facility contains covenants that, among other things, limit or prohibit the Borrowers, subject to certain exceptions and qualifications, from incurring additional indebtedness (including capital lease obligations), repurchasing equity, paying dividends or distributions, granting or incurring additional liens on the Borrowers’ properties, pledging shares of the Borrowers’ subsidiaries, entering into certain merger transactions, entering into

transactions with the Company's affiliates, making certain sales or other dispositions of the Borrowers' assets, making certain investments, acquiring other businesses and entering into sale-leaseback transactions with respect to the Borrowers' property.

The Credit Facility requires that the Borrowers maintain a minimum fixed charge coverage ratio of 1.1 to 1.0 as of the end of each fiscal quarter during the existence of a covenant testing trigger event. The fixed charge coverage ratio is defined as the ratio of (i) ION Geophysical Corporation's EBITDA, minus unfunded capital expenditures made during the relevant period, minus distributions (including tax distributions) and dividends made during the relevant period, minus cash taxes paid during the relevant period, to (ii) certain debt payments made during the relevant period. A covenant testing trigger event occurs upon (a) the occurrence and continuance of an event of default under the Credit Facility or (b) the failure to maintain a measure of liquidity greater than (i) \$7.5 million for five consecutive business days or (ii) \$6.5 million on any given business day. Liquidity, as defined in the Credit Facility, is ION Geophysical Corporation's excess availability to borrow (\$23.6 million at March 31, 2018) plus the aggregate amount of unrestricted cash held by the Borrowers and their domestic subsidiaries. At March 31, 2018, the Borrowers and their domestic subsidiaries had unrestricted cash totaling \$41.4 million and non-domestic subsidiaries had unrestricted cash totaling \$9.4 million.

At March 31, 2018, ION Geophysical Corporation was in compliance with all of the covenants under the Credit Facility.

The Credit Facility contains customary event of default provisions (including a "change of control" event affecting ION Geophysical Corporation), the occurrence of which could lead to an acceleration of ION Geophysical Corporation's obligations under the Credit Facility.

#### Senior Secured Notes

As of December 31, 2017, ION Geophysical Corporation's 9.125% Senior Secured Second Priority Notes due December 2021 (the "Second Lien Notes") had an outstanding aggregate principal amount of \$120.6 million, and ION Geophysical Corporation's 8.125% Senior Third Priority Notes due May 2018 (the "Third Lien Notes") had an outstanding aggregate principal amount of \$28.5 million (The Third Lien Notes and the Second Lien Notes, are herein, collectively the "Notes"). In March 2018, ION Geophysical Corporation obtained consent from a majority of the Second Lien Notes holders and from PNC to redeem, in full, the Third Lien Notes prior to their stated maturity. On March 26, 2018, ION Geophysical Corporation redeemed the Third Lien Notes by paying the then outstanding principal amount of \$28.5 million, plus all accrued and unpaid interest through the redemption date. For additional discussion, see Footnote 14. For a complete discussion of the Third Lien Notes prior to their early redemption, see Footnote 3 to the Financial Statements included in the Company's Annual Report on Form 10-K, as amended for the year ended December 31, 2017.

The Second Lien Notes remain outstanding and are senior secured second-priority obligations guaranteed by ION Geophysical Corporation's material U.S. subsidiaries, GX Technology Corporation, ION Exploration Products (U.S.A.), Inc. and I/O Marine Systems, Inc. (the "Guarantors"). The Second Lien Notes mature on December 15, 2021. Interest on the Second Lien Notes accrues at the rate of 9.125% per annum and is payable semiannually in arrears on June 15 and December 15 of each year during their term, except that the interest payment otherwise payable on June 15, 2021 will be payable on December 15, 2021.

The April 2016 indenture, governing the Second Lien Notes (the "Second Lien Notes Indenture") contains certain covenants that, among other things, limits or prohibits ION Geophysical Corporation's ability and the ability of its restricted subsidiaries to take certain actions or permit certain conditions to exist during the term of the Second Lien Notes, including among other things, incurring additional indebtedness, creating liens, paying dividends and making other distributions in respect of ION Geophysical Corporation's capital stock, redeeming ION Geophysical Corporation's capital stock, making investments or certain other restricted payments, selling certain kinds of assets, entering into transactions with affiliates, and effecting mergers or consolidations. These and other restrictive covenants contained in the Second Lien Notes Indenture are subject to certain exceptions and qualifications. All of ION Geophysical Corporation's subsidiaries are currently restricted subsidiaries.

As of March 31, 2018, ION Geophysical Corporation was in compliance with the covenants with respect to the Second Lien Notes.

On or after December 15, 2019, the Company may on one or more occasions redeem all or a part of the Second Lien Notes at the redemption prices set forth below, plus accrued and unpaid interest and special interest, if any, on the Second Lien Notes redeemed during the twelve-month period beginning on December 15th of the years indicated

below:

Date	Percentage
2019	105.500%
2020	103.500%
2021 and thereafter	100.000%

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(6) Net Loss Per Share

Basic net loss per common share is computed by dividing net loss applicable to common shares by the weighted average number of common shares outstanding during the period. Diluted net loss per common share is determined based on the assumption that dilutive restricted stock and restricted stock unit awards have vested and outstanding dilutive stock options have been exercised and the aggregate proceeds were used to reacquire common stock using the average price of such common stock for the period. The total number of shares issued or reserved for future issuance under outstanding stock options at March 31, 2018 and 2017 was 871,757 and 838,582, respectively, and the total number of shares of restricted stock and shares reserved for restricted stock units outstanding at March 31, 2018 and 2017 was 182,053 and 203,622, respectively.

(7) Income Taxes

The Company maintains a valuation allowance for substantially all of its deferred tax assets. The valuation allowance is calculated in accordance with the provisions of the ASC Topic 740 "Income Taxes," which requires that a valuation allowance be established or maintained when it is "more likely than not" that all or a portion of deferred tax assets will not be realized. In the event the Company's expectations of future operating results change, the valuation allowance may need to be adjusted downward.

The tax provision for the three months ended March 31, 2018 has been calculated using the Company's overall estimated annual effective tax rate based on projected 2018 full year results. The tax provision includes impacts of the Tax Cut and Jobs Act enacted on December 22, 2017, however, these impacts are minimal due to the Company's U.S. net operating loss and valuation allowance position. The Company's effective tax rates for the three months ended March 31, 2018 and 2017 were (6.2)% and 1.8%, respectively. The Company's effective tax rates for the three months ended March 31, 2018 and 2017 were negatively impacted by the change in valuation allowance related to U.S. operating losses for which the Company cannot currently recognize a tax benefit. The Company's income tax expense for the three months ended March 31, 2018 of \$1.1 million primarily relates to results from the Company's non-U.S. businesses.

The Company has approximately \$0.4 million of unrecognized tax benefits and does not expect to recognize significant increases in unrecognized tax benefits during the next 12-month period. Interest and penalties, if any, related to unrecognized tax benefits are recorded in income tax expense.

As of March 31, 2018, the Company's U.S. federal tax returns for 2014 and subsequent years remain subject to examination by tax authorities. In the Company's foreign tax jurisdictions, tax returns for 2013 and subsequent years generally remain open to examination.

(8) Litigation

WesternGeco

In June 2009, WesternGeco L.L.C. ("WesternGeco") filed a lawsuit against the Company in the United States District Court for the Southern District of Texas, Houston Division. In the lawsuit, styled WesternGeco L.L.C. v. ION Geophysical Corporation, WesternGeco alleged that the Company had infringed several method and apparatus claims contained in four of its United States patents regarding marine seismic streamer steering devices.

The trial began in July 2012. A verdict was returned by the jury in August 2012, finding that the Company infringed the claims contained in the four patents by supplying its DigiFIN<sup>®</sup> lateral streamer control units and the related software from the United States and awarded WesternGeco the sum of \$105.9 million in damages, consisting of \$12.5 million in reasonable royalties and \$93.4 million in lost profits.

In June 2013, the presiding judge entered a Memorandum and Order, denying the Company's post-verdict motions that challenged the jury's infringement findings and the damages amount. In the Memorandum and Order, the judge also ruled that WesternGeco was entitled to be awarded supplemental damages for the additional DigiFIN units that were supplied from the United States before and after the trial that were not included in the jury verdict due to the timing of the trial. In October 2013, the judge entered another Memorandum and Order, ruling on the number of DigiFIN units that were subject to supplemental damages and also ruling that the supplemental damages applicable to the additional units were to be calculated by adding together the jury's previous reasonable royalty and lost profits damages awards per unit, resulting in supplemental damages of \$73.1 million.

In April 2014, the judge entered another Order, ruling that lost profits should not have been included in the calculation of supplemental damages in the October 2013 Memorandum and Order and reducing the supplemental damages award in the case from \$73.1 million to \$9.4 million. In the Order, the judge also further reduced the damages awarded in the case by \$3.0 million to reflect a settlement and license that WesternGeco entered into with a customer of the Company that had purchased and used DigiFIN units that were also included in the damage amounts awarded against the Company.

In May 2014, the judge signed and entered a Final Judgment against the Company in the amount of \$123.8 million. The Final Judgment also included an injunction that enjoins the Company, its agents and anyone acting in concert with it, from supplying in or from the United States the DigiFIN product or any parts unique to the DigiFIN product, or any instrumentality no more than colorably different from any of these products or parts, for combination outside of the United States. The Company has conducted its business in compliance with the District Court's orders in the case, and the Company has reorganized its operations such that it no longer supplies the DigiFIN product or any parts unique to the DigiFIN product in or from the United States.

The Company and WesternGeco each appealed the Final Judgment to the United States Court of Appeals for the Federal Circuit in Washington, D.C. (the "Court of Appeals"). On July 2, 2015, the Court of Appeals reversed in part the Final Judgment of the District Court, holding the District Court erred by including lost profits in the Final Judgment. Lost profits were \$93.4 million and prejudgment interest on lost profits was approximately \$10.9 million of the \$123.8 million Final Judgment. Pre-judgment interest on the lost profits portion will be treated in the same way as the lost profits. Post-judgment interest will likewise be treated in the same fashion. On July 29, 2015, WesternGeco filed a petition for rehearing en banc before the Court of Appeals. On October 30, 2015 the Court of Appeals denied WesternGeco's petition for rehearing en banc.

As previously disclosed, the Company recorded a loss contingency accrual of \$123.8 million. As a result of the reversal by the Court of Appeals, as of June 30, 2015, the Company reduced its loss contingency accrual to \$22.0 million.

On February 26, 2016, WesternGeco filed a petition for writ of certiorari by the Supreme Court. The Company filed its response on April 27, 2016. Subsequently, on June 20, 2016, the Supreme Court vacated the Court of Appeals' ruling although it did not address the lost profits question at that time. Rather, in light of the changes in case law regarding the standard of proof for willfulness in the Halo and Stryker cases, the Supreme Court indicated that the case should be remanded to the Court of Appeals for a determination of whether or not the willfulness determination by the District Court was appropriate.

On October 14, 2016, the Court of Appeals issued a mandate returning the case to the District Court for consideration of whether or not additional damages for willfulness were appropriate.

On November 14, 2016, the District Court ordered the sureties to pay principal and interest on the royalty damages previously awarded and declined to issue a final judgment until after consideration of whether enhanced damages for willfulness would be awarded. While the Company disagreed with the decision by the District Court ordering payment of the royalty damages and interest without a final judgment, on November 25, 2016, the Company paid WesternGeco the \$20.8 million due pursuant to the order, at which point the Company reduced its loss contingency accrual to zero.

On March 14, 2017, the District Court held a hearing on whether or not additional damages for willfulness would be payable. The Judge found that the Company's infringement was willful, based on his perception that the Company did not adequately investigate the scope of the patents, and the Company's conduct during trial. However, in his ruling at the hearing, he limited enhanced damages to \$5.0 million because it was a "close case," there was no evidence of copying, and the Company was simply acting as a competitor in a capitalist marketplace. The District Court also ordered the appeal bond to be released and discharged. The Court's findings and ruling were memorialized in an order issued on May 16, 2017. On June 30, 2017, WesternGeco and the Company jointly agreed that neither party would appeal the District Court's award of \$5.0 million in enhanced damages. The parties also agreed that the \$5.0 million would be paid over the course of 12 months with \$1.25 million being paid in two installments of \$0.625 million in 2017 and the remaining \$3.75 million being paid in three quarterly payments of \$1.25 million beginning January 1, 2018. This agreement was memorialized by the court in an order issued on July 26, 2017. Upon assessment of the \$5.0 million in enhanced damages, the Company accrued \$5.0 million in the first quarter of 2017. As the Company has made the payments, the accrual has been adjusted, and as of March 31, 2018, the loss contingency accrual was \$2.5 million.

WesternGeco filed a second petition for writ of certiorari in the U.S. Supreme Court on February 17, 2017, appealing the lost profits issue again. The Company filed its response to WesternGeco's second attempt to appeal to the Supreme Court the lost profits issue, raising both the substantive matters the Company addressed by opposing WesternGeco's first petition, and also advancing a procedural argument that WesternGeco could not raise the same issue for a second



time in a second petition for certiorari. On May 30, 2017, the Supreme Court called for the views of the U.S. Solicitor General regarding whether or not to grant certiorari. The Company and WesternGeco each met with the Solicitor General's office in late July 2017. On December 6, 2017, the Solicitor General filed its brief, and took the position that the Supreme Court ought to grant certiorari. On January 12, 2018, the Supreme Court granted certiorari as to whether the Court of Appeals erred in holding that lost profits arising from use of prohibited combinations occurring outside of the United States are categorically unavailable in cases where patent infringement is proven under 35 U.S.C. § 271(f)(2) (the specific statute under which the Company was ultimately held to have infringed WesternGeco's patents and upon which the District Court and Court of Appeals relied in entering their final rulings).

The Supreme Court heard oral arguments on April 16, 2018. At oral arguments, the Company argued that the Court of Appeals' decision that eliminated lost profits ought to be affirmed. WesternGeco and the Solicitor General argued that the Court of Appeals' decision that eliminated lost profits ought to be reversed. We anticipate that the Supreme Court will issue a decision by the end of June of 2018.

At the Court of Appeals the Company presented multiple arguments as to why the District Court's award of lost profits was improper. The lost profits damages awarded by the District Court were based on the use of the Company's products by our customers outside of the United States. The Company argued at the Court of Appeals, and at the Supreme Court, that, as a matter of law, WesternGeco cannot recoup lost profits for the overseas use of the Company's products. The Company also argued in the Court of Appeals that, under the jury instructions given in our case, the jury was required to find that the Company had been a direct competitor of WesternGeco in the survey markets where WesternGeco lost profits in order for WesternGeco to recoup them. Because the Court of Appeals ruled in favor of the Company on the first argument, and overturned the award of lost profits on that basis, the Court of Appeals did not rule on the Company's "direct competitor" argument, and that argument was not presented to the Supreme Court for review. If the Supreme Court overturns the Court of Appeals' decision that lost profits cannot be awarded to WesternGeco because the subsequent use of the apparatus was overseas, the case will likely be remanded back to the Court of Appeals, at which time the Company will present its second argument (that lost profits should not be awarded to WesternGeco because they were not the Company's direct competitor).

Other proceedings may have an impact on WesternGeco's ability to recover lost profits damages even if WesternGeco prevails in the Supreme Court, and even if the Company does not prevail on the "direct competitor" argument in the Court of Appeals. The Company was a party to a challenge to the validity of several of WesternGeco's patent claims by means of an Inter Partes Review ("IPR") with the Patent Trial and Appeal Board ("PTAB"). While the above-described lawsuit was pending on appeal, the PTAB invalidated four of the six patent claims that formed the basis for the jury verdict in the lawsuit. WesternGeco appealed that decision to the Court of Appeals, which heard the Company's and WesternGeco's arguments on January 23, 2018. If the Court of Appeals affirms the PTAB's invalidation of the patents, that may provide a separate ground for reducing or vacating any lost-profits award in the lawsuit. The Company expects the Court of Appeals to rule on the PTAB issue in the second quarter of 2018. In April of 2018, the United States Supreme Court issued a decision in a case the Company was not involved in (*Oil States v. Greene's Energy Group*) that affirmed the constitutionality of the IPR process to invalidate patent claims.

The Company may not ultimately prevail in any of the appeals processes noted above and the Company could be required to pay some or all of the lost profits that were awarded by the District Court. The Company's assessment that it does have a loss contingency (other than the \$2.5 million noted above) may change in the future due to developments at the Supreme Court, Court of Appeals, or District Court, and other events, such as changes in applicable law, and such reassessment could lead to the determination that an additional loss contingency is probable, which could have a material effect on the Company's business, financial condition and results of operations. The Company's assessments disclosed in this Quarterly Report on Form 10-Q or elsewhere are based on currently available information and involve elements of judgment and significant uncertainties.

#### Other

The Company has been named in various other lawsuits or threatened actions that are incidental to its ordinary business. Litigation is inherently unpredictable. Any claims against the Company, whether meritorious or not, could be time-consuming, cause the Company to incur costs and expenses, require significant amounts of management time and result in the diversion of significant operational resources. The results of these lawsuits and actions cannot be predicted with certainty. Management currently believes that the ultimate resolution of these matters will not have a material adverse impact on the financial condition, results of operations or liquidity of the Company.

#### (9) Other Expense, Net

The following table is a summary of other expense, net (in thousands):

	Three Months Ended March 31,	
	2018	2017
Accrual for loss related to legal proceedings (Footnote 8)	\$—	\$(5,000)

Other expense, net	(791 )	(68 )
Total other expense, net	\$(791)	\$(5,068)

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(10) Inventories

The following table is a summary of inventories (in thousands):

	March 31, 2018	December 31, 2017
Raw materials and subassemblies	\$ 20,455	\$ 20,448
Work-in-process	1,342	1,146
Finished goods	7,967	7,953
Reserve for excess and obsolete inventories	(15,036 )	(15,039 )
Total	\$ 14,728	\$ 14,508

(11) Accumulated Other Comprehensive Loss

The following table is a summary of changes in accumulated other comprehensive loss by component (in thousands):

	Foreign currency translation adjustments	Total
Accumulated other comprehensive loss at December 31, 2017	\$ (18,879 )	\$ (18,879)
Net current-period other comprehensive income	1,825	1,825
Accumulated other comprehensive loss at March 31, 2018	\$ (17,054 )	\$ (17,054)

(12) Supplemental Cash Flow Information and Non-cash Activity

The following table is a summary of cash paid for Interest and Income taxes and non-cash items from investing and financing activities (in thousands):

	Three Months Ended March 31, 2018 2017	
Cash paid during the period for:		
Interest	\$ 1,039	\$ 206
Income taxes	546	819
Non-cash items from investing and financing activities:		
Investment in multi-client data library in accounts payable and accrued expenses	—	1,654
Purchases of property, plant, and equipment financed through accounts payable	—	730

(13) Fair Value of Financial Instruments

Authoritative guidance on fair value measurements defines fair value, establishes a framework for measuring fair value and stipulates the related disclosure requirements. The Company follows a three-level hierarchy, under which the fair value hierarchy prioritizes the inputs used to measure fair value into three broad levels, moving from quoted prices in active markets in (Level 1) to unobservable inputs in (Level 3).

The carrying amounts of the Company's debt as of March 31, 2018 and December 31, 2017 were \$121.6 million and \$160.7 million, respectively, compared to its fair values of \$121.6 million and \$158.2 million as of March 31, 2018 and December 31, 2017, respectively. The fair value of the debt was calculated using a readily observable price (Level 1).

Fair Value of Other Financial Instruments. Due to their highly liquid nature, the amount of the Company's other financial instruments, including cash and cash equivalents, accounts and unbilled receivables, notes receivable, accounts payable, and accrued multi-client data library royalties, represent their approximate fair value.

(14) Stockholder's Equity and Stock-Based Compensation Expense  
Public Equity Offering



On February 21, 2018, the Company announced its successful completion of a public equity offering. The Company issued and sold 1,820,000 shares of common stock at a public offering price of \$27.50 per share, and warrants to purchase an additional 1,820,000 shares of the Company's common stock. The net proceeds from this offering were \$47.2 million, including transaction expenses. A portion of the net proceeds were used to retire the Company's \$28.5 million Third Lien Notes in March 2018 (several weeks before their maturity date). The warrants have an exercise price of \$33.60 per share, are immediately exercisable and expire on March 21, 2019. If the warrants are exercised in full prior to their expiration, the Company would receive additional proceeds of \$61.2 million, excluding underwriter fees and other transaction expenses.

#### Stock-Based Compensation

The total number of shares issued or reserved for future issuance under outstanding stock options at March 31, 2018 and 2017 was 871,757 and 838,582, respectively, and the total number of shares of restricted stock and shares reserved for restricted stock units outstanding at March 31, 2018 and 2017 was 182,053 and 203,622, respectively. The total number of stock appreciation rights awards outstanding at March 31, 2018 and 2017 was 530,865 and 1,416,133, respectively. The following table presents a summary of the activity related to stock options, restricted stock, restricted stock unit awards and stock appreciation rights awards for the three months ended March 31, 2018:

	Stock Options	Restricted Stock and Unit Awards	Stock Appreciation Rights
	Number of Shares		
Outstanding at December 31, 2017	890,341	201,702	565,864
Granted	—	61,365	—
Stock options and stock appreciation rights exercised/restricted stock and unit awards vested	(11,250 )	(81,014 )	(34,999 )
Cancelled/forfeited	(7,334 )	—	—
Outstanding at March 31, 2018	871,757	182,053	530,865

Stock-based compensation expense recognized for the three months ended March 31, 2018 and 2017, totaled \$0.8 million and \$0.6 million, respectively. Stock appreciation rights expense recognized for the three months ended March 31, 2018 and 2017, totaled \$0.8 million and \$0.2 million, respectively.

#### (15) Condensed Consolidating Financial Information

The Second Lien Notes were issued by ION Geophysical Corporation and the Second Lien Notes are guaranteed by the Guarantors, all of which are wholly-owned subsidiaries. The Guarantors have fully and unconditionally guaranteed the payment obligations of ION Geophysical Corporation with respect to the Second Lien Notes. The following condensed consolidating financial information presents the results of operations, financial position and cash flows for:

• ION Geophysical Corporation and the Guarantors (in each case, reflecting investments in subsidiaries utilizing the equity method of accounting).

• All other subsidiaries of ION Geophysical Corporation that are not Guarantors.

• The consolidating adjustments necessary to present ION Geophysical Corporation's results on a consolidated basis.

This condensed consolidating financial information should be read in conjunction with the accompanying consolidated financial statements and footnotes. For additional information pertaining to the Notes, See Item 2.

“Management's Discussion and Analysis of Financial Condition and Results of Operations” in Part II of this Form 10-Q.

Balance Sheet	March 31, 2018				
	ION Geophysical Corporation (In thousands)	The Guarantors	All Other Subsidiaries	Consolidating Adjustments	Total Consolidated
<b>ASSETS</b>					
Current assets:					
Cash and cash equivalents	\$41,380	\$—	\$ 9,370	\$—	\$ 50,750
Accounts receivable, net	8	7,762	21,980	—	29,750
Unbilled receivables	—	7,654	8,695	—	16,349
Inventories	—	9,094	5,634	—	14,728
Prepaid expenses and other current assets	2,057	1,015	2,682	—	5,754
Total current assets	43,445	25,525	48,361	—	117,331
Deferred income tax asset	1,263	—	614	—	1,877
Property, plant, equipment and seismic rental equipment, net	306	6,744	42,957	—	50,007
Multi-client data library, net	—	57,895	26,538	—	84,433
Investment in subsidiaries	693,059	329,545	—	(1,022,604 )	—
Goodwill	—	—	25,188	—	25,188
Intangible assets, net	—	1,374	—	—	1,374
Intercompany receivables	—	106,721	104,895	(211,616 )	—
Other assets	518	145	180	—	843
Total assets	\$738,591	\$527,949	\$ 248,733	\$(1,234,220 )	\$ 281,053
<b>LIABILITIES AND EQUITY</b>					
Current liabilities:					
Current maturities of long-term debt	\$824	\$ 190	\$—	\$—	\$ 1,014
Accounts payable	3,195	17,247	2,375	—	22,817
Accrued expenses	11,450	8,154	6,591	—	26,195
Accrued multi-client data library royalties	—	28,109	215	—	28,324
Deferred revenue	—	2,749	8,581	—	11,330
Total current liabilities	15,469	56,449	17,762	—	89,680
Long-term debt, net of current maturities	116,916	—	—	—	116,916
Intercompany payables	545,556	—	—	(545,556 )	—
Other long-term liabilities	448	5,997	6,493	—	12,938
Total liabilities	678,389	62,446	24,255	(545,556 )	219,534
Equity:					
Common stock	139	290,460	49,394	(339,854 )	139
Additional paid-in capital	950,464	180,701	202,290	(382,991 )	950,464
Accumulated earnings (deficit)	(873,347 )	245,094	68,288	(313,382 )	(873,347 )
Accumulated other comprehensive income (loss)	(17,054 )	4,324	(17,947 )	13,623	(17,054 )
Due from ION Geophysical Corporation	—	(255,076 )	(78,864 )	333,940	—
Total stockholders' equity	60,202	465,503	223,161	(688,664 )	60,202
Noncontrolling interest	—	—	1,317	—	1,317
Total equity	60,202	465,503	224,478	(688,664 )	61,519
Total liabilities and equity	\$738,591	\$527,949	\$ 248,733	\$(1,234,220 )	\$ 281,053

Balance Sheet	December 31, 2017				
	ION Geophysical Corporation (In thousands)	The Guarantors	All Other Subsidiaries	Consolidating Adjustments	Total Consolidated
<b>ASSETS</b>					
Current assets:					
Cash and cash equivalents	\$39,344	\$—	\$12,712	\$—	\$52,056
Accounts receivable, net	50	9,374	10,054	—	19,478
Unbilled receivables	—	16,666	20,638	—	37,304
Inventories	—	8,686	5,822	—	14,508
Prepaid expenses and other current assets	2,427	769	4,447	—	7,643
Total current assets	41,821	35,495	53,673	—	130,989
Deferred income tax asset	1,264	—	489	—	1,753
Property, plant, equipment and seismic rental equipment, net	511	7,170	44,472	—	52,153
Multi-client data library, net	—	62,438	26,862	—	89,300
Investment in subsidiaries	693,679	321,934	—	(1,015,613)	—
Goodwill	—	—	24,089	—	24,089
Intangible assets, net	—	1,666	—	—	1,666
Intercompany receivables	—	132,184	90,227	(222,411)	—
Other assets	686	145	288	—	1,119
Total assets	\$737,961	\$561,032	\$240,100	\$(1,238,024)	\$301,069
<b>LIABILITIES AND EQUITY</b>					
Current liabilities:					
Current maturities of long-term debt	\$39,774	\$250	\$—	\$—	\$40,024
Accounts payable	1,774	20,982	2,195	—	24,951
Accrued expenses	12,284	15,601	10,812	—	38,697
Accrued multi-client data library royalties	—	26,824	211	—	27,035
Deferred revenue	—	3,201	5,709	—	8,910
Total current liabilities	53,832	66,858	18,927	—	139,617
Long-term debt, net of current maturities	116,691	29	—	—	116,720
Intercompany payables	537,417	—	—	(537,417)	—
Other long-term liabilities	454	6,084	7,388	—	13,926
Total liabilities	708,394	72,971	26,315	(537,417)	270,263
Equity:					
Common stock	120	290,460	49,394	(339,854)	120
Additional paid-in capital	903,247	180,701	202,290	(382,991)	903,247
Accumulated earnings (deficit)	(854,921)	248,770	59,307	(308,077)	(854,921)
Accumulated other comprehensive income (loss)	(18,879)	4,372	(19,681)	15,309	(18,879)
Due from ION Geophysical Corporation	—	(236,242)	(78,764)	315,006	—
Total stockholders' equity	29,567	488,061	212,546	(700,607)	29,567
Noncontrolling interest	—	—	1,239	—	1,239
Total equity	29,567	488,061	213,785	(700,607)	30,806
Total liabilities and equity	\$737,961	\$561,032	\$240,100	\$(1,238,024)	\$301,069



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Income Statement	Three Months Ended March 31, 2018				
	ION Geophysical Corporation	The Guarantors	All Other Subsidiaries	Consolidating Adjustments	Total Consolidated
	(In thousands)				
Net revenues	\$—	\$ 11,788	\$ 21,720	\$ —	\$ 33,508
Cost of sales	—	16,795	9,860	—	26,655
Gross profit (loss)	—	(5,007 )	11,860	—	6,853
Total operating expenses	8,909	6,994	3,590	—	19,493
Income (loss) from operations	(8,909 )	(12,001 )	8,270	—	(12,640 )
Interest expense, net	(3,883 )	(6 )	53	—	(3,836 )
Intercompany interest, net	273	(2,319 )	2,046	—	—
Equity in earnings (losses) of investments	(4,915 )	10,220	—	(5,305 )	—
Other income (expense)	(188 )	65	(668 )	—	(791 )
Net income (loss) before income taxes	(17,622 )	(4,041 )	9,701	(5,305 )	(17,267 )
Income tax expense (benefit)	804	(365 )	633	—	1,072
Net income (loss)	(18,426 )	(3,676 )	9,068	(5,305 )	(18,339 )
Net income attributable to noncontrolling interest	—	—	(87 )	—	(87 )
Net income (loss) attributable to ION	\$(18,426)	\$(3,676)	\$ 8,981	(5,305)	\$(18,426)
Comprehensive net income	\$(16,601)	\$(3,724)	\$ 10,802	\$(6,991)	\$(16,514)
Comprehensive income attributable to noncontrolling interest	—	—	(87 )	—	(87 )
Comprehensive net income (loss) attributable to ION	\$(16,601)	\$(3,724)	\$ 10,715	\$(6,991)	\$(16,601)

Income Statement	Three Months Ended March 31, 2017				
	ION Geophysical Corporation	The Guarantors	All Other Subsidiaries	Consolidating Adjustments	Total Consolidated
	(In thousands)				
Net revenues	\$—	\$ 13,034	\$ 19,522	\$ —	\$ 32,556
Cost of sales	—	17,587	8,868	—	26,455
Gross profit (loss)	—	(4,553 )	10,654	—	6,101
Total operating expenses	9,340	6,159	4,514	—	20,013
Income (loss) from operations	(9,340 )	(10,712 )	6,140	—	(13,912 )
Interest expense, net	(4,460 )	(27 )	23	—	(4,464 )
Intercompany interest, net	328	(1,497 )	1,169	—	—
Equity in earnings (losses) of investments	(5,044 )	8,776	—	(3,732 )	—
Other income (expense)	(4,759 )	(339 )	30	—	(5,068 )
Net income (loss) before income taxes	(23,275 )	(3,799 )	7,362	(3,732 )	(23,444 )
Income tax expense (benefit)	67	(42 )	(443 )	—	(418 )
Net income (loss)	(23,342 )	(3,757 )	7,805	(3,732 )	(23,026 )
Net income attributable to noncontrolling interest	—	—	(316 )	—	(316 )
Net income (loss) attributable to ION	\$(23,342)	\$(3,757)	\$ 7,489	(3,732)	\$(23,342)
Comprehensive net income (loss)	\$(22,825)	\$(3,805)	\$ 8,054	\$(3,933)	\$(22,509)
Comprehensive income attributable to noncontrolling interest	—	—	(316 )	—	(316 )
Comprehensive net income (loss) attributable to ION	\$(22,825)	\$(3,805)	\$ 7,738	\$(3,933)	\$(22,825)



Statement of Cash Flows	Three Months Ended March 31, 2018			
	ION Geophysical Corporation	The Guarantors	All Other Subsidiaries	Total Consolidated
	(In thousands)			
Cash flows from operating activities:				
Net cash provided by (used in) operating activities	\$(13,119)	\$ 16,961	\$ (3,234 )	\$ 608
Cash flows from investing activities:				
Cash invested in multi-client data library	—	(7,642 )	(1,598 )	(9,240 )
Purchase of property, plant, equipment and seismic rental equipment	—	—	(61 )	(61 )
Net cash used in investing activities	—	(7,642 )	(1,659 )	(9,301 )
Cash flows from financing activities:				
Payments under revolving line of credit	(10,000 )	—	—	(10,000 )
Payments on notes payable and long-term debt	(29,054 )	(90 )	—	(29,144 )
Intercompany lending	7,565	(9,229 )	1,664	—
Net proceeds from issuance of stock	47,219	—	—	47,219
Other financing activities	(575 )	—	—	(575 )
Net cash provided by (used in) financing activities	15,155	(9,319 )	1,664	7,500
Effect of change in foreign currency exchange rates on cash, cash equivalents and restricted cash	—	—	(113 )	(113 )
Net increase (decrease) in cash, cash equivalents and restricted cash	2,036	—	(3,342 )	(1,306 )
Cash, cash equivalents and restricted cash at beginning of period	39,707	—	12,712	52,419
Cash, cash equivalents and restricted cash at end of period	\$41,743	\$—	\$ 9,370	\$ 51,113
The following table is a reconciliation of cash and cash equivalents to total cash, cash equivalents, and restricted cash:				
	Three months ended March 31, 2018			
	ION Geophysical Corporation	The Guarantors	All Other Subsidiaries	Consolidating Adjustments
	(In thousands)			
Cash and cash equivalents	\$41,380	\$	—\$ 9,370	\$ 50,750
Restricted cash included in prepaid expenses and other current assets	60	—	—	60
Restricted cash included in other long-term assets	303	—	—	303
Total cash, cash equivalents, and restricted cash shown in statement of cash flows	\$41,743	\$	—\$ 9,370	\$ 51,113

Statement of Cash Flows	Three Months Ended March 31, 2017			
	ION Geophysical Corporation	The Guarantors	All Other Subsidiaries	Total Consolidated
	(In thousands)			
Cash flows from operating activities:				
Net cash provided by (used in) operating activities	\$7,548	\$ 3,373	\$ (9,080)	) \$ 1,841
Cash flows from investing activities:				
Investment in multi-client data library	—	(1,527)	(1,836)	) (3,363)
Purchase of property, plant, equipment and seismic rental equipment	—	—	(49)	) (49)
Net cash used in investing activities	—	(1,527)	(1,885)	) (3,412)
Cash flows from financing activities:				
Payments on notes payable and long-term debt	(506)	(1,142)	(58)	) (1,706)
Intercompany lending	(1,574)	(704)	2,278	—
Other financing activities	(286)	—	—	(286)
Net cash provided by (used in) financing activities	(2,366)	(1,846)	2,220	(1,992)
Effect of change in foreign currency exchange rates on cash, cash equivalents and restricted cash	—	—	409	409
Net increase (decrease) in cash, cash equivalents and restricted cash	5,182	—	(8,336)	) (3,154)
Cash, cash equivalents and restricted cash at beginning of period	23,823	—	29,610	53,433
Cash, cash equivalents and restricted cash at end of period	\$29,005	\$ —	\$ 21,274	\$ 50,279

The following table is a reconciliation of cash and cash equivalents to total cash, cash equivalents, and restricted cash:

	Three months ended March 31, 2017			
	ION Geophysical Corporation	The Guarantors	All Other Subsidiaries	Consolidating Adjustments
	(In thousands)			
Cash and cash equivalents	\$28,366	\$ —	—\$ 21,274	\$ 49,640
Restricted cash included in prepaid expenses and other current assets	285	—	—	285
Restricted cash included in other long-term assets	354	—	—	354
Total cash, cash equivalents, and restricted cash shown in statement of cash flows	\$29,005	\$ —	—\$ 21,274	\$ 50,279

## Item 2. Management's Discussion and Analysis of Financial Condition and Results of Operations

### Executive Summary

#### Our Business

In this Form 10-Q, "ION Geophysical," "ION," "the company" (or, "the Company"), "we," "our," "ours" and "us" refer to ION Geophysical Corporation and its consolidated subsidiaries, except where the context otherwise requires or as otherwise indicated.

The information contained in this Quarterly Report on Form 10-Q contains references to trademarks, service marks and registered marks of ION and our subsidiaries, as indicated. Except where stated otherwise or unless the context otherwise requires, the terms "VectorSeis," "Orca," "WiBand," and "4Sea" refer to VECTORSEIS®, ORCA®, WiBand® and 4Sea® registered marks owned by ION, and the terms "Marlin" and "Gator," refers to the Marlin™ and GATOR™, trademark owned by ION.

Leveraging innovative technologies, ION creates value through data capture, analysis and optimization to enhance companies' critical decision-making abilities and returns. ION's offerings are focused on improving E&P decision-making, enhancing reservoir management and optimizing offshore operations. While ION's traditional focus for its cutting-edge technology has been on the E&P industry, we are now broadening and diversifying our business into relevant adjacent markets such as offshore logistics, military and marine robotics.

Our geoscience technology, services and solutions are designed to enable oil and gas companies to obtain higher resolution images of the Earth's subsurface to reduce their risk and optimize value across the exploration and production lifecycle. Seismic imaging plays a fundamental role in hydrocarbon exploration and reservoir development by delineating structures, and rock types in the subsurface. The high resolution images of the Earth's subsurface can be used to reduce uncertainty associated with identifying sources of hydrocarbons and pinpointing drilling locations for wells, which can be costly and risky.

We acquire and process seismic data on both a proprietary and multi-client basis. The multi-client seismic surveys for our data library business are pre-funded, or underwritten, in part by our customers, and we utilize an asset light strategy by contracting with third party seismic data acquisition companies to acquire the seismic data, all of which is intended to minimize our risk exposure. In addition, our ocean bottom vessel leases expired in 2017, consistent with our asset light strategy. We serve customers in most major energy producing regions of the world from offices strategically located across six continents.

We provide our services and products through three business segments: E&P Technology & Services, Operations Optimization (formerly referred to as E&P Operations Optimization) and Ocean Bottom Integrated Technologies (formerly referred to as Ocean Bottom Seismic Services). In addition, we have a 49% ownership interest in our INOVA Geophysical Equipment Limited joint venture ("INOVA Geophysical," or "INOVA").

For 50 years, we have provided innovative technology, such as multicomponent imaging with VectorSeis products, the ability to record seismic data from basins below ice, and cableless data acquisition techniques. The advanced technologies we currently offer include our Orca and Gator command and control software systems, Full Waveform Inversion (FWI) data processing technology, our ocean bottom seismic ("OBS") acquisition systems, and other technologies, each of which is designed to deliver improvements in both image quality and productivity. In 2015, we introduced our Marlin solution for optimizing simultaneous operations offshore. We believe our new OBS technology, 4Sea, will open a much larger market due to the system's increased flexibility and efficiency.

We have approximately 500 patents and pending patent applications in various countries around the world.

Approximately 47% of our employees are in technical roles and over 23% of our employees have advanced degrees. E&P Technology & Services. Our E&P Technology & Services segment provides three distinct service activities that often work together.

Our E&P Technology & Services segment creates digital data assets and delivers services to help E&P companies improve decision-making, reduce risk and maximize value. For example, E&P Technology & Services provides information to better understand new frontiers or complex subsurface geologies, how to maximize portfolio value, or how to optimize license round success and acreage values.



Our Ventures group leverages the world-class geoscience skills of both the Imaging Services and E&P Advisors groups to create global digital data assets that are licensed to multiple E&P companies to optimize their investment decisions. The global data library consists of over 595,000 km of 2-D and over 190,000 sq. km of 3-D multi-client seismic data in virtually all major offshore petroleum provinces. Ventures provides services to manage multi-client or proprietary surveys, from survey planning and design to data acquisition and management, to final subsurface imaging and reservoir characterization. We focus on the technologically intensive components of the image development process, such as survey planning and design, and data processing and interpretation, outsourcing the logistics components (such as field acquisition) to experienced seismic and other geophysical contractors.

Our Imaging Services group offers data processing and imaging services designed to maximize image quality, helping E&P companies reduce exploration and production risk, evaluate and develop reservoirs, and increase production.

Imaging Services develops subsurface images by applying its processing technology to data owned or licensed by its customers. We maintain approximately 24 petabytes of digital seismic data storage in four global data centers, including two core data centers located in Houston and in the U.K.

Our E&P Advisors' strategy is to provide technical, commercial and strategic advice to host governments, E&P companies and private equity firms to evaluate and market oil and gas opportunities and/or assets world-wide, sharing in the value we create.

**Operations Optimization.** Our Operations Optimization segment develops mission-critical subscription offerings and provides engineering services that enable operational control and optimization offshore. This segment is comprised of our Optimization Software & Services and Devices offerings.

Our Optimization Software & Services group provides survey design and command and control software systems and related services for marine towed streamer and seabed operations. Our Orca software is installed on towed streamer marine vessels worldwide, and our Gator software is used by seabed crews. Our latest offering, Marlin is used to optimize offshore operations.

Our Devices group is engaged in the manufacture and repairs of marine towed streamer positioning and control systems and analog geophone sensors.

**Ocean Bottom Integrated Technologies.** Higher quality data can be acquired from the sea floor compared to the traditional method of acquiring it near the surface, which enables companies to have a better image and better understanding of the subsurface to make optimal reservoir decisions. ION provides a full suite of OBS technology and services that includes survey design, planning, acquisition services, data processing, interpretation and reservoir services to optimize image quality, operational efficiency and safety. ION's Ocean Bottom Integrated Technologies group integrates a variety of ION's advanced technologies to accelerate OBS data capture and delivery for our clients' enhanced reservoir decision-making, and improved returns.

Our team develops re-deployable ocean bottom seismic data acquisition systems and shipboard recorders for use in OBS data acquisition. We introduced our new fully integrated nodal system, 4Sea, in 2017. 4Sea is differentiated in its ability to deliver a step change in economics, QHSE performance and final image delivery time, creating more value for the client by providing it in time for critical decisions, such as determining drilling locations, fluid injections, and the like.

We evaluated numerous possible commercialization paths for 4Sea and are pursuing two asset light business models that we believe will deliver a higher, more sustainable return over the long-term for our shareholders. The first is making the individual components of 4Sea available more broadly to all OBS service providers on a value-based pricing model, allowing us to participate in the success we enable. The second approach is to license the right to manufacture and use the fully integrated system to a service provider on a value-based pricing model, such as a royalty stream. While the value-based pricing business models are our primary route to market, we will continue to evaluate OBS opportunities on a case-by-case basis that meet our long-term risk and return thresholds.

**INOVA Geophysical.** Historically, we conducted our land seismic equipment business through INOVA Geophysical, which is a joint venture with BGP Inc. ("BGP"). BGP is a subsidiary of China National Petroleum Corporation, and is generally regarded as the world's largest land geophysical service contractor. BGP owns a 51% equity interest in INOVA Geophysical, and we own the remaining 49% interest. INOVA manufactures cable-based and cableless data acquisition systems, digital sensors, vibroseis vehicles (i.e., vibrator trucks) and source controllers for land seismic

surveys. We wrote our investment in INOVA down to zero as of December 31, 2014.

**Public Equity Offering and Retirement of Debt**

On February 21, 2018, we announced our successful completion of a public equity offering to begin delevering our business. As part of the equity offering, we sold 1,820,000 of our common shares at a price of \$27.50 per share, and issued warrants to purchase an additional 1,820,000 shares of our common stock. The warrants have an exercise price of \$33.60 per share and are immediately exercisable and expire in March 2019. If the warrants are exercised in full, we would receive



additional proceeds of \$61.2 million excluding underwriter fees and other transaction expenses. Our net cash flows for the first quarter of 2018 reflect the \$47.2 million of net proceeds received from our equity offering, a portion of which were used to retire the \$28.5 million of Third Lien Notes ahead of their scheduled maturity in May 2018. We also repaid the \$10.0 million of outstanding indebtedness under our Credit Facility during the first quarter 2018. As a result of our first quarter 2018 debt repayments, we have \$1.0 million of current debt remaining on our balance sheet at March 31, 2018, and our remaining long-term debt obligation is the \$120.6 million of our indebtedness under our Second Lien Notes due in December 2021.

#### Macroeconomic Conditions

Demand for our services and products is cyclical and dependent upon activity levels in the oil and gas industry, particularly our customers' willingness to invest capital in the exploration for oil and natural gas. Our customers' capital spending programs are generally based on their outlook for near-term and long-term commodity prices, economic growth, commodity demand and estimates of resource production. Third-party reports now indicate that global exploration and production spending is expected to increase 8% in 2018. This is an improvement from the 4% growth in 2017 that was preceded by 2 years of double-digit declines.

Recent Intercontinental Exchange Brent ("Brent") and West Texas Intermediate ("WTI") crude oil, and Henry Hub natural gas pricing trends are as follows:

Quarter Ended	Average Price <sup>(a)</sup>		
	Brent Crude (per bbl)	WTI Crude (per bbl)	Henry Hub Natural Gas (per mcf)
3/31/2018	\$66.95	\$62.96	\$ 3.08
12/31/2017	61.40	55.27	2.90
9/30/2017	52.10	48.15	2.95
6/30/2017	49.55	48.10	3.08
3/31/2017	53.59	51.62	3.02
12/31/2016	49.11	49.14	3.04
9/30/2016	45.80	44.85	2.88
6/30/2016	45.57	45.46	2.15
3/31/2016	33.84	33.35	1.99

<sup>(a)</sup> Source: U.S. Energy Information Administration ("EIA").

Crude oil prices can be volatile due to global economic uncertainties. Significant downward oil price volatility began late in 2014 and reached a low average of \$33 per barrel in early 2016. The material decrease in crude oil prices can be attributed principally to high levels of global crude oil inventories resulting from significant production growth in the U.S. shale plays, the strengthening of the U.S. dollar relative to other foreign currencies and the Organization of Petroleum Exporting Countries ("OPEC") increasing its production, causing a global supply and demand imbalance for crude oil. In late November 2016, OPEC and other non-OPEC participants such as Russia reached an agreement to cut their oil production. With the OPEC production cuts recently extended into December 2018, global crude oil supplies and demand are now essentially in equilibrium.

The prices for Brent and WTI crude oil increased to an average of \$67 per barrel and \$63 per barrel, respectively, in the first three months of 2018. This represents an improvement over the average crude oil prices for the full year 2017 of \$53 per barrel and \$50 per barrel, respectively. This increase was due to multiple factors, including sustained OPEC production cuts and net inventory crude draws which reduced the current crude surplus. The EIA forecasts the Brent crude oil spot price will average \$60 per barrel in 2018 and \$61 per barrel in 2019. Energy reform in Mexico and Brazil that opens up the countries for increased international investment, in conjunction with the stability of oil prices, has resulted in increased investment in those areas. In addition, in January, 2018, the U.S. Interior Department proposed to make more than 98% of outer continental shelf acreage available for exploration and development.

Given the historical volatility of crude prices, there is a continued risk that if prices start to decline again due to high levels of crude oil production, there is a potential for slowing growth rates in various global regions and/or for ongoing supply/demand imbalances.

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E&P spending is expected to continue to rebound in 2018 over 2017, which was preceded by two successive years of double digit declines as commodity prices are forecasted to remain more stable. This positive trend in E&P spending, aided by favorable macroeconomic conditions, has resulted in increased revenues during 2017 and the first quarter of 2018. If the global supply of oil decreases due to reduced capital investment by E&P companies, government instability occurs in a major oil-producing nation, or energy demand increases in the U.S. or in countries such as China and India, the recovery in Brent and WTI crude oil prices could continue to improve. If commodity prices do not continue to improve or if they start to deteriorate again, demand for our services and products could decline.

#### Impact to Our Business

We are seeing signs of increasing activity in our business, primarily due to the strategic shift we made to move our offerings closer to the reservoir and the associated continued success of our 3-D programs as well as clients' renewed interest in underwriting new venture programs. Our customers are typically finalizing their annual budgets during the first quarter, which is why the first quarter is typically our lowest in terms of revenue and EBITDA generation. Our first quarter 2018 revenues increased modestly compared to the first quarter of 2017. Investments in our multi-client data library are dependent upon the timing of our new venture projects and the availability of underwriting by our customers. We continue to maintain high standards for the underwriting of any new projects. Our asset light strategy enables us to scale our business to avoid significant fixed costs and to remain financially flexible as we manage the timing and levels of our capital expenditures.

In our E&P Technology & Services segment, our new venture revenues increased relative to the first quarter 2017 due to progress and new sales on our 3-D reimaging programs, as well as 2-D new venture programs that met our conservative underwriting standards. Data library sales during the first quarter 2018 were concentrated around our West Africa data libraries. We invested \$9.2 million in our multi-client data library during the first quarter of 2018 and we expect investments in our multi-client data library to be in a range of \$30 million to \$45 million for 2018, compared to the \$23.7 million invested in 2017.

As of March 31, 2018, our E&P Technology & Services segment backlog, which consists of commitments for (i) data processing work and (ii) new venture projects (both multi-client and proprietary) by our Ventures group underwritten by our customers, was \$35.4 million, compared to \$25.2 million at March 31, 2017 and \$39.2 million at December 31, 2017. The growth of backlog from one year ago was due to ongoing activity in Mexico and Brazil as well as activity related to several newly sanctioned programs. We anticipate that the majority of our backlog will be recognized as revenue over the next six months.

We embarked on a new strategy for our Ocean Bottom Integrated Technologies segment at the end of 2017. The licensing of 4Sea individual components will be recognized through the relevant segment, either E&P Technology and Services or Operations Optimization. If a customer licenses the right to manufacture and use the fully integrated system or we take OBS acquisition projects that meet our long-term risk and return thresholds, it will be recognized in this segment. During 2017, our existing ocean bottom vessel leases expired, consistent with our asset light strategy. We continue to see significant long-term potential for our technologies to improve OBS productivity, and we expect demand for OBS surveys to continue increasing.

Our seismic contractor customers are still experiencing weakened demand due to the reduction in seismic spending by their E&P company customers. Since early 2014, seismic contractors have taken approximately 40 seismic vessels, or about 33% of the fleet, out of the market, contributing to slightly lower Operations Optimization segment sales year-over-year.

It is our view that technologies that provide a competitive advantage through improved imaging, lower costs, higher productivity, or enhanced safety will continue to be valued in our marketplace. We believe that our newest technologies, such as Marlin and 4Sea, will continue to attract customer interest, because these technologies are designed to deliver those desirable qualities.

#### WesternGeco Litigation

A more in depth treatment of the WesternGeco litigation and related proceedings is set forth above in Footnote 8 "Litigation" of Footnotes to Unaudited Condensed Financial Statements. As noted in such Footnote, on July 2, 2015, the United States Court of Appeals for the Federal Circuit in Washington, D.C. (the "Court of Appeals") reversed in part the Final Judgment of the District Court, holding the District Court erred by including lost profits in the Final

Judgment. Lost profits were \$93.4 million and prejudgment interest on the lost profits was approximately \$10.9 million of the \$123.8 million Final Judgment. Pre-judgment interest on the lost profits portion will be treated in the same way as the lost profits. Post-judgment interest will likewise be treated in the same fashion. On July 29, 2015, WesternGeco filed a petition for rehearing en banc before the Court of Appeals. On October 30, 2015 the Court of Appeals denied WesternGeco's petition for rehearing en banc.

As previously disclosed, we had taken a loss contingency accrual of \$123.8 million. As a result of the reversal by the Court of Appeals, as of June 30, 2015, we reduced our loss contingency accrual to \$22.0 million.

On February 26, 2016, WesternGeco filed a petition for writ of certiorari by the Supreme Court. We filed our response on April 27, 2016. Subsequently, on June 20, 2016, the Supreme Court vacated the Court of Appeals' ruling although it did not address the lost profits question at that time. Rather, in light of the changes in case law regarding the standard of proof for willfulness in the Halo and Stryker cases, the Supreme Court indicated that the case should be remanded to the Court of Appeals for a determination of whether or not the willfulness determination by the District Court was appropriate.

On October 14, 2016, the Court of Appeals issued a mandate returning the case to the District Court for consideration of whether or not additional damages for willfulness were appropriate.

On November 14, 2016, the District Court ordered the sureties to pay principal and interest on the royalty damages previously awarded and declined to issue a final judgment until after consideration of whether enhanced damages for willfulness would be awarded. While we did not agree with the decision by the District Court ordering payment of the royalty damages and interest without a final judgment, we paid the \$20.8 million due pursuant to the order to WesternGeco on November 25, 2016, at which point we reduced our loss contingency accrual to zero.

On March 14, 2017, the District Court held a hearing on whether or not additional damages for willfulness would be payable. The Judge found that ION's infringement was willful, based on his perception that ION did not adequately investigate the scope of the patents, and ION's conduct during trial. However, in his ruling at the hearing, he limited enhanced damages to \$5.0 million because it was a "close case," there was no evidence of copying, and ION was simply acting as a competitor in a capitalist marketplace. The District Court also ordered the appeal bond to be released and discharged. The Court's findings and ruling were memorialized in an order issued on May 16, 2017. On June 30, 2017, WesternGeco and we jointly agreed that neither party would appeal the District Court's award of \$5.0 million in enhanced damages. The parties also agreed that the \$5.0 million would be paid over the course of 12 months with \$1.25 million being paid in two installments of \$0.625 million in 2017 and the remaining \$3.75 million being paid in three quarterly payments of \$1.25 million beginning January 1, 2018. This agreement was memorialized by the court in an order issued on July 26, 2017. Upon assessment of the \$5.0 million in enhanced damages, we accrued \$5.0 million in the first quarter of 2017. As we have made the payments, the accrual has been adjusted, and as of March 31, 2018, the loss contingency accrual was \$2.5 million.

WesternGeco filed a second petition for writ of certiorari in the U.S. Supreme Court on February 17, 2017, appealing the lost profits issue again. We filed our response to WesternGeco's second attempt to appeal to the Supreme Court the lost profits issue, raising both the substantive matters we addressed by opposing WesternGeco's first petition, and also advancing a procedural argument that WesternGeco could not raise the same issue for a second time in a second petition for certiorari. On May 30, 2017, the Supreme Court called for the views of the U.S. Solicitor General regarding whether or not to grant certiorari. We and WesternGeco each met with the Solicitor General's office in late July, 2017. On December 6, 2017, the Solicitor General filed its brief, and took the position that the Supreme Court ought to grant certiorari. On January 12, 2018, the Supreme Court granted certiorari as to whether the Court of Appeals erred in holding that lost profits arising from use of prohibited combinations occurring outside of the United States are categorically unavailable in cases where patent infringement is proven under 35 U.S.C. § 271(f)(2) (the specific statute under which we were ultimately held to have infringed WesternGeco's patents and upon which the District Court and the Court of Appeals relied in entering their final rulings).

The Supreme Court heard oral arguments on April 16, 2018. At oral arguments, we argued that the Court of Appeals' decision that eliminated lost profits ought to be affirmed. WesternGeco and the Solicitor General argued that the Court of Appeals' decision that eliminated lost profits ought to be reversed. We anticipate that the Supreme Court will issue a decision by the end of June of 2018.

At the Court of Appeals we presented multiple arguments as to why the District Court's award of lost profits was improper. The lost profits damages awarded by the District Court were based on the use of our products by our customers outside of the United States. We argued at the Court of Appeals, and at the Supreme Court, that, as a matter of law, WesternGeco cannot recoup lost profits for the overseas use of our products. We also argued in the Court of Appeals that, under the jury instructions given in our case, the jury was required to find that we had been a direct competitor of WesternGeco in the survey markets where WesternGeco lost profits in order for WesternGeco to recoup them. Because the Court of Appeals ruled in our favor on the first argument, and overturned the award of lost profits

on that basis, the Court of Appeals did not rule on our “direct competitor” argument, and that argument was not presented to the Supreme Court for review. If the Supreme Court overturns the Court of Appeals’ decision that lost profits cannot be awarded to WesternGeco because the subsequent use of the apparatus was overseas, the case will likely be remanded back to the Court of Appeals, at which time we will present our second argument (that lost profits should not be awarded to WesternGeco because they were not our direct competitor).

Other proceedings may have an impact on WesternGeco's ability to recover lost profits damages even if WesternGeco prevails in the Supreme Court, and even if we do not prevail on the "direct competitor" argument in the Court of Appeals. We were a party to a challenge to the validity of several of WesternGeco's patent claims by means of an IPR with the PTAB. While the above described lawsuit was pending on appeal, the PTAB invalidated four of the six patent claims that formed the basis for the jury verdict in the lawsuit. WesternGeco appealed that decision to the Court of Appeals, which heard our and WesternGeco's arguments on January 23, 2018. If the Court of Appeals affirms the PTAB's invalidation of the patents, that may provide a separate ground for reducing or vacating any lost-profits award in the lawsuit. We expect the Court of Appeals to rule on the PTAB issue in the second quarter of 2018. In April of 2018, the United States Supreme Court issued a decision in a case we were not involved in (Oil States v. Greene's Energy Group) that affirmed the constitutionality of the IPR process to invalidate patent claims.

We may not ultimately prevail in any of the appeals processes noted above and we could be required to pay some or all of the lost profits that were awarded by the District Court. Our assessment that we do not have a loss contingency (other than the \$2.5 million noted above) may change in the future due to developments at the Supreme Court, Court of Appeals, or District Court, and other events, such as changes in applicable law, and such reassessment could lead to the determination that an additional loss contingency is probable, which could have a material effect on our business, financial condition and results of operations. Our assessments disclosed in this Quarterly Report on Form 10-Q or elsewhere are based on currently available information and involve elements of judgment and significant uncertainties.

#### Other Litigation

We have been named in various other lawsuits or threatened actions that are incidental to our ordinary business. Litigation is inherently unpredictable. Any claims against us, whether meritorious or not, could be time-consuming, cause us to incur costs and expenses, require significant amounts of management time and result in the diversion of significant operational resources. The results of these lawsuits and actions cannot be predicted with certainty. We currently believe that the ultimate resolution of these matters will not have a material adverse effect on our financial condition or results of operations.

#### Key Financial Metrics

The table below provides an overview of key financial metrics for our company as a whole and our three business segments for the three months ended March 31, 2018, compared to the same period of 2017 (dollars in thousands, except share data).

	Three Months Ended	
	March 31,	
	2018	2017
Net revenues:		
E&P Technology & Services:		
New Venture	\$13,726	\$6,949
Data Library	5,948	10,606
Total multi-client revenues	19,674	17,555
Imaging Services	4,894	5,755
Total	24,568	23,310
Operations Optimization:		
Devices	4,158	4,990
Optimization Software & Services	4,782	4,256
Total	8,940	9,246
Ocean Bottom Integrated Technologies	—	—
Total	\$33,508	\$32,556
Gross profit (loss):		
E&P Technology & Services	\$4,343	\$4,010
Operations Optimization	4,311	4,787
Ocean Bottom Integrated Technologies	(1,801 )	(2,696 )

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Total	\$6,853	\$6,101	
Gross margin:			
E&P Technology & Services	18	% 17	%
Operations Optimization	48	% 52	%
Ocean Bottom Integrated Technologies	—	% —	%
Total	20	% 19	%

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	Three Months Ended	
	March 31,	
	2018	2017
Income (loss) from operations:		
E&P Technology & Services	\$ (794 )	\$ (1,096 )
Operations Optimization	786	1,549
Ocean Bottom Integrated Technologies	(2,829 )	(4,008 )
Support and other	(9,803 )	(10,357 )
Loss from operations	\$ (12,640)	\$ (13,912)
Operating margin:		
E&P Technology & Services	(3 )%	(5 )%
Operations Optimization	9 %	17 %
Ocean Bottom Integrated Technologies	— %	— %
Support and other	(29 )%	(32 )%
Total	(38 )%	(43 )%
Net loss attributable to ION	\$ (18,426)	\$ (23,342)
Net loss per share:		
Basic	\$ (1.44 )	\$ (1.98 )
Diluted	\$ (1.44 )	\$ (1.98 )
Special items:	1,243	(a) 5,000 (b)
Net income (loss) attributable to ION as adjusted	\$ (17,183)	\$ (18,342)
Net income (loss) per share as adjusted:		
Basic	\$ (1.34 )	\$ (1.55 )
Diluted	\$ (1.34 )	\$ (1.55 )

(a) Represents stock appreciation rights expense.

(b) Represents a loss contingency accrual related to legal proceedings. See Footnote 8 “Litigation” of Footnotes to Consolidated Financial Statements.

We intend that the following discussion of our financial condition and results of operations will provide information that will assist in understanding our consolidated financial statements, the changes in certain key items in those financial statements from period to period, and the primary factors that accounted for those changes. The financial results are reported in accordance with Generally Accepted Accounting Principles (“GAAP”). However, management believes that certain non-GAAP performance measures may provide users of this financial information, additional meaningful comparisons between current results and results in prior operating periods. One such non-GAAP financial measure is adjusted income (loss) from operations or adjusted net income (loss), which excludes certain charges or amounts. This adjusted income (loss) amount is not a measure of financial performance under GAAP. Accordingly, it should not be considered as a substitute for income (loss) from operations, net income (loss) or other income data prepared in accordance with GAAP.

For a discussion of factors that could impact our future operating results and financial condition, see (i) Item 1A. “Risk Factors” in our Annual Report on Form 10-K, as amended, for the year ended December 31, 2017, and (ii) Item 1A. “Risk Factors” in Part II of this Form 10-Q.

#### Results of Operations

##### Three Months Ended March 31, 2018 Compared to Three Months Ended March 31, 2017

Our consolidated net revenues of \$33.5 million for the three months ended March 31, 2018 (the “Current Quarter”) increased by \$0.9 million, or 3%, compared to total net revenues of \$32.6 million for the three months ended March 31, 2017 (the “Comparable Quarter”). Our overall gross margin was 20% in the Current Quarter, as compared to 19% in the Comparable Quarter. For the Current Quarter, our loss from operations was \$12.6 million, compared to a loss of \$13.9 million for the Comparable Quarter.

Net loss for the Current Quarter was \$18.4 million, or \$(1.44) per share, compared to \$23.3 million, or \$(1.98) per share, for the Comparable Quarter. Excluding the impact of special items, as noted in the above table, adjusted net loss for the Current Quarter was \$17.2 million, or \$(1.34) per share compared to adjusted net loss of was \$18.3 million or \$(1.55) per share, in the Comparable Quarter.

### Net Revenues, Gross Profits and Gross Margins

**E&P Technology & Services** — Net revenues for the Current Quarter increased by \$1.3 million, or 5%, to \$24.6 million, compared to \$23.3 million for the Comparable Quarter. Within the E&P Technology & Services segment, total multi-client revenues were \$19.7 million, an increase of 12%, with new venture revenues increasing 98% and data library revenues decreasing 44% from the Comparable Quarter. The majority of new venture revenues were from our 3-D multi-client reimagining programs offshore Mexico and Brazil, as well as revenues from new 2-D multi-client programs we launched in 2017. Total multi-client revenues came from diverse geographic areas in Mexico, Brazil, Argentina, Nigeria, East Africa, the Mediterranean and across the Caribbean. Imaging Services revenues were \$4.9 million, a 15% decrease. The decrease in Imaging Services revenues was attributable to our strategic shift toward higher return multi-client programs. The Current Quarter reflects a gross profit of \$4.3 million, representing an 18% gross margin, compared to a gross profit of \$4.0 million, which represented a 17% gross margin in the Comparable Quarter.

**Operations Optimization** — Devices net revenues for the Current Quarter decreased by \$0.8 million, or 17%, to \$4.2 million, compared to \$5.0 million for the Comparable Quarter. Revenues continue to be impacted by reduced activity by seismic contractors as numerous vessels have been taken out of service. Optimization Software & Services net revenues for the Current Quarter increased by \$0.5 million, or 12% to \$4.8 million, compared to \$4.3 million for the Comparable Quarter. Gross margin was 48% for the Current Quarter, compared to 52% for the Comparable Quarter. The decline in gross margin was due to the mix in revenues between the periods.

**Ocean Bottom Integrated Technologies** — Net revenues for the Current Quarter and Comparable Quarter were zero. The crew was idle in the Current Quarter as we pursued work. Gross loss for the Current Quarter was \$1.8 million, compared to gross loss of \$2.7 million for the Comparable Quarter. The decline was due to reduced depreciation expense, several cost control initiatives implemented in 2017, including the renegotiation and eventual expiration of our vessel leases, which reduced our vessel lease costs.

### Operating Expenses

**Research, Development and Engineering** — Research, development and engineering expense increased \$0.8 million, or 22%, to \$4.3 million, for the Current Quarter, compared to \$3.5 million for the Comparable Quarter. We see significant long-term potential for OceanGeo and our technologies to improve OBS productivity. We continue to invest in our 4Sea system and we expect long-term demand for OBS production surveys (4-D) to increase.

**Marketing and Sales** — Marketing and sales expense increased \$0.6 million, or 14%, to \$5.1 million, for the Current Quarter, compared to \$4.5 million for the Comparable Quarter primarily due to higher commissions driven by increased sales in the E&P Technology & Services segment.

**General, Administrative and Other Operating Expenses** — General, administrative and other operating expenses decreased \$1.9 million, or 16%, to \$10.1 million, for the Current Quarter, compared to \$12.0 million for the Comparable Quarter. The decrease was driven by lower general and administrative expenses in the Current Quarter as we continue to maintain our cost control discipline.

### Other Items

**Interest Expense, Net** — Interest expense, net, was \$3.8 million for the Current Quarter compared to \$4.5 million for the Comparable Quarter. The decrease in interest expense was a result of lower outstanding debt during the Current Quarter. For additional information, please refer to “Liquidity and Capital Resources — Sources of Capital” below.

**Other Expense, Net** — Other expense for the Current Quarter was \$0.8 million compared to other expense of \$5.1 million for the Comparable Quarter. The decrease was due to a loss contingency accrual related to legal proceedings recorded in the Comparable Quarter.

**Income Tax Expense (Benefit)** — Income tax expense for the Current Quarter was \$1.1 million compared to a benefit of \$0.4 million for the Comparable Quarter. Our effective tax rates for the Current Quarter and Comparable Quarter were (6.2)% and 1.8%, respectively. The income tax expense for the Current Quarter and Comparable Quarter primarily relates to results generated by our non-U.S. businesses. Our effective tax rates for the Current Quarter and Comparable Quarter were negatively impacted by the change in valuation allowance related to U.S. operating losses for which we cannot currently recognize a tax benefit. See further discussion of establishment of the deferred tax valuation allowance at Footnote 7 “Income Taxes” of Notes to Unaudited Condensed Consolidated Financial Statements.



## Liquidity and Capital Resources

### Sources of Capital

As of March 31, 2018, we had \$50.8 million of cash on hand and \$23.6 million of undrawn borrowing base availability under the Credit Facility. Our cash requirements include working capital requirements and cash required for our debt service payments, multi-client seismic data acquisition activities and capital expenditures. As of March 31, 2018, we had working capital of \$27.6 million. Working capital requirements are primarily driven by our investment in our multi-client data library (\$9.2 million in the Current Quarter) and royalty payments for multi-client sales. Also, our headcount has traditionally been a significant driver of our working capital needs. As a significant portion of our business is involved in the planning, processing and interpretation of seismic data services, one of our largest investments is in our employees, which requires cash expenditures for their salaries, bonuses, payroll taxes and related compensation expenses, typically in advance of related revenue billings and collections.

Our working capital requirements may change from time to time depending upon many factors, including our operating results and adjustments in our operating plan in response to industry conditions, competition and unexpected events. In recent years, our primary sources of funds have been cash flows generated from operations, existing cash balances, debt and equity issuances and borrowings under our revolving credit facilities.

On February 21, 2018, we announced our successful completion of a public equity offering to begin de-levering our balance sheet. We issued and sold 1,820,000 shares of common stock at a public offering price of \$27.50 per share, and warrants to purchase an additional 1,820,000 shares of our common stock. The net proceeds from this offering were \$47.2 million, including transaction expenses. A portion of the net proceeds were used to retire our \$28.5 million Third Lien Notes in March 2018 (several weeks before their maturity date). The warrants have an exercise price of \$33.60 per share, are immediately exercisable and expire on March 21, 2019. If the warrants are exercised in full prior to their expiration, we would receive additional proceeds of \$61.2 million excluding underwriter fees and transaction expenses.

### Revolving Credit Facility

In August 2014, ION Geophysical Corporation and our material U.S. subsidiaries, GX Technology Corporation, ION Exploration Products (U.S.A.), Inc. and I/O Marine Systems, Inc. (collectively, the “Subsidiary Borrowers”; ION Geophysical Corporation and the Subsidiary Borrowers are, collectively, the “Borrowers”) entered into a Revolving Credit and Security Agreement with PNC Bank, National Association (“PNC”), as agent (the “Original Credit Agreement”), which was amended by the First Amendment to Revolving Credit and Security Agreement in August 2015 (the “First Amendment”) and the Second Amendment to Revolving Credit and Security Agreement in April 2016 (the “Second Amendment”; the Original Credit Agreement, as amended by the First Amendment and the Second Amendment, the “Credit Facility”).

The Credit Facility is available to provide for the Borrowers’ general corporate needs, including working capital requirements, capital expenditures, surety deposits and acquisition financing. The maximum amount of the revolving line of credit under the Credit Facility is the lesser of \$40.0 million and a monthly borrowing base.

The borrowing base under the Credit Facility will increase or decrease monthly using a formula based on certain eligible receivables, eligible inventory and other amounts, including a percentage of the net orderly liquidation value the Borrowers’ multi-client data library (not to exceed \$15.0 million for the multi-client data library data component). As of March 31, 2018, the borrowing base under the Credit Facility was \$23.6 million, and there was zero outstanding indebtedness under the Credit Facility. Even though we experienced an increase in our accounts and unbilled receivables from one year ago, those increases were part of our foreign operations which are not included in the borrowing base calculation.

The Credit Facility requires us to maintain compliance with various covenants. At March 31, 2018, we were in compliance with all of the covenants under the Credit Facility. For further information regarding our Credit Facility, see above Footnote 5 “Long-term Debt” of Footnotes to Unaudited Condensed Financial Statements.

### Senior Secured Notes

As of December 31, 2017, ION Geophysical Corporation’s 9.125% Senior Secured Second Priority Notes due December 2021 (the “Second Lien Notes”) had an outstanding aggregate principal amount of \$120.6 million, and ION Geophysical Corporation’s 8.125% Senior Third Priority Notes due May 2018 (the “Third Lien Notes”) had an

outstanding aggregate principal amount of \$28.5 million. (The Third Lien Notes and the Second Lien Notes are herein, collectively the “Notes”). In March 2018, we obtained consent from a majority of the Second Lien Notes holders and from PNC to redeem, in full, the Third Lien Notes prior to their stated maturity. On March 26, 2018, we redeemed the Third Lien Notes paying the then outstanding principal balance of \$28.5 million, plus all accrued and unpaid interest through the redemption date. For a complete discussion of the Third Lien Notes prior to their early redemption, see Footnote 3 to the Financial Statements included in our Annual Report on Form 10-K, as amended for the year ended December 31, 2017.

The Second Lien Notes remain outstanding and are senior secured second-priority obligations guaranteed by the Company's material U.S. subsidiaries, GX Technology Corporation, ION Exploration Products (U.S.A.), Inc. and I/O Marine Systems, Inc. (the "Guarantors"). The Second Lien Notes mature on December 15, 2021. Interest on the Second Lien Notes accrues at the rate of 9.125% per annum and is payable semiannually in arrears on June 15 and December 15 of each year during their term, except that the interest payment otherwise payable on June 15, 2021 will be payable on December 15, 2021.

The April 2016 indenture governing the Second Lien Notes (the "Second Lien Notes Indenture") contains certain covenants that, among other things, limits or prohibits our ability and the ability of our restricted subsidiaries to take certain actions or permit certain conditions to exist during the term of the Second Lien Notes, including among other things, incurring additional indebtedness, creating liens, paying dividends and making other distributions in respect of our capital stock, redeeming our capital stock, making investments or certain other restricted payments, selling certain kinds of assets, entering into transactions with affiliates, and effecting mergers or consolidations. These and other restrictive covenants contained in the Second Lien Notes Indenture are subject to certain exceptions and qualifications. All of our subsidiaries are currently restricted subsidiaries.

As of March 31, 2018, we were in compliance with all of the covenants under the Second Lien Notes Indenture. On or after December 15, 2019, we may on one or more occasions redeem all or a part of the Second Lien Notes at the redemption prices set forth below, plus accrued and unpaid interest and special interest, if any, on the Second Lien Notes redeemed during the 12-month period beginning on December 15th of the years indicated below:

Date	Percentage
2019	105.500%
2020	103.500%
2021 and thereafter	100.000%

#### Meeting our Liquidity Requirements

As of March 31, 2018, our total outstanding indebtedness (including capital lease obligations) was approximately \$117.9 million, including approximately \$120.6 million outstanding Second Lien Notes, \$1.0 million of equipment capital leases and other short-term debt, partially offset by \$3.7 million of debt issuance costs.

For the Current Quarter, total capital expenditures, including the investments in our multi-client data library, were \$9.3 million. We expect investments in our multi-client data library this year to be in the range of \$30 million to \$45 million. We expect capital expenditures related to property, plant, equipment and seismic rental assets to be in the range of \$1 million to \$2 million in 2018.

During the Current Period, we paid \$1.25 million of the \$5.0 million litigation accrual we established in the first quarter of 2017 with a \$2.5 million balance remaining to be paid in 2018. We believe that our existing cash balance, cash from operations and undrawn availability under our Credit Facility will be sufficient to meet our anticipated cash needs for at least the next 12 months. However, as described at Part II, Item 1. "Legal Proceedings," there are possible scenarios involving an outcome in the WesternGeco lawsuit that could materially and adversely affect our liquidity and as a result, our business, financial condition and results of operations.

#### Cash Flow from Operations

In the Current Period, we generated \$0.6 million of cash from operating activities compared to \$1.8 million for the Comparable Period. The decrease was driven by reductions in accounts payable and accrued expenses, partially offset by collections of our combined accounts and unbilled receivable balance.

#### Cash Flow from Investing Activities

Cash used in investing activities was \$9.3 million in the Current Period compared to \$3.4 million for the Comparable Period. The principal uses of cash in our investing activities during the Current Quarter were \$9.2 million invested in our multi-client data library and \$0.1 million for capital expenditures related to property, plant, equipment and seismic rental assets.

The principal use of cash in our investing activities during the Comparable Quarter were \$3.4 million invested in our multi-client data library.





#### Cash Flow from Financing Activities

Net cash provided by financing activities was \$7.5 million in the Current Period, compared to \$2.0 million of cash used in the Comparable Quarter. Cash provided by financing activities was related to \$47.2 million of net cash received from our equity offering, partially offset by \$29.1 million of payments of long-term debt, including equipment capital leases, and a \$10.0 million repayment of our Credit Facility in the Current Quarter .

The net cash used in financing activities during the Comparable Quarter was primarily related to \$1.7 million of payments of long-term debt, including equipment capital leases.

#### Inflation and Seasonality

Inflation in recent years has not had a material effect on our cost of goods or labor, or the prices for our products or services. Traditionally, our business has been seasonal, with strongest demand often occurring in the fourth quarter of our fiscal year.

#### Critical Accounting Policies and Estimates

Refer to our Annual Report on Form 10-K as amended for the year ended December 31, 2017, for a complete discussion of our significant accounting policies and estimates. Except for our adoption of (ASC) 606, “Revenue from Contracts with Customers”, (“new revenue standard”), which did not have a material impact on our consolidated balance sheets or consolidated statement of operations for any of our reporting segments, there have been no other material changes in the Current Quarter regarding our critical accounting policies and estimates. For discussion of our adoptions of the new revenue standards, see Footnote 4 “Revenue From Contracts With Customers” of Footnotes to Unaudited Condensed Consolidated Financial Statements.

#### Revenue Recognition

We derive revenue from the sale of (i) multi-client and proprietary surveys, licenses of “on-the-shelf” data libraries and imaging services, within our E&P Technologies & Services segment; (ii) seismic data acquisition systems and other seismic equipment, (iii) seismic command and control software systems and software solutions for operations management within our Operations Optimization segment; and (iv) fully-integrated OBS solutions that include survey design and planning and data acquisition within our Ocean Bottom Integrated Technologies segment. All revenues of the E&P Technology & Services and Ocean Bottom Integrated Technologies segments and the services component of revenues for the Optimization Software & Services group as part of the Operations Optimization segment are classified as services revenues. All other revenues are classified as product revenues.

We use a five-step model to determine proper revenue recognition from customer contracts. Revenue is recognized when (i) a contract is approved by all parties; (ii) the goods or services promised in the contract are identified; (iii) the consideration we expect to receive in exchange for the goods or services promised is determined; (iv) the consideration is allocated to the goods and services in the contract; and (v) control of the promised goods or services is transferred to the customer. We do not disclose the value of contractual future performance obligations with an original expected length of one year or less.

**Multi-Client and Proprietary Surveys, and Imaging Services** - As multi-client seismic surveys are being designed, acquired or processed (the “New Venture” phase), we enter into non-exclusive licensing arrangements with our customers, who pre-fund or underwrite these programs in part. License revenues from these surveys are recognized during the New Venture phase as the seismic data is acquired and/or processed on a proportionate basis as work is performed and control is transferred to the customer. Under this method, we recognize revenues based upon quantifiable measures of progress, such as kilometers acquired or surveys of performance completed to date. Upon completion of a multi-client seismic survey, it is considered “on-the-shelf,” and licenses to the survey data are granted to customers on a non-exclusive basis.

We also perform seismic surveys, imaging and other services under contracts to specific customers, whereby the seismic data is owned by those customers. We recognize revenue as the seismic data is acquired and/or processed on a proportionate basis as work is performed. We use quantifiable measures of progress consistent with our multi-client seismic surveys.

**Acquisition Systems and Other Seismic Equipment** - For sales of seismic data acquisition systems and other seismic equipment, we recognize revenue when control of the goods has transferred to the customer. Transfer of control generally occurs when (i) we have a present right to payment; (ii) the customer has legal title to the asset; (iii) we have

transferred physical possession of the asset; (iv) the customer has significant rewards of ownership; and/or (v) the customer has accepted the asset.

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Software - Licenses for the navigation, survey and quality control software systems provide the customer with a right to use the software. We offer usage-based licenses where we receives a monthly fee based on the number of vessels and licenses used each month. For these usage-based licenses, we recognize revenue as the performance obligations are performed over the contract term, which is generally two to five years. In addition to usage-based licenses, we offer perpetual software licenses which provide the customer with a right to use the software as it exists when made available to the customer. Revenue from these licenses is recognized upfront at the point in time when the software is made available to the customer.

These arrangements generally include us providing related services, such as training courses, engineering services and annual software maintenance. We allocate consideration to each element of the arrangement based upon directly observable or estimated standalone selling prices. Revenue is recognized for these services as control transfers to the customer over time.

Ocean Bottom Integrated Technologies - We recognize revenue as the seismic data is acquired and control transfers to the customer. We use quantifiable measures of progress consistent with our multi-client surveys. In connection with acquisition contracts, we may receive revenues for preparation and mobilization of equipment and personnel, capital improvements to vessels, or demobilization activities. We defer the revenues earned and incremental costs incurred that are directly related to these activities and recognize such revenues and costs over the primary contract term of the acquisition project as we transfer the goods and services to the customer. We recognize the costs of relocating vessels without contracts to more promising market sectors as such costs are incurred.

#### Foreign Sales Risks

The majority of our foreign sales are denominated in U.S. dollars. Product revenues are allocated to geographical locations on the basis of the ultimate destination of the equipment, if known. If the ultimate destination of such equipment is not known, product revenues are allocated to the geographical location of initial shipment. Service revenues, which primarily relate to our E&P Technology & Services segment, are allocated based upon the billing location of the customer. For the Current and Comparable Quarters, international sales comprised 76% and 77%, respectively, of total net revenues.

The following table is a summary of net revenues by geographic area (in thousands):

	Three Months Ended March 31,	
	2018	2017
Net revenues by geographic area:		
Latin America	\$9,852	\$6,585
North America	8,048	7,395
Europe	5,549	5,636
Africa	5,019	560
Asia Pacific	3,934	4,823
Middle East	749	580
CIS	357	6,977
Total	\$33,508	\$32,556

#### Credit Risks

At March 31, 2018, we had no customers with a balance greater than 10% of our total combined accounts and unbilled receivable balances. However, there were two multi-national oil company customers that comprised 15% and 10% of our total net revenues for the three months ended March 31, 2018.

The loss of these customers or deterioration in our relationship with these customers could have a material adverse effect on our results of operations and financial condition.

#### Item 3. Quantitative and Qualitative Disclosures about Market Risk

Refer to Item 7A of our Annual Report on Form 10-K, as amended for the year ended December 31, 2017 for a discussion regarding our quantitative and qualitative disclosures about market risk. There have been no material changes to those disclosures during the Current Quarter.

#### Item 4. Controls and Procedures

Disclosure Controls and Procedures. Disclosure controls and procedures are designed to ensure that information required to be disclosed in the reports we file with or submit to the Securities and Exchange Commission (the “SEC”) under the Securities Exchange Act of 1934, as amended (the “Exchange Act”) is recorded, processed, summarized and reported within the time period specified by the SEC’s rules and forms. Disclosure controls and procedures are defined in Rule 13a-15(e) under the Exchange Act, and they include, without limitation, controls and procedures designed to ensure that information required to be disclosed under the Exchange Act is accumulated and communicated to management, including the principal executive officer and the principal financial officer, as appropriate, to allow timely decisions regarding required disclosure.

Our management carried out an evaluation of the effectiveness of the design and operation of our disclosure controls and procedures as of March 31, 2018. Based upon that evaluation, our principal executive officer and principal financial officer have concluded that our disclosure controls and procedures were effective as of March 31, 2018.

Changes in Internal Control over Financial Reporting. There was not any change in our internal control over financial reporting that occurred during the three months ended March 31, 2018, which has materially affected, or is reasonably likely to materially affect, our internal control over financial reporting.

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## PART II — OTHER INFORMATION

### Item 1. Legal Proceedings

#### WesternGeco

In June 2009, WesternGeco L.L.C. (“WesternGeco”) filed a lawsuit against us in the United States District Court for the Southern District of Texas, Houston Division. In the lawsuit, styled WesternGeco L.L.C. v. ION Geophysical Corporation, WesternGeco alleged that we had infringed several method and apparatus claims contained in four of its United States patents regarding marine seismic streamer steering devices.

The trial began in July 2012. A verdict was returned by the jury in August 2012, finding that we infringed the claims contained in the four patents by supplying our DigiFIN<sup>®</sup> lateral streamer control units and the related software from the United States and awarded WesternGeco the sum of \$105.9 million in damages, consisting of \$12.5 million in reasonable royalties and \$93.4 million in lost profits.

In June 2013, the presiding judge entered a Memorandum and Order, denying the Company’s post-verdict motions that challenged the jury’s infringement findings and the damages amount. In the Memorandum and Order, the judge also ruled that WesternGeco was entitled to be awarded supplemental damages for the additional DigiFIN units that were supplied from the United States before and after the trial that were not included in the jury verdict due to the timing of the trial. In October 2013, the judge entered another Memorandum and Order, ruling on the number of DigiFIN units that were subject to supplemental damages and also ruling that the supplemental damages applicable to the additional units were to be calculated by adding together the jury’s previous reasonable royalty and lost profits damages awards per unit, resulting in supplemental damages of \$73.1 million.

In April 2014, the judge entered another Order, ruling that lost profits should not have been included in the calculation of supplemental damages in the October 2013 Memorandum and Order and reducing the supplemental damages award in the case from \$73.1 million to \$9.4 million. In the Order, the judge also further reduced the damages awarded in the case by \$3.0 million to reflect a settlement and license that WesternGeco entered into with a customer of ours that had purchased and used DigiFIN units that were also included in the damage amounts awarded against us.

In May 2014, the judge signed and entered a Final Judgment against us in the amount of \$123.8 million. The Final Judgment also included an injunction that enjoins us, our agents and anyone acting in concert with us, from supplying in or from the United States the DigiFIN product or any parts unique to the DigiFIN product, or any instrumentality no more than colorably different from any of these products or parts, for combination outside of the United States. We have conducted our business in compliance with the District Court’s orders in the case, and we have reorganized our operations such that we no longer supply the DigiFIN product or any part unique to the DigiFIN product in or from the United States.

We and WesternGeco each appealed the Final Judgment to the United States Court of Appeals for the Federal Circuit in Washington, D.C. (the “Court of Appeals”). On July 2, 2015, the Court of Appeals reversed in part the Final Judgment of the District Court, holding the District Court erred by including lost profits in the Final Judgment. Lost profits were \$93.4 million and prejudgment interest on the lost profits was approximately \$10.9 million of the \$123.8 million Final Judgment. Pre-judgment interest on the lost profits portion will be treated in the same way as the lost profits. Post-judgment interest will likewise be treated in the same fashion. On July 29, 2015, WesternGeco filed a petition for rehearing en banc before the Court of Appeals. On October 30, 2015, the Court of Appeals denied WesternGeco’s petition for rehearing en banc.

As previously disclosed, we recorded a loss contingency accrual of \$123.8 million. As a result of the reversal by the Court of Appeals, as of June 30, 2015, we reduced our loss contingency accrual to \$22.0 million.

On February 26, 2016, WesternGeco filed a petition for writ of certiorari by the Supreme Court. We filed our response on April 27, 2016. Subsequently, on June 20, 2016, the Supreme Court vacated the Court of Appeals’ ruling although it did not address the lost profits question at that time. Rather, in light of the changes in case law regarding the standard of proof for willfulness in the Halo and Stryker cases, the Supreme Court indicated that the case should be remanded to the Court of Appeals for a determination of whether or not the willfulness determination by the District Court was appropriate.

On October 14, 2016, the Court of Appeals issued a mandate returning the case to the District Court for consideration of whether or not additional damages for willfulness were appropriate.

On November 14, 2016, the District Court ordered the sureties to pay principal and interest on the royalty damages previously awarded and declined to issue a final judgment until after consideration of whether enhanced damages for willfulness would be awarded. While we disagreed with the decision by the District Court ordering payment of the royalty damages and interest without a final judgment, on November 25, 2016, we paid WesternGeco the \$20.8 million due pursuant to the order, at which point we reduced our loss contingency accrual to zero.

On March 14, 2017, the District Court held a hearing on whether or not additional damages for willfulness would be payable. The Judge found that our infringement was willful, based on his perception that we did not adequately investigate the scope of the patents, and our conduct during trial. However, in his ruling at the hearing, he limited enhanced damages to \$5.0 million because it was a “close case,” there was no evidence of copying, and we were simply acting as a competitor in a capitalist marketplace. The District Court also ordered the appeal bond to be released and discharged. The Court’s findings and ruling were memorialized in an order issued on May 16, 2017. On June 30, 2017, WesternGeco and we jointly agreed that neither party would appeal the District Court’s award of \$5.0 million in enhanced damages. The parties also agreed that the \$5.0 million would be paid over the course of 12 months with \$1.25 million being paid in two installments of \$0.625 million in 2017 and the remaining \$3.75 million being paid in three quarterly payments of \$1.25 million beginning January 1, 2018. This agreement was memorialized by the court in an order issued on July 26, 2017. Upon assessment of the \$5.0 million in enhanced damages, we accrued \$5.0 million in the first quarter of 2017. As we have made the payments, the accrual has been adjusted, and as of March 31, 2018, the loss contingency accrual was \$2.5 million.

WesternGeco filed a second petition for writ of certiorari in the U.S. Supreme Court on February 17, 2017, appealing the lost profits issue again. We filed our response to WesternGeco’s second attempt to appeal to the Supreme Court the lost profits issue, raising both the substantive matters we addressed by opposing WesternGeco’s first petition, and also advancing a procedural argument that WesternGeco could not raise the same issue for a second time in a second petition for certiorari. On May 30, 2017, the Supreme Court called for the views of the U.S. Solicitor General regarding whether or not to grant certiorari. We and WesternGeco each met with the Solicitor General’s office in late July, 2017. On December 6, 2017, the Solicitor General filed its brief, and took the position that the Supreme Court ought to grant certiorari. On January 12, 2018, the Supreme Court granted certiorari as to whether the Court of Appeals erred in holding that lost profits arising from use of prohibited combinations occurring outside of the United States are categorically unavailable in cases where patent infringement is proven under 35 U.S.C. § 271(f)(2) (the specific statute under which we were ultimately held to have infringed WesternGeco’s patents and upon which the District Court and the Court of Appeals relied in entering their final rulings).

The Supreme Court heard oral arguments on April 16, 2018. At oral arguments, we argued that the Court of Appeals’ decision that eliminated lost profits ought to be affirmed. WesternGeco and the Solicitor General argued that the Court of Appeals’ decision that eliminated lost profits ought to be reversed. We anticipate that the Supreme Court will issue a decision by the end of June of 2018.

At the Court of Appeals we presented multiple arguments as to why the District Court’s award of lost profits was improper. The lost profits damages awarded by the District Court were based on the use of our products by our customers outside of the United States. We argued at the Court of Appeals, and at the Supreme Court, that, as a matter of law, WesternGeco cannot recoup lost profits for the overseas use of our products. We also argued in the Court of Appeals that, under the jury instructions given in our case, the jury was required to find that we had been a direct competitor of WesternGeco in the survey markets where WesternGeco lost profits in order for WesternGeco to recoup them. Because the Court of Appeals ruled in our favor on the first argument, and overturned the award of lost profits on that basis, the Court of Appeals did not rule on our “direct competitor” argument, and that argument was not presented to the Supreme Court for review. If the Supreme Court overturns the Court of Appeals’ decision that lost profits cannot be awarded to WesternGeco because the subsequent use of the apparatus was overseas, the case will likely be remanded back to the Court of Appeals, at which time we will present our second argument (that lost profits should not be awarded to WesternGeco because they were not our direct competitor).

Other proceedings may have an impact on WesternGeco’s ability to recover lost profits damages even if WesternGeco prevails in the Supreme Court, and even if we do not prevail on the “direct competitor” argument in the Court of Appeals. We were a party to a challenge to the validity of several of WesternGeco’s patent claims by means of an Inter Partes Review (“IPR”) with the Patent Trial and Appeal Board (“PTAB”). While the above-described lawsuit was pending on appeal, the PTAB invalidated four of the six patent claims that formed the basis for the jury verdict in the lawsuit. WesternGeco appealed that decision to the Court of Appeals, which heard our and WesternGeco’s arguments on January 23, 2018. If the Court of Appeals affirms the PTAB’s invalidation of the patents, that may provide a separate ground for reducing or vacating any lost-profits award in the lawsuit. We expect the Court of Appeals to rule on the



PTAB issue in the second quarter of 2018. In April of 2018, the United States Supreme Court issued a decision in a case we were not involved in (*Oil States v. Greene's Energy Group*) that affirmed the constitutionality of the IPR process to invalidate patent claims.

We may not ultimately prevail in any of the appeals processes noted above and we could be required to pay some or all of the lost profits that were awarded by the District Court. Our assessment that we do not have a loss contingency (other than the \$2.5 million noted above) may change in the future due to developments at the Supreme Court, Court of Appeals, or District Court, and other events, such as changes in applicable law, and such reassessment could lead to the determination that an additional loss contingency is probable, which could have a material effect on our business, financial condition and results of operations. Our assessments disclosed in this Quarterly Report on Form 10-Q or elsewhere are based on currently available information and involve elements of judgment and significant uncertainties. See above, Footnote 8 "Litigation" of Footnotes to Unaudited Condensed Financial Statements".

### Other Litigation

We have been named in various other lawsuits or threatened actions that are incidental to our ordinary business. Litigation is inherently unpredictable. Any claims against us, whether meritorious or not, could be time-consuming, cause us to incur costs and expenses, require significant amounts of management time and result in the diversion of significant operational resources. The results of these lawsuits and actions cannot be predicted with certainty. We currently believe that the ultimate resolution of these matters will not have a material adverse effect on our financial condition or results of operations or our liquidity.

### Item 1A. Risk Factors

This report contains or incorporates by reference statements concerning our future results and performance and other matters that are “forward-looking” statements within the meaning of Section 27A of the Securities Act of 1933, as amended (“Securities Act”), and Section 21E of the Securities Exchange Act of 1934, as amended (“Exchange Act”). These statements involve known and unknown risks, uncertainties, and other factors that may cause our or our industry’s results, levels of activity, performance, or achievements to be materially different from any future results, levels of activity, performance, or achievements expressed or implied by such forward-looking statements. In some cases, you can identify forward-looking statements by terminology such as “may,” “will,” “would,” “should,” “intend,” “expect,” “plan,” “anticipate,” “believe,” “estimate,” “predict,” “potential,” or “continue” or the negative of such terms or other comparative terminology. Examples of other forward-looking statements contained or incorporated by reference in this report include statements regarding:

- any additional damages or adverse rulings in 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 availability of cash to fund our operations and pay our obligations;
- the effects of current and future unrest in the Middle East, North Africa, Korea 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 the change in our OBS strategy and the success of marketing our 4Sea technology;
- 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;  
 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.

These forward-looking statements reflect our best judgment about future events and trends based on the information currently available to us. Our results of operations can be affected by inaccurate assumptions we make or by risks and uncertainties known or unknown to us. Therefore, we cannot guarantee the accuracy of the forward-looking statements. Actual events and results of operations may vary materially from our current expectations and assumptions.

Information regarding factors that may cause actual results to vary from our expectations, referred to as “risk factors,” appears in our Annual Report on Form 10-K as amended for the year ended December 31, 2017, in Part I, Item 1A. “Risk Factors,” as previously filed with the SEC.

#### Item 2. Unregistered Sales of Equity Securities and Use of Proceeds

(c) During the three months ended March 31, 2018, in connection with the vesting of (or lapse of restrictions on) shares of our restricted stock held by certain employees, we acquired shares of our common stock in satisfaction of tax withholding obligations that were incurred on the vesting date. The date of acquisition, number of shares and average effective acquisition price per share were as follows:

Period	(a) Total Number of Shares Acquired	(b) Average Price Paid Per Share	(c) Total Number of Shares Purchased as Part of Publicly Announced Plans or Program	(d) Maximum Number (or Approximate Dollar Value) of Shares That May Yet Be Purchased Under the Plans or Program
January 1, 2018 to January 31, 2018	—	\$ —	Not applicable	Not applicable
February 1, 2018 to February 28, 2018	—	\$ —	Not applicable	Not applicable
March 1, 2018 to March 31, 2018	22,456	\$ 28.10	Not applicable	Not applicable
Total	22,456	\$ 28.10		

#### Item 5. Other Information

None.

Item 6. Exhibits

31.1 Certification of Chief Executive Officer Pursuant to Rule 13a-14(a).

31.2 Certification of Chief Financial Officer Pursuant to Rule 13a-14(a).

32.1 Certification of Chief Executive Officer Pursuant to 18 U.S.C. §1350.

32.2 Certification of Chief Financial Officer Pursuant to 18 U.S.C. §1350.

10.22 Form of Warrant Agreement, filed on February 16, 2018 as Exhibit 10.1 to the Company's Current Report on Form 8-K, and incorporated herein by reference.

101 The following materials are formatted in Extensible Business Reporting Language (XBRL): (i) Condensed Consolidated Balance Sheets as of March 31, 2018 and December 31, 2017, (ii) Condensed Consolidated Statements of Operations for the three months ended March 31, 2018 and 2017, (iii) Condensed Consolidated Statements of Comprehensive Loss for the three months ended March 31, 2018 and 2017, (iv) Condensed Consolidated Statements of Cash Flows for the three months ended March 31, 2018 and 2017, (v) Footnotes to Unaudited Condensed Consolidated Financial Statements.

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the Registrant has duly caused this report to be signed on its behalf by the undersigned thereunto duly authorized.

ION GEOPHYSICAL CORPORATION

By /s/ Steven A. Bate  
Steven A. Bate  
Executive Vice President and Chief Financial Officer

Date: May 3, 2018

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EXHIBIT INDEX

Exhibit No. Description

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