

CORE LABORATORIES N V  
Form 10-K  
February 10, 2017

---

---

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

FORM 10-K  
(Mark One)

Q ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934  
For the fiscal year ended December 31, 2016  
OR

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

For the transition period from \_\_\_\_\_ to \_\_\_\_\_

Commission File Number 001-14273

CORE LABORATORIES N.V.

(Exact name of registrant as specified in its charter)

The Netherlands

Not Applicable

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

Strawinskylaan 913

Tower A, Level 9

1077 XX Amsterdam

The Netherlands

Not Applicable

(Address of principal executive offices)

(Zip Code)

Registrant's telephone number, including area code: (31-20) 420-3191

Securities registered pursuant to Section 12(b) of the Act:

Title of each class

Name of each exchange on which registered

Common Shares, EUR 0.02 Par Value Per Share New York Stock Exchange; Euronext Amsterdam Stock Exchange

Securities registered pursuant to Section 12(g) of the Act: None

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act.

Yes  No

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Exchange Act. Yes  No

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

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 (§232.405 of this chapter) 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 if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K is not contained herein, and will not be contained, to the best of registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K. "

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 definition of "large accelerated filer," "accelerated filer" and "smaller reporting company" in Rule 12b-2 of the Exchange Act.

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

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Act). Yes  No

As of June 30, 2016, the aggregate market value of common shares held by non-affiliates of the registrant was approximately \$5,351,649,322.

As of February 9, 2017, the number of common shares outstanding was 44,152,138.

**DOCUMENTS INCORPORATED BY REFERENCE**

The information required by Part III of this Report, to the extent not set forth herein, is incorporated herein by reference from the registrant's definitive proxy statement relating to the Annual Meeting of Shareholders to be held in 2017, which definitive proxy statement shall be filed with the Securities and Exchange Commission within 120 days after the end of the fiscal year to which this Report relates.

This document (excluding exhibits) contains 72 pages.

The table of contents is set forth on the following page. The exhibit index begins on page 34.

---

---

---

CORE LABORATORIES N.V.  
 FORM 10-K FOR THE FISCAL YEAR ENDED DECEMBER 31, 2016  
 TABLE OF CONTENTS

	Page
PART I	
<u>Item 1. Business</u>	<u>1</u>
<u>Item</u>	
<u>1A. Risk Factors</u>	<u>9</u>
<u>Item 1B. Unresolved Staff Comments</u>	<u>14</u>
<u>Item 2. Properties</u>	<u>15</u>
<u>Item 3. Legal Proceedings</u>	<u>15</u>
<u>Item 4. Mine Safety Disclosures</u>	<u>15</u>
PART II	
<u>Item 5. Market for Registrant's Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities</u>	<u>16</u>
<u>Item 6. Selected Financial Data</u>	<u>18</u>
<u>Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operation</u>	<u>19</u>
<u>Item</u>	
<u>7A. Quantitative and Qualitative Disclosures about Market Risk</u>	<u>31</u>
<u>Item 8. Financial Statements and Supplementary Data</u>	<u>32</u>
<u>Item 9. Changes in and Disagreements with Accountants on Accounting and Financial Disclosure</u>	<u>32</u>
<u>Item</u>	
<u>9A. Controls and Procedures</u>	<u>32</u>
<u>Item 9B. Other Information</u>	<u>33</u>
PART III	
<u>Item 10. Directors, Executive Officers and Corporate Governance</u>	<u>34</u>
<u>Item 11. Executive Compensation</u>	<u>34</u>
<u>Item 12. Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters</u>	<u>34</u>
<u>Item 13. Certain Relationships and Related Transactions and Director Independence</u>	<u>34</u>
<u>Item 14. Principal Accountant Fees and Services</u>	<u>34</u>
PART IV	
<u>Item 15. Exhibits, Financial Statement Schedules</u>	<u>35</u>



## PART I

### ITEM 1. BUSINESS

#### General

Core Laboratories N.V. is a Netherlands limited liability company. We were established in 1936 and are one of the world's leading providers of proprietary and patented reservoir description, production enhancement and reservoir management services to the oil and gas industry. These services and products are directed toward enabling our clients to improve reservoir performance and increase oil and gas recovery from their producing fields. We have over 70 offices in more than 50 countries and have approximately 4,400 employees.

References to "Core Lab", the "Company", "we", "our", and similar phrases are used throughout this Annual Report on Form 10-K (this "Form 10-K") and relate collectively to Core Laboratories N.V. and its consolidated affiliates.

#### Business Strategy

Our business strategy is to provide advanced technologies that improve reservoir performance by (i) continuing the development of proprietary technologies through client-driven research and development, (ii) expanding the services and products offered throughout our global network of offices and (iii) acquiring complementary technologies that add key technologies or market presence and enhance existing services and products.

#### Development of New Technologies, Services and Products

We conduct research and development to meet the needs of our clients who are continually seeking new services and technologies to lower their costs of finding, developing and producing oil and gas. While the aggregate number of wells being drilled per year has fluctuated relative to market conditions, oil and gas producers have, on a proportional basis, increased expenditures on technology services to improve their understanding of the reservoir and increase production of oil and gas from their producing fields. We intend to continue concentrating our efforts on services and technologies that improve reservoir performance and increase oil and gas recovery.

#### International Expansion of Services and Products

Another component of our business strategy is to broaden the spectrum of services and products offered to our clients on a global basis. We intend to continue using our worldwide network of offices to offer many of our services and products that have been developed internally or obtained through acquisitions. This allows us to enhance our revenue through efficient utilization of our worldwide network.

#### Acquisitions

We continually review potential acquisitions to add key services and technologies, enhance market presence or complement existing businesses.

More information relating to any significant acquisitions is included in Note 3 of the Notes to the Consolidated Financial Statements in Part IV of this Form 10-K ("Notes to Consolidated Financial Statements").

#### Operations

We derive our revenue from services and product sales to clients primarily in the oil and gas industry.

We operate our business in three reportable segments. These complementary segments provide different services and products and utilize different technologies for improving reservoir performance and increasing oil and gas recovery from new and existing fields. Disclosure relating to the operations and financial information of these business segments is included in Note 18 of the Notes to Consolidated Financial Statements.

**Reservoir Description:** Encompasses the characterization of petroleum reservoir rock, fluid and gas samples. We provide analytical and field services to characterize properties of crude oil and petroleum products to the oil and gas industry.

**Production Enhancement:** Includes products and services relating to reservoir well completions, perforations, stimulations and production. We provide integrated diagnostic services to evaluate the effectiveness of well completions and to develop solutions aimed at increasing the effectiveness of enhanced oil recovery projects.

**Reservoir Management:** Combines and integrates information from reservoir description and production enhancement services to increase production and improve recovery of oil and gas from our clients' reservoirs.

We offer our services worldwide through our global network of offices. Services accounted for approximately 79%, 77% and 72% of our revenue from operations for the years ended December 31, 2016, 2015 and 2014, respectively.

We manufacture products primarily in four facilities for distribution on a global basis. Product sales accounted for approximately 21%, 23% and 28% of our revenue from operations for the years ended December 31, 2016, 2015 and 2014, respectively.

Our product sales backlog at December 31, 2016 was approximately \$6.8 million compared to \$10.2 million at December 31, 2015. Sources of raw materials for our products are readily available and we expect that our current sales backlog at December 31, 2016 will be completed in 2017.

#### Reservoir Description

Commercial oil and gas fields consist of porous and permeable reservoir rocks that contain natural gas, crude oil and water. Due to the density differences of the fluids, natural gas typically caps the field and overlies an oil layer, which overlies the water. We provide services that characterize the porous reservoir rock and all three reservoir fluids. Services relating to these fluids include determining quality and measuring quantity of the fluids and their derived products. This includes determining the value of different crude oil and natural gases by analyzing the individual components of complex hydrocarbons. We measure these hydrocarbons at reservoir conditions to determine the changes in their physical properties with changing pressure and temperature.

We analyze samples of reservoir rocks for their porosity, which determines reservoir storage capacity, and for their permeability, which defines the ability of the fluids to flow through the rock. These measurements are used to determine how much oil and gas are present in a reservoir and the rates at which the oil and gas can be produced. We also use our proprietary services and technologies to correlate the reservoir description data to wireline logs and seismic data by determining the different acoustic velocities of reservoir rocks containing water, oil and natural gas.

The combined use of both the reservoir rock and fluid data are invaluable to oil companies to determine the most efficient method by which to recover, process, and refine these hydrocarbons to produce the maximum value added to crude oil and natural gas fields. Early evaluations and key decisions about well performance and viability are important for optimizing a reservoir. This is accomplished using our Digital Rock Characteristics (DRC) services which include (1) Dual Energy CT which is a non-destructive petrophysical evaluation technique to provide early time insight of reservoir lithology and reservoir quality; and (2) Micro CT which is a high resolution pore imaging service that provides early time quantification of both routine and special core analysis properties.

We have developed unique analytical processes to understand the flow characteristics and saturation profiles of unconventional reservoir systems including (1) High Frequency Nuclear Magnetic Resonance (NMR) measurements to allow the T1/T2 mapping to gain understanding of movable vs. unmovable fluid saturation distribution of these complex system; and (2) Enhanced Oil Recovery (EOR) of shale reservoirs by evaluating the effectiveness of gas cycling in nano-pore structures to significantly increase long-term production rates and volumes.

The Iron Corehand™ is a unit designed to handle and move core in the field to eliminate the inherent risk of back injury and dropped core. The unit is self-contained and designed to fit in the limited spaces available on offshore rigs.

The system ensures proper handling of core material in the field and protecting staff from serious injuries.

Core Lab holds various patents, trade secrets, and proprietary designs for laboratory equipment required to analyze reservoir rocks as well as the properties and phase behavior of reservoir fluids. We manufacture a wide range of ambient and reservoir condition rock and fluid analysis laboratory equipment for our own use throughout our international laboratory network. Among these devices are complex, high-pressure, high temperature, reservoir condition, multi-phase flow systems and full visualization PVT cells, along with the ancillary equipment required to support these laboratory programs. We also sell equipment of this type to universities, government institutes, and client company research labs.



Whilst recognizing the need to optimize the logistical chain of our clients, from producing well to retail sales of petroleum products, a state-of-the-art IT platform CONNECT: has been launched to efficiently acquire our field data, laboratory analysis and any other observations relevant to our client base. The system is designed in such a way that there is only single data entry, and that data can be used for further analysis and more importantly be shared with our clients by process flow dashboards, with key performance indicators. But also by sharing real-time data on mobile devices, enabling our clients to make quick decisions.

This new methodology of sharing data has been embraced by an increasing number of clients, as it has not only saved them costs, but more importantly, the data can be used for trend analysis in many ways such as the ability to forecast bottlenecks, thus eliminating waste and increasing efficiency.

Two experience centers have been set up, both in the U.S. and Europe, where our clients can get acquainted with optimizing the flow of business as well as our advanced systems for data analysis. All initiatives are meant to increase efficiency and add value to our client base.

#### Production Enhancement

We provide diagnostic services and products to help optimize completion and reservoir operations and field development strategies in order to increase recoverable reserves in the most efficient way. Two production enhancement methods commonly used are (i) hydraulic fracturing of the reservoir rock to improve flow and (ii) flooding a reservoir with water, carbon dioxide, nitrogen or hydrocarbon gases to force more oil and gas to the wellbore. Many oilfields today are hydraulically fractured and/or flooded to maximize oil and gas recovery. Although Core Laboratories is not a hydraulic fracturing company, we do provide services that are used by others to develop and optimize hydraulic fracturing and field flood projects and to evaluate the success of those projects. Our services and technologies play a key role in the success of both methods.

The hydraulic fracturing of a producing formation is achieved by pumping a fluid slurry containing a proppant material into the reservoir zone at extremely high pressures. This fractures the rock and the proppant material "props" or holds the fractures open after the pressure pumping is complete so that reservoir fluids can flow to the production wellbore. Our data on rock type and strength are critical for determining the proper design of the hydraulic fracturing job. In addition, our testing indicates whether the fluid slurry is compatible with the reservoir rock so that damage does not occur that would restrict production. We also provide testing of various propping agents and software to help pick the best proppant based on net present value calculations of client investments. Our proprietary and patented ZERO WASH® tracer technology is used to determine that the proppant material was properly placed in the fracture to ensure effective flow and increased recovery.

SPECTRACHEM® is another proprietary and patented technology developed for optimizing hydraulic fracture performance. SPECTRACHEM® is used to aid operators in determining the efficiency of the fracture fluids used. SPECTRACHEM® tracers allow operators to evaluate the quantity of fracture fluid that returns to the wellbore during the clean-up period after a hydraulic fracturing event. This technology also allows our clients to evaluate load recovery, gas breakthrough, fluid leak-off and breaker efficiency, all of which are important factors for optimizing oil and/or natural gas production after the formation is hydraulically fractured.

Core's patented and proprietary SPECTRACHEM® fracture diagnostic service continued to evolve with the introduction of the SPECTRACHEM®Plus service in early 2009. The SPECTRACHEM®Plus service is effective in determining the effectiveness and efficiency of the hydraulic fracture stimulation of long multi-stage horizontal wells in oil- and gas-shale plays throughout North America and with growing demand internationally as unconventional resource plays are developed globally. SPECTRACHEM®Plus data sets are used to determine how each frac stage is flowing. Frac stages with ineffective flows may warrant further stimulation, remedial actions and guide improvements

on future frac designs.

Our unique completion monitoring system, COMPLETION PROFILER™, helps to determine flow rates from reservoir zones after they have been hydraulically fractured. This provides our clients with a baseline of early production information and can be compared to subsequent production logs later in the life of the well to see if and where hydrocarbon production varies.

Our FLOWPROFILER™ service, a proprietary hydrocarbon-based tracer technology, which is a further development of our patented SPECTRACHEM® technology and has been in use for more than five years, quantifies the hydrocarbon production from discrete segments in multi-stage horizontal well completions and stimulations in unconventional tight-oil or gas plays. We have tracers used for oil reservoirs which are different from our tracers used for gas reservoirs. FLOWPROFILER™ technology and the analytical methodology for identifying the hydrocarbon-soluble tracers are the protected intellectual property of Core Lab.

3

---

FLOWPROFILER™ technology employs a unique hydrocarbon-soluble tracer and water-soluble tracer introduced into specific and isolated stages via the stimulating proppant stream. The hydrocarbon-soluble tracers are absorbed by the crude oil or gas associated with each stage while the water-soluble tracer remains in the stimulation fluid. When the well is flowed, crude oil or gas and water samples are collected and analyzed in the laboratory to identify and quantify oil or gas flows from each stage and the cleanup of the stimulation fluid. Stages not at optimum flow rates can be identified, precipitating remedial efforts to increase flow and recovery rates, and to provide valuable insight for future wells. This service, which we first used more than five years ago, is being used to monitor offset well interference by sampling offset well oil or gas and water production. The amount of tracer detected in offset wells is being used to help our clients optimize both lateral and vertical well spacing and the amount of fracturing fluids for each stage.

We conduct dynamic flow tests of the reservoir fluids through the reservoir rock, at actual reservoir pressure and temperature, to realistically simulate the actual flooding of a producing zone. We use patented technologies, such as our Saturation Monitoring by the Attenuation of X-rays (SMAX™), to help design the enhanced recovery project. After a field flood is initiated, we are often involved in monitoring the progress of the flood to ensure the maximum amount of incremental production is being achieved through the use of our SPECTRAFLOOD™ technology, which we developed to optimize sweep efficiency during field floods.

Our PACKSCAN® patented technology is used as a tool to evaluate gravel pack effectiveness in an unconsolidated reservoir. PACKSCAN® measures the density changes in the area around the tool and is designed to observe the changes within the gravel pack annulus to verify the completeness of the gravel pack protection of the wellbore without any additional rig time.

In addition to Core's many patented reservoir analysis technologies, Production Enhancement has established itself as a global leader in the manufacture and distribution of high-performance perforating products. Core's unique understanding of complex reservoirs supports our ability to supply perforating systems engineered to maximize well productivity by reducing, eliminating and overcoming formation damage caused during the drilling and completion of oil and gas wells. This "systems" approach to the perforating of an oil or gas well has resulted in numerous patented products.

HERO® (High Efficiency Reservoir Optimization), SUPERHERO® and SUPERHERO®Plus are examples of the patented perforating systems which quickly gained market acceptance and became industry leaders in enhancing reservoir performance. The SUPERHERO® and SUPERHERO®Plus charges evolved from HERO® charge technology and use a proprietary and patented design of powdered metal liners and explosives technology resulting in a deeper and cleaner perforating tunnel into the oil and gas reservoir. This allows greater flow of hydrocarbons to the wellbore and helps to maximize hydrocarbon recovery from the reservoir. The more recent charge development of the HERO® Hard Rock or HERO®-HR charges, resulted in Core Lab also having the deepest penetrating perforating charges on the market as certified by API testing.

HERO®PerFRAC is the newest next generation of charges using HERO® technology. In addition to the benefits of HERO® technology, HERO®PerFRAC charges are designed specifically for optimizing fracture stimulation well completions by providing a uniform hole size which minimizes tortuosity effects in the rock during well stimulation resulting in less surface horsepower and less time which both translate into lower costs needed to initiate the fracturing operation. In addition to optimizing stimulation operations with faster, lower cost programs, the production is also enhanced by not only the better well stimulations but the improved near debris free perforation tunnels as the well fluids come back into the casing from the rock. Core's manufacturing operations in the United States and Canada continue to meet the global demand for our perforating systems through facility expansion in addition to gains in efficiency and productivity.

The HERO® line of perforating charges, HERO®PerFRAC, SUPERHERO® and SUPERHERO®Plus charges can eliminate the ineffective perforations that would otherwise limit daily oil and natural gas production and hinder the optimal fracture stimulation programs needed for prolific production from the Bakken, Eagle Ford, Marcellus, Niobrara and similar oil- and gas-shale formations.

Core's Production Enhancement team has experienced technical services personnel to support clients through our global network of offices for the everyday use of our perforating systems and the rapid introduction of new products. Our personnel are capable of providing client training and on-site services in the completion of oil and gas wells. The patented X-SPAN® and GTX-SPAN® casing patches are supported by our technical services personnel. Recent market applications in Canada's steam-assisted gravity drainage (SAGD) environment have resulted in an upgrade in temperature ratings to as much as 600°F. These systems are capable of performing in high temperature as well as high pressure oil and gas environments and are used to seal non-productive reservoir zones from the producing wellbore.

## Reservoir Management

Reservoir description and production enhancement information, when applied across an entire oilfield or formation, is used to maximize daily production and the ultimate total recovery from the reservoir. We are involved in numerous large-scale reservoir management projects, applying proprietary and state-of-the-art techniques from the earliest phases of a field development program until the last economic barrel of oil is recovered. These projects are of increasing importance to oil companies as the incremental barrel is often the lowest cost and most profitable barrel in the reservoir. Producing incremental barrels increases our clients' cash flows which we believe will result in additional capital expenditures by our clients, and ultimately further opportunities for us.

Some of these are industry consortium projects that provide critical reservoir information to a broad spectrum of clients in a cost effective manner. Many of them examine unconventional reservoirs, particularly in the US and Canada. For example, our Permian Basin study evaluates the petrophysical, geochemical, completion and production characteristics of this very active play in West Texas. Our clients use this information, not only to improve their drilling and production activities, but also to evaluate potential acquisition and divestiture opportunities. Outside of North America we have an ongoing global shale study that examines the unconventional reservoir potential in Central and Southern Europe, North Africa, India, China and Australia, among other regions. We also have studies focused on tight sandstone reservoirs around the world and unconventional plays in the Middle East.

Apart from unconventional settings, several conventional reservoir studies are currently being conducted for the deep water Gulf of Mexico and several different plays around the offshore Atlantic margins of West Africa, South America and Canada. Onshore, we have also conducted dozens of conventional reservoir studies on every continent except Antarctica.

Another aspect of reservoir management is real-time reservoir monitoring. We engineer and manufacture permanent monitoring equipment that is installed in the reservoir for our oil and gas company clients. Our non-electronic ERD™ Pressure and Temperature sensors are characterized in the industry as having some of the highest reliability (95% in 20 years) and temperature (600° Fahrenheit) ratings. The real-time data obtained from these sensors are used by drilling engineers to make real-time decisions, production engineers to optimize production, and reservoir engineers to prove up models and obtain a clear picture of the reservoir over time.

## Marketing and Sales

We market and sell our services and products through a combination of sales representatives, technical seminars, trade shows and print advertising. Direct sales and marketing are carried out by our sales force, technical experts and operating managers, as well as by sales representatives and distributors in various markets where we do not have offices. Our Business Development group manages a Large Account Management Program to better serve our largest and most active clients by meeting with key personnel within their organizations to ensure the quality of our services and products are meeting their expectations and we are addressing any issues or needs in a timely manner.

## Research and Development

The market for our services and products is characterized by changing technology and frequent product introduction. As a result, our success is dependent upon our ability to develop or acquire new services and products on a cost-effective basis and to introduce them into the marketplace in a timely manner. Many of our acquisitions have allowed us to obtain the benefits of the acquired company's research and development projects without the significant costs that would have been incurred if we had attempted to develop the services and products ourselves. We incur costs as part of internal research and development and these costs are charged to expense as incurred. We intend to continue committing financial resources and effort to the development and acquisition of new services and products.

Over the years, we have made a number of technological advances, including the development of key technologies utilized in our operations. Substantially all of the new technologies have resulted from requests and guidance from our clients, particularly major oil companies.

#### Patents and Trademarks

We believe our patents, trademarks, trade secrets and other intellectual property rights are an important factor in maintaining our technological advantage, although no single one of these is considered essential to our success. Typically, we will seek to protect our intellectual property in all jurisdictions where we believe the cost of such protection is warranted. While we have patented some of our key technologies, we do not patent all of our proprietary technology even where regarded as patentable. We protect our intellectual property, including through the use of appropriate confidentiality agreements, legal enforcement proceedings and by other means.

## International Operations

We operate facilities in more than 50 countries. Our non-U.S. operations accounted for approximately 62%, 58% and 52% of our revenue from operations during the years ended December 31, 2016, 2015 and 2014, respectively. We attribute service revenue to the country in which the service was performed while we attribute product sales revenue to the country where the product was shipped as we feel this gives a clearer view of our operations. We do, however, have significant levels of revenue recorded in the U.S., where the services were performed, that are sourced from projects on non-U.S. oilfields.

The following graphs and table summarize our reported revenue by geographic region for the years ended December 31, 2016, 2015 and 2014:

	United States	Europe/Africa/Middle East	Asia Pacific	Canada	Former Soviet Union	Latin/South America	Consolidated
2016	\$224,863	\$ 222,916	\$65,115	\$22,547	\$35,935	\$23,365	\$ 594,741
2015	\$338,907	\$ 249,679	\$86,001	\$43,808	\$41,450	\$37,675	\$ 797,520
2014	\$515,643	\$ 273,452	\$94,328	\$105,244	\$49,778	\$46,777	\$ 1,085,222

While we are subject to fluctuations and changes in currency exchange rates relating to our international operations, we attempt to limit our exposure to foreign currency fluctuations by limiting the amount in which our foreign contracts are denominated in a currency other than the U.S. dollar. However, the ultimate decision as to the proportion of the foreign currency component within a contract usually resides with our clients. Consequently, we are not always able to eliminate our foreign currency exposure. We have not historically engaged in and are not currently engaged in any significant currency hedging or trading transactions designed to compensate for adverse currency fluctuations.

## Environmental and Occupational Safety and Health Regulations

We are subject to stringent governmental laws and regulations, both in the United States and other countries, pertaining to protection of the environment and the manner in which chemicals and gases used in our analytical and manufacturing processes are handled and generated wastes are disposed. Consistent with our quality assurance and control principles, we have established proactive environmental policies for the management of these chemicals and gases as well as the handling, recycling or disposal of wastes resulting from our operations. Compliance with these laws and regulations, whether at the federal, provincial, regional, state, local or foreign levels, may require the acquisition of permits to conduct regulated activities, capital expenditures to limit or prevent emissions and discharges, and stringent practices to handle, recycle and dispose of certain wastes. Failure to comply with these laws and regulations may result in the assessment of administrative, civil and criminal penalties, the imposition of remedial or corrective obligations, the occurrence of delays in the permitting or performance of projects and the issuance of injunctive relief.

Moreover, new, modified or stricter enforcement of environmental laws or regulations could be adopted or implemented that significantly increase our or our client's compliance costs, pollution mitigation costs, or the cost of any remediation of environmental contamination that may become necessary, and these costs could be material. For example, from time to time, legal requirements have been agreed to or proposed and adopted, in the United States that could adversely affect our business, financial condition, results of operations, or cash flows related to the following:

\*Ground-Level Ozone Standards. In October 2015, the U.S. Environmental Protection Agency (“EPA”) issued a rule under the federal Clean Air Act (“CAA”), lowering the National Ambient Air Quality Standard (“NAAQS”) for ground-level ozone from 75 parts per billion to 70 parts per billion under both the primary and secondary standards. The EPA is expected to make final geographical attainment designations and issue final non-attainment area requirements pursuant to this NAAQS rule by late 2017 and states are also expected to implement their own rules, which could be more stringent than federal requirements.

\*Reduction of Methane Emissions by the Oil and Gas Industry. In June 2016, the EPA published a final rule establishing new emissions standards for methane and additional standards for volatile organic compounds from certain new, modified, and reconstructed oil and natural gas production and natural gas processing and transmission facilities. These standards will require the use of certain equipment specific emissions control practices with respect to, among other things, hydraulically-fractured oil and natural gas well completions and fugitive emissions from well sites. Moreover, in November 2016, the EPA began seeking additional information about methane emissions from existing equipment and process in the oil and gas sector that may be used in developing a standard addressing those sources.

\*Reduction of Greenhouse Gas (“GHG”) Emissions. The U.S. Congress and the EPA, in addition to some state and regional efforts, have in recent years considered legislation or regulations to reduce emissions of GHGs. These efforts have included consideration of cap-and-trade programs, carbon taxes, GHG reporting and tracking programs, and regulations that directly limit GHG emissions from certain sources. In the absence of federal GHG-limiting legislations, the EPA has determined that GHG emissions present a danger to public health and the environment and has adopted regulations that, among other things, restrict emissions of GHGs under existing provisions of the CAA, and require monitoring and annual reporting of GHG emissions from certain onshore and offshore production facilities and certain onshore processing, transmission and storage facilities. In December 2015, the United States joined other countries of the United Nations in preparing an agreement requiring member countries to each develop reductions in GHG emissions. This agreement, referred to as the “Paris agreement,” was signed by the United States in April 2016 and entered into force in November 2016; however, this agreement does not create any binding obligations for nations to limit their GHG emissions, but includes pledges to voluntarily limit or reduce future emissions.

\*Hydraulic Fracturing. While the U.S. Congress has not adopted legislation regulating hydraulic fracturing, several federal agencies have asserted regulatory authority or pursued investigations over certain aspects of the hydraulic fracturing process. For example, in June 2016, the EPA published an effluent limit guideline final rule prohibiting the discharge of wastewater from onshore unconventional oil and natural gas extraction facilities to publicly owned wastewater treatment plants and, also in June 2016, the EPA published a final rule establishing first-time standards to address emissions of methane from hydraulically-fractured oil and natural gas well completions. Additionally, the federal Bureau of Land Management published a final rule in March 2015 that established new or more stringent standards relating to hydraulic fracturing on federal and American Indian lands, which rule was struck down by a federal judge in June 2016 but that decision is currently being appealed by the federal government. Also, in December 2016, the EPA released its final report on the potential impacts of hydraulic fracturing on drinking water resources, concluding that “water cycle” activities associated with hydraulic fracturing may impact drinking water resources under certain circumstances. Moreover, some states and certain local governments have adopted, or are considering adopting, legal requirements that have imposed or in the future could impose, new or more stringent permitting, disclosure or well construction requirements on hydraulic fracturing activities.

\*Offshore Compliance. In recent years, the Bureau of Ocean Energy Management (“BOEM”) and the Bureau of Safety and Environmental Enforcement (“BSEE”), agencies under the U.S. Department of the Interior have imposed more stringent permitting procedures and regulatory safety and performance requirements for new wells to be drilled in federal waters. These agencies have pursued, implemented or enforce new rules, Notices to Lessees and Operators (“NLTs”) and even temporary drilling moratoria that imposed safety and operational performance measures on exploration, development and production operators in the Gulf of Mexico or otherwise resulted in a temporary cessation of drilling activities. For example, in April 2016, the BSEE published a final rule on well control that, among other things, imposes rigorous standards relating to the design, operation and maintenance of blow-out preventers, real-time monitoring of deep water and high temperature, high pressure drilling activities, and enhanced



reporting requirements. Also in April 2016, the federal BOEM published a proposed rule that would bolster existing air-emissions requirements relating to offshore oil and natural-gas activity on federal Outer Continental Shelf waters including in the Central Gulf of Mexico by, among other things, requiring the reporting and tracking of the emissions of all pollutants defined by the EPA to affect human health and public welfare. In addition, in September 2016, the BOEM issued a Notice to Lessees and Operators that bolsters the supplemental bonding procedures followed by oil

and natural gas exploration and production operators on the federal Outer Continental Shelf waters for the decommissioning of offshore wells, platforms, pipelines, and other facilities.

Our compliance with such new or amended legal requirements that are applicable to us could result in our incurring significant additional expense and operating restrictions with respect to our operations, which may not be fully recoverable from our clients and, thus, could reduce net income. Our clients, to whom we provide our services, may similarly incur increased costs or restrictions that may limit or decrease those clients' operations and have an indirect material adverse effect on our business.

Our analytical and manufacturing processes involve the handling and use of numerous chemicals and gases as well as the generation of wastes. Spills or releases of these chemicals, gases, and wastes at our facilities, whether by us or prior owners or operators, or at offsite locations where we transport them for recycling or disposal could subject us to environmental liability, either from the applicable government agency or private landowners or other third parties. Such liabilities could be strict, joint and several, as is applicable in the United States under such laws as the federal Comprehensive Environmental Response, Compensation and Liability Act and the federal Resource Conservation and Recovery Act. This could also include costs of cleaning up chemicals and wastes released into the environment and for damages to persons, properties or natural resources. As a result of such actions, we could be required to remove previously disposed wastes (including wastes disposed of or released by prior owners or operators), remediate environmental contamination (including contaminated groundwater), and undertake measures to prevent future contamination. We may not be able to recover some or any of these remedial or corrective costs from insurance. Historically, our environmental compliance costs have not had a material adverse effect on our results of operations; however, there can be no assurance that such costs will not be material in the future or that such future compliance will not have a material adverse effect on our business or results of operations.

Our operations are also subject to stringent governmental laws and regulations, including the federal Occupational Safety and Health Act, as amended ("OSHA"), and comparable state laws in the United States, whose purpose is to protect the health and safety of workers. In the United States, the OSHA hazard communication standard and applicable community right-to-know regulations require that information is maintained concerning hazardous materials used or produced in our operations and that this information is provided to employees, state and local government authorities, and citizens. Historically, our worker health and safety compliance costs have not had a material adverse effect on our results of operations; however, there can be no assurance that such costs will not be material in the future or that such future compliance will not have a material adverse effect on our business or results of operations.

### Competition

The businesses in which we engage are competitive. Some of our competitors are divisions or subsidiaries of companies that are larger and have greater financial and other resources than we have. While no one company competes with us in all of our product and service lines, we face competition in these lines, primarily from independent regional companies and internal divisions of major integrated oil and gas companies. We compete in different product and service lines to various degrees on the basis of price, technical performance, availability, quality and technical support. Our ability to compete successfully depends on elements both within and outside of our control, including successful and timely development of new services and products, performance and quality, client service, pricing, industry trends and general economic trends.

### Reliance on the Oil and Gas Industry

Our business and operations are substantially dependent upon the condition of the global oil and gas industry. Future downturns in the oil and gas industry, or in the oilfield services business, may have a material adverse effect on our

financial position, results of operations or cash flows.

The oil and gas industry is highly cyclical and has been subject to significant economic downturns at various times as a result of numerous factors affecting the supply of and demand for oil and natural gas, including the level of capital expenditures of the oil and gas industry, the level of drilling activity, the level of production activity, market prices of oil and gas, economic conditions existing in the world, interest rates and the cost of capital, environmental regulations, tax policies, political requirements of national governments, coordination by the Organization of Petroleum Exporting Countries ("OPEC"), cost of producing oil and natural gas, and technological advances.

## Employees

As of December 31, 2016, we had approximately 4,400 employees. We do not have any material collective bargaining agreements and consider relations with our employees to be good.

## Web Site Access to Our Periodic SEC Reports

Our primary internet address is <http://www.corelab.com>. We file or furnish Quarterly Reports on Form 10-Q, Annual Reports on Form 10-K, Current Reports on Form 8-K, and any amendments to those reports with the U.S. Securities and Exchange Commission ("SEC"). These reports are available free of charge through our web site as soon as reasonably practicable after they are filed or furnished electronically with the SEC. We may from time to time provide important disclosures to investors by posting them in the investor relations section of our web site, as allowed by SEC rules.

Materials we file with the SEC may be read and copied at the SEC's Public Reference Room at 100 F Street, N.E., Washington, D.C. 20549. Information on the operation of the Public Reference Room may be obtained by calling the SEC at 1-800-SEC-0330. The SEC also maintains an internet website at <http://www.sec.gov> that contains reports, proxy and information statements, and other information regarding our company that we file electronically with the SEC.

## ITEM 1A. RISK FACTORS

Our forward-looking statements are based on assumptions that we believe to be reasonable but that may not prove to be accurate. All of our forward-looking information is, therefore, subject to risks and uncertainties that could cause actual results to differ materially from the results expected. All known, material risks and uncertainties are discussed below.

Downturns in the oil and gas industry, or in the oilfield services business, may have a material adverse effect on our financial condition or results of operations.

The oil and gas industry is highly cyclical and demand for the majority of our oilfield services and products is substantially dependent on the level of expenditures by the oil and gas industry for the exploration, development and production of crude oil and natural gas reserves, which are sensitive to oil and natural gas prices and generally dependent on the industry's view of future oil and gas prices. There are numerous factors affecting the supply of and demand for our services and products, which are summarized as:

- general and economic business conditions;
- market prices of oil and gas and expectations about future prices;
- cost of producing and the ability to deliver oil and natural gas;
- the level of drilling and production activity;
- mergers, consolidations and downsizing among our clients;
- coordination by OPEC;
- the impact of commodity prices on the expenditure levels of our clients;
- financial condition of our client base and their ability to fund capital expenditures;
- the physical effects of climatic change, including adverse weather, such as increased frequency or severity of storms, droughts and floods, or geologic/geophysical conditions;
- the adoption of legal requirements or taxation, including, for example, a carbon tax, relating to climate change that lowers the demand for petroleum-based fuels;
- civil unrest or political uncertainty in oil producing or consuming countries;
- level of consumption of oil, gas and petrochemicals by consumers;

changes in existing laws, regulations, or other governmental actions, including temporary or permanent moratoria on hydraulic fracturing or offshore drilling, the issuance of NTLs that eliminate or significantly reduce the ability of offshore operators to self-insure their supplemental bonding obligations, or shareholder activism or governmental rulemakings or agreements to restrict GHG emissions, which developments could have an adverse impact on the oil and gas industry and/or demand for our services;

the business opportunities (or lack thereof) that may be presented to and pursued by us;

9

---

availability of services and materials for our clients to grow their capital expenditures;  
ability of our clients to deliver product to market;  
availability of materials and equipment from key suppliers; and  
cyber-attacks on our network that disrupt operations or result in lost or compromised critical data.

The oil and gas industry has historically experienced periodic downturns, which have been characterized by diminished demand for our oilfield services and products and downward pressure on the prices we charge. A significant downturn in the oil and gas industry could result in a reduction in demand for oilfield services and could adversely affect our operating results.

The downturn in the oil and gas industry has negatively affected and will likely continue to affect our ability to accurately predict client demand, causing us to hold excess or obsolete inventory and experience a reduction in gross margins and financial results.

We cannot accurately predict which or what level of our services and products our clients will need in the future. Orders are placed with our suppliers based on forecasts of client demand and, in some instances, we may establish buffer inventories to accommodate anticipated demand. Our forecasts of client demand are based on multiple assumptions, each of which may introduce errors into the estimates. In addition, many of our suppliers require a longer lead time to provide products than our clients demand for delivery of our finished products. If we overestimate client demand, we may allocate resources to the purchase of materials or manufactured products that we may not be able to sell when we expect to, if at all. As a result, we could hold excess or obsolete inventory, which would reduce gross margin and adversely affect financial results. Conversely, if we underestimate client demand or if insufficient manufacturing capacity is available, we could miss revenue opportunities and potentially lose market share and damage our client relationships. In addition, any future significant cancellations or deferrals of service contracts or product orders could materially and adversely affect profit margins, increase product obsolescence and restrict our ability to fund our operations.

We depend on the results of our international operations, which expose us to risks inherent in doing business abroad.

We conduct our business in over 50 countries; business outside of the United States accounted for approximately 62%, 58% and 52% of our revenue during the years ended December 31, 2016, 2015 and 2014, respectively. We attribute service revenue to the country in which the service was performed while we attribute product sales revenue to the country where the product was shipped as we feel this gives a clearer view of our operations. We do, however, have significant levels of revenue recorded in the U.S., where the services were performed, that are sourced from projects on non-U.S. oilfields.

Our operations, and those of our clients, are subject to the various laws, regulations and other legal requirements of those respective countries as well as various risks peculiar to each country, which may include, but are not limited to:

- global economic conditions;
- political actions and requirements of national governments including trade restrictions, embargoes, seizure, detention, nationalization and expropriations of assets;
- interpretation of tax statutes and requirements of taxing authorities worldwide, routine examination by taxing authorities and assessment of additional taxes, penalties and/or interest;
- international agreements that restrict GHG emissions, such as the Paris agreement that calls for such countries to set GHG emissions targets in their own countries and to be transparent in how such countries achieve those GHG emissions targets;
- civil unrest;
- acts of terrorism;
- fluctuations and changes in currency exchange rates (see section below);

the impact of inflation;

difficulty in repatriating foreign currency received in excess of the local currency requirements;

and

current conditions in oil producing countries such as Venezuela, Nigeria, Libya, Iran and Iraq considering their potential impact on the world markets.

Historically, economic downturns and political events have resulted in lower demand for our services and products in certain markets. The continuing instability in the Middle East and North Africa and the potential for activity from terrorist groups that

10

---

the U.S. government has cautioned against have further heightened our exposure to international risks. The global economy is highly influenced by public confidence in the geopolitical environment and the situation in the Middle East and North Africa continues to be highly fluid; therefore, we expect to experience heightened international risks.

Our results of operations may be significantly affected by foreign currency exchange rate risk.

We are exposed to risks due to fluctuations in currency exchange rates. By the nature of our business, we derive a substantial amount of our revenue from our international operations, subjecting us to risks relating to fluctuations in currency exchange rates.

Our results of operations may be adversely affected because our efforts to comply with applicable anti-corruption laws such as the United States' Foreign Corrupt Practices Act (the "FCPA") and the United Kingdom's Anti-Bribery Act (the "ABA") could restrict our ability to do business in foreign markets relative to our competitors who are not subject to these laws.

We operate in many parts of the world that have experienced governmental corruption to some degree and, in certain circumstances, strict compliance with anti-bribery laws may conflict with local customs and practices. We may be subject to competitive disadvantages to the extent that our competitors are able to secure business, licenses or other preferential treatment by making payments to government officials and others in positions of influence or through other methods that we are prohibited from using.

We are subject to the regulations imposed by the FCPA and the ABA, which generally prohibits us and our intermediaries from making improper payments to foreign officials for the purpose of obtaining or keeping business. In particular, we may be held liable for actions taken by our strategic or local partners even though our partners are not subject to these laws. Any such violations could result in substantial civil and/or criminal penalties and might adversely affect our business, results of operations or financial condition. In addition, our ability to continue to work in these parts of the world discussed above could be adversely affected if we were found to have violated certain laws, including the FCPA and the ABA.

If we are not able to develop or acquire new products or our products become technologically obsolete, our results of operations may be adversely affected.

The market for our services and products is characterized by changing technology and product introduction. As a result, our success is dependent upon our ability to develop or acquire new services and products on a cost-effective basis and to introduce them into the marketplace in a timely manner. While we intend to continue committing substantial financial resources and effort to the development of new services and products, we may not be able to successfully differentiate our services and products from those of our competitors. Our clients may not consider our proposed services and products to be of value to them; or if the proposed services and products are of a competitive nature, our clients may not view them as superior to our competitors' services and products. In addition, we may not be able to adapt to evolving markets and technologies, develop new products, or achieve and maintain technological advantages.

If we are unable to continue developing competitive products in a timely manner in response to changes in technology, our businesses and operating results may be materially and adversely affected. In addition, continuing development of new products inherently carries the risk of inventory obsolescence with respect to our older products.

We are subject to the risk of supplier concentration.



Certain of our product lines depend on a limited number of third party suppliers and vendors available in the marketplace. As a result of this concentration in some of our supply chains, our business and operations could be negatively affected if our key suppliers were to experience significant disruptions affecting the price, quality, availability or timely delivery of their products. For example, we have a limited number of vendors for our manufactured product lines. The partial or complete loss of any one of our key suppliers, or a significant adverse change in the relationship with any of these suppliers, through consolidation or otherwise, would limit our ability to manufacture and sell certain of our products.

If we are unable to obtain patents, licenses and other intellectual property rights covering our services and products, our operating results may be adversely affected.

Our success depends, in part, on our ability to obtain patents, licenses and other intellectual property rights covering our services and products. To that end, we have obtained certain patents and intend to continue to seek patents on some of our inventions, services and products. While we have patented some of our key technologies, we do not patent all of our proprietary

technology, even when regarded as patentable. The process of seeking patent protection can be long and expensive. There can be no assurance that patents will be issued from currently pending or future applications or that, if patents are issued, they will be of sufficient scope or strength to provide meaningful protection or any commercial advantage to us. In addition, effective copyright and trade secret protection may be unavailable or limited in certain countries. Litigation, which could demand significant financial and management resources, may be necessary to enforce our patents or other intellectual property rights. Also, there can be no assurance that we can obtain licenses or other rights to necessary intellectual property on acceptable terms.

There are risks relating to our acquisition strategy. If we are unable to successfully integrate and manage businesses that we have acquired and any businesses acquired in the future, our results of operations and financial condition could be adversely affected.

One of our key business strategies is to acquire technologies, operations and assets that are complementary to our existing businesses. There are financial, operational and legal risks inherent in any acquisition strategy, including: increased financial leverage; ability to obtain additional financing; increased interest expense; and difficulties involved in combining disparate company cultures and facilities.

The success of any completed acquisition will depend on our ability to effectively integrate the acquired business into our existing operations. The process of integrating acquired businesses may involve unforeseen difficulties and may require a disproportionate amount of our managerial and financial resources. In addition, possible future acquisitions may be larger and for purchase prices significantly higher than those paid for earlier acquisitions. No assurance can be given that we will be able to continue to identify additional suitable acquisition opportunities, negotiate acceptable terms, obtain financing for acquisitions on acceptable terms or successfully acquire identified targets. Our failure to achieve consolidation savings, to incorporate the acquired businesses and assets into our existing operations successfully or to minimize any unforeseen operational difficulties could have a material adverse effect on our financial condition and results of operation.

We are subject to a variety of environmental and occupational safety and health laws and regulations, which may result in increased costs and significant liability to our business.

We are subject to a variety of stringent governmental laws and regulations both in the United States and abroad relating to protection of the environment, occupational health and safety and the use and storage of chemicals and gases used in our analytical and manufacturing processes and the discharge and disposal of wastes generated by those processes. Certain of these laws and regulations may impose joint and several, strict liability for environmental liabilities, such as the remediation of historical contamination or recent spills, and failure to comply with such laws and regulations could result in the assessment of damages, fines and penalties, the imposition of remedial or corrective action obligations, the occurrence of delays in permitting or development of projects, or the suspension or cessation of some or all of our operations. These stringent laws and regulations could require us to acquire permits or other authorizations to conduct regulated activities, install and maintain costly equipment and pollution control technologies, impose specific safety and health standards addressing work protection, or to incur costs or liabilities to mitigate or remediate pollution conditions caused by our operations or attributable to former owners or operators. If we fail to control the use, or adequately restrict the emission or discharge, of hazardous substances or wastes, we could be subject to future material liabilities including remedial obligations. In addition, public interest in the protection of the environment has increased dramatically in recent years with governmental authorities imposing more stringent and restrictive legal requirements. We anticipate that the trend of more expansive and stricter environmental laws and regulations will continue, the occurrence of which may require us to increase our capital expenditures or could result in increased operating expenses.

Due to concern over the risk of climate change, there has been a broad range of proposed or promulgated state, national and international laws focusing on GHG reduction. Regulatory frameworks adopted, or being considered for adoption, to reduce GHG emissions include cap and trade regimes, carbon taxes, restrictive permitting, increased efficiency standards, and incentives or mandates for renewable energy. For example, the European Emissions Trading Scheme is a program through which many of the European Union member states are implementing cap and trade controls covering numerous power stations and industrial facilities. Also, in December 2015, the United States joined other countries of the United Nations in preparing the Paris agreement that requires member countries to develop reductions in GHG emissions. The Paris agreement was signed by the United States in April 2016 and entered into force in November 2016; however, this agreement does not create any binding

12

---

obligations for nations to limit their GHG emissions, but includes pledges to voluntarily limit or reduce future emissions. These proposed or promulgated laws and legal initiatives apply or could apply in countries where we have interests or may have interests in the future. These requirements could make our services and products more expensive, lengthen project implementation times, and reduce demand for the production of oil and natural gas, which could decrease demand for our services and products. In the United States, a number of state and regional efforts have emerged that are aimed at tracking or reducing emissions of GHGs and the U.S. Congress has from time to time considered legislation to reduce emissions of GHGs but no such legislation has yet been adopted. However, the EPA has determined that emissions of GHGs present a danger to public health and the environment and, based on these findings, has adopted regulations under existing provisions of the CAA that establish construction and operating permit reviews for GHG emissions from certain large stationary sources that are already potential major sources of criteria pollutant emissions and that require the monitoring and annual reporting of GHG emissions from specified onshore and offshore production sources in the United States, which include the operations of many of our exploration and production clients. Although it is not possible at this time to predict how legislation or new regulations that may be adopted to address GHG emissions in the United State would impact our business, any such future laws and regulations that require reporting of GHGs or otherwise limit emissions of GHGs from our clients' operations could require our clients to incur increased costs and also could adversely affect demand for the oil and natural gas that they produce, which could decrease demand for our services and products.

Hydraulic fracturing is a process used by oil and gas exploration and production operators in the completion of certain oil and gas wells whereby water, sand and chemicals are injected under pressure into subsurface formations to stimulate gas and, to a lesser extent, oil production. Some countries outside the United States, such as Bulgaria, the Czech Republic and France, currently have imposed moratoria on hydraulic fracturing while other countries, such as the United Kingdom, allow fracturing activities but those activities are not as widely pursued as they are in the United States. In the United States, the fracturing process is typically regulated by state oil and gas commissions, but several federal agencies have asserted regulatory authority over certain aspects of the process. For example, in June 2016, the EPA published an effluent limit guideline final rule prohibiting the discharge of wastewater from onshore unconventional oil and natural gas extraction facilities to publicly owned wastewater treatment plants and, also in June 2016, the EPA published a final rule establishing first-time standards to address emissions of methane from hydraulically-fractured oil and natural gas well completions. Additionally, the federal Bureau of Land Management published a final rule in March 2015 that established new or more stringent standards relating to hydraulic fracturing on federal and American Indian lands, which rule was struck down by a federal judge in June 2016 but that decision is currently being appealed by the federal government. Also, in December 2016, the EPA released its final report on the potential impacts of hydraulic fracturing on drinking water resources, concluding that "water cycle" activities associated with hydraulic fracturing may impact drinking water resources under certain circumstances, noting that the following hydraulic fracturing water cycle activities and local- or regional-scale factors are more likely than others to result in more frequent or more severe impacts: water withdrawals for fracturing in times or areas of low water availability; surface spills during the management of fracturing fluids, chemicals or produced water; injection of fracturing fluids into wells with inadequate mechanical integrity; injection of fracturing fluids directly into groundwater resources; discharge of inadequately treated fracturing wastewater to surface waters; and disposal or storage of fracturing wastewater in unlined pits. In addition, the U.S. Congress has from time to time considered the adoption of legislation to provide for federal regulation of hydraulic fracturing. At the state level, a number of states have adopted, and other states are considering, legal requirements that could impose more stringent permitting, disclosure or well construction requirements on hydraulic fracturing activities. States could elect to prohibit fracturing altogether, following the approach taken by the State of New York in 2015. In addition, local governments may seek to adopt ordinances within their jurisdictions regulating the time, place and manner of drilling activities in general or hydraulic fracturing activities in particular. If new or more stringent federal, state or local legal restrictions related to the hydraulic fracturing process are adopted in areas where our exploration and production clients' operate, those clients could incur potentially significant added costs to comply with such requirements and experience delays or curtailment in the pursuit of exploration, development or production activities, which could reduce demand for our products and services.

We may be unable to attract and retain skilled and technically knowledgeable employees, which could adversely affect our business.

Our success depends upon attracting and retaining highly skilled professionals and other technical personnel. A number of our employees are highly skilled engineers, geologists and highly trained technicians, and our failure to continue to attract and retain such individuals could adversely affect our ability to compete in the oilfield services industry. We may confront significant and potentially adverse competition for these skilled and technically knowledgeable personnel, particularly during periods of increased demand for oil and gas. Additionally, at times there may be a shortage of skilled and technical personnel available in the market, potentially compounding the difficulty of attracting and retaining these employees. As a result, our business, results of operations and financial condition may be materially adversely affected.

We require a significant amount of cash to service our indebtedness, make capital expenditures, fund our working capital requirements and pay our dividend, and our ability to generate cash may depend on factors beyond our control.

Our ability to make payments on and to refinance our indebtedness, to fund planned capital expenditures, and pay our dividend depends, in part, on our ability to generate cash in the future. This ability is, to a certain extent, subject to general economic, financial, competitive, legislative, regulatory and other factors that are beyond our control.

No assurance can be given that we will generate sufficient cash flow from operations or that future borrowings will be available to us in an amount sufficient to enable us to service and repay our indebtedness or to fund our other liquidity needs. If we are unable to satisfy our debt obligations, we may have to undertake alternative financing plans, such as refinancing or restructuring our indebtedness, selling assets, reducing or delaying capital investments or seeking to raise additional capital. We cannot assure that any refinancing or debt restructuring would be possible or, if possible, would be completed on favorable or acceptable terms, that any assets could be sold or that, if sold, the timing of the sales and the amount of proceeds realized from those sales would be favorable to us or that additional financing could be obtained on acceptable terms. Disruptions in the capital and credit markets could adversely affect our ability to refinance our indebtedness, including our ability to borrow under our existing revolving credit facility ("Credit Facility"). Banks that are party to our existing Credit Facility may not be able to meet their funding commitments to us if they experience shortages of capital and liquidity or if they experience excessive volumes of borrowing requests from us and other borrowers within a short period of time.

Because we are a Netherlands company, it may be difficult for you to take legal action against our supervisory directors or us and it may not be possible to obtain or enforce judgments against us.

Although we are a Netherlands company, our assets are located in a variety of countries. In addition, not all members of our supervisory board of directors are residents of the same countries as other supervisory directors. As a result, it may not be possible for you to effect service of process within certain countries upon our supervisory directors, or to enforce against our supervisory directors or use judgments of courts of certain countries predicated upon civil liabilities under a country's federal securities laws. Because there is no treaty between certain countries and The Netherlands providing for the reciprocal recognition and enforcement of judgments, some countries' judgments are not automatically enforceable in The Netherlands or in the United States, where the principal market for our shares is located. In addition, there is doubt as to whether a court in one country would impose civil liability on us or on the members of our supervisory board of directors in an original action brought against us or our supervisory directors in a court of competent jurisdiction in another country and predicated solely upon the federal securities laws of that other country.

Our operations are subject to the risk of cyber-attacks that could have a material adverse effect on our consolidated results of operations and consolidated financial condition.

Our information technology systems are subject to possible breaches and other threats that could cause us harm. If our systems for protecting against cyber security risks prove not to be sufficient, we could be adversely affected by loss or damage of intellectual property, proprietary information, or client data, interruption of business operations, or additional costs to prevent, respond to, or mitigate cyber security attacks. These risks could have a material adverse effect on our business, consolidated results of operations, and consolidated financial condition.

Regulations related to conflict-free minerals could limit the supply and/or increase the cost of certain metals used in our manufacturing processes.

In 2012, the SEC issued their final rule to implement Section 1502 of the Dodd-Frank Wall Street Reform and Consumer Protection Act regarding mandatory disclosure and reporting requirements by public companies of their use

of “conflict minerals” (tantalum, tin, tungsten and gold) and whether these minerals originate in the Democratic Republic of Congo or adjoining countries ("conflict area"). As our suppliers determine the original source of the conflict minerals they sell or use in their manufacturing processes, we may find that sourcing of these conflict minerals from areas outside the conflict area (conflict-free) at competitive prices and availability in sufficient quantities could be affected. If the number of suppliers who provide conflict-free minerals is limited, this could have a material adverse effect on the Company's ability to purchase these conflict-free products or to purchase these conflict-free products at a favorable price or on favorable terms in the future.

ITEM 1B. UNRESOLVED STAFF COMMENTS

None.

14

---

## ITEM 2. PROPERTIES

Currently, we have over 70 offices (totaling approximately 3.0 million square feet of space) in more than 50 countries. In these locations, we lease approximately 2.0 million square feet and own approximately 1.0 million square feet. We serve our worldwide clients through six Advanced Technology Centers ("ATCs") that are located in Aberdeen, Scotland; Abu Dhabi, UAE; Calgary, Canada; Houston, Texas; Kuala Lumpur, Malaysia; and Rotterdam, The Netherlands. The ATCs provide support for our more than 50 regional specialty centers located throughout the global energy producing provinces. In addition, we have manufacturing facilities located in Godley, Texas, and Red Deer, Alberta, Canada, which are included in our Production Enhancement business segment. Our facilities are adequate for our current operations; however, expansion into new facilities or the replacement or modification of existing facilities may be required to accommodate future growth.

## ITEM 3. LEGAL PROCEEDINGS

See Note 11 of the Notes to Consolidated Financial Statements.

## ITEM 4. MINE SAFETY DISCLOSURES

Not applicable.



## PART II

## ITEM 5. MARKET FOR REGISTRANT'S COMMON EQUITY, RELATED STOCKHOLDER MATTERS AND ISSUER PURCHASES OF EQUITY SECURITIES

## Price Range of Common Shares

Our common shares trade on the New York Stock Exchange ("NYSE") and the Euronext Amsterdam Stock Exchange ("Euronext Amsterdam") under the symbol "CLB". The range of high and low sales prices per share of the common shares as reported by the NYSE and Euronext Amsterdam are set in the following table for the periods indicated:

	NYSE		Euronext Amsterdam	
	(U.S. Dollars)		(Euros)	
	High	Low	High	Low
2016				
Fourth Quarter	\$124.84	\$96.30	€117.50	€87.00
Third Quarter	\$127.82	\$102.50	€111.05	€92.01
Second Quarter	\$135.49	\$102.22	€120.00	€92.00
First Quarter	\$118.87	\$84.50	€108.00	€71.52
2015				
Fourth Quarter	\$125.42	\$94.36	€116.00	€88.50
Third Quarter	\$118.78	\$91.63	€107.00	€87.50
Second Quarter	\$134.87	\$104.24	€121.00	€96.00
First Quarter	\$120.34	\$87.27	€104.90	€77.21

On February 9, 2017, the closing price, as quoted by the NYSE, was \$116.65 per share and there were 44,152,138 common shares issued and outstanding held by approximately 209 record holders. These amounts exclude shares held by us as treasury shares.

See Part III, "Item 12. Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters" for discussion of equity compensation plans.

## Dividend Policy

In 2008, Core Laboratories announced the initiation of a cash dividend program. Cash dividends of \$0.55 per share were paid each quarter of 2016 and 2015. The declaration and payment of future dividends will be at the discretion of the Supervisory Board of Directors and will depend upon, among other things, future earnings, general financial condition, liquidity, capital requirements, and general business conditions. On January 10, 2017, the Company declared a cash dividend of \$0.55 per share to be paid on February 17, 2017.

Because we are a holding company that conducts substantially all of our operations through subsidiaries, our ability to pay cash dividends on the common shares is also dependent upon the ability of our subsidiaries to pay cash dividends or otherwise distribute or advance funds to us and on the terms and conditions of our existing and future credit arrangements. See "Liquidity and Capital Resources" included in "Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations."

## Performance Graph

The following performance graph compares the performance of our common shares to the Standard & Poor's 500 Index and both the Standard & Poor's Oil & Gas Equipment and Services Index and the Philadelphia Oil Service

Index ("OSX") for the period beginning December 31, 2011 and ending December 31, 2016. Core is using the OSX as our Peer Group to replace the Standard & Poor's Oil & Gas Equipment and Services Index used in prior years. Core is now an established member of the OSX and has determined that this new index includes a greater concentration of our most direct peers.

The graph assumes that the value of the investment in our common shares and each index was \$100 at December 31, 2011 and that all dividends were reinvested. The stockholder return set forth below is not necessarily indicative of future performance. The following graph and related information is "furnished" and shall not be deemed "soliciting material" or to be "filed" with the SEC, nor shall such information be incorporated by reference into any future filing under the Securities Act of

1933 or the Securities Exchange Act of 1934, as amended (the "Exchange Act") except to the extent that Core Laboratories specifically incorporates it by reference into such filing.  
Share Repurchases in the Fourth Quarter of 2016

The following table provides information about our purchases of equity securities that are registered by us pursuant to Section 12 of the Exchange Act during the three months ended December 31, 2016:

Period	Total Number Of Shares Purchased	Average Price Paid Per Share	Total Number Of Shares Purchased As Part Of A Publicly Announced Program	Maximum Number Of Shares That May Be Purchased Under The Program (4)(5)
October 2016 (1)	3,582	\$112.32	—	3,793,207
November 2016 (2)	147	\$98.70	—	3,793,517
December 2016 (3)	23,312	\$119.38	—	3,834,634
Total	27,041	\$118.34	—	

(1) includes 3,582 shares valued at \$0.4 million, or \$112.32 per share, surrendered to us by participants in a stock-based compensation plan to settle any personal tax liabilities which may result from the award.

(2) includes 147 shares valued at \$14.5 thousand, or \$98.70 per share, surrendered to us by participants in a stock-based compensation plan to settle any personal tax liabilities which may result from the award.

(3) includes 23,312 shares valued at \$2.8 million, or \$119.38 per share, surrendered to us by participants in a stock-based compensation plan to settle any personal tax liabilities which may result from the award.

(4) The maximum number of shares allowed to be purchased under the program was 3,783,489 at September 30, 2016.

(5) During the quarter 78,186 treasury shares were distributed relating to stock-based awards, including 13,300 in October, 457 in November, and 64,429 in December.

In connection with our initial public offering in September 1995, our shareholders authorized our Management Board to repurchase up to 10% of our issued share capital, the maximum allowed under Dutch law at the time, for a period of 18 months. This authorization was renewed at subsequent annual or special shareholder meetings. At our annual shareholders' meeting on

May 19, 2016, our shareholders authorized an extension until November 19, 2017 to purchase up to 10% of our issued share capital. The repurchase of shares in the open market is at the discretion of management pursuant to this shareholder authorization.

From the activation of the share repurchase program through December 31, 2016, we have repurchased 39,373,745 shares for an aggregate purchase price of approximately \$1.6 billion, or an average price of \$41.20 per share. At December 31, 2016, we held 644,991 shares in treasury and have the authority to repurchase 3,834,634 additional shares under our stock repurchase program as described in the preceding paragraph.

## ITEM 6. SELECTED FINANCIAL DATA

The selected consolidated financial information contained below is derived from our Consolidated Financial Statements and should be read in conjunction with "Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations" and our audited Consolidated Financial Statements each of which is included in this Form 10-K.

	For the Years Ended December 31,				
	2016	2015	2014	2013	2012
	(in thousands, except per share and other data)				
<b>Financial Statement Data:</b>					
Revenue	\$594,741	\$797,520	\$1,085,222	\$1,073,508	\$981,080
Net income attributable to Core Laboratories N.V.	63,895	114,847	257,485	242,811	216,071
Working capital	82,438	117,789	169,954	168,093	156,397
Total assets	573,052	625,258	673,325	659,364	634,391
Long-term debt and capital lease obligations, including current maturities	216,488	430,987	353,672	265,382	231,948
Total equity (deficit)	155,297	(23,699 )	93,993	169,389	187,913
<b>Earnings Per Share Information:</b>					
Net income attributable to Core Laboratories N.V.:					
Basic	\$1.47	\$2.69	\$5.80	\$5.31	\$4.58
Diluted	\$1.46	\$2.68	\$5.77	\$5.28	\$4.54
Weighted average common shares outstanding:					
Basic	43,479	42,747	44,362	45,692	47,211
Diluted	43,670	42,908	44,600	45,994	47,553
Cash dividends declared per common share	\$2.20	\$2.20	\$2.00	\$1.28	\$1.12
<b>Other Data:</b>					
Current ratio (1)	1.79:1	1.98:1	2.29:1	2.24:1	2.11:1
Debt to EBITDA ratio (2)	1.80:1	2.13:1	0.89:1	0.67:1	0.67:1
Debt to Adjusted EBITDA ratio (3)	1.50:1	1.94:1	0.89:1	0.67:1	0.67:1

(1) Current ratio is calculated as follows: current assets divided by current liabilities.

(2) Debt to EBITDA ratio is calculated as follows: gross debt less cash divided by the sum of net income plus interest, taxes, depreciation, and amortization.

(3) Debt to Adjusted EBITDA ratio is calculated as follows: gross debt less cash divided by the sum of net income plus interest, taxes, depreciation, amortization, severance, and certain non-cash adjustments.



## ITEM 7. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATION

Core Laboratories N.V. is a Netherlands limited liability company. We were established in 1936 and are one of the world's leading providers of proprietary and patented reservoir description, production enhancement and reservoir management services and products to the oil and gas industry, primarily through client relationships with many of the world's major, national and independent oil companies.

We operate our business in three reportable segments. These complementary segments provide different services and products and utilize different technologies for improving reservoir performance and increasing oil and gas recovery from new and existing fields.

**Reservoir Description:** Encompasses the characterization of petroleum reservoir rock, fluid and gas samples. We provide analytical and field services to characterize properties of crude oil and petroleum products to the oil and gas industry.

**Production Enhancement:** Includes services and products relating to reservoir well completions, perforations, stimulations and production. We provide integrated diagnostic services to evaluate the effectiveness of well completions and to develop solutions aimed at increasing the effectiveness of enhanced oil recovery projects.

**Reservoir Management:** Combines and integrates information from reservoir description and production enhancement services to increase production and improve recovery of oil and gas from our clients' reservoirs.

### General Overview

We provide services and design and produce products which enable our clients to evaluate reservoir performance and increase oil and gas recovery from new and existing fields. These services and products are generally in higher demand when our clients are investing capital in their field development programs that are designed to increase productivity from existing fields or when exploring for new fields. Our clients' investment in capital expenditure programs tends to correlate over the longer term to oil and natural gas commodity prices. During periods of higher, stable prices, our clients generally invest more in capital expenditures and, during periods of lower or volatile commodity prices, they tend to invest less. Consequently, the level of capital expenditures by our clients impacts the demand for our services and products.

The following table summarizes the annual average and year-end worldwide and U.S. rig counts for the years ended December 31, 2016, 2015 and 2014, as well as the annual average and year-end spot price of a barrel of WTI crude, Europe Brent crude and an MMBtu of natural gas:

	2016	2015	2014
Baker Hughes Worldwide Average Rig Count (1)	1,593	2,337	3,578
Baker Hughes U.S. Average Rig Count (1)	510	977	1,862
Baker Hughes Worldwide Year-End Rig Count (2)	1,772	1,969	3,570
Baker Hughes U.S. Year-End Rig Count (2)	634	714	1,882
Average Crude Oil Price per Barrel WTI (3)	\$43.29	\$48.68	\$93.17
Average Crude Oil Price per Barrel Brent (4)	\$43.67	\$52.30	\$98.97
Average Natural Gas Price per MMBtu (5)	\$2.52	\$2.62	\$4.37
Year-end Crude Oil Price per Barrel WTI (3)	\$53.75	\$37.13	\$53.45
Year-end Crude Oil Price per Barrel Brent (4)	\$54.96	\$36.61	\$55.27
Year-end Natural Gas Price per MMBtu (5)	\$3.71	\$2.28	\$3.14

- (1) Twelve month average rig count as reported by Baker Hughes Incorporated - Worldwide Rig Count.
- (2) Year-end rig count as reported by Baker Hughes Incorporated - Worldwide Rig Count.
- (3) Average daily and year-end West Texas Intermediate crude spot price as reported by the U.S. Energy Information Administration.
- (4) Average daily and year-end Europe Brent crude spot price as reported by the U.S. Energy Information Administration.
- (5) Average daily and year-end Henry Hub natural gas spot price as reported by the U.S. Energy Information Administration.

The prices for both WTI and Brent crude oil began to weaken after the OPEC meeting held in November 2014. Average prices for the majority of the 2014 calendar year were in excess of \$99 per barrel for WTI and in excess of \$105 per barrel for

Brent; however, both were down to approximately \$55 per barrel by the end of 2014 and less than \$40 per barrel by the end of 2015. The volatility and significant reduction in the average price of crude oil during 2015 and 2016 resulted in a significant decrease in the activities associated with both the exploration and production of oil during 2015 and throughout most of 2016. Although the average price of oil and gas decreased in 2016, prices showed some signs of improvement in the second half of 2016.

In North America, the land-based rig count decreased 62% during 2015 and another 53% during the first half of 2016, which greatly impacted both services and product sales to this market. Although the second half of 2016 showed an improvement in North American activity with the average rig count slowly, but steadily, increasing, the rig count at the end of 2016 remained almost 20% below 2015 levels. We saw resilient levels of activities on development projects and producing fields in the U.S. unconventional reservoirs during the second half of 2016 and expect to see further increases in activity during the recovery phase of this business cycle.

Outside of North America, activities associated with the exploration for and production of oil have also decreased from 2014 levels, although not as significantly as the land-based activities in North America. Our clients' activities in the international and deepwater markets declined during 2015 and 2016, but we believe these markets will begin to show signs of recovery beginning in the second half of 2017 as our clients have recently announced several new major capital projects.

## Results of Operations

### Operating Results for the Year Ended December 31, 2016 Compared to the Years Ended December 31, 2015 and 2014

We evaluate our operating results by analyzing revenue, operating income and net income margin (defined as net income divided by total revenue). Since we have a relatively fixed cost structure, increases in revenue generally translate into higher operating income results as well as net income margin percentages. Results for the years ended December 31, 2016, 2015 and 2014 are summarized in the following chart:



Results of operations as a percentage of applicable revenue are as follows (dollars in thousands):

	2016		2015		2014		2016 / 2015	2015 / 2014	% Change
Revenue:									
Services	\$470,259	79.1 %	\$611,954	76.7 %	\$780,872	72.0 %	(23.2)%	(21.6)%	
Product Sales	124,482	20.9 %	185,566	23.3 %	304,350	28.0 %	(32.9)%	(39.0)%	
<b>TOTAL REVENUE</b>	<b>594,741</b>	<b>100.0 %</b>	<b>797,520</b>	<b>100.0 %</b>	<b>1,085,222</b>	<b>100.0 %</b>	<b>(25.4)%</b>	<b>(26.5)%</b>	
<b>OPERATING EXPENSES:</b>									
Cost of services* (1)	331,688	70.5 %	387,739	63.4 %	449,488	57.6 %	(14.5)%	(13.7)%	
Cost of product sales* (1)	110,956	89.1 %	144,913	78.1 %	215,783	70.9 %	(23.4)%	(32.8)%	
Total cost of services and product sales	442,644	74.4 %	532,652	66.8 %	665,271	61.3 %	(16.9)%	(19.9)%	
General and administrative expenses (1)	39,390	6.6 %	49,729	6.2 %	45,655	4.2 %	(20.8)%	8.9 %	
Depreciation and amortization	26,872	4.5 %	27,457	3.4 %	26,696	2.5 %	(2.1 %)	2.9 %	
Other (income) expense, net	(344)	(0.1 %)	3,669	0.5 %	1,069	0.1 %	NM	NM	
Severance and other charges	—	— %	22,943	2.9 %	—	— %	NM	NM	
<b>OPERATING INCOME</b>	<b>86,179</b>	<b>14.5 %</b>	<b>161,070</b>	<b>20.2 %</b>	<b>346,531</b>	<b>31.9 %</b>	<b>(46.5)%</b>	<b>(53.5)%</b>	
Interest expense	11,572	1.9 %	12,380	1.6 %	10,600	1.0 %	(6.5 %)	16.8 %	
Income before income tax expense	74,607	12.5 %	148,690	18.6 %	335,931	31.0 %	(49.8)%	(55.7)%	
Income tax expense	10,748	1.8 %	33,758	4.2 %	77,305	7.1 %	(68.2)%	(56.3)%	
Net income	63,859	10.7 %	114,932	14.4 %	258,626	23.8 %	(44.4)%	(55.6)%	
Net income attributable to non-controlling interest	(36)	— %	85	— %	1,141	0.1 %	NM	NM	
Net income attributable to Core Laboratories N.V.	\$63,895	10.7 %	\$114,847	14.4 %	\$257,485	23.7 %	(44.4)%	(55.4)%	
Diluted earnings per share attributable to Core Laboratories N.V.	\$1.46		\$2.68		\$5.77		(45.5)%	(53.6)%	
Diluted weighted average common shares outstanding	43,670		42,908		44,600				

\*Percentage based on applicable revenue rather than total revenue.

"NM" means not meaningful.

(1) Excludes depreciation.

#### Services Revenue

Services revenue decreased to \$470.3 million for 2016 from \$612.0 million for 2015 and \$780.9 million for 2014. The volatility and downward trend in the average price of crude oil during 2015 and 2016 resulted in a significant decrease in the activities associated with both the exploration and production of oil since 2014. Average prices for WTI and Brent crude oil continued to decrease in 2016 from the almost 50% decline in 2015. As a result, the average global rig count fell an additional 32% in 2016 after the decline of 35% in 2015, primarily driven by decreases in the North American rig count. However, over this same time period, our service revenue was down only 23% and 22% in 2016 and 2015, respectively, as demand for our analytical, diagnostic, and completion services was less impacted by the significant decrease in drilling activities. Although crude oil prices showed some slight improvement in late 2016, prices remained depressed and unstable for most of 2016, resulting in a decrease in our clients' international and deepwater activities. Wells must be drilled and/or completed, stimulated, cored and have reservoir fluid samples

collected, before we see the benefits of the increased commodity prices. Our continued focus on worldwide crude oil related and large natural gas liquefaction projects, especially those related to the development of deepwater fields off West and East Africa and the eastern Mediterranean, prevented services revenue from declining further.

#### Product Sales Revenue

Product sales revenue, which is tied more to demand in North America, decreased to \$124.5 million for 2016, from \$185.6 million for 2015 and \$304.4 million in 2014. Although average rig count for the U.S. and Canada declined 48% during 2016 compared to 2015, our product sales revenue decreased only 33% during this same time period. The average rig count for the U.S. and Canada declined 48% during 2015 as compared to 2014, however, our product sales revenue decreased only 39% during this time period. These results were due to our differentiated well completion product sales holding up better than the industry activity levels in North America.

Cost of Services, excluding depreciation

Cost of services decreased to \$331.7 million for 2016 from \$387.7 million for 2015 and \$449.5 million for 2014. As a percentage of services revenue, cost of services increased to 71% in 2016 from 63% in 2015 and 58% in 2014. These increases are primarily due to our fixed-cost structure not being fully absorbed on lower revenues in 2016 when compared to 2015 and in 2015 when compared to 2014. We took actions to reduce our cost structure in response to the sharp decline in global activity during 2015. See section "Severance and Other Charges" below.

Cost of Product Sales, excluding depreciation

Cost of product sales decreased to \$111.0 million for 2016 from \$144.9 million for 2015 and \$215.8 million for 2014. As a percentage of product sales revenue, cost of sales increased to 89% for 2016 from 78% for 2015 and 71% for 2014. These increases are primarily due to our fixed-cost structure not being fully absorbed on lower revenues in 2016 when compared to 2015 and in 2015 when compared to 2014. We took actions to reduce our cost structure in response to the sharp decline in global activity during 2015. See section "Severance and Other Charges" below.

General and Administrative Expense

General and administrative ("G&A") expenses include corporate management and centralized administrative services that benefit our operations. G&A expenses were \$39.4 million for 2016 compared to \$49.7 million and \$45.7 million during 2015 and 2014, respectively. The variances are primarily due to reduced staff and lower compensation expense.

Depreciation and Amortization Expense

Depreciation and amortization expense of \$26.9 million in 2016 decreased slightly compared to \$27.5 million in 2015 but was comparable to \$26.7 million in 2014.

Other (Income) Expense, net

The components of Other (income) expense, net, were as follows (in thousands):

	For the Years Ended		
	December 31,		
	2016	2015	2014
Sale of assets	\$(618)	\$(408)	\$(764)
Results of non-consolidated subsidiaries	(506)	(383)	(364)
Foreign exchange	1,832	4,507	4,230
Interest income	(56)	(56)	(403)
Rents and royalties	(120)	(484)	(817)

Insurance and other settlements	—	(292 )
Other, net	(630 )	493 (521 )
Total Other expense, net	(3,669 )	\$ 1,069

Foreign exchange gains and losses are summarized in the following table (in thousands):

(Gains) losses by currency	For the Years Ended December 31,		
	2016	2015	2014
Australian Dollar	\$ 136	\$ 238	\$ 289
British Pound	807	434	1,132
Canadian Dollar	(137 )	1,848	1,886
Euro	(49 )	(908 )	(1,537 )
Malaysian Ringgit	43	545	278
Mexican Peso	(47 )	414	284
Nigerian Naira	200	630	432
Other currencies, net	879	1,306	1,466
Total (gain) loss, net	\$ 1,832	\$ 4,507	\$ 4,230

### Severance and Other Charges

In 2015, in response to lower commodity pricing for crude oil and reduced spending by our clients on their oil and gas fields, we reduced our cost structure, primarily through a reduction in our workforce, to better align with the decreasing activity levels into the foreseeable future. As a result of these cost reductions, we recorded severance charges of \$8.8 million, of which approximately \$0.5 million were accrued and remaining to be paid at December 31, 2016. Additionally, in 2015 the Company recorded a charge to income associated with the impairment of certain equipment and intangible assets and facility exit costs of \$5.5 million. Also during 2015, we recorded loss contingencies for various ongoing legal issues of \$8.6 million. See Note 11 of the Notes to Consolidated Financial Statements.

### Interest Expense

Interest expense decreased by \$0.8 million to \$11.6 million in 2016 compared to 2015 primarily due to decreased borrowings on our revolving Credit Facility.

### Income Tax Expense

Our effective tax rate was 14.4%, 22.7%, and 23.0% for 2016, 2015, and 2014, respectively. Income tax expense of \$10.7 million in 2016 decreased by \$23.0 million compared to \$33.8 million in 2015 due to a decrease in taxable income in 2016, primarily in the United States. Income tax expense associated with taxable income recognized in the United States decreased by \$16.1 million in 2016 compared to 2015. No other jurisdiction in which we operate had a material change in income tax expense.

See Note 9 of the Notes to Consolidated Financial Statements for further detail of income tax expense.

### Segment Analysis

The following charts and tables summarize the annual revenue and operating results for our three complementary business segments.

#### Segment Revenue

## Segment Revenue

(dollars in thousands)	For the Years Ended December 31,				
	2016	% Change	2015	% Change	2014
Reservoir Description	\$404,146	(14.6)%	\$473,372	(8.8)%	\$518,974
Production Enhancement	164,027	(38.6)%	267,224	(42.8)%	467,577
Reservoir Management	26,568	(53.3)%	56,924	(42.3)%	98,671
Total Revenue	\$594,741	(25.4)%	\$797,520	(26.5)%	\$1,085,222

## Segment Operating Income

(dollars in thousands)	For the Years Ended December 31,				
	2016	% Change	2015	% Change	2014
Reservoir Description	\$75,148	(32.3)%	\$111,032	(22.7)%	\$143,624
Production Enhancement	8,891	(74.6)%	35,027	(78.8)%	165,204
Reservoir Management	2,043	(86.9)%	15,655	(57.9)%	37,220
Corporate and other (1)	97	NM	(644)	NM	483
Operating Income	\$86,179	(46.5)%	\$161,070	(53.5)%	\$346,531

(1) "Corporate and other" represents those items that are not directly relating to a particular segment.

"NM" means not meaningful.

## Segment Operating Income Margins (1)

	For the Years Ended		
	December 31,		
	2016	2015	2014
	Margin	Margin	Margin
Reservoir Description	18.6%	23.5%	27.7%
Production Enhancement	5.4%	13.1%	35.3%
Reservoir Management	7.7%	27.5%	37.7%
Total Company	14.5%	20.2%	31.9%

(1) Calculated by dividing "Operating Income" by "Revenue."

## Reservoir Description

Revenue for our Reservoir Description segment decreased to \$404.1 million in 2016 compared to \$473.4 million in 2015 and \$519.0 million in 2014. The decrease in revenues in 2016 was primarily due to the reduced international and deepwater drilling activity levels. The decrease in revenues in 2015 was primarily due to the strengthening of the U.S. dollar against certain currencies such as the Euro, Australian dollar, Canadian dollar, British pound, and Russian ruble, in which we invoice a portion of our revenue. This segment's operations continue to work on large-scale, long-term, crude-oil and LNG projects with an emphasis on producing fields located in offshore developments and international markets. We continue to focus on large-scale core analyses and reservoir fluids characterization studies in the Asia-Pacific areas, offshore West and East Africa, the eastern Mediterranean region and the Middle East, including Kuwait and the United Arab Emirates.

Operating income decreased to \$75.1 million in 2016 from \$111.0 million in 2015 and \$143.6 million in 2014. The decreases in operating income in 2016 and 2015 as compared to each corresponding prior year were due to lower activity levels. Operating income in 2015 includes additional charges for severance, asset impairments, and an accrual for contingent losses. Operating margins were 18.6% in 2016 down from 23.5% in 2015 and 27.7% in 2014.

#### Production Enhancement

Revenue for our Production Enhancement segment decreased to \$164.0 million in 2016 compared to \$267.2 million in 2015 and \$467.6 million in 2014. The decreases in North America industry activity during 2016 and 2015, when compared to the respective prior year, reduced demand for our products associated with land-based completion of oil wells in U.S. unconventional developments. The revenue decrease of 43% in 2015 compared to 2014 was less than the decrease in the U.S. horizontal rig count of 62% during 2015.

Operating income for this segment decreased to \$8.9 million in 2016 from \$35.0 million in 2015 and \$165.2 million in 2014. Operating margins were 5.4% in 2016 down from 13.1% in 2015 and 35.3% in 2014. The decreases in operating income and operating margin in 2016 and 2015 compared to the respective prior year were primarily due to decreased revenue and the impact of our fixed-cost structure on lower revenue in these years.

#### Reservoir Management

Revenue for our Reservoir Management segment decreased to \$26.6 million in 2016 compared to \$56.9 million in 2015 and \$98.7 million in 2014. The decrease in revenue in 2016 compared to 2015 was primarily due to lower oil commodity prices which, as a result, greatly reduced or eliminated discretionary spending by our oil and gas clients. Our clients continue to express interest in our existing multi-client reservoir studies such as the Avalon Basin study and the Tight Oil Reservoirs of the Midland Basin study, both within the larger area of the Permian Basin acreage, as well as our new joint-industry projects in the Mississippian-aged Meramac and Osage formations, which overlay the Silurian-aged Woodford Formation in the STACK-B play, which includes Blaine County.

Operating income for this segment decreased to \$2.0 million in 2016 compared to \$15.7 million in 2015 and \$37.2 million in 2014. Operating margins decreased to 7.7% in 2016, from 27.5% and 37.7% in 2015 and 2014, respectively. The decrease in operating income in 2016 compared to 2015 and 2014 was due primarily to decreased revenue and the impact of our fixed costs over lower revenue. We are still focused on our current joint industry projects, including the Utica, Duvernay, and Mississippi Lime studies and the Marcellus, Niobrara, Wolfcamp and Eagle Ford plays, our new proposed studies in tight-oil unconventional reservoirs and a revisit to the deepwater Gulf of Mexico, and the sale of fully completed studies.

#### Liquidity and Capital Resources

##### General

We have historically financed our activities through cash on hand, cash flows from operations, bank credit facilities, equity financing and the issuance of debt. Cash flows from operating activities provides the primary source of funds to finance operating needs, capital expenditures and our dividend and share repurchase programs. If necessary, we supplement this cash flow with borrowings under bank credit facilities to finance some capital expenditures and business acquisitions. As we are a Netherlands holding company, we conduct substantially all of our operations through subsidiaries. Our cash availability is largely dependent upon the ability of our subsidiaries to pay cash dividends or otherwise distribute or advance funds to us. There are no restrictions preventing any of our subsidiaries from repatriating earnings, and there are no restrictions or income taxes associated with distributing cash to the parent company through loans or advances. As of December 31, 2016, approximately \$13.7 million of our \$14.8 million of cash was held by our foreign subsidiaries.

Our financial statements are prepared in conformity with generally accepted accounting principles in the U.S. ("U.S. GAAP" or "GAAP"). We utilize the non-GAAP financial measure of free cash flow to evaluate our cash flows and results of operations. Free cash flow is defined as net cash provided by operating activities (which is the most directly comparable GAAP measure) less cash paid for capital expenditures. Management believes that free cash flow provides useful information to investors regarding the cash that was available in the period that was in excess of our needs to fund our capital expenditures and operating activities. Free cash flow is not a measure of operating performance under GAAP, and should not be considered in isolation nor construed as an alternative to operating profit, net income (loss) or cash flows from operating, investing or financing activities, each as determined in accordance with GAAP. Free cash flow does not represent residual cash available for distribution because we may have other non-discretionary expenditures that are not deducted from the measure. Moreover, since free cash flow is not a measure determined in accordance with GAAP and thus is susceptible to varying interpretations and



calculations, free cash flow, as presented, may not be comparable to similarly titled measures presented by other companies. The following table reconciles this non-GAAP financial measure to the most directly comparable measure calculated and presented in accordance with U.S. GAAP for the years ended December 31, 2016, 2015 and 2014 (in thousands):

	For the Years Ended December		
	31,		
Free Cash Flow Calculation	2016	2015	2014
Net cash provided by operating activities	\$131,887	\$219,100	\$303,449
Less: cash paid for capital expenditures	(11,356 )	(22,797 )	(36,586 )
Free cash flow	\$120,531	\$196,303	\$266,863

Free cash flow as a percent of net income continued to be strong even though free cash flow decreased in 2016 compared to 2015 and 2014. These decreases were primarily due to the decrease in cash flow from operating activities as a result of lower activity levels for the oil and gas industry.

#### Cash Flows

The following table summarizes cash flows for the years ended December 31, 2016, 2015 and 2014 (in thousands):

	For the Years Ended December		
	31,		
	2016	2015	2014
Cash provided by/(used in):			
Operating activities	\$ 131,887	\$ 219,100	\$ 303,449
Investing activities	(14,721 )	(39,654 )	(42,066 )
Financing activities	(124,896 )	(180,302 )	(263,121 )
Net change in cash and cash equivalents	\$(7,730 )	\$(856 )	\$(1,738 )

The decreases in cash provided by operating activities in 2016 compared to 2015 and in 2015 compared to 2014 were primarily attributable to the industry downturn resulting in year-over-year decreases in net income, offset by reductions in working capital.

Cash flow used in investing activities in 2016 decreased \$24.9 million compared to 2015 primarily as a result of less cash used for capital expenditures and business acquisitions. Cash flow used in investing activities in 2015 decreased \$2.4 million compared to 2014 primarily as a result of lower company-owned life insurance premiums.

Cash flow used in financing activities in 2016 decreased \$55.4 million compared to 2015. Cash flow used in financing activities in 2015 decreased \$82.8 million compared to 2014. During 2016, we spent \$7.2 million to repurchase our common shares, \$95.1 million to pay dividends, and decreased our debt balance by \$215 million through the issuance of new shares. During 2015, we spent \$159.7 million to repurchase our common shares and \$94.2 million to pay dividends, offset by a net increase in our debt balance of \$77 million. During 2014, we spent \$264.4 million to repurchase our common shares and \$89.1 million to pay dividends, offset by a net increase in our debt balance of \$89 million.

During the year ended December 31, 2016, we repurchased 62,000 shares of our common stock for an aggregate amount of \$7.2 million, or an average price of \$115.51 per share. The repurchase of shares in the open market is at the discretion of management pursuant to shareholder authorization. We regard these treasury shares as a temporary investment which may be used to fund restricted shares that vest or to finance future acquisitions. Under Dutch law and subject to certain Dutch statutory provisions and shareholder approval, we can hold a maximum of 50% of our issued shares in treasury. We currently have shareholder approval to hold 10% of our issued share capital in treasury. On May 19, 2016 at our annual shareholders meeting, our shareholders authorized the extension of our share repurchase program until November 19, 2017 to purchase up to 10% of our issued share capital. We believe this share repurchase program has been beneficial to our shareholders. Our share price has increased from \$4.03 per share in 2002, when we began to repurchase shares, to \$120.04 per share on December 31, 2016, an increase of over 2,879%.

#### Credit Facility and Available Future Liquidity

In 2011, we issued two series of senior notes with an aggregate principal amount of \$150 million ("Senior Notes") in a private placement transaction. Series A consists of \$75 million in aggregate principal amount of notes that bear interest at a fixed rate of 4.01% and are due in full on September 30, 2021. Series B consists of \$75 million in aggregate principal amount of notes that bear interest at a fixed rate of 4.11% and are due in full on September 30,

2023. Interest on each series of the Senior Notes is payable semi-annually on March 30 and September 30.

In 2015, we entered into an agreement to amend our revolving credit facility (the "Credit Facility") to increase the aggregate borrowing capacity from \$350 million to \$400 million and to increase the uncommitted availability of an additional \$50 million to bring the total borrowings available to \$450 million if certain prescribed conditions are met by the Company. The Credit Facility bears interest at variable rates from LIBOR plus 1.25% to a maximum of LIBOR plus 2.0%.

Any outstanding balance under the Credit Facility is due August 29, 2019, when the Credit Facility matures. Interest payment terms are variable depending upon the specific type of borrowing under this facility. Our available capacity at any point in time is subject to all terms of the agreements, and is reduced by borrowings outstanding at the time and outstanding letters of credit

which totaled \$25.8 million at December 31, 2016, resulting in an available borrowing capacity under the Credit Facility of \$306.2 million. In addition to those items under the Credit Facility, we had \$15.0 million of outstanding letters of credit and performance guarantees and bonds from other sources as of December 31, 2016.

The terms of the Credit Facility and Senior Notes require us to meet certain covenants, including, but not limited to, an interest coverage ratio (consolidated EBITDA divided by interest expense) and a leverage ratio (consolidated net indebtedness divided by consolidated EBITDA), where consolidated EBITDA (as defined in each agreement) and interest expense are calculated using the most recent four fiscal quarters. The Credit Facility has the more restrictive covenants with a minimum interest coverage ratio of 3.0 to 1.0 and a maximum leverage ratio of 2.5 to 1.0. We believe that we are in compliance with all such covenants contained in our credit agreements. Certain of our material, wholly-owned subsidiaries are guarantors or co-borrowers under the Credit Facility and Senior Notes.

In 2014, we entered into two interest rate swap agreements for a total notional amount of \$50 million to hedge changes in the variable rate interest expense on \$50 million of our existing or replacement LIBOR-priced debt. Under the first swap agreement of \$25 million, we fixed the LIBOR portion of the interest rate at 1.73% through August 29, 2019, and under the second swap agreement of \$25 million, we fixed the LIBOR portion of the interest rate at 2.50% through August 29, 2024. Each swap is measured at fair value and recorded in our consolidated balance sheet as a liability. They are designated and qualify as cash flow hedging instruments and are highly effective. Unrealized losses are deferred to shareholders' equity as a component of accumulated other comprehensive loss and are recognized in income as an increase to interest expense in the period in which the related cash flows being hedged are recognized in expense.

In addition to our repayment commitments under our Credit Facility and our Senior Notes, we have non-cancellable operating lease arrangements under which we lease property including land, buildings, office equipment and vehicles.

The following table summarizes our future contractual obligations under these arrangements (in thousands):

	Total	Less than 1 year	1-3 Years	3-5 Years	More than 5 Years
Contractual Obligations:					
Debt (1)	\$218,000	\$—	\$68,000	\$75,000	\$75,000
Operating leases	62,061	15,514	20,120	10,905	15,522
Pension (2)	1,484	1,484	—	—	—
Total contractual obligations	\$281,545	\$16,998	\$88,120	\$85,905	\$90,522

(1) Not included in the above balances are anticipated cash payments for interest of \$6.1 million a year for 2017-2021 and cash payments for interest of \$3.1 million a year for 2022-2023 for a total of \$36.7 million.

(2) Our Dutch pension plan requires annual employer contributions. Amounts payable in the future will be based on future workforce factors which cannot be projected beyond one year.

We have no significant purchase commitments or similar obligations outstanding at December 31, 2016. Not included in the table above are uncertain tax positions of \$8.6 million that we have accrued for at December 31, 2016, as the amounts and timing of payment, if any, are uncertain. See Note 9 of the Notes to Consolidated Financial Statements for further detail of this amount.

At December 31, 2016, we had tax net operating loss carry-forwards in various jurisdictions of approximately \$38.8 million. Although we cannot be certain that these operating loss carry-forwards will be utilized, we anticipate that we

will have sufficient taxable income in future years to allow us to fully utilize the carry-forwards that are not subject to a valuation allowance as of December 31, 2016. If unused, those carry-forwards which are subject to expiration may expire during the years 2017-2027. During 2016, \$0.1 million of net operating loss carry-forwards which carried a full valuation allowance expired unused.

We expect our investment in capital expenditures to track client demand for our services and products. Given the improving, but still uncertain, trend in industry activity levels, we have not determined, at this time, the level of investment that will be made in 2017. We will, however, continue to invest to fund the purchase of instrumentation, tools and equipment along with expenditures to replace obsolete or worn-out instrumentation, tools and equipment, to consolidate certain facilities to gain operational efficiencies, and to increase our presence where requested by our clients. In addition, we plan to continue to (i) repurchase our common shares on the open market through our share repurchase program, (ii) pay a dividend and (iii) if available in the market at acceptable valuations, acquire complementary technologies. Our ability to continue these initiatives depends on, among other things, market conditions and our ability to generate free cash flow.

Our ability to maintain and increase our operating income and cash flows is largely dependent upon continued investing activities. We are a Netherlands holding company and substantially all of our operations are conducted through subsidiaries. Consequently, our cash flow depends upon the ability of our subsidiaries to pay cash dividends or otherwise distribute or advance funds to us. We believe our future cash flows from operating activities, supplemented by our borrowing capacity under existing facilities and our ability to issue additional equity should be sufficient to meet our contractual obligations, capital expenditures, working capital needs, dividend payments, debt requirements and to finance future acquisitions.

#### Other Matters

In the spring of 2016, there were news reports related to Unaoil, a Monaco based company, and activities Unaoil may have engaged in related to international projects involving numerous global companies, including Core Lab. It has also been reported that the U.S. Department of Justice ("DOJ") is conducting an investigation of Unaoil related to the information reported in these news articles. The DOJ and the SEC contacted the Company in connection with that investigation, and the Company has cooperated with, and will continue to cooperate with, both agencies as necessary.

#### Outlook

Our long-term growth strategies remain essentially unchanged. We will continue our efforts to expand our market presence by opening or expanding facilities in strategic areas, continue the development of new services and products to meet our client needs and realizing synergies within our business lines. We believe our market presence provides us a unique opportunity to service clients who have global operations in addition to the national oil companies.

We have established internal earnings targets that are based on market conditions existing at the time our targets were established. During the fourth quarter of 2016, the members of OPEC announced a framework to reduce their daily crude oil production. This event, in the Company's opinion, will likely serve as an important catalyst that could speed the re-balancing of the crude oil markets which may provide for a significant recovery in industry activity. Based on recent developments, and modest strengthening in the price of crude oil and natural gas, we believe that the level of activities and workflows experienced in late 2016 will continue into 2017 and will strengthen for North America. Additionally, we believe the trend in recent public announcements of major offshore and international projects by our clients will continue, and these announcements are signs that a recovery of the offshore deepwater and international markets are also improving. An increase in the activities in these markets could positively impact our revenues, operating income and operating margins as well.

We expect to meet ongoing working capital needs, capital expenditure requirements and funding of our dividend and share repurchase programs from a combination of cash on hand, cash flow from operating activities and available borrowings under our Credit Facility.

#### Critical Accounting Estimates

The preparation of financial statements in accordance with U.S. GAAP requires us to make certain estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of assets and liabilities at the date of the financial statements and the reported amounts of revenue and expenses during the reporting period. We evaluate our estimates on an ongoing basis and determine the adequacy of our estimates based on our historical experience and various other assumptions that we believe are reasonable under the circumstances. By nature, these judgments are subject to an inherent degree of uncertainty. We consider an accounting estimate to be critical if it is highly subjective and if changes in the estimate under different assumptions would result in a material impact on our financial condition and results of operations. The following transaction types require significant judgment and, therefore, are considered

critical accounting policies as of December 31, 2016.

#### Allowance for Doubtful Accounts

We evaluate whether client receivables are collectible. We perform ongoing credit evaluations of our clients and monitor collections and payments in order to maintain a provision for estimated uncollectible accounts based on our historical collection experience and our current aging of client receivables outstanding in addition to clients' representations and our understanding of the economic environment in which our clients operate. Based on our review, we establish or adjust allowances for specific clients and the accounts receivable as a whole. Our allowance for doubtful accounts decreased to \$3.1 million as of December 31, 2016, compared to \$4.1 million as of December 31, 2015.

#### Income Taxes

Our income tax expense includes income taxes of The Netherlands, the U.S. and other foreign countries as well as local, state and provincial income taxes. We recognize deferred tax assets or liabilities for the differences between the financial statement carrying amount and tax basis of assets and liabilities using enacted tax rates in effect for the years in which the asset is recovered or the liability is settled. We estimate the likelihood of the recoverability of our deferred tax assets (particularly, net operating loss carry-forwards). Any valuation allowance recorded is based on estimates and assumptions of taxable income into the future and a determination is made of the magnitude of deferred tax assets which are more likely than not to be realized. Valuation allowances of our net deferred tax assets aggregated to \$10.0 million and \$10.9 million at December 31, 2016 and 2015, respectively. If these estimates and related assumptions change in the future, we may be required to record additional valuation allowances against our deferred tax assets and our effective tax rate may increase which could result in a material adverse effect on our financial position, results of operations and cash flows. We have not provided for deferred taxes on the unremitted earnings of certain subsidiaries that we consider to be indefinitely reinvested. Should we make a distribution of the unremitted earnings of these subsidiaries, we may be required to record additional taxes. We record a liability for unrecognized tax benefits resulting from uncertain tax positions taken or expected to be taken in our tax return. We also recognize interest and penalties, if any, related to unrecognized tax benefits in income tax expense.

#### Long-Lived Assets, Intangibles and Goodwill

Property, plant and equipment are carried at cost less accumulated depreciation. Major renewals and improvements are capitalized while maintenance and repair costs are charged to expense as incurred. They are depreciated using the straight-line method based on their individual estimated useful lives, except for leasehold improvements, which are depreciated over the remaining lease term, if shorter. We estimate the useful lives and salvage values of our assets based on historical data of similar assets. When long-lived assets are sold or retired, the remaining costs and related accumulated depreciation are removed from the accounts and any resulting gain or loss is included in income. These capitalized long-lived assets could become impaired if our operating plans or business environment changes.

Intangible assets, including patents, trademarks, and trade names, are carried at cost less accumulated amortization. Intangibles with determinable lives are amortized using the straight-line method based on the estimated useful life of the intangible. Intangibles with indeterminable lives, which consist primarily of corporate trade names, are not amortized, but are tested for impairment annually or whenever events or changes in circumstances indicate that impairment is possible.

We review our long-lived assets, including definite-lived intangible assets, for impairment when events or changes in circumstances indicate that their net book value may not be recovered over their remaining service lives. Indicators of possible impairment may include significant declines in activity levels in regions where specific assets or groups of assets are located, extended periods of idle use, declining revenue or cash flow or overall changes in general market

conditions.

Whenever possible impairment is indicated, we compare the carrying value of the assets to the sum of the estimated undiscounted future cash flows expected from use, plus salvage value, less the costs of the subsequent disposition of the assets. If impairment is still indicated, we compare the fair value of the assets to the carrying amount, and recognize an impairment loss for the amount by which the carrying value exceeds the fair value. We did not record any material impairment charges relating to our long-lived assets held for use during the years ended December 31, 2016, 2015 and 2014.

We record goodwill as the excess of the purchase price over the fair value of the net assets acquired in acquisitions accounted for under the purchase method of accounting. We test goodwill for impairment annually, or more frequently if circumstances indicate a possible impairment.

We evaluated our goodwill for impairment by comparing the fair value of each of our reporting units, which are our reportable segments, to their net carrying value as of the balance sheet date. We estimated the fair value of each reporting unit using a discounted future cash flow analysis. Estimated future cash flows were based on the company's best estimate of future performance. Our impairment analysis is quantitative; however, it includes subjective estimates based on assumptions regarding future growth rates, interest rates and operating expenses. If the carrying value of the reporting unit exceeds the fair value determined, an impairment loss is recorded to the extent that the implied fair value of the goodwill of the reporting unit is less than its carrying value. We did not record impairment charges relating to our goodwill or our indefinite-lived intangible assets during the years ended December 31, 2016, 2015 and 2014.

We have never identified nor recorded any impairments relating to the goodwill of our current continuing operations.



### Obsolete Inventory

We forecast client demand, considering changes in technology which could result in obsolescence. Our valuation reserve for obsolete inventory is based on historical regional sales trends, and various other assumptions and judgments including future demand for this inventory. Our industry is subject to technological change and new product development that could result in obsolete inventory. Our valuation reserve for obsolete inventory at December 31, 2016 was \$3.5 million compared to \$3.0 million at December 31, 2015.

### Pensions and Other Postretirement Benefits

We maintain a noncontributory defined benefit pension plan for substantially all of our Dutch employees hired before 2007. We utilize an actuary to assist in determining the value of the projected benefit obligation. This valuation requires various estimates and assumptions concerning mortality, future pay increases, expected return on plan assets and discount rate used to value our obligations. We recognize net periodic benefit cost based upon these estimates. As required by current accounting standards, we recognize net periodic pension costs associated with this plan in income from current operations and recognize the unfunded status of the plan, if any, as a long-term liability. In addition, we recognize as a component of other comprehensive income, the gains or losses and prior service costs or credits that arise during the period but are not recognized as components of net periodic pension cost. See Note 10 of the Notes to Consolidated Financial Statements. Furthermore, we sponsor several defined contribution plans for the benefit of our employees. We expense these contributions in the period the contribution is made.

### Stock-Based Compensation

We have two stock-based compensation plans, as described in further detail in Note 13 of the Notes to Consolidated Financial Statements. We evaluate the probability that certain of our stock-based plans will meet targets established within the respective agreements and result in the vesting of such awards. In addition, we derive an estimated forfeiture rate that is used in calculating the expense for these awards. For new awards issued and awards modified, repurchased or canceled, the compensation expense is equal to the fair value of the award at the date of the grant and is recognized in the Consolidated Statements of Operations for those awards earned over the requisite service period of the award. The fair value is determined by calculating the discounted value of the shares over the vesting period and applying an estimated forfeiture rate.

### Off-Balance Sheet Arrangements

Other than normal operating leases, we do not have any off-balance sheet financing arrangements such as securitization agreements, liquidity trust vehicles, synthetic leases or special purpose entities. As such, we are not materially exposed to any financing, liquidity, market or credit risk that could arise if we had engaged in such financing arrangements.

### Forward-Looking Statements

This Form 10-K and the documents incorporated in this Form 10-K by reference contain forward-looking statements within the meaning of Section 27A of the Securities Act of 1933 and Section 21E of the Exchange Act. These "forward-looking statements" are based on an analysis of currently available competitive, financial and economic data and our operating plans. They are inherently uncertain and investors should recognize that events and actual results could turn out to be significantly different from our expectations. By way of illustration, when used in this document, words such as "anticipate", "believe", "expect", "intend", "estimate", "project", "will", "should", "could", "may", "predict" and similar expressions are intended to identify forward-looking statements. You are cautioned that actual results could differ materially from those anticipated in forward-looking statements. Any forward-looking statements,

including statements regarding the intent, belief or current expectations of us or our management, are not guarantees of future performance and involve risks, uncertainties and assumptions about us and the industry in which we operate, including, among other things:

- our ability to continue to develop or acquire new and useful technology;
- the realization of anticipated synergies from acquired businesses and future acquisitions;
- our dependence on one industry, oil and gas, and the impact of commodity prices on the expenditure levels of our clients;
- competition in the markets we serve;
- the risks and uncertainties attendant to adverse industry, political, economic and financial market conditions, including stock prices, government regulations, interest rates and credit availability;

unsettled political conditions, war, civil unrest, currency controls and governmental actions in the numerous countries in which we operate;  
• changes in the price of oil and natural gas;  
• integration of acquired businesses; and  
• the effects of industry consolidation.

Our businesses depend, to a large degree, on the level of spending by oil and gas companies for exploration, development and production activities. Therefore, a sustained increase or decrease in the price of natural gas or oil, which could have a material impact on exploration, development and production activities, could also materially affect our financial position, results of operations and cash flows.

The above description of risks and uncertainties is by no means all-inclusive, but is designed to highlight what we believe are important factors to consider. For a more detailed description of risk factors, please see "Item 1A. Risk Factors" in this Form 10-K and our reports and registration statements filed from time to time with the SEC.

All forward-looking statements in this Form 10-K are based on information available to us on the date of this Form 10-K. We do not intend to update or revise any forward-looking statements that we may make in this Form 10-K or other documents, reports, filings or press releases, whether as a result of new information, future events or otherwise, unless required by law.

#### Recent Accounting Pronouncements

##### Pronouncements Adopted in 2016

In November 2015, the FASB issued ASU 2015-17 ("Balance Sheet Classification of Deferred Taxes") to simplify the presentation of deferred income taxes. The amendments in this update require that deferred tax liabilities and assets be classified as non-current in a classified statement of financial position. This pronouncement is effective for public business entities for fiscal years, and for interim periods within those fiscal years, beginning after December 15, 2016, with early adoption permitted. We early adopted this standard for our fiscal year beginning on January 1, 2016 and applied the adoption prospectively. The adoption of this standard had no effect on our current Consolidated Statements of Operations and Consolidated Statements of Cash Flows but had an immaterial effect on our Consolidated Balance Sheets with the reclassification of certain deferred tax balance sheet accounts. The comparative prior period Consolidated Balance Sheet as of December 31, 2015 was not retrospectively adjusted.

In February 2015, the Financial Accounting Standards Board ("FASB") issued Accounting Standards Update ("ASU") 2015-02 ("Amendments to the Consolidation Analysis") which amends the guidelines for determining whether certain legal entities should be consolidated. This update eliminates the presumption that a general partner should consolidate a limited partnership and modifies the evaluation of whether limited partnerships are variable interest entities or voting interest entities. Overall, the amendments in this Update are an improvement to current GAAP because they simplify the Codification and reduce the number of consolidation models through the elimination of the indefinite deferral of Statement 167 and because they place more emphasis on risk of loss when determining a controlling financial interest. This update is effective for fiscal years beginning after December 15, 2015, and interim periods within those fiscal years. We adopted this standard on January 1, 2016. The adoption of this standard had no effect on our current consolidated financial statements or on the entities that we consolidate.

##### Pronouncements Not Yet Effective

In May 2014, the FASB issued ASU 2014-09 ("Revenue from Contracts with Customers"), which provides guidance on revenue recognition. The core principle of this guidance is that an entity should recognize revenue to depict the

transfer of promised goods or services to customers in an amount that reflects the consideration to which the entity expects to be entitled in exchange for those goods or services. This guidance requires entities to apply a five-step method to (1) identify the contract(s) with customers; (2) identify the performance obligation(s) in the contract; (3) determine the transaction price; (4) allocate the transaction price to the performance obligation(s) in the contract; and (5) recognize revenue when (or as) the entity satisfies a performance obligation. This pronouncement is effective for fiscal years, and interim periods within those years, beginning after December 15, 2018 (on July 9, 2015, the FASB deferred the implementation date for one year). We are currently analyzing the standard's impact on our revenues by looking at all of our revenue streams to determine the impact on our Consolidated Balance Sheets, Consolidated Statements of Operations and Consolidated Statements of Cash Flows. At this

point, we do not anticipate any material changes to our revenue recognition policies and procedures nor to our financial statements, but extensive additional disclosures will be required.

In July 2015, the FASB issued ASU 2015-11 ("Simplifying the Measurement of Inventory") to require the measurement of inventory at the lower of cost and net realizable value. Net realizable value is the estimated selling price in the ordinary course of business, less reasonably predictable costs of completion, disposal, and transportation. This pronouncement is effective for public business entities for fiscal years, and for interim periods within those fiscal years, beginning after December 15, 2016. The adoption of this standard will have no effect on our Consolidated Balance Sheets, Consolidated Statements of Operations and Consolidated Statements of Cash Flows.

In February 2016, the FASB issued ASU 2016-02 ("Leases"), which introduces the recognition of lease assets and lease liabilities by lessees for those leases classified as operating leases under previous guidance. The new standard establishes a right-of-use ("ROU") model that requires a lessee to record an ROU asset and a lease liability on the balance sheet for all leases with terms longer than 12 months. The new standard is effective for fiscal years beginning after December 15, 2018 and interim periods within those fiscal years with early adoption permitted. We do not anticipate the adoption of this standard to have a material impact on how we currently record lease transactions; however, it may have a significant impact on our Consolidated Balance Sheets, increasing both asset balances and liability balances.

In March 2016, the FASB issued ASU 2016-09 ("Improvements to Employee Share-Based Payment Accounting") to simplify the accounting for share-based payment transactions, including accounting for forfeitures, excess tax benefit/expense, and tax withholding requirements. Under this new guidance, (1) companies will have the option to estimate how many shares in a grant will be forfeited or to elect to recognize forfeitures as they occur; (2) all excess tax benefit and expense will be recognized as income tax benefit or expense in the income statement as a discrete item to the quarter, and the accumulated benefits in APIC are eliminated; and (3) companies will be able to withhold share amounts up to the statutory maximum and the award will still be classified as equity. This pronouncement is effective for public business entities for fiscal years, and for interim periods within those fiscal years, beginning after December 15, 2016. The adoption of this standard will result in timing differences in the recognition of stock compensation expense as we will no longer be estimating forfeitures, but accounting for them as they occur, and the reclassification of excess tax benefit/expense on the Consolidated Statements of Cash Flows.

In June 2016, the FASB issued ASU 2016-13 ("Measurement of Credit Losses on Financial Instruments") which replaces the incurred loss impairment methodology in current GAAP with a methodology that reflects expected credit losses and requires consideration of a broader range of reasonable and supportable information to inform credit loss estimates. The new standard is effective for fiscal years beginning after December 15, 2019, including interim periods within those fiscal years with early adoption permitted in fiscal years beginning after December 15, 2018, including interim periods within those fiscal years. We are evaluating the impact that the adoption of this standard will have on our consolidated financial statements.

## ITEM 7A. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

### Market Risk

We are exposed to market risk, which is the potential loss arising from adverse changes in market prices and rates. We do not believe that our exposure to market risks, which are primarily related to interest rate changes, is material.

### Interest Rate Risk

We maintain certain debt instruments at a fixed rate whose fair value will fluctuate based on changes in interest rates and market perception of our credit risk. The fair value of our debt at December 31, 2016 and 2015 approximated the book value.

In 2014, we entered into two interest rate swap agreements for a total notional amount of \$50 million to hedge changes in the variable rate interest expense on \$50 million of our existing or replacement LIBOR-priced debt. Under the first swap agreement of \$25 million, we have fixed the LIBOR portion of the interest rate at 1.73% through August 29, 2019, and under the second swap agreement of \$25 million, we have fixed the LIBOR portion of the interest rate at 2.50% through August 29, 2024. Each swap is measured at fair value and recorded in our consolidated balance sheet as a liability. They are designated and qualify as cash flow hedging instruments and are highly effective. Unrealized losses are deferred to shareholders' equity as a component of accumulated other comprehensive loss and are recognized in income as an increase to interest expense in the period in which the related cash flows being hedged are recognized in expense.

From time to time, we are exposed to interest rate risk on our Credit Facility debt for amounts outstanding in excess of \$50 million, which carries a variable interest rate. At December 31, 2016, we had an outstanding balance of \$68 million. A 10% change in interest rates would not have a material impact on our results of operations or cash flows.

#### Foreign Currency Risk

We operate in a number of international areas which exposes us to foreign currency exchange rate risk. We do not currently hold or issue forward exchange contracts or other derivative instruments for hedging or speculative purposes (a foreign exchange contract is an agreement to exchange different currencies at a given date and at a specified rate). Foreign exchange gains and losses are the result of fluctuations in the U.S. dollar ("USD") against foreign currencies and are included in other (income) expense in the statements of operations. We recognized foreign exchange losses in countries where the USD weakened against the local currency and we had net monetary liabilities denominated in the local currency, as well as in countries where the USD strengthened against the local currency and we had net monetary assets denominated in the local currency. We recognized foreign exchange gains in countries where the USD strengthened against the local currency and we had net monetary liabilities denominated in the local currency, as well as in countries where the USD weakened against the local currency and we had net monetary assets denominated in the local currency.

#### Credit Risk

Our financial instruments that potentially subject us to concentrations of credit risk consist primarily of cash and cash equivalents and accounts receivable. Substantially all cash and cash equivalents are on deposit at commercial banks or investment firms. Our trade receivables are with a variety of domestic, international and national oil and gas companies. Management considers this credit risk to be limited due to the creditworthiness and financial resources of these financial institutions and companies.

### ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA

For the financial statements and supplementary data required by this Item 8, see Part IV "Item 15. Exhibits, Financial Statement Schedules."

### ITEM 9. CHANGES IN AND DISAGREEMENTS WITH ACCOUNTANTS ON ACCOUNTING AND FINANCIAL DISCLOSURE

#### Change in Auditor in 2016

Effective January 1, 2016, the Company appointed KPMG, including its U.S. and Dutch affiliates, (collectively, "KPMG") as its independent registered public accountants. There was no dispute or disagreement with former auditor PricewaterhouseCoopers ("PwC") on any issue; instead, the change was a result of new Dutch regulations requiring Dutch publicly traded companies to rotate the public auditors of their IFRS accounts after eight years starting with the fiscal year that began January 1, 2016. The change of accounting firms was recommended by the supervisory board of directors and approved by the shareholders at the 2016 annual meeting.

### ITEM 9A. CONTROLS AND PROCEDURES

#### Disclosure Controls and Procedures

Our management, under the supervision of and with the participation of our Chief Executive Officer and Chief Financial Officer, has evaluated the effectiveness of our disclosure controls and procedures, as such term is defined in Rules 13a-15(e) and 15d-15(e) under the Exchange Act, as of the end of the period covered by this report. Our disclosure controls and procedures are designed to provide reasonable assurance that the information required to be disclosed by us in our reports filed or submitted under the Exchange Act is accumulated and communicated to management, including our Chief Executive Officer and Chief Financial Officer, as appropriate, to allow timely decisions regarding required disclosure and is recorded, processed, summarized and reported within the time periods specified in the rules and forms of the Securities and Exchange Commission. Based on such evaluation, our Chief Executive Officer and Chief Financial Officer have concluded that our disclosure controls and procedures were effective as of December 31, 2016 at the reasonable assurance level.



Our management does not expect that our disclosure controls and procedures or our internal control over financial reporting will prevent all errors and all fraud. Further, the design of disclosure controls and internal control over financial reporting must reflect the fact that there are resource constraints, and the benefits of controls must be considered relative to their costs. Because of the inherent limitations in all control systems, no evaluation of controls can provide absolute assurance that all control issues and instances of fraud, if any, within a company have been detected.

#### Management's Report on Internal Control over Financial Reporting

Our management is responsible for establishing and maintaining adequate internal control over financial reporting, as that term is defined in Rules 13a-15(f) and 15d-15(f) of the Exchange Act. Our internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

Our management, under the supervision of and with the participation of our Chief Executive Officer and Chief Financial Officer, conducted an evaluation of our internal control over financial reporting as of December 31, 2016. In making this assessment, management used the criteria set forth in Internal Control – Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission. Based on this assessment using these criteria, our management determined that our internal control over financial reporting was effective as of December 31, 2016.

The effectiveness of our internal control over financial reporting as of December 31, 2016, has been audited by KPMG, an independent registered public accounting firm, as stated in their report which appears herein.

#### Changes in Internal Control over Financial Reporting

There was no change in our system of internal control over financial reporting, as such term is defined in Rules 13a-15(f) and 15d-15(f) under the Exchange Act, during our fiscal quarter ended December 31, 2016 that has materially affected, or is reasonably likely to materially affect, our internal control over financial reporting.

#### ITEM 9B. OTHER INFORMATION

None.

PART III

The information required by Part III (Items 10 through 14) is incorporated by reference from our definitive proxy statement to be filed in connection with our 2017 annual meeting of shareholders pursuant to Regulation 14A under the Exchange Act. We expect to file our definitive proxy statement with the SEC within 120 days after the close of the year ended December 31, 2016.

PART IV

ITEM 15. EXHIBITS, FINANCIAL STATEMENT SCHEDULES

(a) Financial Statements

1. The following reports, financial statements and schedules are filed herewith on the pages indicated:

	Page
<u>Report of Independent Registered Public Accounting Firm-KPMG LLP</u>	<u>F-1</u>
<u>Report of Independent Registered Public Accounting Firm-PricewaterhouseCoopers LLP</u>	<u>F-3</u>
<u>Consolidated Balance Sheets as of December 31, 2016 and 2015</u>	<u>F-4</u>
<u>Consolidated Statements of Operations for the Years Ended December 31, 2016, 2015 and 2014</u>	<u>F-5</u>
<u>Consolidated Statements of Comprehensive Income for the Years Ended December 31, 2016, 2015 and 2014</u>	<u>F-6</u>
<u>Consolidated Statements of Changes in Equity for the Years Ended December 31, 2016, 2015 and 2014</u>	<u>F-7</u>
<u>Consolidated Statements of Cash Flows for the Years Ended December 31, 2016, 2015 and 2014</u>	<u>F-8</u>
<u>Notes to the Consolidated Financial Statements</u>	<u>F-10</u>

2. Financial Statement Schedule

Schedule II - Valuation and Qualifying Account

(b) Exhibits

The exhibits listed in the accompanying "Index to Exhibits" are incorporated by reference to the filing indicated or are filed herewith.

SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) 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.

CORE LABORATORIES N.V.

By its sole managing director, Core Laboratories International B.V.

Date: February 10, 2017 By: /s/ JACOBUS SCHOUTEN

Jacobus Schouten

Managing Director of Core Laboratories International B.V.

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed below by the following persons on behalf of the Registrant and in the capacities indicated, on the 10th day of February, 2017.

Signature	Title
/s/ DAVID M. DEMSHUR David M. Demshur President, Chief Executive Officer, Chairman and Supervisory Director	/s/ RICHARD L. BERGMARK Richard L. Bergmark Executive Vice President, Chief Financial Officer and Supervisory Director
/s/ CHRIS S. HILL Chris S. Hill Vice President and Chief Accounting Officer	/s/ MARTHA Z. CARNES Martha Z. Carnes Supervisory Director
/s/ CHARLES L. DUNLAP Charles L. Dunlap Supervisory Director	/s/ MICHAEL C. KEARNEY Michael C. Kearney Supervisory Director
/s/ JAN WILLEM SODDERLAND Jan Willem Sodderland Supervisory Director	/s/ MICHAEL STRAUGHEN Michael Straughen Supervisory Director
/s/ LUCIA VAN GEUNS Lucia van Geuns Supervisory Director	/s/ MARGARET ANN VAN KEMPEN Margaret Ann van Kempen Supervisory Director

Report of Independent Registered Public Accounting Firm  
The Board of Supervisory Directors and Shareholders  
Core Laboratories N.V.:

We have audited the accompanying consolidated balance sheet of Core Laboratories N.V. and subsidiaries as of December 31, 2016, and the related consolidated statements of operations, comprehensive income, changes in equity, and cash flows for the year then ended. In connection with our audit of the consolidated financial statements, we also have audited financial statement schedule II - Valuation and Qualifying Account. These consolidated financial statements and financial statement schedule are the responsibility of the Core Laboratories N.V.'s management. Our responsibility is to express an opinion on these consolidated financial statements and financial statement schedule based on our audit.

We conducted our audit in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audit provides a reasonable basis for our opinion.

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the financial position of Core Laboratories N.V. and subsidiaries as of December 31, 2016, and the results of their operations and their cash flows for the year then ended, in conformity with U.S. generally accepted accounting principles. Also in our opinion, the related financial statement schedule, when considered in relation to the basic consolidated financial statements taken as a whole, presents fairly, in all material respects, the information set forth therein.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), Core Laboratories N.V.'s internal control over financial reporting as of December 31, 2016, based on criteria established in Internal Control – Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO) and our report dated February 10, 2017 expressed an unqualified opinion on the effectiveness of Core Laboratories N.V.'s internal control over financial reporting.

/s/ KPMG LLP

Houston, Texas  
February 10, 2017

F-1

---

Report of Independent Registered Public Accounting Firm  
The Board of Supervisory Directors and Shareholders  
Core Laboratories N.V.:

We have audited Core Laboratories N.V.'s internal control over financial reporting as of December 31, 2016, based on criteria established in Internal Control – Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). Core Laboratories N.V.'s management is responsible for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting, included in Management's Annual Report on Internal Control over Financial Reporting included in Item 9A of Core Laboratories N.V.'s Annual Report on Form 10-K. Our responsibility is to express an opinion on Core Laboratories N.V.'s internal control over financial reporting based on our audit.

We conducted our audit in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects. Our audit included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, and testing and evaluating the design and operating effectiveness of internal control based on the assessed risk. Our audit also included performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.

A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

In our opinion, Core Laboratories N.V. maintained, in all material respects, effective internal control over financial reporting as of December 31, 2016, based on criteria established in Internal Control – Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO).

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), the consolidated balance sheet of Core Laboratories N.V. and subsidiaries as of December 31, 2016, and the related consolidated statements of operations, comprehensive income, changes in equity, and cash flows for the year then ended, and our report dated February 10, 2017 expressed an unqualified opinion on those consolidated financial statements.

/s/ KPMG LLP  
Houston, Texas  
February 10, 2017

Report of Independent Registered Public Accounting Firm

To the Board of Supervisory Directors and Shareholders of Core Laboratories N.V.:

In our opinion, the consolidated balance sheet as of December 31, 2015 and the related consolidated statements of comprehensive income, stockholders' equity and cash flows for each of the two years in the period ended December 31, 2015 present fairly, in all material respects, the financial position of Core Laboratories N.V. (a Netherlands corporation) and its subsidiaries at December 31, 2015, and the results of their operations and their cash flows for each of the two years in the period ended December 31, 2015, in conformity with accounting principles generally accepted in the United States of America. In addition, in our opinion, the financial statement schedule for each of the two years in the period ended December 31, 2015 presents fairly, in all material respects, the information set forth therein when read in conjunction with the related consolidated financial statements. These financial statements and financial statement schedule are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements and financial statement schedule based on our audits. We conducted our audits of these financial statements in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements, assessing the accounting principles used and significant estimates made by management, and evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

/s/ PricewaterhouseCoopers LLP  
Houston, Texas  
February 12, 2016



CORE LABORATORIES N.V.  
 CONSOLIDATED BALANCE SHEETS

December 31, 2016 and 2015

(In thousands, except share and per share data)

2016	2015
ASSETS	
CURRENT	
ASSETS:	
Cash	
\$14,764	\$22,494
and cash equivalents	
Accounts receivable, net of allowance for doubtful accounts	
\$4,329	145,689
\$3,139	
and \$4,136 at 2016 and 2015, respectively	
\$3,710	40,906
Prepaid expenses	
10,711	12,053
Income receivable	
6,426	7,209
Other assets	
6,511	10,196
TOTAL CURRENT ASSETS	
238,547	
PROPERTY, PLANT AND EQUIPMENT, net	
143,211	
EQUIPMENT, net	
9,936	10,041
INTANGIBLES, net	
78,159	
GOODWILL	

DEFERRED  
 TAX  
 20,605 11,693  
 ASSETS,  
 net  
 OTHER  
 47,124 43,607  
 ASSETS  
 TOTAL  
 \$373,052 \$625,258  
 ASSETS  
 LIABILITIES  
 AND  
 EQUITY  
 (DEFICIT)  
 CURRENT  
 LIABILITIES:  
 Accounts  
 \$33,720 \$33,474  
 payable  
 Accrued  
 payroll  
 10,411 36,475  
 related  
 costs  
 Taxes  
 other  
 than  
 5,816 9,495  
 payroll  
 and  
 income  
 Unearned  
 15,690 14,101  
 revenues  
 Income  
 15,718 1,733  
 payable  
 Other  
 13,668 25,480  
 liabilities  
 TOTAL  
 CURRENT  
 120,758  
 LIABILITIES  
 LONG-TERM  
 163,8 430,987  
 net  
 DEFERRED  
 46,251 43,478  
 COMPENSATION  
 DEFERRED  
 TAX  
 6,277 4,881  
 LIABILITIES,  
 net  
 OTHER  
 LONG-TERM  
 18,853  
 LIABILITIES

COMMITMENTS  
AND  
CONTINGENCIES

EQUITY  
(DEFICIT):

Preference  
shares,  
EUR  
0.02  
par  
value;  
6,000,000 —  
shares  
authorized,  
none  
issued  
or  
outstanding  
Common  
shares,  
EUR  
0.02  
par  
value;  
200,000,000  
shares  
authorized,  
44,796,252  
issued  
and  
1,148 1,142  
44,151,261  
outstanding  
at  
2016  
and  
44,350,002  
issued  
and  
42,375,905  
outstanding  
at  
2015  
Additional  
paid-in capital 21,850 —  
Retained  
earnings 187,957 219,207  
(Accumulated) other comprehensive (10,538 )

income  
 (loss)  
 Treasury  
 shares  
 (at  
 cost),  
 644,991  
 (80,773 ) (238,875 )  
 2016  
 and  
 1,974,097  
 at  
 2015  
 Total  
 Core  
 Laboratories  
 151,354 (29,064 )  
 shareholders'  
 equity  
 (deficit)  
 Non-controlling  
 3,943 5,365  
 interest  
 TOTAL  
 EQUITY (23,699 )  
 (DEFICIT)  
 TOTAL  
 LIABILITIES  
 170,052 \$625,258  
 EQUITY  
 (DEFICIT)

The accompanying notes are an integral part of these Consolidated Financial Statements.

CORE LABORATORIES N.V.  
CONSOLIDATED STATEMENTS OF OPERATIONS  
For the Years Ended December 31, 2016, 2015 and 2014  
(In thousands, except per share data)

2016	2015	2014
REVENUE:		
\$470,259	\$611,954	\$780,872
Product sales	185,566	304,350
Total Revenue	797,520	1,085,222
OPERATING EXPENSES:		
Cost of services, exclusive of depreciation shown below	387,739	449,488
Cost of product sales, exclusive of depreciation shown below	144,913	215,783
General and administrative expenses, exclusive of depreciation shown below	49,729	45,655
Depreciation and amortization	16,545	25,297
Other (income) expense, net	3,669	1,069
Severance and other	22,943	—

charges			
OPERATING			
86,179	161,070	346,531	
INCOME			
Interest			
11,572	12,380	10,600	
expense			
Income			
before			
74,607	148,690	335,931	
tax			
expense			
Income			
10,748	33,758	77,305	
expense			
Net			
63,859	114,932	258,626	
income			
Net			
income			
attributable			
(36	) 85	1,141	
to			
non-controlling			
interest			
Net			
income			
attributable			
63,895	\$ 114,847	\$ 257,485	
Core			
Laboratories			
N.V.			
EARNINGS			
PER			
SHARE			
INFORMATION:			
Basic			
earnings			
per			
share			
attributable	\$ 2.69	\$ 5.80	
to			
Core			
Laboratories			
N.V.			
Diluted			
earnings			
per			
share			
attributable	\$ 2.68	\$ 5.77	
to			
Core			
Laboratories			
N.V.			
\$ 2.20	\$ 2.20	\$ 2.00	

Cash  
dividends  
per  
share

WEIGHTED  
AVERAGE  
COMMON  
SHARES

OUTSTANDING:

<del>33,479</del>	42,747	44,362
<del>11,670</del>	42,908	44,600

The accompanying notes are an integral part of these Consolidated Financial Statements.

F-5

---

CORE LABORATORIES N.V.  
CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME  
For the Years Ended December 31, 2016, 2015 and 2014  
(In thousands)

	2016	2015	2014
Net income	\$63,859	\$114,932	\$258,626
Other comprehensive income:			
Derivatives			
Changes in fair value of interest rate swaps	(293 )	(1,471 )	(1,327 )
Interest rate swap amounts reclassified to interest expense	829	971	245
Income taxes on derivatives	(197 )	583	—
Total derivatives	339	83	(1,082 )
Pension and other postretirement benefit plans			
Adjustment of unrecognized pension actuarial gain (loss)	(17 )	1,151	(4,399 )
Prior service credit arising during period	—	—	1,024
Prior service cost			
Amortization to net income of transition asset	—	(96 )	(87 )
Amortization to net income of prior service cost	(81 )	(85 )	7
Amortization to net income of actuarial loss	593	727	540
Income taxes on pension and other postretirement benefit plans	(124 )	(424 )	729
Total pension and other postretirement benefit plans	371	1,273	(2,186 )
Total other comprehensive income (loss)	710	1,356	(3,268 )
Comprehensive income	64,569	116,288	255,358
Comprehensive income attributable to non-controlling interests	(36 )	85	1,141
Comprehensive income attributable to Core Laboratories N.V.	\$64,605	\$116,203	\$254,217



The accompanying notes are an integral part of these Consolidated Financial Statements.

F-6

---

CORE LABORATORIES N.V.  
CONSOLIDATED STATEMENTS OF CHANGES IN EQUITY  
For the Years Ended December 31, 2016, 2015 and 2014  
(In thousands, except share data)

	Common Shares Number of Shares	Par Value	Additional Paid-In Capital	Retained Earnings	Accumulated Other Comprehensive Income (Loss)	Treasury Stock Number of Shares	Amount	Non- Controlling Interest	Total Equity
BALANCE, December 31, 2013	46,750,002	\$ 1,203	\$ —	\$ 415,930	\$ (8,626 )	1,648,613	\$(245,184)	\$ 6,066	\$ 169,389
Stock-based compensation, net of awards issued	—	—	1,295	(12,683 )	—	(216,395 )	31,858	—	20,470
Tax benefit of stock-based awards issued	—	—	3,020	—	—	—	—	—	3,020
Repurchases of common shares	—	—	—	—	—	1,680,800	(264,368 )	—	(264,368 )
Dividends paid	—	—	—	(89,089 )	—	—	—	—	(89,089 )
Cancellation of treasury shares	(1,150,000 )	(29 )	(4,315 )	(155,737 )	—	(1,150,000 )	160,081	—	—
Non-controlling interest dividend	—	—	—	—	—	—	—	(787 )	(787 )
Other comprehensive income	—	—	—	—	(3,268 )	—	—	—	(3,268 )
Net income (loss)	—	—	—	257,485	—	—	—	1,141	258,626
BALANCE, December 31, 2014	45,600,002	\$ 1,174	\$ —	\$ 415,906	\$ (11,894 )	1,963,018	\$(317,613)	\$ 6,420	\$ 93,993
Stock-based compensation, net of awards issued	—	—	3,267	(11,044 )	—	(183,455 )	29,056	—	21,279
Tax benefit of stock-based awards issued	—	—	(175 )	—	—	—	—	—	(175 )
Repurchases of common shares	—	—	—	—	—	1,444,534	(159,709 )	—	(159,709 )
Dividends paid	—	—	—	(94,235 )	—	—	—	—	(94,235 )
Cancellation of treasury shares	(1,250,000 )	(32 )	(3,092 )	(206,267 )	—	(1,250,000 )	209,391	—	—
Non-controlling interest dividend	—	—	—	—	—	—	—	(1,140 )	(1,140 )
Other comprehensive income	—	—	—	—	1,356	—	—	—	1,356
Net income (loss)	—	—	—	114,847	—	—	—	85	114,932

Edgar Filing: CORE LABORATORIES N V - Form 10-K

BALANCE, December 31, 2015	44,350,002	\$1,142	\$—	\$219,207	\$(10,538)	1,974,097	\$(238,875)	\$5,365	\$(23,699)
Stock-based compensation, net of awards issued	—	—	(197)	—	—	(141,106)	22,276	—	22,079
Tax benefit of stock-based awards issued	—	—	(1,162)	—	—	—	—	—	(1,162)
Repurchases of common shares	—	—	—	—	—	62,000	(7,161)	—	(7,161)
Dividends paid	—	—	—	(95,145)	—	—	—	—	(95,145)
Issuance of common shares	1,696,250	38	197,164	—	—	—	—	—	197,202
Cancellation of treasury shares	(1,250,000)	(32)	(142,955)	—	—	(1,250,000)	142,987	—	—
Non-controlling interest dividend	—	—	—	—	—	—	—	(1,386)	(1,386)
Other comprehensive income	—	—	—	—	710	—	—	—	710
Net income (loss)	—	—	—	63,895	—	—	—	(36)	63,859
BALANCE, December 31, 2016	44,796,252	\$1,148	\$52,850	\$187,957	\$(9,828)	644,991	\$(80,773)	\$3,943	\$155,297

The accompanying notes are an integral part of these Consolidated Financial Statements.

CORE LABORATORIES N.V.  
 CONSOLIDATED STATEMENTS OF CASH FLOWS  
 For the Years Ended December 31, 2016, 2015 and 2014

(In thousands)

2016	2015	2014
CASH FLOWS FROM OPERATING ACTIVITIES:		
Net income	\$63,859	\$114,932
Adjustments to reconcile net income to net cash provided by operating activities:		
Stock-based compensation	22,079	21,279
Depreciation and amortization	26,872	27,457
Non-cash interest expense	501	702
(Increase) decrease in value of life insurance policies	(824)	909
Deferred taxes	(14,385)	(107)
Asset impairments	5,199	—
Net (recovery) provision for	2,592	1,243

doubtful accounts Other			
(1,399)	(860 )	(466 )	
items			
Changes in assets and liabilities, net of effects of acquisitions:			
Accounts receivable	31,584	49,261	3,486
Intangibles	1,210	3,049	2,894
Prepaid expenses and other	2,657	7,744	(10,088 )
current assets			
Other assets	340	2,652	680
Accounts payable	(1,036 )	(13,353 )	(3,021 )
Accrued expenses	(6,738 )	(9,723 )	(2,611 )
Other long-term liabilities	587	4,275	1,873
Unearned revenue	1,589	3,092	121
Net cash provided by operating activities	131,887	219,100	303,449
CASH FLOWS FROM INVESTING ACTIVITIES:			
Capital expenditures	(11,356 )	(22,797 )	(36,586 )
Patents and other	(48 )	(1,460 )	(854 )

intangibles  
 Acquisitions,  
 net  
 (6,242 ) (13,774 ) (1,200 )  
 cash  
 acquired  
 Proceeds  
 from  
~~740~~ 1,320 884  
 of  
 assets  
 Premiums  
 on  
 (2,515 ) (2,943 ) (4,310 )  
 life  
 insurance  
 Net  
 cash  
 used  
 (14,721 ) (39,654 ) (42,066 )  
 in  
 investing  
 activities  
**CASH  
 FLOWS  
 FROM  
 FINANCING  
 ACTIVITIES:**  
 Repayment  
 of  
 (316,244 ) (139,656 ) (128,162 )  
 debt  
 borrowings  
 Proceeds  
 from  
 99,000 215,000 217,000  
 debt  
 borrowings  
 Excess  
 tax  
 benefits  
 (1,162 ) (175 ) 3,020  
 from  
 stock-based  
 payments  
 Debt  
 financing (387 ) (1,128 )  
 costs  
 Non-controlling  
 interest  
 (1,386 ) (1,140 ) (394 )  
 dividend  
 Dividends  
 (95,145 ) (94,235 ) (89,089 )  
 paid  
 Repurchase  
 (159,709 ) (264,368 )  
 of

common  
 shares  
 Issuance  
 of  
 197,202 — —  
 common  
 shares  
 Net  
 cash  
 used  
 (124,896) (180,302 ) (263,121 )  
 in  
 financing  
 activities  
 NET  
 CHANGE  
 IN  
 CASH ) (856 ) (1,738 )  
 AND  
 CASH  
 EQUIVALENTS  
 CASH  
 AND  
 CASH  
 EQUIVALENTS, 25,088  
 beginning  
 of  
 year  
 CASH  
 AND  
 CASH  
 EQUIVALENTS, \$23,350  
 end  
 of  
 year

The accompanying notes are an integral part of these Consolidated Financial Statements.

CORE LABORATORIES N.V.  
 CONSOLIDATED STATEMENTS OF CASH FLOWS (Continued)  
 For the Years Ended December 31, 2016, 2015 and 2014  
 (In thousands)

	2016	2015	2014
Supplemental disclosures of cash flow information:			
Cash payments for interest	\$11,248	\$12,313	\$10,272
Cash payments for income taxes	\$12,181	\$35,523	\$79,644
Non-cash investing and financing activities:			
Capital expenditures incurred but not paid for as of the end of the year	\$1,627	\$483	\$1,009
Insurance premium financed	\$—	\$2,228	\$—



The accompanying notes are an integral part of these Consolidated Financial Statements.

F-9

---

CORE LABORATORIES N.V.  
NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS  
DECEMBER 31, 2016

## 1. DESCRIPTION OF BUSINESS

Core Laboratories N.V. ("Core Laboratories", "we", "our" or "us") is a Netherlands limited liability company. We were established in 1936 and are one of the world's leading providers of proprietary and patented reservoir description, production enhancement and reservoir management services to the oil and gas industry. These services are directed toward enabling our clients to improve reservoir performance and increase oil and gas recovery from their producing fields. We have over 70 offices in more than 50 countries and have approximately 4,400 employees.

We operate our business in three reportable segments. These complementary segments provide different services and products and utilize different technologies for improving reservoir performance and increasing oil and gas recovery from new and existing fields: (1) Reservoir Description, (2) Production Enhancement and (3) Reservoir Management. For a description of product types and services offered by these business segments, see Note 18 - Segment Reporting.

## 2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

### Principles of Consolidation

The accompanying Consolidated Financial Statements have been prepared in accordance with generally accepted accounting principles in the U.S. ("U.S. GAAP" or "GAAP"), and include the accounts of Core Laboratories and its subsidiaries for which we have a controlling voting interest and/or a controlling financial interest. The equity method of accounting is used to record our interest in investments in which we have less than a majority interest and do not exercise control but do exert significant influence. We use the cost method to record certain other investments in which we own less than 20% of the outstanding equity and do not exercise control or exert significant influence. We record non-controlling interest associated with consolidated subsidiaries that are less than 100% owned. All inter-company transactions and balances have been eliminated in consolidation.

### Use of Estimates

The preparation of financial statements in accordance with U.S. GAAP requires management to make certain estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of assets and liabilities at the date of the financial statements and the reported amounts of revenue and expenses during the reporting period. We evaluate our estimates on an ongoing basis and utilize our historical experience, as well as various other assumptions that we believe are reasonable in a given circumstance, in order to make these estimates. Actual results could differ from our estimates, as assumptions and conditions change.

The following accounts, among others, require us to use critical estimates and assumptions:

- allowance for doubtful accounts;
- inventory reserves;
- depreciation and amortization;
- long-lived assets, intangibles and goodwill;
- income taxes;
- pensions and other postretirement benefits; and
- stock-based compensation.

Accounting policies relating to these accounts and the nature of these estimates are further discussed under the applicable caption. For each of these critical estimates it is at least reasonably possible that changes in these estimates

will occur in the short term which may impact our financial position or results of operations.

#### Cash and Cash Equivalents

Cash and cash equivalents include all short-term, highly liquid instruments purchased with an original maturity of three months or less. These items are carried at cost, which approximates fair value.

F-10

---

### Concentration of Credit Risk

Our financial instruments that potentially subject us to concentrations of credit risk relate primarily to cash and cash equivalents and trade accounts receivable. All cash and cash equivalents are on deposit at commercial banks or investment firms with significant financial resources. Our trade receivables are with a variety of domestic, international and national oil and gas companies. We had no clients who provided more than 10% of our revenue for the years ended December 31, 2016, 2015 and 2014. We consider our credit risk related to trade accounts receivable to be limited due to the creditworthiness and financial resources of our clients. We evaluate our estimate of the allowance for doubtful accounts on an on-going basis throughout the year.

### Concentration of Interest Rate Risk

We are exposed to interest rate risk on our revolving credit facility (the "Credit Facility") debt, which carries a variable interest rate. We are exposed to interest rate risk on our Senior Notes which carry a fixed interest rate, but whose fair value will fluctuate based on changes in interest rates and market perception of our credit risk.

### Derivative Instruments

We may enter into a variety of derivative instruments in connection with the management of our exposure to fluctuations in interest rates or currency exchange rates. See Note 14 - Derivative Instruments and Hedging Activities.

We do not enter into derivatives for speculative purposes.

### Accounts Receivable

Trade accounts receivable are recorded at their invoiced amounts and do not bear interest. We perform ongoing credit evaluations of our clients and monitor collections and payments in order to maintain a provision for estimated uncollectible accounts based on our historical collection experience and our current aging of client receivables outstanding, in addition to client's representations and our understanding of the economic environment in which our clients operate. Based on our review we establish or adjust allowances for specific clients and the accounts receivable as a whole, and recognize expense. When an account is determined to be uncollectible, we charge the receivable to our allowance for doubtful accounts. Our allowance for doubtful accounts totaled \$3.1 million and \$4.1 million at December 31, 2016 and 2015, respectively. The net carrying value of accounts receivable is considered to be representative of its respective fair value.

### Inventories

Inventories consist of manufactured goods, materials and supplies used for sales or services to clients. Inventories are stated at the lower of cost or estimated net realizable value. Inventory costs are recorded at standard cost which approximates the first-in, first-out method.

### Prepaid Expenses and Other Current Assets

Prepaid expenses and other current assets are comprised primarily of prepaid insurance, value added taxes and prepaid rents.

Prior to 2016, this account also included current deferred income taxes. On January 1, 2016, we early adopted ASU 2015-17 ("Balance Sheet Classification of Deferred Taxes") issued by the FASB in November 2015 to simplify the presentation of deferred income taxes. The amendments in this update require that deferred tax liabilities and assets be

classified as non-current in a classified statement of financial position. As we applied the adoption prospectively, the comparative prior period Consolidated Balance Sheet as of December 31, 2015 has not been retrospectively adjusted. The adoption of this standard had no effect on our current Consolidated Statements of Operations and Consolidated Statements of Cash Flows.

#### Property, Plant and Equipment

Property, plant and equipment are carried at cost less accumulated depreciation. Major renewals and improvements are capitalized while maintenance and repair costs are charged to expense as incurred. They are depreciated using the straight-line method based on their individual estimated useful lives, except for leasehold improvements, which are depreciated over the remaining lease term, if shorter. We estimate the useful lives and salvage values of our assets based on historical data as follows:

F-11

---

Buildings and leasehold improvements 3 - 40 years  
Machinery and equipment 3 - 10 years

When long-lived assets are sold or retired, the remaining costs and related accumulated depreciation are removed from the accounts and any resulting gain or loss is included in income. These capitalized long-lived assets could become impaired if our operating plans or business environment changes.

We review our long-lived assets, including definite-lived intangible assets, for impairment when events or changes in circumstances indicate that their net book value may not be recovered over their remaining service lives. Indicators of possible impairment may include significant declines in activity levels in regions where specific assets or groups of assets are located, extended periods of idle use, declining revenue or cash flow or overall changes in general market conditions.

Whenever possible impairment is indicated, we compare the carrying value of the assets to the sum of the estimated undiscounted future cash flows expected from use, plus salvage value, less the costs of the subsequent disposition of the assets. If impairment is still indicated, we compare the fair value of the assets to the carrying amount, and recognize an impairment loss for the amount by which the carrying value exceeds the fair value. We did not record any material impairment charges relating to our long-lived assets held for use during the years ended December 31, 2016, 2015 or 2014.

#### Intangibles and Goodwill

Intangible assets, including patents, trademarks, and trade names, are carried at cost less accumulated amortization. Intangibles with determinable lives are amortized using the straight-line method based on the estimated useful life of the intangible. Intangibles with indeterminable lives, which consist primarily of corporate trade names, are not amortized, but are tested for impairment annually or whenever events or changes in circumstances indicate that impairment is possible.

We record goodwill as the excess of the purchase price over the fair value of the net assets acquired in acquisitions accounted for under the purchase method of accounting. We test goodwill for impairment annually, or more frequently if circumstances indicate possible impairment.

We evaluated our goodwill for impairment by comparing the fair value of each of our reporting units, which are our reportable segments, to their net carrying value as of the balance sheet date. We estimated the fair value of each reporting unit using a discounted future cash flow analysis. Estimated future cash flows were based on the Company's best estimate of future performance. Our impairment analysis is quantitative; however, it includes subjective estimates based on assumptions regarding future growth rates, interest rates and operating expenses. If the carrying value of the reporting unit exceeds the fair value determined, an impairment loss is recorded to the extent that the implied fair value of the goodwill of the reporting unit is less than its carrying value. Any subsequent impairment loss could result in a material adverse effect upon our financial position and results of operations. We did not record impairment charges relating to our goodwill or our indefinite-lived intangible assets during the years ended December 31, 2016, 2015 or 2014.

We have never identified nor recorded any impairments relating to the goodwill of our current continuing operations.

#### Other Assets

Cash surrender value of life insurance relates to postretirement benefit plans. See Note 10 - Pension and Other Postretirement Benefit Plans. Investments include unconsolidated affiliates accounted for under the equity method

where the operations of these entities are in-line with those of our core businesses. These entities are not considered special purpose entities nor do we have special off-balance sheet arrangements through these entities.

Other assets consisted of the following (in thousands):

2016	2015
Cash	
surrender	
value	
\$39,059	\$36,087
of	
life	
insurance	
Investments	
in	
3,224	2,719
unconsolidated	
affiliates	
Other	4,801
Total	
\$47,124	\$43,607
assets	

### Accounts Payable

Trade accounts payable are recorded at their invoiced amounts and do not bear interest. The carrying value of accounts payable is considered to be representative of its respective fair value.

### Income Taxes

We recognize deferred tax assets and liabilities for the expected future tax consequences of events that have been included in the Consolidated Financial Statements or tax returns. Deferred tax assets and liabilities are determined based on the difference between the financial statement and the tax basis of assets and liabilities using enacted tax rates in effect for the year in which the asset is recovered or the liability is settled. We include interest and penalties from tax judgments in income tax expense.

We record a liability for unrecognized tax benefits resulting from uncertain tax positions taken or expected to be taken in our tax return. We also recognize interest and penalties, if any, related to unrecognized tax benefits in income tax expense. See Note 9 - Income Taxes.

### Comprehensive Income

Comprehensive income is comprised of net income and other charges or credits to equity that are not the result of transactions with owners. Other comprehensive income consists of prior service costs and an unrecognized net actuarial gain and loss from a pension plan and changes in the fair value of our interest rate swaps. See Note 10 - Pension and Other Postretirement Benefit Plans and Note 14 - Derivative Instruments and Hedging Activities.

### Revenue Recognition

We recognize revenue when we determine that the following criteria are met: (i) persuasive evidence of an arrangement exists; (ii) delivery has occurred or services have been rendered; (iii) the fee is fixed or determinable; and (iv) collectability is reasonably assured.

**Services Revenue:** We provide a variety of services to clients in the oil and gas industry. Where services are provided related to the testing and analysis of rock and fluids, we recognize revenue upon the provision of the test results or analysis to the client. For our design, field engineering and completion diagnostic services, we recognize revenue upon the delivery of those services at the well site. In the case of our consortium studies, revenue is recognized when the reservoir model solution is presented to our clients. We conduct testing and provide analysis services in support of our consortium studies recognizing revenue as the testing and analysis results are made available to our consortium members.

**Product Sales Revenue:** We manufacture equipment that we sell to our clients in the oil and gas well industry. Revenue is recognized when title to that equipment passes to the client, which is typically when the product is shipped to the client or picked up by the client at our facilities, as set out in the contract.

All advance client payments are classified as unearned revenue until services are performed or product title is transferred.

### Foreign Currencies

Our functional currency is the U.S. Dollar ("USD"). All inter-company financing, transactions and cash flows of our subsidiaries are transacted in USD. Our foreign entities remeasure monetary assets and liabilities to USD at year-end



exchange rates, while non-monetary items are measured at historical rates. Revenue and expenses are remeasured at the applicable month-end rate, except for depreciation, amortization and certain components of cost of sales, which are measured at historical rates. For the year ended December 31, 2016, we incurred a net remeasurement loss of approximately \$1.8 million, while in the year ended December 31, 2015, we incurred a net remeasurement loss of approximately \$4.5 million, and a net remeasurement loss of approximately \$4.2 million in the year ended December 31, 2014. These amounts were included in Other (Income) Expense, net in the accompanying Consolidated Statements of Operations.

#### Pensions and Other Postretirement Benefits

We provide a non-contributory defined benefit pension plan covering substantially all of our Dutch employees ("Dutch Plan") who were hired prior to 2007. As required by current accounting standards, we recognize net periodic pension costs associated with the Dutch plan in income from current operations and recognize the unfunded status of the plan, if any, as a long-term liability. In addition, we recognize as a component of other comprehensive income, the gains or losses and prior

F-13

---

service costs or credits that arise during the period but are not recognized as components of net periodic pension cost. The projection of benefit obligation and fair value of plan assets requires the use of assumptions and estimates. Actual results could differ from those estimates. See Note 10 - Pension and Other Postretirement Benefit Plans.

Furthermore, we maintain defined contribution plans for the benefit of eligible employees primarily in Canada, The Netherlands, the United Kingdom, and the United States. We expense these contributions in the period the contribution is made.

#### Non-controlling Interests

We maintain non-controlling interests in several investment ventures and disclose such interests clearly as a portion of equity separate from the parent's equity. The amount of consolidated net income attributable to these non-controlling interests must also be clearly presented on the Consolidated Statements of Operations. In addition, when a subsidiary is deconsolidated, any retained non-controlling equity investment in the former subsidiary will be initially measured at fair value and recorded as a gain or loss.

#### Stock-Based Compensation

We have two stock-based compensation plans, as described in further detail in Note 13 - Stock-Based Compensation. For new awards issued and awards modified, repurchased or canceled, the compensation expense is equal to the fair value of the award at the date of the grant and is recognized in the Consolidated Statements of Operations for those awards earned over the requisite service period of the award.

#### Earnings Per Share

We compute basic earnings per common share by dividing net income attributable to Core Laboratories N.V. by the weighted average number of common shares outstanding during the period. Diluted earnings per common and potential common share include additional shares in the weighted average share calculations associated with the incremental effect of dilutive employee stock options, restricted stock awards and contingently issuable shares, as determined using the treasury stock method. The following table summarizes the calculation of weighted average common shares outstanding used in the computation of diluted earnings per share (in thousands):

	For the Years Ended December 31,		
	2016	2015	2014
Weighted average basic common shares outstanding	43,479	42,747	44,362
Effect of dilutive securities:			
Performance shares	127	98	110
Restricted stock	64	63	128
Weighted average diluted common and potential common shares outstanding	43,670	42,908	44,600

### 3. ACQUISITIONS

We had no significant acquisitions during the year ended December 31, 2016.

In 2015, we acquired a business providing additional reservoir fluids technology which was accounted for by allocating the purchase price to the net assets acquired based on their estimated fair values at the date of acquisition. The acquisition of this entity did not have a material impact on our Consolidated Balance Sheets or Consolidated Statements of Operations, and was recorded in the Reservoir Description business segment.

F-14

---

## 4. INVENTORIES

Inventories consisted of the following at December 31, 2016 and 2015 (in thousands):

2016	2015
Finished goods	\$25,778
Parts and materials	12,637
Work in progress	2,491
Total inventories	\$40,906

We include freight costs incurred for shipping inventory to our clients in the Cost of product sales caption in the accompanying Consolidated Statements of Operations.

## 5. PROPERTY, PLANT AND EQUIPMENT, NET

The components of property, plant and equipment, net were as follows at December 31, 2016 and 2015 (in thousands):

2016	2015
Buildings and leasehold improvements	\$7,894
Machinery and equipment	263,858
Total property, plant and equipment	383,492
Less accumulated depreciation	(240,281)
Property, plant and equipment, net	\$143,211

## 6. INTANGIBLES, NET

The components of intangibles, net as of December 31, 2016 and 2015 are as follows (in thousands):

Edgar Filing: CORE LABORATORIES N V - Form 10-K

Original life in years	2016		2015	
	Gross Carrying Value	Accumulated Amortization	Gross Carrying Value	Accumulated Amortization
Acquired <del>finite</del> secrets	\$3,390	\$ 1,405	\$3,065	\$ 1,086
Acquired patents and trademarks	5,043	1,809	7,869	4,677
Agreements not to compete	839	690	894	586
Acquired <del>finite</del> indefinite names	4,568	—	4,562	—
Total intangibles, net	\$13,840	\$ 3,904	\$16,390	\$ 6,349

Our estimated amortization expense relating to these intangibles for the next five years is summarized in the following table (in thousands):

2017	\$1,008
2018	\$967
2019	\$861
2020	\$703
2021	\$613

## 7. GOODWILL

The changes in the carrying amount of goodwill for each reportable segment for the years ended December 31, 2016, and 2015 were as follows (in thousands):

Reservoir Description	Production Enhancement	Reservoir Management	Total
Balance at			
December 31, 2014	\$ 79,560	\$ 2,845	\$ 164,464
Goodwill acquired during the year			
December 31, 2015	—	—	13,695
Balance at			
December 31, 2015	79,560	2,845	178,159
Goodwill acquired during the year			
December 31, 2016	—	—	885
Balance at			
December 31, 2016	\$ 79,560	\$ 2,845	\$ 179,044

## 8. DEBT, NET

We have no capital lease obligations. Debt at December 31, 2016 and 2015 is summarized in the following table (in thousands):

	December 31, 2016	December 31, 2015
Senior Notes	\$ 150,000	\$ 150,000
Credit Facility	68,000	283,000
Other indebtedness	—	2,244
Total debt	218,000	435,244
Less: Short-term debt included in other indebtedness	—	(2,244 )
Less: Debt issuance costs	(1,512 )	(2,013 )
Long-term debt, net	\$ 216,488	\$ 430,987

In 2011, we issued two series of senior notes with an aggregate principal amount of \$150 million ("Senior Notes") in a private placement transaction. Series A consists of \$75 million in aggregate principal amount of notes that bear interest at a fixed rate of 4.01% and are due in full on September 30, 2021. Series B consists of \$75 million in

aggregate principal amount of notes that bear interest at a fixed rate of 4.11% and are due in full on September 30, 2023. Interest on each series of the Senior Notes is payable semi-annually on March 30 and September 30.

In 2015, we entered into an agreement to amend our Credit Facility to increase the aggregate borrowing capacity from \$350 million to \$400 million and to keep the uncommitted availability of an additional \$50 million to bring the total borrowings available to \$450 million if certain prescribed conditions are met by the Company. The Credit Facility bears interest at variable rates from LIBOR plus 1.25% to a maximum of LIBOR plus 2.0%.

Any outstanding balance under the Credit Facility is due August 29, 2019, when the Credit Facility matures. Interest payment terms are variable depending upon the specific type of borrowing under this facility. Our available capacity at any point in time is subject to all terms of the agreements, and is reduced by borrowings outstanding at the time and outstanding letters of credit which totaled \$25.8 million at December 31, 2016, resulting in an available borrowing capacity under the Credit Facility of \$306.2 million. In addition to those items under the Credit Facility, we had \$15.0 million of outstanding letters of credit and performance guarantees and bonds from other sources as of December 31, 2016.

The terms of the Credit Facility and Senior Notes require us to meet certain covenants, including, but not limited to, an interest coverage ratio (consolidated EBITDA divided by interest expense) and a leverage ratio (consolidated net indebtedness divided by consolidated EBITDA), where consolidated EBITDA (as defined in each agreement) and interest expense are calculated using the most recent four fiscal quarters. The Credit Facility has the more restrictive covenants with a minimum interest coverage ratio of 3.0 to 1.0 and a maximum leverage ratio of 2.5 to 1.0. We believe that we are in compliance with all such covenants contained in our credit agreements. Certain of our material, wholly-owned subsidiaries are guarantors or co-borrowers under the Credit Facility and Senior Notes.

In 2014, we entered into two interest rate swap agreements to hedge changes in the variable interest rate on our LIBOR-priced debt. See Note 14 - Derivative Instruments and Hedging Activities for discussion of our derivative instruments.

Other indebtedness at December 31, 2015 includes approximately \$2.2 million of debt incurred relating to the financing of our corporate insurance. We did not finance our corporate insurance in 2016.

The estimated fair value of total debt at December 31, 2016 and 2015 approximated the book value of total debt. The fair value was estimated using Level 2 inputs by calculating the sum of the discounted future interest and principal payments through the date of maturity.

## 9. INCOME TAXES

The components of income before income tax expense for 2016, 2015 and 2014 are as follows (in thousands):

2016	2015	2014
United States	\$ 34,723	\$ 55,143
Other countries	39,884	180,988
Income before tax expense	\$ 74,607	\$ 335,931

The components of income tax expense for 2016, 2015 and 2014 are as follows (in thousands):

2016	2015	2014
Current:		
United States	\$(2,469)	\$ 44,350
Other countries	16,533	23,546
State provincial	600	4,727
Total current	14,664	72,623
Deferred:		
United States	1,844	(2,905)
Other countries	(5,845)	2,947
State provincial	85d	(149)
Total deferred	(3,916)	4,682
Income tax expense	\$ 10,748	\$ 77,305

The differences in income tax expense computed using The Netherlands statutory income tax rate of 25%, 25% and 25% in 2016, 2015 and 2014, respectively, and our income tax expense as reported in the accompanying Consolidated



Edgar Filing: CORE LABORATORIES N V - Form 10-K

Statements of Operations for 2016, 2015 and 2014 are as follows (in thousands):

2016	2015	2014
Tax		
at		
The		
Netherlands	\$37,173	\$83,983
income		
tax		
rate		
International		
earnings		
taxed		
at		
rates		
of 16.40 )	(14,066 )	(6,721 )
than		
The		
Netherlands		
statutory		
rate		
Non-deductible		
expenses	2,832	2,807
Change		
in		
valuation		
allowance		
State		
and		
provincial	1,133	3,339
taxes		
Adjustments		
of		
paid	483	(2,973 )
year		
taxes		
Adjustments		
of		
income	(1,205 )	(1,570 )
tax		
reserves		
Foreign		
exchange	4,358	1,659
Other	(575 )	(4,369 )
Income		
expense	\$33,758	\$77,305
expense	\$10,748	

F-17

---

Deferred tax assets and liabilities result from various temporary differences between the financial statement carrying amount and their tax basis. Deferred tax assets and liabilities as of December 31, 2016 and 2015 are summarized as follows (in thousands):

2016	2015
Deferred tax assets:	
Net operating loss carry-forwards	
\$9,885	\$8,045
Tax credit carry-forwards	
1,925	934
Accruals for compensation	
14,573	14,937
Accruals for inventory capitalization	
2,587	2,738
Unrealized benefit plan loss	
4,931	5,571
Unrealized foreign exchange	
7,221	7,994
Other	
2,208	3,247
Total deferred tax assets	
45,330	43,466
Valuation allowance	
(9,663)	(10,862)
Net deferred tax asset	
35,367	32,604
Deferred tax liabilities:	
Intangibles	
(7,061)	(5,876)
Property, plant and equipment	
(5,774)	(8,372)
—	(10,111)

Accrued  
 interest  
 Unrealized  
 foreign exchange (1,206 ) (6,421 )  
 Other (1,998 ) (1,579 )  
 Total  
 deferred tax liabilities (21,039 ) (32,359 )  
 Net  
 deferred income taxes \$14,328 \$245

2016	2015
Current deferred tax assets	
\$—	\$3,164
Current deferred tax liabilities	
	(9,731 )
Long-term deferred tax assets	
20,605	11,693
Long-term deferred tax liabilities	
(6,277 )	(4,881 )
Total deferred tax assets (liabilities)	
\$14,328	\$245

(1) Valuation  
 allowance at 12/31/14  
 was \$7.2 million.

We have not provided for deferred taxes on the unremitted earnings of certain subsidiaries that we consider to be indefinitely reinvested. Should we make a distribution of the unremitted earnings of these subsidiaries, we may be required to record additional taxes. As of December 31, 2016, we consider \$281.0 million to be indefinitely reinvested. Repatriation of these earnings would be subject to income and withholding taxes estimated at approximately \$26.6 million. There are no restrictions preventing any of our subsidiaries from repatriating earnings, and there are no restrictions or income taxes associated with distributing cash to the parent company through loans or advances.

At December 31, 2016, we had tax net operating loss carry-forwards in various tax jurisdictions of approximately \$38.8 million. Although we cannot be certain that these operating loss carry-forwards will be utilized, we anticipate that we will have sufficient taxable income in future years to allow us to fully utilize the carry-forwards that are not subject to a valuation allowance. As of December 31, 2016, if unused, \$3.5 million will expire between 2017-2019, \$5.0 million will expire between 2020-2022, \$22.0 million will expire between 2023-2026 and \$4.6 million will expire beyond 2026. The remaining balance of \$3.7 million is not subject to expiration. During 2016, \$0.1 million of net operating loss carry-forwards, which carried a full valuation allowance, expired unused.

We file income tax returns in the U.S. federal jurisdiction, various states and foreign jurisdictions. We are currently undergoing multiple examinations in various jurisdictions, and the years 1999 through 2015 remain open for examination in various tax jurisdictions in which we operate. The ultimate settlement and timing of these additional tax assessments is uncertain but the Company will continue to vigorously defend its return filing position and does not view the assessments as probable at this time.

F-18

---

During 2016, adjustments were made to estimates for uncertain tax positions in certain tax jurisdictions based upon changes in facts and circumstances, resulting in a reduction to the unrecognized tax benefits. A reconciliation of the beginning and ending amount of unrecognized tax benefits is as follows (in thousands):

	2016	2015	2014
Unrecognized tax benefits at January 1,	\$9,964	\$11,747	\$12,385
Tax positions, current period	983	1,044	1,441
Tax positions, prior period	83	(640)	56
Settlements with taxing authorities	(1,657)	(1,371)	(947)
Lapse of applicable statute of limitations	(816)	(816)	(1,188)
Unrecognized tax benefits at December 31,	\$8,557	\$9,964	\$11,747

Changes in our estimate of, or the recognition of, the unrecognized tax benefits shown in the table above would affect our effective tax rate.

Our policy is to record accrued interest and penalties on uncertain tax positions, net of any tax effect, as part of total tax expense for the period. The corresponding liability is carried along with the tax exposure as a non-current payable in Other Long-term Liabilities. For the years ended December 31, 2016, 2015 and 2014, we recognized approximately \$0.6 million, \$(0.5) million and \$(1.1) million respectively, in interest and penalties. For the years ended December 31, 2016, 2015 and 2014, we had approximately \$2.7 million, \$2.0 million and \$2.5 million, respectively, accrued for the payment of interest and penalties. Changes in our estimate of unrecognized tax benefits would affect our effective tax rate. As of December 31, 2016, 2015, and 2014, there are \$1.2 million, \$2.4 million and \$0.8 million, respectively, of unrecognized tax benefits that could be resolved within the next twelve months which could have a positive effect on the annual effective tax rate.

## 10. PENSION AND OTHER POSTRETIREMENT BENEFIT PLANS

### Defined Benefit Plan

We provide a noncontributory defined benefit pension plan covering substantially all of our Dutch employees ("Dutch Plan") who were hired prior to 2007. This pension benefit is based on years of service and final pay or career average pay, depending on when the employee began participating. The benefits earned by the employees are immediately vested. We fund the future obligations of the Dutch Plan by purchasing insurance contracts from a large multi-national insurance company. The insurance contracts have a five-year maturity. Each year, as a contract expires, it is replaced with a new contract that is adjusted to include changes in the benefit obligation for the current year and redemption of the expired contract. We make annual premium payments to the insurance company based on each employee's age and current salary, and the contractual growth rate. We determine the fair value of these plan assets with the assistance of an actuary using observable inputs (Level 2), which approximates the contract value of the investments.

F-19

---

The following table summarizes the change in the projected benefit obligation and the fair value of plan assets for the Dutch Plan for the years ended December 31, 2016 and 2015 (in thousands):

	2016	2015
Projected Benefit Obligation:		
Projected benefit obligation at beginning of year	\$50,759	\$59,338
Service cost	1,456	1,787
Interest cost	1,329	1,192
Benefits paid	(1,139 )	(982 )
Administrative expenses	(31 )	(169 )
Actuarial (gain) loss, net	5,225	(4,416 )
Unrealized (gain) loss on foreign exchange	(1,517 )	(5,991 )
Projected benefit obligation at end of year	\$56,082	\$50,759
Fair Value of Plan Assets:		
Fair value of plan assets at beginning of year	\$41,116	\$47,528
Increase (decrease) in plan asset value	6,328	(2,279 )
Employer contributions	1,118	1,829
Benefits paid	(1,139 )	(982 )
Administrative expenses	(31 )	(169 )
Unrealized gain (loss) on foreign exchange	(1,258 )	(4,811 )
Fair value of plan assets at end of year	\$46,134	\$41,116
Under-funded status of the plan at end of the year	\$(9,948 )	\$(9,643 )
Accumulated Benefit Obligation	\$47,980	\$43,969

The following actuarial assumptions were used to determine the actuarial present value of our projected benefit obligation and the net periodic pension costs for the Dutch Plan at December 31, 2016 and 2015:

	2016	2015
Weighted average assumed discount rate	1.90%	2.60%
Expected long-term rate of return on plan assets	1.90%	2.60%
Weighted average rate of compensation increase	2.75%	3.00%

The discount rate used to determine our projected benefit obligation at December 31, 2016 was decreased from 2.60% to 1.90%, consistent with a general decrease in interest rates in Europe for AAA-rated long-term Euro government bonds.

Amounts recognized for the Dutch Plan in the Consolidated Balance Sheets for the years ended December 31, 2016 and 2015 consist of (in thousands):

	2016	2015
Deferred tax asset	\$2,328	\$2,660
Other long-term liabilities	9,948	9,643
Accumulated other comprehensive loss	(9,169 )	(9,540 )



The components of net periodic pension cost for the Dutch Plan under this plan for the years ended December 31, 2016, 2015, and 2014 included (in thousands):

	2016	2015	2014
Service cost	\$1,456	\$1,787	\$1,445
Interest cost	1,329	1,192	1,756
Expected return on plan assets	(1,117 )	(986 )	(1,303 )
Unrecognized pension asset, net	—	(96 )	(87 )
Prior service cost	(81 )	(85 )	7
Unrecognized net actuarial loss	593	727	540
Net periodic pension cost	\$2,180	\$2,539	\$2,358

Plan assets at December 31, 2016 and 2015 consisted of insurance contracts with returns equal to the contractual rate, which are comparable with governmental debt securities. Our expected long-term rate of return assumptions are based on the weighted-average contractual rates for each contract. Dutch law dictates the minimum requirements for pension funding. Our goal is to meet these minimum funding requirements, while our insurance carrier invests to minimize risks associated with future benefit payments.

Our 2017 minimum funding requirements are expected to be approximately \$1.5 million. Our estimate of future annual contributions is based on current funding requirements, and we believe these contributions will be sufficient to fund the plan.

Expected benefit payments to eligible participants under this plan for the next five years are as follows (in thousands):

2017	\$1,118
2018	\$1,156
2019	\$1,169
2020	\$1,275
2021	\$1,356
Succeeding five years	\$8,147

#### Defined Contribution Plans

We maintain defined contribution plans for the benefit of eligible employees primarily in Canada, The Netherlands, the United Kingdom, and the United States. In accordance with the terms of each plan, we and our participating employees contribute up to specified limits and under certain plans, we may make discretionary contributions in accordance with the defined contribution plans. Our primary obligation under these defined contribution plans is limited to paying the annual contributions. For the years ended December 31, 2016, 2015 and 2014, we paid approximately \$6.1 million, \$6.9 million and \$7.9 million, respectively, for our contributions and our additional discretionary contributions to the defined contribution plans.

Vesting in all employer contributions is accelerated upon the death of the participant or a change in control. Employer contributions under the plans are forfeited upon a participant's termination of employment to the extent they are not vested at that time.

#### Deferred Compensation Arrangements

We have entered into deferred compensation contracts for certain key employees to provide additional retirement income to the participants. The benefit is determined by the contract for either a fixed amount or by a calculation using years of service or age at retirement along with the average of their base salary for the five years prior to retirement. We are not required to fund this arrangement; however, we have purchased life insurance policies with

cash surrender values to assist us in providing the benefits pursuant to these deferred compensation contracts with the actual benefit payments made by Core Laboratories. The charge to expense for these deferred compensation contracts in 2016, 2015 and 2014 was approximately \$1.2 million, \$1.7 million and \$1.9 million, respectively.

We provide severance compensation to certain current key employees if employment is terminated under certain circumstances, such as following a change in control or for any reason other than upon their death or disability, for “cause” or upon a material breach of a material provision of their employment agreement, as defined in their employment agreements. In

F-21

---

addition, there are certain countries where we are legally required to make severance payments to employees when they leave our service. We have accrued for all of these severance payments, but they are not funded.

We have also adopted a non-qualified deferred compensation plan (“Deferred Compensation Plan”) that allows certain highly compensated employees to defer a portion of their salary, commission and bonus, as well as the amount of any reductions in their deferrals under the Deferred Compensation Plan for employees in the United States, due to certain limitations imposed by the U.S. Internal Revenue Code of 1986, as amended (the “Code”). Contributions to the plan are invested in equity and other investment fund assets, and carried on the balance sheet at fair value. The benefits under these contracts are fully vested. Our primary obligation for the Deferred Compensation Plan is limited to our annual contributions. Employer contributions to the Deferred Compensation Plan were \$0.2 million for the year ended December 31, 2016 and \$0.3 million for each of the years ended December 31, 2015 and 2014.

Vesting in all employer contributions is accelerated upon the death of the participant or a change in control. Employer contributions under the plans are forfeited upon a participant's termination of employment to the extent they are not vested at that time.

## 11. COMMITMENTS AND CONTINGENCIES

We have been and may from time to time be named as a defendant in legal actions that arise in the ordinary course of business. These include, but are not limited to, employment-related claims and contractual disputes or claims for personal injury or property damage which occur in connection with the provision of our services and products. A liability is accrued when a loss is both probable and can be reasonably estimated. During 2015, we recorded contingent liabilities in the amount of \$8.6 million associated with these claims. After certain settlements in 2016, we had a contingent liability balance of \$7.3 million remaining as of December 31, 2016.

In 1998, we entered into employment agreements with our three senior executive officers that provide for deferred compensation benefits. The present value of the long-term liability recorded and fully reserved for the benefits due upon severing the employment of these employees is approximately \$8.0 million at December 31, 2016.

We do not maintain any off-balance sheet debt or other similar financing arrangements nor have we formed any special purpose entities for the purpose of maintaining off-balance sheet debt.

Scheduled minimum rental commitments under non-cancellable operating leases at December 31, 2016, consist of the following (in thousands):

2017	\$15,514
2018	11,557
2019	8,563
2020	6,330
2021	4,575
Thereafter	15,522
Total commitments	\$62,061

Operating lease commitments relate primarily to rental of equipment and office space. Rental expense for operating leases, including amounts for short-term leases with nominal future rental commitments, was approximately \$20.3 million, \$22.2 million and \$24.1 million for the years ended December 31, 2016, 2015 and 2014, respectively.

## 12. EQUITY

Common Shares

On May 17, 2016 we completed a public offering of 1,475,000 shares of our common stock. The purchase price paid by the underwriter was \$116.67 per share. On May 26, 2016, the underwriter exercised in full its option to purchase an additional 221,250 shares of common stock at the public offering price of \$116.67 per share bringing the total shares issued from the offering to 1,696,250. The net proceeds from these issuances of common stock were \$197.2 million, after deducting underwriting discounts and offering expenses. The proceeds were used to repay a portion of the outstanding borrowings under our Credit Facility.

F-22

---

## Treasury Shares

In connection with our initial public offering in September 1995, our shareholders authorized our Management Board to repurchase up to 10% of our issued share capital, the maximum allowed under Dutch law at the time, for a period of 18 months. This authorization was renewed at subsequent annual or special shareholder meetings. At our annual shareholders' meeting on May 19, 2016, our shareholders authorized an extension to repurchase up to 10% of our issued share capital through November 19, 2017. The repurchase of shares in the open market is at the discretion of management pursuant to this shareholder authorization. From the activation of the share repurchase program on October 29, 2002 through December 31, 2016, pursuant to shareholder approvals, we have repurchased 39,373,745 shares for an aggregate purchase price of approximately \$1.6 billion, or an average price of \$41.20 per share and have canceled 33,475,406 shares with an historical cost of \$1.2 billion. At December 31, 2016, we held 644,991 shares in treasury with the authority to repurchase 3,834,634 additional shares under our stock repurchase program. Subsequent to year-end, we have repurchased 189 shares at a total cost of approximately \$22.8 thousand.

At the annual meeting of shareholders on May 19, 2016, the shareholders approved the cancellation of 1,250,000 shares of our common stock then held as treasury shares. These treasury shares were canceled on August 2, 2016, after the expiration of the waiting period required under Dutch law. In accordance with FASB Accounting Standards Codification ("ASC") 505-30-30-8, we charged the excess of the cost of the treasury stock over its par value to additional paid-in capital and retained earnings.

## Dividend Policy

In February, May, August and November 2016, we paid quarterly dividends of \$0.55 per share of common stock. The total dividends paid in 2016 were \$95.1 million. On January 10, 2017, we declared a quarterly dividend of \$0.55 per share of common stock payable February 17, 2017 to shareholders of record on January 20, 2017.

## Accumulated Other Comprehensive Income (Loss)

Amounts recognized, net of tax, in Accumulated other comprehensive income (loss) for the years ended December 31, 2016 and 2015 consist of (in thousands):

	2016	2015
Prior service cost	\$600	\$661
Unrecognized net actuarial loss and foreign exchange	(9,769 )	(10,201 )
Fair value of derivatives	(659 )	(998 )
Total Accumulated other comprehensive (loss)	\$(9,828)	\$(10,538)

Unrecognized amounts currently recorded to Accumulated other comprehensive income (loss) that are expected to be recognized as components of next year's net pension benefit cost include \$0.4 million of unrecognized net actuarial loss.

## 13. STOCK-BASED COMPENSATION

We have granted restricted stock awards under two stock incentive plans: the 2014 Long-Term Incentive Plan and the 2014 Nonemployee Director Stock Incentive Plan. Awards under the following two compensation programs have been granted pursuant to both plans: (1) the Performance Share Award Program ("PSAP") and (2) the Restricted Share Award Program ("RSAP") and the Restricted Share Award Program for Nonemployee Directors (the "Program").

We issue shares from either treasury stock or authorized shares upon the lapsing of vesting restrictions on restricted stock. In 2016, we issued 141,106 shares out of treasury stock relating to the vesting of restricted stock. We do not use cash to settle equity instruments issued under stock-based compensation awards.

F-23

---

## 2014 Long-Term Incentive Plan

On May 13, 2014, the 2007 Long-Term Incentive Plan was amended, restated and renamed as the 2014 Long-Term Incentive Plan (the "Plan"). The primary changes effected by the 2014 amendment and restatement were to (a) extend the period during which awards may be granted under the Plan to May 12, 2024, and (b) increase the number of common shares subject to the Plan by 1,100,000 shares. The Plan, as amended, provides for a maximum of 11,900,000 common shares to be granted to eligible employees. At December 31, 2016, approximately 1,214,983 shares remained available for the grant of new awards under the Plan. Specifically, we encourage share ownership by awarding various long-term equity incentive awards under the Plan, consisting of the PSAP and RSAP. We believe that widespread common share ownership by key employees is an important means of encouraging superior performance and employee retention. Additionally, our equity-based compensation programs encourage performance and retention by providing additional incentives for executives to further our growth, development and financial success over a longer time horizon by personally benefiting through the ownership of our common shares and/or rights.

## Performance Share Award Program

On February 13, 2014, certain executives were awarded rights to receive an aggregate of 53,548 common shares if our calculated return on invested capital ("ROIC"), as defined in the PSAP, is in the top decile of the Bloomberg Comp Group at the end of the performance period, which ends on the last trading day of 2016, December 30, 2016. Unless there is a change in control as defined in the PSAP, none of these awards will vest if the specified performance target is not met as of the last day of the performance period. This arrangement is recorded as an equity award that requires us to recognize compensation expense totaling \$9.0 million over the performance period that began on January 1, 2014, of which \$3.0 million has been recognized annually in 2016, 2015, and 2014. At December 30, 2016, the Company had the highest ROIC compared to the Bloomberg Comp Group. The Compensation Committee of our Board of Supervisory Directors verified that the performance target criteria had been met and 51,348 shares vested (2,200 shares were forfeited by participants prior to the end of the performance period). We issued these common shares on December 30, 2016 and, simultaneously, the participants surrendered 19,400 common shares to settle any personal tax liabilities which may result from the award, as permitted by the agreement. We recorded these surrendered shares as treasury stock with an aggregate cost of \$2.3 million at \$120.04 per share. We have recognized an additional tax liability from the vesting of the PSAP of \$1.1 million in 2016.

On February 10, 2015, certain executives were awarded rights to receive an aggregate of 106,455 common shares if our calculated ROIC, as defined in the PSAP, is in the top decile of the Bloomberg Comp Group at the end of the performance period, which ends on the last trading day of 2017, December 29, 2017. Unless there is a change in control as defined in the PSAP, none of these awards will vest if the specified performance target is not met as of the last day of the performance period. This arrangement is recorded as an equity award that requires us to recognize compensation expense totaling \$11.3 million over the performance period that began on January 1, 2015, of which \$3.8 million has been recognized annually in 2016 and 2015. The unrecognized compensation expense is expected to be recognized over an estimated amortization period of 12 months.

On February 16, 2016, certain executives were awarded rights to receive an aggregate of 122,515 common shares if our calculated ROIC, as defined in the PSAP, is in the top decile of the Bloomberg Comp Group at the end of the performance period, which ends on the last trading day of 2018, December 31, 2018. Unless there is a change in control as defined in the PSAP, none of these awards will vest if the specified performance target is not met as of the last day of the performance period. This arrangement is recorded as an equity award that requires us to recognize compensation expense totaling \$11.7 million over the performance period that began on January 1, 2016, of which \$3.9 million has been recognized in 2016. The unrecognized compensation expense is expected to be recognized over an estimated amortization period of 24 months.

### Restricted Share Award Program

In 2004, the Compensation Committee of our Board of Supervisory Directors approved the RSAP to attract and retain the best employees, and to better align employee interests with those of our shareholders. Under this arrangement we awarded grants totaling 104,164 shares, 91,784 shares, and 80,983 shares in 2016, 2015, and 2014, respectively. Each of these grants has a vesting period of principally six years and vests ratably on an annual basis. There are no performance accelerators for early vesting for these awards. Awards under the RSAP are classified as equity awards and recorded at the grant-date fair value with the compensation expense recognized over the expected life of the award. As of December 31, 2016, there was \$28.6 million of unrecognized total stock-based compensation relating to non-vested RSAP awards. The unrecognized compensation expense is expected to be recognized over an estimated weighted-average amortization period of 44 months. The grant-date fair value of shares granted was \$10.0 million, \$8.9 million and \$15.0 million in 2016, 2015 and 2014, respectively and we have recognized compensation expense of \$10.5 million, \$10.4 million and \$10.5 million in 2016, 2015 and 2014, respectively. The total grant-date fair value, which is the intrinsic value of the shares, vested was \$9.9 million, \$10.4 million and \$10.4 million in 2016,

F-24

---



2015 and 2014, respectively. We have recognized a tax detriment from the vesting of the RSAP of \$0.1 million in 2016 and tax benefits of \$0.2 million and \$2.9 million in 2015 and 2014, respectively.

#### 2014 Nonemployee Director Stock Incentive Plan

On May 13, 2014, the 2006 Nonemployee Director Stock Option Plan was amended, restated and renamed as the 2014 Nonemployee Director Stock Incentive Plan (the "Director Plan"). The primary change effected by the 2014 amendment was to extend the period during which awards may be granted under the Director Plan to May 12, 2024. The Director Plan provides common shares for grant to our eligible Supervisory Directors. The maximum number of shares available for award under this plan is 1,400,000 common shares. As of December 31, 2016 approximately 551,058 shares remained available for issuance under the Director Plan. Only non-employee Supervisory Directors are eligible for these equity-based awards under the Director Plan.

In 2011, the Compensation Committee of our Board of Supervisory Directors approved the restricted share award program (the "Program") to compensate our non-employee Supervisory Directors. Under this arrangement we awarded grants totaling 10,680 shares, 8,616 shares and 4,536 shares in 2016, 2015, and 2014, respectively. Each of these grants has a vesting period of 3 years. There are no performance accelerators for early vesting for these awards. Awards under the Program are classified as equity awards and recorded at the grant-date fair value with compensation expense recognized over the expected life of the award. As of December 31, 2016, there was \$1.3 million of unrecognized total stock-based compensation relating to non-vested Program awards. The unrecognized compensation expense is expected to be recognized over an estimated weighted-average amortization period of 22 months. The grant-date fair value of shares granted was \$1.1 million, \$0.9 million and \$0.9 million in 2016, 2015, and 2014, respectively, and we have recognized compensation expense of \$0.9 million, \$0.9 million and \$0.9 million in 2016, 2015, and 2014, respectively.

#### Stock-based Compensation

Non-vested restricted share awards outstanding under both the Plan and the Director Plan as of December 31, 2016 and changes during the year were as follows:

	Number of Shares	Weighted Average Grant Date Fair Value per Share
Non-vested at December 31, 2015	463,604	\$ 126.65
Granted	237,359	96.23
Vested	(141,612)	139.82
Forfeited	(13,737 )	122.47
Non-vested at December 31, 2016	545,614	\$ 110.11

For the years ended December 31, 2016, 2015 and 2014, stock-based compensation expense under both the Plan and the Director Plan recognized in the income statement is as follows (in thousands):

	2016	2015	2014
Cost of product sales and services	\$10,073	\$10,126	\$10,331
General and administrative	12,006	11,153	10,139
Total stock-based compensation expense	\$22,079	\$21,279	\$20,470

#### 14. DERIVATIVE INSTRUMENTS AND HEDGING ACTIVITIES

We are exposed to market risks related to fluctuations in interest rates. To mitigate these risks, we utilize derivative instruments in the form of interest rate swaps. We do not enter into derivative transactions for speculative purposes.

#### Interest Rate Risk

Series A of our Senior Notes bears interest at a fixed rate of 4.01% and Series B bears interest at a fixed rate of 4.11%. Our Credit Facility bears interest at variable rates from LIBOR plus 1.25% to a maximum of LIBOR plus 2.00%. We are subject to interest rate risk on the debt carried through our Credit Facility.

F-25

---

In 2014, we entered into two interest rate swap agreements for a total notional amount of \$50 million to hedge changes in the variable rate interest expense on \$50 million of our existing or replacement LIBOR-priced debt. Under the first swap agreement of \$25 million, we have fixed the LIBOR portion of the interest rate at 1.73% through August 29, 2019, and under the second swap agreement of \$25 million, we have fixed the LIBOR portion of the interest rate at 2.50% through August 29, 2024. Each swap is measured at fair value and recorded in our consolidated balance sheet as a liability. They are designated and qualify as cash flow hedging instruments and are highly effective. Unrealized losses are deferred to shareholders' equity as a component of accumulated other comprehensive loss and are recognized in income as an increase to interest expense in the period in which the related cash flows being hedged are recognized in expense.

At December 31, 2016, we had fixed rate debt aggregating \$200 million and variable rate debt aggregating \$18 million, after taking into account the effect of the swaps.

The fair values of outstanding derivative instruments are as follows (in thousands):

	Fair Value of Derivatives		Balance Sheet Classification
	December 31, 2016	December 31, 2015	
Derivatives designated as hedges:			
5 yr Interest Rate Swap	\$ 211	\$ 353	Other Liabilities
10 yr Interest Rate Swap	835	1,229	Other Liabilities
	\$ 1,046	\$ 1,582	

The fair value of all outstanding derivatives was determined using a model with inputs that are observable in the market or can be derived from or corroborated by observable data.

The effect of the interest rate swaps on the Consolidated Statements of Operations was as follows (in thousands):

	December 31, 2016	December 31, 2015	Income Statement Classification
Derivatives designated as hedges:			
5 yr Interest Rate Swap	\$ 316	\$ 388	Interest Expense
10 yr Interest Rate Swap	513	583	Interest Expense
	\$ 829	\$ 971	

## 15. FINANCIAL INSTRUMENTS

The Company's only financial assets and liabilities which are measured at fair value on a recurring basis relate to certain aspects of the Company's benefit plans and our derivative instruments. We use the market approach to value certain assets and liabilities at fair value using significant other observable inputs (Level 2) with the assistance of a third party specialist. We do not have any assets or liabilities measured at fair value on a recurring basis using quoted prices in an active market (Level 1) or significant unobservable inputs (Level 3). Gains and losses related to the fair value changes in the deferred compensation assets and liabilities are recorded in General and Administrative Expenses in the Consolidated Statements of Operations. Gains and losses related to the fair value of the interest rate swaps are recorded in Other Comprehensive Income. The following table summarizes the fair value balances (in thousands):

Fair Value Measurement at December 31, 2016	
Total	Level 2

Edgar Filing: CORE LABORATORIES N V - Form 10-K

	Level	Level		
	1	3		
Assets:				
Deferred compensation trust assets (1)	\$25,530	\$	-\$25,530	\$ —
Liabilities:				
Deferred compensation plan	\$31,672	\$	-\$31,672	\$ —
5 year interest rate swap	211	—	211	—
10 year interest rate swap	835	—	835	—
	\$32,718	\$	-\$32,718	\$ —

F-26

---

Fair Value Measurement at  
December 31, 2015

	Total	Level 1	Level 2	Level 3
Assets:				
Deferred compensation trust assets (1)	\$23,737	\$	-\$23,737	\$
Liabilities:				
Deferred compensation plan	\$29,155	\$	-\$29,155	\$
5 year interest rate swap	353	—	353	—
10 year interest rate swap	1,229	—	1,229	—
	\$30,737	\$	-\$30,737	\$

(1) Trust assets consist of the cash surrender value of life insurance policies and are intended to fund the deferred compensation agreements.

## 16. OTHER (INCOME) EXPENSE, NET

The components of other (income) expense, net, are as follows (in thousands):

For the Years Ended	2016	2015	2014
Sale of assets	\$(618)	\$(408)	\$(764)
Results of non-consolidated subsidiaries	(506)	(383)	(364)
Foreign exchange	1,832	4,507	4,230
Interest income	(56)	(403)	(403)
Rents and royalties	(420)	(484)	(817)
Insurance and other settlements	—	—	(292)
Other, net	(630)	493	(521)
Total other (income) expense, net	\$(342)	\$3,669	\$1,069

## Foreign Currency Risk

We operate in a number of international areas which exposes us to foreign currency exchange rate risk. We do not currently hold or issue forward exchange contracts or other derivative instruments for hedging or speculative purposes (a foreign exchange contract is an agreement to exchange different currencies at a given date and at a specified rate). Foreign exchange gains and losses are the result of fluctuations in the USD against foreign currencies and are included in other (income) expense, net in the Consolidated Statements of Operations. We recognized foreign exchange losses in countries where the USD weakened against the local currency and we had net monetary liabilities denominated in the local currency; as well as countries where the USD strengthened against the local currency and we had net monetary assets denominated in the local currency. We recognized foreign exchange gains in countries where the USD strengthened against the local currency and we had net monetary liabilities denominated in the local currency and in countries where the USD weakened against the local currency and we had net monetary assets denominated in the local currency. Foreign exchange gains and losses are summarized in the following table (in thousands):

	For the Years Ended December 31,		
(Gains) losses by currency	2016	2015	2014
Australian Dollar	\$ 136	\$ 238	\$ 289
British Pound	807	434	1,132
Canadian Dollar	(137 )	1,848	1,886
Euro	(49 )	(908 )	(1,537)
Malaysian Ringgit	43	545	278
Mexican Peso	(47 )	414	284
Nigerian Naira	200	630	432
Other currencies, net	879	1,306	1,466
Total (gain) loss, net	\$ 1,832	\$ 4,507	4,230

## 17. SEVERANCE AND OTHER CHARGES

In 2015, in response to lower commodity pricing for crude oil and reduced spending by our clients on their oil and gas fields, we reduced our cost structure, primarily through a reduction in our workforce, to better align with the decreasing activity levels into the foreseeable future. As a result of these cost reductions, we recorded severance charges of \$8.8 million, of which approximately \$0.5 million were accrued and remaining to be paid at December 31, 2016. Additionally, in 2015 the Company recorded a charge to income associated with the impairment of certain equipment and intangible assets and facility exit costs of \$5.5 million. During 2015, we recorded loss contingencies for various ongoing legal issues of \$8.6 million. See Note 11 - Commitments and Contingencies.

## 18. SEGMENT REPORTING

We operate our business in three reportable segments. These complementary segments provide different services and products and utilize different technologies for improving reservoir performance and increasing oil and gas recovery from new and existing fields: (1) Reservoir Description, (2) Production Enhancement and (3) Reservoir Management. These business segments provide different services and products and utilize different technologies.

**Reservoir Description:** Encompasses the characterization of petroleum reservoir rock, fluid and gas samples. We provide analytical and field services to characterize properties of crude oil and petroleum products to the oil and gas industry.

**Production Enhancement:** Includes services and products relating to reservoir well completions, perforations, stimulations and production. We provide integrated diagnostic services to evaluate the effectiveness of well completions and to develop solutions aimed at increasing the effectiveness of enhanced oil recovery projects.

**Reservoir Management:** Combines and integrates information from reservoir description and production enhancement services to increase production and improve recovery of oil and gas from our clients' reservoirs.

Results for these business segments are presented below. We use the same accounting policies to prepare our business segment results as are used to prepare our Consolidated Financial Statements. All interest and other non-operating income (expense) is attributable to Corporate & Other area and is not allocated to specific business segments. Summarized financial information concerning our segments is shown in the following table (in thousands):

Reservoir Description	Production Enhancement	Reservoir Management	Corporate & Other (1)	Consolidated
December 31, 2016				
Revenues				
from \$ 404,146 unaffiliated clients	\$ 164,027	\$ 26,568	\$ —	\$ 594,741
Inter-segment revenues	877	121	(4,939)	—
Segment operating income (loss)	8,891	2,043	97	86,179
<b>Total</b>	<b>191,846</b>	<b>17,599</b>	<b>62,033</b>	<b>573,052</b>
assets (at end of				

period)				
Capital expenditures	8,195	2,298	25	838
Depreciation	17,735	5,272	1,344	2,521
amortization				26,872
December 31, 2015				
Revenues from unaffiliated clients	\$ 473,372	\$ 267,224	\$ 56,924	\$ —
Inter-segment revenue	8,674	1,837	248	(10,759)
Segment operating income (loss)	111,032	35,027	15,655	(644 )
Total assets (at end of period)	326,182	210,214	27,076	61,786
Capital expenditures	17,849	3,292	273	1,383
Depreciation	16,778	6,611	1,624	2,444
amortization				27,457

F-28



December 31,  
2014

Revenue

from  
\$518,974 \$467,577 \$98,671 \$ — \$1,085,222  
unaffiliated

clients

Inter-segment  
10,387 2,459 366 (13,2)12 —  
revenue

Segment

operating  
143,624<sup>1</sup> 165,204 37,220 483 346,531  
income

(loss)

Total

assets

(at  
319,325 257,135 34,179 62,686 673,325  
end

of

period)

Capital  
21,371 7,990 2,681 4,544 36,586  
expenditures

Depreciation

16,816 7,509 1,393 1,978 26,696

amortization

(1) "Corporate and other" represents those items that are not directly relating to a particular segment and eliminations.

We are a Netherlands company and we derive our revenue from services and product sales to clients primarily in the oil and gas industry. No single client accounted for 10% or more of revenue in any of the periods presented.

We attribute service revenue to the country in which the service was performed while we attribute product sales revenue to the country where the product was shipped as we feel this gives a clearer view of our operations. We do, however, have significant levels of revenue recorded in the U.S., where the services were performed, that are sourced from projects on non-U.S. oilfields. The following table shows a summary of our U.S. and non-U.S. operations (with 2013 revenue reclassified as described above) for December 31, 2016, 2015 and 2014 (in thousands):

GEOGRAPHIC INFORMATION	United States	Canada	Other Countries (1) (2)	Consolidated
December 31, 2016				
Revenue	\$224,863	\$22,547	\$347,331	\$594,741
Property, plant and equipment, net	71,388	10,497	47,997	129,882
December 31, 2015				
Revenue	\$338,907	\$43,808	\$414,805	\$797,520
Property, plant and equipment, net	80,603	12,082	50,526	143,211

December 31, 2014

Edgar Filing: CORE LABORATORIES N V - Form 10-K

Revenue	\$515,643	\$105,244	\$464,335	\$1,085,222
Property, plant and equipment, net	83,748	16,057	49,209	149,014

(1) Revenue earned in other countries, including The Netherlands, was not individually greater than 10% of our consolidated revenue in 2016, 2015 or 2014.

(2) Property, plant and equipment, net in other countries, including The Netherlands, were not individually greater than 10% of our consolidated fixed assets in 2016, 2015 or 2014.

The following table shows the breakdown between services and product sales for the years ended December 31, 2016, 2015 and 2014 (in thousands):

REVENUE BY PERIOD ENDED DECEMBER

**BREAKDOWN**

**BETWEEN**  
**SERVICES**

2016	2015	2014
------	------	------

**PRODUCT**  
**SALES**

Reservoir

\$370,975	\$445,729	\$495,658
-----------	-----------	-----------

Services

Production

\$68,433	\$21,675	\$220,177
----------	----------	-----------

Services

Reservoir

\$185,144	\$44,550	\$65,037
-----------	----------	----------

Services

Total

\$470,259	\$611,954	\$780,872
-----------	-----------	-----------

Revenue

Services

Reservoir

\$26,171	\$27,643	\$23,316
----------	----------	----------

Product

sales

Production

\$95,594	\$145,549	\$247,400
----------	-----------	-----------

Product

sales

Reservoir

\$7,717	\$12,374	\$33,634
---------	----------	----------

Product

sales

Total

\$124,482	\$185,566	\$304,350
-----------	-----------	-----------

Product

sales

Total

\$594,741	\$797,520	\$1,085,222
-----------	-----------	-------------

Revenue

F-29

---

## 19. UNAUDITED SELECTED QUARTERLY RESULTS OF OPERATIONS

Summarized below is our unaudited quarterly financial data for the quarters ended December 31, 2016 and 2015 (in thousands, except per share data):

Quarter ended 2016				
	December 31	September 30	June 30	March 31
Services and product sales revenue	\$149,542	\$143,483	\$148,069	\$153,647
Cost of services and product sales	112,678	107,153	109,999	112,814
Other operating expenses	15,640	14,842	17,843	17,893
Operating income	21,524	21,488	20,227	22,940
Interest expense	2,548	2,569	3,021	3,434
Income before income tax expense	18,976	18,919	17,206	19,506
Income tax expense	3,607	2,081	671	4,389
Net income	15,369	16,838	16,535	15,117
Net income (loss) attributable to non-controlling interest	(90)	108	(89)	35
Net income attributable to Core Laboratories N.V.	\$15,459	\$16,730	\$16,624	\$15,082

Per  
share  
information:

Basic  
earnings  
per  
share

\$0.35      \$ 0.38      \$ 0.38      \$ 0.36

(1)

Diluted  
earnings  
per  
share

\$0.35      \$ 0.38      \$ 0.38      \$ 0.35

(1)

(1)

Weighted  
average  
common  
shares  
outstanding:

Basic 44,113      44,110      43,297      42,380

Diluted 44,326      44,320      43,505      42,520

Quarter ended 2015

December 31      September 30      June 30      March 31

Services

and

product sales revenue

\$182,723      \$197,265      \$203,889      \$213,643

Cost

of

services  
and

product sales

124,709      129,050      134,619      144,274

Other

operating

expenses

34,672      21,397      21,377      26,652

Operating

income

23,642      46,818      47,893      42,717

Interest

expense

3,390      3,471      3,116      2,403

Income

before

income tax expense

20,252      43,347      44,777      40,314

Income

tax

expense

4,658      9,753      10,075      9,272

Income

tax

expense

Edgar Filing: CORE LABORATORIES N V - Form 10-K

Net income	15,594	33,594	34,702	31,042
Net income attributable to non-controlling interest	176	190	76	(357 )
Net income attributable to Core Laboratories N.V.	\$15,418	\$33,404	\$34,626	\$31,399

Per  
share  
information:

Basic earnings per share	\$0.36	\$0.79	\$0.81	\$0.72
-----------------------------------	--------	--------	--------	--------

(1) Diluted earnings per share (1)	\$0.36	\$0.78	\$0.81	\$0.72
---	--------	--------	--------	--------

Weighted  
average  
common  
shares  
outstanding:

Basic	42,355	42,517	42,790	43,340
Diluted	42,518	42,685	42,959	43,466

The sum of the individual quarterly earnings per share amounts may not agree with the year-to-date earnings per (1)share amounts as each quarterly computation is based on the weighted average number of common shares outstanding during that period.

## CORE LABORATORIES N.V.

## Schedule II - Valuation and Qualifying Account

(In thousands)

Balance at Beginning of Period	Additions Charged to / Recovered from Expense	Write-offs	Other (1)	Balance at End of Period
Year ended December 31, 2016 Reserve for doubtful accounts \$ 4,136	\$ (18 )	\$ (999 )	\$ 20	\$ 3,139
Year ended December 31, 2015 Reserve for doubtful accounts \$ 3,397	\$ 2,592	\$ (1,442 )	\$ (411)	\$ 4,136
Year ended December 31, 2014 Reserve for doubtful accounts \$ 2,872	\$ 1,243	\$ (883 )	\$ 165	\$ 3,397

(1) Comprised primarily of differences due to changes in exchange rate.

## INDEX TO EXHIBITS

Exhibit No.	Exhibit Title	Incorporated by Reference from the Following Documents
3.1	Articles of Association of the Company, as amended on May 16, 2012 (including English translation)	Form 10-K, February 19, 2013 (File No. 001-14273)
10.1	Core Laboratories N.V. 2014 Long-Term Incentive Plan (as amended and restated effective as of May 12, 2014)	Proxy Statement dated March 19, 2014 for Annual Meeting of Shareholders (File No. 001-14273)
10.2	Core Laboratories N.V. 2014 Nonemployee Director Stock Incentive Plan (as amended and restated effective as of May 12, 2014)	Proxy Statement dated March 19, 2014 for Annual Meeting of Shareholders (File No. 001-14273)
10.3	Form of Indemnification Agreement to be entered into by the Company and certain of its directors and officers	Form F-1, September 1, 1995 (File No. 000-26710)
10.4	Core Laboratories Supplemental Executive Retirement Plan effective as of January 1, 1998 <sup>1</sup>	Form 10-K, March 31, 1998 (File No. 000-26710)
10.5	Amendment to Core Laboratories Supplemental Executive Retirement Plan filed January 1, 1998, effective July 29, 1999 <sup>1</sup>	Form 10-Q, August 16, 1999 (File No. 001-14273)
10.6	Core Laboratories Supplemental Executive Retirement Plan for Monty L. Davis effective January 1, 1999 <sup>1</sup>	Form 10-Q, August 16, 1999 (File No. 001-14273)
10.7	Amendment to Core Laboratories Supplemental Executive Retirement Plan <sup>1</sup>	Form 10-Q, May 15, 2003 (File No. 001-14273)
10.8	Amendment to Core Laboratories Supplemental Executive Retirement Plan dated as of March 5, 2008 <sup>1</sup>	Form 10-Q, May 12, 2008 (File No. 001-14273)
10.9	Amendment to Core Laboratories Supplemental Executive Retirement Plan for Monty L. Davis dated as of March 5, 2008 <sup>1</sup>	Form 10-Q, May 12, 2008 (File No. 001-14273)
10.10	Non-Employee Director Compensation Summary	Form 10-K, February 22, 2008 (File No. 001-14273)
10.11	Core Laboratories N.V. 2006 Nonemployee Director Stock Incentive Plan	Proxy Statement dated May 17, 2006 for Annual Meeting of Shareholders (File No. 001-14273)
10.12	Form of Director Performance Share Award Restricted Share Agreement (ROE Based) <sup>1</sup>	Form 10-K, February 20, 2007 (File No. 001-14273)
10.13	Form of Restricted Share Award Program Agreement <sup>1</sup>	



Form 10-K, February 20, 2007 (File No.  
001-14273)

10.14 Form of Amendment to Core Laboratories 2008  
Non-Employee Director Restricted Performance Share  
Award Agreement (ROE Based)

Form 10-Q, April 22, 2011 (File No.  
001-14273)

36

---

Edgar Filing: CORE LABORATORIES N V - Form 10-K

10.15	Form of Amendment to Core Laboratories 2009 Non-Employee Director Restricted Performance Share Award Agreement (ROE Based)	Form 10-Q, April 22, 2011 (File No. 001-14273)
10.16	Form of Amendment to Core Laboratories 2010 Non-Employee Director Restricted Performance Share Award Agreement (ROIC Based)	Form 10-Q, April 22, 2011 (File No. 001-14273)
10.17	Form of Core Laboratories 2011 Non-Employee Director Restricted Share Award Program Agreement	Form 10-Q, April 22, 2011 (File No. 001-14273)
10.18	Form of Core Laboratories 2011 Performance Share Award Program Agreement (ROIC Based)	Form 10-Q, April 22, 2011 (File No. 001-14273)
10.19	Form of Core Laboratories 2010 Performance Restricted Share Award Program Agreement (ROIC Based)	Form 10-Q, April 22, 2011 (File No. 001-14273)
10.20	Core Laboratories N.V. Board Succession Plan, dated March 2, 2011	Form 8-K, March 7, 2011 (File No. 001-14273)
10.21	Sixth Amended and Restated Credit Agreement, dated as of August 29, 2014, among Core Laboratories, N.V., and Core Laboratories (U.S.) Interests Holdings, Inc., and the lenders party thereto and Bank of America, N.A., as administrative agent	Form 8-K, August 29, 2014 (File No. 001-14273)
10.22	Amendment No. 1 to the Sixth Amended and Restated Credit Agreement among Core Laboratories N.V. and Core Laboratories (U.S.) Interests Holdings, Inc., as borrowers and Bank of America, N.A., as Administrative Agent, Swing Line Lender and L/C Issuer	Form 8-K, March 16, 2015 (File No. 001-14273)
10.23	Form of Restated Employment Agreement between Core Laboratories N.V. and David M. Demshur dated as of December 31, 2007 <sup>1</sup>	Form 10-Q, May 12, 2008 (File No. 001-14273)
10.24	Amendment to Restated Employment Agreement dated December 31, 2007, between Core Laboratories N.V. and David M. Demshur <sup>1</sup>	Form 10-K, February 22, 2011 (File No. 001-14273)
10.25	Form of Restated Employment Agreement between Core Laboratories N.V. and Richard L. Bergmark dated as of December 31, 2007 <sup>1</sup>	Form 10-Q, May 12, 2008 (File No. 001-14273)
10.26	Amendment to Restated Employment Agreement dated December 31, 2007, between Core Laboratories N.V. and Richard L. Bergmark <sup>1</sup>	Form 10-K, February 22, 2011 (File No. 001-14273)

Edgar Filing: CORE LABORATORIES N V - Form 10-K

- |       |  |   |
|-------|--|---|
| 10.27 | Form of Restated Employment Agreement between Core Laboratories N.V. and Monty L. Davis dated as of December 31, 2007 <sup>1</sup> | Form 10-Q, May 12, 2008 (File No. 001-14273)      |
| 10.28 | Amendment to Restated Employment Agreement dated December 31, 2007, between Core Laboratories N.V. and Monty L. Davis <sup>1</sup> | Form 10-K, February 22, 2011 (File No. 001-14273) |
| 10.29 | Master Note Purchase Agreement, dated as of September 30, 2011   | Form 8-K, September 30, 2011 (File No. 001-14273) |

21.1	Significant Subsidiaries of the Registrant	Filed Herewith
23.1	Consent of KPMG LLP	Filed Herewith
23.2	Consent of PricewaterhouseCoopers LLP	Filed Herewith
31.1	Certification of Chief Executive Officer Pursuant to Rule 13a-14 of the Securities Exchange Act of 1934, As Adopted Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002	Filed Herewith
31.2	Certification of Chief Financial Officer Pursuant to Rule 13a-14 of the Securities Exchange Act of 1934, As Adopted Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002	Filed Herewith
32.1	Certification of Chief Executive Officer Pursuant to 18 U.S.C. Section 1350, As Adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002	Furnished Herewith
32.2	Certification of Chief Financial Officer Pursuant to 18 U.S.C. Section 1350, As Adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002	Furnished Herewith
101.INS	XBRL Instance Document	Filed Herewith
101.SCH	XBRL Schema Document	Filed Herewith
101.CAL	XBRL Calculation Linkbase Document	Filed Herewith
101.LAB	XBRL Label Linkbase Document	Filed Herewith
101.PRE	XBRL Presentation Linkbase Document	Filed Herewith
101.DEF	XBRL Definition Linkbase Document	Filed Herewith

<sup>1</sup> Management contracts or compensatory plans or arrangements.

## Exhibit 21.1

## Significant Subsidiaries of the Registrant at December 31, 2016

Name	Legal Seat	Ownership %
Core Laboratories Australia PTY LTD	Perth, Australia	100%
Core Laboratories Canada Ltd.	Alberta, Canada	100%
Core Laboratories International B.V.	Amsterdam, The Netherlands	100%
Core Laboratories LP	Delaware, United States	100%
Core Laboratories Malaysia SDN BHD	Kuala Lumpur, Malaysia	100%
Core Laboratories Sales N.V.	Willemstad, Curacao	100%
Core Laboratories (U.K.) Limited	London, United Kingdom	100%
Owen Oil Tools LP	Delaware, United States	100%
Core Lab de Mexico S.A. de C.V.	Mexico City, Mexico	100%
Saybolt Belgium N.V.	Antwerp, Belgium	100%
Saybolt LP	Delaware, United States	100%
Saybolt Nederland B.V.	Rotterdam, The Netherlands	100%
Saybolt (Singapore) PTE LTD	Singapore, Singapore	100%
Stim-Lab, Inc.	Oklahoma, United States	100%
ZAO Petroleum Analysts	Moscow, Russian Federation	100%

Pursuant to Item 601(b)(21)(ii) of Regulation S-K, the names of other subsidiaries are omitted because, considered in the aggregate, they would not constitute a significant subsidiary as of the end of the year covered by this report.

Exhibit 23.1

Consent of Independent Registered Public Accounting Firm

The Board of Supervisory Directors and Shareholders

Core Laboratories N.V.:

We consent to the incorporation by reference in the registration statements on Form S-3 (No. 333-211291) and Form S 8 (Nos. 333-73772 and 333-73774) of Core Laboratories N.V. of our reports dated February 10, 2017, with respect to the consolidated balance sheet of Core Laboratories N.V. and subsidiaries as of December 31, 2016, and the related consolidated statements of operations, comprehensive income, changes in equity, and cash flows the year then ended, and the related financial statement schedule, and the effectiveness of internal control over financial reporting as of December 31, 2016, which reports appear in the December 31, 2016 annual report on Form 10-K of Core Laboratories N.V.

/s/ KPMG LLP

Houston, Texas

February 10, 2017

Exhibit 23.2

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We hereby consent to the incorporation by reference in the Registration Statements on Form S-8 (Nos. 333-73772 and 333-73774) and Form S-3 (No. 333-211291) of Core Laboratories N.V. of our report dated February 12, 2016 relating to the consolidated financial statements and financial statement schedule, which appears in this Form 10-K.

/s/ PricewaterhouseCoopers LLP  
Houston, Texas  
February 10, 2017