

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

FORM 10-K

(Mark One)

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

For the fiscal year ended December 31, 2020

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
(State or other jurisdiction of incorporation or organization)

Van Heuven Goedhartlaan 7 B

1181 LE Amstelveen

The Netherlands
(Address of principal executive offices)

Not Applicable
(I.R.S. Employer Identification No.)

Not Applicable
(Zip Code)

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

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

<u>Title of each class</u>	<u>Trading Symbol(s)</u>	<u>Name of each exchange on which registered</u>
Common Shares, EUR 0.02 Par Value Per Share	CLB	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 ☐

Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted 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 such files). Yes ☒ No ☐

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

Large accelerated filer ☒ Accelerated filer ☐ Non-accelerated filer ☐ Smaller reporting company ☐ Emerging growth company ☐

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

Indicate by check mark whether the registrant has filed a report on and attestation to its management's assessment of the effectiveness of its internal control over financial reporting under Section 404(b) of the Sarbanes-Oxley Act (15 U.S.C. 7262(b)) by the registered public accounting firm that prepared or issued its audit report. ☒

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, 2020, the aggregate market value of common shares held by non-affiliates of the registrant was approximately \$886,307,680.

As of February 4, 2021, the number of common shares outstanding was 44,573,622.

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 2021, 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.

CORE LABORATORIES N.V.
FORM 10-K FOR THE FISCAL YEAR ENDED DECEMBER 31, 2020
TABLE OF CONTENTS

	<u>Page</u>
PART I	
Item 1. <u>Business</u>	1
Item 1A. <u>Risk Factors</u>	9
Item 1B. <u>Unresolved Staff Comments</u>	15
Item 2. <u>Properties</u>	15
Item 3. <u>Legal Proceedings</u>	15
Item 4. <u>Mine Safety Disclosures</u>	15
PART II	
<u>Market for Registrant's Common Equity, Related Stockholder Matters and Issuer Purchases of Equity</u>	
Item 5. <u>Securities</u>	16
Item 6. <u>Selected Financial Data</u>	18
Item 7. <u>Management's Discussion and Analysis of Financial Condition and Results of Operations</u>	19
Item 7A. <u>Quantitative and Qualitative Disclosures about Market Risk</u>	34
Item 8. <u>Financial Statements and Supplementary Data</u>	35
Item 9. <u>Changes in and Disagreements with Accountants on Accounting and Financial Disclosure</u>	35
Item 9A. <u>Controls and Procedures</u>	35
Item 9B. <u>Other Information</u>	36
PART III	
Item 10. <u>Directors, Executive Officers and Corporate Governance</u>	37
Item 11. <u>Executive Compensation</u>	37
Item 12. <u>Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters</u>	37
Item 13. <u>Certain Relationships and Related Transactions and Director Independence</u>	37
Item 14. <u>Principal Accountant Fees and Services</u>	37
PART IV	
Item 15. <u>Exhibits and Financial Statement Schedules</u>	38
Item 16. <u>Form 10-K Summary</u>	38

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 and production enhancement services and products to the oil and gas industry. These services and products can enable 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 3,700 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.

In a continuing effort to streamline our business and align our business strategy for further integration of services and products, the Company committed to divest the business of our full range of permanent downhole monitoring systems and related services, which had been part of our Production Enhancement segment. We completed the divestment of this business in 2019 and concluded the final adjustment to the purchase agreement in 2020; the disclosure relating to the divestment of this business is included in Note 20 - *Discontinued Operations* of the Notes to the Consolidated Financial Statements in Part IV of this Form 10-K ("Notes to the Consolidated Financial Statements"). All prior period income statements have been adjusted to reclassify amounts related to this business to discontinued operations to conform to current period presentation. All disclosures on operating income and net income within these statements reflect the results from continuing operations for all periods presented. These reclassifications had no impact on the reported net income attributable to Core Laboratories N.V., financial position or cash flows for any of these prior periods.

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 our services and products that have been developed internally or obtained through acquisitions. This global emphasis 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 4 - *Acquisitions* of the Notes to the 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 two reporting segments. These complementary segments provide different services and products and utilize different technologies for evaluating and 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 21 - *Segment Reporting and Other Disaggregated Information* of the Notes to the Consolidated Financial Statements.

- **Reservoir Description:** Encompasses the characterization of petroleum reservoir rock, and reservoir fluids samples to increase production and improve recovery of crude oil and natural gas from our clients' reservoirs. We provide laboratory-based analytical and field services to characterize properties of crude oil and crude oil-derived products to the oil and gas industry. We also provide proprietary and joint industry studies based on these types of analyses and manufacture associated laboratory equipment.
- **Production Enhancement:** Includes services and manufactured products relating to reservoir well completions, perforations, stimulation and production. We provide integrated diagnostic services to evaluate and monitor the effectiveness of well completions and to develop solutions aimed at increasing the effectiveness of enhanced oil recovery projects.

We offer our services worldwide through a global network of offices. Services accounted for 77%, 71% and 69% of our revenue from continuing operations for the years ended December 31, 2020, 2019 and 2018, respectively.

We manufacture products primarily in five facilities for distribution on a global basis. Product sales accounted for 23%, 29% and 31% of our revenue from continuing operations for the years ended December 31, 2020, 2019 and 2018, respectively.

Reservoir Description

Commercial oil and gas fields consist of porous and permeable reservoir rocks that contain crude oil, natural gas and formation 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, all three reservoir fluids and their derived products. Services relating to these fluids include determining the quality and measuring the quantity of the reservoir 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 reservoir hydrocarbons at reservoir conditions to determine the changes in their physical properties with changing pressure and temperature. The number of pressure-volume-temperature ("PVT") related projects, has been increasing for the last several years, and reservoir fluid analyses now contribute approximately 60% of Reservoir Description revenue.

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 other subsurface data.

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 by using proprietary and patented laboratory methods, including both traditional physical measurements and more recently introduced new technologies, such as Core Lab's Non-Invasive Technologies for Reservoir OptimizationSM ("NITROSM") services. NITROSM services includes Dual Energy Computed Tomography ("DECT"), Micro Computed Tomography, high and low frequency nuclear magnetic resonance, high-resolution gamma logging and continuous high energy x-ray fluorescence, along with other Core Lab proprietary technologies.

Core Lab's proprietary DECT scanner-based deliverables generate millimeter-scale three dimensional images and accompanying high-resolution petrophysical logs on cored intervals by calibrating DECT information to the vast library of physical measurements in Core Lab's proprietary database. The DECT deliverables from Core Lab are more detailed than down-hole logs and provide better bed resolution as well as accurate information on rock properties such as lithology, porosity, density, rock strength and acoustic velocities.

DECT, when combined with Continuous Dual Gamma and Scanning X-ray Fluorescence ("CS-XRF"), allows Core Lab to assess continuous high-resolution elemental composition of the cored intervals. A proprietary formation-specific "inversion" technique can be used to convert the detailed elemental composition to a continuous mineral log enabling us to generate detailed lithologic descriptions of the reservoir and to perform a comprehensive reservoir characterization.

Core Lab conducts a wide variety of physical laboratory measurements to measure and evaluate fluid flow through the rock, often at in-situ reservoir temperatures and pressures. These are most commonly applied to conventional reservoirs. We have also developed unique analytical processes to understand the flow characteristics and saturation profiles of unconventional reservoir systems including (1) High Frequency Nuclear Magnetic Resonance measurements to gain insights into movable vs.

non-movable fluid saturations of these complex systems; and (2) Enhanced Oil Recovery of shale reservoirs by evaluating the effectiveness of gas cycling in nano-pore structures to significantly increase long-term production rates and volumes.

Core Lab has been at the forefront of digital transformation technologies for more than two decades. Core Lab's extensive, proprietary databases and analog technologies, coupled with artificial intelligence ("AI") and machine learning, help our clients improve efficiencies and lower operating costs throughout the upstream value chain. The analysis and integration, of these critical datasets is enhanced because of Core Lab's proprietary RAPID™ database. Core Lab's proprietary World Wide Rock Catalog™ provides a database and analog reference set for predicting properties when physical measurements are unavailable.

Core Lab's Digital Innovation Group integrates results and interpretations into a comprehensive, web-enabled platform, RAPID™, for client access. This allows our clients to gain insight into their core intervals at an accelerated pace, for both non-invasive technologies as well as time-honored physical laboratory measurements. Through this integrated visually interactive platform, key reservoir performance indicators are presented, evaluated and shared within client workgroups.

During 2020, Core Lab's Digital Innovation Group worked collaboratively with multiple international and national oil companies on projects that utilize several of Core Lab's proprietary digital technologies and services. Core Lab's proprietary Advanced Rock Typing technology combines Core Lab's vast, comprehensive database of physical measurements, and World Wide Rock Catalog™ with its proprietary image acquisition technology and innovative AI image recognition. These technologies provide clients with analog data sets in situations where acquisition of new conventional core may not be possible. High-resolution images of wellbore cuttings and sidewall cores are quickly and efficiently matched with analogs from Core Lab's proprietary database of samples from around the world. Physically measured data sets from the matching analogs are delivered to our clients in time to make appraisal and development decisions.

Core Lab also applies its rock fluid and data analytical capabilities to CO2 and other gas and liquid projects. These projects may be for enhanced oil recovery in mature fields, or for CO2-Carbon Capture and Sequestration projects.

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 and derived products. 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.

While 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: was launched to efficiently acquire our field data, laboratory analysis, optimize workflows and any other observations relevant to our client base. The system is designed for 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. The system can also share real-time data on mobile devices, enabling our clients to make quick decisions. This 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, 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. All data is being made available through dashboard technology, which for internal purposes is being used to measure the efficiency of workflows throughout the organization.

Further development continues in 2021, new modules continue to be added to our suite of IT platforms that enhance the distribution chain of our customers, with similar structure of using dashboard technology, enabling the customer to monitor live progress as well as operational data.

We conduct numerous large-scale, multi-company 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. We initiate and deliver a group of international and U.S. based consortium studies to evaluate both conventional and unconventional reservoirs. 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.

These industry consortium projects provide critical reservoir information to a broad spectrum of clients in a cost effective manner. These studies focus on regions of client interest across the globe, and include both conventional and unconventional reservoir targets. Studies often run for several years and new studies are initiated in response of current or upcoming client activity in a region. Core Lab retains rights of ownership to complete joint industry projects studies, which can be resold at a later date. 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.

Production Enhancement

We provide products and diagnostic services to help optimize well completions, reservoir operations and field development strategies in order to increase recoverable reserves in the most efficient way. Our product offerings focus on perforating technologies to establish communication between the wellbore and the reservoir. Our diagnostic services are used to access well completions and field floods. 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 drive more oil and gas to the producing wellbores. Many oilfields today are hydraulically fractured and/or flooded to maximize oil and gas recovery. Although Core Lab 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, products and expertise 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. Data on rock type and strength generated in our Reservoir Description segment 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 otherwise 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 cluster efficiency and ensure maximum stimulated reservoir volume and increased ultimate recovery.

SPECTRACHEM®, a chemical frac water tracer, 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.

The SPECTRACHEM® service is used for determining the effectiveness and efficiency of the hydraulic fracture stimulation of long, multi-stage horizontal wells in oil- and gas-shale plays in unconventional reservoirs. SPECTRACHEM® 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.

During 2020, our engineers developed and introduced a new application for our proprietary SPECTRACHEM® to determine whether horizontal wells are unobstructed and flowing through the entire length of a lateral well. Leveraged by operators in the Permian, Eagle Ford, and Haynesville, this technology can identify wellbore obstructions, often caused by inter-well communication or dissolvable plug remnants. By applying this technology, our clients can identify and remediate well obstructions that can negatively impact well performance, reserve calculations and reserve-based lending.

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 images later in the life of the well to see how hydrocarbon production from different reservoir layers or different quality rock varies over time.

Our FLOWPROFILERTM service, a proprietary hydrocarbon-based tracer technology, which is a further development of our patented SPECTRACHEM® technology 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. FLOWPROFILERTM technology and the analytical methodology for identifying the hydrocarbon-soluble tracers are the protected intellectual property of Core Lab.

FLOWPROFILERTM 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 and gas associated with each stage, while the water-soluble tracer remains in the stimulation fluid. When the well is flowed, oil, gas and water samples are collected and analyzed in the laboratory to identify and quantify oil or gas flows from each stage as well as 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 providing valuable insight for future wells. This service is being used to monitor offset

well interference by sampling offset well oil, 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 continue to see broadening acceptance of FLOWPROFILERTMEDS, a proprietary technology, which is an engineered delivery system ("EDS"). The break-through EDS technology delivers time-released diagnostics for evaluating the crude-oil flow from each stage of a hydraulically fractured completion. This technology comprises proprietary 40/70 or 100 mesh particles, chemically engineered to bond specifically with our proprietary oil tracers. This allows for precise placement of tracers in the propped fracture providing accurate identification of oil production by stage. Crude-oil production by stage is determined by using this Core Lab-developed technology that enables the diagnostic tracer to be absorbed and chemically-bonded to durable, proppant-size particles that accompany the frac sand. The tracer will release from the engineered particles once they contact the reservoir's crude oil, enabling Core Lab to assess which stages are contributing to crude-oil production.

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 ("SMATM"), 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 SPECTRATMFLOOD technology, which we developed to optimize sweep efficiency during field floods.

Our PACKSCAN[®] patented technology is used to evaluate gravel pack effectiveness in unconsolidated reservoirs. PACKSCAN[®] measures the density changes in 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 Lab's many patented reservoir diagnostic technologies, Production Enhancement has established itself as a global leader in the manufacturing and distribution of high-performance perforating products. Core Lab'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 perforation of an oil or gas well has resulted in numerous patented products.

HEROTM ("High Efficiency Reservoir Optimization") and SuperHEROTM are examples of the patented perforating systems which quickly gained market acceptance and became industry leaders in enhancing reservoir performance. The SuperHEROTM charge evolved from the HEROTM 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-HRTTM (Hard Rock) charges, resulted in Core Lab also having the deepest penetrating perforating charges on the market as certified by API testing.

HEROTMPerFRAC leverages the HEROTM technology. In addition to the benefits of HEROTM technology, HEROTMPerFRAC charges are designed specifically for optimizing fracture stimulation well completions by providing a uniform hole size which minimizes tortuosity effects. This results in less required surface horsepower and less time which both translate into lower costs needed to complete the fracturing operation. In addition to optimizing stimulation operations with faster, lower cost programs, well 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 Lab'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.

Consistent with the HEROTMPerFRAC uniform hole size option, the ReFRAC product line was also introduced and has experienced increasing client acceptance. The ReFRAC technology is utilized in mechanically isolated re-stimulation programs where the internal string is used to isolate older, depleted stages in previously under-stimulated wells. The ReFRAC technology creates a uniform hole size through two strings of casing. This re-completion method is gaining popularity because it allows operators to perforate, pump and stimulate new rock between the original stages of the well, increasing hydrocarbon recovery without the expense of drilling and completing a new well. Operators using Core Lab's ReFRAC technology have reported they can now complete twice as many stages per day compared to conventional perforating systems, reducing their operating costs and improving cash flow.

The HEROTM line of perforating charges, HEROTMPerFRAC, SuperHEROTM, HERO-HRTTM and ReFRAC 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 Permian Basin, Bakken, Eagle Ford, Marcellus, Niobrara and similar oil- and gas-shale formations.

Core Lab acquired Guardian Global Technologies Ltd. ("Guardian") in 2018. Based in Pyle, Wales, Guardian is a technologically sophisticated designer and manufacturer of downhole instrumentation utilized by international oil and gas

operators for well completions. Guardian's proprietary downhole energetic solutions are designed to systemize, simplify, automate, and de-risk the deployment of perforating systems. The Ballistics Delivery System ("BDSTM") provides a unique range of perforating tools and equipment, which have been developed to provide a number of advantages over existing technology. The BDSTM tools facilitate perforation accuracy while addressing wellbore assurance concerns and optimizing safety, thus alleviating some of the challenges encountered when perforating. It also assists with issues incurred with high underbalanced perforating, running heavy/long assemblies, oriented perforating, depth control, reduction in fishing risk, and acquiring wellbore pressure data as guns fire. Core Lab's BDS™ and the Addressable Fire Switch are key differentiators of Core Lab's preassembled GoGun™ Adaptive Perforating System. The GoGun™ Adaptive Perforating System provides an open architecture design. This allows for optimal utilization of perforating energetics and, importantly, the onsite flexibility of altering completion designs for greater wellsite efficiency and improved Stimulated Reservoir Volume.

During 2020, Core Lab introduced its next generation, best-in-class, HERO®PerFRAC energetic technology, which is now available in combination with the new, patent pending Oriented GoGun™. This new offering provides our clients with a technological solution for achieving: 1) extreme limited entry perforating capability, 2) precisely aligned perforations, and 3) minimized connections and completion string length. Casing erosion around perforations can occur when stimulating unconventional reservoirs. Larger perforating holes preferentially increase in size and take more frac fluid, robbing stimulation from smaller perforating holes, which results in inconsistent breakdown of the formation. The consistent-sized holes generated by the latest HERO®PerFRAC charges reduce this problem. Core Lab partnered with major U.S. operators to design custom, consistent-hole-size charges that can be aligned in a specific orientation in order to achieve uniform breakdown across each stage. By eliminating the need for reusable orientation subassemblies, the Oriented GoGun™ minimizes the number of connections and saves time at the wellsite by not having to recapture and redress the orienting subs.

Core Lab's Production Enhancement segment commissioned a cutting-edge, Reservoir Optimized Completions Lab ("ROC Lab™") in Godley, Texas. The ROC Lab™ is designed to determine the best energetic solutions for a specific rock type, to maximize productivity of an operator's reservoir. The ROC Lab™ features an industry-leading, Ultra High Pressure/High Temperature perforation test vessel. The test vessel is paired with a proprietary flow system that uses highly specialized, internally developed and manufactured pumps and flow controllers. Combined, these technologies create a proprietary flow loop capable of dynamically displacing oil, brine and gas through rock samples that have been perforated with preselected energetics. Core Lab leverages its multi-decadel expertise in conducting multi-phase fluid flow tests through porous medium to optimize this technological investment.

Core Lab'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. Market applications in Canada's steam-assisted gravity drainage 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.

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 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 incurring significant costs 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 and reflected in the operational results of the associated business segment. 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 our new technologies are the result of requests and guidance from our clients, particularly major oil companies.

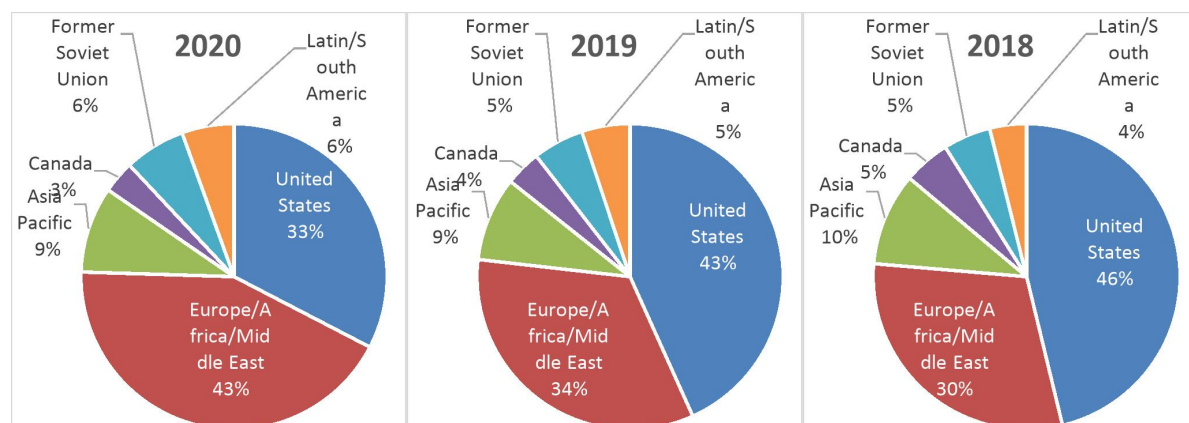
Patents and Trademarks

We believe our patents, trademarks, technology, 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 67%, 57% and 54% of our revenue from operations during the years ended December 31, 2020, 2019 and 2018, respectively. We attribute service revenue to the country in which the service was performed rather than where the reservoir or project is located, 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 service revenue performed and recorded in the U.S. 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, 2020, 2019 and 2018:



	United States	Europe/Africa/ Middle East	Asia Pacific	Canada	Former Soviet Union	Latin/ South America	Consolidated
2020	\$ 158,937	\$ 208,862	\$ 44,440	\$ 16,616	\$ 31,498	\$ 26,914	\$ 487,267
2019	\$ 289,173	\$ 223,988	\$ 59,554	\$ 25,240	\$ 36,078	\$ 34,177	\$ 668,210
2018	\$ 324,073	\$ 211,081	\$ 68,641	\$ 34,633	\$ 35,173	\$ 27,245	\$ 700,846

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 occupational safety and health. Compliance with environmental legal requirements in the United States at the federal, state or local levels may require acquiring permits to conduct regulated activities, incurring capital expenditures to limit or prevent emissions, discharges and any unauthorized releases, and complying with stringent practices to handle, recycle and dispose of certain wastes. Additionally, our operations in the United States are subject to stringent occupational safety and health laws and regulations, which are intended to protect worker health and safety. Foreign countries in which we conduct operations may also have analogous controls that regulate our environmental and worker safety-related activities, which controls may impose additional, or more stringent requirements. Consistent with our quality assurance and

control principles, we have established proactive environmental and worker safety policies in the United States and foreign countries for the management, handling, recycling or disposal of chemicals and gases and other materials and wastes resulting from our operations. 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 or cancellations in the permitting or performance of projects and the issuance of injunctive relief in affected areas. Historically, our environmental and worker 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.

New, modified or stricter enforcement of environmental laws and regulations could be adopted or implemented that significantly increase our compliance costs, pollution mitigation costs, or the cost of any remediation of environmental contamination that may become necessary, and these costs could be material. Our clients are also subject to most, if not all, of the same laws and regulations relating to environmental protection and occupational safety and health in the United States and in foreign countries where we operate. Consequently, to the extent these environmental compliance costs, pollution mitigation costs or remedial costs are incurred by our clients, those clients could elect to delay, restrict or cancel drilling, exploration or production programs, which could reduce demand for our products and services and, as a result, have a material adverse effect on our business, financial condition, results of operations, or cash flows.

Our and our clients' compliance with such existing, or any new or amended legal requirements that are placed into effect and applicable in areas where we or our clients conduct operations, could result in our or our clients' incurring significant additional expense and operating restrictions. Our costs may not be fully recoverable from our clients and, thus, could reduce net income. To the extent any such existing or future legal requirements result in increased costs or restrictions or cancellation in the operation of our clients, to whom we provide our services, such developments could reduce demand for our products and services and have an indirect material adverse effect on our business.

Additionally, our analytical and manufacturing processes involve the handling and use of numerous chemicals and gases as well as the generation of wastes. Spills or other unauthorized 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.

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 as well as the adoption and implementation of legislation, executive orders, and other regulatory initiatives that seek to combat climate change by restricting fossil fuel activities or the locations in which such activities may be conducted, may have a material adverse effect on our financial position, results of operations or cash flows. This risk factor is perhaps amplified given recent pronouncements and actions taken by the executive and/or legislative branches of the U.S. government in an uncertain and shifting political environment.

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.

Human Capital

We are primarily a service provider in the oilfield services industry, so our workforce includes employees who are highly skilled professionals, including engineers and geologists, and other technical personnel, in addition to our administrative employees. As of December 31, 2020, we had approximately 3,700 employees. We do not have any material collective bargaining agreements and consider relations with our employees to be good.

Core Lab values its employees and is committed to providing resources that engage employees, enhance their work experience, and develop them for the future. Our Core Values are the framework that unite us on the path toward achieving our goals and propelling Core Lab forward. These values represent and establish the foundation by which we treat each other, conduct our business and simply define “how we do things around here”. By embedding our Core Values into our operating strategies, we ensure that our company culture and mission also drive our ESG sustainability efforts. We engage our employees on our progress and core values that define us as a company. We keep our employees informed of major business developments through CoreConnect, a communication initiative to drive connection and engagement between employees and executive leadership cascaded via extended leadership teams, periodic emails, quarterly newsletters, quarterly reports, and annual events.

To assist in this pledge, Core Lab has created its talent management strategy based on the employee life cycle. To ensure we have a diverse employee population reflective of our communities and client base, we’ve implemented recruiting practices that support and encourage the hiring and retention of diverse talent. Our total rewards approach is aligned to our business strategy and country-specific market influences. We offer competitive compensation and benefit programs in each country where we operate. Our approach not only encompasses competitive compensation and benefits, but also personal and professional growth opportunities within a global performance culture.

We develop our employees through performance management processes, competency-based development plans and training both in leadership and functional areas while also offering educational assistance programs. Our annual performance management cycle is an ongoing process that enables managers and employees to collaborate throughout the year to set performance goals and development objectives that align to business objectives. This process is designed to help employees understand where they add value to the organization, provide focus on and discussion around career aspirations, and reward employees for high performance.

We promote a culture-centric focus on the health and safety of our employees and the environment with a pro-active approach towards identifying and managing risks through recognition, evaluation, and education. We empower our employees by fostering a sense of responsibility for managing their own work environment through open communication, and a management-supported “zero accident” culture.

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.

The SEC 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.

Risk factors associated with the industry in which we operate

Events beyond Core Lab’s control, including a global or domestic health crisis, have resulted and may continue to result in unexpected adverse operating and financial results.

The COVID-19 pandemic has significantly reduced demand for our services, and has had, and is likely to continue to have, a material adverse effect on our financial condition, results of operations and cash flows. The effects of the COVID-19 pandemic have resulted in a significant and swift reduction in international and U.S. economic activity. The reduced demand for oil caused by this unprecedented global health and economic crisis, coupled with an oversupply of oil, led to a significant decrease of oil prices in 2020. Government reaction to the pandemic and restrictions and limitations applied by governments, continued

widespread growth in infections, travel restrictions, quarantines, or site closures as a result of the virus could, among other things, impact the ability of Core Lab's employees and contractors to perform their duties, cause increased technology and security risk due to extended and company-wide telecommuting, lead to disruptions in Core Lab's logistics and negatively affect customer relationships as a result. All of these factors may impact the timing of the recognition of revenue and results of operations for a particular quarter.

The extent to which our operating and financial results will continue to be affected by COVID-19 will depend on various factors and consequences beyond our control, which will depend on numerous evolving factors and future developments that it is not able to predict, including, but not limited to, the following:

- the length of time that the pandemic continues;
- its effect on the demand for oil and natural gas;
- the response of the overall economy and the financial markets;
- the effect of governmental actions taken in response to the pandemic; and
- the speed and effectiveness of responses to combat the virus, including vaccine development and distribution.

Any of those outcomes could have a material adverse effect on Core Lab's business, financial condition, results of operations and cash flows and could perhaps amplify risk factors described in this Form 10-K.

Any cost reduction initiatives that Core Lab undertakes may not deliver the results it expects, and these actions may adversely affect its business.

In response to the financial risks presented by COVID-19, Core Lab implemented a variety of cost-cutting measures which began in March 2020, continued during the second quarter of 2020 and may need to implement additional cost-cutting measures that may adversely affect its business. These cost-cutting measures have included reductions in the quarterly dividend, base salaries of senior executives and annual capital expenditures, employee furloughs, workforce reductions, among other reductions of corporate and operating costs.

In addition, these initiatives could result in disruptions to Core Lab's operations. Any cost-cutting measures could also negatively impact Core Lab's business by delaying the introduction of new products or technologies, interrupting service of additional products, or impacting employee retention. In addition, there can be no assurance that additional costs will not offset any such reductions of its operations. If Core Lab's operating costs are higher than expected, or if it does not maintain adequate control of its costs and expenses, Core Lab's results of operations will suffer. If Core Lab is unable to mitigate these or other potential risks related to its cost cutting initiatives, it may disrupt Core Lab's business or could have a material adverse effect on its financial condition and results of operations.

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, including market prices of oil and gas and expectations about future prices;
- the adoption of legal requirements or taxation;
- changes in existing laws, regulations or other governmental actions;
- cost of producing and the ability to deliver oil and natural gas;
- the level of drilling and production activity;
- financial condition of our client base and their ability to fund capital expenditures;
- coordination by the OPEC;
- weather conditions and the physical effects of climatic change;
- civil unrest or political uncertainty in oil producing or consuming countries;

- level of consumption of oil, gas and petrochemicals by consumers;
- availability of services and materials for our clients to grow their capital expenditures and to deliver product to market; and
- availability of materials and equipment from key suppliers.

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.

Changes in macro-economic factors impacting the oil and gas industry may negatively affect our ability to accurately predict client demand, which could cause 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.

Risk factors associated with our international presence

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. 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, including the United States, routine examination by taxing authorities and assessment of additional taxes, penalties and/or interest;
- trade and economic sanctions, tariffs or other restrictions imposed by the European Union, the United States or other countries;
- 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 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.

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 Board of Supervisory Directors (the "Supervisory Board") 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 the Supervisory Board 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.

Risk factors associated with technology advancement

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.

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.

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. Although we devote significant resources to protect our systems, there can be no assurance that our systems will prevent or limit the effects of cyber-attacks or will be sufficient to prevent or detect, or to avoid a material adverse impact on our systems when such attacks do occur. If our systems for protecting against cyber-attacks prove not to be sufficient, we could be adversely affected by loss or damage of intellectual property, proprietary information, client data, our reputation, interruption of business operations, or additional costs to prevent, respond to, or mitigate cyber-attacks. These risks could have a material adverse effect on our business, results of operations, and financial condition.

Risk factors associated with our supply chain, resources, liquidity and capital management

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.

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 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. In periods of high utilization, 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 flows 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.

Risk factors associated with the health, safety and the environment

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 foreign countries relating to protection of the environment, and occupational health and safety. 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 or cancellations 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.

Additionally, our clients are also subject to most, if not all, of the same laws and regulations relating to environmental protection and occupational safety and health in the United States and in foreign countries where we operate. To the extent existing environmental laws and regulations or any new or more stringently enforced environmental legal requirements significantly increase our clients' compliance costs, pollution mitigation costs or remedial costs, our clients could elect to delay, restrict or cancel drilling, exploration or production programs, which could reduce demand for our products and services and have a material adverse effect on our business, financial condition, results of operations, or cash flows. For example, hydraulic fracturing continues to attract considerable public and governmental attention, both in the United States and in foreign countries, resulting in various controls applied to fracturing activities.

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 or other proppants and chemical additives 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 Canada, 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.

Additionally, a growing number of states have adopted, and other states are considering adopting, legal requirements that could impose more stringent disclosure, permitting and/or well construction requirements on hydraulic fracturing operations, and local governments may also seek to adopt ordinances within their jurisdictions regulating the time, place and manner of hydraulic fracturing activities.

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, curtailment or cancellation in the pursuit of exploration, development or production activities, which could reduce demand for our products and services.

Climate change continues to attract considerable public, political and scientific attention in the United States and in foreign countries. As a result, numerous regulatory initiatives have been made, and are likely to continue to be made, at the international, national, regional and state levels of government to monitor and limit existing emissions of greenhouse gases as well as to restrict or eliminate such future emissions.

See "Environmental and Occupational Safety and Health Regulations", under Item 1 of this Form 10-K for further discussion on environmental and worker safety and health matters.

ITEM 1B. UNRESOLVED STAFF COMMENTS

None.

ITEM 2. PROPERTIES

Currently, we have over 70 offices (totaling approximately 2.5 million square feet of space) in more than 50 countries. In these locations, we lease approximately 1.5 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, United Arab Emirates; 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, our more significant manufacturing facilities are located in Godley, Texas, Red Deer, Alberta, Canada and Pyle, Wales 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 12 - *Commitments and Contingencies* of the Notes to the 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 under the symbol "CLB".

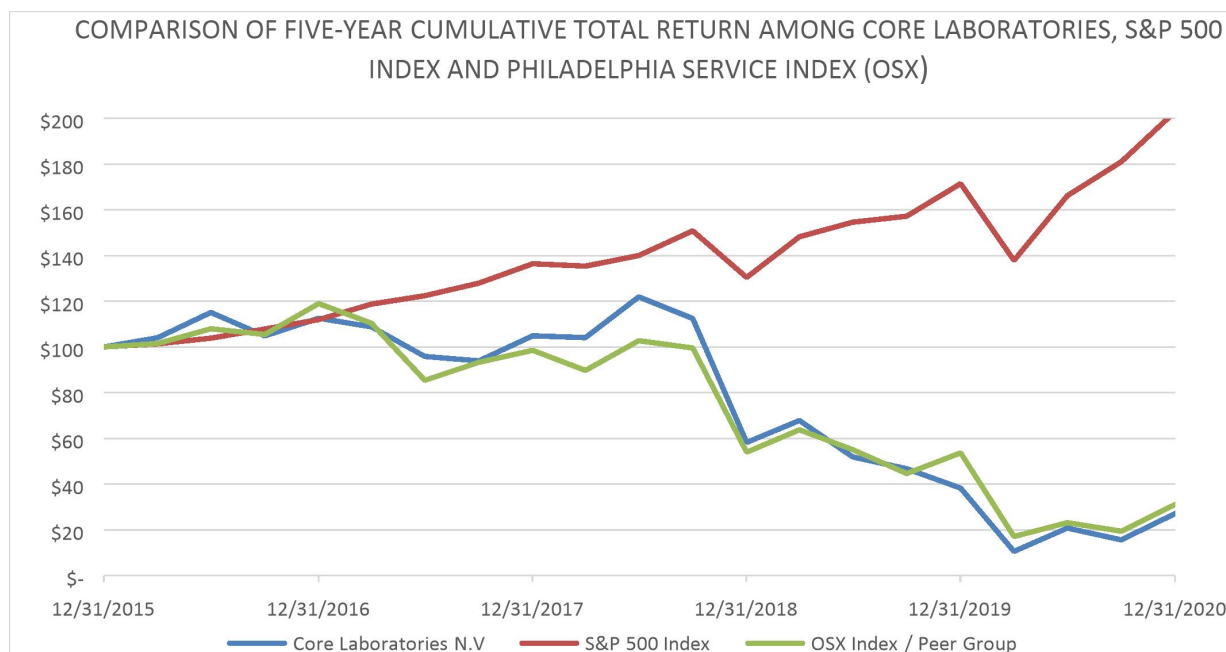
On February 4, 2021, the closing price, as quoted by the NYSE, was \$35.76 per share and there were 44,573,622 common shares issued and outstanding held by approximately 219 record holders. These amounts exclude shares held by us as treasury shares.

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

Performance Graph

The following performance graph compares the performance of our common shares to the Standard & Poor's 500 Index and the Philadelphia Oil Service Index ("OSX") for the period beginning December 31, 2015 and ending December 31, 2020. Core Lab is now an established member of the OSX which 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, 2015 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 2020

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, 2020:

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 (3)(4)
October 1, 2020 to October 31, 2020 (1)	—	—	—	4,178,069
November 1, 2020 to November 30, 2020 (2)	508	\$ 14.45	—	4,179,396
December 1, 2020 to December 31, 2020 (2)	45,421	\$ 26.26	—	4,256,174
Total	45,929	\$ 26.13	—	

(1) No shares were repurchased during October 2020.

(2) All shares repurchased during November and December 2020 were surrendered to us by participants in a stock-based compensation plan to settle any personal tax liabilities which may result from the award.

(3) The maximum number of shares allowed to be purchased under the program was 4,178,069 at September 30, 2020.

(4) During the quarter, 124,034 treasury shares were distributed relating to stock-based awards, including 1,835 in November and 122,199 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 20, 2020, our shareholders authorized an extension until November 20, 2021 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, 2020, we have repurchased 39,790,928 shares for an aggregate purchase price of approximately \$1.7 billion, or an average price of \$41.54 per share. At December 31, 2020, we held 223,451 shares in treasury and have the authority to repurchase 4,256,174 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,				
	2020	2019	2018	2017	2016
(in thousands, except per share and other data)					
Financial Statement Data:					
Revenue	\$ 487,267	\$ 668,210	\$ 700,846	\$ 647,819	\$ 590,232
Income (loss) from continuing operations (1)	(97,073)	94,284	79,847	80,985	65,024
Working capital	76,098	109,643	128,430	106,851	82,438
Total assets (5)	568,579	774,673	648,827	584,812	573,052
Long-term debt and capital lease obligations	259,433	305,283	289,770	226,989	216,188
Total equity	75,573	182,140	160,900	148,732	155,297

Earnings (Loss) Per Share Information:

Income (loss) from continuing operations:

Basic	\$ (2.18)	\$ 2.13	\$ 1.81	\$ 1.83	\$ 1.50
Diluted	\$ (2.18)	\$ 2.11	\$ 1.80	\$ 1.83	\$ 1.49

Weighted average common shares outstanding:

Basic	44,477	44,357	44,206	44,153	43,479
Assuming Dilution	44,477	44,646	44,474	44,264	43,670
Cash dividends declared per common share	\$ 0.28	\$ 2.20	\$ 2.20	\$ 2.20	\$ 2.20

Other Data:

Current ratio (2)	1.85:1	2.01:1	2.25:1	2.06:1	1.79:1
Debt to EBITDA ratio (3)	NM	2.47:1	1.97:1	1.59:1	1.79:1
Debt to Adjusted EBITDA ratio (4)	2.82:1	1.93:1	1.59:1	1.36:1	1.50:1

"NM" means not meaningful.

(1) Income (loss) from continuing operations for the year ended December 31, 2020 includes total impairment charges of \$122.2 million for goodwill and certain intangible assets, a charge of \$10.4 million for inventory write-downs and a reversal of \$11.9 million of stock compensation expenses previously recognized that did not vest and were revalued.

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

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

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

(5) The adoption of ASC Topic 842 - Leases on January 1, 2019 resulted in an increase of \$77.5 million to total assets.

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

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 and production enhancement 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 two reporting segments. These complementary segments provide different services and products and utilize different technologies for evaluating and improving reservoir performance and increasing oil and gas recovery from new and existing fields:

- **Reservoir Description:** Encompasses the characterization of petroleum reservoir rock and reservoir fluids samples to increase production and improve recovery of crude oil and natural gas from our clients' reservoirs. We provide laboratory-based analytical and field services to characterize properties of crude oil and crude oil-derived products to the oil and gas industry. We also provide proprietary and joint industry studies based on these types of analyses and manufacture associated laboratory equipment.
- **Production Enhancement:** Includes services and manufactured products relating to reservoir well completions, perforations, stimulation and production. We provide integrated diagnostic services to evaluate and monitor the effectiveness of well completions and to develop solutions aimed at increasing the effectiveness of enhanced oil recovery projects.

General Overview

We provide services as well as design and produce products which enable our clients to evaluate and improve 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 appraising and developing 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, 2020, 2019 and 2018, 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:

	2020	2019	2018
Baker Hughes Worldwide Average Rig Count (1)	1,351	2,177	2,211
Baker Hughes U.S. Average Rig Count (1)	436	944	1,032
Baker Hughes Worldwide Year-End Rig Count (2)	1,095	2,043	2,244
Baker Hughes U.S. Year-End Rig Count (2)	339	804	1,078
Average Crude Oil Price per Barrel WTI (3)	\$ 39.17	\$ 56.98	\$ 65.23
Average Crude Oil Price per Barrel Brent (4)	\$ 41.96	\$ 64.28	\$ 71.34
Average Natural Gas Price per MMBtu (5)	\$ 2.02	\$ 2.56	\$ 3.15
Year-end Crude Oil Price per Barrel WTI (3)	\$ 48.35	\$ 61.14	\$ 45.15
Year-end Crude Oil Price per Barrel Brent (4)	\$ 51.22	\$ 67.77	\$ 50.57
Year-end Natural Gas Price per MMBtu (5)	\$ 2.36	\$ 2.09	\$ 3.25

(1) Twelve month average rig count as reported by Baker Hughes - Worldwide Rig Count.

(2) Year-end rig count as reported by Baker Hughes - Worldwide Rig Count.

(3) Average daily and year-end West Texas Intermediate crude spot price as reported by the U.S. Energy Information Administration ("EIA").

(4) Average daily and year-end Europe Brent crude spot price as reported by the EIA.

(5) Average daily and year-end Henry Hub natural gas spot price as reported by the EIA.

The prices for both WTI and Brent crude oil declined from 2018 to 2019 and decreased significantly at the end of the first quarter of 2020 and throughout the second quarter of 2020, due to the outbreak of COVID-19. The COVID-19 pandemic and associated government mandated shut-downs around the world, home sheltering and social distancing policies, have caused a significant decline in the demand for crude oil and associated products. Crude-oil prices improved during the second half of 2020, and became more stable during the fourth quarter of the year. The end result was the average price for crude oil in 2020 was approximately 33% lower than the average price for 2019. In general, activities associated with the exploration of oil and

gas in the U.S. onshore market are more sensitive to changes in the crude-oil commodity prices, as opposed to larger international and offshore projects which take multiple years to plan and develop, and once announced and started, will continue through completion, despite changes in the current price of crude oil. Crude-oil prices in 2018 and 2019 remained at levels sufficient to support more stable levels in U.S. onshore activities associated with both the exploration and production of crude oil. Additionally, during the 2018 - 2019 time period, public announcements of investments in larger international and offshore projects increased and activity levels on these larger international and offshore projects began to improve in 2018 and continued to improve into 2019. However, in early 2020, the impact of COVID-19 to global economies caused a significant and sharp decline in demand for crude oil, which resulted in a significant and sharp decrease in the price of crude oil. Activity levels in the U.S. onshore market also responded immediately and decreased significantly to historically low levels, which bottomed in the summer of 2020, but showed some recovery in the second half of the year as global demand partially recovered, global production of crude oil was reduced and crude oil prices showed some recovery. Information published by the EIA, shows that the inventory of wells drilled but uncompleted (a "DUC" well) was 7,543 as of December 31, 2018, increasing to a peak in July 2019 at approximately 8,533, however, it subsequently declined to 7,782 and 7,592 at end of 2019 and 2020, respectively. This data indicates that during the period of higher activity in 2018, operators were drilling wells but not completing them as the DUC inventory grew. However, as activity levels began to fall in the second half of 2019, and a sharper decline in 2020, primarily due to the impact of COVID-19, the operators began to drill fewer new wells, but were completing some of the wells that had been previously drilled, which is reflected in the lower DUC inventory at December 2019 and 2020.

In North America, the land-based rig count decreased over 11% from 2018 to 2019. There was subsequently a significant decline of 51% in 2020 due to the impact of COVID-19. Consequently, the magnitude of decline in demand for both services and product sales to this market responded in line with the changes over this time period. The increase in activities on development projects and producing fields in the U.S. unconventional reservoirs during 2018 showed a decline when the commodity price weakened and activity levels decreased in 2019. In the U.S., the lower commodity prices led to a 54% decrease in the annual average land-based rig count and a decline in U.S. based activities in 2020.

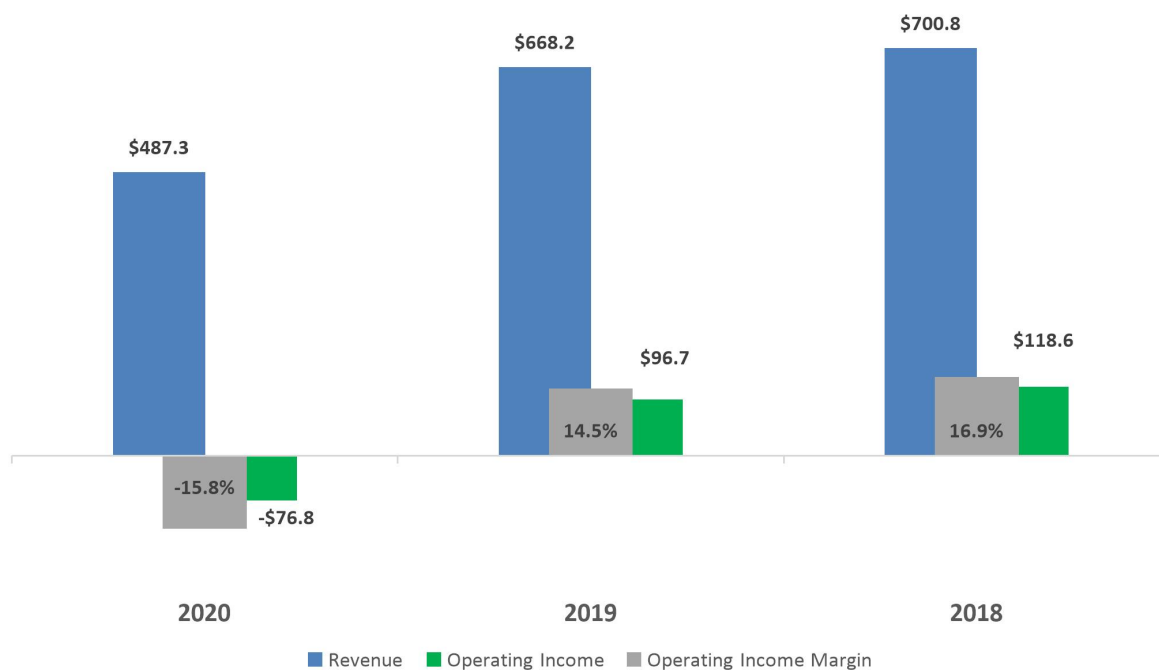
Outside of North America, activities associated with the exploration for and production of oil were showing modest improvement in 2018 and 2019 until the global pandemic emerged in early 2020. The decrease in global demand for crude oil caused by the global pandemic also had a significant impact on exploration and production activities in the international markets as the number of active rigs outside the United States decreased almost 39% during 2020. Long-term international and offshore projects which are commonly announced through Final Investment Decisions and subsequently initiated are not susceptible or at-risk to delay or suspension due to short-term volatility in crude-oil commodity price, however the extreme negative market conditions caused by the COVID-19 pandemic and efforts to reduce the spread of the virus have negatively impacted the entire energy market in 2020.

Results of Operations

Operating Results for the Year Ended December 31, 2020 Compared to the Years Ended December 31, 2019 and 2018

We evaluate our operating results by analyzing revenue, operating income and operating income margin (defined as operating income divided by total revenue). Since we have a relatively fixed cost structure, decreases in revenue generally translate into lower operating income results. Results for the years ended December 31, 2020, 2019 and 2018 are summarized in the following chart:

Revenue, Operating Income and Operating Income Margin (in millions)



Results of operations as a percentage of applicable revenue for the years ended December 31, 2020, 2019 and 2018 are as follows (in thousands, except for per share information):

	2020		2019		2018		2020 / 2019	2019 / 2018
Revenue:							% Change	
Services	\$ 376,421	77.3%	\$ 474,193	71.0%	\$ 486,820	69.5%	(20.6)%	(2.6)%
Product Sales	110,846	22.7%	194,017	29.0%	214,026	30.5%	(42.9)%	(9.3)%
TOTAL REVENUE	487,267	100.0%	668,210	100.0%	700,846	100.0%	(27.1)%	(4.7)%
OPERATING EXPENSES:								
Cost of services* (1)	279,281	74.2%	345,641	72.9%	343,833	70.6%	(19.2)%	0.5%
Cost of product sales* (1)	95,486	86.1%	149,938	77.3%	153,131	71.5%	(36.3)%	(2.1)%
Total cost of services and product sales	374,767	76.9%	495,579	74.2%	496,964	70.9%	(24.4)%	(0.3)%
General and administrative expenses (1)	34,033	7.0%	48,023	7.2%	62,910	9.0%	(29.1)%	(23.7)%
Depreciation and amortization	20,867	4.3%	22,605	3.4%	23,087	3.3%	(7.7)%	(2.1)%
Impairments and other charges	122,204	25.1%	—	—	—	—	NM	NM
Inventory write-down	10,375	2.1%	—	—	—	—	NM	NM
Other (income) expense, net	1,826	0.4%	5,319	0.8%	(737)	(0.1)%	NM	NM
OPERATING INCOME (LOSS)	(76,805)	(15.8)%	96,684	14.5%	118,622	16.9%	NM	(18.5)%
Interest expense	14,372	2.9%	14,690	2.2%	13,328	1.9%	(2.2)%	10.2%
Income (loss) before income tax	(91,177)	(18.7)%	81,994	12.3%	105,294	15.0%	NM	(22.1)%
Income tax expense (benefit)	5,896	1.2%	(12,290)	(1.8)%	25,447	3.6%	NM	NM
Income (loss) from continuing operations	(97,073)	(19.9)%	94,284	14.1%	79,847	11.4%	NM	18.1%
Income (loss) from discontinued operations	(424)	(0.1)%	7,833	1.2%	(58)	—	NM	NM
Net income (loss)	(97,497)	(20.0)%	102,117	15.3%	79,789	11.4%	NM	28.0%
Net income (loss) attributable to non-controlling interest	140	—	134	—	263	—	NM	NM
Net income (loss) attributable to Core Laboratories N.V.	\$ (97,637)	(20.0)%	\$ 101,983	15.3%	\$ 79,526	11.3%	NM	28.2%
Diluted earnings (loss) per share from continuing operations								
	\$ (2.18)		\$ 2.11		\$ 1.80		NM	17.2%
Diluted earnings (loss) per share attributable to Core Laboratories N.V.								
	\$ (2.20)		\$ 2.28		\$ 1.79		NM	27.4%
Diluted weighted average common shares outstanding								
	44,477		44,646		44,474			

* Percentage based on applicable revenue rather than total revenue.

"NM" means not meaningful.

(1) Excludes depreciation.

Services Revenue

Services revenue, which is primarily tied to activities associated with the exploration and production of oil and gas outside the U.S., decreased to \$376.4 million in 2020 from \$474.2 million in 2019 and \$486.8 million in 2018. In 2020, the adverse impact of the COVID-19 pandemic, and government mandated shut-down around the world, home sheltering and social distancing policies caused a sharp decline in the demand for crude-oil and associated products. The average crude-oil price in 2020 was 33% lower than the average price of 2019. This resulted in decreased and disrupted activity by our clients and disruptions to our revenue generating operational activities leading to a sharp decrease in service revenue in both the U.S. and international markets during most of 2020. Crude-oil prices weakened in 2019 with the average price of 10% lower than the average price in 2018. This resulted in decreased activity by our clients leading to lower service revenue in the North America onshore market during 2019 compared to 2018. However, improvement in the level of work performed for offshore and international exploration and production projects partially offset some of the decline in the U.S. market.

We continue to focus on large-scale core analyses and reservoir fluids characterization studies in the Eagle Ford, the Permian Basin and the Gulf of Mexico, along with Guyana, Surinam, Malaysia and other international locations such as offshore South America, Australia, and the Middle East, including Kuwait, Saudi Arabia, Qatar, the United Arab Emirates and other countries. Analysis of crude oil and crude oil-derived products also occurs in every major producing region of the world.

Product Sales Revenue

Product sales revenue, which is primarily tied to the completion of onshore wells in North America, was \$110.8 million in 2020, a decrease from \$194.0 million and \$214 million in 2019 and 2018, respectively. Rig count is one indicator of activity levels associated with the exploration and production of oil and gas. The rig count for North America significantly decreased in excess of 50% from 2019 to 2020 and decreased from 2018 to 2019 by 12%. Our products sales revenue decreased 43% from 2019 to 2020, and decreased 9% from 2018 to 2019, primarily due to our differentiated well completion products.

Cost of Services, excluding depreciation

Cost of services decreased to \$279.3 million in 2020 compared to \$345.6 million and \$343.8 million in 2019 and 2018, respectively. As a percentage of services revenue, cost of services increased to 74% in 2020 from 73% and 71% in 2019 and 2018, respectively. The decrease in cost of services in 2020 from 2019 was primarily due to a significant decline in client activity levels and employee compensation and related charges associated with cost reduction initiatives implemented by the Company during the year. A slight increase in cost of services in 2019 from 2018, was primarily due to employee compensation and related charges. Cost of services expressed as a percentage of services revenue, is primarily reflective of how our cost structure is absorbed by revenue, and the timing of implementation of cost reduction initiatives executed by the Company in responding to the adverse changes in client activity levels.

Cost of Product Sales, excluding depreciation

Cost of product sales of \$95.5 million in 2020 decreased from \$150.0 million and \$153.1 million in 2019 and 2018, respectively. Given product sales are primarily associated with our Production Enhancement segment and the North American market, cost of sales is impacted by decreased activities associated with clients operating in these segments and geographic markets. As a percentage of product sales revenue, cost of sales increased to 86% for 2020 from 77% and 72% for 2019 and 2018, respectively. Cost of product sales expressed as a percentage of product sales revenue is primarily reflective of how our fixed costs are absorbed by revenue. Due to the significant decrease in product sales revenue in 2020, fixed costs increased as a percentage of total cost of product sales and product sales revenue.

General and Administrative Expense, excluding depreciation

General and administrative ("G&A") expenses include corporate management and centralized administrative services that benefit our operations. G&A expenses were \$34.0 million in 2020 compared to \$48.0 million and \$62.9 million during 2019 and 2018, respectively. The variances are primarily due to changes in compensation expense during those periods, including accelerated stock compensation expense of \$6.7 million in 2020, \$7.2 million in 2019 and \$9.9 million in 2018 recorded for retirement eligible employees. During 2020, due to the significant adverse impact caused by the COVID-19 pandemic, certain performance metrics associated with long-term stock-based performance awards were not achieved, resulting in potential employee stock awards above the target level not vesting or being issued in 2020. However, the Company's Compensation Committee approved a modification to the methodology of measuring performance conditions associated with target level long-term employee stock-based compensation awards, which vested at target levels on December 31, 2020. As a result of the stock-based awards not vesting above the target levels and modifications to the performance measures, the value of the stock-based awards that did vest on December 31, 2020 were revalued, and \$11.9 million of previously recognized stock compensation expense was reversed in 2020, out of which \$11.3 million was recorded in G&A expenses and \$0.6 million recorded in cost of sales. See Note 14 - *Stock-Based Compensation* of the Notes to the Consolidated Financial Statements for further details.

Depreciation and Amortization Expense

Depreciation and amortization expense of \$20.9 million in 2020 is down compared to \$22.6 million and \$23.1 million in 2019 and 2018, respectively, as a result of decreased capital expenditures.

Impairments, inventory write-down and other charges

During the year ended December 31, 2020, the events associated with the COVID-19 pandemic and the resulting sharp decrease in the price of crude oil, which caused a sharp decrease in the consumption and demand for crude oil, led to a triggering event in March 2020. In response to the triggering event, the Company updated its analysis associated with future cash flows and the valuation of assets and potential impairment of goodwill and intangible assets. Our updated analysis resulted in the Company recording a charge of \$114.0 million for impairment of goodwill and \$8.2 million for impairments to

intangible assets in March 2020 in our Production Enhancement segment. In addition, we recorded a charge of \$10.4 million associated with inventory obsolescence and a valuation write-down related to our Production Enhancement segment.

There were no other triggering events during the year, and based on our annual assessment for the year ended December 31, 2020, we determined there was no further impairment for any of our reporting units or asset groups.

Other (Income) Expense, net

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

	For the Years Ended December 31,		
	2020	2019	2018
Gain on sale of assets	\$ (1,254)	\$ (583)	\$ (1,078)
Results of non-consolidated subsidiaries	(125)	(208)	(203)
Foreign exchange (gain) loss	1,160	1,725	2,598
Rents and royalties	(466)	(607)	(510)
Employment related charges	—	2,998	—
Return on pension assets and other pension costs	(1,502)	(1,501)	(644)
Acquisition-related costs	—	—	623
Gain on sale of business	—	(1,154)	—
Insurance settlement	—	—	(707)
Loss on lease abandonment	504	—	—
Cost reduction and other charges	3,943	5,555	—
Other, net	(434)	(906)	(816)
Total Other (income) expense, net	<u>\$ 1,826</u>	<u>\$ 5,319</u>	<u>\$ (737)</u>

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

	For the Years Ended December 31,		
	2020	2019	2018
Australian Dollar	\$ 174	\$ 158	\$ 183
British Pound	653	599	158
Canadian Dollar	590	489	458
Euro	458	469	208
Other currencies, net	(715)	10	1,591
Foreign exchange (gain) loss, net	<u>\$ 1,160</u>	<u>\$ 1,725</u>	<u>\$ 2,598</u>

Interest Expense

Interest expense of \$14.4 million in 2020 compared to \$14.7 million and \$13.3 million in 2019 and 2018, respectively. In 2020, the Company reduced outstanding debt under its Credit Facility by \$46.0 million, however additional interest expense was incurred to modify the revolving credit agreement in 2020 which also includes higher interest rate spreads when compared to the previous terms under revolving credit agreement. The increase in interest expense in 2019 when compared to 2018 is primarily due to increased average borrowing under our Credit Facility in 2019 compared to 2018.

Income Tax Expense

Our effective tax rate was (6.5)%, (15.0)%, and 24.2% for 2020, 2019 and 2018, respectively. Income tax expense of \$5.9 million in 2020 increased by \$18.1 million compared to a \$12.3 million benefit in 2019 primarily due to a large impairment charge of \$122.2 million in the first quarter of 2020, of which a substantial portion was not deductible for tax purposes. A \$5.5 million benefit was recognized associated with this impairment. In contrast, a benefit of \$60.7 million was recognized in 2019 related to corporate restructuring which was partially offset by a charge of \$26.7 million related to unremitted earnings of foreign subsidiaries that we no longer consider to be indefinitely reinvested.

See Note 10 - *Income Taxes* of the Notes to the Consolidated Financial Statements for further detail of income tax expense.

Discontinued Operations

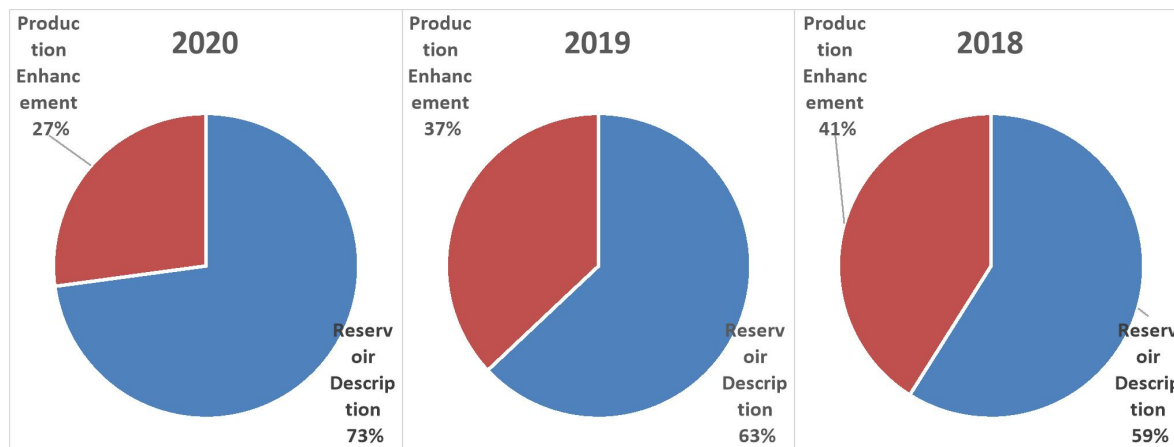
In a continuing effort to streamline our business and align our business strategy for further integration of services and products, the Company committed to divest our full range of permanent downhole monitoring systems and related services, which had been part of our Production Enhancement segment. We entered into the definitive purchase agreement on June 7, 2019 for the divestiture of this business, and during the year ended December 31, 2020, we concluded final adjustments to the purchase agreement of the sold business.

See Note 20 - *Discontinued Operations* of the Notes to the Consolidated Financial Statements for additional information.

Segment Analysis

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

Segment Revenue



Segment Revenue

(dollars in thousands)	For the Years Ended December 31,				
	2020	% Change	2019	% Change	2018
Reservoir Description	\$ 355,041	(15.6)%	\$ 420,897	1.9%	\$ 413,082
Production Enhancement	132,226	(46.5)%	247,313	(14.1)%	287,764
Total Revenue	<u>\$ 487,267</u>	<u>(27.1)%</u>	<u>\$ 668,210</u>	<u>(4.7)%</u>	<u>\$ 700,846</u>

Segment Operating Income (Loss)

(dollars in thousands)	For the Years Ended December 31,				
	2020	% Change	2019	% Change	2018
Reservoir Description	\$ 55,044	(0.2)%	\$ 55,140	0.5%	\$ 54,847
Production Enhancement	(133,449)	NM	38,378	(39.1)%	63,039
Corporate and other (1)	1,600	NM	3,166	NM	736
Operating Income (Loss)	<u>\$ (76,805)</u>	<u>NM</u>	<u>\$ 96,684</u>	<u>(18.5)%</u>	<u>\$ 118,622</u>

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

"NM" means not meaningful.

Segment Operating Income (Loss) Margins (1)

	For the Years Ended December 31,		
	2020 Margin	2019 Margin	2018 Margin
Reservoir Description	15.5%	13.1%	13.3%
Production Enhancement	(100.9)%	15.5%	21.9%
Total Company	<u>(15.8)%</u>	<u>14.5%</u>	<u>16.9%</u>

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

Reservoir Description

Revenue for our Reservoir Description segment decreased to \$355.0 million in 2020 compared to \$420.9 million and \$413.1 million in 2019 and 2018, respectively. Reservoir Description's operations are heavily exposed to international and offshore project activity levels, with approximately 80% of its revenue sourced outside the U.S. In 2019, our client's activity levels in the international markets had modestly increased when compared to 2018. However, in early 2020 when the COVID-19 pandemic began, global economies were locked down in an effort to reduce the spread of the virus and demand for crude oil decreased sharply. The sharp decrease in demand and challenges to remain operational during the global pandemic caused many adverse impacts to the energy industry, our clients and the Company. Revenue was also adversely impacted in 2020 due to the COVID-19 pandemic. We continue to focus on large-scale core analyses and reservoir fluids characterization studies in the Eagle Ford, the Permian Basin and the Gulf of Mexico, along with Guyana, Suriname, Malaysia and other international locations such as offshore South America, Australia, and the Middle East, including Kuwait, Saudi Arabia, Qatar, the United Arab Emirates and other countries. Analysis of crude oil and crude oil-derived products also occurs in every major producing region of the world.

Operating income of \$55.0 million remained relatively flat in 2020 compared to \$55.1 million in 2019 and from \$54.8 million in 2018. Although there was a significant decline in our client's activity levels and the Company's revenue in 2020 caused by the factors indicated above, operating income was less affected as the Company implemented significant cost reductions in 2020, and as a result of reversing previously recognized stock compensation expense for certain employees' PSAP awards of \$7.6 million. See Note 14 - *Stock-Based Compensation* of the Notes to the Consolidated Financial Statements for further detail. The increased operating income in 2019 from 2018 was primarily due to improved activity levels associated with large projects in international markets. However, the improved operating income for 2019 was partially offset by additional expenses associated with employee severance and other cost reduction initiatives of \$4.0 million. Included in both 2019 and 2018 are additional stock compensation expense of \$4.7 million in 2019 for retirement eligible employees compared to \$6.3 million in 2018. See Note 14 - *Stock-Based Compensation* of the Notes to the Consolidated Financial Statements for further detail. Operating margins improved to 15.5% in 2020 compared to 13.1% and 13.3% in 2019 and 2018, respectively. Operating margins in 2020 improved due to a significant decrease in costs of services as a result of cost reduction initiatives implemented and the reduction of stock-based compensation expense described above.

Production Enhancement

Revenue for our Production Enhancement segment of \$132.2 million in 2020 decreased compared to \$247.3 million and \$287.8 million in 2019 and 2018, respectively. In 2020, a sharp decrease of drilling and well completion activities in the U.S. onshore market was primarily due to impact of the global pandemic as described above. The U.S. rig count decreased in excess of 50% during 2020 as compared to 2019 and decreased 12% in 2019 when compared to 2018. Our clients continue to seek technological solutions for increasing daily production and estimated ultimate recoveries from their reservoirs and we continue to benefit from our clients' acceptance of new services and products which were led by the HERO® PerFRAC, GoGun™, FLOWPROFILER EDSTM and ReFRAC technologies.

Our Production Enhancement segment had operating loss of \$133.4 million in 2020 compared to operating income of \$38.4 million and \$63.0 million in 2019 and 2018, respectively. The operating loss in 2020 was primarily the result of non-cash charges of \$122.2 million for impairment of goodwill and certain intangible assets, a charge in excess of \$10.0 million for inventory valuation write-down and obsolescence, and severance expense of \$2.6 million recorded during the year. This operating loss was partially offset by the benefit of cost reduction initiatives implemented during 2020 and reversal of previously recognized stock compensation expense associated with certain employees' long term stock-based performance awards of \$3.6 million. See Note 14 - *Stock-Based Compensation* of the Notes to the Consolidated Financial Statements. The decrease in operating income from 2018 to 2019, is primarily due to a decrease in exploration and production activity in the U.S. onshore market over this time period.

Operating margin was negative 101% in 2020, which was the result of a significant decrease in revenue combined with the goodwill impairment, asset impairments and inventory charges recorded as described above. Operating margin for 2020 were breakeven, when excluding the non-cash charges associated with the goodwill impairment, asset impairment and inventory write down. Operating margins in 2019 and 2018 were 15.5% and 21.9%, respectively, and decreased primarily due to lower revenue in 2019.

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 provide the primary source of funds to finance operating needs, capital expenditures and our dividend and share repurchase programs. We believe our future cash flows from

operations, supplemented by our borrowing capacity under our Credit Facility and the ability to issue additional equity and debt, should be sufficient to fund our debt requirements, capital expenditures, working capital, dividend payments and future acquisitions. The Company will continue to monitor and evaluate the availability of debt and equity markets.

In response to market conditions, Core Lab's Supervisory Board approved a plan to reduce the Company's quarterly dividends to \$0.01 per share beginning with the second quarter of 2020 and to focus excess free cash flow on debt reduction. In March 2020, the Company implemented cost reduction initiatives and expanded these initiatives in June 2020, which included: (i) corporate and operating cost reductions; (ii) annual capital expenditures reduced to approximately \$12 million, and (iii) eliminating all non-essential costs. The corporate and operating cost reductions included reductions in workforce and reduction of senior executive and employee compensation. Specifically, the Company has reduced senior executives' annual base salary by 20% for the foreseeable future. On June 22, 2020, also in response to market conditions, we entered into Amendment No. 1 (the "Amendment") to the Credit Facility. The Amendment provides, among other things, an increase to the maximum leverage ratio permitted under the Credit Facility for certain periods. See Note 9 - *Long-Term Debt*, Net of the Notes to the Consolidated Financial Statements for additional information. Additionally, on October 16, 2020, the Company entered into an agreement (the "2020 Notes Purchase Agreement") to issue \$60 million in notes (the "2020 Senior Notes") in a private placement, which were issued and funded at the closing on January 12, 2021. The Company used the net proceeds from the 2020 Senior Notes to reduce outstanding debt under the Company's Credit Facility, which increased the available borrowing capacity and liquidity for Core Lab. We intend to maintain sufficient borrowing capacity under the Credit Facility to both retire the maturing debt obligations in September 2021, and provide additional liquidity, should the company require it for other purposes. See Note 9 - *Long-Term Debt*, Net of the Notes to the Consolidated Financial Statements for additional information.

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 and on the terms and conditions of our existing and future credit arrangements. 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, 2020, \$8.8 million of our \$13.8 million of cash was held by our foreign subsidiaries, including the U.S.

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 (in thousands):

	For the Years Ended December 31,		
	2020	2019	2018
Free Cash Flow Calculation			
Net cash provided by operating activities	\$ 57,868	\$ 89,527	\$ 111,827
Less: cash paid for capital expenditures	(11,880)	(22,269)	(21,741)
Free cash flow	<u>\$ 45,988</u>	<u>\$ 67,258</u>	<u>\$ 90,086</u>

The decrease in free cash flow in 2020 compared to 2019 was primarily attributable to a decrease in activity levels and cash generated from operations, and cash payments for employee post-retirement benefits funded by previously purchased company-owned life insurance policies, offset by a decrease in working capital and capital spending. The decrease in free cash flow in 2019 compared to 2018 was also due to lower operational activity levels in 2019, but also an increase in working capital and a slight increase in capital expenditures in 2019.

Cash Flows

The following table summarizes cash flows (in thousands):

	For the Years Ended December 31,		
	2020	2019	2018
Cash provided by/(used in):			
Operating activities	\$ 57,868	\$ 89,527	\$ 111,827
Investing activities	7,851	(5,677)	(70,639)
Financing activities	(63,005)	(85,874)	(42,472)
Net change in cash and cash equivalents	<u>\$ 2,714</u>	<u>\$ (2,024)</u>	<u>\$ (1,284)</u>

The decreases in cash provided by operating activities in 2020 compared to 2019 was primarily due to significant decreases in activity levels and operating income due to the impact of the COVID-19 and cash payments for employee post-retirement benefits funded by previously purchased company-owned life insurance policies, partially offset by benefits from cost reduction initiatives implemented in 2020 and a decrease in working capital. The decrease in cash provided by operating activities in 2019 compared to 2018 was primarily due to decreased operating income as the activity levels for the U.S. onshore oil and gas market declined.

Cash provided by investing activities was \$7.9 million in 2020 compared to cash used in investing activities of \$5.7 million in 2019. The increase in cash flows from investing activities in 2020 was primarily due to lower capital expenditures in 2020 of \$11.9 million, a decrease of \$10.4 million when compared to 2019 capital expenditures, and cash received from company-owned life insurance policies of \$20.4 million in 2020, compared to proceeds from the divestiture of two businesses totaling \$17.8 million in 2019. Cash used in investing activities in 2019 decreased \$65.0 million compared to 2018, as 2018 included an acquisition, net of cash, for \$47.3 million, and 2019 includes proceeds from the divestiture of two businesses as indicated above.

Cash used in financing activities in 2020 decreased \$22.9 million compared to 2019. In 2020, dividends paid were reduced by \$85.1 million, of which \$46 million were used to repay of debt borrowings, which compares to \$15 million provided by proceeds from debt borrowings in 2019. Cash used in financing activities in 2019 increased \$43.4 million compared to 2018. During 2019, we used \$3.3 million to repurchase our common shares, \$97.6 million to pay dividends, and increased our debt balance by \$15 million. During 2018, we used \$7.5 million to repurchase our common shares, \$97.3 million to pay dividends, and increased our debt balance by \$64 million, primarily to fund the acquisition of a business in 2018 for \$48.9 million.

During 2020, we repurchased 100,929 shares of our common stock for an aggregate amount of \$2.8 million, or an average price of \$27.68 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 long-term employee stock-based compensation plans 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 20, 2020 at our annual shareholders meeting, our shareholders authorized the extension of our share repurchase program until November 20, 2021 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 \$26.51 per share on December 31, 2020, an increase of 558%.

Credit Facility and Available Future Liquidity

In 2011, we issued two series of senior notes with an aggregate principal amount of \$150 million ("2011 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 2011 Senior Notes is payable semi-annually on March 30 and September 30.

On June 22, 2020, we entered into the Amendment to the Credit Facility. The Amendment increases the maximum leverage ratio permitted under the Credit Facility for certain periods. Pursuant to the terms of the Amendment, the maximum leverage ratio permitted under the Credit Facility is as follows:

Quarter ending	Maximum leverage ratio permitted
June 30, 2020 up to and including June 30, 2021	3.00
September 30, 2021	2.75
December 31, 2021 and thereafter	2.50

Moreover, the Amendment modified the range of variable interest rates that the Credit Facility may bear to be a range from LIBOR plus 1.500% to LIBOR plus 2.875% and included the addition of a LIBOR floor of 0.50%. The Amendment also reduced the aggregate borrowing commitment under the Credit Facility to \$225 million and the amount by which we may elect to increase the facility size, known as the “accordion” feature, to \$50 million, subject to the satisfaction of certain conditions. Interest payment terms are variable depending upon the specific type of borrowing under this facility.

Any outstanding balance under the Credit Facility is due on maturity on June 19, 2023. Our available capacity at any point in time is reduced by outstanding borrowings and outstanding letters of credit which totaled \$12.9 million, resulting in an available borrowing capacity under the Credit Facility of \$101.1 million, at December 31, 2020. In addition to indebtedness under the Credit Facility, we had \$6.1 million of outstanding letters of credit and performance guarantees and bonds from other sources as of December 31, 2020.

The Credit Facility remains unsecured, and contains customary representations, warranties, terms and conditions for similar types of facilities. The terms of the Credit Facility and 2011 Senior Notes require us to meet certain covenants, including, but not limited to, an interest coverage ratio (calculated as consolidated EBITDA divided by interest expense) and a leverage ratio (calculated as 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 and 2011 Senior Notes each include a cross-default provision, whereby a default under one agreement may trigger a default in the other agreement. The Credit Facility has the more restrictive covenants with a minimum interest coverage ratio of 3.0 to 1.0 and permits a maximum leverage ratio as described above. The Credit Facility allows non-cash charges such as impairment of assets, stock compensation and other non-cash charges to be added back in the calculation of consolidated EBITDA. The terms of our Credit Facility also allow us to negotiate in good faith to amend any ratio or requirement to preserve the original intent of the agreement if any change in accounting principles would affect the computation of any financial ratio or covenant of the Credit Facility. In accordance with the terms of the Credit Facility, our leverage ratio is 2.82, and our interest coverage ratio is 6.09, each for the period ended December 31, 2020. We believe that we are in compliance with all covenants contained in our Credit Facility and 2011 Senior Notes. Our parent, Core Laboratories N.V., together with certain of our material, wholly-owned subsidiaries are guarantors or co-borrowers under the Credit Facility and 2011 Senior Notes.

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 2.50% through August 29, 2024. In February 2020, we entered into the second swap agreement of \$25 million, under which we have fixed the LIBOR portion of the interest rate at 1.3% through February 28, 2025. Each swap is measured at fair value and recorded in our consolidated balance sheet as an asset or 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 income (loss) and are recognized in income as an increase or decrease to interest expense in the period in which the related cash flows being hedged are recognized in expense. On October 16, 2020, we, along with Core Laboratories (U.S.) Interests Holdings, Inc. as issuer, entered into the 2020 Notes Purchase Agreement. The 2020 Senior Notes were issued and funded on January 12, 2021. The Company used the \$60 million in proceeds from issuing the 2020 Senior Notes to reduce the outstanding borrowings under the Credit Facility. Series A of the 2020 Senior Notes consists of \$45 million in aggregate principal amount that bear interest at a fixed rate of 4.09% and are due in full on January 12, 2026. Series B of the 2020 Senior Notes consists of \$15 million in aggregate principal amount that bear interest at a fixed rate of 4.38% and are due in full on January 12, 2028. Interest on each series of the 2020 Senior Notes is payable semi-annually on June 30 and December 30, commencing on June 30, 2021.

The terms of the 2020 Senior Notes require us to meet certain covenants, including, but not limited to, an interest coverage ratio (calculated as consolidated EBITDA divided by interest expense) and a leverage ratio (calculated as consolidated net indebtedness divided by consolidated EBITDA), where consolidated EBITDA (as defined in the 2020 Notes Purchase Agreement) and interest expense are calculated using the most recent four fiscal quarters; and a priority indebtedness ratio (calculated as Priority Indebtedness divided by Consolidated Total Assets (as defined in the 2020 Notes Purchase Agreement.) The financial covenants for the 2020 Notes Purchase Agreement are aligned with the Credit Facility and the associated 2020 Notes Purchase Agreement also allows renegotiation of the ratios in consideration of changes in accounting principles. We along with certain of our material, wholly-owned subsidiaries, are guarantors or co-borrowers under the 2020 Senior Notes.

On December 17, 2020, we entered into an Equity Distribution Agreement with Wells Fargo Securities, LLC for the issuance and sale of up to \$60.0 million of our common shares. Under terms of the Equity Distribution Agreement, the sales of our common shares may be made by any method deemed to be an “at-the-market offering” as defined in Rule 415 under the Securities Act of 1933. The Company elects when to issue a placement notice which may, among other sales parameters, specify the number of shares to be sold, the minimum price per share to be accepted, the daily volume of shares that may be sold and the range of dates when shares may be sold. There have been no sales under the agreement as of December 31, 2020, or for the time period from January 1, 2021 through February 5, 2021.

In addition to our repayment commitments under our Credit Facility and our 2011 Senior Notes, we have non-cancellable operating lease arrangements under which we lease office and lab space, machinery, 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)	\$ 261,000	\$ 75,000	\$ 186,000	\$ —	\$ —
Operating leases (2)	67,545	11,437	18,107	12,167	25,834
Pension (3)	591	591	—	—	—
Total contractual obligations	<u>\$ 329,136</u>	<u>\$ 87,028</u>	<u>\$ 204,107</u>	<u>\$ 12,167</u>	<u>\$ 25,834</u>

(1) Not included in the above balances are anticipated cash payments for interest of \$6.1 million a year for 2020-2021 and cash payments for interest of \$3.1 million a year for 2022-2023 for a total of \$18.4 million. Series A 2011 Seniors due in September 2021 are refinanced by the proceeds of the 2020 Senior Notes and the Credit Facility.

(2) Non-cancellable operating lease commitments in accordance to ASC Topic 842 - Leases.

(3) 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, 2020. Not included in the table above are uncertain tax positions of \$6.3 million that we have accrued for at December 31, 2020, as the amounts and timing of payment, if any, are uncertain. See Note 10 - Income Taxes of the Notes to the Consolidated Financial Statements for further detail of this amount.

At December 31, 2020, we had tax net operating loss carry-forwards in various jurisdictions of \$62.3 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, 2020. If unused, those carry-forwards which are subject to expiration may expire during the years 2021-2030. During 2020, we have no net operating loss carry-forwards, which carried a full valuation allowance, that expired unused.

We expect our investment in capital expenditures to track client demand for our services and products. Given the uncertain trend in industry activity levels, we have not determined, at this time, the level of investment that will be made in 2021. 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.

Outlook

The events occurring during 2020 associated with the COVID-19 pandemic and government mandated business shut-downs around the world, home sheltering and social distancing policies have caused a significant decline in the demand for crude oil and associated products. The significant decline in demand has resulted in a significant decline in the price of crude oil, which has also resulted in a high degree of uncertainty about future demand and the future price for crude oil as long as the virus concerns persist. U.S. onshore drilling and completion activity have experienced the most significant impact, as the rig count and completion of wells have declined significantly during 2020 from previous year levels. International activity has also been impacted by disruption to our clients' operations and a significant decline in the international rig count. Additionally, our clients experienced disruptions from a record number of named tropical weather systems in the Gulf of Mexico during 2020. Although physical damage to Core Lab's facilities was minor; our clients experienced interruptions of business activity due to pre-storm preparations, offshore facility evacuations, local area flooding, power outages, and post-storm clean-up.

While the full impact of COVID-19 on our business and the long-term worldwide impact still remains unknown, Core Laboratories has continued to operate as an essential business with timely delivery of products and services to our clients during the COVID-19 pandemic. Continued government restrictions, widespread growth in infections, travel restrictions, quarantines, and mandated site closures have led to disruptions in business workflows, which are expected to continue into 2021. These disruptions have primarily been associated with operational workflows stemming from travel, product delivery and installation, as well as suspensions and delays in client projects. We have not experienced any significant disruptions in our supply chain, and do not anticipate significant disruption in our supply chain. We also maintained and refreshed our continuity plan across our global organization to protect the health of employees while servicing clients.

As part of our long-term growth strategy, we continue our efforts to expand our market presence by opening or expanding facilities in strategic areas and realizing synergies within our business lines subject to client demand and market conditions. We

believe our market presence provides us a unique opportunity to service clients who have global operations whether they are international oil companies, national oil companies, or independent oil companies.

Our major clients continue to focus on capital management, return on invested capital ("ROIC"), free cash flow, and returning capital back to their shareholders, as opposed to a heavier focus on growing production. The companies adopting value versus volume metrics tend to be the more technologically sophisticated operators and form the foundation of Core Lab's worldwide client base. Considering a longer-term strategy, we expect to be well positioned as our clients continue their focus on employing higher technological solutions in their efforts to optimize production and estimated ultimate recovery ("EUR") in the most cost efficient, environmentally responsible, manner. We believe operators will continue to manage their capital spending within reduced budgets and maintain their focus on strengthening their balance sheets and generating positive free cash flow.

International field development spending was impacted by reduced operating budgets in response to declines in demand tied to COVID-19. Reservoir Description continues to work with clients and discuss the progression of longer-term international projects. Longer-term international and offshore projects are expected to continue and are not as susceptible or at-risk due to shorter-term volatility in crude oil commodity price. International and offshore activity are expected to gradually improve as the pandemic abates, but the timing of this improvement remains unclear. Additionally, the reservoir fluids analysis that is performed on projects associated with current producing fields, continues to be critical and will be less affected by lower commodity prices for crude oil. The adverse impact from COVID-19 and the depression of crude-oil prices has resulted in increased uncertainty associated with the activity levels and revenue opportunities from these international and offshore projects, however most of the larger projects, especially the projects that have already been commissioned and are in development, are focused on a longer term forecast versus a short to mid-term assessment of the crude oil commodity prices.

U.S. onshore activity levels were most significantly impacted and reached historically low levels by mid-2020. However, U.S. onshore activity levels began to recover during the second half of the year, although not to the same levels preceding the COVID-19 pandemic. Assuming the situation with the COVID-19 virus improves across the globe and crude oil commodity prices remain at current levels or improve, we believe the U.S. onshore activity will gradually improve during 2021.

In response to market conditions, Core Lab's Supervisory Board approved a plan to reduce the Company's quarterly dividends to \$0.01 per share beginning with the second quarter of 2020 and to focus excess free cash flows towards the reduction of debt. In March 2020, the Company implemented cost reduction initiatives and expanded these initiatives in June 2020, which included: (i) corporate and operating cost reductions; (ii) annual capital expenditures reduced to approximately \$12 million, and (iii) eliminating all non-essential costs. The corporate and operating cost reductions included reductions in workforce and reduction of senior executive and employee compensation. Specifically, the Company has reduced senior executives' annual base salary by 20% for the foreseeable future. Although activities have declined and remained low in second half of 2020 due to the factors discussed above, this decline has been partially offset by the effectiveness of the Company's cost control initiatives. Lastly, the net proceeds from the 2020 Senior Notes, issued on January 12, 2021, were used exclusively to reduce outstanding debt and increase liquidity under the Company's Credit Facility as we work towards our long-term strategy of reducing debt.

Core Lab believes these immediate actions, as well as continued assessment of market conditions, will allow Core Lab, as it has for over 83 years, to navigate through these challenging times. Core Lab remains focused on preserving the quality of service for its clients and producing returns for its shareholders.

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, 2020.

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 expected to be recovered or the liability is expected to be 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 \$6.3 million and \$6.2 million at December 31, 2020 and 2019, 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 technology, 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 recorded an impairment charge of \$8.2 million for certain intangible assets during the year ended December 31, 2020. We did not record any material impairment charges relating to intangible assets during the years ended December 31, 2019 and 2018.

We review our long-lived assets, including definite-lived intangible and right-of-use 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, 2020, 2019 and 2018.

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 both qualitative and quantitative, and includes subjective estimates based on assumptions regarding future revenue growth rates, discount rate and expected margins. 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 recorded an impairment charge of \$114.0 million for goodwill of one of our reporting units during the year ended December 31, 2020. We did not record impairment charges relating to our goodwill or our indefinite-lived intangible assets during the years ended December 31, 2019 and 2018.

Stock-Based Compensation

We have two stock-based compensation plans, as described in further detail in Note 14 - *Stock-Based Compensation* of the Notes to the 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. 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 over the requisite service period of the

award. The fair value is determined by calculating the share price on the date of grant less the discounted value of the expected dividends to be paid over the vesting period.

Off-Balance Sheet Arrangements

We do not have any off-balance sheet financing arrangements such as securitization agreements, liquidity trust vehicles 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;
- major outbreak of global pandemic and restricting mobilization of field personnel;
- weather and seasonal factors;
- 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 2019

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. In July 2018, the FASB issued ASU 2018-11 ("Targeted Improvements to Leases"), which provides companies with an additional transition method that allows the effects of the adoption of the new standard to be recognized as a cumulative-effect adjustment to the opening balance of retained earnings in the period of adoption. We elected this optional transition method for adoption. The adoption of this standard on January 1, 2019 had a material impact to our Consolidated Balance Sheet, but not to our Consolidated Statement of Operations or Cash Flows. The most significant impact was the recognition of \$77.5 million of ROU assets and liabilities for operating leases, while our accounting for finance leases remained substantially unchanged.

Pronouncements Adopted in 2020

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 U.S. 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. We adopted this standard on January 1, 2020, and there has been no significant impact on our consolidated financial statements or on our accounting policies and processes.

In January 2017, the FASB issued ASU 2017-04 ("Simplifying the Test for Goodwill Impairment") which eliminates a step in computing the implied fair value of goodwill with a new methodology of an entity performing an annual goodwill impairment test by comparing the fair value of a reporting unit with its carrying amount. We adopted this standard on January 1, 2020. The new methodology was applied for the interim goodwill impairment analysis performed upon the triggering event of the COVID-19 pandemic during the three month period ended March 31, 2020, and it did not change the conclusion that goodwill had been impaired. There has been no significant impact on our consolidated financial statements or on our accounting policies and processes as a result of adopting this updated accounting standard.

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, 2020 and 2019 approximated the book value.

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 2.50% through August 29, 2024. In February 2020, we entered into the second swap agreement of \$25 million, under which we have fixed the LIBOR portion of the interest rate at 1.3% through February 28, 2025. Each swap is measured at fair value and recorded in our consolidated balance sheet as an asset or 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 income (loss) and are recognized in income as an increase or decrease to interest expense in the period in which the related cash flows being hedged are recognized in expense.

Our Credit Facility bears interest at variable rates from LIBOR plus 1.500% to a maximum of LIBOR plus 2.875% and includes a LIBOR floor of 0.500%. As a result of the two interest rate swap agreements, we are subject to interest rate risk on debt in excess of \$50 million drawn on our Credit Facility. At December 31, 2020, we had an outstanding balance of \$111 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

None.

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 SEC. 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, 2020 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 GAAP.

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, 2020. 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, 2020.

The effectiveness of our internal control over financial reporting as of December 31, 2020, has been audited by KPMG LLP, 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, 2020 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 (the "2021 Proxy Statement") to be filed in connection with our 2021 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, 2020.

ITEM 10. DIRECTORS, EXECUTIVE OFFICERS AND CORPORATE GOVERNANCE

Incorporated by reference to the definitive Proxy Statement for the 2021 Annual Meeting of Shareholders.

Core Lab has a Code of Ethics and Corporate Responsibility that applies to all of its directors, officers and employees, including its principal executive, financial and accounting officers, or persons performing similar functions. Core Lab's Code of Ethics and Corporate Responsibility is posted on its website at www.corelab.com/cr/cms/docs/code_of_ethics_and_corporate_responsibility.pdf.

ITEM 11. EXECUTIVE COMPENSATION

The information set forth under the captions "Compensation Discussion and Analysis," "Information About our Named Executive Officers and Executive Compensation" in Core Lab's 2021 Proxy Statement is incorporated herein by reference.

ITEM 12. SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT AND RELATED STOCKHOLDER MATTERS

The information under the captions "Ownership of Securities—Security Ownership by Certain Beneficial Owners and Management" and "Compensation Discussion and Analysis—2020 Compensation Program Details" in Core Lab's 2021 Proxy Statement is incorporated herein by reference.

ITEM 13. CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS AND DIRECTOR INDEPENDENCE

The information under the captions "Information About our Supervisory Directors and Director Compensation—Supervisory Director Independence" and "Information About our Supervisory Directors and Director Compensation—Related Person Transactions" in Core Lab's 2021 Proxy Statement is incorporated herein by reference.

ITEM 14. PRINCIPAL ACCOUNTANT FEES AND SERVICES

The information under the caption "Information About our Independent Registered Public Accounting Firm" in Core Lab's 2021 Proxy Statement is incorporated herein by reference.

PART IV

ITEM 15. EXHIBITS AND FINANCIAL STATEMENT SCHEDULES

(a) Financial Statements

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

	Page
Reports of Independent Registered Public Accounting Firm-KPMG LLP	F-1
Consolidated Balance Sheets as of December 31, 2020 and 2019	F-6
Consolidated Statements of Operations for the Years Ended December 31, 2020, 2019 and 2018	F-7
Consolidated Statements of Comprehensive Income (Loss) for the Years Ended December 31, 2020, 2019 and 2018	F-8
Consolidated Statements of Changes in Equity for the Years Ended December 31, 2020, 2019 and 2018	F-9
Consolidated Statements of Cash Flows for the Years Ended December 31, 2020, 2019 and 2018	F-11
Notes to the Consolidated Financial Statements	F-13

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.

ITEM 16. FORM 10-K SUMMARY

Not applicable.

INDEX TO EXHIBITS

Exhibit No.	Exhibit Title	Incorporated by Reference from the Following Documents
3.1	<u>Articles of Association of the Company, as amended on May 18, 2017 (including English translation)</u>	Form 10-K, February 12, 2018 (File No. 001-14273)
4.1	<u>Description of Share Capital</u>	Filed Herewith
10.1	<u>Core Laboratories N.V. 2020 Long-Term Incentive Plan (1)</u>	Appendix A to Definitive Proxy Statement dated March 20, 2020 for Annual Meeting of Shareholders (File No. 001-14273)
10.2	<u>Core Laboratories N.V. 2014 Nonemployee Director Stock Incentive Plan (as amended and restated effective as of May 12, 2014) (1)</u>	Proxy Statement dated March 19, 2014 for Annual Meeting of Shareholders (File No. 001-14273)
10.3	<u>Core Laboratories Supplemental Executive Retirement Plan effective as of January 1, 1998 (1)</u>	Form 10-K, March 31, 1998 (File No. 000-26710)
10.4	<u>Amendment to Core Laboratories Supplemental Executive Retirement Plan, effective July 29, 1999 (1)</u>	Form 10-Q, August 16, 1999 (File No. 001-14273)
10.5	<u>Amendment to Core Laboratories Supplemental Executive Retirement Plan, effective February 28, 2003 (1)</u>	Form 10-Q, May 15, 2003 (File No. 001-14273)
10.6	<u>Amendment to Core Laboratories Supplemental Executive Retirement Plan dated as of March 5, 2008 (1)</u>	Form 10-Q, May 12, 2008 (File No. 001-14273)
10.7	<u>Form of Restricted Share Award Program Agreement (1)</u>	Form 10-K, February 20, 2007 (File No. 001-14273)
10.8	<u>Form of Core Laboratories 2011 Non-Employee Director Restricted Share Award Program Agreement (1)</u>	Form 10-Q, April 22, 2011 (File No. 001-14273)
10.9	<u>Form of Core Laboratories 2017 Performance Share Award Program Agreement (ROIC Based) (1)</u>	Form 10-K, February 11, 2019 (File No. 001-14273)
10.10	<u>Seventh Amended and Restated Credit Agreement, dated as of June 19, 2018, 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</u>	Form 8-K, June 25, 2018 (File No. 001-14273)
10.11	<u>Master Note Purchase Agreement, dated as of September 30, 2011</u>	Form 8-K, September 30, 2011 (File No. 001-14273)
10.12	<u>Employment Agreement between Core Laboratories N.V. and Lawrence V. Bruno, dated March 1, 2019 (1)</u>	Form 8-K, March 6, 2019 (File No. 001-14273)
10.13	<u>Employment Agreement between Core Laboratories N.V. and Christopher S. Hill, dated March 1, 2019 (1)</u>	Form 8-K, March 6, 2019 (File No. 001-14273)
10.14	<u>Employment Agreement between Core Laboratories N.V. and Gwendolyn Y. Schreffler, Dated March 1, 2019 (1)</u>	Filed Herewith
10.15	<u>Equity Distribution Agreement, dated December 17, 2020, by and between Core Laboratories N.V. and Wells Fargo Securities, LLC.</u>	Form 8-K, December 17, 2020 (File No. 001-14273)
10.16	<u>Note Purchase Agreement, dated as of October 16, 2020.</u>	Form 8-K, October 16, 2020 (File No. 001-14273)
10.17	<u>Amendment No. 1 to Credit Agreement, by and among Core Laboratories N.V., Core Laboratories (U.S.) Interests Holding, Inc., and the lenders party thereto and Bank of America, N.A., as administrative agent, dated June 22, 2020.</u>	Form 8-K, June 23, 2020 (File No. 001-14273)

10.18	<u>Amendment to Employment Agreement, by and between Core Laboratories N.V. and Lawrence V. Bruno, dated March 1, 2020.</u>	Form 8-K, March 5, 2020 (File No. 001-14273)
21.1	<u>Significant Subsidiaries of the Registrant</u>	Filed Herewith
23.1	<u>Consent of KPMG LLP</u>	Filed Herewith
31.1	<u>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</u>	Filed Herewith
31.2	<u>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</u>	Filed Herewith
32.1	<u>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</u>	Filed Herewith
32.2	<u>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</u>	Filed Herewith
101.INS	Inline XBRL Instance Document- the instance document does not appear in the Interactive Data File because its XBRL tags are embedded within the Inline XBRL document.	Filed Herewith
101.SCH	Inline XBRL Schema Document	Filed Herewith
101.CAL	Inline XBRL Calculation Linkbase Document	Filed Herewith
101.LAB	Inline XBRL Label Linkbase Document	Filed Herewith
101.PRE	Inline XBRL Presentation Linkbase Document	Filed Herewith
101.DEF	Inline XBRL Definition Linkbase Document	Filed Herewith
104	Cover Page Interactive Data File (embedded within the Inline XBRL document).	Filed Herewith

(1) Management contracts or compensatory plans or arrangements.

(P) Paper exhibit

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 5, 2021

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 5th day of February, 2021.

<u>Signature</u>	<u>Title</u>
<u>/s/ LAWRENCE BRUNO</u> Lawrence Bruno Chief Executive Officer, Chairman, President and Supervisory Director	<u>/s/ CHRISTOPHER S. HILL</u> Christopher S. Hill Senior Vice President and Chief Financial Officer
<u>/s/ KEVIN G. DANIELS</u> Kevin G. Daniels Vice President, Treasurer and Chief Accounting Officer	<u>/s/ GREGORY B. BARNETT</u> Gregory B. Barnett Supervisory Director
<u>/s/ MARTHA Z. CARNES</u> Martha Z. Carnes Supervisory Director	<u>/s/ MONIQUE VAN DIJKEN EEUWIJK</u> Monique van Dijken Eeuwijk Supervisory Director
<u>/s/ MARGARET ANN VAN KEMPEN</u> Margaret Ann van Kempen Supervisory Director	<u>/s/ HARVEY KLINGENSMITH</u> Harvey Klingensmith Supervisory Director
<u>/s/ MICHAEL STRAUGHEN</u> Michael Straughen Supervisory Director	

Report of Independent Registered Public Accounting Firm

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

Opinion on the Consolidated Financial Statements

We have audited the accompanying consolidated balance sheets of Core Laboratories N.V. and subsidiaries (the Company) as of December 31, 2020 and 2019, the related consolidated statements of operations, comprehensive income (loss), changes in equity, and cash flows for each of the years in the three-year period ended December 31, 2020, and the related notes and financial statement schedule II (collectively, the consolidated financial statements). In our opinion, the consolidated financial statements present fairly, in all material respects, the financial position of the Company as of December 31, 2020 and 2019, and the results of its operations and its cash flows for each of the years in the three-year period ended December 31, 2020, in conformity with U.S. generally accepted accounting principles.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the Company's internal control over financial reporting as of December 31, 2020, based on criteria established in *Internal Control – Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission, and our report dated February 5, 2021 expressed an unqualified opinion on the effectiveness of the Company's internal control over financial reporting.

Change in Accounting Principle

As discussed in note 2 to the consolidated financial statements, the Company changed its method of accounting for leases as of January 1, 2019 due to the adoption of Accounting Standards Codification Topic 842, Leases, as amended.

Basis for Opinion

These consolidated financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these consolidated financial statements based on our audits. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the consolidated financial statements are free of material misstatement, whether due to error or fraud. Our audits included performing procedures to assess the risks of material misstatement of the consolidated financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the consolidated financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the consolidated financial statements. We believe that our audits provide a reasonable basis for our opinion.

The critical audit matters communicated below are matters arising from the current period audit of the consolidated financial statements that were communicated or required to be communicated to the audit committee and that: (1) relate to accounts or disclosures that are material to the consolidated financial statements and (2) involved our especially challenging, subjective, or complex judgments. The communication of critical audit matters does not alter in any way our opinion on the consolidated financial statements, taken as a whole, and we are not, by communicating the critical audit matters below, providing separate opinions on the critical audit matters or on the accounts or disclosures to which they relate.

Evaluation of the goodwill impairment analysis for the Production Enhancement reporting unit

As discussed in note 17 to the consolidated financial statements, the Company recorded an impairment charge of \$114 million to fully impair the goodwill associated with the Production Enhancement reporting unit. The Company performs goodwill impairment testing on an annual basis and whenever circumstances indicate that the carrying value of goodwill might exceed the fair value of a reporting unit. During the year ended December 31, 2020, management identified triggering events indicating the carrying value of the Production Enhancement reporting unit might exceed its fair value and, therefore, management performed a goodwill impairment test.

We identified the evaluation of the goodwill impairment analysis for the Production Enhancement reporting unit as a critical audit matter. The estimated fair value of the Production Enhancement reporting unit was derived from assumptions used in estimating future cash flows resulting in the application of a high degree of subjective auditor judgment. The revenue growth rates, margins, and discount rate used to estimate the fair value of the reporting unit were determined to be significant assumptions as changes to those assumptions could have had a significant effect on the Company's assessment of the impairment of the goodwill.

The following are the primary procedures we performed to address this critical audit matter. We evaluated the design and tested the operating effectiveness of certain internal controls over the Company's goodwill impairment assessment process. This included controls related to the determination of the fair value of the Production Enhancement reporting unit and evaluating the assumptions related to the revenue growth rates, margins, and discount rate. We evaluated the revenue growth rates and margins by comparing them to the Company's historical performance, external market and industry data, and the revenue growth rates and margins used in other processes. To assess the Company's ability to forecast, we compared the Company's historical revenue and margins forecasts to actual results. We involved a valuation professional with specialized skills and knowledge, who assisted in:

- Evaluating the Company's discount rate, by comparing it to a discount rate range that was independently developed using publicly available market data for comparable entities
- Evaluating the Company's revenue growth rates and margins for the Production Enhancement reporting unit, by comparing them to publicly available data for comparable companies and the Company's analyst reports
- Assessing the estimate of the Production Enhancement reporting unit fair value using the reporting unit's cash flow assumptions and internally developed discount rate and comparing the result to the Company's fair value estimate.

The impact of the Company's tax structure on its income tax provision

As discussed in note 10 to the consolidated financial statements, the Company is domiciled in the Netherlands and has international operations requiring the evaluation of income taxes across many tax jurisdictions. The Company recorded deferred tax assets of \$73 million and deferred tax liabilities of \$21 million as of December 31, 2020, and income tax expense of \$6 million for the year then ended.

We identified the evaluation of the impact of the Company's tax structure on its income tax provision as a critical audit matter. Evaluation of the identification, interpretation, and application of tax laws in the relevant jurisdictions, which can be complex and subject to change, and their impact on the Company's income tax provision required a high degree of auditor judgment and specialized skills and knowledge.

The following are the primary procedures we performed to address this critical audit matter. We evaluated the design and tested the operating effectiveness of certain internal controls related to the identification, interpretation and application of tax laws. We inspected the Company's legal entity organization chart to identify changes in structure. We evaluated the effects of changes in tax law by reading the Company's correspondence and agreements with relevant tax authorities, intercompany documentation, and advice and guidance from third parties. We identified certain transactions during the year involving the interpretation of tax law and evaluated the relevant accounting impact on the tax provision. We involved income tax professionals with specialized skills and knowledge who assisted in (1) assessing the Company's application of tax laws, including statutes, regulations, and case law, (2) identifying changes in tax laws in relevant jurisdictions, (3) and evaluating the impact on the tax provision of certain transactions.

/s/ KPMG LLP

We have served as the Company's auditor since 2015.

Houston, Texas
February 5, 2021

Report of Independent Registered Public Accounting Firm

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

Opinion on Internal Control Over Financial Reporting

We have audited Core Laboratories N.V. and subsidiaries' (the Company) internal control over financial reporting as of December 31, 2020, based on criteria established in *Internal Control – Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission. In our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2020, based on criteria established in *Internal Control – Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the consolidated balance sheets of the Company as of December 31, 2020 and 2019, the related consolidated statements of operations, comprehensive income (loss), changes in equity, and cash flows for each of the years in the three-year period ended December 31, 2020, and the related notes and financial statement schedule II (collectively, the consolidated financial statements), and our report February 5, 2021 expressed an unqualified opinion on those consolidated financial statements.

Basis for Opinion

The Company'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 the accompanying Management's 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 the Company's internal control over financial reporting based on our audit. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audit in accordance with the standards of the PCAOB. 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 of internal control over financial reporting 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.

Definition and Limitations of Internal Control Over Financial Reporting

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.

/s/ KPMG LLP

Houston, Texas
February 5, 2021

CORE LABORATORIES N.V.
CONSOLIDATED BALANCE SHEETS
December 31, 2020 and 2019
(In thousands, except share and per share data)

	2020	2019
ASSETS		
CURRENT ASSETS:		
Cash and cash equivalents	\$ 13,806	\$ 11,092
Accounts receivable, net of allowance for credit losses of \$4,068 and \$2,730 at 2020 and 2019, respectively	83,192	131,579
Inventories	38,151	50,163
Prepaid expenses	14,797	15,951
Income taxes receivable	9,675	6,527
Other current assets	6,227	5,925
TOTAL CURRENT ASSETS	165,848	221,237
PROPERTY, PLANT AND EQUIPMENT, net	115,293	123,506
RIGHT OF USE ASSETS	66,385	75,697
INTANGIBLES AND GOODWILL	108,028	230,875
DEFERRED TAX ASSETS, net	72,775	67,312
OTHER ASSETS	40,250	56,046
TOTAL ASSETS	\$ 568,579	\$ 774,673
LIABILITIES AND EQUITY		
CURRENT LIABILITIES:		
Accounts payable	\$ 23,028	\$ 35,611
Accrued payroll and related costs	26,526	26,689
Taxes other than payroll and income	6,556	8,366
Unearned revenues	5,457	13,381
Operating lease liabilities	11,437	11,841
Income taxes payable	8,347	6,324
Other current liabilities	8,399	9,382
TOTAL CURRENT LIABILITIES	89,750	111,594
LONG-TERM DEBT, net	259,433	305,283
LONG-TERM OPERATING LEASE LIABILITIES	56,108	64,660
DEFERRED COMPENSATION	39,145	50,485
DEFERRED TAX LIABILITIES, net	20,585	27,338
OTHER LONG-TERM LIABILITIES	27,985	33,173
COMMITMENTS AND CONTINGENCIES		
EQUITY:		
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 44,572,801 outstanding at 2020 and 44,796,252 issued and 44,465,562 outstanding at 2019	1,148	1,148
Additional paid-in capital	41,184	51,872
Retained earnings	50,456	160,539
Accumulated other comprehensive income (loss)	(7,200)	(6,330)
Treasury shares (at cost), 223,451 at 2020 and 330,690 at 2019	(14,075)	(29,364)
Total Core Laboratories N.V. shareholders' equity	71,513	177,865
Non-controlling interest	4,060	4,275
TOTAL EQUITY	75,573	182,140
TOTAL LIABILITIES AND EQUITY	\$ 568,579	\$ 774,673

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, 2020, 2019 and 2018
(In thousands, except per share data)

	2020	2019	2018
REVENUE:			
Services	\$ 376,421	\$ 474,193	\$ 486,820
Product sales	110,846	194,017	214,026
Total revenue	487,267	668,210	700,846
OPERATING EXPENSES:			
Cost of services, exclusive of depreciation expense shown below	279,281	345,641	343,833
Cost of product sales, exclusive of depreciation expense and inventory write-down shown below	95,486	149,938	153,131
General and administrative expenses, exclusive of depreciation expense shown below	34,033	48,023	62,910
Depreciation	19,727	20,812	22,013
Amortization	1,140	1,793	1,074
Impairments and other charges	122,204	—	—
Inventory write-down	10,375	—	—
Other (income) expense, net	1,826	5,319	(737)
OPERATING INCOME (LOSS)	(76,805)	96,684	118,622
Interest expense	14,372	14,690	13,328
Income (loss) before income tax	(91,177)	81,994	105,294
Income tax expense (benefit)	5,896	(12,290)	25,447
Income (loss) from continuing operations	(97,073)	94,284	79,847
Income (loss) from discontinued operations	(424)	7,833	(58)
Net income (loss)	(97,497)	102,117	79,789
Net income (loss) attributable to non-controlling interest	140	134	263
Net income (loss) attributable to Core Laboratories N.V.	\$ (97,637)	\$ 101,983	\$ 79,526
EARNINGS (LOSS) PER SHARE INFORMATION:			
Basic earnings (loss) per share from continuing operations	\$ (2.18)	\$ 2.13	\$ 1.81
Basic earnings (loss) per share from discontinued operations	\$ (0.01)	\$ 0.17	\$ (0.01)
Basic earnings (loss) per share attributable to Core Laboratories N.V.	\$ (2.20)	\$ 2.30	\$ 1.80
Diluted earnings (loss) per share from continuing operations	\$ (2.18)	\$ 2.11	\$ 1.80
Diluted earnings (loss) per share from discontinued operations	\$ (0.01)	\$ 0.17	\$ (0.01)
Diluted earnings (loss) per share attributable to Core Laboratories N.V.	\$ (2.20)	\$ 2.28	\$ 1.79
WEIGHTED AVERAGE COMMON SHARES OUTSTANDING:			
Basic	44,477	44,357	44,206
Assuming dilution	44,477	44,646	44,474

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

CORE LABORATORIES N.V.
CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME (LOSS)
For the Years Ended December 31, 2020, 2019 and 2018
(In thousands)

	2020	2019	2018
Net income (loss)	\$ (97,497)	\$ 102,117	\$ 79,789
Other comprehensive income (loss):			
Interest rate swaps:			
Gain (loss) on fair value of interest rate swaps	(2,106)	(1,058)	418
Interest expense reclassified to net income (loss)	669	(61)	69
Income tax expense (benefit) on interest rate swaps reclassified to net income (loss)	302	235	(102)
Total interest rate swaps	(1,135)	(884)	385
Pension and other postretirement benefit plans			
Adjustment of unrecognized pension actuarial gain (loss)	351	(1,988)	1,557
Prior service cost			
Prior service cost recognized during year	—	—	157
Amortization of prior service cost reclassified to net income (loss)	—	(848)	(106)
Amortization actuarial gain (loss) reclassified to net income (loss)	—	3,171	1,706
Income tax expense (benefit) on pension and other postretirement benefit plans reclassified to net income (loss)	(86)	(325)	(802)
Total pension and other postretirement benefit plans	265	10	2,512
Total other comprehensive income (loss)	(870)	(874)	2,897
Comprehensive income (loss)	(98,367)	101,243	82,686
Comprehensive income (loss) attributable to non-controlling interests	140	134	263
Comprehensive income (loss) attributable to Core Laboratories N.V.	\$ (98,507)	\$ 101,109	\$ 82,423

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

CORE LABORATORIES N.V.
CONSOLIDATED STATEMENTS OF CHANGES IN EQUITY
For the Years Ended December 31, 2020, 2019 and 2018
(In thousands, except share and per share data)

	2020	2019	2018
Common Shares			
Balance at Beginning of Period	\$ 1,148	\$ 1,148	\$ 1,148
Balance at End of Period	\$ 1,148	\$ 1,148	\$ 1,148
Additional Paid-In Capital			
Balance at Beginning of Period	\$ 51,872	\$ 57,438	\$ 54,463
Stock-based compensation	(10,688)	(5,566)	2,975
Balance at End of Period	\$ 41,184	\$ 51,872	\$ 57,438
Retained Earnings			
Balance at Beginning of Period	\$ 160,539	\$ 156,130	\$ 173,855
Dividends paid	(12,446)	(97,574)	(97,251)
Net income (loss) attributable to Core Laboratories N.V.	(97,637)	101,983	79,526
Balance at End of Period	\$ 50,456	\$ 160,539	\$ 156,130
Accumulated Other Comprehensive Income (Loss)			
Balance at Beginning of Period	\$ (6,330)	\$ (5,456)	\$ (8,353)
Pension and other post retirement benefit plans, net of income tax	265	10	2,512
Interest rate swaps, net of income tax	(1,135)	(884)	385
Balance at End of Period	\$ (7,200)	\$ (6,330)	\$ (5,456)
Treasury Shares			
Balance at Beginning of Period	\$ (29,364)	\$ (52,501)	\$ (76,269)
Stock-based compensation	18,082	26,445	31,219
Repurchase of common shares	(2,793)	(3,308)	(7,451)
Balance at End of Period	\$ (14,075)	\$ (29,364)	\$ (52,501)
Non-Controlling Interest			
Balance at Beginning of Period	\$ 4,275	\$ 4,141	\$ 3,888
Non-controlling interest additions	—	—	(10)
Non-controlling interest dividends	(355)	—	—
Net income (loss) attributable to non-controlling interest	140	134	263
Balance at End of Period	\$ 4,060	\$ 4,275	\$ 4,141
Total Equity			
Balance at Beginning of Period	\$ 182,140	\$ 160,900	\$ 148,732
Stock-based compensation	7,394	20,879	34,194
Repurchase of common shares	(2,793)	(3,308)	(7,451)
Dividends paid	(12,446)	(97,574)	(97,251)
Non-controlling interest additions	—	—	(10)
Non-controlling interest dividends	(355)	—	—
Pension and other post retirement benefit plans, net of income tax	265	10	2,512
Interest rate swaps, net of income tax	(1,135)	(884)	385
Net income (loss)	(97,497)	102,117	79,789
Balance at End of Period	\$ 75,573	\$ 182,140	\$ 160,900
Cash Dividends per Share	\$ 0.28	\$ 2.20	\$ 2.20

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

CORE LABORATORIES N.V.
CONSOLIDATED STATEMENTS OF CHANGES IN EQUITY (Continued)
For the Years Ended December 31, 2020, 2019 and 2018
(In thousands, except share and per share data)

	<u>2020</u>	<u>2019</u>	<u>2018</u>
Common Shares - Number of shares issued			
Balance at Beginning of Period	44,796,252	44,796,252	44,796,252
Balance at End of Period	<u>44,796,252</u>	<u>44,796,252</u>	<u>44,796,252</u>
Treasury Shares - Number of shares			
Balance at Beginning of Period	(330,690)	(479,407)	(612,047)
Stock-based compensation	208,168	220,417	218,625
Repurchase of common shares	<u>(100,929)</u>	<u>(71,700)</u>	<u>(85,985)</u>
Balance at End of Period	<u>(223,451)</u>	<u>(330,690)</u>	<u>(479,407)</u>
Common Shares - Number of shares outstanding			
Balance at Beginning of Period	44,465,562	44,316,845	44,184,205
Stock-based compensation	208,168	220,417	218,625
Repurchases of common shares	<u>(100,929)</u>	<u>(71,700)</u>	<u>(85,985)</u>
Balance at End of Period	<u>44,572,801</u>	<u>44,465,562</u>	<u>44,316,845</u>

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, 2020, 2019 and 2018
(In thousands)

	2020	2019	2018
CASH FLOWS FROM OPERATING ACTIVITIES:			
Income (loss) from continuing operations	\$ (97,073)	\$ 94,284	\$ 79,847
Income (loss) from discontinued operations, net of income tax	(424)	7,833	(58)
Net income (loss)	(97,497)	102,117	79,789
Adjustments to reconcile net income (loss) to net cash provided by operating activities:			
Stock-based compensation	7,394	20,879	34,194
Depreciation and amortization	20,867	22,605	23,087
Impairments, inventory write-down and other charges	132,579	—	—
Changes in value of life insurance policies	(894)	(2,899)	(874)
Deferred income taxes	(12,216)	(36,345)	1,832
Realization of pension obligation	188	(112)	2,257
Net provision for credit losses	1,618	754	692
Gain on sale of business	—	(1,154)	—
(Gain) loss on sale of discontinued operations	573	(8,411)	—
Other non-cash items	(683)	(200)	(159)
Changes in assets and liabilities, net of effects of acquisitions:			
Accounts receivable	46,421	(3,191)	2,265
Inventories	1,471	(3,892)	(10,403)
Prepaid expenses and other current assets	(2,296)	3,561	(9,048)
Other assets	(1,905)	(46)	6,264
Accounts payable	(12,838)	(3,757)	(1,752)
Accrued expenses	602	8,067	(6,903)
Unearned revenue	(7,924)	(5,513)	1,825
Other liabilities	(17,592)	(2,936)	(11,239)
Net cash provided by operating activities	57,868	89,527	111,827
CASH FLOWS FROM INVESTING ACTIVITIES:			
Capital expenditures	(11,880)	(22,269)	(21,741)
Patents and other intangibles	(498)	(180)	(1,190)
Acquisitions, net of cash acquired	—	—	(47,314)
Distribution received from life insurance policies	20,443	—	—
Proceeds from sale of assets	1,734	887	882
Proceeds from sale of business	—	2,980	—
Proceeds (payment) from sale of discontinued operations	(225)	14,789	—
Premiums on life insurance policies	(1,723)	(1,884)	(1,276)
Net cash provided by (used in) investing activities	7,851	(5,677)	(70,639)
CASH FLOWS FROM FINANCING ACTIVITIES:			
Repayment of long-term debt	(102,000)	(123,000)	(114,000)
Proceeds from long-term debt	56,000	138,000	178,000
Debt financing costs	(1,536)	—	(1,760)
Dividends paid	(12,446)	(97,574)	(97,251)
Repurchase of common shares	(2,793)	(3,308)	(7,451)
Other financing activities	(230)	8	(10)
Net cash used in financing activities	(63,005)	(85,874)	(42,472)
NET CHANGE IN CASH AND CASH EQUIVALENTS	2,714	(2,024)	(1,284)
CASH AND CASH EQUIVALENTS, beginning of year	11,092	13,116	14,400
CASH AND CASH EQUIVALENTS, end of year	<u>\$ 13,806</u>	<u>\$ 11,092</u>	<u>\$ 13,116</u>

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, 2020, 2019 and 2018
(In thousands)

	<u>2020</u>	<u>2019</u>	<u>2018</u>
Supplemental disclosures of cash flow information:			
Cash payments for interest	\$ 11,669	\$ 13,631	\$ 11,499
Cash payments for income taxes	\$ 21,325	\$ 13,804	\$ 31,928
Non-cash investing and financing activities:			
Capital expenditures incurred but not paid for as of the end of the year	\$ 1,064	\$ 222	\$ 628

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

CORE LABORATORIES N.V.
NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS
DECEMBER 31, 2020

1. DESCRIPTION OF BUSINESS

Core Laboratories N.V. ("Core Laboratories", "Core Lab", "the Company", "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 and production enhancement services and products to the oil and gas industry. These services and products can enable 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 3,700 employees.

We operate our business in two reportable segments: (1) Reservoir Description and (2) Production Enhancement. 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. For a description of product types and services offered by these business segments, see Note 21 - *Segment Reporting and Other Disaggregated Information*.

In a continuing effort to streamline our business and align our business strategy for further integration of services and products, the Company committed to divest the business of our full range of permanent downhole monitoring systems and related services, which had been part of our Production Enhancement segment. We completed the divestment of this business in 2019; the disclosure relating to the divestment of this business is included in Note 20 - *Discontinued Operations*. All prior period income statements have been adjusted to reclassify amounts related to this business to discontinued operations to conform to current period presentation. All disclosures on operating income and net income within these statements reflect the results from continuing operations for all periods presented. These reclassifications had no impact on the reported net income attributable to Core Laboratories N.V., financial position or cash flows for any of these prior periods.

2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

Basis of Presentation and Principles of Consolidation

The accompanying consolidated financial statements include the accounts of Core Laboratories and its subsidiaries for which we have a controlling voting interest and/or a controlling financial interest. These financials have been prepared in accordance with the United States generally accepted accounting principles ("U.S. GAAP"). We use the equity method of accounting for 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.

Certain reclassifications were made to prior period amounts in order to conform to the current period presentation. These reclassifications had no impact on the reported net income or cash flows for the year ended December 31, 2020, 2019 and 2018.

Recent Accounting Pronouncements

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 U.S. 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. We adopted this standard on January 1, 2020, and there has been no significant impact on our consolidated financial statements or on our accounting policies and processes.

In January 2017, the FASB issued ASU 2017-04 ("Simplifying the Test for Goodwill Impairment") which eliminates a step in computing the implied fair value of goodwill with a new methodology of an entity performing an annual goodwill impairment test by comparing the fair value of a reporting unit with its carrying amount. We adopted this standard on January 1, 2020. The new methodology was applied for the interim goodwill impairment analysis performed upon the triggering event of the COVID-19 pandemic during the three month period ended March 31, 2020, and it did not change the conclusion that goodwill had been impaired. There has been no significant impact on our consolidated financial statements or on our accounting policies and processes as a result of adopting this updated accounting standard.

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 estimates and assumptions:

- allowance for credit losses;
- obsolete inventory;
- depreciation and amortization;
- long-lived assets, intangibles and goodwill;
- income taxes;
- pensions and other postretirement benefits;
- stock-based compensation; and
- leases.

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.

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, 2020, 2019 and 2018. We consider our credit risk related to trade accounts receivable to be limited due to the creditworthiness and financial resources of our clients. We have adopted the expected credit losses methodology for measurement of credit losses on financial assets measured at amortized cost basis, replacing the previous incurred loss impairment methodology. We evaluate our estimate for credit losses 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. See Note 9 - *Long-term Debt, net*.

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.

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 15 - *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, monitor collections and payments, consider 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 credit losses 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 credit losses. Our allowance for credit losses totaled \$4.1 million and \$2.7 million at December 31, 2020 and 2019, respectively. The net carrying value of accounts receivable approximates 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.

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:

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 recognized.

We review our long-lived 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, 2020, 2019 and 2018.

Leases

Effective January 1, 2019, we adopted the provisions of ASC 842, Leases, using the transition method in which prior periods are not adjusted for this change in accounting principle. Upon adoption, we recognized \$77.5 million of right-of-use ("ROU") assets and liabilities for operating leases. Under previous accounting, ROU assets and operating lease liabilities were not

reflected on the Consolidated Balance Sheet. Adoption of this new standard did not have a material impact to our Consolidated Statement of Operations or Cash Flows.

We have operating leases primarily consisting of offices and lab space, machinery and equipment and vehicles. We determine if an arrangement is an operating or finance lease at inception. Lease assets and lease liabilities are recognized based on the present value of the future minimum lease payments over the lease term at commencement date. Where our lease does not provide an implicit rate, we estimate the discount rate used to discount the future minimum lease payments using our incremental borrowing rate and other information available at the commencement date. Operating leased assets also include all initial direct costs incurred. The lease term may include options to extend or terminate the lease when it is reasonably certain that we will exercise that option.

Operating leased assets are included in ROU assets and current and long-term operating lease liabilities in our consolidated balance sheet. Finance leases are included in property, plant and equipment and other current and other long-term liabilities in our consolidated balance sheet.

ROU assets are subsequently depreciated over the estimated useful life of the asset and operating lease liabilities are carried at amortized cost using the effective interest rate method.

The Company has elected to apply the short-term lease exemption to all classes of underlying assets. Accordingly, no ROU asset or lease liability is recognized for leases with a term of twelve months or less.

The Company has elected to apply the practical expedient for combining lease and non-lease components for vehicle leases and elected not to apply the practical expedient for combining lease and non-lease components to all other classes of underlying assets.

Intangibles and Goodwill

Intangible assets, including patents, trademarks, technology and trade names, are carried at cost less accumulated amortization, for intangibles with a definite life, and any accumulated impairment. Intangibles with definite lives are amortized using the straight-line method based on the estimated useful life of the intangible. Intangibles with indefinite 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 assess goodwill for impairment by comparing the fair value of the reporting unit to its carrying value. If the fair value of a reporting unit is less than its carrying value, then there is an impairment loss limited to the amount of goodwill allocated to that reporting unit. Our reporting units are the same as our two reportable segments. We estimate the fair value of each reporting unit using a discounted future cash flow analysis. Estimated future cash flows are based on the Company's best estimate of future performance. Our impairment analysis is both qualitative and quantitative, and includes subjective estimates based on assumptions regarding future revenue growth rates, discount rates and expected margins.

We recorded \$122.2 million of impairment charges relating to our goodwill and certain intangibles assets during the year ended December 31, 2020. We did not record impairment charges relating to our goodwill or our indefinite-lived intangible assets during the years ended December 31, 2019 and 2018.

Any subsequent impairment loss could result in a material adverse effect upon our financial position and results of operations.

Other Assets

Other assets consist of the following (in thousands):

	December 31,	
	2020	2019
Cash surrender value of life insurance policies	\$ 31,201	\$ 47,195
Investments in unconsolidated affiliates	4,094	3,969
Other	4,955	4,882
Total other assets	\$ 40,250	\$ 56,046

Cash surrender value of life insurance policies relates to postretirement benefit plans. See Note 11 - *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.

Accounts Payable

Trade accounts payable are recorded at their invoiced amounts and do not bear interest. The carrying value of accounts payable approximates 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 expected to be recovered or the liability is expected to be 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 10 - *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. Accumulated other comprehensive income consists of prior service costs and unrecognized net actuarial gain or loss from a pension plan and changes in the fair value of our interest rate swaps. See Note 11 - *Pension and Other Postretirement Benefit Plans* and Note 15 - *Derivative Instruments and Hedging Activities*.

Revenue Recognition

All of our revenue is derived from contracts with clients. Our contracts generally include standard commercial payment terms generally acceptable in each region, and do not include financing with extended payment terms. We have no significant obligations for refunds, warranties, or similar obligations. Our revenue does not include taxes collected from our customers. In certain circumstances we apply the guidance in Accounting Standards Codification Topic 606 - *Revenue from Contracts with Customers* ("Topic 606") to a portfolio of contracts with similar characteristics. We use estimates and assumptions when accounting for a portfolio that reflect the size and composition of the portfolio of contracts.

We recognize revenue at an amount that reflects the consideration expected to be received in exchange for such services or goods as described below by applying the five-step method to: (1) identify the contract(s) with clients; (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) we satisfy the performance obligation(s). A performance obligation is a promise in a contract to transfer a distinct service or good to a client, and is the unit of account under Topic 606. We have contracts with two general groups of performance obligations: those that require us to perform analysis and/or diagnostic tests in our laboratory or at the client's wellsite and those from the sale of tools, diagnostic and equipment products and related services.

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 or delivery of diagnostic data. In the case of our consortia studies, we have multiple performance

obligations and revenue is recognized at the point in time when the testing and analysis results on each contributed core are made available to our consortia members. For arrangements that include multiple performance obligations, we allocate revenue to each performance obligation based on estimates of the price that we would charge the client for each promised service or product if it were sold on a standalone basis.

To a lesser extent, we enter into other types of contracts including service arrangements and non-subscription software and licensing agreements. We recognize revenue for these arrangements over time or at a point in time depending on our evaluation of when the client obtains control of the promised services or products

Product Sales Revenue: We manufacture equipment that we sell to our clients in the oil and gas industry. We recognize revenue when control of the promised product is transferred to the client. Control of the product usually passes to the client at the time shipment is made or picked up by the client at our facilities, as defined within the contract.

Contract Assets and Liabilities

Contract assets and liabilities arise from differences in timing of revenue recognition, billings and cash collections.

Contract assets include our right to payment for goods and services already transferred to a customer when the right to payment is conditional on something other than the passage of time. For example, we have contracts where we recognize revenue over time but do not have a contractual right to payment until we complete the performance obligations.

Contract liabilities consist of advance payments received and billings in excess of revenue recognized. We generally receive up-front payments relating to our consortia studies. We recognize revenue over the life of the study as the testing and analysis results are made available to our consortia members. We record billings in excess of revenue recognized for contracts with a duration less than twelve months as unearned revenue. We classify contract liabilities for contracts with a duration greater than twelve months as current or non-current based on the timing of revenue recognition.

Disaggregation of Revenue

We contract with clients for service revenue and/or product sales revenue. We present revenue disaggregated by services and product sales in our consolidated statements of operations. For revenue disaggregated by reportable segment, see Note 21 - Segment Reporting and Other Disaggregated Information.

Foreign Currencies

Our functional currency is the U.S. Dollar ("USD"). All inter-company financing, transactions and cash flows with our subsidiaries are transacted in USD. Revenue and expenses denominated in other currencies are measured at the applicable month-end exchange rate which approximates the average exchange rate. We remeasure monetary assets and liabilities denominated in other currencies to USD at year-end exchange rates. Non-monetary items, depreciation, amortization and certain components of cost of sales are measured at historical rates. For the years ended December 31, 2020, 2019 and 2018, we incurred net remeasurement losses of \$1.2 million, \$1.7 million, and \$2.6 million, respectively. Remeasurement and settlement difference are included in other (income) expense, net in the accompanying consolidated statements of operations.

Pension and Other Postretirement Benefit Plans

We provide a non-contributory defined benefit pension plan covering substantially all of our Dutch employees ("Dutch Plan") who were hired prior to 2000. We recognize net periodic pension costs associated with the Dutch plan in income and recognize the unfunded status of the plan, if any, as a long-term liability. We recognize the actuarial gains or losses and prior service costs or credits that arise during the period as a component of other comprehensive income. 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 11 - *Pension and Other Postretirement Benefit Plans*.

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 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 is also 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

For new awards issued and awards modified, repurchased or canceled, we record compensation expense in the consolidated statements of operations equal to the fair value of the award at the date of the grant, modification, repurchase or cancellation 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 share includes the incremental effect of contingently issuable shares from performance and restricted stock awards, as determined using the treasury stock method. The following table summarizes the calculation of weighted average common shares outstanding used in the computation of basic and diluted earnings per share (in thousands):

	For the Years Ended December 31,		
	2020	2019	2018
Weighted average common shares outstanding - basic	44,477	44,357	44,206
Effect of dilutive securities:			
Performance shares	—	242	221
Restricted stock	—	47	47
Weighted average common shares outstanding - assuming dilution	44,477	44,646	44,474

For the year ended December 31, 2020, the number of outstanding performance shares and restricted shares of Core Laboratories N.V. common stock that were excluded from diluted earnings per share calculation, as their impact would be antidilutive, were as follows (in thousands):

	December 31, 2020
Performance shares	308
Restricted Stock	189

3. CONTRACT ASSETS AND LIABILITIES

The balance of contract assets and contract liabilities consist of the following (in thousands):

	December 31,	
	2020	2019
Contract assets		
Current	\$ 1,238	\$ 2,183
Non-Current	—	244
	<u>\$ 1,238</u>	<u>\$ 2,427</u>
Contract Liabilities		
Current	\$ 953	\$ 4,473
Non-current	293	383
	<u>\$ 1,246</u>	<u>\$ 4,856</u>
Estimate of when contract liabilities will be recognized		
within 12 months	\$ 953	
within 12 to 24 months	\$ 293	
greater than 24 months	\$ —	

The current portion of contract assets are included in our accounts receivable as of December 31, 2020 and 2019.

The current portion of contract liabilities is included in unearned revenue and the non-current portion of contract liabilities is included in other long-term liabilities. We did not recognize any impairment losses on our receivables and contract assets for the year ended December 31, 2020 and 2019.

4. ACQUISITIONS

In 2018, we acquired a business providing downhole technologies associated with perforating systems for \$48.9 million in cash. These downhole technologies will significantly enhance Core Lab's Production Enhancement operations and its ability to bring new and innovative product offerings to our clients. We have determined the fair value of tangible assets acquired to be \$4.1 million, and intangible assets, including patents, customer-relationship benefits, non-compete agreements and technology to be \$9.4 million. We have accounted for this acquisition by allocating the purchase price to the net assets acquired based on their fair value at the date of acquisition which resulted in an increase to goodwill of \$35.4 million. The acquisition is included in the Production Enhancement business segment.

The acquisition of this business did not have a material impact on our Consolidated Balance Sheets or Consolidated Statements of Operations.

We had no significant acquisitions during the years ended December 31, 2020 and 2019.

5. INVENTORIES

Inventories consist of the following (in thousands):

	December 31,	
	2020	2019
Finished goods	\$ 16,461	\$ 26,507
Parts and materials	19,098	21,419
Work in progress	2,592	2,237
Total inventories	<u>\$ 38,151</u>	<u>\$ 50,163</u>

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. See Note 18 - *Inventory Write-down* for further detail.

6. PROPERTY, PLANT AND EQUIPMENT, NET

The components of property, plant and equipment, net are as follows (in thousands):

	December 31,	
	2020	2019
Land	\$ 11,395	\$ 11,435
Building and leasehold improvements	117,098	116,306
Machinery and equipment	280,778	277,952
Total property, plant and equipment	409,271	405,693
Less - accumulated depreciation	(293,978)	(282,187)
Property, plant and equipment, net	<u>\$ 115,293</u>	<u>\$ 123,506</u>

7. LEASES

We have operating leases primarily consisting of offices and lab space, machinery and equipment and vehicles.

The components of lease expense are as follows (in thousands):

	For the Year Ended December 31,	
	2020	2019
Operating lease expense	\$ 17,848	\$ 18,639
Short-term lease expense	1,801	1,228
Variable lease expense	1,442	920
Total lease expense	<u>\$ 21,091</u>	<u>\$ 20,787</u>

Other Information:

Cash paid for amounts included in the measurement of lease liabilities:

Operating cash flows from operating leases	\$ 17,049	\$ 18,195
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Right-of-use assets obtained in exchange for new lease obligations:

Operating leases	\$ 5,654	11,688
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Weighted-average remaining lease term - operating leases 8.69 years 9.07 years

Weighted-average discount rate - operating leases 4.70% 4.94%

Scheduled undiscounted lease payments for non-cancellable leases consist of the following (in thousands):

	December 31, 2020
2021	\$ 13,769
2022	12,062
2023	10,301
2024	8,123
2025	7,040
Thereafter	31,156
Total undiscounted lease payments	<u>\$ 82,451</u>
Less: Imputed interest	(14,906)
Total lease liabilities	<u>\$ 67,545</u>

During the year ended December 31, 2020, the Company recorded a net loss on lease abandonment of \$0.5 million, for certain properties that ceased in use and are expected to provide no future economic benefits.

8. INTANGIBLES AND GOODWILL

The components of intangibles, net are as follows (in thousands):

	Useful life in years	December 31,			
		2020		2019	
		Gross Carrying Value	Accumulated Amortization and Impairment	Gross Carrying Value	Accumulated Amortization
Acquired trade secrets	2-20	\$ 4,278	\$ 3,120	\$ 3,613	\$ 2,463
Acquired patents, technology and trademarks	4-15	15,348	12,677	15,622	4,193
Agreements not to compete	2-5	1,149	1,036	1,149	919
Acquired trade names	Indefinite	4,641	—	4,641	—
Total intangibles, net		<u>\$ 25,416</u>	<u>\$ 16,833</u>	<u>\$ 25,025</u>	<u>\$ 7,575</u>

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

2021	\$ 1,335
2022	\$ 1,309
2023	\$ 1,042
2024	\$ 1,034
2025	\$ 892

The changes in the carrying amount of goodwill for each reportable segment are as follows (in thousands):

	Reservoir Description	Production Enhancement	Total
Balance at January 1, 2019	\$ 99,484	\$ 119,928	\$ 219,412
Adjustments to goodwill acquired in previous year	—	(5,987)	(5,987)
Balance at December 31, 2019	99,484	113,941	213,425
Impairment	—	(113,941)	(113,941)
Other	(39)	—	(39)
Balance at December 31, 2020	<u>\$ 99,445</u>	<u>\$ —</u>	<u>\$ 99,445</u>

9. LONG-TERM DEBT, NET

We have no finance lease obligations. Debt is summarized in the following table (in thousands):

	December 31,	
	2020	2019
2011 Senior Notes	\$ 150,000	\$ 150,000
Credit Facility	111,000	157,000
Total long-term debt	261,000	307,000
Less: Debt issuance costs	(1,567)	(1,717)
Long-term debt, net	<u>\$ 259,433</u>	<u>\$ 305,283</u>

We have two series of senior notes outstanding with an aggregate principal amount of \$150 million ("2011 Senior Notes") issued 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 2011 Senior Notes is payable semi-annually on March 30 and September 30.

On June 22, 2020, we entered into Amendment No. 1 (the "Amendment") to the Seventh Amended and Restated Credit Agreement, dated June 19, 2018 (as amended, the "Credit Facility"). The Amendment increases the maximum leverage ratio permitted under the Credit Facility for certain periods. Pursuant to the terms of the Amendment, the maximum leverage ratio permitted under the Credit Facility is as follows:

Quarter ending	Maximum leverage ratio permitted
June 30, 2020 up to and including June 30, 2021	3.00
September 30, 2021	2.75
December 31, 2021 and thereafter	2.50

Moreover, the Amendment modified the range of variable interest rates that the Credit Facility may bear to be a range from LIBOR plus 1.500% to LIBOR plus 2.875% and included the addition of a LIBOR floor of 0.50%. The Amendment also reduced the aggregate borrowing commitment under the Credit Facility to \$225 million and the amount by which we may elect to increase the facility size, known as the "accordion" feature, to \$50 million, subject to the satisfaction of certain conditions. Interest payment terms are variable depending upon the specific type of borrowing under this facility.

Any outstanding balance under the Credit Facility is due on maturity on June 19, 2023. Our available capacity at any point in time is reduced by outstanding borrowings and outstanding letters of credit which totaled \$12.9 million, resulting in an available borrowing capacity under the Credit Facility of \$101.1 million, at December 31, 2020. In addition to indebtedness under the Credit Facility, we had \$6.1 million of outstanding letters of credit and performance guarantees and bonds from other sources as of December 31, 2020.

The Credit Facility remains unsecured, and contains customary representations, warranties, terms and conditions for similar types of facilities. The terms of the Credit Facility and 2011 Senior Notes require us to meet certain covenants, including, but not limited to, an interest coverage ratio (calculated as consolidated EBITDA divided by interest expense) and a leverage ratio (calculated as 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 and 2011 Senior Notes each include a cross-default provision, whereby a default under one agreement may trigger a default in the other agreement. The Credit Facility has the more restrictive covenants with a minimum interest coverage ratio of 3.0 to 1.0 and permits a maximum leverage ratio as described above. The Credit Facility allows non-cash charges such as impairment of assets, stock compensation and other non-cash charges to be added back in the calculation of consolidated EBITDA. The terms of our Credit Facility also allow us to negotiate in good faith to amend any ratio or requirement to preserve the original intent of the agreement if any change in accounting principles would affect the computation of any financial ratio or covenant of the Credit Facility. In accordance with the terms of the Credit Facility, our leverage ratio is 2.82, and our interest coverage ratio is 6.09, each for the period ended December 31, 2020. We believe that we are in compliance with all covenants contained in our Credit Facility and 2011 Senior Notes. We, along with certain of our material, wholly-owned subsidiaries are guarantors or co-borrowers under the Credit Facility and 2011 Senior Notes.

We entered into two interest rate swap agreements for a total of \$50 million, including one of which was entered during the year ended December 31, 2020. See Note 15 - *Derivative Instruments and Hedging Activities* for additional information of our derivative instruments.

The estimated fair value of total debt at December 31, 2020 and 2019 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 maturity date.

During the year ended December 31, 2020, the Company incurred approximately \$1.6 million in professional service fees and expenses associated with the evaluation of various corporate debt issuances and debt refinancing opportunities. These corporate finance and capital structure costs were expensed immediately and classified as interest expense. On October 16, 2020, we, along with our wholly-owned subsidiary Core Laboratories (U.S.) Interests Holdings, Inc. as issuer, entered into an agreement (the “2020 Notes Purchase Agreement”) to issue two new series of senior notes with aggregate principal amount of \$60 million in a private placement transaction (“2020 Senior Notes”). The 2020 Senior Notes were issued and funded on January 12, 2021, and the proceeds were used to reduce outstanding borrowings under the Credit Facility. Series A of the 2020 Senior Notes consists of \$45 million in aggregate principal amount that bear interest at a fixed rate of 4.09% and are due in full on January 12, 2026. Series B of the 2020 Senior Notes consists of \$15 million in aggregate principal amount that bear interest at a fixed rate of 4.38% and are due in full on January 12, 2028. Interest on each series of the 2020 Senior Notes is payable semi-annually on June 30 and December 30, commencing on June 30, 2021.

The terms of the 2020 Senior Notes require us to meet certain covenants, including, but not limited to, an interest coverage ratio (calculated as consolidated EBITDA divided by interest expense) and a leverage ratio (calculated as consolidated net indebtedness divided by consolidated EBITDA), where consolidated EBITDA (as defined in the 2020 Note Purchase Agreement) and interest expense are calculated using the most recent four fiscal quarters; and a priority indebtedness ratio (calculated as Priority Indebtedness divided by Consolidated Total Assets (as defined in the 2020 Notes Purchase Agreement)). The financial covenants for the 2020 Senior Notes are aligned with the Credit Facility and the associated 2020 Note Purchase Agreement also allows renegotiation of the ratios in consideration of changes in accounting principles. We, along with certain of our material, wholly-owned subsidiaries, are guarantors or co-borrowers under the 2020 Senior Notes. The proceeds of the 2020 Senior Notes were used to reduce outstanding borrowings under the Credit Facility, and along with \$15 million of existing available capacity under the Credit Facility, will refinance the \$75 million Series A 2011 Senior Notes due in September 2021. Accordingly, we have reclassified amounts due under the Series A 2011 Senior Notes as long-term debt.

10. INCOME TAXES

The components of income (loss) before income tax are as follows (in thousands):

	For the Years Ended December 31,		
	2020	2019	2018
United States	\$ (45,167)	\$ 61,374	\$ 61,680
Other countries	(46,010)	20,620	43,614
Income (loss) before income tax	<u>\$ (91,177)</u>	<u>\$ 81,994</u>	<u>\$ 105,294</u>

The components of income tax expense are as follows (in thousands):

	For the Years Ended December 31,		
	2020	2019	2018
Current:			
United States	\$ 5,181	\$ 8,786	\$ 13,198
Other countries	11,926	13,267	10,132
State and provincial	618	(28)	1,548
Total current	<u>17,725</u>	<u>22,025</u>	<u>24,878</u>
Deferred:			
United States	(69)	(57,250)	(1,340)
Other countries	(11,144)	23,558	1,909
State and provincial	(616)	(623)	—
Total deferred	<u>(11,829)</u>	<u>(34,315)</u>	<u>569</u>
Income tax expense (benefit)	<u>\$ 5,896</u>	<u>\$ (12,290)</u>	<u>\$ 25,447</u>

The differences in income tax expense (benefit) computed using the Netherlands statutory income tax rate of 25% and our income tax expense (benefit) as reported in the accompanying consolidated statements of operations are as follows (in thousands):

	For the Years Ended December 31,		
	2020	2019	2018
Tax at the Netherlands income tax rate	\$ (23,005)	\$ 22,895	\$ 26,189
International earnings taxed at rates other than the Netherlands statutory rate	14,986	(1,343)	(14,997)
Non-deductible expenses	2,977	3,516	4,452
Change in valuation allowance	23	(3,491)	1,513
State and provincial taxes	(227)	(825)	1,566
Tax credits	(5,975)	(3,893)	(3,939)
Benefit from corporate restructuring	—	(59,336)	—
Unremitted earnings of subsidiaries	418	26,126	—
Adjustments of prior year taxes	545	(1,684)	2,350
Adjustments of income tax reserves	(1,965)	1,084	(1,613)
Non-deductible goodwill impairment	15,547	—	—
Foreign exchange	226	2,014	5,936
Accrued withholding taxes	2,092	2,603	2,911
Other	254	44	1,079
Income tax expense (benefit)	<u>\$ 5,896</u>	<u>\$ (12,290)</u>	<u>\$ 25,447</u>

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 are summarized as follows (in thousands):

	December 31,	
	2020	2019
Deferred tax assets:		
Net operating loss carry-forwards	\$ 13,892	\$ 7,209
Tax credit carry-forwards	2,996	1,888
Accruals for compensation	8,587	8,240
Accruals for inventory capitalization	3,445	1,788
Unrealized benefit from corporate restructuring	53,501	56,985
Intangibles	830	—
Unrealized benefit plan loss	2,366	3,740
Unrealized foreign exchange	2,852	3,842
Unearned revenue	741	1,849
Other	1,989	1,839
Total deferred tax assets	91,199	87,380
Valuation allowance	(6,264)	(6,241)
Net deferred tax assets	84,935	81,139
Deferred tax liabilities:		
Intangibles	—	(6,263)
Property, plant and equipment	(4,998)	(3,546)
Accrued interest	—	(1,679)
Accrued withholding taxes	(26,916)	(26,718)
Unrealized foreign exchange	(610)	(2,653)
Other	(221)	(306)
Total deferred tax liabilities	(32,745)	(41,165)
Net deferred income taxes	\$ 52,190	\$ 39,974
	December 31,	
	2020	2019
Long-term deferred tax assets	\$ 72,775	\$ 67,312
Long-term deferred tax liabilities	(20,585)	(27,338)
Total deferred tax assets (liabilities)	\$ 52,190	\$ 39,974

At December 31, 2020, we had tax net operating loss carry-forwards in various tax jurisdictions of \$62.3 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, 2020, if unused, \$11.2 million will expire between 2021 and 2023, \$5.2 million will expire between 2024 and 2026, \$7.0 million will expire between 2027 and 2030 and \$15.9 million will expire beyond 2031. The remaining balance of \$23.0 million is not subject to expiration. During 2020, we have no net operating loss carry-forwards, which carried a full valuation allowance, that 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 2009 through 2019 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.

During 2020, 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):

	For the Years Ended December 31,		
	2020	2019	2018
Unrecognized tax benefits at January 1,	\$ 7,301	\$ 7,471	\$ 10,124
Tax positions, current period	1,650	495	543
Tax positions, prior period	(491)	(361)	(304)
Settlements with taxing authorities	(2,159)	(18)	(2,207)
Lapse of applicable statute of limitations	(46)	(286)	(685)
Unrecognized tax benefits at December 31,	<u>\$ 6,255</u>	<u>\$ 7,301</u>	<u>\$ 7,471</u>

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, 2020, 2019 and 2018, we recognized \$0.9 million, \$1.3 million and \$0.6 million, respectively, in interest and penalties. For the years ended December 31, 2020, 2019 and 2018, we had \$4.2 million, \$5.1 million and \$3.9 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, 2020, 2019 and 2018 there are \$0.5 million, \$0.9 million and \$0.6 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.

11. PENSION AND OTHER POSTRETIREMENT BENEFIT PLANS

Defined Benefit Plan

Prior to January 2020, we provided a noncontributory defined benefit pension plan covering substantially all of our Dutch employees ("Dutch Plan") who were hired prior to 2000. This pension benefit was based on years of service and final pay depending on when the employee began participating. The benefits earned by the employees are immediately vested. We funded the future obligations of the Dutch Plan by purchasing an insurance contract from a large multi-national insurance company with a five-year maturity. Each year we made annual premium payments to the insurance company (1) to provide for the benefit obligation of the current year of service based on each employee's age, gender and current salary, and (2) for the changes in the benefit obligation for prior years of service due to changes in participants' salary. 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.

During 2019 and 2018, there was a curtailment of the Dutch Plan for our Dutch employees whose pension benefit was based on years of service and final pay or career average pay, depending on when the employee began participating. These employees have been moved into the Dutch defined contribution plan. This event resulted in a curtailment gain of \$1.0 million, \$2.6 million and \$1.2 million for the years ended December 31, 2020, 2019 and 2018, respectively. However, the unconditional indexation for this group of participants continues for so long as they remain in active service with the Company. There is no further contribution required to fund the Dutch Plan after December 31, 2019.

The following table summarizes the change in the projected benefit obligation and the fair value of plan assets for the Dutch Plan (in thousands):

	December 31,	
	2020	2019
Projected Benefit Obligation:		
Projected benefit obligation at beginning of year	\$ 65,246	\$ 60,671
Service cost	—	755
Interest cost	679	1,027
Amendments/curtailments	(1,049)	(2,621)
Benefits paid and administrative expenses	(1,329)	(1,229)
Actuarial (gain) loss, net	5,056	7,979
Unrealized (gain) loss on foreign exchange	6,080	(1,336)
Projected benefit obligation at end of year	\$ 74,683	\$ 65,246
Fair Value of Plan Assets:		
Fair value of plan assets at beginning of year	\$ 59,318	\$ 53,273
Increase in plan asset value	6,041	6,905
Employer contributions	601	1,558
Benefits paid and administrative expenses	(1,329)	(1,246)
Unrealized gain (loss) on foreign exchange	5,688	(1,172)
Fair value of plan assets at end of year	\$ 70,319	\$ 59,318
Under-funded status of the plan at end of the year	\$ (4,364)	\$ (5,928)
Accumulated Benefit Obligation	\$ 74,683	\$ 65,246

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:

	December 31,	
	2020	2019
Weighted average assumed discount rate	0.45%	1.05%
Expected long-term rate of return on plan assets	0.45%	1.05%
Weighted average rate of compensation increase	1.50%	1.80%

The discount rate used to determine our projected benefit obligation at December 31, 2020 was decreased from 1.05% to 0.45%, 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 consist of (in thousands):

	December 31,	
	2020	2019
Deferred tax asset	\$ 1,192	\$ 1,482
Other long-term liabilities	4,364	5,928
Accumulated other comprehensive loss	(5,375)	(5,640)

The components of net periodic pension cost for the Dutch Plan include (in thousands):

	For the Years Ended December 31,		
	2020	2019	2018
Service cost	\$ —	\$ 755	\$ 1,453
Interest cost	679	1,027	1,244
Expected return on plan assets	(634)	(914)	(1,077)
Administrative charges	—	17	37
Curtailement	(1,049)	(2,621)	(1,219)
Prior service cost	—	(848)	(106)
Net actuarial loss	—	3,171	1,706
Net periodic pension cost	\$ (1,004)	\$ 587	\$ 2,038

Plan assets at December 31, 2020 and 2019 consist 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.

In 2021, our minimum funding requirements are expected to be \$0.6 million. Our estimate of future annual contributions is based on current funding and the unconditional indexation 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):

	December 31, 2020
2021	\$ 1,527
2022	\$ 1,618
2023	\$ 1,662
2024	\$ 1,785
2025	\$ 1,861
Succeeding five years	\$ 11,490

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, 2020, 2019 and 2018, we paid \$3.6 million, \$5.3 million and \$4.3 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 for the years ended December 31, 2020, 2019 and 2018 was \$1.0 million, \$2.0 million and \$1.2 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 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 for the years ended December 31, 2020, 2019 and 2018 were \$0.03 million, \$0.1 million, and \$0.1 million, respectively.

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.

12. 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.

In 1998, we entered into employment agreements with three senior executive officers that provided for certain deferred compensation benefits. All of these executive officers have retired from the Company and the payment of these deferred compensation benefits have been made as of December 31, 2020.

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.

See Note 9 - *Long-term debt, net* for amounts committed under letters of credits and performance guarantees and bonds.

13. EQUITY

Common Shares

On December 17, 2020, we entered into an Equity Distribution Agreement with Wells Fargo Securities, LLC (the "Equity Distribution Agreement") for the issuance and sale of up to \$60.0 million of our common shares. Under terms of the Equity Distribution Agreement, the sales of our common shares may be made by any method deemed to be an "at-the-market offering" as defined in Rule 415 under the Securities Act of 1933. The Company elects when to issue a placement notice which may, among other sales parameters, specify the number of shares to be sold, the minimum price per share to be accepted, the daily volume of shares that may be sold and the range of dates when shares may be sold.

We incurred \$0.2 million of issuance costs associated with the Equity Distribution Agreement. These costs have been deferred and are included in other current assets on the Consolidated Balance Sheets. The costs will be charged to additional paid-in capital when a sale occurs based on the dollar amount of common shares sold to the total dollar amount of anticipated common share sales under the Equity Distribution Agreement of \$60.0 million. Any remaining deferred issuance costs at the termination of the agreement will be charged to expense. All other issuance costs associated with a sale under the agreement will be charged to additional paid-in capital at the date of the sales transaction.

There have been no sales under the agreement as of December 31, 2020, or for the time period of January 1, 2021 through February 5, 2021.

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 20, 2020, our shareholders authorized an extension to repurchase up to 10% of our issued share capital through November 20, 2021. The repurchase of shares in the open market is at the discretion of management pursuant to this shareholder authorization. Such common shares, unless canceled, may be reissued for a variety of purposes such as future acquisitions, non-employee director stock awards or employee stock awards. From the activation of the share repurchase program on October 29, 2002 through December 31, 2020, pursuant to shareholder approvals, we have repurchased 39,790,928 shares for an aggregate purchase price of approximately \$1.7 billion, or an average price of \$41.54 per share and have canceled 33,475,406 shares with an historical cost of \$1.2 billion. At December 31, 2020, we held 223,451 shares in treasury with the authority to repurchase 4,256,174 additional shares under our stock repurchase program. Subsequent to year-end, we have repurchased 549 shares at a total cost of \$17.3 thousand. During the year ended December 31, 2020, we repurchased rights to 70,929 shares valued at \$1.7 million, which were surrendered to us pursuant to the terms of a stock-based compensation plan in consideration of the participants' tax burdens that may result from the issuance of common shares under that plan.

Dividend Policy

In 2008, Core Laboratories announced the initiation of a cash dividend program. Cash dividends of \$0.25 per share were paid in the first quarter of 2020 and \$0.01 per share in each remaining quarter of 2020. Cash dividends of \$0.55 per share were paid each quarter of 2019. 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 15, 2021, the Company declared a cash dividend of \$0.01 per share of common stock payable February 16, 2021 to shareholders of record on January 25, 2021.

Accumulated Other Comprehensive Income (Loss)

Amounts recognized, net of income tax, in Accumulated other comprehensive income (loss) consist of the following (in thousands):

	December 31,	
	2020	2019
Pension and other postretirement benefit plans - unrecognized prior service costs and net actuarial loss	\$ (5,375)	\$ (5,640)
Interest rate swaps - net fair value loss	(1,825)	(690)
Total Accumulated other comprehensive income (loss)	<u>\$ (7,200)</u>	<u>\$ (6,330)</u>

14. STOCK-BASED COMPENSATION

We have granted restricted stock awards under two stock incentive plans: the 2020 Long-Term Incentive Plan and the 2014 Nonemployee Director Stock Incentive Plan. Awards under the following three compensation programs have been granted pursuant to both plans: (1) the Performance Share Award Program ("PSAP"); (2) the Restricted Share Award Program ("RSAP") and (3) 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 2020, we issued 208,168 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.

2020 Long-Term Incentive Plan

In 2020, the 2014 Long-Term Incentive Plan was amended, restated and renamed as the 2020 Long-Term Incentive Plan (the "Plan"). The primary changes effected by the 2020 amendment and restatement were to (a) extend the period during which awards may be granted under the Plan to May 20, 2025, 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 13,000,000 common shares to be granted to eligible employees. At December 31, 2020, approximately 952,697 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

The PSAP allows us to compensate our executive and senior management teams as we meet or exceed our business objectives. The PSAP shares are unvested and may not be sold, assigned, pledged, hedged, margined or otherwise transferred by an award recipient until such time as, and then only to the extent that, the restricted performance shares have vested. In the event of a change in control (as defined in the Plan) prior to the last day of the Performance Period, all of the award recipient's restricted performance shares will vest as of the effective date of such change in control. Subject to continued employment with us, or upon death or disability, PSAP shares vest if we meet or exceed our business objectives.

The company recorded \$6.8 million and \$7.2 million of additional non-cash stock compensation expense in the year ended December 31, 2020 and 2019, respectively, associated with the 2020 and 2019 PSAP awards for certain members of our executive management team who became retirement eligible during those years. The additional stock compensation expense has been recorded in accordance with FASB ASC Topic 718, "*Compensation - Stock Compensation*", which states that the period over which stock compensation expense is recognized should not extend beyond the eligible retirement age as defined in each executive's PSAP award agreement. The PSAP awards continue to remain unvested until the end of the performance period, and it can be determined whether the performance criteria have been achieved. The executive will not forfeit the right to

vest in the awarded shares if they voluntarily retire from the Company after attaining the retirement age as defined in each agreement.

On February 13, 2018, certain executives were awarded rights to receive an aggregate of up to 162,772 common shares (the “2018 PSAP awards”) if our calculated ROIC, as defined in the PSAP, achieves certain performance criteria as compared to the Bloomberg Comp Group at the end of the performance period, which ends on the last trading day of 2020, December 31, 2020. This arrangement is recorded as an equity award that requires us to recognize compensation expense totaling \$16.0 million over the shorter of the 3-year performance period or requisite service period, as determined for each participant individually, of which \$3.0 million and \$11.4 million has been recognized in 2019 and 2018, respectively. In 2020, due to the significant impact of the global pandemic, COVID-19, to the oil and gas industry, the awards were modified in consideration of one time non-cash charges to determine normalized metrics. As a result, 110,248 shares vested (the target level) out of an aggregate amount of up to 162,772 (7,800 shares were previously forfeited). An adjustment of \$11.9 million was recorded in the fourth quarter of 2020 to reverse previously recognized stock compensation expense for shares that were granted but did not vest, and to reflect the current fair value of the awards which did vest on December 31, 2020 as a result of the modification. This adjustment resulted in a net credit of \$7.4 million for stock compensation expense recognized in 2020 for the 2018 PSAP awards, of which \$6.8 million was classified in general and administrative expenses and \$0.6 million is classified as cost of sales. We issued these common shares on December 31, 2020 and, simultaneously, the participants surrendered 42,033 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 \$1.1 million at \$26.51 per share.

On February 12, 2019, certain executives were awarded rights to receive an aggregate of up to 220,065 common shares of our calculated ROIC, as defined in the PSAP, achieves certain performance criteria as compared to the Bloomberg Comp Group at the end of the performance period, which ends on the last trading day of 2021, December 31, 2021. This arrangement is recorded as an equity award that requires us to recognize compensation expense totaling \$13.1 million over the shorter of the 3-year performance period or requisite service period, as determined for each participant individually, of which \$1.9 million and \$8.8 million has been recognized in 2020 and 2019, respectively. The unrecognized compensation expense is expected to be recognized over an estimated amortization period of 12 months.

On February 11, 2020, certain executives were awarded rights to receive an aggregate of up to 267,506 common shares if our calculated ROIC, as defined in the PSAP, achieves certain performance criteria as compared to the Bloomberg Comp Group at the end of the performance period, which ends on the last trading day of 2022, December 30, 2022. The Compensation Committee had added a *modifier* based upon absolute total shareholder return (“TSR”), which is calculated based on the difference between the closing share price at end of the measurement period, i.e. on last trading day of 2022, December 31, 2022, and the closing share price as on December 31, 2019. This arrangement is recorded as an equity award that requires us to recognize compensation expense totaling \$14.7 million over the shorter of the 3-year performance period or requisite service period, as determined for each participant individually, of which \$9.5 million has been recognized in 2020. 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 321,084 shares, 182,533 shares, and 115,618 shares in 2020, 2019 and 2018, 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, 2020, there was \$27.2 million of unrecognized total stock-based compensation expense relating to non-vested RSAP awards. The unrecognized compensation expense is expected to be recognized over an estimated weighted-average amortization period of 43 months. The grant-date fair value of shares granted was \$4.8 million, \$8.7 million and \$11.6 million in 2020, 2019 and 2018, respectively. We recognized compensation expense of \$6.4 million, \$8.0 million and \$8.9 million in 2020, 2019 and 2018, respectively. The total grant-date fair value, which is the intrinsic value, of the shares vested was \$7.7 million, \$8.7 million and \$9.0 million in 2020, 2019 and 2018, respectively.

2014 Nonemployee Director Stock Incentive Plan

In 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, 2020 approximately 644,509 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 Supervisory Board of Directors approved the restricted share award program (the "Program") to compensate our non-employee Supervisory Directors. Under this arrangement we awarded grants totaling 87,042 shares, 10,885 shares and 8,322 shares in 2020, 2019 and 2018, respectively. The shares awarded in 2020, 2019 and 2018 have a vesting period of one year for each grant. 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, 2020, there was \$0.2 million of unrecognized 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 3 months. The grant-date fair value of shares granted was \$1.1 million, \$0.7 million and \$0.9 million in 2020, 2019 and 2018, respectively, and we have recognized compensation expense of \$0.8 million, \$0.8 million and \$1.4 million in 2020, 2019 and 2018, respectively.

Equity Compensation Plan Information

Information about our equity compensation plans as of December 31, 2020 is as follows:

	Number of Common Shares to be Issued Upon Exercise of Outstanding Options, Warrants and Rights	Weighted Average Exercise Price of Outstanding Options, Warrants and Rights	Number of Common Shares Remaining Available for Future Issuance Under Equity Compensation Plans
Equity compensation plans approved by our shareholders			
2020 Long-Term Incentive Plan	1,057,146	—	952,697
2014 Nonemployee Director Stock Incentive Plan	87,042	—	560,658
Total	1,144,188		1,513,355

Stock-based Compensation

Non-vested restricted share awards outstanding as of December 31, 2020 and changes during the year under both the Plan and the Director Plan are as follows:

	Number of Shares	Weighted Average Grant Date Fair Value per Share
Non-vested at December 31, 2019	670,697	\$ 75.93
Granted	747,632	\$ 22.01
Vested	(208,168)	\$ 92.85
Forfeited	(67,689)	\$ 64.71
Non-vested at December 31, 2020	1,142,472	\$ 38.23

Stock-based compensation expense under both the Plan and the Director Plan recognized in the income statement is as follows (in thousands):

	December 31,		
	2020	2019	2018
Cost of product sales and services	\$ 5,170	\$ 7,288	\$ 8,648
General and administrative	2,224	13,591	25,546
Total stock-based compensation expense	\$ 7,394	\$ 20,879	\$ 34,194

15. DERIVATIVE INSTRUMENTS AND HEDGING ACTIVITIES

Interest Rate Risk

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.

Our Credit Facility bears interest at variable rates from LIBOR plus 1.500% to a maximum of LIBOR plus 2.875% and includes a LIBOR floor of 0.500%. As a result of two interest rate swap agreements, we are subject to interest rate risk on any debt in excess of \$50 million drawn on our Credit Facility.

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 2.50% through August 29, 2024. In February 2020, we entered into the second swap agreement of \$25 million, under which we have fixed the LIBOR portion of the interest rate at 1.3% through February 28, 2025. Each swap is measured at fair value and recorded in our consolidated balance sheet as an asset or 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 income (loss) and are recognized in income as an increase or decrease to interest expense in the period in which the related cash flows being hedged are recognized in expense.

At December 31, 2020, we had fixed rate long-term debt aggregating \$200 million and variable rate long-term debt aggregating \$61 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 at December 31,		Balance Sheet Classification
	2020	2019	
Derivatives designated as hedges:			
5 year interest rate swap	\$ (368)	\$ —	Other Long-term (Liabilities)
10 year interest rate swap	(2,123)	(1,054)	Other Long-term (Liabilities)
	\$ (2,491)	\$ (1,054)	

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 (Level 2).

The effect of the interest rate swaps on the consolidated statements of operations was as follows (in thousands):

	For the years ended December 31,		Income Statement Classification
	2020	2019	
Derivatives designated as hedges:			
5 year interest rate swap	\$ 191	\$ (121)	Interest Expense
10 year interest rate swap	478	60	Interest Expense
	<u>\$ 669</u>	<u>\$ (61)</u>	

16. 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 determine the fair value of these assets and liabilities 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, 2020			
	Total	Level 1	Level 2	Level 3
Assets:				
Company owned life insurance policies (1)	\$ 30,985	\$ —	\$ 30,985	\$ —
	<u>\$ 30,985</u>	<u>\$ —</u>	<u>\$ 30,985</u>	<u>\$ —</u>
Liabilities:				
Deferred compensation liabilities	\$ 22,559	\$ —	\$ 22,559	\$ —
5 year interest rate swap	368	—	368	—
10 year interest rate swap	2,123	—	2,123	—
	<u>\$ 25,050</u>	<u>\$ —</u>	<u>\$ 25,050</u>	<u>\$ —</u>

Fair Value Measurement at December 31, 2019				
	Total	Level 1	Level 2	Level 3
Assets:				
Company owned life insurance policies (1)	\$ 47,009	\$ —	\$ 47,009	\$ —
	<u>\$ 47,009</u>	<u>\$ —</u>	<u>\$ 47,009</u>	<u>\$ —</u>
Liabilities:				
Deferred compensation liabilities	\$ 34,081	\$ —	\$ 34,081	\$ —
10 year interest rate swap	1,054	—	1,054	—
	<u>\$ 35,135</u>	<u>\$ —</u>	<u>\$ 35,135</u>	<u>\$ —</u>

(1) Deferred compensation assets consist of the cash surrender value of life insurance policies and are intended to assist in the funding of the deferred compensation liabilities.

17. IMPAIRMENTS AND OTHER CHARGES

The coronavirus disease 2019 (“COVID-19”) global pandemic resulted in government mandated shut-downs, cross-border travel restrictions, home sheltering and social distancing efforts to contain the virus and mitigate the incidence of infection. The COVID-19 mitigation efforts globally resulted in a sharp decline in the consumption of crude-oil and refined petroleum products, which in turn led to a significant decrease in spot and forward commodity prices. These events have resulted in substantial declines in the valuation of companies operating in the oil and gas services industry, including Core Laboratories. As a result, we determined that it was more likely than not that the fair value of our reporting units was less than their carrying value, which triggered an updated impairment assessment by the Company as of March 31, 2020. We performed an impairment test in accordance with ASC Topic 360 Impairment or Disposal of Long-Lived Assets and ASC Topic 350 Intangibles-Goodwill and Other as updated by ASU 2017-04 Simplifying the Test for Goodwill Impairment on our indefinite-lived and long-lived assets related to asset groups, and our reporting units.

We have two reporting units that are the same as our two reportable segments, with goodwill balances aggregating \$213.4 million as of March 31, 2020. We performed a detailed quantitative impairment assessment of our reporting units. We determined that the fair value of one of the reporting units, our Production Enhancement segment representing approximately \$114.0 million of the goodwill, was less than the carrying value. As a result, we concluded that the goodwill associated with our Production Enhancement segment was fully impaired, resulting in a \$114.0 million goodwill impairment charge in March 2020. We determined that the Reservoir Description reporting unit’s fair value is above the carrying value, which represented the remaining balance of \$99.4 million of goodwill.

We identified a triggering event for one of the asset groups under the Production Enhancement reporting unit. The estimated fair value, based on applying the income approach model, of one of the asset groups was determined to be below its carrying value. As of March 31, 2020, we recorded a charge of \$8.2 million to impair the intangible assets relating to the business acquisition of Guardian Technology in 2018.

There were no other triggering events during the year and, based on our annual assessment, we determined there was no further impairment for any of our reporting units or asset groups

18. INVENTORY WRITE-DOWN

During the year ended December 31, 2020 as a result of the continuing adverse impact of COVID-19 and significant reduction in rig count and completions that affect the current consumption and anticipated demand for certain of our products, we recorded an additional inventory obsolescence and write-down of \$10.4 million in our Production Enhancement segment.

19. OTHER (INCOME) EXPENSE, NET

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

	For the Years Ended December 31,		
	2020	2019	2018
Gain on sale of assets	\$ (1,254)	\$ (583)	\$ (1,078)
Results of non-consolidated subsidiaries	(125)	(208)	(203)
Foreign exchange (gain) loss	1,160	1,725	2,598
Rents and royalties	(466)	(607)	(510)
Employment related charges	—	2,998	—
Return on pension assets and other pension costs	(1,502)	(1,501)	(644)
Acquisition-related costs	—	—	623
Gain on sale of business	—	(1,154)	—
Insurance settlement	—	—	(707)
Loss on lease abandonment	504	—	—
Cost reduction and other charges	3,943	5,555	—
Other, net	(434)	(906)	(816)
Total Other (income) expense, net	\$ 1,826	\$ 5,319	\$ (737)

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 forward exchange contract is an agreement to exchange different currencies at a given date and at a specified rate. Foreign exchange gains and losses result from fluctuations in the USD against foreign currencies and are included in other (income) expense, net in the consolidated statements of operations. We recognize 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 recognize 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) losses by currency are summarized in the following table (in thousands):

	For the Years Ended December 31,		
	2020	2019	2018
Australian Dollar	\$ 174	\$ 158	\$ 183
British Pound	653	599	158
Canadian Dollar	590	489	458
Euro	458	469	208
Other currencies, net	(715)	10	1,591
Foreign exchange (gain) loss, net	<u>\$ 1,160</u>	<u>\$ 1,725</u>	<u>\$ 2,598</u>

20. DISCONTINUED OPERATIONS

In a continuing effort to streamline our business and align our business strategy for further integration of services and products, the Company committed to divest the business of our full range of permanent downhole monitoring systems and related services, which had been part of our Production Enhancement segment.

On June 7, 2019, we entered into a definitive purchase agreement for approximately \$16.6 million in cash. A pre-tax gain of \$8.3 million was recognized in connection with this transaction, subject to adjustments for working capital purposes and is classified as Income from discontinued operations in the consolidated statements of operations. The purchase agreement also provides for additional proceeds of up to \$2.5 million based on the results of operations of the sold business in 2019 and 2020, none of which has been recognized. During the year ended December 31, 2020, we concluded final adjustments to the purchase agreement of \$0.6 million, and we determined no additional proceeds based on the results of operations of the sold business in 2019. There are no other activities recorded in the consolidated statements of operations for the year ended December 31, 2020 and no balances recorded in the consolidated balance sheet for the discontinued operations as of December 31, 2020 and 2019.

The associated results of operations are separately reported as Discontinued Operations for all periods presented on the Consolidated Statements of Operations. As such, the results from continuing operations for the Company and segment highlights for Production Enhancement, exclude these discontinued operations.

Selected data for this discontinued business consist of the following (in thousands):

	For the Years Ended December 31,		
	2020	2019	2018
Services	\$ —	\$ 1,165	\$ 1,462
Product sales	—	4,233	5,708
Total revenue	—	5,398	7,170
Cost of services	—	690	1,163
Cost of product sales	—	3,196	5,696
Depreciation and amortization	—	—	115
Other expense (income)	—	91	72
Operating income	—	1,421	124
Gain (adjustment) on sale	(573)	8,319	—
Income (loss) from discontinued operations before income tax	(573)	9,740	124
Income tax expense (benefit)	(149)	1,907	182
Income (loss) from discontinued operations	<u>\$ (424)</u>	<u>\$ 7,833</u>	<u>\$ (58)</u>

Net cash provided by operating activities of discontinued operations for the years ended December 31, 2019 and 2018 was \$0.1 million and \$0.2 million, respectively.

Net cash provided by (used in) investing activities of discontinued operations for the year ended December 31, 2020 and 2019 was \$(0.2) million and \$14.8 million, respectively.

21. SEGMENT REPORTING AND OTHER DISAGGREGATED INFORMATION

Segment Reporting

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

- *Reservoir Description:* Encompasses the characterization of petroleum reservoir rock and reservoir fluids samples to increase production and improve recovery of crude oil and natural gas from our clients' reservoirs. We provide laboratory-based analytical and field services to characterize properties of crude oil and crude oil-derived products to the oil and gas industry. We also provide proprietary and joint industry studies based on these types of analyses and manufacture associated laboratory equipment.
- *Production Enhancement:* Includes services and manufactured products relating to reservoir well completions, perforations, stimulations and production. We provide integrated diagnostic services to evaluate and monitor the effectiveness of well completions and to develop solutions aimed at increasing the effectiveness of enhanced oil recovery projects.

We use the same accounting policies to prepare our segment results as are used to prepare our consolidated financial statements. All interest and other non-operating income (expense) is attributable to Corporate & Other and is not allocated to specific segments. Summarized financial information concerning our segments is shown in the following table (in thousands):

At and for the years ended:	Reservoir Description	Production Enhancement	Corporate & Other ⁽¹⁾	Consolidated
December 31, 2020				
Revenue from unaffiliated clients	\$ 355,041	\$ 132,226	\$ —	\$ 487,267
Inter-segment revenue	313	521	(834)	—
Segment operating income (loss)	55,044	(133,449)	1,600	(76,805)
Total assets (at end of period)	327,386	129,568	111,625	568,579
Capital expenditures	6,135	5,460	285	11,880
Depreciation and amortization	13,612	6,203	1,052	20,867
December 31, 2019				
Revenue from unaffiliated clients	\$ 420,897	\$ 247,313	\$ —	\$ 668,210
Inter-segment revenue	436	500	(936)	—
Segment operating income (loss)	55,140	38,378	3,166	96,684
Total assets (at end of period)	343,405	279,769	151,499	774,673
Capital expenditures	10,439	11,253	577	22,269
Depreciation and amortization	15,109	5,645	1,851	22,605
December 31, 2018				
Revenue from unaffiliated clients	\$ 413,082	\$ 287,764	\$ —	\$ 700,846
Inter-segment revenue	988	378	(1,366)	—
Segment operating income (loss)	54,847	63,039	736	118,622
Total assets (at end of period)	315,503	270,832	62,492	648,827
Capital expenditures	12,829	8,222	690	21,741
Depreciation and amortization	16,747	4,271	2,069	23,087

(1) "Corporate and other" represents those items not directly relating to a particular segment, eliminations and the assets and liabilities of discontinued operations in 2018.

Disaggregated Revenue

We derive our revenue from services and product sales contracts with clients primarily in the oil and gas industry. We attribute service revenue to the country in which the service was performed rather than where the reservoir or project is located 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 service revenue performed and recorded in the U.S. that are sourced from projects on non-U.S. oilfields. No single client accounted for 10% or more of revenue in any of the periods presented.

The following table shows the disaggregation of services and product sales by reportable segment (in thousands):

	For the Years Ended December 31,		
	2020	2019	2018
Reservoir Description Services	\$ 332,085	\$ 389,801	\$ 387,098
Production Enhancement Services	44,336	84,392	99,722
Total Revenue - Services	\$ 376,421	\$ 474,193	\$ 486,820
Reservoir Description Product sales	\$ 22,956	\$ 31,096	\$ 25,984
Production Enhancement Product sales	87,890	162,921	188,042
Total Revenue - Product sales	\$ 110,846	\$ 194,017	\$ 214,026
Total Revenue	\$ 487,267	\$ 668,210	\$ 700,846

Geographic Information

The following table shows a summary of our U.S. and non-U.S. operations and fixed assets (in thousands):

At and for the years ended:	United States	Other Countries(1) (2)	Consolidated
December 31, 2020			
Revenue	\$ 158,937	\$ 328,330	\$ 487,267
Property, plant and equipment, net	62,619	52,674	115,293
December 31, 2019			
Revenue	\$ 289,173	\$ 379,037	\$ 668,210
Property, plant and equipment, net	66,053	57,453	123,506
December 31, 2018			
Revenue	\$ 324,073	\$ 376,773	\$ 700,846
Property, plant and equipment, net	65,073	57,844	122,917

(1) Revenue earned in other countries, including the Netherlands, was not individually greater than 10% of our consolidated revenue in 2020, 2019 and 2018.

(2) Property, plant and equipment, net in other countries, including the Netherlands, were not individually greater than 10% of our consolidated property, plant and equipment in 2020, 2019 and 2018.

22. UNAUDITED SELECTED QUARTERLY FINANCIAL DATA

Summarized below is our unaudited quarterly financial data (in thousands, except per share data):

	At and For the Quarters Ended 2020			
	December 31	September 30	June 30	March 31
Services and product sales revenue	\$ 113,749	\$ 105,382	\$ 115,736	\$ 152,400
Cost of services and product sales	87,918	81,038	90,680	115,131
Other operating expenses (3)	2,427	13,013	27,623	146,242
Operating income (loss)	23,404	11,331	(2,567)	(108,973)
Interest expense	2,920	4,672	3,369	3,411
Income (loss) before income tax	20,484	6,659	(5,936)	(112,384)
Income tax expense (benefit)	6,540	3,663	(261)	(4,046)
Income (loss) from continuing operations	13,944	2,996	(5,675)	(108,338)
Income (loss) from discontinued operations	(424)	—	—	—
Net income (loss)	13,520	2,996	(5,675)	(108,338)
Net income (loss) attributable to non-controlling interest	(17)	33	41	83
Net income (loss) attributable to Core Laboratories N.V.	\$ 13,537	\$ 2,963	\$ (5,716)	\$ (108,421)
Per share information:				
Basic earnings (loss) per share (1) (2)	\$ 0.30	\$ 0.07	\$ (0.13)	\$ (2.44)
Diluted earnings (loss) per share (1) (2)	\$ 0.30	\$ 0.07	\$ (0.13)	\$ (2.44)
Weighted average common shares outstanding:				
Basic	44,499	44,491	44,470	44,447
Assuming dilution	44,958	44,899	44,470	44,447

	At and For the Quarters Ended 2019			
	December 31	September 30	June 30	March 31
Services and product sales revenue	\$ 156,778	\$ 173,200	\$ 169,038	\$ 169,194
Cost of services and product sales	117,749	125,996	124,451	127,383
Other operating expenses (3)	17,974	15,997	16,579	25,397
Operating income	21,055	31,207	28,008	16,414
Interest expense	3,588	3,662	3,714	3,726
Income before income tax	17,467	27,545	24,294	12,688
Income tax expense (benefit)	7,177	3,335	4,808	(27,610)
Income (loss) from continuing operations	10,290	24,210	19,486	40,298
Income (loss) from discontinued operations	—	(397)	7,971	259
Net income	10,290	23,813	27,457	40,557
Net income (loss) attributable to non-controlling interest	(40)	84	43	47
Net income attributable to Core Laboratories N.V.	\$ 10,330	\$ 23,729	\$ 27,414	\$ 40,510
Per share information:				
Basic earnings per share (1) (2)	\$ 0.23	\$ 0.54	\$ 0.62	\$ 0.91
Diluted earnings per share (1) (2)	\$ 0.23	\$ 0.53	\$ 0.61	\$ 0.91
Weighted average common shares outstanding:				
Basic	44,379	44,371	44,354	44,323
Assuming dilution	44,634	44,716	44,815	44,734

(1) Basic earnings per share and Diluted earnings per share are based on Net income attributable to Core Laboratories N.V.

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

(3) First quarter of 2019 includes charges of \$7.2 million, of additional stock compensation expenses. See Note 14.

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, 2020					
Reserve for credit losses	\$ 2,730	\$ 1,618	\$ (650)	\$ 370	\$ 4,068
Year ended December 31, 2019					
Reserve for credit losses	\$ 2,650	\$ 594	\$ (454)	\$ (60)	\$ 2,730
Year ended December 31, 2018					
Reserve for credit losses	\$ 2,590	\$ 605	\$ (560)	\$ 15	\$ 2,650

(1) Comprised primarily of differences due to changes in exchange rate and adjustments associated with the discontinued operations.

DESCRIPTION OF SHARE CAPITAL

The following summary of the terms of our ordinary shares does not purport to be complete and is subject to and qualified in its entirety by reference to applicable Dutch law and our articles of association, which we refer to as our Articles of Association. Our Articles of Association and relevant Dutch law, not this summary, define your rights as a holder of our ordinary shares.

Authorized Capital

Our Articles of Association authorizes 200,000,000 ordinary shares, par value €0.02 per share, and 6,000,000 preferred shares, par value €0.02 per share, for issuance. As of February 4, 2021, we had 44,573,622 ordinary shares outstanding and did not have any preferred shares currently outstanding.

Under Dutch law, our authorized capital is the maximum capital that we may issue without amending our Articles of Association. An amendment of our Articles of Association would require a resolution from the general meeting of shareholders.

Our ordinary shares has traded under the symbol “CLB” on the New York Stock Exchange since 1998 and was dual-listed on Euronext Amsterdam on May 16, 2012.

Except as otherwise provided by Dutch law or our Articles of Association, holders of ordinary shares are entitled to one vote for each share held of record on all matters submitted to a vote of the shareholders, will have the exclusive right to vote for the election of directors and do not have cumulative voting rights.

Dividend Rights

All outstanding ordinary shares (i.e., shares not held by us) are entitled to participate equally and receive dividends that may be paid out of available profits of the preceding fiscal year or years or distributions out of contributed surplus capital reserves. All accumulated and unpaid dividends payable on preferred shares (if issued and outstanding) must be paid prior to the payment of any dividends on our ordinary shares. The amount available for declaration and payment of future dividends will be at the discretion of the Supervisory Board and will depend upon, among other things, future earnings, general financial condition, liquidity, capital requirements, and general business conditions.

Issuance of Shares

Under Dutch law, we may only issue shares pursuant to a resolution of the general meeting of shareholders, unless another corporate body has been designated to do so by a resolution of the general meeting of shareholders or by our Articles of Association. Our Supervisory Board is designated for a period of eighteen months until November 20, 2021 to issue shares and grant rights to subscribe for shares up to 10% of the outstanding shares per annum. The designation may be extended from time to time, with periods not exceeding five years, by a resolution of the general meeting of shareholders adopted with a simple majority, provided that such resolution is proposed by the Supervisory Board.

Pre-Emptive Rights

Under Dutch law, in the event of an issuance of ordinary shares, each holder of ordinary shares will have a pro rata pre-emptive right based on the number of ordinary shares held by such shareholder. Pre-emptive rights do not apply with respect to the issuance of preferred shares, or to ordinary shares issued to our employees or the employees of one of our group companies pursuant to stock awards granted under the 2020 Long-Term Incentive Plan and the 2014 Nonemployee Director Stock Incentive Plan. Our Supervisory Board is authorized for a period of eighteen months until November 20, 2021 to limit or exclude any pre-emptive rights to which shareholders may otherwise be entitled in connection with the issuance of shares up to a maximum of 10% of the outstanding shares per annum. The above authority to limit or exclude pre-emptive rights can only be exercised if at that time the authority to issue shares is in full force and effect. The authority to limit or exclude pre-emptive rights may be extended from time to time, with periods not exceeding five years, by a resolution of the general meeting of shareholders adopted with a simple majority if more than 50% of the company's issued capital is represented at the relevant general meeting. If less than 50% of the issued capital is represented at the relevant general meeting, a resolution to limit or exclude pre-emptive

rights requires a majority of two-thirds of the votes cast. At the 2021 annual meeting, our shareholders will be asked to approve an extension of this authority for an eighteen-month period from the date of the annual meeting until November 19, 2022 to limit or exclude preemptive rights up to a maximum of 10% of outstanding shares per annum.

Repurchase of Shares

Under Dutch law, a public company with limited liability (*naamloze vennootschap*) may acquire its own shares, subject to certain provisions of Dutch law and our Articles of Association. According to the Dutch Civil Code, we and our subsidiaries may repurchase and can hold up to 50% of our issued share capital at one time, if such repurchase has been approved by the shareholders. 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. At our annual shareholders' meeting on May 20, 2020, our shareholders authorized an extension until November 20, 2021 of the existing authorization of our Management Board to repurchase up to 10% of the issued share capital through one or more purchases at the stock exchanges where our shares are listed or otherwise, and to determine the price of shares at any price in the open market, such price not to exceed \$[350.00] per share or its equivalent in other currencies. At our 2021 annual shareholders' meeting on May 19, 2021, our shareholders will be asked to approve an extension authorizing our Management Board to repurchase up to 10% of our issued share capital for an eighteen-month period, until November 19, 2022. In order not to expire, this authorization of our Management Board must be renewed every 18 months.

Capital Reduction

Subject to Dutch law and our Articles of Association, pursuant to a proposal of the Supervisory Board, the general meeting of shareholders may resolve to reduce the issued capital by cancellation of shares or by reducing the nominal value of the shares by means of an amendment to our Articles of Association. The affirmative vote of the majority of the votes cast at the general meeting is required to cancel our repurchased shares if more than one-half of our issued share capital is represented at the general meeting. If less than one-half of our issued share capital is represented at the general meeting, then the affirmative vote of two-thirds of the votes cast at the general meeting is required to approve the cancellation of our repurchased shares. Under Dutch law and our Articles of Association, common shares abstaining from voting and broker non-votes will not count as votes cast at the general meeting.

After the general meeting of shareholders, if a share cancellation is approved, we will file a copy of the extract of the minutes of the general meeting of shareholders with the Dutch trade registry and will subsequently publish a notice of such deposit in a Dutch daily newspaper. If no creditors oppose the capital reduction within two months after the publication in a Dutch daily newspaper, then the cancellation of the shares will become effective after this two-month waiting period.

General Meeting of Shareholders

Procedures and Admissions

Pursuant to our Articles of Association, general meetings of shareholders are held in Amsterdam, the Netherlands in the municipality in which the company has its corporate seat, Delft, Rotterdam, Den Haag, Utrecht or Haarlemmermeer. A general meeting of shareholders will be held at least once a year within the period required by Dutch law, which is currently no later than six months after the end of our financial year. Extraordinary general meetings of shareholders will be held as frequently as needed; however, they must be convened by the Management Board and/or the Supervisory Board. The Management Board and/or the Supervisory Board must give public notice of a general meeting of shareholders or an extraordinary meeting of shareholders, by at least such number of days prior to the day of the meeting as required by Dutch law, which is currently 42 days. The agenda for a meeting of shareholders must contain such items as the Management Board, Supervisory Board or the person or persons convening the meeting determine. The agenda shall also include any matter, the consideration of which has been requested by one or more shareholders, representing alone or jointly with others at least such percentage of the issued capital as determined by Dutch law, which is currently set at three percent. The request to consider such matter should have been received by us no later than on the 60th day prior to the day of the meeting accompanied by a statement containing the reasons for the request. The agenda for the annual general meeting of shareholders shall contain, among other items, items placed on the agenda in accordance with Dutch law and our Articles of Association, the consideration of the annual report, the discussion and adoption of our annual accounts, our compensation philosophy

or policies, our policy regarding dividends and reserves and the proposal to pay a dividend (if applicable), proposals relating to the composition of the Management Board and Supervisory Board, including the filling of any vacancies on those boards, the proposals placed on the agenda by Supervisory Board for their supervision during the financial year, together with the items proposed by shareholders in accordance with provisions of Dutch law and our Articles of Association. Shareholders are entitled to attend our general meeting of shareholders, to address the general meeting of shareholders and to vote, either in person or represented by a person holding a written proxy. The requirement that a proxy must be in written form is also fulfilled when it is recorded electronically. The holder of a right of usufruct or a pledgee with voting rights is entitled to request an item to be placed on the agenda of the general meeting of shareholders, to attend the general meeting of shareholders, to address the general meeting of shareholders and to vote. Under Dutch law, shareholders' resolutions may be adopted in writing without holding a meeting of shareholders, provided that (i) our Articles of Association explicitly allow such practice and (ii) all shareholders entitled to vote are in favor of the resolution to be adopted. Members of the Management Board and Supervisory Board are authorized to attend general meetings of shareholders. They have an advisory vote. The general meeting of shareholders is presided over by the Chairman of the Supervisory Board. In the absence of the chairman, the general meeting will itself decide who is to chair the meeting.

Voting Rights

Under Dutch law, each ordinary share confers the right to cast one vote at the general meeting of shareholders. Each shareholder may cast as many votes as it holds shares. Pursuant to our Articles of Association, each share (whether common or preferred) will confer the right to cast one vote. Resolutions by the general meeting of shareholders must be adopted by an absolute majority of votes cast, unless another standard of votes and / or a quorum is required by virtue of Dutch law or our Articles of Association. There is no required quorum under Dutch law for shareholder action at a properly convened shareholder meeting, except in specific instances prescribed by Dutch law or our Articles of Association. According to our Articles of Association, each resolution by the general meeting requires a two-thirds majority of the votes cast representing more than half of the issued share capital, except for (i) resolutions to be adopted pursuant to a proposal by the Supervisory Board, which require a simple majority regardless of the number of votes cast at the relevant general meeting, and (ii) resolutions to amend the Articles of Association, which require a two-thirds majority of the votes cast representing more than half of the issued share capital and can be adopted only pursuant to a proposal by the Management Board which proposal requires approval by the Supervisory Board. Each shareholder has the right to participate in, address and exercise its right to vote at the general meeting of shareholders in person or by written proxy or by electronic means of communication, subject to certain conditions for the use of electronic means of voting set by or pursuant to the Articles of Association. No votes may be cast at a general meeting of shareholders on the shares held by us or our subsidiaries. Nonetheless, the holders of a right of usufruct and the holders of a right of pledge in respect of the shares held by us or our subsidiaries in our capital are not excluded from the right to vote on such shares, if the right of usufruct or the right of pledge was granted prior to the time such shares were acquired by us or any of our subsidiaries. Neither we nor our subsidiaries may cast votes in respect of a share on which we or such subsidiary holds a right of usufruct or a right of pledge. Dutch law requires that the record date be on the 28th day prior to the date of the general meeting. Shareholders as of the record date shall be deemed entitled to attend and to vote at the general meeting. There is no specific provision in Dutch law relating to adjournment of the general meeting of shareholders.

Shareholder Vote on Certain Reorganizations

Under Dutch law, the approval of our general meeting of shareholders is required for any significant change in the identity of us or our business.

Appraisal Rights

Subject to certain exceptions, Dutch law does not recognize the concept of appraisal or dissenters' rights.

Anti-Takeover Provisions

Under Dutch law, protective measures against takeovers are possible and permissible, within the boundaries set by Dutch law and Dutch case law. The following resolutions and provisions of our Articles of Association may have the effect of making a takeover of our company more difficult or less attractive, including:

- until November 20, 2021, our Supervisory Board has been designated to issue shares and grant rights to subscribe for shares in the form of ordinary or preferred shares, up to the amount of our authorized capital and to limit or exclude pre-emptive rights on shares; and
- shareholder action by written consent is not permitted, thereby requiring all shareholder actions to be taken at a general meeting of shareholders.

Subject to the limits of the New York Stock Exchange listing rules, any preferred shares described above would vote together with the ordinary shares on matters submitted to shareholders for approval and have the same number of votes per share as the number of ordinary shares. By issuing the preferred shares in the appropriate number, this anti-takeover measure may result in the holders of such preferred shares having voting power equal to all issued ordinary shares. This anti-takeover measure can be used to provide time for our Management Board and Supervisory Board to negotiate the terms of a possible transaction that is in the best interest of all our stakeholders. In the event of a hostile takeover bid, in general, our Management Board and Supervisory Board still have the duty to act in the interest of our company and all its stakeholders.

Inspection of Books and Records

The Management Board provides all information required by Dutch law at the general meeting of shareholders and makes the information available to individual shareholders at the office of the company with copies available upon request. The part of our shareholders' register kept in the Netherlands is available for inspection by the shareholders.

Amendment of our Articles of Association

The general meeting of shareholders is able to effect an amendment of the Articles of Association only upon a proposal of our Management Board, which proposal requires approval from our Supervisory Board and by a two-thirds majority of the votes cast representing more than half of the issued share capital. A proposal to amend the Articles of Association where by any change would be made in the rights which vest in the holders of shares in a specific class in their capacity as such, shall require the prior approval of the meeting of the holders of the shares of that specific class.

Dissolution, Merger or Demerger

The general meeting of shareholders will only be able to effect a dissolution of the company. The liquidation of the company shall be carried out by the Management Board, if and to the extent the general meeting of shareholders has not appointed one or more other liquidators.

Under Dutch law, a resolution for a legal merger (*juridische fusie*) or legal demerger (*juridische splitsing*) is adopted in the same manner as a resolution to amend our Articles of Association. The general meeting of shareholders may, in accordance with the relevant merger or demerger proposal, adopt a resolution for a legal merger or legal demerger, only upon a proposal of our Management Board, which proposal requires approval from our Supervisory Board and a two-thirds majority of the votes cast representing more than half of the issued share capital.

Shareholder Suits

If a third party is liable to a Dutch company, under Dutch law generally shareholders do not have the right to bring an action on behalf of the company or bring an action on their own behalf to recover damages sustained as a result of a decrease in value, or loss of an increase in value, of their shares. Only in the event that the cause for the liability of such third party to the company also constitutes a tortious act directly against such shareholder and the damages sustained are permanent may that shareholder have an individual right of action against such third party on its own behalf to recover such damages. The Dutch Civil Code provides for the possibility to initiate such actions collectively. A foundation or an association whose objective, as stated in its articles of association, is to protect the rights of a group of persons having similar interests may institute a collective action. The collective action cannot result in an order for payment of monetary damages but may result in a declaratory judgment (*verklaring voor recht*), for example, declaring that a party has acted wrongfully or has breached fiduciary duty. The foundation or association and the defendant are permitted to reach (often on the basis of such declaratory judgment) a settlement, which provides

for monetary compensation of damages. A designated Dutch court may declare the settlement agreement binding upon all the injured parties whereby an individual injured party will have the choice to opt-out within the term set by the court (at least three months). Such individual injured party may also individually institute a civil claim for damages within the aforementioned term.

Squeeze-Out

Under Dutch law, a shareholder who holds at least 95% of our issued capital for its own account may institute proceedings against the other shareholders jointly for the transfer of their shares to the shareholder. The proceedings are held before the Enterprise Division (*Ondernemingskamer*) of the Court of Appeal in Amsterdam, which may award the claim for squeeze-out in relation to all minority shareholders and will determine the price to be paid for the shares, if necessary after appointment of one or three experts who will render an opinion to the Enterprise Chamber on the value of the shares. The court shall disallow the proceedings against all other defendants if (i) notwithstanding compensation, a defendant would sustain serious tangible loss by the transfer; (ii) the defendant is the holder of a share in which a special right of control of the company is vested under our Articles of Association; or (iii) a claimant has, as against a defendant, renounced his power to institute such proceedings. Once the order for transfer has become final, the acquirer must give written notice of the price and the date on which and the place where the price is payable to the minority shareholders whose addresses are known to the acquirer. Unless all addresses are known to the acquirer, it must also publish the same in a daily newspaper with nationwide distribution.

Transfer Agent and Registrar

The transfer agent and registrar for our ordinary shares is Computershare Trust Company, N.A.

MATERIAL NETHERLANDS INCOME AND ESTATE TAX CONSIDERATIONS

Certain Dutch Tax Considerations

General

The following is a general summary of certain material Dutch tax considerations of the acquisition, ownership and disposal of ordinary shares. This summary does not purport to describe the tax considerations or consequences applicable to all categories of investors, some of which (such as trusts or other similar arrangements) may be subject to special rules. In view of its general nature, this general summary should be treated with corresponding caution. Holders or prospective holders of ordinary shares should consult with their tax advisors for a full understanding of the tax consequences of the acquisition, ownership and disposal of ordinary shares in their particular circumstances, including the applicability and effect of Dutch tax laws. The discussion below is included for general information purposes only. Please note that this summary does not describe the Dutch tax considerations for a holder of ordinary shares who:

- has a substantial interest (*aanmerkelijk belang*) or deemed substantial interest (*fictief aanmerkelijk belang*) in us within the meaning of the Dutch Income Tax Act 2001 (*Wet inkomstenbelasting 2001*). Generally speaking, a holder of ordinary shares is considered to hold a substantial interest in us, if such holder — either alone or, in the case of an individual, together with such holder's partner (a statutorily defined term) or any of such holder's relatives by blood or by marriage in the direct line (including foster children) or of such holder's partner for Dutch tax purposes — owns or is deemed to own, directly or indirectly, (a) an interest of 5% or more of our total issued and outstanding share capital or of 5% or more of the issued and outstanding share capital of any class of our shares; or (b) rights to acquire, directly or indirectly, such interest in our shares; or (c) profit participating certificates relating to 5% or more of our annual profits and/or to 5% or more of our liquidation proceeds. A deemed substantial interest may arise if a substantial interest (or part thereof) in us has been disposed of, or is deemed to have been disposed of, on a non-recognition basis;
- owns ordinary shares where such holding qualifies or qualified as a participation (*deelneming*) for purposes of the Dutch Corporate Income Tax Act 1969 (*Wet op de vennootschapsbelasting 1969*). Generally, a holder's shareholding of 5% or more in our nominal paid-in share capital qualifies as a participation. A holder may also have a participation if such holder does not have a 5% or more shareholding but a related entity (a statutorily defined term) has a participation;
- owns ordinary shares in connection with a membership of a management board or a supervisory board, an employment relationship, a deemed employment relationship or management role; or
- is a pension fund, an investment institution (*fiscale beleggingsinstellingen*), an exempt investment institution (*vrijgestelde beleggingsinstellingen*) (as defined in the Dutch Corporate Income Tax Act 1969 (*Wet op de vennootschapsbelasting 1969*)) and an entity that is, in whole or in part, not subject to or exempt from corporate income tax in the Netherlands, or an entity that is exempt from corporate income tax in their country of residence, such country of residence being another state of the European Union, Norway, Liechtenstein, Iceland or any other state with which the Netherlands has agreed to exchange information in line with international standards.

Where in this summary English terms and expressions are used to refer to Dutch concepts, the meaning to be attributed to such terms and expressions shall be the meaning to be attributed to the equivalent Dutch concepts under Dutch tax law. This summary is based on the tax laws of the Netherlands, published regulations thereunder, published authoritative case law and the tax treaty between the United States and the Netherlands for the Avoidance of Double Taxation and the Prevention of Fiscal Evasion with respect to Taxes on Income ("Treaty"), all as in effect on the date of this Form 20-F, and all of which are subject to change, possibly with retroactive effect. Where in this summary the terms "the Netherlands" and "Dutch" are used, these refer only to the part of the Kingdom of the Netherlands located in Europe.

General

Dividends distributed by us generally are subject to Dutch dividend withholding tax at a rate of 15%. Generally, we are responsible for the withholding of such dividend withholding tax at source; the Dutch dividend withholding tax is for the account of the holder of ordinary shares. The concept “dividends distributed” includes, among other things:

- distributions in cash or in kind, deemed and constructive distributions and repayments of capital not recognized as paid-in for Dutch dividend withholding tax purposes;
- liquidation proceeds, proceeds of redemption or repurchase of ordinary shares by us to the extent such proceeds exceed the average paid-in capital of such ordinary shares as recognized for purposes of Dutch dividend withholding tax;
- an amount equal to the par value of ordinary shares issued by us or an increase of the par value of ordinary shares, as the case may be, to the extent that it does not appear that a contribution, recognized for purposes of Dutch dividend withholding tax, has been made or will be made; and
- partial repayment of the paid-in capital, recognized as paid-in for purposes of Dutch dividend withholding tax, if and to the extent that we have net profits (*zuivere winst*), unless (a) the general meeting of our shareholders has resolved in advance to make such repayment and (b) the par value of the ordinary shares concerned has been reduced by an equal amount by way of an amendment of our Articles of Association.

Individuals and corporate legal entities who are resident or deemed to be resident in the Netherlands for Dutch tax purposes (“Dutch Resident Individuals” and “Dutch Resident Entities”, as the case may be), generally are entitled to an exemption of or a credit for any Dutch dividend withholding tax against their income tax or corporate income tax liability and to a refund of any residual Dutch dividend withholding tax. The same generally applies to a holder of ordinary shares that is neither resident nor deemed to be resident of the Netherlands if the ordinary shares are attributable to a Dutch permanent establishment of such non-resident holder of ordinary shares.

If a holder of ordinary shares is resident in a country other than the Netherlands, such holder of ordinary shares may, depending on such holder’s specific circumstances, be entitled to an exemption from, reductions of, or full or partial refund of, Dutch dividend withholding tax under Dutch national tax legislation or a double taxation convention in effect between the Netherlands and such other country.

Non-resident holders of ordinary shares are urged to consult their tax advisers regarding the general creditability or deductibility of Dutch dividend withholding tax and, in particular, the impact on such investors of our potential ability to receive a reduction as described in the previous paragraph.

Reduction of Dutch Dividend Withholding Tax Based on the Treaty

Pursuant to the provisions of the Treaty, certain corporate U.S. holders of ordinary shares are eligible for a reduction to 5% Dutch dividend withholding tax provided that such holder (a) owns directly at least 10% of our voting power, (b) is the beneficial owner of the dividends received, (c) does not have a Dutch permanent establishment to which the dividends are attributable and (d) meet other relevant requirements including those set out in provisions of Article 26 (Limitation on Benefits) of the Treaty. The Treaty also provides for a dividend withholding tax exemption on dividends, but only for a holder owning directly at least 80% of our voting power and meeting the relevant requirements.

Provided that certain conditions are met, dividends paid to qualifying exempt pension trusts and other qualifying exempt organizations, as defined in the Treaty, are exempt from Dutch dividend withholding tax.

Remittance to the Dutch Tax Authorities

In general, we will be required to remit all amounts withheld as Dutch dividend withholding tax to the Dutch tax authorities. However, under certain circumstances, we may be entitled to retain a portion of the Dutch dividend withholding tax imposed in respect of a dividend distributed by us, that ordinarily would be required to be remitted to the Dutch tax authorities. Such portion is the lesser of:

- 3% of the dividends paid by us which is subject to Dutch dividend withholding tax; and
- 3% of the qualifying profit distributions, before deduction of non-Dutch withholding taxes on such distributions, received by us from qualifying non-Dutch subsidiaries and branches in the current calendar year (up to the date of our distribution) and the two preceding calendar years, as far as such profit distributions have not yet been taken into account for purposes of establishing the abovementioned reduction.

Although this reduction reduces the amount of Dutch dividend withholding tax that we are required to remit to the Dutch tax authorities, it does not reduce the amount of tax that we are required to withhold on dividends distributed. Upon request, we will provide holders of ordinary shares with information regarding the portion of the Dutch withholding tax that was retained by us.

Dividend Stripping

Pursuant to legislation to counteract “dividend stripping”, a reduction, exemption, credit or refund of Dutch dividend withholding tax is denied if the recipient of the dividend is not the beneficial owner as described in the Dutch Dividend Withholding Tax Act 1965 (*Wet op de dividendbelasting 1965*). This legislation generally targets situations in which a shareholder retains the economic interest in shares but reduces the withholding tax costs on dividends by a transaction with another party. These rules may also apply if the recipient of the dividends is not aware that a dividend stripping transaction took place. The Dutch State Secretary of Finance takes the position that the definition of beneficial ownership introduced by this legislation will also be applied in the context of a double taxation convention, including the Treaty.

Taxes on Income and Capital Gains

Dutch Resident Individuals

If a holder of ordinary shares is a Dutch Resident Individual, any payment under the ordinary shares or any gain or loss realized on the disposal or deemed disposal of the ordinary shares is taxable at the progressive Dutch income tax rates (with a maximum of 49.5% in 2021), if:

- (a) the ordinary shares are attributable to an enterprise from which the Dutch Resident Individual derives a share of the profit, whether as an entrepreneur (*ondernemer*) or as a person who has a co-entitlement to the net worth (*medegerechtigd tot het vermogen*) of such enterprise, other than as a shareholder (as defined in the Dutch Income Tax Act 2001); or
- (b) the holder of ordinary shares is considered to perform activities with respect to the ordinary shares that go beyond ordinary asset management (*normaal actief vermogensbeheer*) or derives benefits from the ordinary shares that are otherwise taxable as benefits from other activities (*resultaat uit overige werkzaamheden*).

If the abovementioned conditions (a) and (b) do not apply to the individual holder of ordinary shares, the ordinary shares are recognized as investment assets and as such included in such holder’s net investment asset base (*rendementsgrondslag*). Such holder will be taxed annually on a deemed return (with a maximum of 5.69% in 2021) of the individual’s net investment assets for the year at an income tax rate of 31%, insofar as the individual’s net investment assets for the year exceed a statutory threshold (*heffingvrij vermogen*).

The net investment assets for the year are the fair market value of the investment assets less the allowable liabilities on January 1 of the relevant calendar year. For the net investment assets on January 1, 2021, the deemed return ranges from 1.90% up to 5.69% (depending on the aggregate amount of the net investment assets of the individual on January 1, 2021). The deemed return will be adjusted annually on the basis of historic market yields.

Dutch Resident Entities

Any payment under the ordinary shares or any gain or loss realized on the disposal or deemed disposal of the ordinary shares held by Dutch Resident Entities will generally be subject to Dutch corporate income tax at a rate of 16.5% with respect to taxable profits up to €245,000 and 25% with respect to taxable profits in excess of that amount (rates and brackets for 2021).

Non-resident Individuals and Entities of the Netherlands

A holder of ordinary shares will not be subject to Dutch income tax in respect of any payment under the ordinary shares, or on any gain or loss realized on the disposal or deemed disposal of the ordinary shares, provided that:

- (a) such holder is neither a resident nor deemed to be resident in the Netherlands for Dutch tax purposes;
- (b) such holder does not derive profits from an enterprise or a deemed enterprise (a statutorily defined term) which, in whole or in part, is either effectively managed in the Netherlands or is carried on through a permanent establishment, a deemed permanent establishment or a permanent representative in the Netherlands and to which enterprise, or part of an enterprise, the ordinary shares are attributable;
- (c) in the event such holder is an individual, such holder does not carry out any activities in the Netherlands with respect to the ordinary shares that go beyond ordinary asset management and does not derive benefits from the ordinary shares that are otherwise taxable as benefits from miscellaneous activities performed in the Netherlands.

If a holder of ordinary shares is neither a Dutch Resident Individual nor a Dutch Resident Entity, such holder will for Dutch tax purposes not carry on or be deemed to carry on an enterprise, in whole or in part, through a permanent establishment, a deemed permanent establishment or a permanent representative in the Netherlands by reason only of acquisition or ownership of the ordinary shares.

Gift and Inheritance Taxes

Residents of the Netherlands

Gift or inheritance taxes will be levied in the Netherlands with respect to a transfer of ordinary shares by way of a gift by, or on the death of, a holder of ordinary shares who is resident or deemed to be resident in the Netherlands at the time of the gift or such holder's death.

Non-residents of the Netherlands

No Dutch gift or inheritance taxes will be levied with respect to a transfer of ordinary shares by way of a gift by, or on the death of, a holder of ordinary shares who is neither resident nor deemed to be resident in the Netherlands, unless:

- (a) in the case of a gift of ordinary shares by an individual who, at the date of the gift, was neither resident nor deemed to be resident in the Netherlands, such individual dies within 180 days after the date of the gift, while being resident or deemed to be resident in the Netherlands; or
- (b) the transfer of ordinary shares is otherwise construed as a gift or inheritance made by, or on behalf of, a holder of ordinary shares who, at the time of the gift or death, is or is deemed to be resident in the Netherlands.

For purposes of Dutch gift and inheritance taxes, a gift of ordinary shares made under a condition precedent is deemed to be made at the time the condition precedent is satisfied.

For purposes of Dutch gift and inheritance taxes, amongst others, a person that holds the Dutch nationality will, among other instances, be deemed to be resident in the Netherlands if such person has been resident in the Netherlands at any time during the ten years preceding the date of the gift or such holder's death. Additionally, for purposes of Dutch gift tax, amongst others, a person not holding the Dutch nationality will be deemed to be resident in the

Netherlands if such person has been resident in the Netherlands at any time during the 12 months preceding the date of the gift. Applicable tax treaties may override deemed residency.

Value Added Tax

In general, no Dutch value added tax will arise in respect of any payment under the ordinary shares, or in respect of or in connection with the acquisition, ownership and disposal of the ordinary shares.

Other Taxes and Duties

No registration tax, customs duty, transfer tax, stamp duty, capital tax or any other similar documentary tax or duty will be payable in the Netherlands by a holder of ordinary shares in respect of or in connection with the acquisition, ownership and disposal of the ordinary shares.

Employment Agreement**Dated March 1, 2019**

THIS EMPLOYMENT AGREEMENT (this “**Agreement**”) is made by and between **CORE LABORATORIES N.V.** and Gwendolyn Y. Schreffler (“**Executive**”).

WITNESSETH:

WHEREAS, Executive is currently an employee of Core Laboratories N.V. and/or one or more of its Affiliates (“**Company**”); and

WHEREAS, Company desires to continue to employ Executive on the terms and conditions, and for the consideration, hereinafter set forth, and Executive is desirous of continuing to be employed by Company on such terms and conditions, and for such consideration.

NOW, THEREFORE, for and in consideration of the amounts and benefits to be paid and provided to Executive under this Agreement and the mutual promises, covenants, and undertakings contained herein, Company and Executive, each intending to be legally bound, hereby agree as follows:

Article I
Employment and Duties

1.1 **Employment; Effective Date.** Company agrees to employ Executive, and Executive agrees to be employed by Company, beginning as of the Effective Date and continuing for the period of time set forth in Article III of this Agreement, subject to the terms and conditions of this Agreement.

1.2 **Position.** From and after the Effective Date, Company shall employ Executive in the position of Senior Vice President – Corporate Development & Investor Relations, or in such other comparable executive position as Company and Executive may mutually agree.

1.3 **Duties and Services.** Executive agrees to serve in the position referred to in Section 1.2 and to perform diligently and to the best of Executive’s abilities the duties and services appertaining to such office, as well as such additional duties and services appropriate to such office upon which the parties mutually may agree from time to time. Executive’s employment shall also be subject to the policies maintained and established by Company, as the same may be amended from time to time.

1.4 **Other Interests.** Executive agrees, during the period of Executive’s employment by Company, to devote Executive’s primary business time, energy, and best efforts to the business and affairs of Company and its Affiliates and not to engage, directly or indirectly, in any other business or businesses, whether or not similar to that of Company, except with the consent of the Supervisory Board of Directors. The foregoing notwithstanding, the parties recognize and agree that Executive may, without consent of the Supervisory Board of Directors, engage in charitable, civic, and other business activities that do not conflict with the business and

affairs of Company and in passive personal investments, so long as such activities do not interfere with Executive's performance of Executive's duties hereunder.

1.5 **Duty of Loyalty.** Executive acknowledges and agrees that Executive owes a fiduciary duty of loyalty, fidelity, and allegiance to act at all times in the best interests of Company. In keeping with these duties, Executive shall make full disclosure to Company of all business opportunities pertaining to Company's business and shall not appropriate for Executive's own benefit business opportunities concerning the subject matter of the fiduciary relationship.

Article II

Compensation and Benefits

2.1 **Base Salary.** During the period of this Agreement, Executive shall receive a minimum annual base salary: \$315,000. Executive's annual base salary shall be reviewed by the Supervisory Board of Directors (or a committee thereof) or by the Chief Executive Officer on an annual basis, and, in the sole discretion of the Supervisory Board of Directors (or such committee) or the Chief Executive Officer, such annual base salary may be increased, but not decreased no less than once every calendar year. Executive's annual base salary shall be paid in equal installments in accordance with Company's standard policy regarding payment of compensation to executives but no less frequently than monthly.

2.2 **Bonuses.** Executive shall be eligible to receive a maximum annual bonus of up to 130% of Executive's annual base salary with the amount of such bonus to be determined by the Committee or the Chief Executive Officer based upon criteria established from time to time by the Committee or the Chief Executive Officer, with such maximum being two-times the "target" bonus as used elsewhere in this Agreement.

2.3 **Employee Benefits.** While employed by Company, Executive and, to the extent applicable, Executive's spouse, dependents, and beneficiaries shall be allowed to participate in all benefits, plans, and programs, including improvements or modifications of the same, which are now, or may hereafter be, available to other executive employees of Company (or such Affiliate at whose offices Executive spends a majority of Executive's working time, as the case may be). Such benefits, plans, and programs shall include, without limitation, any deferred compensation plan, matching share program, performance share program, profit sharing plan, thrift plan, retirement plan, health insurance or health care plan, life insurance (including any available supplemental insurance), disability insurance (including any available supplemental insurance), pension plan, supplemental retirement plan, stock option plan, vacation and sick leave plan, and the like which may be maintained by Company (or such Affiliate, as the case may be) for Executive specifically or for employees of Executive's seniority and position generally. Company shall not, however, by reason of this Section be obligated to institute, maintain, or refrain from changing, amending, or discontinuing, any such benefit, plan, or program, so long as such changes are similarly applicable to executive employees specifically, and no worse than all other employees generally; *provided, however*, that in the case of any discontinuation of any such benefit, plan or program, Company shall continue to provide such benefit or coverage through one or more individual insurance plan(s) paid for by Company or be self-funded by Company with comparable individual benefits or coverage at its expense. Neither

Executive nor Executive's spouse, dependents, and beneficiaries are eligible for any post-retirement benefits such as medical care, life insurance, or disability insurance.

2.4 Deferred Compensation Plan Contributions.

(a) *Discretionary Contributions.* During Executive's employment hereunder, Executive shall be allowed to participate in the Core Laboratories Deferred Compensation Plan (as amended from time to time, the "**DCP**"). Executive shall be eligible to receive unvested contributions from Company to Executive's "Employer Discretionary Account" (as defined in the DCP) as described in this Section 2.4(a) during each year that Executive is employed hereunder until Executive reaches the age of 70 years. During the first calendar quarter of each year that Executive is employed hereunder, beginning with the first calendar quarter of 2019, if Company's return on invested capital ("**ROIC**") is within the top 75th percentile among the Bloomberg Peer Group based on the trailing twelve months' ROIC for Company and each member of the Bloomberg Peer Group as of the end of the third calendar quarter of the immediately preceding year (i.e., for the first calendar quarter of 2019, ROIC for Company and each member of the Bloomberg Peer Group would be measured from the third calendar quarter of 2017 through the third calendar quarter of 2018), as determined by the Supervisory Board of Directors (or a committee thereof) in its sole discretion, Company shall credit Executive's Employer Discretionary Account with an unvested contribution in an amount equal to 10% of Executive's base salary as of December 31 of the immediately preceding year (such contribution, a "**Discretionary Contribution**"). Executive shall cease to be eligible to receive additional Discretionary Contributions to Executive's Employer Discretionary Account after the date that Executive reaches the age of 70 years. For the avoidance of doubt, each Discretionary Contribution is intended to constitute a "Employer Discretionary Deferral" under the DCP and is in addition to any "Employer Matching Deferral" (as defined in the DCP) that may be made by Company on Executive's behalf.

(b) *Vesting.* Executive shall vest as to any and all unvested Discretionary Contributions made to Executive's Employer Discretionary Account on the date that Executive reaches the age of 62 and ½ years (the "**Vesting Date**") so long as Executive has remained continuously employed by Company or its Affiliate until the Vesting Date; provided that, notwithstanding anything to the contrary contained herein, with respect to any Discretionary Contributions made to Executive's Employer Discretionary Account after the Vesting Date, Executive shall immediately vest as to each such Discretionary Contribution on the date that Company makes such Discretionary Contribution to Executive's Employer Discretionary Account. Any unvested contributions made to Executive's Employer Discretionary Account will become null and void and will be forfeited if Executive's employment hereunder is terminated prior to the Vesting Date; provided that, notwithstanding the foregoing, if (i) Executive's employment is terminated by Company for any reason other than those encompassed by Sections 3.2(a), 3.2(b), 3.2(c), or 3.2(d) or Executive's employment with Company shall be terminated by Executive for Good Reason or (ii) Executive's employment is terminated due to death or Executive becoming incapacitated by accident, sickness, or other circumstance that renders Executive mentally or physically incapable of performing the duties and services required of Executive hereunder on a full-time basis for a period of at least 180 consecutive

calendar days (“**Disability**”), in each case, prior to the Vesting Date, Executive shall immediately vest on the date of such termination of employment as to any and all unvested Discretionary Contributions made to Executive’s Employer Discretionary Account. In addition, if a “Change in Control” (as defined in the DCP) occurs at any time during Executive’s employment hereunder, Executive shall immediately vest on the date of such Change in Control as to any and all unvested Discretionary Contributions made to Executive’s Employer Discretionary Account.

(c) *Settlement.* Executive shall receive payment of vested Discretionary Contributions made to Executive’s Employer Discretionary Account upon Executive’s “Termination of Service” (as defined in the DCP) in accordance with the terms and conditions of Article VII of the DCP.

(d) *Other.* Executive acknowledges and agrees that the Discretionary Contributions described in this Section 2.4 are subject to the terms and conditions applicable to Employer Discretionary Deferrals under the DCP.

2.5 **Business and Entertainment Expenses.** During Executive’s employment hereunder, subject to Company’s standard policies and procedures with respect to expense reimbursement as applied to its executive employees generally, Company shall reimburse Executive for, or pay on behalf of Executive, reasonable and appropriate expenses incurred by Executive for business-related purposes, including, but not limited to, dues and fees to industry and professional organizations and costs of entertainment and business development.

2.6 **Indemnification.** Company agrees to indemnify Executive against any and all liabilities arising out of Executive’s employment duties to the extent such liabilities are not covered by any insurance maintained by Company or Executive, including any liabilities that are caused by or result from an act or omission constituting the negligence of Executive in the performance of such duties, but excluding liabilities that are caused by or result from Executive’s own gross negligence or willful misconduct.

Article III **Term and Termination of Employment**

3.1 **Term.** Unless sooner terminated pursuant to other provisions hereof, Company agrees to employ Executive for the period beginning on the Effective Date and ending on the third anniversary of the Effective Date (the “**Initial Period**”); *provided, however*, that upon the expiration of the Initial Period and on each subsequent anniversary of the Effective Date thereafter, the term of Executive’s employment under this Agreement shall automatically renew and extend for an additional one-year period (each period, a “**Renewal Period**”) unless, on or before the date that is 60 days prior to the expiration of the then-applicable Initial Period or Renewal Period, either party provides the other party with written notice of non-renewal, in which case the term of this Agreement shall expire upon the expiration of the then-existing Initial Period or Renewal Period (unless earlier terminated pursuant to Section 3.2 or Section 3.3 below).

3.2 **Company's Right to Terminate.** Notwithstanding the provisions of Section 3.1, Company shall have the right to terminate Executive's employment under this Agreement at any time for any of the following reasons:

- (a) Upon Executive's death;
- (b) Upon Executive's Disability;
- (c) For Cause;
- (d) For Executive's material breach of any material provision of this Agreement which, if correctable, remains uncorrected for thirty days following written notice to Executive by Company of such breach; or
- (e) For any other reason whatsoever, in the sole discretion of the Supervisory Board of Directors.

3.3 **Executive's Right to Terminate.** Notwithstanding the provisions of Section 3.1, Executive shall have the right to terminate Executive's employment under this Agreement at any time for any of the following reasons:

- (a) For Good Reason; or
- (b) For any other reason whatsoever, in the sole discretion of Executive.

3.4 **Notice of Termination.** If Company or Executive desires to terminate Executive's employment hereunder at any time prior to expiration of the term of employment as provided in Section 3.1, Company or Executive shall do so by giving written notice of such termination to the other party and stating the effective date and reason for such termination; *provided, however,* that no such action shall alter or amend any other provisions hereof or rights arising hereunder, including, without limitation, the provisions of Articles V and VI hereof. For all purposes of this Agreement, Executive shall be considered to have terminated employment with Company when Executive incurs a "separation from service" with Company within the meaning of Section 409A(a)(2)(A)(i) of the Code and applicable administrative guidance issued thereunder.

Article IV **Effect of Termination of Employment**

4.1 **Termination of Employment.** If Executive's employment hereunder shall (x) terminate upon expiration of the term provided in Section 3.1, (y) be terminated by Executive prior to the expiration of the term provided in Section 3.1 for any reason whatsoever (other than as described in the following sentence), or (z) be terminated by Company prior to expiration of the term provided in Section 3.1 for any reason whatsoever (other than as described in the following sentence), then all compensation and benefits to Executive hereunder shall terminate contemporaneously with the termination of such employment. Notwithstanding the foregoing, if:

(a) within two years following the occurrence of a Change in Control, Executive's employment with Company shall be terminated by Company for any reason other than those encompassed by Sections 3.2(a), 3.2(b), 3.2(c), or 3.2(d) or Executive's employment with Company shall be terminated by Executive for Good Reason, then Company shall (i) pay Executive the Change in Control Payment and (i) provide Executive with the Change in Control Benefits; and

(b) at any time other than within two years following the occurrence of a Change in Control, Executive's employment with Company shall be terminated by Company for any reason other than those encompassed by Sections 3.2(a), 3.2(b), 3.2(c), or 3.2(d) or Executive's employment with Company shall be terminated by Executive for Good Reason, then Company shall (i) pay Executive the Severance Payment and (i) provide Executive with the Severance Benefits.

The Change in Control Payment or Severance Payment, whichever is applicable, described in the preceding sentence shall be divided into substantially equal installments paid over the 12-month period on Company's regularly scheduled pay dates following the date on which Executive's employment terminates; *provided, however*, that (x) to the extent, if any, that the aggregate amount of the installments of the Change in Control Payment or Severance Payment, whichever is applicable, that would otherwise be paid pursuant to the preceding provisions of this section after March 15 of the calendar year following the calendar year in which such date of termination occurs (the "**Applicable March 15**") exceeds the maximum exemption amount under Treasury Regulation Section 1.409A-1(b)(9)(iii)(A), then such excess shall be paid to Executive in a lump sum on the Applicable March 15 (or the first business day preceding the Applicable March 15 if the Applicable March 15 is not a business day) and the installments of the Change in Control Payment or Severance Payment, whichever is applicable, payable after the Applicable March 15 shall be reduced by such excess (beginning with the installment first payable after the Applicable March 15 and continuing with the next succeeding installment until the aggregate reduction equals such excess), (y) all remaining installments of the Change in Control Payment or Severance Payment, whichever is applicable, if any, that would otherwise be paid pursuant to the preceding provisions of this Section 5(a)(ii)(1) after December 31 of the calendar year following the calendar year in which such date of termination occurs shall be paid with the installment of the Change in Control Payment or Severance Payment, whichever is applicable, if any, due in December of the calendar year following the calendar year in which such date of termination occurs and (z) if required to satisfy the provisions of Section 409A(a)(2)(B)(i) of the Code, the Change in Control Payment or Severance Payment, whichever is applicable, (with interest on such payment from the date of Executive's termination of employment to the actual date of payment at the prime rate of interest published in The Wall Street Journal on the date of termination of Executive's employment (or if not published on that date, on the next following date when published)) shall be paid by Company to Executive not earlier than but as soon as practicable on or in any event within five days after the earlier of the date of Executive's death or the date that is six months after the date of termination of Executive's employment. Executive hereby agrees to be bound by Company's determination of its "specified employees" (as such term is defined in Section 409A of the Code) in accordance with any of the methods permitted under the regulations issued under Section 409A of the Code.

4.2 **No Duty to Mitigate Losses.** Executive shall have no duty to find new employment following the termination of Executive's employment under circumstances that require Company to pay any amount to Executive pursuant to this Article IV. Any salary or remuneration received by Executive from a third party for the providing of personal services (whether by employment or by functioning as an independent contractor) following the termination of Executive's employment under circumstances pursuant to which this Article IV apply shall not reduce Company's obligation to make a payment to Executive (or the amount of any such payment) pursuant to the terms of this Article IV.

4.3 **Liquidated Damages.** In light of the difficulties in estimating the damages for an early termination of this Agreement, Company and Executive hereby agree that the payments, if any, to be received by Executive pursuant to this Article IV shall be received by Executive as liquidated damages and not as a penalty.

4.4 **Other Compensation Programs.** This Agreement governs the rights and obligations of Executive and Company with respect to Executive's annual base salary and certain perquisites of employment. Executive's rights and obligations both during the term of Executive's employment and thereafter with respect to stock options, restricted stock, incentive and deferred compensation, life insurance policies insuring the life of Executive, and other benefits under plans and programs maintained by Company shall be governed by the separate agreements, plans, programs, and other documents and instruments governing such matters, or as may be provided by law. Notwithstanding anything else in this Agreement, including this Section 4.4, any restricted stock award that has been granted to Executive during Executive's employment with Company shall not be forfeited upon Executive's voluntary retirement from Company on or after having reached the age of 64 years, but instead shall vest, to the extent and at the time, the criteria outlined in any Award Agreement (the "**Award Agreement**") are met as described in that Award Agreement.

4.5 **Certain Excise Taxes.** Notwithstanding anything to the contrary in this Agreement, if Executive is a "disqualified individual" (as defined in Section 280G(c) of the Code), and the payments and benefits provided for in this Agreement, together with any other payments and benefits which Executive has the right to receive from Company or any of its Affiliates, would constitute a "parachute payment" (as defined in Section 280G(b)(2) of the Code), then the payments and benefits provided for in this Agreement shall be either (a) reduced (but not below zero) so that the present value of such total amounts and benefits received by Executive from Company or any of its Affiliates shall be one dollar (\$1.00) less than three times Executive's "base amount" (as defined in Section 280G(b)(3) of the Code) and so that no portion of such amounts and benefits received by Executive shall be subject to the excise tax imposed by Section 4999 of the Code or (b) paid in full, whichever produces the better net after-tax position to Executive (taking into account any applicable excise tax under Section 4999 of the Code and any other applicable taxes). The reduction of payments and benefits hereunder, if applicable, shall be made by reducing, first, payments or benefits to be paid in cash hereunder in the order in which such payment or benefit would be paid or provided (beginning with such payment or benefit that would be made last in time and continuing, to the extent necessary, through to such payment or benefit that would be made first in time) and, then, reducing any benefit to be provided in-kind hereunder in a similar order. The determination as to whether any such reduction in the amount of the payments and benefits provided hereunder is necessary shall be

made by Company in good faith. If a reduced payment or benefit is made or provided and through error or otherwise that payment or benefit, when aggregated with other payments and benefits from Company or any of its affiliates used in determining if a “parachute payment” exists, exceeds one dollar (\$1.00) less than three times Executive’s base amount, then Executive shall immediately repay such excess to Company upon notification that an overpayment has been made. Nothing in this Section 4.5 shall require Company to be responsible for, or have any liability or obligation with respect to, Executive’s excise tax liabilities under Section 4999 of the Code.

Article V

Protection of Information

5.1 **Disclosure to Executive.** Company shall (a) disclose to Executive, or place Executive in a position to have access to or develop, trade secrets or confidential information of Company or its Affiliates, and/or (a) entrust Executive with business opportunities of Company or its Affiliates, and/or (a) place Executive in a position to develop business good will on behalf of Company or its Affiliates.

5.2 **Disclosure to and Property of Company.** All information, ideas, concepts, improvements, discoveries, and inventions, whether patentable or not, which are conceived, made, developed, or acquired by Executive, individually or in conjunction with others, during Executive’s employment by Company (whether during business hours or otherwise and whether on Company’s premises or otherwise) that relate to Company’s business, products, or services (including, without limitation, all such information relating to corporate opportunities, research, financial and sales data, pricing terms, evaluations, opinions, interpretations, acquisitions prospects, the identity of customers or their requirements, the identity of key contacts within the customer’s organizations or within the organization of acquisition prospects, or marketing and merchandising techniques, prospective names, and marks) shall be disclosed to Company and are and shall be the sole and exclusive property of Company. Moreover, all documents, drawings, memoranda, notes, records, files, correspondence, manuals, models, specifications, computer programs, E-mail, voice mail, electronic databases, maps, and all other writings or materials of any type embodying any of such information, ideas, concepts, improvements, discoveries, and inventions are and shall be the sole and exclusive property of Company. Upon termination of Executive’s employment by Company, for any reason, Executive promptly shall deliver the same, and all copies thereof, to Company.

5.3 **No Unauthorized or Damaging Use or Disclosure.** Executive will not, at any time during or after Executive’s employment by Company, make any unauthorized disclosure of any confidential business information or trade secrets of Company or its Affiliates, or make any use thereof, except in the carrying out of Executive’s employment responsibilities hereunder. Affiliates of Company shall be third party beneficiaries of Executive’s obligations under this Section. As a result of Executive’s employment by Company, Executive may also from time to time have access to, or knowledge of, confidential business information or trade secrets of third parties, such as customers, suppliers, partners, joint venturers, and the like, of Company and its Affiliates. Executive also agrees to preserve and protect the confidentiality of such third party confidential information and trade secrets to the same extent, and on the same basis, as Company’s confidential business information and trade secrets. Executive shall refrain, both

during the employment relationship and after the employment relationship terminates, from publishing any oral or written statements about Company, any of its Affiliates, or any of such entities' officers, employees, agents, or representatives (a) that are slanderous, libelous, or defamatory, or (a) that disclose private or confidential information about Company, any of its Affiliates, or any of such entities' business affairs, officers, employees, agents, or representatives, or (a) that constitute an intrusion into the seclusion or private lives of Company, any of its Affiliates, or any of such entities' officers, employees, agents, or representatives, or (a) that give rise to unreasonable publicity about the private lives of Company, any of its Affiliates, or any of such entities' officers, employees, agents, or representatives, or (a) that place Company, any of its Affiliates, or any of such entities' officers, employees, agents, or representatives in a false light before the public, or (a) that constitute a misappropriation of the name or likeness of Company, any of its Affiliates, or any of such entities' officers, employees, agents, or representatives. A violation or threatened violation of this prohibition may be enjoined by the courts.

5.4 **Ownership by Company.** If, during Executive's employment by Company, Executive creates any work of authorship fixed in any tangible medium of expression, which is the subject matter of copyright (such as videotapes, written presentations, or acquisitions, computer programs, E-mail, voice mail, electronic databases, drawings, maps, architectural renditions, models, manuals, brochures, or the like) relating to Company's business, products, or services, whether such work is created solely by Executive or jointly with others (whether during business hours or otherwise and whether on Company's premises or otherwise), Company shall be deemed the author of such work if the work is prepared by Executive in the scope of Executive's employment; or, if the work is not prepared by Executive within the scope of Executive's employment but is specially ordered by Company as a contribution to a collective work, as a part of a motion picture or other audiovisual work, as a translation, as a supplementary work, as a compilation, or as an instructional text, then the work shall be considered to be work made for hire and Company shall be the author of the work. If such work is neither prepared by Executive within the scope of Executive's employment nor a work specially ordered that is deemed to be a work made for hire, then Executive hereby agrees to assign, and by these presents does assign, to Company all of Executive's worldwide right, title, and interest in and to such work and all rights of copyright therein.

5.5 **Assistance by Executive.** Both during the period of Executive's employment by Company and thereafter, Executive shall assist Company and its nominee, at any time, in the protection of Company's worldwide right, title, and interest in and to information, ideas, concepts, improvements, discoveries, and inventions, and its copyrighted works, including without limitation, the execution of all formal assignment documents requested by Company or its nominee and the execution of all lawful oaths and applications for patents and registration of copyright in the United States and foreign countries.

5.6 **Remedies.** Executive acknowledges that money damages would not be sufficient remedy for any breach of this Article by Executive, and Company shall be entitled to enforce the provisions of this Article by terminating any and all payments then owing to Executive under this Agreement and/or to specific performance and injunctive relief as remedies for such breach or any threatened breach. Such remedies shall not be deemed the exclusive remedies for a breach of this Article, but shall be in addition to all remedies available at law or in equity to Company,

including the recovery of damages from Executive and Executive's agents involved in such breach and remedies available to Company pursuant to other agreements with Executive.

Article VI

Noncompetition Obligation

6.1 **In General.** As part of the consideration for the compensation and benefits to be paid to Executive hereunder; to protect the trade secrets and confidential information of Company and its Affiliates that have been and will in the future be disclosed or entrusted to Executive, the business good will of Company and its Affiliates that has been and will in the future be developed in Executive, or the business opportunities that have been and will in the future be disclosed or entrusted to Executive by Company and its Affiliates; and, as an additional incentive for Company to enter into this Agreement, Company and Executive agree to the noncompetition obligations hereunder. Executive shall not, directly or indirectly for Executive or for others, in any geographic area or market where Company or any of its Affiliates are conducting any business as of the date of the termination of the employment relationship or have during the previous twelve months conducted such business:

(a) Engage in any business competitive with the business conducted by Company;

(b) Provide comparable services to any other person, association, or entity who is primarily engaged in any business competitive with the business conducted by Company with respect to such competitive business; or

(c) Induce any employee of Company or any of its Affiliates to terminate his or her employment with Company or such Affiliates, or hire or assist in the hiring of any such employee by any person, association, or entity not affiliated with Company.

The restrictions placed on Executive by this Section 6.1 shall apply during the period that Executive is employed by Company and for the two-year period thereafter if Executive's employment with Company is terminated for any reason other than (i) by Executive for a Good Reason or (i) by Company without Cause. Notwithstanding the foregoing, from and after the date upon which a Change in Control occurs, such restrictions shall cease to apply to Executive except for any period during which he is employed by Company.

6.2 **Enforcement and Remedies.** Executive understands that the restrictions set forth in Section 6.1 may limit Executive's ability to engage in certain businesses anywhere in the world during the period provided for above, but acknowledges that Executive will receive sufficiently high remuneration and other benefits under this Agreement to justify such restriction. Executive acknowledges that money damages would not be sufficient remedy for any breach of this Article by Executive, and Company shall be entitled to enforce the provisions of this Article by terminating any payments then owing to Executive under this Agreement and/or to specific performance and injunctive relief as remedies for such breach or any threatened breach. Such remedies shall not be deemed the exclusive remedies for a breach of this Article, but shall be in addition to all remedies available at law or in equity to Company, including without limitation,

the recovery of damages from Executive and Executive's agents involved in such breach and remedies available to Company pursuant to other agreements with Executive.

6.3 **Reformation**. It is expressly understood and agreed that Company and Executive consider the restrictions contained in this Article to be reasonable and necessary to protect the proprietary information of Company. Nevertheless, if any of the aforesaid restrictions are found by a court having jurisdiction to be unreasonable, or overly broad as to geographic area or time, or otherwise unenforceable, the parties intend for the restrictions therein set forth to be modified by such court so as to be reasonable and enforceable and, as so modified by the court, to be fully enforced.

Article VII **Miscellaneous**

7.1 **Notices**. For purposes of this Agreement, notices and all other communications provided for herein shall be in writing and shall be deemed to have been duly given when personally delivered or when mailed by United States registered or certified mail, return receipt requested, postage prepaid, addressed as follows:

If to Company to: Core Laboratories N.V.
 Strawinskylaan 913
 Tower A, Level 9
 1077 XX Amsterdam
 The Netherlands
 Attention: Managing Director

cc: Chief Executive Officer
 Core Laboratories LP
 6316 Windfern
 Houston, Texas 77040

If to Executive to: Gwendolyn Y. Schreffler
 c/o 6316 Windfern
 Houston, Texas 77040

or to such other address as either party may furnish to the other in writing in accordance herewith, except that notices or changes of address shall be effective only upon receipt.

7.2 **Applicable Law**. This Agreement is entered into under, and shall be governed for all purposes by, the laws of the state of Texas, except as may be preempted by federal law.

7.3 **No Waiver**. No failure by either party hereto at any time to give notice of any breach by the other party of, or to require compliance with, any condition or provision of this Agreement shall be deemed a waiver of similar or dissimilar provisions or conditions at the same or at any prior or subsequent time.

7.4 **Severability**. If a court of competent jurisdiction determines that any provision of this Agreement is invalid or unenforceable, then the invalidity or unenforceability of that

provision shall not affect the validity or enforceability of any other provision of this Agreement, and all other provisions shall remain in full force and effect.

7.5 **Counterparts.** This Agreement may be executed in one or more counterparts, each of which shall be deemed to be an original, but all of which together will constitute one and the same Agreement.

7.6 **Withholding of Taxes and Other Employee Deductions.** Company may withhold from any benefits and payments made pursuant to this Agreement all federal, state, city, and other taxes as may be required pursuant to any law or governmental regulation or ruling and all other normal employee deductions made with respect to Company's employees generally.

7.7 **Headings.** The Article and Section headings herein have been inserted for purposes of convenience only and shall not be used for interpretive purposes.

7.8 **Gender and Plurals.** Wherever the context so requires, the masculine gender includes the feminine or neuter, and the singular number includes the plural and conversely.

7.9 **Assignment.** This Agreement shall be binding upon and inure to the benefit of Company and any successor of Company, by merger or otherwise. Except as provided in the preceding sentence, this Agreement, and the rights and obligations of the parties hereunder, are personal and neither this Agreement, nor any right, benefit, or obligation of either party hereto shall be subject to voluntary or involuntary assignment, alienation, or transfer, whether by operation of law or otherwise, without the prior written consent of the other party.

7.10 **Term.** This Agreement has a term co-extensive with the term of employment provided in Section 3.1. Termination shall not affect any right or obligation of any party which is accrued or vested prior to such termination. Without limiting the scope of the preceding sentence, the provisions of Articles V and VI shall survive any termination of the employment relationship and/or of this Agreement.

7.11 **Entire Agreement.** This Agreement constitutes the entire agreement of the parties with regard to the subject matter hereof, and contains all the covenants, promises, representations, warranties, and agreements between the parties with respect to employment of Executive by Company. Without limiting the scope of the preceding sentence, all prior understandings and agreements among the parties hereto relating to the subject matter hereof are hereby null and void and of no further force and effect. Any modification of this Agreement will be effective only if it is in writing and signed by the party to be charged.

7.12 **Legal Fees and Expenses.** It is the intent of Company that Executive not be required to bear any legal fees or related expenses associated with the interpretation, enforcement or defense of Executive's rights under this Agreement (by litigation or otherwise) with respect to any termination of Executive's employment on or after a Change in Control. Accordingly, if it should appear to Executive that Company has failed to comply with any of its obligations under this Agreement or in the event that Company or any other person takes or threatens to take any action to declare this Agreement void or unenforceable, or institutes any litigation or other action or proceeding designed to deny, or to recover from, Executive any benefit provided or intended to be provided to Executive hereunder, in each case with respect to Executive's rights or

obligations upon or following a termination of Executive's employment on or after a Change in Control, then Company irrevocably authorizes Executive from time to time to retain counsel of Executive's choice, at the expense of Company, to advise and represent Executive in connection with any such interpretation, enforcement or defense, including, without limitation, the initiation or defense of any litigation or other legal action, whether by or against Company or any director, officer, stockholder or other person affiliated with Company, in any jurisdiction. Notwithstanding any existing or prior attorney-client relationship between Company and such counsel, Company irrevocably consents to Executive entering into an attorney-client relationship with such counsel, and in that connection Company and Executive agree that a confidential relationship will exist between Executive and such counsel. Without regard to whether Executive prevails, in whole or in part, in connection with any of the foregoing, Company will pay and be solely financially responsible for any and all attorneys' fees and related expenses incurred by Executive in connection with any of the foregoing, except to the extent that a final judgment no longer subject to appeal finds that a claim or defense asserted by Executive was frivolous. In such a case, the portion of such fees and expenses incurred by Executive attributable to such frivolous claim or defense shall become Executive's sole responsibility and any funds advanced by Company with respect to the same shall be promptly returned to Company by Executive without interest. Any reimbursement of attorneys' fees and related expenses required under this Section 7.12 shall be made by Company upon or as soon as practicable following receipt of supporting documentation reasonably satisfactory to Company (but in any event not later than the close of Executive's taxable year following the taxable year in which the fee or expense is incurred by Executive); *provided, however*, that, upon Executive's termination of employment with Company, in no event shall any additional reimbursement be made prior to the date that is six months after the date of Executive's termination of employment to the extent such payment delay is required under Section 409A(a)(2)(B)(i) of the Code. In no event shall any reimbursement be made to Executive for such fees and disbursements incurred after the later of (a) Executive's death or (a) the date that is ten years after the date of Executive's termination of employment with Company.

7.13 **Section 409A.** Notwithstanding any provision of this Agreement to the contrary, all provisions of this Agreement are intended to comply with Section 409A of the Code, and the applicable Treasury regulations and administrative guidance issued thereunder, or an exemption therefrom and shall be construed and administered in accordance with such intent. Any payments under this Agreement that may be excluded from Section 409A of the Code either as separation pay due to an involuntary separation from service or as a short-term deferral shall be excluded from Section 409A of the Code to the maximum extent possible. For purposes of Section 409A of the Code, each installment payment provided under this Agreement shall be treated as a separate payment. To the extent that any right to reimbursement of expenses or payment of any benefit in-kind under this Agreement constitutes nonqualified deferred compensation (within the meaning of Section 409A of the Code), (i) any such expense reimbursement shall be made by Company no later than the last day of the taxable year following the taxable year in which such expense was incurred by Executive, (ii) the right to reimbursement or in-kind benefits shall not be subject to liquidation or exchange for another benefit, and (iii) the amount of expenses eligible for reimbursement or in-kind benefits provided during any taxable year shall not affect the expenses eligible for reimbursement or in-kind benefits to be provided in any other taxable year; *provided*, that the foregoing clause shall not be violated with regard to expenses reimbursed

under any arrangement covered by Section 105(b) of the Code solely because such expenses are subject to a limit related to the period in which the arrangement is in effect.

Article VIII

Definitions

8.1 **Definitions.** Where the following words and phrases appear in this Agreement, each shall have the respective meaning set forth below, unless the context clearly indicates to the contrary.

(a) **“Affiliate”** shall mean any entity that owns or controls, is owned or controlled by, or is under common ownership or control with, Core Laboratories N.V.

(b) **“Bloomberg Peer Group”** shall mean the group of companies used by Company as the peer comparison group for the Restricted Performance Share Awards (or similar awards) made annually by Company (**“PSAP”**), as determined for each year that a PSAP award vests (i.e., there will be one Bloomberg Peer Group that is compiled at the end of each calendar year and that group will be used to measure both PSAP vesting and any contribution to be made under Section 2.4(a)).

(c) **“Cause”** shall mean a determination by the Supervisory Board of Directors or the Chief Executive Officer of Company that Executive (i) has been convicted of a misdemeanor involving moral turpitude or a felony, (i) has engaged in conduct which is materially injurious (monetarily or otherwise) to Company or any of its Affiliates (including, without limitation, misuse of Company’s or an Affiliate’s funds or other property), (i) has engaged in gross negligence or willful misconduct in the performance of Executive’s duties, (i) has willfully refused without proper legal reason to perform Executive’s duties and responsibilities, (i) has materially breached any material provision of this Agreement or any other agreement between Company and Executive, or (i) has materially breached any material corporate policy maintained and established by Company that is of general applicability to officers of Company.

(d) **“Change in Control”** shall mean (i) a merger of Company with another entity, a consolidation involving Company, or the sale of all or substantially all of the assets of Company to another entity if, in any such case, (A) the holders of equity securities of Company immediately prior to such transaction or event do not beneficially own immediately after such transaction or event, in substantially the same proportions that they owned the equity securities of Company immediately prior to such transaction or event, 50% or more of the common equity of the resulting entity, (A) the holders of equity securities of Company immediately prior to such transaction or event do not beneficially own immediately after such transaction or event, in substantially the same proportions that they owned the equity securities of Company immediately prior to such transaction or event, equity securities of the resulting entity entitled to 50% or more of the votes then eligible to be cast in the election of directors generally (or comparable governing body) of the resulting entity, or (A) the persons who were members of the Supervisory Board of Directors immediately prior to such transaction or event shall not constitute at least a majority of the board of directors of the resulting entity immediately after such transaction or event, (i) shareholder approval of a plan of dissolution or liquidation of

Company, (i) when any person or entity, including a “group” as contemplated by Section 13(d)(3) of the Securities Exchange Act of 1934, as amended (the “**Exchange Act**”), (other than a trustee or other fiduciary holding securities under an employee benefit plan of Company or any affiliate of Company), acquires or gains ownership or control (including, without limitation, power to vote) of more than 30% of the combined voting power of the outstanding securities of, (A) if Company has not engaged in a merger or consolidation, Company, or (A) if Company has engaged in a merger or consolidation, the resulting entity, or (i) a change in the composition of the Supervisory Board of Directors, as a result of which fewer than a majority of the supervisory directors are Incumbent Directors. For purposes of the preceding sentence, (A) “resulting entity” in the context of a transaction or event that is a merger, consolidation or sale of all or substantially all assets shall mean the surviving entity (or acquiring entity in the case of an asset sale) unless the surviving entity (or acquiring entity in the case of an asset sale) is a subsidiary of another entity and the holders of common equity of Company receive capital stock of such other entity in such transaction or event, in which event the resulting entity shall be such other entity, (A) subsequent to the consummation of a merger or consolidation that does not constitute a Change in Control, the term “Company” shall refer to the resulting entity and the term “Supervisory Board of Directors” shall refer to the board of directors (or comparable governing body) of the resulting entity, and (A) “**Incumbent Directors**” shall mean directors who either (1) are directors of Company as of the Effective Date, or (1) are elected, or nominated for election, to the Supervisory Board of Directors with the affirmative votes of at least two-thirds of the Incumbent Directors at the time of such election or nomination, but Incumbent Director shall not include an individual whose election or nomination occurs as a result of either (I) an actual or threatened election contest (as such terms are used in Rule 14a-11 of Regulation 14A promulgated under the Exchange Act) or (I) an actual or threatened solicitation of proxies or consents by or on behalf of a person other than the Supervisory Board of Directors. For purposes of this Section 8.1(d), all references to “Company” shall refer solely to Core Laboratories N.V. except as expressly provided in clause (c)(iv)(B) of the preceding sentence.

(e) “**Change in Control Benefits**” shall mean (i) continued coverage under Company’s medical, dental, and group life insurance plans (or, as the case may be, those plans of the Affiliate at whose offices Executive spends a majority of Executive’s working time) shall be provided for Executive and those of Executive’s dependents (including Executive’s spouse) who were covered under such plans on the day prior to Executive’s termination of employment with Company for twenty-four months from the date of such termination at no cost to Executive or Executive’s dependents; *provided, however*, that (A) such coverage shall be subject to all of the terms and conditions of such plans, including, without limitation, the eligibility provisions, (A) such coverage shall terminate if and to the extent Executive or Executive’s dependents become covered by the medical, dental, and life insurance plans of a subsequent employer (and any such coverage shall be promptly reported to Company by Executive), and (A) in the event that continued participation in any such Company plan (or such Affiliate’s plan, as the case may be) is not permitted by the terms of such plan, Company shall use its best efforts to arrange, upon comparable terms, benefits substantially equivalent to those that were provided under such Company plan (or such Affiliate’s plan, as the case may be). The medical and dental coverage described in the preceding sentence shall be provided through an arrangement that satisfies the requirements of Sections 105 and 106 of the Code such that the benefits or reimbursements under such arrangement are not includible in Executive’s income (and, if continued coverage under Company’s plans (or such Affiliate’s plans, as the case may be) does not satisfy this

requirement, then Company shall arrange, upon comparable terms, for coverage providing substantially equivalent benefits to be provided under one or more insurance policies that will satisfy this requirement), plus (i) immediate vesting of any outstanding equity awards as of the effective date of such Change in Control, except with regard to Restricted Performance Shares, such performance shares would vest as of the effective date of the Change in Control, measured using the actual result of the Performance Criteria as of the most recent quarter-end, plus (i) reimbursement of reasonable outplacement services incurred by Executive during the twelve month period beginning on the date of termination; *provided, however*, that (A) any reimbursements for outplacement services shall not exceed \$25,000 in the aggregate and (A) Executive must provide documentation acceptable to Company evidencing Executive's payment of outplacement services.

(f) **"Change in Control Payment"** shall mean an amount equal to the sum of (i) two times the sum of (A) Executive's annual base salary as in effect pursuant to Section 2.1 immediately prior to Executive's termination of employment with Company and (A) the target annual incentive bonus amount that Executive could have earned for the year during which Executive's employment with Company terminates, plus (i) the target annual incentive bonus amount that Executive could have earned for the year during which Executive's employment with Company terminates, multiplied by a fraction, the numerator of which is the number of days that have elapsed from the beginning of such year through the date of termination and the denominator of which is the total number of days in such year (the **"Pro-Rata Bonus"**).

(g) **"Code"** shall mean the Internal Revenue Code of 1986, as amended.

(h) **"Committee"** shall mean the Compensation Committee of the Supervisory Board of Directors.

(i) **"Company"** shall mean Core Laboratories N.V. and its Affiliates.

(j) **"Effective Date"** shall mean January 1, 2019.

(k) **"Good Reason"** shall mean: (i) a material diminution in Executive's authority, duties, or responsibilities from those applicable to Executive as of the Effective Date or as agreed to in writing by the parties; (i) a permanent change and relocation of Executive's principal place of employment with Company, which is more than 50 miles away from the prior location; (i) a material breach by Company of any material provision of this Agreement; or (i) a material diminution in Executive's base salary. Notwithstanding the provisions of the preceding sentence, any assertion by Executive of a termination of employment for Good Reason shall not be effective unless all of the following conditions are satisfied: (A) the condition described in clause (i), (ii), (iii), or (iv) of the preceding sentence giving rise to Executive's termination of employment must have arisen without Executive's written consent; (A) Executive must provide written notice to Company of such condition in accordance with paragraph 7.1 within 90 days of the initial existence of the condition; (A) the condition specified in such notice must remain uncorrected for 30 days after receipt of such notice by Company; and (A) the date of Executive's termination of employment must occur within 180 days after the initial existence of the condition specified in such notice.

(l) **“Severance Benefits”** shall mean reimbursement of reasonable outplacement services incurred by Executive during the twelve month period beginning on the date of termination; *provided, however*, that (A) any reimbursements for outplacement services shall not exceed \$25,000 in the aggregate and (A) Executive must provide documentation acceptable to Company evidencing Executive’s payment of outplacement services.

(m) **“Severance Payment”** shall mean an amount equal to the sum of (i) one times Executive’s annual base salary as in effect pursuant to Section 2.1 immediately prior to Executive’s termination of employment with Company, plus (i) the Pro-Rata Bonus.

(n) **“Supervisory Board of Directors”** shall mean the Board of Supervisory Directors of Core Laboratories N.V.

IN WITNESS WHEREOF, the parties hereto have executed this Agreement on the 1st day of March, 2019, to be effective as of the Effective Date.

CORE LABORATORIES N.V.

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

By: /s/ Jacobus Schouten
Jacobus Schouten
Managing Director of
Core Laboratories International B.V.

EXECUTIVE

/s/ Gwendolyn Y. Schreffler
Gwendolyn Y. Schreffler

Signature Page to
Employment Agreement

Significant Subsidiaries of the Registrant at December 31, 2020

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 B.V.	Rotterdam, The Netherlands	100%
Core Laboratories (U.K.) Limited	London, United Kingdom	100%
Owen Oil Tools LP	Delaware, United States	100%
Saybolt Nederland B.V.	Rotterdam, The Netherlands	100%
JSC 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.

Consent of Independent Registered Public Accounting Firm

The Board of Directors
Core Laboratories N.V.:

We consent to the incorporation by reference in the registration statements on Form S-3 (No. 333-245691) and Form S-8 (Nos. 333-231277, 333-73772, 333-73774, and 333-248137) of Core Laboratories N.V. of our reports dated February 5, 2021, with respect to the consolidated balance sheets of Core Laboratories N.V. as of December 31, 2020 and 2019, the related consolidated statements of operations, comprehensive income (loss), changes in equity, and cash flows for each of the years in the three-year period ended December 31, 2020, and the related notes and financial statement schedule II, and the effectiveness of internal control over financial reporting as of December 31, 2020, which reports appear in the December 31, 2020 annual report on Form 10-K of Core Laboratories N.V.

Our report refers to a change in accounting for leases due to the adoption of the provisions of Accounting Standards Codification Topic 842, Leases, as amended.

/s/ KPMG LLP

Houston, Texas
February 5, 2021

I, Lawrence Bruno, certify that:

1. I have reviewed this Annual Report on Form 10-K of Core Laboratories N.V. (the "Registrant");
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the Registrant as of, and for, the periods presented in this report;
4. The Registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the Registrant and have:
 - (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the Registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, 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;
 - (c) Evaluated the effectiveness of the Registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - (d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the Registrant's most recent fiscal quarter (the Registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the Registrant's internal control over financial reporting; and
5. The Registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the Registrant's auditors and the audit committee of the Registrant's board of directors (or persons performing the equivalent functions):
 - (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the Registrant's ability to record, process, summarize and report financial information; and
 - (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the Registrant's internal control over financial reporting.

Date: February 5, 2021

By: /s/ Lawrence Bruno
 Lawrence Bruno
 Chief Executive Officer

I, Christopher S. Hill, certify that:

1. I have reviewed this Annual Report on Form 10-K of Core Laboratories N.V. (the "Registrant");
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the Registrant as of, and for, the periods presented in this report;
4. The Registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the Registrant and have:
 - (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the Registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, 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;
 - (c) Evaluated the effectiveness of the Registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - (d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the Registrant's most recent fiscal quarter (the Registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the Registrant's internal control over financial reporting; and
5. The Registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the Registrant's auditors and the audit committee of the Registrant's board of directors (or persons performing the equivalent functions):
 - (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the Registrant's ability to record, process, summarize and report financial information; and
 - (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the Registrant's internal control over financial reporting.

Date: February 5, 2021

By: /s/ Christopher S. Hill
 Christopher S. Hill
 Chief Financial Officer

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

I, Lawrence Bruno, Chief Executive Officer of Core Laboratories N.V. (the "Company"), hereby certify that the accompanying Annual Report on Form 10-K for the year ended December 31, 2020, filed by the Company with the Securities and Exchange Commission on the date hereof fully complies with the requirements of Section 13(a) or 15(d), as applicable, of the Securities Exchange Act of 1934, as amended, (the "Report").

I further certify that the information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Date: February 5, 2021

/s/ Lawrence Bruno

Name: Lawrence Bruno

Title: Chief Executive Officer

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

I, Christopher S. Hill, Chief Financial Officer of Core Laboratories N.V. (the "Company"), hereby certify that the accompanying Annual Report on Form 10-K for the year ended December 31, 2020, filed by the Company with the Securities and Exchange Commission on the date hereof fully complies with the requirements of Section 13(a) or 15(d), as applicable, of the Securities Exchange Act of 1934, as amended, (the "Report").

I further certify that the information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Date: February 5, 2021

/s/ Christopher S. Hill

Name: Christopher S. Hill

Title: Chief Financial Officer