

ION GEOPHYSICAL CORP
Form 10-Q
November 03, 2016

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 SEPTEMBER 30, 2016

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, or a smaller reporting company. See the definitions of "large accelerated filer," "accelerated filer" and "smaller reporting company" in Rule 12b-2 of the Exchange Act. (Check one):

Large accelerated filer Accelerated filer

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

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

Yes No

At October 25, 2016, there were 11,786,297 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)

	September 30, 2016	December 31, 2015
	(In thousands, except share data)	
ASSETS		
Current assets:		
Cash and cash equivalents	\$ 62,536	\$ 84,933
Accounts receivable, net	34,686	44,365
Unbilled receivables	23,680	19,937
Inventories	33,308	32,721
Prepaid expenses and other current assets	9,910	14,807
Total current assets	164,120	196,763
Property, plant, equipment and seismic rental equipment, net	53,524	72,027
Multi-client data library, net	112,705	132,237
Goodwill	23,412	26,274
Intangible assets, net	3,526	4,810
Other assets	2,395	2,977
Total assets	\$ 359,682	\$ 435,088
LIABILITIES AND EQUITY		
Current liabilities:		
Current maturities of long-term debt	\$ 19,226	\$ 7,912
Accounts payable	32,034	29,799
Accrued expenses	32,753	34,287
Accrued multi-client data library royalties	22,344	25,045
Deferred revenue	4,395	6,560
Total current liabilities	110,752	103,603
Long-term debt, net of current maturities	144,299	175,080
Other long-term liabilities	44,157	44,365
Total liabilities	299,208	323,048
Equity:		
Common stock, \$0.01 par value; authorized 26,666,667 shares; outstanding 11,786,297 and 10,702,689 shares at September 30, 2016 and December 31, 2015, respectively, net of treasury stock	118	107
Additional paid-in capital	898,238	894,715
Accumulated deficit	(818,188) (759,531
Accumulated other comprehensive loss	(20,063) (14,781
Treasury stock, at cost, zero and 353,124 shares at September 30, 2016 and December 31, 2015 respectively	—	(8,551
Total stockholders' equity	60,105	111,959
Noncontrolling interest	369	81
Total equity	60,474	112,040
Total liabilities and equity	\$ 359,682	\$ 435,088

See accompanying Footnotes to Unaudited Condensed Consolidated Financial Statements.

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

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2016	2015	2016	2015
	(In thousands, except per share data)			
Service revenues	\$65,914	\$53,515	\$104,500	\$96,918
Product revenues	12,708	13,159	32,939	47,129
Total net revenues	78,622	66,674	137,439	144,047
Cost of services	40,694	47,883	93,706	132,234
Cost of products	6,163	7,683	16,045	26,628
Gross profit (loss)	31,765	11,108	27,688	(14,815)
Operating expenses:				
Research, development and engineering	4,231	6,537	14,601	21,496
Marketing and sales	4,680	6,904	13,374	23,375
General, administrative and other operating expenses	10,990	10,541	34,566	40,566
Total operating expenses	19,901	23,982	62,541	85,437
Income (loss) from operations	11,864	(12,874)	(34,853)	(100,252)
Interest expense, net	(4,607)	(4,854)	(14,043)	(14,086)
Other income (expense), net	(2,027)	(346)	(3,624)	98,035
Income (loss) before income taxes	5,230	(18,074)	(52,520)	(16,303)
Income tax expense, net	3,316	2,082	5,865	3,597
Net income (loss)	1,914	(20,156)	(58,385)	(19,900)
Net (income) loss attributable to noncontrolling interests	(215)	(227)	(272)	322
Net income (loss) attributable to ION	\$1,699	\$(20,383)	\$(58,657)	\$(19,578)
Net income (loss) per share:				
Basic	\$0.14	\$(1.86)	\$(5.21)	\$(1.78)
Diluted	\$0.14	\$(1.86)	\$(5.21)	\$(1.78)
Weighted average number of common shares outstanding:				
Basic	11,786	10,984	11,269	10,978
Diluted	11,907	10,984	11,269	10,978

See accompanying Footnotes to Unaudited Condensed Consolidated Financial Statements.

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

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2016	2015	2016	2015
	(In thousands)			
Net income (loss)	\$1,914	\$(20,156)	\$(58,385)	\$(19,900)
Other comprehensive loss, net of taxes, as appropriate:				
Foreign currency translation adjustments	(1,083)	(1,365)	(5,282)	(757)
Comprehensive net income (loss)	831	(21,521)	(63,667)	(20,657)
Comprehensive (income) loss attributable to noncontrolling interest	(215)	(227)	(272)	322
Comprehensive net income (loss) attributable to ION	\$616	\$(21,748)	\$(63,939)	\$(20,335)

See accompanying Footnotes to Unaudited Condensed Consolidated Financial Statements.

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

	Nine Months Ended September 30,	
	2016	2015
	(In thousands)	
Cash flows from operating activities:		
Net loss	\$(58,385)	\$(19,900)
Adjustments to reconcile net loss to cash provided by (used in) operating activities:		
Depreciation and amortization (other than multi-client data library)	17,024	19,660
Amortization of multi-client data library	23,161	24,531
Stock-based compensation expense	2,512	4,174
Reduction of accrual for loss contingency related to legal proceedings	—	(101,978)
Loss on extinguishment of debt	2,182	—
Deferred income taxes	1,031	5,992
Change in operating assets and liabilities:		
Accounts receivable	9,325	92,424
Unbilled receivables	(3,711)	(9,837)
Inventories	2,374	464
Accounts payable, accrued expenses and accrued royalties	3,381	(43,676)
Deferred revenue	(2,103)	(2,576)
Other assets and liabilities	6,441	(5,274)
Net cash provided by (used in) operating activities	3,232	(35,996)
Cash flows from investing activities:		
Cash invested in multi-client data library	(11,601)	(28,152)
Purchase of property, plant, equipment and seismic rental assets	(567)	(17,601)
Other investing activities	—	1,262
Net cash used in investing activities	(12,168)	(44,491)
Cash flows from financing activities:		
Borrowings under revolving line of credit	15,000	—
Repurchase of common stock	(964)	—
Payments on notes payable and long-term debt	(6,726)	(5,431)
Costs associated with issuance of debt	(6,638)	(146)
Payment to repurchase bonds	(15,000)	—
Other financing activities	13	94
Net cash used in financing activities	(14,315)	(5,483)
Effect of change in foreign currency exchange rates on cash and cash equivalents	854	601
Net decrease in cash and cash equivalents	(22,397)	(85,369)
Cash and cash equivalents at beginning of period	84,933	173,608
Cash and cash equivalents at end of period	\$62,536	\$88,239

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, 2015 has been derived from the Company’s audited consolidated financial statements at that date. The condensed consolidated balance sheet at September 30, 2016, and the condensed consolidated statements of operations and comprehensive loss for the three and nine months ended September 30, 2016 and 2015 and the condensed consolidated statements of cash flows for the nine months ended September 30, 2016 and 2015, are unaudited. In the opinion of management, all adjustments (consisting of normal recurring accruals) considered necessary for a fair presentation have been included. The share numbers have been retroactively adjusted to reflect the one-for-fifteen reverse stock split completed on February 4, 2016. The results of operations for the three and nine months ended September 30, 2016 are not necessarily indicative of the operating results for a full year or of future operations.

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 for the year ended December 31, 2015 and on Form 10-K/A Amendment No. 2, which was filed on June 27, 2016 and contains the separate consolidated financial statements of INOVA Geophysical Equipment Limited (“INOVA Geophysical”) for its fiscal year ended December 31, 2015.

(2) Restructurings and Special Items

The recent decline in crude oil prices to five-year lows and the depressed level of natural gas prices have negatively impacted the economic outlook of the Company’s exploration and production (“E&P”) customers, which has also negatively impacted the outlook for the Company’s seismic contractor customers. In response to the decline in crude oil prices, E&P companies have reduced their capital expenditures and shifted their spending from exploration activities to production-related activities on existing assets. Because seismic spending is discretionary, E&P companies have disproportionately cut their spending on seismic-related services and products.

In April 2016, the Company implemented additional cost saving initiatives by reducing its current workforce by approximately 12%. Additional reductions were needed to further streamline the organization and bring it in line with the Company’s current revenue stream, while maintaining the necessary core capabilities to continue our operations and strategic initiatives. During the nine months ended September 30, 2016, the Company recognized the following pre-tax charges (in thousands):

	Severance Charges ^(a)	Loss on Bond Exchange ^(b)	Total
Cost of goods sold	\$ 1,077	\$ —	\$ 1,077
Operating expenses	932	—	932
Other expense	—	2,182	2,182
Consolidated total	\$ 2,009	\$ 2,182	\$ 4,191

^(a) Represents severance charges related to the second quarter 2016 restructurings.

^(b) Represents a loss on exchange of bonds during the second quarter 2016.

During the nine months ended September 30, 2015, the Company recognized the following pre-tax charges (in thousands):

	Severance Charges(a)	Facility Charges(b)	Reduction of Loss Contingency Accrual (c)	Total
Cost of goods sold	\$ 3,981	\$ —	\$ —	\$3,981
Operating expenses	1,910	1,323	—	3,233
Other expense	—	1,618	(101,978)	(100,360)
Income tax benefit	(119)	(150)	—	(269)
Net income attributable to noncontrolling interest	(172)	—	—	(172)
Consolidated total	\$ 5,600	\$ 2,791	\$ (101,978)	\$ (93,587)

(a) Represents severance charges related to 2015 restructurings, a portion of which relates to noncontrolling interest.

(b) Represents facility charges related to 2015 restructurings.

(c) Represents reduction of loss contingency related to legal proceedings (Footnote 7).

(3) Segment Information

The Company evaluates and reviews its results based on three business segments: E&P Technology and Services, E&P Operations Optimization, and Ocean Bottom Services. In August 2016, the Company announced its plans to realign its four business segments into three. Beginning in the third quarter of 2016, the Company changed its reportable segments as described below:

E&P Technology and Services, formerly referred to as Solutions, continues to be comprised of the groups that support the Company's New Venture and Data Library (together multi-client) revenues and Imaging Services group.

E&P Operations Optimization is comprised of Devices, formerly referred to as Systems, and Optimization Software & Services, formerly referred to as Software. The manufacturing, engineering, research and development of ocean bottom systems is no longer a part of Devices, and are now within Ocean Bottom Services as noted below.

Ocean Bottom Services is comprised of OceanGeo, an ocean bottom data acquisition services company along with the manufacturing, engineering, research and development of ocean bottom systems.

The Company also has an equity ownership interest in its INOVA Geophysical joint venture. As of December 31, 2014, the Company wrote down its investment in INOVA Geophysical to zero and has suspended recording its share of losses in the joint venture. If at a future date, the Company's cumulative share of earnings during the period of suspension becomes greater than its share of losses during the same period, the Company will begin to record its share of earnings in the joint venture at the point its net equity method investment becomes greater than zero.

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

	Three Months Ended		Nine Months Ended	
	September 30,		September 30,	
	2016	2015	2016	2015
Net revenues:				
E&P Technology & Services:				
New Venture	\$8,393	\$26,650	\$16,278	\$35,315
Data Library	21,510	15,302	32,057	24,948
Total multi-client revenues	29,903	41,952	48,335	60,263
Imaging Services	6,134	10,693	19,338	33,731
Total	36,037	52,645	67,673	93,994
E&P Operations Optimization:				
Devices	8,679	7,290	20,664	27,733
Optimization Software & Services	3,922	6,739	12,685	22,320
Total	12,601	14,029	33,349	50,053
Ocean Bottom Services	29,984	—	36,417	—
Total	\$78,622	\$66,674	\$137,439	\$144,047
Gross profit (loss):				
E&P Technology & Services	\$12,888	\$11,294	\$(418)	\$(6,954)
E&P Operations Optimization	6,866	7,039	16,647	25,971
Ocean Bottom Services	12,011	(7,225)	11,459	(33,832)
Total	\$31,765	\$11,108	\$27,688	\$(14,815)
Gross margin:				
E&P Technology & Services	36	% 21	% (1)	% (7)
E&P Operations Optimization	54	% 50	% 50	% 52
Ocean Bottom Services	40	% —	% 31	% —
Total	40	% 17	% 20	% (10)
Income (loss) from operations:				
E&P Technology & Services	\$7,259	\$1,642	\$(16,867)	\$(37,401)
E&P Operations Optimization	3,682	3,916	7,162	15,786
Ocean Bottom Services	9,320	(10,287)	2,053	(46,457)
Support and other	(8,397)	(8,145)	(27,201)	(32,180)

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Income (loss) from operations	11,864	(12,874)	(34,853)	(100,252)
Interest expense, net	(4,607)	(4,854)	(14,043)	(14,086)
Other income (expense), net	(2,027)	(346)	(3,624)	98,035
Income (loss) before income taxes	\$5,230	\$(18,074)	\$(52,520)	\$(16,303)

(4) Long-term Debt

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

Obligations (in thousands)	September 30, 2016	December 31, 2015
Senior secured second-priority lien notes (maturing December 15, 2021)	\$ 120,569	\$ —
Senior secured third-priority lien notes (maturing May 15, 2018)	28,497	175,000
Revolving line of credit	15,000	—
Equipment capital leases	4,701	9,762
Other debt	111	1,558
Costs associated with issuances of debt ⁽¹⁾	(5,353)	(3,328)
Total	163,525	182,992
Current portion of long-term debt and lease obligations	(19,226)	(7,912)
Non-current portion of long-term debt and lease obligations	\$ 144,299	\$ 175,080

⁽¹⁾ Represents debt issuance costs presented as a direct deduction from the carrying amount of the associated debt liability.

Revolving Credit Facility

In August 2014, ION and its material U.S. subsidiaries, ION Exploration Products (U.S.A.), Inc., I/O Marine Systems, Inc. and GX Technology Corporation (collectively, the “Subsidiary Borrowers”), and together with the Company, 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 (as defined below) (the Original Credit Agreement, as amended by the First Amendment, and the Second Amendment, the “Credit Facility”). For a complete discussion of the terms, available credit and security of this Credit Facility, prior to the effectiveness of the Second Amendment, see Footnote 4 to the Financial Statements included in the Company’s Annual Report on Form 10-K for the year ended December 31, 2015.

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 (which may be recalculated more frequently under certain circumstances).

On April 28, 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 the Company’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 reduced the amount available to be borrowed by the aggregate amount owing under all Third Lien Notes that remain 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 the Company 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 incorporated 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 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 data library (not to exceed \$15.0 million for the multi-client data library data component). As of September 30, 2016, the borrowing base under the Credit Facility was \$30.9 million, and there was \$15.0 million of indebtedness under the Credit Facility. 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 ION and the Subsidiary 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'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 the Company's excess availability to borrow (\$15.9 million at September 30, 2016) plus the aggregate amount of unrestricted cash held by ION, the Subsidiary Borrowers and their domestic subsidiaries.

At September 30, 2016, the Company 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), the occurrence of which could lead to an acceleration of the Company's obligations under the Credit Facility as amended.

Senior Secured Notes

In May 2013, the Company sold \$175.0 million aggregate principal amount of 8.125% Senior Secured Second-Priority Notes due 2018 (the "Third Lien Notes") in a private offering pursuant to an Indenture dated as of May 13, 2013 (the Third Lien Notes Indenture"). Prior to the completion of the Exchange Offer (as defined below) and Consent Solicitation (as defined below) on April 28, 2016, the Third Lien Notes were senior secured second-priority obligations of the Company. After giving effect to the Exchange Offer and Consent Solicitation, the remaining aggregate principal amount of approximately \$28.5 million of outstanding Third Lien Notes became senior secured third-priority obligations of the Company subordinated to the liens securing all senior and second priority indebtedness of the Company, including under the Credit Facility and Second-Priority Lien Notes (defined below). Pursuant to the Exchange Offer and Consent Solicitation, the Company (i) issued approximately \$120.6 million in aggregate principal amount of the Company's new 9.125% Senior Secured Second Priority Notes due 2021 (the "Second Lien Notes," and collectively with the Third Lien Notes, the "Notes") and 1,205,477 shares of the Company's common stock in exchange for approximately \$120.6 million in aggregate principal amount of Third Lien Notes, and (ii) purchased approximately \$25.9 million in aggregate principal amount of Third Lien Notes in exchange for aggregate cash consideration totaling approximately \$15.0 million, plus accrued and unpaid interest on the Third Lien Notes from the applicable last interest payment date to, but not including, April 28, 2016.

After giving effect to the Exchange Offer and Consent Solicitation, the aggregate principal amount of the Third Lien Notes remaining outstanding was approximately \$28.5 million and the aggregate principal amount of Second Lien Notes outstanding was approximately \$120.6 million. See "Exchange Offer" below.

The Third Lien Notes are 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"), and mature on May 15, 2018. Interest on the Third Lien Notes accrues at the rate of 8.125% per annum and will be payable semiannually in arrears on May 15 and November 15 of each year during their term. In May 2014, the holders of the Third Lien Notes exchanged their Third Lien Notes for a like principal amount of registered Third Lien Notes with the same terms. For a complete discussion of the terms and security the Third Lien Notes in effect prior to the completion of the Exchange Offer and Consent Solicitation on April 28, 2016, see Footnote 4 to the Financial Statements included in the Company's Annual Report on Form 10-K for the year ended December 31, 2015.

Prior to the completion of the Exchange Offer and Consent Solicitation, the Third Lien Notes Indenture contained certain covenants that, among other things, limited or prohibited the Company's ability and the ability of its restricted subsidiaries to take certain actions or permit certain conditions to exist during the term of the Third Lien Notes, including among other things, incurring additional indebtedness, creating liens, paying dividends and making other distributions in respect of the Company's capital stock, redeeming the Company'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 Third Lien Notes Indenture are subject to certain exceptions and qualifications. After giving effect to the Exchange Offer and Consent Solicitation, the Third Lien Notes Indenture was amended to, among other things, provide for the release of the second priority security interest in the collateral securing the remaining Third Lien Notes and the grant of a third priority security interest in the collateral, subordinate to liens securing all senior and second priority indebtedness of the Company, including the Credit Facility and the Second Lien Notes, and eliminate substantially all of the restrictive covenants and certain events of default pertaining to the remaining Third Lien Notes.

As of September 30, 2016, the Company was in compliance with the covenants with respect to the Third Lien Notes. On or after May 15, 2015, the Company may on one or more occasions redeem all or a part of the Third Lien Notes at the redemption prices set forth below, plus accrued and unpaid interest and special interest, if any, on the Third Lien Notes redeemed during the twelve-month period beginning on May 15th of the years indicated below:

Date	Percentage
2015	104.063%
2016	102.031%
2017 and thereafter	100.000%

The Second Lien Notes are senior secured second-priority obligations guaranteed by 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, beginning June 15, 2016, except that the interest payment otherwise payable on June 15, 2021 will be payable on December 15, 2021. The indenture dated April 28, 2016 governing the Second Lien Notes (the "Second Lien Notes Indenture") contains certain covenants that, among other things, limits or prohibits the Company'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 the Company's capital stock, redeeming the Company'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 the Company's subsidiaries are currently restricted subsidiaries. As of September 30, 2016, the Company 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%

For additional information regarding the terms and security of the Third Lien Notes and related Third Lien Notes Indenture and intercreditor agreement in effect prior to the completion of the Exchange Offer and Consent Solicitation, see the Company's Current Report on Form 8-K filed with the SEC on May 13, 2013. For additional information regarding the terms and security of the Third Lien Notes after giving effect to the Exchange Offer and Consent Solicitation, the amendments to the Third Lien Notes Indenture, the terms and security of the Second Lien Notes, the Second Lien Notes Indenture and the related intercreditor agreement, see the Company's Current Report on Form 8-K filed with the SEC on April 28, 2016.

Exchange Offer

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On April 28, 2016, the Company successfully completed the previously announced exchange offer (the “Exchange Offer”) and consent solicitation (the “Consent Solicitation”) related to the Third Lien Notes. The Company did not receive any cash proceeds in connection with the Exchange Offer and Consent Solicitation.

Under the terms of the Exchange Offer, for each \$1,000 principal amount of Third Lien Notes validly tendered for exchange and not validly withdrawn by an eligible holder (an “Exchange Participant”) prior to 11:59 P.M., New York City time, on April 25, 2016, and accepted for exchange by the Company, the Company offered the consideration (the “Exchange Consideration”) of (i) \$1,000 principal amount of Second Lien Notes plus (ii) either (a) for Third Lien Notes tendered at or prior to 4:59 P.M., New York City time, on April 15, 2016 (the “Extended Early Tender Deadline”), ten (10) shares of the Company’s common stock (the “Early Stock Consideration”), or (b) for Third Lien Notes tendered after the Extended Early Tender Deadline, seven (7) shares of the Company’s common stock (the “Stock Consideration”) (such shares issued as the Early Stock Consideration or the Stock Consideration, together with the Second Lien Notes, the “Exchange Securities”), upon the terms and subject to the conditions set forth in the Company’s confidential Offer to Exchange and related Consent and Letter of Transmittal, each dated March 28, 2016 (the “Offer Documents”).

As part of the Exchange Offer, each Exchange Participant had the opportunity to tender all or a portion of its Third Lien Notes for a cash payment in lieu of the Exchange Consideration upon the terms and subject to the conditions set forth in the Offer Documents (the “Cash Tender Option”). The aggregate amount of cash consideration that could be paid by the Company for tendered Third Lien Notes accepted for purchase pursuant to the Cash Tender Option was approximately \$15.0 million plus accrued and unpaid interest to, but not including, the settlement date of the Exchange Offer (collectively, the “Cash Tender Cap”).

Concurrently with the Exchange Offer, the Company solicited consents from eligible holders to proposed amendments to the Third Lien Notes Indenture (the “Proposed Amendments”). The Proposed Amendments, among other things, provide for the release of the second priority security interest in the collateral securing the Third Lien Notes and the grant of a third priority security interest in the collateral, subordinate to liens securing all the Company’s senior and second priority indebtedness, including the Credit Facility and the Second Lien Notes, and eliminate substantially all of the restrictive covenants and certain events of default pertaining to the Third Lien Notes.

The Exchange Offer, including the Cash Tender Option, and the Consent Solicitation expired at 11:59 P.M., New York City time, on April 28, 2016. In total, the Company accepted for exchange approximately \$146.5 million in aggregate principal amount of the Third Lien Notes, or approximately 83.72% of the \$175 million outstanding aggregate principal amount of the Third Lien Notes, validly tendered and not withdrawn in the Exchange Offer. The Third Lien Notes validly tendered and not withdrawn in the Exchange Offer were accepted by the Company.

Because the Company received the necessary consents to effect the Proposed Amendments, any Third Lien Notes not validly tendered pursuant to the Exchange Offer remain outstanding and the holders are subject to the terms of the supplemental indenture implementing the Proposed Amendments. No consideration was paid to holders of Third Lien Notes in connection with the Consent Solicitation. After giving effect to the Exchange Offer and Consent Solicitation, the aggregate principal amount of the Third Lien Notes remaining outstanding was approximately \$28.5 million as of April 25, 2016, and such Third Lien Notes are secured on a third priority basis subordinated to the liens securing all senior and second priority indebtedness of the Company, including under the Credit Facility and Second Lien Notes. In exchange for approximately \$120.6 million in aggregate principal amount of Third Lien Notes, the Company issued approximately \$120.6 million aggregate principal amount of Second Lien Notes and 1,205,477 shares of common stock, including 1,204,980 shares issued as Early Stock Consideration and 497 shares issued as Stock Consideration. The Company utilized 508,464 of treasury shares towards the total 1,205,477 shares issued. The securities issued in the Exchange Offer were issued in reliance on an exemption from registration set forth in Section 4(a)(2) of the Securities Act. The Company received no cash consideration in exchange for the issuance of the Exchange Securities. The Cash Tender Option was fully subscribed. Pursuant to the terms of the Exchange Offer, the Company accepted for purchase tendered Third Lien Notes at the lowest bid prices until the Cash Tender Cap was reached, subject to proration. In exchange for aggregate cash consideration totaling approximately \$15.0 million, the Company purchased approximately \$25.9 million in aggregate principal amount of Third Lien Notes. The Company also paid in cash accrued and unpaid interest on Third Lien Notes accepted for purchase in the Exchange Offer from the applicable last interest payment date to, but not including, April 28, 2016.

(5) Net Income (Loss) per Share

Basic net income (loss) per common share is computed by dividing net income (loss) applicable to common shares by the weighted average number of common shares outstanding during the period. Diluted net income (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 September 30, 2016 and 2015 was 877,569 and 576,225, respectively, and the total number of shares of restricted stock and shares reserved for restricted stock units outstanding at September 30, 2016 and 2015 was 293,340 and 90,902, respectively. The foregoing share numbers have been retroactively adjusted to reflect the one-for-fifteen reverse stock split completed on February 4, 2016. Except for the three months ended September 30, 2016, the outstanding stock options were anti-dilutive for all periods presented, as reflected in the table below.

The following table summarizes the computation of basic and diluted net income (loss) per common share (in thousands, except per share amounts):

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2016	2015	2016	2015
Net income (loss) attributable to ION	\$ 1,699	\$(20,383)	\$(58,657)	\$(19,578)
Weighted average number of common shares outstanding	11,786	10,984	11,269	10,978
Effect of dilutive stock awards	121	—	—	—
Weighted average number of diluted common shares outstanding	11,907	10,984	11,269	10,978
Basic net income (loss) per share	\$0.14	\$(1.86)	\$(5.21)	\$(1.78)
Diluted net income (loss) per share	\$0.14	\$(1.86)	\$(5.21)	\$(1.78)

(6) 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 Financial Accounting Standards Board's ("FASB") Accounting Standard Codification ("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. As of September 30, 2016, the Company has no unreserved U.S. deferred tax assets.

The provision for the nine months ended September 30, 2016 has been calculated based on the actual tax expense incurred for the period. Given the current uncertainty in expected income generated in various foreign jurisdictions, where tax rates can vary greatly, the Company's actual tax rate is the best estimate of year-to-date tax expense. The Company's effective tax rates for the three months ended September 30, 2016 and 2015 were 63.4% and (11.5)%, respectively, and for the nine months ended September 30, 2016 and 2015 were (11.2)% and (22.1)% respectively. The Company's effective tax rates for the three and nine months ended September 30, 2016 were impacted by the change in valuation allowance related to operating losses for which the Company cannot currently recognize a tax benefit. The Company's income tax expense for the nine months ended September 30, 2016 of \$5.9 million primarily relates to income from the Company's non-U.S. businesses. This foreign tax expense has not been offset by the tax benefits on losses within the U.S. and other jurisdictions, from which the Company cannot currently benefit; therefore negatively impacting the Company's effective tax rate.

The Company has approximately \$1.3 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 September 30, 2016, the Company's U.S. federal tax returns for 2013 and subsequent years remain subject to examination by tax authorities. The Company is no longer subject to U.S. Internal Revenue Service ("IRS") examination for periods prior to 2013, although carryforward attributes that were generated prior to 2013 may still be adjusted

upon examination by the IRS if they either have been or will be used in an open year. In the Company's foreign tax jurisdictions, tax returns for 2010 and subsequent years generally remain open to examination.

(7) 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® 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 royalty and \$93.4 million in lost profits.

In June 2013, the presiding judge entered a Memorandum and Order, ruling that WesternGeco is 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 are subject to supplemental damages and also ruling that the supplemental damages applicable to the additional units should 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 award 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 in the amount of \$123.8 million related to the case. 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. On July 2, 2015, the Court of Appeals reversed in part the judgment, holding the district court erred by including lost profits in the Final Judgment. Lost profits were \$93.4 million and prejudgment interest 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.

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 refused to disturb the Court of Appeals ruling finding no lost profits as a matter of law. Separately, 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 Federal Circuit for a determination of whether or not the willfulness determination by the District Court was appropriate.

Separately, proceedings remained ongoing in the district court on other issues not resolved by the original mandate. On May 4, 2016, after referral from the district court, a Magistrate Judge issued an order and report and recommendation in the litigation. The order and report recommended entry of a final judgment against the Company on the royalty obligation plus interest, subject to final calculation upon entry of judgment, which is expected to be approximately \$22.0 million and recommended the district court deny our motion to stay any obligation to pay the remaining \$22.0 million that is not related to lost profits. The district court has not yet decided whether to adopt the

recommendation of the magistrate. The Company will pursue all available objections and appeals to the order and report and recommendation.

On October 14, 2016, the United States Court of Appeals for the Federal Circuit issued a mandate returning the case to the district court for consideration of whether or not additional damages for willfulness are appropriate. After the dismissal of damages related to lost profits, the damages currently existing are limited to \$22 million in royalties (exclusive of interest). The Company will argue enhancement is not proper here under the new law, just as it was not under prior law, but in any event should be based on the royalty award, not the award plus interest.

As previously disclosed, the Company 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, the Company reduced the loss contingency accrual to its current amount of \$22.0 million. The Company's assessment of its potential loss contingency may change in the future due to developments in the case and other events, such as changes in applicable law, and such reassessment could lead to the determination that no loss contingency is probable or that a greater or lesser loss contingency is probable. Any such reassessment could have a material effect on the Company's financial condition or results of operations.

Prior to the reduction in damages by the Court of Appeals, the Company arranged with sureties to post an appeal bond at the trial court. The appeal bond is uncollateralized, but the terms of the appeal bond arrangements provide the sureties the contractual right for as long as the bond is outstanding to require the Company to post cash collateral. The Company has received a request for \$11.0 million in collateral and has exchanged correspondence with the sureties in connection with this request. In July 2016, the sureties renewed their request for collateral and the Company is continuing to discuss terms and options with them. The appeal bond will remain outstanding during the pendency of appeals.

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.

(8) Other Income (Expense), Net

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

	Three Months Ended		Nine Months Ended	
	September 30,		September 30,	
	2016	2015	2016	2015
Reductions of loss contingency related to legal proceedings (Footnote 7)	\$—	\$—	\$—	\$101,978
Facility restructuring charges	—	296	—	(2,791)
Loss on bond exchange	—	—	(2,182)	—
Foreign currency losses	(2,774)	(879)	(3,024)	(2,355)
Other income, net	747	237	1,582	1,203
Total other income (expense), net	\$(2,027)	\$(346)	\$(3,624)	\$98,035

(9) Details of Selected Balance Sheet Accounts

Inventories

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

	September 30,	December 31,
	2016	2015
Raw materials and subassemblies	\$ 34,298	\$ 34,949
Work-in-process	4,843	8,478
Finished goods	18,293	13,769
Reserve for excess and obsolete inventories	(24,126)	(24,475)
Total	\$ 33,308	\$ 32,721

Other Long-term Liabilities

The following table is a summary of other long-term liabilities (in thousands):	September 30, December 31,	
	2016	2015
Accrual for loss contingency related to legal proceedings (Footnote 7)	\$ 22,000	\$ 22,000
Deferred rents	13,078	13,394
Facility restructuring accrual	2,090	3,006
Deferred income tax liability	5,843	4,734
Other long-term liabilities	1,146	1,231
Total	\$ 44,157	\$ 44,365

(10) 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, 2015	\$ (14,781)	\$ (14,781)
Net current-period other comprehensive loss	(5,282)	(a)(5,282)
Accumulated other comprehensive loss at September 30, 2016	\$ (20,063)	\$ (20,063)

Represents the impact of foreign currency translation adjustments, primarily due to the devaluation of the British Pound Sterling (“GBP”) following the vote by the British people to leave the European Union (“Brexit”) on the Company’s GBP-denominated balances, including £15.7 million of goodwill.

(11) 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):

	Nine Months Ended September 30,	
	2016	2015
Cash paid during the period for:		
Interest	\$8,819	\$8,036
Income taxes	2,579	7,614
Non-cash items from investing and financing activities:		
Purchases of computer equipment financed through capital leases	—	1,178
Investment in multi-client data library financed through accounts payable	—	13,617
Bond exchange	10,740 ^(a)	—
Transfer of inventory to property, plant, equipment and seismic rental equipment	—	15,936 ^(b)

^(a) This represents the non cash portion of the bond exchange.

^(b) This transfer of inventory to property, plant, equipment and seismic rental equipment relates to ocean bottom seismic equipment manufactured to be deployed by the Company’s Ocean Bottom Services segment.

(12) 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, prioritizing and defining the types of inputs used to measure fair value.

The carrying amounts of the Company's long-term debt as of September 30, 2016 and December 31, 2015 were \$163.5 million and \$183.0 million, respectively, compared to its fair values of \$108.3 million and \$104.3 million as of September 30, 2016 and December 31, 2015, respectively. The fair value of the long-term debt was calculated using an active market price, based on Level 1 inputs defined as quoted prices for identical instruments in active markets.

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.

(13) Stock-based Compensation and Repurchase Plan

Stock Appreciation Rights

On March 1, 2016, the Company issued 1,210,000 Stock Appreciation Rights ("SARs") awards to 15 individuals with an exercise price of \$3.10. The vesting of these SARs is achieved through both a market condition and a service condition. The market condition is achieved, in part or in full, in the event that during the four-year period beginning on the date of grant the 20-day trailing volume-weighted average price of a share of common stock is (i) greater than 120% of the exercise price for the first 1/3 of the awards, (ii) greater than 125% of the exercise price for the second 1/3 of the awards and (iii) greater than 130% of the exercise price for the final 1/3 of the awards. The exercise condition restricts the ability of the holders to exercise awards until certain service milestones have been reached such that (i) no more than 1/3 of the awards may be exercised, if vested, on and after the first anniversary of the date of grant, (ii) no more than 2/3 of the awards may be exercised, if vested, on and after the second anniversary of the date of grant and (iii) all of the awards may be exercised, if vested, on and after the third anniversary of the date of grant. For the nine months ended September 30, 2016, the Company recorded \$0.4 million of share-based compensation expense attributable to SAR awards.

Pursuant to ASC 718, "Compensation – Stock Compensation," the SARs are considered liability awards and as such, these amounts are accrued in the liability section of the balance sheet. The Company calculated the fair value of each SAR award on the date of grant using a Monte Carlo simulation model. The following assumptions were used:

March 1, 2016

Risk-free interest rates	1.81%
Expected lives (in years)	4.0
Expected dividend yield	—%
Expected volatility	70.99%

Stock Repurchase Program

On November 4, 2015, the Company's board of directors approved a stock repurchase program authorizing the Company to repurchase, from time to time from November 10, 2015, through November 10, 2017, up to \$25.0 million in shares of the Company's outstanding common stock. The stock repurchase program may be implemented through open market repurchases or privately negotiated transactions, at management's discretion. The actual timing, number and value of shares repurchased under the program will be determined by management at its discretion and will depend on a number of factors, including the market price of the shares of the Company's common stock and general market and economic conditions, applicable legal requirements and compliance with the terms of the Company's outstanding indebtedness. The repurchase program does not obligate the Company to acquire any particular amount of common stock and may be modified or suspended at any time and could be terminated prior to completion. Since the program's inception on November 10, 2015, through September 30, 2016, the Company had repurchased 451,792 shares of its common stock under the repurchase program at an average price per share of \$6.54, and the Company has approximately \$22.0 million of remaining authorized capacity available pursuant to the repurchase program. The number of shares repurchased and the average price per repurchased share have been retroactively adjusted to reflect the one-for-fifteen reverse stock split completed on February 4, 2016.

(14) Recent Accounting Pronouncements

Revenue Recognition — In May 2014, the FASB and the International Accounting Standards Board (“IASB”) jointly issued new accounting guidance for recognition of revenue. In August 2015, the FASB issued guidance deferring the effective date by one year to December 15, 2017 for fiscal years and interim periods within those years. This new guidance replaces virtually all existing U.S. GAAP and IFRS guidance on revenue recognition. The underlying principle is that the entity will recognize revenue to depict the transfer of goods and services to customers at an amount that the entity expects to be entitled to in the exchange of goods and services. The guidance provides a five-step analysis of transactions to determine when and how revenue is recognized. Other major provisions include capitalization of certain contract costs, consideration of time value of money in the transaction price, and allowing estimates of variable consideration to be recognized before contingencies are resolved in certain circumstances. The guidance also requires enhanced disclosures regarding the nature, amount, timing and uncertainty of revenue and cash flows arising from an entity’s contracts with customers.

The Company continues to evaluate (i) the two allowed adoption methods to determine which method it plans to use for either a retrospective or cumulative effect transition method, (ii) the Company’s option to adopt the new guidance either as of the originally proposed effective date or the proposed deferred effective date and (iii) whether the implementation of this new guidance will have a material impact on the Company’s consolidated financial position or results of operations for the periods presented.

In February 2016, the FASB issued 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. We are evaluating the effect of ASU 2016-002 on our consolidated financial statements.

In March 2016, the FASB issued ASU 2016-09, "Compensation - Stock Compensation (Topic 718): Improvements to Employee Share-Based Payment Accounting," that will change how companies account for certain aspects of share-based payments to employees. Entities will be required to recognize the income tax effects of awards in the statement of income when the awards vest or are settled, the guidance on employers’ accounting for an employee’s use of shares to satisfy the employer’s statutory income tax withholding obligation and for forfeitures is changing and the update requires companies to present excess tax benefits as an operating activity on the statement of cash flows rather than as a financing activity. The amendments in this update will be effective for annual periods beginning after December 15, 2016 and interim periods within those annual periods. Early adoption is permitted. We are evaluating the effect of ASU 2016-09 on our consolidated financial statements.

In June 2016, the FASB issued ASU 2016-13, "Measurement of Credit Losses on Financial Instruments" that will change how companies measure credit losses for most financial assets and certain other instruments that aren’t measured at fair value through net income. The standard will replace today’s “insured loss” approach with an “expected loss” model for instruments measured at amortized cost. For available-for-sale debt securities, entities will be required to record allowances rather than reduce the carrying amount. It also simplifies the accounting model for purchased credit-impaired debt securities and loans. The amendments in this update will be effective for annual periods beginning after December 15, 2019 and interim periods within those annual periods. Early adoption is permitted for annual periods beginning after December 15, 2018. We are evaluating the effect of ASU 2016-13 on our consolidated financial statements.

(15) Acquisition of In-process Research and Development

In March 2016, the Company acquired Global Dynamics Incorporated, an Ontario-based company that designs and develops marine towing systems and equipment, including its proprietary SailWings technology. SailWings configurations are designed to optimize towed source arrays and augment towed streamer deployment systems, and yield significantly less drag, faster towing, improved fuel efficiency, and safer operations through their flexible and smaller footprint.

The Company acquired the SailWings technology (in-process R&D) for a one-time expenditure of \$1.0 million, which was recorded as a research, development and engineering expense within operating expenses. The acquisition agreement also contemplates cash payments (earn-outs) up to a total of \$2.3 million for successful commercialization of this technology over the next ten years.

(16) Condensed Consolidating Financial Information

The Notes were issued by ION Geophysical Corporation and are guaranteed by the Guarantors, all of which are 100-percent-owned subsidiaries. The Guarantors have fully and unconditionally guaranteed the payment obligations of ION Geophysical Corporation with respect to the 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 Liquidity and Capital Resources Exchange Offer" in Part II of this Form 10-Q.

Balance Sheet	September 30, 2016				
	ION Geophysical Corporation	The Guarantors	All Other Subsidiaries	Consolidating Adjustments	Total Consolidated
	(In thousands)				
ASSETS					
Current assets:					
Cash and cash equivalents	\$25,658	\$—	\$ 36,878	\$—	\$ 62,536
Accounts receivable, net	2,479	10,313	21,894	—	34,686
Unbilled receivables	—	16,619	7,061	—	23,680
Inventories	—	9,676	23,632	—	33,308
Prepaid expenses and other current assets	3,101	578	6,231	—	9,910
Total current assets	31,238	37,186	95,696	—	164,120
Property, plant, equipment and seismic rental equipment, net	2,205	13,505	37,814	—	53,524
Multi-client data library, net	—	102,791	9,914	—	112,705
Investment in subsidiaries	661,892	255,554	—	(917,446)	—
Goodwill	—	—	23,412	—	23,412
Intangible assets, net	—	3,387	139	—	3,526
Intercompany receivables	—	30,609	—	(30,609)	—
Other assets	2,008	145	242	—	2,395
Total assets	\$697,343	\$ 443,177	\$ 167,217	\$ (948,055)	\$ 359,682
LIABILITIES AND EQUITY					
Current liabilities:					
Current maturities of long-term debt	\$14,533	\$ 4,374	\$ 319	\$—	\$ 19,226
Accounts payable	2,894	18,925	10,215	—	32,034
Accrued expenses	12,330	11,395	9,028	—	32,753
Accrued multi-client data library royalties	—	22,344	—	—	22,344
Deferred revenue	—	3,013	1,382	—	4,395
Total current liabilities	29,757	60,051	20,944	—	110,752
Long-term debt, net of current maturities	143,713	586	—	—	144,299
Intercompany payables	463,282	—	20,799	(484,081)	—
Other long-term liabilities	486	34,255	9,416	—	44,157
Total liabilities	637,238	94,892	51,159	(484,081)	299,208
Equity:					
Common stock	118	290,460	19,138	(309,598)	118
Additional paid-in capital	898,238	180,700	232,590	(413,290)	898,238
Accumulated earnings (deficit)	(818,188)	216,453	(6,428)	(210,025)	(818,188)
Accumulated other comprehensive income (loss)	(20,063)	4,420	(19,886)	15,466	(20,063)
Due from ION Geophysical Corporation	—	(343,748)	(109,725)	453,473	—
Total stockholders' equity	60,105	348,285	115,689	(463,974)	60,105
Noncontrolling interests	—	—	369	—	369
Total equity	60,105	348,285	116,058	(463,974)	60,474
Total liabilities and equity	\$697,343	\$ 443,177	\$ 167,217	\$ (948,055)	\$ 359,682

Balance Sheet	December 31, 2015				
	ION Geophysical Corporation	The Guarantors	All Other Subsidiaries	Consolidating Adjustments	Total Consolidated
	(In thousands)				
ASSETS					
Current assets:					
Cash and cash equivalents	\$33,734	\$—	\$ 51,199	\$—	\$ 84,933
Accounts receivable, net	—	35,133	9,232	—	44,365
Unbilled receivables	—	19,046	891	—	19,937
Inventories	—	10,939	21,782	—	32,721
Prepaid expenses and other current assets	5,435	1,458	7,914	—	14,807
Total current assets	39,169	66,576	91,018	—	196,763
Property, plant, equipment and seismic rental equipment, net	4,521	21,072	46,434	—	72,027
Multi-client data library, net	—	120,550	11,687	—	132,237
Investment in subsidiaries	680,508	243,319	—	(923,827)	—
Goodwill	—	—	26,274	—	26,274
Intangible assets, net	—	4,523	287	—	4,810
Intercompany receivables	75,641	—	—	(75,641)	—
Other assets	1,724	146	1,107	—	2,977
Total assets	\$801,563	\$ 456,186	\$ 176,807	\$ (999,468)	\$ 435,088
LIABILITIES AND EQUITY					
Current liabilities:					
Current maturities of long-term debt	\$486	\$ 6,856	\$ 570	\$—	\$ 7,912
Accounts payable	2,086	19,839	7,874	—	29,799
Accrued expenses	11,199	16,200	6,888	—	34,287
Accrued multi-client data library royalties	—	25,045	—	—	25,045
Deferred revenue	—	5,071	1,489	—	6,560
Total current liabilities	13,771	73,011	16,821	—	103,603
Long-term debt, net of current maturities	171,672	3,408	—	—	175,080
Intercompany payables	503,621	68,286	7,355	(579,262)	—
Other long-term liabilities	540	33,305	10,520	—	44,365
Total liabilities	689,604	178,010	34,696	(579,262)	323,048
Equity:					
Common stock	107	290,460	19,138	(309,598)	107
Additional paid-in capital	894,715	180,700	234,234	(414,934)	894,715
Accumulated earnings (deficit)	(759,531)	231,208	(21,729)	(209,479)	(759,531)
Accumulated other comprehensive income (loss)	(14,781)	4,420	(14,604)	10,184	(14,781)
Due from ION Geophysical Corporation	—	(428,612)	(75,009)	503,621	—
Treasury stock	(8,551)	—	—	—	(8,551)
Total stockholders' equity	111,959	278,176	142,030	(420,206)	111,959
Noncontrolling interests	—	—	81	—	81
Total equity	111,959	278,176	142,111	(420,206)	112,040
Total liabilities and equity	\$801,563	\$ 456,186	\$ 176,807	\$ (999,468)	\$ 435,088

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Income Statement	Three Months Ended September 30, 2016				
	ION Geophysical Corporation	The Guarantors	All Other Subsidiaries	Consolidating Adjustments	Total Consolidated
	(In thousands)				
Net revenues	\$—	\$ 30,155	\$ 48,467	\$ —	\$ 78,622
Cost of sales	—	22,724	24,133	—	46,857
Gross profit	—	7,431	24,334	—	31,765
Total operating expenses	7,692	7,186	5,023	—	19,901
Income (loss) from operations	(7,692)	245	19,311	—	11,864
Interest expense, net	(4,583)	(32)	8	—	(4,607)
Intercompany interest, net	276	(1,138)	862	—	—
Equity in earnings of investments	13,494	15,039	—	(28,533)	—
Other income (expense)	245	948	(3,220)	—	(2,027)
Net income before income taxes	1,740	15,062	16,961	(28,533)	5,230
Income tax expense	41	670	2,605	—	3,316
Net income	1,699	14,392	14,356	(28,533)	1,914
Net income attributable to noncontrolling interests	—	—	(215)	—	(215)
Net income attributable to ION	\$ 1,699	\$ 14,392	\$ 14,141	(28,533)	\$ 1,699
Comprehensive net loss	\$ 616	\$ 14,392	\$ 13,058	\$ (27,235)	\$ 831
Comprehensive income attributable to noncontrolling interest	—	—	(215)	—	(215)
Comprehensive net income attributable to ION	\$ 616	\$ 14,392	\$ 12,843	\$ (27,235)	\$ 616

Income Statement	Three Months Ended September 30, 2015				
	ION Geophysical Corporation	The Guarantors	All Other Subsidiaries	Consolidating Adjustments	Total Consolidated
	(In thousands)				
Net revenues	\$—	\$ 41,768	\$ 25,072	\$ (166)	\$ 66,674
Cost of sales	—	31,712	24,020	(166)	55,566
Gross profit	—	10,056	1,052	—	11,108
Total operating expenses	3,914	11,266	8,802	—	23,982
Loss from operations	(3,914)	(1,210)	(7,750)	—	(12,874)
Interest expense, net	(4,769)	(107)	22	—	(4,854)
Intercompany interest, net	184	(806)	622	—	—
Equity in losses of investments	(14,248)	(12,141)	—	26,389	—
Other income (expense)	326	(9)	(663)	—	(346)
Net loss before income taxes	(22,421)	(14,273)	(7,769)	26,389	(18,074)
Income tax expense (benefit)	(2,038)	65	4,055	—	2,082
Net loss	(20,383)	(14,338)	(11,824)	26,389	(20,156)
Net income attributable to noncontrolling interests	—	—	(227)	—	(227)
Net loss attributable to ION	\$(20,383)	\$(14,338)	\$(12,051)	26,389	\$(20,383)
Comprehensive net loss	\$(21,748)	\$(15,543)	\$(12,940)	\$ 28,710	\$(21,521)
Comprehensive income attributable to noncontrolling interest	—	—	(227)	—	(227)
Comprehensive net loss attributable to ION	\$(21,748)	\$(15,543)	\$(13,167)	\$ 28,710	\$(21,748)

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Income Statement	Nine Months Ended September 30, 2016				
	ION Geophysical Corporation	The Guarantors	All Other Subsidiaries	Consolidating Adjustments	Total Consolidated
	(In thousands)				
Net revenues	\$—	\$ 58,907	\$ 78,532	\$ —	\$ 137,439
Cost of sales	—	67,061	42,690	—	109,751
Gross profit	—	(8,154)	35,842	—	27,688
Total operating expenses	24,894	21,687	15,960	—	62,541
Income (loss) from operations	(24,894)	(29,841)	19,882	—	(34,853)
Interest expense, net	(13,917)	(179)	53	—	(14,043)
Intercompany interest, net	727	(3,250)	2,523	—	—
Equity in earnings of investments	(18,617)	19,163	—	(546)	—
Other income (expense)	(1,841)	771	(2,554)	—	(3,624)
Net income before income taxes	(58,542)	(13,336)	19,904	(546)	(52,520)
Income tax expense	115	1,419	4,331	—	5,865
Net income	(58,657)	(14,755)	15,573	(546)	(58,385)
Net income attributable to noncontrolling interests	—	—	(272)	—	(272)
Net income attributable to ION	\$(58,657)	\$(14,755)	15,301	\$(546)	\$(58,657)
Comprehensive net income (loss)	\$(63,939)	\$(14,755)	\$ 10,019	\$ 5,008	\$(63,667)
Comprehensive income attributable to noncontrolling interest	—	—	(272)	—	(272)
Comprehensive net income (loss) attributable to ION	\$(63,939)	\$(14,755)	\$ 9,747	\$ 5,008	\$(63,939)

Income Statement	Nine Months Ended September 30, 2015				
	ION Geophysical Corporation	The Guarantors	All Other Subsidiaries	Consolidating Adjustments	Total Consolidated
	(In thousands)				
Net revenues	\$—	\$ 83,082	\$ 61,972	\$ (1,007)	\$ 144,047
Cost of sales	—	84,715	75,154	(1,007)	158,862
Gross loss	—	(1,633)	(13,182)	—	(14,815)
Total operating expenses	18,296	37,151	29,990	—	85,437
Loss from operations	(18,296)	(38,784)	(43,172)	—	(100,252)
Interest expense, net	(13,826)	(279)	19	—	(14,086)
Intercompany interest, net	466	(2,208)	1,742	—	—
Equity in earnings (losses) of investments	9,881	(45,091)	—	35,210	—
Other income (expense)	268	101,961	(4,194)	—	98,035
Net income (loss) before income taxes	(21,507)	15,599	(45,605)	35,210	(16,303)
Income tax expense (benefit)	(1,929)	239	5,287	—	3,597
Net income (loss)	(19,578)	15,360	(50,892)	35,210	(19,900)
Net loss attributable to noncontrolling interests	—	—	322	—	322
Net income (loss) applicable to ION	\$(19,578)	15,360	\$(50,570)	\$ 35,210	\$(19,578)
Comprehensive net income (loss)	\$(20,335)	\$ 14,794	\$(51,458)	\$ 36,342	\$(20,657)
Comprehensive loss attributable to noncontrolling interest	—	—	322	—	322
Comprehensive net income (loss) attributable to ION	\$(20,335)	\$ 14,794	\$(51,136)	\$ 36,342	\$(20,335)

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	Nine Months Ended September 30, 2016			
Statement of Cash Flows	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	\$ (31,403)	\$ 50,669	\$ (16,034)	\$ 3,232
Cash flows from investing activities:				
Cash invested in multi-client data library	—	(10,027)	(1,574)	(11,601)
Purchase of property, plant, equipment and seismic rental equipment	—	(567)	—	(567)
Net cash used in investing activities	—	(10,594)	(1,574)	(12,168)
Cash flows from financing activities:				
Borrowings under revolving line of credit	15,000	—	—	15,000
Repurchase of common stock	(964)	—	—	(964)
Payments on notes payable and long-term debt	(951)	(5,304)	(471)	(6,726)
Costs associated with issuance of debt	(6,638)	—	—	(6,638)
Intercompany lending	31,867	(34,771)	2,904	—
Payment to repurchase bonds	(15,000)	—	—	(15,000)
Other financing activities	13	—	—	13
Net cash provided by (used in) financing activities	23,327	(40,075)	2,433	(14,315)
Effect of change in foreign currency exchange rates on cash and cash equivalents	—	—	854	854
Net decrease in cash and cash equivalents	(8,076)	—	(14,321)	(22,397)
Cash and cash equivalents at beginning of period	33,734	—	51,199	84,933
Cash and cash equivalents at end of period	\$ 25,658	\$ —	\$ 36,878	\$ 62,536

Nine Months Ended September 30, 2015

	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	\$ (414,473)	\$ 173,725	\$ 204,752	\$ (35,996)
Cash flows from investing activities:				
Investment in multi-client data library	—	(27,282)	(870)	(28,152)
Purchase of property, plant, equipment and seismic rental equipment	(347)	(1,162)	(16,092)	(17,601)
Other investing activities	—	1,262	—	1,262
Net cash used in investing activities	(347)	(27,182)	(16,962)	(44,491)
Cash flows from financing activities:				
Payments on notes payable and long-term debt	—	(4,798)	(633)	(5,431)
Intercompany lending	330,828	(141,745)	(189,083)	—
Other financing activities	(52)	—	—	(52)
Net cash provided by (used in) financing activities	330,776	(146,543)	(189,716)	(5,483)
Effect of change in foreign currency exchange rates on cash and cash equivalents	—	—	601	601
Net decrease in cash and cash equivalents	(84,044)	—	(1,325)	(85,369)
Cash and cash equivalents at beginning of period	109,514	—	64,094	173,608
Cash and cash equivalents at end of period	\$ 25,470	\$ —	\$ 62,769	\$ 88,239

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 "DigiFIN," "VectorSeis," "Orca," "Gator," "Calypso," and "WiBand," refer to DigiFIN VECTORSEIS®, ORCA®, GATOR®, Calypso® and WiBand® registered marks owned by ION, and the term "Marlin" refers to the Marlin™ trademark owned by ION.

We provide geoscience technology, services and solutions to the global oil and gas industry. Our offerings are designed to allow oil and gas companies to obtain higher resolution images of the Earth's subsurface to reduce their risk and optimize assets across the exploration and production lifecycle. Seismic imaging plays a fundamental role in hydrocarbon exploration and reservoir development by delineating structures, rock types and fluid locations 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 a proprietary or multi-client basis. The multi-client seismic surveys for our data library business are pre-funded, or underwritten, in part by our customers, and, with the exception of our ocean bottom seismic ("OBS") data acquisition company, OceanGeo B.V. ("OceanGeo"), we utilize an "asset lite" 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. We serve customers in most major energy producing regions of the world from strategically located offices across six continents.

We provide our services and products through three business segments – E&P Technology & Services, E&P Operations Optimization and Ocean Bottom Services. In addition, we have a 49% ownership interest in our INOVA Geophysical Equipment Limited joint venture ("INOVA Geophysical," or "INOVA"). As of December 31, 2014, we wrote down our investment in INOVA Geophysical to zero, and therefore no longer record our share of losses in the joint venture. For details of our suspension of recording equity method losses, see Footnote 3 "Segment Information" of Footnotes to Unaudited Condensed Consolidated Financial Statements.

For decades, we have provided innovative seismic data acquisition technology, such as multicomponent imaging with VectorSeis products, the ability to record seismic data from basins below ice, and cableless seismic techniques. The advanced technologies we currently offer include our Orca and Gator command and control software systems, WiBand broadband data processing technology, Calypso OBS acquisition system, 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 have approximately 500 patents and pending patent applications in various countries around the world. Approximately 49% of our employees are involved in technical roles and over 25% of our employees have advanced degrees.

E&P Technology & Services. Our E&P Technology and Services business provides three distinct service activities that often work together.

Our E&P Technology and Services business focuses on providing services for challenging environments, such as the Arctic frontier; complex and hard-to-image geologies, such as deepwater subsurface salt formations in the Gulf of Mexico and offshore West Africa and Brazil; unconventional reservoirs, such as those found onshore in shale, tight gas and oil sands formations; and offshore basin-wide seismic data and imaging programs. Since 2002, our basin exploration seismic data programs have resulted in a substantial data library that covers significant portions of many of the frontier basins in the world, including offshore East and West Africa, India, South America, the Arctic, the Gulf of Mexico and Australia.

Our Ventures services are designed to manage the entire seismic process, from survey planning and design to data acquisition and management, to final subsurface imaging and reservoir characterization. Our Ventures group focuses 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 help our E&P customers reduce exploration and production risk, evaluate and develop reservoirs, and increase production. Imaging Services develops a series of subsurface images by applying its processing technology to data owned or licensed by its customers. We maintain approximately 15 petabytes of digital seismic data information storage in four global data centers, including two core data centers located in Houston and in the U.K.

Our E&P Advisors group partners with operators, energy industry regulators and capital institutions to capture and monetize E&P opportunities worldwide. This group provides technical, commercial and strategic advice across the E&P value chain, working at basin, prospect and field scales.

E&P Operations Optimization. Our E&P Operations Optimization combines our Optimization Software & Services and Devices offerings.

Our Optimization Software & Services business provides command and control software systems, related software and services for towed marine streamer and seabed operations, as well as survey design. Our Orca software is installed on towed streamer marine vessels worldwide, and our Gator software is used by many re-deployable and permanent seabed acquisition systems. Our Marlin solution is used for optimizing simultaneous operations offshore.

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

Ocean Bottom Services. Through our experienced OceanGeo team, we offer a fully integrated OBS solution that includes survey design, planning, and acquisition (4D) services performed by an experienced crew using custom designed vessels to maximize image quality, operational efficiency and safety. Our team manufactures and repairs re-deployable ocean bottom cable seismic data acquisition systems and shipboard recorders for use in OBS data acquisition. In addition, our team provides superior imaging via OceanGeo's exclusive use of our seabed acquisition systems; and data processing, interpretation and reservoir services, by our Imaging Services group.

INOVA Geophysical. Historically, we have 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 seismic data acquisition systems, digital sensors, vibroseis vehicles (i.e., vibrator trucks) and source controllers for energy source business lines.

Macroeconomic Conditions

Demand for our services and products is cyclical and dependent on activity levels in the oil and gas industry, particularly our customers' willingness to invest capital in the exploration for oil and gas. Our customers' capital spending programs are generally based on their outlook for near-term and long-term commodity prices, which are impacted by a number of factors including economic growth, commodity supply and demand, and geopolitical developments. As a result, demand for our services and products is largely sensitive to expected oil and gas prices. In the past few years, crude oil prices have been volatile due to global economic uncertainties. Significant downward oil price volatility began early in the fourth quarter of 2014 and reached a low of an average of \$33.35 in the first quarter of this year before improving to approximately \$50 per barrel by the end of the third quarter of 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 Companies ("OPEC") increasing its production. Until recently, OPEC has demonstrated an unwillingness to cut its production. We are now seeing indications that OPEC, along with other market participants such as Russia, could reach an agreement to cut production as early as the fourth quarter 2016. In addition, U.S. crude supplies fell by three million barrels in the week ended September 30, 2016, extending a five week decline in U.S. inventories. Inventories continued to decline an additional five million barrels in October. The average prices for West Texas Intermediate ("WTI") and Intercontinental Exchange Brent ("Brent") crude oil increased to an average of \$45 per barrel and \$46 per barrel, respectively, for the third quarter of 2016 from an average of \$40 per barrel and \$40 per barrel, respectively, in the first half of 2016. These data points compare to an average of \$49 per barrel and \$52 per barrel, respectively, for the full year 2015, and an average price of \$101 per barrel and \$109 per barrel, respectively, in the first nine months of 2014.

Given the historical volatility of crude prices, there is a continued risk that prices could remain low or continue to deteriorate due to high levels of crude oil production, slowing growth rates in various global regions and/or the potential for ongoing supply/demand imbalances. As a result of this industry downturn, many customers have experienced a significant reduction in their liquidity with challenges accessing the capital and debt markets (although that has improved recently for certain customers). There have been several exploration and production companies who

have declared bankruptcy, or have had to exchange equity for the forgiveness of debt, and others who have been forced to sell assets in an effort to preserve liquidity. Alternatively, if the global supply of oil were to decrease due to reduced capital investment by E&P companies, government instability in a major oil-producing nation or energy demand continues to increase in the U.S. and countries such as China and India, a recovery in WTI and Brent crude oil prices could occur. Regardless of the driver, crude oil price improvements will not occur without a re-balancing of global supply and demand, the timing of which is difficult to predict. If commodity prices do not improve or if they decline further, demand for our services and products could continue to decline.

Prices for natural gas in the U.S. averaged \$2.34 per mmBtu in the three quarters of 2016 compared to \$2.62 per mmBtu for the full year 2015 and \$4.57 per mmBtu in the first nine months of 2014. As a result of natural gas production growth outpacing demand in the U.S., natural gas prices continue to be weak relative to prices experienced from 2006 through 2008 and are expected to remain below levels considered economical for new investments in numerous natural gas fields. Total U.S. natural gas in storage currently stands at 3.6 trillion cubic feet, 2.5% higher than levels at this time a year ago and 6.1% above the five-year average for this time of year. U.S. producers added 101 rigs, consisting of 97 oil and 4 gas rigs during the quarter, bringing the total U.S. rig count to 522 or 73% below the peak of 1931 rigs in the fourth quarter of 2014. If natural gas production continues to surpass U.S. natural gas demand, prices could remain constrained for an extended period.

Impact to Our Business

During 2016, E&P capital expenditures remained low as budgets were approximately 25% lower than the previous year, a result of the continued low oil prices that began a steep decline starting in the fourth quarter of 2014. This current year decline follows a prior year decline of approximately 25%, the first back-to-back declines of this magnitude since the 1980s. E&P companies are evaluating near-term oil prices, and revising capital expenditure budgets based on how these prices will affect their returns on new and existing projects. We believe E&P companies perceive projects with a longer time to payback, or profitability, as less attractive in the short-term. E&P companies have announced their intention to protect dividend payments even if that means reducing capital expenditures. Therefore, E&P companies are increasingly likely to reduce capital expenditures for projects in the early stages, or exploration phase, of the E&P lifecycle. In low oil price environments, oil companies tend to prioritize production-related activities and existing assets over exploration, and disproportionately cut spending on seismic services and products, which has a negative impact on the seismic industry, including our Company.

The sustained reduction in exploration spending has had a significant impact on our results of operations for the first three quarters of 2016 in all of our segments. In our E&P Technology & Services segment, data library sales have increased compared to the second quarter of 2016, however, our multi-client business continues to be impacted by softness in the market, causing decreases in customer underwriting of our new venture programs and reductions in our data processing business. We continue to maintain high standards for underwriting new projects, and have delayed certain new venture programs accordingly. We invested \$11.6 million in our multi-client data library during the first three quarters of 2016, compared to \$28.2 million in the same period in 2015.

Our business has traditionally been seasonal, with the strongest demand for our services and products often in the fourth quarter of our fiscal year. As of September 30, 2016, our E&P Technology & Services segment backlog, which consists of commitments for (i) data processing work and (ii) both multi-client new venture projects and proprietary projects by our Ventures group underwritten by our customers, was \$21.7 million, compared with backlog of \$19.2 million at December 31, 2015 and \$23.0 million at September 30, 2015. We anticipate that the majority of our current backlog will be recognized as revenue in the remainder of 2016. We expect our full year investment in our multi-client data library to be in the range of \$14 to \$17 million in 2016.

For the first quarter of 2016, our OBS segment was affected by E&P companies delaying or canceling decisions to commit capital to OBS projects, causing our vessels to remain idle. However, we mobilized our ocean bottom vessels and crew during the second quarter of 2016 to conduct an OBS survey offshore Nigeria. We began acquiring data in late June and completed demobilization by late third quarter of 2016. Our overall performance on this survey exceeded our own expectations, especially given that our crew and vessels had been stacked for almost a year, a strong testament to the dedication and experience of our OBS crew and management. At the completion of the project, we cold-stacked our crew and vessels while we actively pursue tenders for longer-term work in the region. Despite the extended market downturn and uncertainty, we see significant long-term potential for OceanGeo and our technologies to improve ocean bottom survey productivity, and we expect long-term demand for ocean bottom surveys to increase. We are actively pursuing tenders for long-term work for 2017.

Our seismic contractor customers are also experiencing weakened demand due to the reduction in seismic spending by their oil company customers. Since early 2014, seismic contractors have taken 37 seismic vessels, or about 31% of the fleet, out of the market. As a result, our E&P Operations Optimization segment continued to experience weak year-over-year sales caused by contraction of the marine seismic vessel market. Our Devices revenues fell due to

lower demand for spare parts and repairs and our Optimization Software & Services net revenues declined primarily due to lower towed streamer vessel utilization, which negatively impacted Orca software licenses. We continue to monitor the global economy, the demand for crude oil and natural gas and the resulting impact on the capital spending plans and operations of our E&P customers to plan our business. We remain confident that, despite current marketplace challenges described above, we have positioned ourselves to take advantage of the next upturn in the energy cycle by reducing our cost structure, shifting our focus toward E&P solutions and away from equipment sales, and by diversifying our offerings across the E&P lifecycle.

It is our view that technologies that provide a competitive advantage through improved imaging, lower costs or higher productivity will continue to be valued in our marketplace. We believe that our newest technologies, such as Calypso, WiBand, and Marlin, will continue to attract customer interest, because those technologies are designed to deliver enhanced image quality, efficiency, and cost savings.

Cost Reduction Initiatives

During the second quarter of 2016, we implemented additional cost saving initiatives by reducing our current workforce by approximately 12%. These additional reductions were needed to further streamline our organization and right-size our company to bring it in line with our current revenue stream, while maintaining the necessary core capabilities to continue our operations and strategic initiatives. These additional reductions are expected to result in approximately \$15.0 million of annualized savings, (an estimated \$9.0 million in 2016), in addition to the \$80.0 million of annual savings from prior cost reduction initiatives. We began realizing the vast majority of these savings in the third quarter of this year.

WesternGeco Litigation

On July 2, 2015, the United States Court of Appeals for the Federal Circuit in Washington, D.C. reversed in part the district court's judgment, holding the district court erred by including lost profits in the Final Judgment. Lost profits were \$93.4 million and prejudgment interest 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.

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 refused to disturb the Court of Appeals ruling finding no lost profits as a matter of law. Separately, 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 Federal Circuit for a determination of whether or not the willfulness determination by the District Court was appropriate.

Separately, proceedings remained ongoing in the district court on other issues not resolved by the original mandate. On May 4, 2016, after referral from the district court, a Magistrate Judge issued an order and report and recommendation in the litigation. The order and report recommended entry of a final judgment against us on the royalty obligation plus interest, subject to final calculation upon entry of judgment, which is expected to be approximately \$22.0 million and recommended the district court deny our motion to stay any obligation to pay the remaining \$22.0 million that is not related to lost profits. The district court has not yet decided whether to adopt the recommendation of the magistrate. We will pursue all available objections and appeals to the order and report and recommendation.

On October 14, 2016, the United States Court of Appeals for the Federal Circuit issued a mandate returning the case to the district court for consideration of whether or not additional damages for willfulness are appropriate. After the dismissal of damages related to lost profits, the damages currently existing are limited to \$22 million in royalties (exclusive of interest). We will argue enhancement is not proper here under the new law, just as it was not under prior law, but in any event should be based on the royalty award, not the award plus interest.

As a result of the reversal by the Court of Appeals, as of June 30, 2015, we reduced our prior loss contingency accrual by approximately \$101.8 million, resulting in a current loss contingency accrual of \$22.0 million. Prior to the reduction in damages by the Court of Appeals, we arranged with sureties to post an appeal bond at the trial court. The appeal bond is uncollateralized, but the terms of the appeal bond arrangements provide the sureties the contractual right for as long as the bond is outstanding to require us to post cash collateral. We have received a request for \$11.0 million in collateral and have exchanged correspondence with the sureties in connection with this request. In July 2016, the sureties renewed their request for collateral and we are continuing to discuss terms and options with them. The appeal bond will remain outstanding during the pendency of appeals. See Footnote 7 "Litigation" of Footnotes to Unaudited Condensed Financial Statements.

Exchange Offer

On April 28, 2016, we successfully completed an exchange offer (the “Exchange Offer”) and consent solicitation (the “Consent Solicitation”) related to the Third Lien Notes. The Company did not receive any cash proceeds in connection with the Exchange Offer and Consent Solicitation.

Under the terms of the Exchange Offer, for each \$1,000 principal amount of Third Lien Notes validly tendered for exchange and not validly withdrawn by an eligible holder (an “Exchange Participant”) prior to 11:59 P.M., New York City time, on April 25, 2016, and accepted for exchange by us, we offered the consideration (the “Exchange Consideration”) of (i) \$1,000 principal amount of our new 9.125% Senior Secured Second Priority Notes due 2021 (the “Second Lien Notes” and collectively with the Third Lien Notes, the “Notes”) plus (ii) either (a) for Third Lien Notes tendered at or prior to 4:59 P.M., New York City time, on Friday, April 15, 2016 (the “Extended Early Tender Deadline”), ten (10) shares of our common stock

(the “Early Stock Consideration”), or (b) for Third Lien Notes tendered after the Extended Early Tender Deadline, seven (7) shares of our common stock (the “Stock Consideration”) (such shares issued as the Early Stock Consideration or the Stock Consideration, together with the Second Lien Notes, the “Exchange Securities”), upon the terms and subject to the conditions set forth in our confidential Offer to Exchange and related Consent and Letter of Transmittal, each dated March 28, 2016 (the “Offer Documents”).

As part of the Exchange Offer, each Exchange Participant had the opportunity to tender all or a portion of its Third Lien Notes for a cash payment in lieu of the Exchange Consideration upon the terms and subject to the conditions set forth in the Offer Documents (the “Cash Tender Option”). The aggregate amount of cash consideration that could be paid by us for tendered Third Lien Notes accepted for purchase pursuant to the Cash Tender Option was approximately \$15.0 million plus accrued and unpaid interest to, but not including, the settlement date of the Exchange Offer (collectively, the “Cash Tender Cap”).

Concurrently with the Exchange Offer, we solicited consents from eligible holders to proposed amendments to the Third Lien Notes Indenture (the “Proposed Amendments”). The Proposed Amendments, among other things, provide for the release of the second priority security interest in the collateral securing the Third Lien Notes and the grant of a third priority security interest in the collateral, subordinate to liens securing all our senior and second priority indebtedness, including the Credit Facility (as defined below) and the Second Lien Notes, and eliminate substantially all of the restrictive covenants and certain events of default pertaining to the Third Lien Notes.

The Exchange Offer, including the Cash Tender Option, and the Consent Solicitation expired at 11:59 P.M., New York City time, on April 25, 2016. In total, we accepted for exchange approximately \$146.5 million in aggregate principal amount of the Third Lien Notes, or approximately 83.72% of the \$175.0 million outstanding aggregate principal amount of the Third Lien Notes, validly tendered and not withdrawn in the Exchange Offer. The Third Lien Notes validly tendered and not withdrawn in the Exchange Offer were accepted by us.

Because we received the necessary consents to effect the Proposed Amendments, any Third Lien Notes not validly tendered pursuant to the Exchange Offer remain outstanding and the holders are subject to the terms of the supplemental indenture implementing the Proposed Amendments. No consideration was paid to holders of Third Lien Notes in connection with the Consent Solicitation. After giving effect to the Exchange Offer and Consent Solicitation, the aggregate principal amount of the Third Lien Notes remaining outstanding was approximately \$28.5 million as of April 28, 2016, and such Third Lien Notes are secured on a third priority basis subordinated to the liens securing all senior and second priority indebtedness of the Company, including under the Credit Facility and Second Lien Notes. In exchange for approximately \$120.6 million in aggregate principal amount of Third Lien Notes, we issued approximately \$120.6 million aggregate principal amount of Second Lien Notes and 1,205,477 shares of our common stock, including 1,204,980 shares issued as Early Stock Consideration and 497 shares issued as Stock Consideration. The Company utilized 508,464 of treasury shares towards the total 1,205,477 shares issued. The securities issued in the Exchange Offer were issued in reliance on an exemption from registration set forth in Section 4(a)(2) of the Securities Act. The Company received no cash consideration in exchange for the issuance of the Exchange Securities. The Cash Tender Option was fully subscribed. Pursuant to the terms of the Exchange Offer, we accepted for purchase tendered Third Lien Notes at the lowest bid prices until the Cash Tender Cap was reached, subject to proration. In exchange for aggregate cash consideration totaling approximately \$15.0 million, we purchased approximately \$25.9 million in aggregate principal amount of Third Lien Notes. We also paid in cash accrued and unpaid interest on Third Lien Notes accepted for purchase in the Exchange Offer from the applicable last interest payment date to, but not including, April 28, 2016.

The following table is a summary of the loss on extinguishment of debt associated with our second quarter bond exchange (in thousands):

Total debt extinguished	\$ 146,503
Carrying amount of debt issuance cost	(2,376)
Net carrying amount of debt	144,127
New Second Lien Notes issued in exchange	120,569
Cash paid	15,000
Common stock issued	10,740 (a)
Total consideration issued in exchange	146,309
Loss on extinguishment of debt	\$(2,182)

(a) 1,205,477 shares issued at \$8.91 per share.

Key Financial Metrics

Our results of operations have been materially affected by restructuring charges and other special charges and credits, which affect the comparability of certain of the financial information contained in this Form 10-Q. In order to assist with the comparability to our historical results of operations, certain of the financial metrics tables and the discussion below exclude charges and credits related to restructuring and other special items. The gross profit (loss), income (loss) from operations, costs and expenses below that are identified as “As Adjusted” reflect the exclusion of the restructuring and other charges shown and described in the tables below. We believe that the non-GAAP presentation of results of operations excluding these items provides a more meaningful comparison of reporting periods.

The table below provides an overview of key financial metrics for our company as a whole and our three business segments for the three and nine months ended September 30, 2016, compared to the same period of 2015 (in thousands, except share data).

	Three Months Ended September 30,		Nine Months Ended September 30,		
	2016	2015	2016	2015	
Net revenues:					
E&P Technology & Services:					
New Venture	\$8,393	\$26,650	\$16,278	\$35,315	
Data Library	21,510	15,302	32,057	24,948	
Total multi-client revenues	29,903	41,952	48,335	60,263	
Imaging Services	6,134	10,693	19,338	33,731	
Total	36,037	52,645	67,673	93,994	
E&P Operations Optimization:					
Devices	8,679	7,290	20,664	27,733	
Optimization Software & Services	3,922	6,739	12,685	22,320	
Total	12,601	14,029	33,349	50,053	
Ocean Bottom Services	29,984	—	36,417	—	
Total	\$78,622	\$66,674	\$137,439	\$144,047	
Gross profit (loss):					
E&P Technology & Services	\$12,888	\$11,294	\$(418)	\$(6,954)	
E&P Operations Optimization	6,866	7,039	16,647	25,971	
Ocean Bottom Services	12,011	(7,225)	11,459	(33,832)	
Total	\$31,765	\$11,108	\$27,688	\$(14,815)	
Gross margin:					
E&P Technology & Services	36	% 21	% (1)% (7)%
E&P Operations Optimization	54	% 50	% 50	% 52	%
Ocean Bottom Services	40	% —	% 31	% —	%

Total 40 % 17 % 20 % (10)%

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	Three Months Ended		Nine Months Ended	
	September 30, 2016	2015	September 30, 2016	2015
Income (loss) from operations:				
E&P Technology & Services	\$7,259	\$1,642	\$(16,867)	\$(37,401)
E&P Operations Optimization	3,682	3,916	7,162	15,786
Ocean Bottom Services	9,320	(10,287)	2,053	(46,457)
Support and other	(8,397)	(8,145)	(27,201)	(32,180)
Income (loss) from operations	\$11,864	\$(12,874)	\$(34,853)	\$(100,252)
Operating margin:				
E&P Technology & Services	20	% 3	% (25)	% (40)
E&P Operations Optimization	29	% 28	% 21	% 32
Ocean Bottom Services	31	% —	% 6	% —
Support and other	(11)	% (12)	% (20)	% (22)
Total	15	% (19)	% (25)	% (70)
Net income (loss) attributable to ION	\$1,699	\$(20,383)	\$(58,657)	\$(19,578)
Net income (loss) per share:				
Basic	\$0.14	\$(1.86)	\$(5.21)	\$(1.78)
Diluted	\$0.14	\$(1.86)	\$(5.21)	\$(1.78)
Special Items:	—	3,462	(a)4,191	(b)(93,587) (c)
Net income (loss) attributable to ION as adjusted	\$1,699	\$(16,921)	\$(54,466)	\$(113,165)
Net income (loss) per share as adjusted:				
Basic	\$0.14	\$(1.54)	\$(4.83)	\$(10.31)
Diluted	\$0.14	\$(1.54)	\$(4.83)	\$(10.31)

(a) Represents severance charges related to the third quarter 2015 restructurings.

Represents severance charges of \$2.0 million and \$2.2 million loss on extinguishment of debt associated with our second quarter bond exchange. See footnote 2 “Restructurings and Special Items” of Footnotes to Unaudited Condensed Financial Statements.”

(c) In addition to note (a), the nine months ended September 30, 2015 includes \$4.9 million of vacated facility charges offset by \$102.0 million reduction in the WesternGeco legal contingency

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.

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 for the year ended December 31, 2015, and (ii) Item 1A. “Risk Factors” in Part II of this Form 10-Q.

Results of Operations

Three Months Ended September 30, 2016 Compared to Three Months Ended September 30, 2015

Our consolidated net revenues of \$78.6 million for the three months ended September 30, 2016 (the “Current Quarter”) increased by \$11.9 million, or 18%, compared to total net revenues of \$66.7 million for the three months ended September 30, 2015 (the “Comparable Quarter”). Our overall gross profit percentage was 40% in the Current Quarter, as compared to 17% in the Comparable Quarter. For the Current Quarter, our income from operations was \$11.9 million, compared to loss from operations of \$12.9 million for the Comparable Quarter.

Net income for the Current Quarter was \$1.7 million, or \$0.14 per diluted share, compared to net loss of \$20.4 million, or \$(1.86) per share, for the Comparable Quarter. Excluding the impacts of special items, as noted in the above table, our net loss for the Comparable Quarter was \$16.9 million, or \$(1.54) per share.

Net Revenues, Gross Profits and Gross Margins

E&P Technology & Services — Net revenues for the Current Quarter decreased by \$16.6 million, or 32%, to \$36.0 million, compared to \$52.6 million for the Comparable Quarter. The decrease in revenues was primarily due to continued slowdown in customers' exploration spending impacting new ventures and imaging services partially offset by higher data library sales. Gross profit increased by \$1.6 million to \$12.9 million, representing a 36% gross margin, compared to \$11.3 million, which represented a 21% gross margin in the Comparable Quarter. These improvements in gross profit and margin were due to our cost control initiative implemented in 2014 and continued through 2016, as well as a favorable sales mix with a greater proportion of higher margin data library sales.

E&P Operations Optimization — Devices net revenues for the Current Quarter increased by \$1.4 million, or 19%, to \$8.7 million, compared to \$7.3 million for the Comparable Quarter. While revenues continue to be impacted by reduced activity by seismic contractors as numerous vessels have been taken out of service, revenues increased as a result of additional sales of replacement devices. Optimization Software & Services net revenues for the Current Quarter decreased by \$2.8 million, or 42%, to \$3.9 million, compared to \$6.7 million in the Comparable Quarter. The decrease in revenues were primarily due to lower Orca licensing revenues and to a lesser extent, the effect of foreign currency. Gross margin was 54% for the Current Quarter, compared to a 50% gross margin, for the Comparable Quarter. Although gross profit decreased slightly due to lower revenue, gross margin improved due to a favorable mix of higher margin sales as well as the benefit of our cost control initiative, implemented in 2014 and continued through 2016.

Ocean Bottom Services — Net revenues for the current period increased to \$30.0 million, as compared to zero for the Comparable Quarter. Gross profit for the Current Quarter was \$12.0 million, representing a 40% gross margin for the Current Quarter, compared to a gross loss of \$7.2 million, representing no gross margin for the Comparable Quarter. Gross margin for the current period was favorably impacted by the completion of data acquisition for an OBS survey offshore Nigeria which generated \$30.0 million of revenue during the current period, compared to our idle ocean bottom vessels and crew during 2015.

Operating Expenses

Research, Development and Engineering — Research, development and engineering expense decreased \$2.3 million, or 35%, to \$4.2 million, for the Current Quarter, compared to \$6.5 million for the Comparable Quarter. During the current down-cycle in E&P exploration spending, we have been selective in spending on research and development ("R&D") projects in order to reduce expenses without sacrificing our ability to develop our technologies. As discussed above, despite the extended market downturn and uncertainty, we see significant long-term potential for OceanGeo and our technologies to improve ocean bottom survey productivity, and we expect long-term demand for ocean bottom production surveys (4D) to increase.

Marketing and Sales — Marketing and sales expense decreased \$2.2 million, or 32%, to \$4.7 million, for the Current Quarter, compared to \$6.9 million, for the Comparable Quarter. During the current down-cycle in oil and gas exploration spending, we have also reduced our payroll and marketing expenses.

General, Administrative and Other Operating Expenses — General, administrative and other operating expenses increased \$0.5 million, or 5%, to \$11.0 million, for the Current Quarter, compared to \$10.5 million for the Comparable Quarter. General and administration expenses increased due to slightly higher bad debt, franchise tax and general expenses.

Other Items

Interest Expense, net — Interest expense, net, was \$4.6 million for the Current Quarter consistent with \$4.9 million for the Comparable Quarter. Interest expense in both quarters is primarily related to the Notes. For additional information, please refer to "Liquidity and Capital Resources — Sources of Capital" below.

Income Tax Expense — Income tax expense for the Current Quarter was \$3.3 million compared to \$2.1 million for the Comparable Quarter. Our effective tax rates for the Current Quarter and Comparable Quarter were 63.4% and (11.5)%, respectively. Income tax expense incurred for the Current Quarter primarily relates to taxable income generated by our non-U.S. businesses, which we are not able to offset with U.S. sourced operating losses. The effective tax rate was negatively impacted by the change in valuation allowance related to U.S. operating losses for which we cannot currently recognize a tax benefit.

Other Income (Expense), Net — Other expense for the Current Quarter was \$2.0 million compared to other expense of \$0.3 million for the Comparable Quarter. This difference was primarily related to a loss of \$2.7 million related to foreign currency losses, primarily due to transaction losses to the portion of Ocean Bottom Services revenue recorded in Nigerian Naira.

The following table reflects the significant items of other income (expense), net as follows (in thousands):

	Three Months Ended September 30,	
	2016	2015
Facility restructuring charges	—	296
Foreign currency losses	(2,774)	(a)(879)
Other income, net	747	237
Total other income (expense), net	\$(2,027)	\$(346)

(a) Represents the impact of foreign currency losses primarily in our Ocean Bottom Services group on revenues received in Nigerian Naira.

Nine Months Ended September 30, 2016 Compared to Nine Months Ended September 30, 2015

Our consolidated net revenues of \$137.4 million for the nine months ended September 30, 2016 (the “Current Period”) decreased by \$6.6 million, or 5%, compared to total net revenues of \$144.0 million for the nine months ended September 30, 2015 (the “Comparable Period”). Our overall gross profit (loss) percentage for the Current Period was 20%, compared to (10)%, for the Comparable Period. For the Current Period, our loss from operations was \$34.9 million, compared to \$100.3 million, for the Comparable Period.

Net loss for the Current Period was \$58.7 million, or \$(5.21) per share, compared to a net loss of \$19.6 million, or \$(1.78) per diluted share, in the Comparable Period. Excluding the impact of special items, as noted in the above table, adjusted net loss for Current Period was \$54.5 million, or \$(4.83) per share compared to adjusted net loss of \$113.2 million, or \$(10.31) per share, in the Comparable Period.

Net Revenues, Gross Profits and Gross Margins

E&P Technology & Services — Net revenues for the Current Period decreased by \$26.3 million, or 28%, to \$67.7 million, compared to \$94.0 million for the Comparable Period. The decrease in revenues was primarily due to continued slowdown in customers’ exploration spending impacting new ventures and imaging services partially offset by higher data library sales. Gross loss decreased by \$6.6 million to a gross loss of \$0.4 million, representing a (1)% gross margin, compared to a gross loss of \$7.0 million, representing a (7)% gross margin, in the Comparable Period. Improved gross margin and gross loss were due to our cost control initiative implemented in 2014 and continued through 2016, as well as a favorable sales mix with a greater proportion of higher margin data library sales.

E&P Operations Optimization — Devices net revenues for the Current Period decreased by \$7.0 million, or 25%, to \$20.7 million, compared to \$27.7 million for the Comparable Period. Devices revenues, comprised primarily of repair and replacement 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 Periods decreased by \$9.6 million, or 43%, to \$12.7 million compared to \$22.3 million for the Comparable Period. This decrease in revenues was primarily due to lower Orca licensing revenues and the unfavorable impact of foreign currency exchange rates impacted by Brexit. Gross profit decreased by \$9.4 million to \$16.6 million, representing a 50% gross margin, for the Current Period compared to \$26.0 million, representing a 52% gross margin, for the Comparable Period. Gross profits and gross margin decreased due to the significant reduction in revenues in the Current Period compared to the Comparable Period, partially offset by our cost control initiatives started in 2014 and continued in 2016.

Ocean Bottom Services — Net revenues for the Current Period increased \$36.4 million, compared to zero for the Comparable Period. Gross profit for the Current Period was \$11.5 million compared to gross loss of \$33.8 million for the Comparable Period. During 2016, our ocean bottom vessels and crew completed acquisition of data for an OBS survey offshore Nigeria which generated \$36.4 million of revenue during the current period. During 2015, our ocean bottom vessels and crew were idle.

Operating Expenses

Research, Development and Engineering — Research, development and engineering expense was \$14.6 million for the Current Period, a decrease of \$6.9 million, or 32%, compared to \$21.5 million for the Comparable Period. During the current down-cycle in E&P exploration spending, we have been selective in spending on research and development

(“R&D”) projects in order to reduce expenses without sacrificing our ability to develop our technologies, including a one-time spend of \$1.0 million related to the acquisition of Sailwings (in-process R&D). As discussed above, despite the extended market downturn and uncertainty, we see significant long-term potential for OceanGeo and our technologies to improve ocean bottom survey productivity, and we expect long-term demand for ocean bottom production surveys (4D) to increase.

Marketing and Sales — Marketing and sales expense was \$13.4 million for the Current Period, a decrease of \$10.0 million, or 43%, compared to \$23.4 million, for the Comparable Period. During the current down-cycle in E&P exploration spending, we have also reduced our payroll and marketing expenses.

General, Administrative and Other Operating Expenses — General, administrative and other operating expenses were \$34.6 million for the Current Period, a decrease of \$6.0 million, or 15%, compared to \$40.6 million for the Comparable Period. This decrease was primarily the result of the restructuring actions taken in 2014 that reduced expenses in the Current Period.

Other Items

Interest Expense, net — Interest expense, net, was \$14.0 million for the Current Period compared to \$14.1 million for the Comparable Period. Interest expense in both quarters is primarily related to the Notes. For additional information, please refer to “— Liquidity and Capital Resources — Sources of Capital” below.

Other Income, Net — Other expense for the Current Period was \$3.6 million compared to other income of \$98.0 million for the Comparable Period. This difference was primarily related to a loss of \$2.2 million on the exchange of bonds during the Current Period compared to a \$102.0 million reduction in our loss contingency accrual related to the WesternGeco legal proceedings, partially offset by \$2.8 million of facility restructuring charges and severance expense recorded in the Comparable Quarter.

The following table reflects the significant items of other income (expense), net as follows (in thousands):

	Nine Months Ended	
	September 30,	
	2016	2015
Reductions of loss contingency related to legal proceedings (Footnote 7)	\$—	\$101,978
Facility restructuring charges	—	(2,791)
Loss on bond exchange	(2,182)	—
Foreign currency losses	(3,024)	(2,355)
Other income, net	1,582	1,203
Total other income (expense), net	\$(3,624)	\$98,035

Income Tax Expense — Income tax expense for the Current Period was \$5.9 million compared to \$3.6 million for the Comparable Period. Our effective tax rates for the Current Period and Comparable Period were (11.2)% and (22.1)%, respectively. Our income tax expense for the Current Period primarily relates to income from our non-US businesses. Our effective tax rate for the Current Period was 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 6 “Income Taxes” of Notes to Unaudited Condensed Consolidated Financial Statements.

Liquidity and Capital Resources

Sources of Capital

As of September 30, 2016, we had \$62.5 million of cash on hand and \$15.9 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 September 30, 2016, we had working capital of \$53.4 million. Working capital requirements are primarily driven by our investment in our (i) multi-client data library (\$11.6 million in the Current Period) and, (ii) working capital requirements on our OBS survey in our Ocean Bottom Services segment, and (iii) our inventory purchase obligations. Also, our headcount has traditionally been a significant driver of our working capital needs. Because 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 involves cash expenditures for their salaries, bonuses, payroll taxes and related compensation expenses. As previously noted, since December 2014, we have reduced our workforce by over 50%, and reduced salaries by 10% for a majority of our employees and closed selected facilities. These actions to resulted in annualized cash savings of approximately \$80.0 million which we began to fully benefit from in the fourth quarter of 2015. In April 2016, we implemented additional cost saving initiatives by reducing our current workforce by approximately 12%. These further reductions are expected to result in approximately \$15.0 million of additional

annualized savings, with an estimated \$9.0 million in 2016. We began realizing the vast majority of these savings in the third quarter of 2016.

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.

Credit Facility, including Revolving Line of Credit

In August 2014, we 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”) 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 (which may be recalculated more frequently under certain circumstances).

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 our multi-client data library (not to exceed \$15.0 million for the multi-client data library data component). As of September 30, 2016, the borrowing base under the Credit Facility was \$30.9 million, and there was \$15.0 million of outstanding indebtedness under the Credit Facility.

The Credit Facility requires us to maintain compliance with various covenants. At September 30, 2016, we were in compliance with all of the covenants under the Credit Facility. For further information regarding our Credit Facility, see Footnote 4 “Long-term Debt” of Footnotes to Unaudited Condensed Financial Statements.

Senior Secured Notes

In May 2013, we sold \$175.0 million aggregate principal amount of 8.125% Senior Secured Second-Priority Notes due 2018 (the “Third Lien Notes”) in a private offering pursuant to an indenture dated as of May 13, 2013 (the “Third Lien Notes Indenture”). Prior to the completion of the Exchange Offer and Consent Solicitation on April 28, 2016, the Third Lien Notes were our senior secured second-priority obligations. After giving effect to the Exchange Offer and Consent Solicitation, the remaining aggregate principal amount of approximately \$28.5 million of outstanding Third Lien Notes became our senior secured third-priority obligations subordinated to the liens securing all of our senior and second priority indebtedness, including under the Credit Facility and Second Lien Notes.

Pursuant to the Exchange Offer and Consent Solicitation, we (i) issued approximately \$120.6 million in aggregate principal amount of our new Second Lien Notes and 1,205,477 shares of common stock, (utilizing 508,464 of treasury shares) in exchange for approximately \$120.6 million in aggregate principal amount of Third Lien Notes, and (ii) purchased approximately \$25.9 million in aggregate principal amount of Third Lien Notes in exchange for aggregate cash consideration totaling approximately \$15.0 million, plus accrued and unpaid interest on the Third Lien Notes from the applicable last interest payment date to, but not including, April 28, 2016.

After giving effect to the Exchange Offer and Consent Solicitation, the aggregate principal amount of the Third Lien Notes remaining outstanding was approximately \$28.5 million and the aggregate principal amount of Second Lien Notes outstanding was approximately \$120.6 million. See Item 2. “Management’s Discussion and Analysis of Financial Condition and Results of Operations-Liquidity and Capital Resources-Exchange Offer” in Part II of this Form 10-Q. The Third Lien Notes are guaranteed by our material U.S. subsidiaries, GX Technology Corporation, ION Exploration Products (U.S.A.), Inc. and I/O Marine Systems, Inc. (the “Guarantors”). The Third Lien Notes mature on May 15, 2018. Interest on the Third Lien Notes accrues at the rate of 8.125% per annum and is payable semiannually in arrears on May 15 and November 15 of each year during their term. In May 2014, the holders of the Third Lien Notes exchanged their Third Lien Notes for a like principal amount of registered Third Lien Notes with the same terms. For a complete discussion of the terms and security of the Third Lien Notes in effect prior to the completion of the Exchange Offer and Consent Solicitation on April 28, 2016, see Footnote 6 to the Financial Statements included in our Annual Report on Form 10-K for the year ended December 31, 2015.

On or after May 15, 2015, we may on one or more occasions redeem all or a part of the Third Lien Notes at the redemption prices set forth below, plus accrued and unpaid interest and special interest, if any, on the Third Lien Notes redeemed during the twelve-month period beginning on May 15th of the years indicated below:

Date	Percentage
2015	104.063%
2016	102.031%
2017 and thereafter	100.000%

The Third Lien Notes Indenture requires us to maintain compliance with various covenants. At September 30, 2016, we were in compliance with all of the covenants under the Third Lien Notes Indenture. For further information regarding the Third Lien Notes, see Footnote 4 “Long-term Debt” of Footnotes to Unaudited Condensed Financial Statements.

The Second Lien Notes are senior secured second-priority obligations guaranteed by 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, beginning June 15, 2016, except that the interest payment otherwise payable on June 15, 2021 will be payable on December 15, 2021. The indenture dated April 28, 2016 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. At September 30, 2016, we were in compliance with all of the covenants under the Second Lien Notes Indenture. All of our subsidiaries are currently restricted subsidiaries.

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 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%

For additional information regarding the terms of the Third Lien Notes and related Third Lien Notes Indenture and intercreditor agreement in effect prior to the completion of the Exchange Offer, see our Current Report on Form 8-K filed with the SEC on May 13, 2013. For additional information regarding the terms and security of the Third Lien Notes after giving effect to the Exchange Offer and Consent Solicitation, the amendments to the Third Lien Notes Indenture, the terms and security of the Second Lien Notes, the Second Lien Notes Indenture and the related intercreditor agreement, see our Current Report on Form 8-K filed with the SEC on April 28, 2016.

Meeting our Liquidity Requirements

As of September 30, 2016, our total outstanding indebtedness (including capital lease obligations) was approximately \$163.5 million, consisting of approximately \$120.6 million outstanding Second Lien Notes, \$28.5 million Third Lien Notes, \$15.0 million outstanding indebtedness under our Credit Facility, \$4.7 million of equipment capital leases, and \$0.1 million of other debt. In addition, we have remaining unamortized debt issuance costs of \$5.4 million related to the Second and Third Lien Notes.

For the Current Period, total capital expenditures, including the investments in our multi-client data library, were \$12.2 million. We expect investments in our multi-client data library this year to be in the range of \$14 million to \$17 million. Our full year investment in our multi-client data library has been significantly reduced in 2016 compared to 2015 due to the uncertainty in the E&P industry and their reduced capital expenditures budgets for 2016.

In late April, we completed our Exchange Offer, retiring approximately \$25.9 million of our \$175.0 million Third Lien Notes, using approximately \$15.0 million of our cash. We believe that the consummation of the Exchange Offer will ultimately improve our liquidity position and give us more flexibility in how we invest cash into our businesses. See “Executive Summary – Macroeconomic Conditions” above.

Subject to a payment obligation in the amount of the loss contingency we have established with respect to our ongoing WesternGeco litigation (as discussed below), we believe that our existing cash balance, cash from operations and increased availability under our Credit Facility will be sufficient to meet our anticipated cash needs for at least the next 12 months. However, as set forth below, a potential future requirement to satisfy a payment obligation with respect to the WesternGeco litigation in excess of our loss contingency accrual could have a material adverse effect on our liquidity and, as a result, our business, financial condition and results of operations.

Loss Contingency – WesternGeco Lawsuit

As of September 30, 2016, we have a loss contingency of \$22.0 million accrued related to the legal proceedings with WesternGeco. 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. Prior to the reduction in damages by the Court of Appeals, we arranged with sureties to post an appeal bond at the trial court. The appeal bond is uncollateralized, but the terms of the appeal bond arrangements provide the sureties the contractual right for as long as the bond is outstanding to require us to post cash collateral. We have received a request for \$11 million in collateral and have exchanged correspondence with the sureties in connection with this request.

On May 4, 2016, after referral from the district court, a Magistrate Judge issued an order and report and recommendation in the litigation. The order and report recommended entry of a final judgment against us on the royalty obligation plus interest, subject to final calculation upon entry of judgment, which is expected to be approximately \$22.0 million and recommended the district court deny our motion to stay any obligation to pay the remaining \$22.0 million. The district court has not yet decided whether to adopt the recommendation of the magistrate. We will pursue all available objections and appeals to the order and report and recommendation.

On October 14, 2016, the United States Court of Appeals for the Federal Circuit issued a mandate returning the case to the district court for consideration of whether or not additional damages for willfulness are appropriate. After the dismissal of damages related to lost profits, the damages currently existing are limited to \$22 million in royalties (exclusive of interest). We will argue enhancement is not proper here under the new law, just as it was not under prior law, but in any event should be based on the royalty award, not the award plus interest.

We may not ultimately prevail in the final appeals process and we could be required to pay damages up to the amount of the loss contingency accrual plus any additional amount ordered by the court. Our assessment of our potential loss contingency may change in the future due to developments at the appellate court and other events, such as changes in applicable law, and such reassessment could lead to the determination that no loss contingency is probable or that a greater loss contingency is probable, which could have a material effect on our business, financial condition and results of operations. Amounts of estimated loss contingency accruals as 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. Actual losses may exceed or be less than these accrual amounts.

Cash Flow from Operations

In the nine months ended September 30, 2016 (the “Current Period”), we generated \$3.2 million of cash from operating activities compared to a net consumption of \$36.0 million for the nine months ended September 30, 2015 (the “Comparable Period”). The increase in net cash provided by operations was due to improved operating results. Although revenues declined 5% as compared to the Comparable Period, the impact of our cost reduction measures helped reduce our loss from operations by 65% as compared to the Comparable Period. In addition, cash from operations generated during the Current Period also benefited from collections of cash from our accounts receivable and increases in accounts payable.

Cash Flow from Investing Activities

Cash used in investing activities was \$12.2 million in the Current Period compared to \$44.5 million for the Comparable Period. The principal uses of cash in our investing activities during the Current Period were \$11.6 million invested in our multi-client data library and \$0.6 million of capital expenditures on property, plant, equipment and seismic rental equipment.

The principal use of cash in our investing activities during the Comparable Period were \$28.2 million invested in our multi-client data library and \$17.6 million for capital expenditures related to property, plant and equipment.

Cash Flow from Financing Activities

Net cash used in financing activities was \$14.3 million in the Current Period, compared to \$5.5 million in the Comparable Period. The primary use of cash in our financing activities during the Current Period were \$6.7 million for payments on equipment capital leases, \$6.6 million of debt issuance costs, \$1.0 million of stock repurchases and \$15 million to repurchase bonds. In addition, we borrowed \$15.0 million on our revolving line of credit.

The net cash used in financing activities during the Comparable Period was primarily related to \$5.4 million of repayments of long-term debt, including equipment capital leases.

Inflation and Seasonality

Inflation in recent years has not had a material effect on our costs 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 for the year ended December 31, 2015 for a complete discussion of our significant accounting policies and estimates. There have been no material changes in the Current Period regarding our critical accounting policies and estimates. For discussion of recent accounting pronouncements, see Footnote 14 “Recent Accounting Pronouncements” of Footnotes to Unaudited Condensed Consolidated Financial Statements.

Foreign Sales Risks

The majority of our foreign sales are denominated in United States 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 and Services groups, are allocated based upon the billing location of the customer. For the Current Period and Comparable Period, international sales comprised 79% and 72%, respectively, of total net revenues. The total percentage of sales to foreign countries increased in the Current Period compared to the Comparable Period due to growth of 5% in our international sales while our North American sales declined by 30%.

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

	Nine Months Ended September 30,	
	2016	2015

Net revenues by geographic area:

Africa	\$39,995	\$10,475
Europe	34,289	11,849
North America	28,811	40,930
Latin America	13,323	44,522
Asia Pacific	11,777	11,991
Middle East	7,764	14,875
Other	1,480	9,405
Total	\$137,439	\$144,047

Credit Risks

At September 30, 2016, we had a national oil company customer with a balance greater than 10% of our total combined accounts and unbilled receivable balances. This customer’s receivable and unbilled balance represented 42%, of our net accounts receivable and unbilled receivables at September 30, 2016.

The loss of this customer or deterioration in our relationship with this customer 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 for the year ended December 31, 2015 for a discussion regarding our quantitative and qualitative disclosures about market risk. There have been no material changes to those disclosures during the Current Period.

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 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 September 30, 2016. Based upon that evaluation, our principal executive officer and principal financial officer have concluded that our disclosure controls and procedures were effective as of September 30, 2016.

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 September 30, 2016, which has materially affected, or is reasonably likely to materially affect, our internal control over financial reporting.

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[®] 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 royalty and \$93.4 million in lost profits.

In June 2013, the presiding judge entered a Memorandum and Order, ruling that WesternGeco is 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 are subject to supplemental damages and also ruling that the supplemental damages applicable to the additional units should 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 award 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 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. On July 2, 2015, the Court of Appeals reversed in part the district court’s judgment, holding the district court erred by including lost profits in the Final Judgment. Lost profits were \$93.4 million and prejudgment interest 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.

On February 26, 2016, WesternGeco filed a petition for writ of certiorari by the Supreme Court. We filed its response on April 27, 2016. Subsequently, on June 20, 2016, the Supreme Court refused to disturb the Court of Appeals ruling finding no lost profits as a matter of law. Separately, 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 Federal Circuit for a determination of whether or not the willfulness determination by the District Court was appropriate.

Separately, proceedings remained ongoing in the district court on other issues not resolved by the original mandate. On May 4, 2016, after referral from the district court, a Magistrate Judge issued an order and report and recommendation in the litigation. The order and report recommended entry of a final judgment against us on the royalty obligation plus interest, subject to final calculation upon entry of judgment, which is expected to be approximately \$22.0 million and recommended the district court deny our motion to stay any obligation to pay the remaining \$22.0 million that is not related to lost profits. The district court has not yet decided whether to adopt the

recommendation of the magistrate. We will pursue all available objections and appeals to the order and report and recommendation.

On October 14, 2016, the United States Court of Appeals for the Federal Circuit issued a mandate returning the case to the district court for consideration of whether or not additional damages for willfulness are appropriate. After the dismissal of damages related to lost profits, the damages currently existing are limited to \$22 million in royalties (exclusive of interest). We will argue enhancement is not proper here under the new law, just as it was not under prior law, but in any event should be based on the royalty award, not the award plus interest.

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 have reduced our loss contingency accrual to its current amount of \$22.0 million as of June 30, 2015. Our assessment of our potential loss contingency may change in the future due to developments in the case and other events, such as changes in applicable law, and such reassessment could lead to the determination that no loss contingency is probable or that a greater or lesser loss contingency is probable. Any such reassessment could have a material effect on our financial condition or results of operations.

Prior to the reduction in damages by the Court of Appeals, we arranged with sureties to post an appeal bond at the trial court. The appeal bond is uncollateralized, but the terms of the appeal bond arrangements provide the sureties the contractual right for as long as the bond is outstanding to require us to post cash collateral. We have received a request for \$11.0 million in collateral and have exchanged correspondence with the sureties in connection with this request. In July 2016, the sureties renewed their request for collateral and we are continuing to discuss terms and options with them. The appeal bond will remain outstanding during the pendency of appeals.

For additional discussion about the effect of posting an appeal bond on our liquidity, financial condition and results of operations, see Item 2. “Management’s Discussion and Analysis of Financial Condition and Results of Operations – Liquidity and Capital Resources – Loss Contingency – WesternGeco Lawsuit” in Part I of this Form 10-Q.

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.

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:

- the expected outcome of the WesternGeco litigation and future potential adverse effects on our liquidity;
- future oil and gas commodity prices;
- future levels of capital expenditures of our customers for seismic activities;
- 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 borrowing capacity on our Credit Facility based on future levels of our borrowing base;
- the effects of current and future unrest in the Middle East, North Africa and other regions, including Ukraine;
- 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, particularly in the Gulf of Mexico;
- expected net revenues, income from operations and net income;
- expected gross margins for our services and products;

our Ocean Bottom Services chartered vessels remaining idle for an extended period;
future seismic industry fundamentals, including future demand for seismic services and equipment;

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- future benefits to our customers to be derived from new services and products;
- future benefits to be derived from our investments in technologies, joint ventures and acquired companies;
- future growth rates for our services and products;
- the degree and rate of future market acceptance of our new services and products;
- expectations regarding E&P companies and seismic contractor end-users purchasing our more technologically-advanced services and products;
- anticipated timing and success of commercialization and capabilities of services and products under development and start-up costs associated with their development;
- future cash needs and future availability of cash to fund our operations and pay our obligations;
- potential future acquisitions;
- future opportunities for new services and products and projected research and development expenses;
- expected continued compliance with our debt financial covenants;
- expectations regarding realization of deferred tax assets; and
- anticipated results with respect to certain estimates we make for financial accounting purposes.

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 for the year ended December 31, 2015 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 September 30, 2016, 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
July 1, 2016 to July 31, 2016	—	\$	—Not applicable	Not applicable
August 1, 2016 to August 31, 2016	—	\$	—Not applicable	Not applicable
September 1, 2016 to September 30, 2016	—	\$	—Not applicable	Not applicable
Total	—	\$	—	

On November 4, 2015, our board of directors approved a stock repurchase program authorizing us to repurchase, from time to time from November 10, 2015 through November 10, 2017, up to \$25.0 million in shares of our outstanding common stock. The stock repurchase program may be implemented through open market repurchases or privately negotiated transactions, at management's discretion. The actual timing, number and value of shares repurchased under the program will be determined by management at its discretion and will depend on a number of factors including the market price of the shares of our common stock and general market and economic conditions, applicable legal requirements and compliance with the terms of our outstanding indebtedness. The repurchase program does not obligate us to acquire any particular amount of common stock and may be modified or suspended at any time and could be terminated prior to completion. Since the program's inception on November 10, 2015 through June 30, 2016, we had repurchased 451,792 shares our common stock at an average price per share of \$6.54, and we have approximately \$22.0 million of remaining authorized capacity available pursuant to the repurchase program. The number of shares repurchased and the average price per repurchased share has been retroactively adjusted to reflect the one-for-fifteen reverse stock split completed on February 4, 2016. On September 30, 2016, the closing sale price for our common stock was \$6.85 on the NYSE.

For additional information regarding the issuance and sale of unregistered securities pursuant to the exchange offer we completed on April 28, 2016, see our Current Report on Form 8-K filed with the SEC on April 28, 2016.

Item 5. Other Information

None.

Item 6. Exhibits

3.1 Restated Certificate of Incorporation, as amended.

4.1 Indenture, dated as of April 28, 2016, among ION Geophysical Corporation, the subsidiary guarantors named therein, Wilmington Savings Fund Society, FSB, as trustee and collateral agent filed on April 28, 2016 as Exhibit 4.1 to the Company's Current Report on Form 8-K and incorporated by reference.

4.2 Form of Second Lien Note (included in Exhibit 4.1).

10.1 Second Amendment to the Revolving Credit and Security Agreement, dated as of April 28, 2016, among ION Geophysical Corporation and the subsidiary co-borrowers named therein, as borrowers, the financial institutions party thereto, as lenders, and PNC Bank, National Association, as agent for the lenders, filed on April 28, 2016 as Exhibit 10.2 to the Company's Current Report on Form 8-K and incorporated by reference.

10.2 Intercreditor Agreement, dated as of April 28, 2016, by and among PNC Bank, National Association, as first lien representative and first lien collateral agent for the first lien secured parties, and Wilmington Savings Fund Society, FSB, as second lien representative and second lien collateral agent for the second lien secured parties and as third lien representative for the third lien secured parties, and U.S. Bank National Association as third lien collateral agent for the third lien secured parties and acknowledged and agreed to by ION Geophysical Corporation and the other grantors named therein, filed on April 28, 2016 as Exhibit 10.1 to the Company's Current Report on Form 8-K and incorporated by reference.

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.

101 The following materials are formatted in Extensible Business Reporting Language (XBRL): (i) Condensed Consolidated Balance Sheets as of September 30, 2016 and December 31, 2015, (ii) Condensed Consolidated Statements of Operations for the three- and nine-months ended September 30, 2016 and 2015, (iii) Condensed Consolidated Statements of Comprehensive Income (Loss) for the three- and nine-months ended September 30, 2016 and 2015, (iv) Condensed Consolidated Statements of Cash Flows for the nine months ended September 30, 2016 and 2015, (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: November 3, 2016

EXHIBIT INDEX

Exhibit No. Description

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