CANTEL

2019
ANNUAL REPORT

Cantel is a leading provider of infection prevention products and services in the healthcare market, specializing in the following operating segments:

- **Medical:** Medical device reprocessing systems, disinfectants, detergents and other supplies used to high-level disinfect rigid endoscopes, flexible endoscopes and other instrumentation, single-use valves, sterile irrigation tubing and other disposable infection control products intended to reduce the challenges associated with proper cleaning and high-level disinfection of numerous reusable components used in gastrointestinal (GI) endoscopy procedures. The segment also sells endoscope transport and storage systems, endoscopy consumable accessories and endoscope process tracking products and software. Additionally, this segment performs technical maintenance service on its products.
- **Dental:** Portfolio of personal protection equipment (PPE), dental unit waterline treatments, chemistries, sterilization, preventives, nitrous-oxide equipment, amalgam separators, and single-use disposable products. This segment is dedicated to making vital contributions to healthcare through high quality solutions, compliance services and education in the acute-care, alternate-care, dental and industrial (medical device, life science and other manufacturers) markets. Our recent acquisition of Hu-Friedy will allow us to expand our product portfolio offering, most notably dental instrumentation, in fiscal year 2020 and beyond.
- **Life Sciences:** Water purification equipment and services, filtration and separation products, disinfectants, hollow fiber filters for water and blood filtration, sterilization and decontamination products and services for the medical, pharmaceutical, biotech, beverage and commercial industrial markets.
- **Dialysis:** Medical device reprocessing systems, sterilants/disinfectants, dialysate concentrates and other supplies for renal dialysis.

Selected Financial Highlights *(Dollar amounts in thousands, except per share data)*	**2019**	2018	2017
Net sales	**$ 918,155**	$871,922	$770,157
Net income	**$ 55,042**	$ 91,041	$ 71,378
Adjusted net income [1]	**$ 98,999**	$104,346	$ 86,740
Adjusted EBITDAS [1]	**$ 174,848**	$178,270	$160,942
Earnings per diluted share	**$1.32**	$2.18	$1.71
Adjusted earnings per diluted share [1]	**$2.37**	$2.51	$2.08
Dividends per common share	**$0.20**	$0.17	$0.14
Total assets	**$ 1,070,366**	$963,708	$786,373
Net debt [1]	**$ 188,465**	$105,903	$ 89,416
Stockholders' equity	**$ 661,537**	$608,867	$523,932
Equity per outstanding share	**$15.84**	$14.60	$12.56

[1] Please refer to pages 24-27 of this Annual Report for a reconciliation to the most directly comparable financial measure in accordance with accounting principles generally accepted in the United States ("GAAP") as well as the definitions of our non- GAAP financial measures.

To Our Shareholders:

Fiscal year 2019 was a transformative year for Cantel and its shareholders, as our Company delivered record sales and strong earnings performance while making significant strategic investments in our business and evolving our leadership team. These leadership changes and investments, combined with organic growth, new product development, and successful mergers and acquisitions, position us well to fulfill our Mission to deliver innovative infection prevention products and services, and reprocessing workflow solutions that improve outcomes and help save lives. We have also adapted to the shifting landscape by adding strategic new talent, reorganizing to better serve our customers, and expanding our business to better position us for today and tomorrow. We are pleased with our growth and the accomplishments in fiscal year 2019 and look forward to continued success in fiscal year 2020.

FINANCIAL PERFORMANCE

In fiscal year 2019, net sales increased 5.3% to a record $918.0 million, with organic growth of 3.9%. This was a positive result in the face of significant challenges in our Life Sciences segment. Our adjusted net income for the year was $99.0 million, or $2.37 per diluted share (non-GAAP), a decline of 5.1% versus fiscal 2018. This was primarily driven by higher depreciation expense associated with our enterprise resource planning (ERP) system and our new Medical segment headquarters building in Minnesota, higher restructuring-related actions and acquisition-related costs. Adjusted earnings before interest, taxes, depreciation, amortization, and stock-based compensation (EBITDAS) decreased 1.9% to $174.8 million.

Our businesses both in the U.S. and internationally delivered solid overall growth, with the U.S. business growing at 3.4% and overall international growth of 10.7%.

Our balance sheet remains very strong. At the end of the year, our net debt was $188.4 million, up $82.5 million from the prior year as a result of acquisitions during the year and the footprint expansion of our new Medical headquarters.

SEGMENT HIGHLIGHTS

The medical segment had another record year, with 11.5% organic growth driven by consistent low double-digit recurring revenue growth and strong demand for capital equipment.

The dental segment ended flat on an organic basis, driven by a return to growth in the third and fourth quarters following inventory de-stocking and a key chemistry shortage in the beginning of the year.

While the Life Sciences segment remained challenged throughout the year, we expect to see a return to growth in the back half of fiscal year 2020.

NEW PRODUCT DEVELOPMENT

We have continued to invest in R&D and key technologies across the Company over the past several years. In 2019, we launched our SCOPE BUDDY™ PLUS Endoscope Flushing Aid in the U.S. and have recently launched our DEFENDO™ Olympus single-use valves in the U.S and internationally. We are confident that our robust R&D pipeline and future product launches will continue to advance our leadership position in fiscal year 2020 and beyond.

MERGERS AND ACQUISITIONS

In fiscal year 2019, Cantel successfully completed two acquisitions, further advancing its M&A strategy and entered into a transformative acquisition in our dental segment which closed in the first quarter of fiscal 2020:

- In the first quarter, we closed the acquisition of **Stericycle's Controlled Environmental Solutions (CES) business** for a cash purchase price of $17.0 million. This business allows us to offer testing and certification, monitoring, and decontamination services for clean rooms, enhancing the value Cantel provides to existing and future customers by coupling the CES business' strong reputation for technical and service excellence with our expertise delivering high-quality and innovative infection prevention solutions.

- In the third quarter, we closed the acquisition of **Omnia S.p.A.,** an Italian-based market leader in dental surgical consumables solutions, for total consideration of $19.8 million consisting of $16.6 million of cash and $3.2 million of stock consideration plus additional earn-outs based on the achievement of certain performance-based financial targets. Omnia's business consists of a wide-ranging portfolio of sutures, irrigation tubing and customized dental surgical procedure kits, with a focus on procedure room set-up and cross-contamination prevention.

STRATEGIC OUTLOOK

Entering fiscal year 2020, we successfully completed the acquisition of Hu-Friedy Mfg. Co., LLC (Hu-Friedy), a leading global dental manufacturer with a comprehensive portfolio of high-quality dental instruments and its proprietary Instrument Management System. The addition of Hu-Friedy not only transforms our dental business, but meaningfully accelerates our strategy to be the leading global provider of innovative infection prevention and reprocessing workflow solutions and education across our key end markets. The integration of the Hu-Friedy business into the Cantel dental segment will create a comprehensive portfolio of infection prevention consumables, instrumentation and instrument management solutions to deliver protection, performance and productivity to dental practitioners. We expect our new complementary product portfolios, strong customer relationships, and scale operations to drive significant cost and revenue synergies over the next several years.

The Hu-Friedy acquisition also demonstrated the strength of Cantel's credit profile and our healthy relationship with the banking commmunity as seen with our ability to obtain significant financing support in a short period of time. The expansion of our banking syndicate and refinancing of our credit facility agreement also better situates our Company to further execute our acquisition strategy into the future. While the additional acquisition-related borrowings requires us to operate at a leverage ratio higher than historical Cantel trends, the robust cash profile of Cantel and the Hu-Friedy business provides the opportunity to service our new debt and rapidly de-lever. This will enable Cantel to continue to execute on our acquisition strategy in the near future.

Mergers and acquisitions will continue to play an important role in our overall strategy. We have a robust pipeline of acquisition targets and we continually evaluate a variety of opportunities both in our existing businesses, as well as in new verticals that are complementary to our core business of infection prevention and reprocessing workflow solutions.

LEADERSHIP CHANGES

In March 2019, George Fotiades was named President and Chief Executive Officer of Cantel replacing Jorgen Hansen. George has served on the Board of Cantel and as a non-executive member of the Office of the Chairman since April 2008.

In addition, Peter Clifford, our former Chief Financial Officer, was promoted to Executive Vice President and Chief Operating Officer. Peter will provide leadership in driving performance across all of our businesses and regions. Shaun Blakeman rejoined Cantel as our Senior Vice President and Chief Financial Officer after a brief period at Medtronic and Jean Casner was appointed as Senior Vice President and Chief Human Resources Officer. Jean has been with Cantel since July 2017.

After 32 years of service to Cantel, Eric Nodiff retired as our Executive Vice President, General Counsel and Secretary. Jeff Mann, then our Vice President and Deputy General Counsel, was promoted as his successor and now serves as our Senior Vice President, General Counsel and Secretary.

We also appointed Mike Spicer as President, Medical, Michael McGrath as President, Canada and Asia Pacific, and Neil Blewitt, as President, Europe in March 2019. With the successful completion of the Hu-Friedy acquisition in October 2019, Ken Serota, then President of Hu-Friedy, joined our leadership team as President, Dental.

In October 2019, Cantel appointed a new Board of Director member, Karen N. Prange. Karen has more than twenty-five years of healthcare and life sciences leadership experience. Most recently, Ms. Prange was Executive Vice President and Chief Executive Officer of the Global Animal Health, Medical and Dental Surgical Group at Henry Schein.

Collectively, these additions and changes to our Leadership Team and Board of Directors provide an unprecedented level of experience, strategy and passion to our mission of

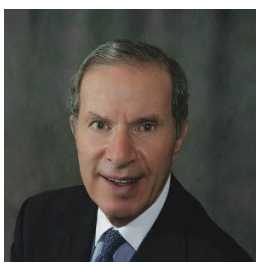
providing the Complete Circle of Infection Prevention. We could not be more excited about our leadership and management as we head into fiscal year 2020.

IN SUMMARY

Fiscal year 2019 was another strong year for Cantel and, despite some short-term challenges, our core business performed in line with our expectations and the outlook for the future remains robust. Our focus remains on profitably growing our Company while serving our customers and patients around the globe.

Our Mission is driven by our culture and core values — treat all people with respect, act with integrity, deliver high-quality products, work as part of high-performance teams, and act with accountability. We are grateful for all our employees who continue to work diligently across segments, enabling us to deliver on our goals and Mission to deliver innovative infection prevention and reprocessing workflow products, services, and solutions that improve outcomes and help save lives. We look ahead to fiscal year 2020 with a continued focus on areas of opportunity and a return to a typical Cantel growth profile, while staying true to our strategy, our Mission, and our values.

In conclusion, we would like to thank all of our shareholders and other stakeholders for their continued confidence in us and also thank our Directors for their support and guidance throughout the year.



Charles M. Diker
Chairman of the Board

George L. Fotiades
President & Chief Executive Officer

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

Form 10-K

☒ **Annual Report pursuant to section 13 or 15(d) of the Securities Exchange Act of 1934**

For the fiscal year ended July 31, 2019

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 No. 001-31337

Cantel Medical Corp.
(Exact name of registrant as specified in its charter)

Delaware	**22-1760285**
(State or other jurisdiction of incorporation or organization)	(I.R.S. employer identification no.)
150 Clove Road, Little Falls, New Jersey	**07424**
(Address of principal executive offices)	(Zip code)

Registrant's telephone number: **(973) 890-7220**

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

Title of each class	Trading symbol	Name of exchange on which registered
Common Stock, $0.10 par value	CMD	New York 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 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, a smaller reporting company, or an emerging growth company. See the definitions of "large accelerated filer", "accelerated filer", "small 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 is a shell company (as defined in Rule 12b-2 of the Exchange Act). Yes ☐ No ☒

State the aggregate market value of the voting and non-voting common equity held by non-affiliates computed by reference to the price at which the common equity was last sold, or the average bid and asked price of such common equity, as of the last business day of the registrant's most recently completed second fiscal quarter, as quoted by the New York Stock Exchange on that date: $3,396,948,246.

Indicate the number of shares outstanding of each of the registrant's classes of common stock as of the close of business on August 31, 2019: 41,771,036

Documents incorporated by reference: Portions of the definitive proxy statement to be filed pursuant to Regulation 14A promulgated under the Securities Exchange Act of 1934 in connection with the 2019 Annual Meeting of Stockholders of Registrant are hereby incorporated by reference into Part III of this Form 10-K and certain documents are incorporated by reference into Part IV.

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PART I

Item 1. Business.

Overview:

Throughout this document, references to "Cantel," "us," "we," "our" and the "Company" are references to Cantel Medical Corp. and its subsidiaries, except where the context makes it clear the reference is to Cantel Medical Corp. itself and not its subsidiaries. Unless otherwise indicated, references in this Form 10-K to 2019, 2018, 2017 or "fiscal" 2019, 2018, 2017 or other years refer to our fiscal year ended July 31, of that respective year, and references to "fiscal" 2020 refer to our fiscal year ending July 31, 2020.

During the first quarter of fiscal 2019, we changed the names of our reportable segments to better align with our key customers and the markets we serve. This decision resulted in a change from a financial reporting perspective as the industrial biological and chemical indicator business has moved from the Dental segment to the Life Sciences segment. Prior year segment disclosures have been recast to conform to the current year presentation.

Cantel is a leading provider of infection prevention products and services in the healthcare market, specializing in the following reportable segments: Medical, Life Sciences, Dental and Dialysis. Most of our equipment, consumables and supplies are used to help prevent the occurrence or spread of infections. We operate our four segments through wholly-owned subsidiaries in the United States and internationally.

Information Related to Reportable Segments:

Medical

General. Our Medical segment designs, develops, manufactures, sells and installs a comprehensive offering of products and services comprising a complete circle of infection prevention solutions. Our products include endoscope reprocessing and endoscopy procedure products. Our endoscope reprocessing products and services include:

- a full range of automated endoscope reprocessing systems,
- high-level disinfectants and sterilants,
- detergents,
- leak testing and manual cleaning products,
- storage cabinets and transport systems,
- manual cleaning products,
- endoscope process tracking products, including software,
- other consumables, accessories and supplies used to high-level disinfect rigid endoscopes, flexible endoscopes and other instrumentation, and
- technical maintenance service on our products.

Our endoscopy procedure products are designed to eliminate the challenges associated with proper cleaning and high-level disinfection of numerous reusable components used in gastrointestinal (GI) endoscopy procedures. Our procedure products include:

- CO2 and water irrigation pumps and disposable procedure kits,
- sterile irrigation tubing, and
- single-use valves.

Our endoscopy products, most of which are proprietary medical devices subject to rigorous standards and regulations, contribute to the safe and effective use of endoscopes in healthcare facilities throughout the world and improve the quality of healthcare delivery by reducing the threat of nosocomial (hospital/healthcare facility acquired) infections. In addition, our disposable procedure products provide greater patient safety and infection prevention, through the replacement of reusable devices requiring disinfection with our single-use products. In particular, such products are intended to reduce the challenges associated with proper cleaning and high-level disinfection of numerous reusable components used in GI endoscopy procedures.

We design, develop and manufacture most of our endoscopy products. Our Medical segment offers various preventative maintenance programs, repair services and user training programs to support the effective operation of reprocessing systems over their lifetime. Our field service personnel and international third-party distributors install, maintain, upgrade and repair equipment.

Sales, Marketing and Distribution. We sell and service our full line of endoscopy products through our direct field sales and clinical support service organizations in the United States, Canada, the United Kingdom, Italy, the Netherlands, Belgium, Germany, France, Singapore, Malaysia, Australia and Dubai. Elsewhere in Europe, Asia Pacific and Latin America, we sell primarily through independent distribution partners. In China, we sell both directly and through distributors, based on regional market demands.

Competition. We compete with a number of large companies that have significant product portfolios, market share and global reach, which enable them to offer wide-ranging product bundles to larger customers, such as Group Purchasing Organizations ("GPOs") and Integrated Delivery Networks ("IDNs"). This competition has the potential to impact our net sales, market share and profit margin. We also compete with a number of small companies with very limited product offerings and operations in one or a limited number of countries. On a product basis, our principal competitors are Steris, Olympus, Boston Scientific, ASP (a division of Fortiv), Metrex, Ruhof, Ecolab, ERBE, Getinge, SteelCo and Wassenburg. We believe that our principal competitive advantages include the strength of our dedicated sales teams, our comprehensive product line of differentiated automated endoscope reprocessors, disposable procedure products and proprietary chemistries, and our reputation for providing high-quality and reliable products supported by our highly responsive clinical support and service teams.

Acquisitions. On March 21, 2018, we purchased all of the issued and outstanding stock of Aexis Medical BVBA ("Aexis Medical"), which is based in Belgium. Aexis Medical specializes in advanced software solutions focused on the tracking and monitoring of instrument reprocessing for hospitals and healthcare professionals.

On August 23, 2017, we purchased all of the issued and outstanding stock of BHT Hygienetechnik Holding GmbH ("BHT Group"), a leader in the German market in automated endoscope reprocessing and related equipment and services. BHT Group consists of a portfolio of high-quality automatic endoscope reprocessors, advanced endoscope storage and drying cabinets (products globally distributed by our Company prior to the acquisition under an agreement with BHT Group), washer-disinfectors for central sterile applications, associated technical service and parts as well as flexible endoscope repair services.

Life Sciences

General. Our Life Sciences segment designs, develops, manufactures, sells, and installs water purification systems for medical and other bacteria controlled applications. We also provide filtration/separation and disinfectant technologies to the medical and life science markets through a worldwide distributor network. Our products and services include:

- central dialysis water purification systems,
- portable dialysis water purification systems,
- bicarbonate mixing systems,
- hollow fiber filters and other filtration and separation products,
- liquid disinfectants and cold sterilization products,
- "dry fog" products,
- room temperature sterilization equipment and services, and
- clean-room certification and decontamination services.

Our products are generally designed for dialysis and other specific healthcare applications, research laboratories, food and beverage, and commercial industrial customers. Our water systems provide biologically pure water specific to our customers' needs and site conditions, ranging from low-volume, reverse osmosis ("RO") and deionization systems, to high-volume, complete turnkey purification systems. We provide service and maintenance for water purification systems through an extensive network of regional offices in the United States and, to a smaller degree, in Canada.

Our expertise includes designing systems capable of delivering water for hemodialysis that meets the water quality standards and good manufacturing standards of the Association for the Advancement of Medical Instrumentation ("AAMI") and all grades of U.S. Pharmacopeia ("USP") water (i.e., water meeting the U.S. Food and Drug Administration ("FDA") enforced standards of the USP including "USP Purified Water," which is a FDA requirement for the labeling of "purified" bottled water). We also package these same technologies and expertise in industrial designs to meet the commercial industrial market requirements.

We also offer a full line of proprietary and third party filters utilizing hollow fiber membrane technology to remove impurities from liquid streams for a wide range of applications. Such applications include the filtering of ultrapure water to remove endotoxins, bacteria and other contaminants in medical environments to provide protection for patients undergoing treatments that use ultrapure water. Our therapeutic filtration products include hemoconcentrators, hemofilters and specialty filters utilized for therapeutic medical applications.

Our liquid disinfectant and cold sterilant products are used in the dialysis, medical, pharmaceutical and other industries. These products include surface disinfectants as well as chemistries used to disinfect ultrapure water systems as part of overall procedures to control the contamination of systems by microorganisms and spores. Our "Dry Fog" equipment dispenses our cold sterilant products in a mist form into rooms and certain structures with complex geometries in order to achieve validated surface disinfection.

Our REVOX® Sterilization Systems and Services business provides an innovative room-temperature vapor sterilization method for the medical device, pharmaceutical and biomedical industries. It provides customers the capability to sterilize their products at room temperature, through either contract service or on-site agreements, while reducing overall processing times and inventory and capital requirements associated with other industrial sterilization methods.

Sales, Marketing and Distribution. We generally sell our equipment on a direct basis in the United States and Canada and through third-party distributors in other international markets. We are a leading supplier of FDA 510(k) cleared water purification systems to the dialysis industry in North America. A significant portion of our sales in this segment are derived from sales of products and service to dialysis clinics and hospitals in North America.

Competition. We compete with a number of large companies that have significant product portfolios and global reach, as well as a number of small companies with very limited product offerings and operations in one or a limited number of countries. On a product basis, competitors include Evoqua, IsoPure, Baxter and Steris. We believe that the ability of our Life Sciences segment to successfully compete in the water purification, filtration and disinfectant market derives from our expertise in a FDA regulated environment, our broad product offerings and the high value and quality of our products and our national service coverage.

We have observed a continued trend toward formal or informal bundling partnerships and arrangements between kidney dialysis machine suppliers and companies offering medical water purification systems that compete with our systems. The ability to bundle these products offers a competitive advantage to such suppliers, which include Baxter (dialysis machine)/Gambro (water system), B. Braun (dialysis machine)/Lauer (water system), and Fresenius (dialysis machine)/Vivonic (water system). The bundling approach being used in the United States by B. Braun/Lauer represents a competitive threat to our dialysis water business, as does the business combination of Fresenius and Vivonic. See Item 1A, "Risk Factors."

Acquisitions. On August 1, 2018, we acquired certain net assets of Stericycle Inc. related to its controlled environmental solutions business ("CES Business"). The CES Business is a leading provider of testing and certification, environmental monitoring and decontamination services for clean rooms and other controlled environments to ensure safety, regulatory compliance and quality control.

Dental

General. We design, manufacture, sell, supply and distribute a broad selection of infection prevention healthcare products, the majority of which are single-use products used by dental practitioners. Our products include the following:

- sterility assurance products such as biological indicators, chemical integrators and sterilization pouches,
- consumables such as towels, bibs, tray liners and sponges,
- nitrous oxide/oxygen sedation equipment and related single-use disposable nasal masks,
- personal barrier products such as face masks, shields, and hand protection products such as hand sanitizers and germicidal wipes,
- cleaning solutions, high level disinfectants and surface disinfectants,
- waterline treatment products for maintaining safe dental unit waterlines,
- amalgam separators,
- treatment accessories such as saliva ejectors, evacuator tips and plastic cups, and
- preventatives such as prophy angles and prophy paste.

Significant brand names for our healthcare disposable products include SECURE FIT® Masks, ISOFLUID® Masks, RAPICIDE® Disinfectant and DentaPure® Cartridges.

Our most significant business in this segment derives from our sterility assurance business. We offer both mail-in services and in-office biological monitoring (spore test) systems enabling healthcare professionals to verify the performance of their sterilizers in accordance with the U.S. Centers for Disease Control and Prevention and industry guidelines for daily or weekly testing. Our expanded portfolio in the dental wastewater management market now includes amalgam separator technology which will help dental practitioners meet a U.S. Environmental Protection Agency ("EPA") ruling on wastewater management compliance. Our products also include a wide-array of biological indicators, chemical integrators and related products and services that enable

hospitals, surgical centers, office-based practitioners and dental facilities to safely and accurately monitor and verify their sterilization practices and protocols.

We maintain a leading market position in the United States for face masks and dental unit waterline treatments as well as several of our other products used in the dental market.

Sales, Marketing, and Distribution. Our dental products are sold globally to approximately 350 wholesale customers in over 100 countries, with a significant majority located in the United States. Our distribution partners generally include major healthcare distributors, group purchasing organizations and buying co-operatives that sell our products to dental practices, medical facilities, veterinary clinics, and government and educational institutions. The majority of our dental products are sold under the Crosstex brand name. We also produce private label products for several of our distribution partners.

Competition. We compete with a number of large companies that have significant product portfolios and global reach, as well as a number of small companies with very limited product offerings. On a product basis, competitors include Halyard Health, 3M, ASP, Steris, Danaher/Sybron, Dentsply/Sultan Healthcare, Amcor, Porter Instrument, Sterisil, ProEdge and less expensive imported generic products from Asia and other lower cost manufacturing locations. We believe that our long-standing brands, product quality, superior customer service and breadth of portfolio are competitive advantages and are the basis for our success in this segment.

Acquisitions. On February 1, 2019, we purchased all of the issued and outstanding stock of Omnia S.p.A. ("Omnia"), an Italian-based leader in dental surgical consumables solutions. Omnia's business consists of a wide-ranging portfolio of sutures, irrigation tubing and customized dental surgical procedure kits, with a focus on procedure room set-up and cross-contamination prevention.

On July 30, 2019, we signed a definitive agreement to acquire Hu-Friedy Mfg. Co., LLC ("Hu-Friedy"), a leading global manufacturer of instruments and instrument reprocessing workflow systems serving the dental industry. The acquisition is subject to regulatory approvals and other customary closing conditions, and is expected to close during our first quarter fiscal 2020.

Dialysis

General. We design, develop, manufacture, sell and service reprocessing systems and sterilants for dialyzers (a device serving as an artificial kidney), as well as dialysate concentrates and supplies utilized for renal dialysis. Our renal dialysis products include:

- hemodialysis concentrates and other ancillary supplies,
- medical device reprocessing systems, and
- sterilants and disinfectants.

Our renal dialysis treatment products include a line of acid and bicarbonate concentrates, referred to as dialysate concentrates, used by kidney dialysis centers to prepare dialysate, a chemical solution that draws waste products from the patient's blood through a dialyzer membrane during the hemodialysis treatment. Dialysate concentrates are used in the dialysis process, whether single-use or reuse dialyzers (described below) are being utilized.

Our dialyzer reprocessing products are limited to use by centers that choose to clean, disinfect and reuse dialyzers for the same patient, known as "dialyzer reuse," rather than discard the dialyzers after a single use. There has been a significant downward trend in dialyzer reuse since 2001, which has significantly decreased sales of our dialysis products tied to reuse during that period. We are exploring dialysis-related opportunities with the potential to mitigate the loss of such business. Likewise, we are expanding marketing efforts of reuse products in emerging markets in Asia, South America and elsewhere. However, no assurance can be given that such opportunities and efforts will prove successful. See Item 1A, "Risk Factors."

Sales, Marketing and Distribution. Our products are sold in the United States and, to a significantly lesser extent, throughout the world. Our customer base is comprised of large and small dialysis chains as well as independent dialysis clinics. We sell products in the United States primarily through our own direct distribution network, and in many international markets either directly or under various third-party distribution agreements.

Competition. In our Dialysis segment, our most significant competition comes from manufacturers of single-use dialyzers, particularly Fresenius, the largest dialysis chain in the United States and a manufacturer of single-use dialyzers. All or substantially all Fresenius dialysis clinics exclusively use single-use dialyzers and therefore have no need for dialyzer reprocessing equipment.

Information with Respect to Our Business Generally:

Government Regulation

Our business and products are subject to various degrees of governmental regulation in the countries in which we operate. In the United States, the FDA, EPA and other governmental authorities regulate the development, manufacture, labeling, sale, storage and distribution of our products and services. Our international operations also are subject to a significant amount of government regulation, including country-specific rules and regulations and U.S. regulations applicable to our international operations. Compliance with applicable government regulations is a significant expense for us.

Numerous aspects of our business are subject to government regulations including, among other things, research and development, product approvals, product manufacturing, labeling, marketing and promotion, distribution, record-keeping, storage and disposal practices. For example, the FDA inspects medical device manufacturers for compliance with the current Quality Systems Regulations ("QSRs"), which govern the methods used in, and the facilities and controls used for, the design, manufacture, packaging and servicing of all finished medical devices intended for human use. In addition, introductions of new medical devices are generally subject to regulatory clearance or approval. Failure to receive or maintain, or delays in receiving, such clearance or approvals may hurt our competitiveness and have other material adverse consequences on our business, results of operations and cash flows.

We cannot predict the effect on our operations resulting from current or future governmental regulations or the interpretation or application of these regulations. However, such governmental regulations could prevent, delay, or result in the revocation or rejection of regulatory clearance of our products. In addition, if we fail to comply with any applicable regulatory requirements, fines, sanctions, regulatory actions and other penalties could be imposed on us.

We believe that we are currently compliant in all material respects with applicable regulatory requirements. However, there can be no assurance that future or current regulatory, governmental, or private action will not have a material adverse effect on us or on our performance, results, or financial condition. See Item 1A, "Risk Factors."

Sources and Availability of Raw Materials

We purchase raw materials, sub-assemblies, components and other supplies from numerous suppliers in the United States and abroad. The principal raw materials and supplies that we use to conduct operations include chemicals, paper, resin, stainless steel and plastic components. These raw materials are generally obtainable from several sources and in sufficient quantities within the lead times specified to vendors.

Intellectual Property

We protect our technology and products by, among other means, filing U.S. and foreign patent applications. There can be no assurance, however, that any patent will provide adequate protection for the technology, system, product, service or process it covers. In addition, the process of obtaining and protecting patents can be long and expensive. We also rely upon trade secrets, technical know-how and continuing technological innovation to develop and maintain our proprietary position.

As of July 31, 2019, we held 68 U.S. patents and 312 foreign patents, with 72 U.S. patents pending and 106 foreign patents pending. The majority of our U.S. and foreign patents, for individual products, are effective for twenty years from the initial filing date. The actual protection afforded by a patent, which can vary from country to country, depends upon the type of patent, the scope of its coverage and the availability of legal remedies in the country. In addition, we license from independent third parties under patents, trade secrets and other intellectual property, the right to manufacture and sell certain of our products. In the aggregate, these intellectual property assets and licenses (each of which is long-term) are of material importance to our business.

Our products and services are sold around the world under various trade names, trademarks and brand names. We consider our trade names, trademarks and brand names to be valuable in the marketing of our products in each segment. As of July 31, 2019, we had 2,084 trademark registrations in the United States and in various foreign countries in which we conduct business, as well as 38 trademark applications pending worldwide.

Seasonality

Our businesses generally are not seasonal in nature.

Principal Customers

None of our customers accounted for 10% or more of our consolidated net sales during fiscal 2019, 2018 or 2017. As described below, none of our segments are reliant upon a single customer, but some of our segments are currently reliant on a few customers. See Item 1A, "Risk Factors."

Our Life Sciences segment is reliant on two customers, who collectively accounted for approximately 40.2%, 48.0% and 50.2% of segment net sales in fiscal 2019, 2018 and 2017, respectively.

Our Dental segment is reliant on three customers, who collectively accounted for approximately 47.6%, 45.1% and 43.4% of segment net sales in fiscal 2019, 2018 and 2017, respectively. We expect to have a similar customer profile after the completion of our pending acquisition of Hu-Friedy, further described in Note 19 to our consolidated financial statements in Part II, Item 8 of this report.

Our Dialysis segment is reliant on two customers (which are the same two customers noted above under our Life Sciences segment), who collectively accounted for approximately 41.0%, 40.6% and 44.2% of our Dialysis segment net sales in fiscal 2019, 2018 and 2017, respectively.

Backlog

As of July 31, 2019, our consolidated backlog was approximately $102,925 compared with approximately $91,687 as of July 31, 2018. The majority of the backlog was in our Life Sciences segment which had backlog of $50,272 and $58,556 as of July 31, 2019 and July 31, 2018, respectively. The majority of our backlog is expected to be recognized as revenue within one year of such date.

Competition

The markets in which our business is conducted are highly competitive. Competition is intense in all of our business segments and includes many large and small competitors. Important competitive factors generally include breadth of product offering, product design and quality, safety, ease of use, brand, product service and support, and price. We expect to face continued intense competition and believe that the long-term competitive position for all of our segments depends principally on our success in developing, manufacturing and marketing innovative, cost-effective products and services.

Many of our competitors have greater financial, technical, and human resources than we do, are well-established with reputations for success in the sale and service of their products, and may have certain other competitive advantages over us. However, we believe that the worldwide reputation for the quality and innovation of our products among customers and our reputation for providing quality product service give us a competitive advantage with respect to many of our products.

In addition, certain companies have developed, or may be expected to develop, new technologies or products that directly or indirectly compete with our products. We anticipate that we may face increased competition in the future as new infection prevention products and services enter the market. Numerous organizations are believed to be working with a variety of technologies and sterilizing agents. In addition, a number of companies have developed or are developing disposable medical instruments and other devices designed to address the risks of infection and contamination. There can be no assurance that new products or services developed by our competitors will not be more commercially successful than those provided or developed by us in the future.

For further discussion of competition-related and other risk factors, see Item 1A, "Risk Factors."

Quality Assurance

We manufacture, assemble and package most of our products in the United States and, to a significantly lesser extent, in Italy, Germany and elsewhere. Each of our production facilities is dedicated to particular processes and products. We have implemented quality assurance procedures to support the quality and integrity of our production processes.

Environmental Matters

We anticipate that our compliance with federal, state, and local laws and regulations, relating to the discharge of materials into the environment, or otherwise relating to the protection of the environment, will not have any material effect on our capital expenditures, earnings or competitive position.

Employees

As of July 31, 2019, we employed 2,775 persons, of whom 1,947 are located in the United States, 568 are located in Europe, the Middle East and Africa, 194 are located in Asia and Australia, and 66 are located in Canada. None of our employees are represented by labor unions. We consider our relations with our employees to be satisfactory.

Sales to Iran

We ship certain of our products to Iran, and conduct related activities, in accordance with licenses issued by the Office of Foreign Assets Control ("OFAC") of the U.S. Department of the Treasury. The Iranian sales were generally conducted through distributors, some of whose customers may include public hospitals owned or controlled directly or indirectly by the Iranian government.

Available Information

Under the Securities Exchange Act of 1934, as amended ("Exchange Act"), we are required to file with or furnish to the SEC annual, quarterly and current reports, proxy and information statements and other information. The SEC maintains a website at www.sec.gov that contains reports, proxy and information statements, and other information regarding issuers that file electronically with the SEC. We file electronically with the SEC.

We make available, free of charge through the investor relations section of our website, our reports on Forms 10‑K, 10‑Q and 8‑K, and amendments to those reports, filed with or furnished to the SEC as soon as reasonably practicable after they are filed or furnished to the SEC. The address for our website is www.cantelmedical.com.

Also available on our website are our Corporate Governance Guidelines, Charters of the Nominating and Governance Committee, Compensation Committee and Audit Committee, and Code of Business Conduct and Ethics. Information contained on our website is not part of, and is not incorporated in, this or any other report we file with or furnish to the SEC.

Forward Looking Statements

This Annual Report on Form 10-K contains "forward-looking statements" as that term is defined under the Private Securities Litigation Reform Act of 1995 and other securities laws. These statements are based on current expectations, estimates, or forecasts about our businesses, the industries in which we operate, and the current beliefs and assumptions of management; they do not relate strictly to historical or current facts. Without limiting the foregoing, words or phrases such as "expect," "anticipate," "goal," "project," "intend," "plan," "believe," "seek," "may," "could" and variations of such words and similar expressions generally identify forward-looking statements. In addition, any statements that refer to predictions or projections of our future financial performance, anticipated growth and trends in our businesses, and other characterizations of future events or circumstances are forward-looking statements. Readers are cautioned that these forward-looking statements are only predictions about future events, activities or developments and are subject to numerous risks, uncertainties, and assumptions that are difficult to predict. We caution that undue reliance should not be placed on such forward-looking statements, which speak only as of the date made. Some of the factors which could cause results to differ from those expressed in any forward-looking statement are set forth under Item 1A, "Risk Factors" of this Annual Report on Form 10-K. Except as required by law, we expressly disclaim any obligation or undertaking to release publicly any updates or revisions to any forward-looking statements contained herein to reflect any change in our expectations with regard thereto or any change in events, conditions or circumstances on which any such statement is based.

Item 1A. Risk Factors.

We are subject to various risks and uncertainties relating to or arising out of the nature of our businesses and general business, economic, financing, legal and other factors or conditions that may affect us. We provide the following cautionary discussion of risks and uncertainties relevant to our businesses, which we believe are factors that, individually or in the aggregate, could have a material and adverse impact on our business, results of operations and financial condition, or could cause our actual results to differ materially from expected or historical results. We note these factors for investors as permitted by the Private Securities Litigation Reform Act of 1995. You should understand that it is not possible to predict or identify all such factors. Consequently, you should not consider the following to be a complete discussion of all potential risks or uncertainties.

We face intense competition and may not be able to keep pace with the rapid technological changes in the medical device industry, which could have a material adverse effect on our business, financial condition, results of operations or cash flows. The medical device markets in which we primarily participate are highly competitive. We encounter significant competition across

our product lines and in each market in which our products are sold from various medical device companies, many of which may have greater financial, technical and marketing resources than we do and are well-established. Some competitors have developed or may be expected to develop technologies or products that could compete with our products or that would render our products obsolete or noncompetitive. In addition, our competitors may achieve patent protection, regulatory approval or product commercialization that would limit our ability to compete with them. Additionally, the medical device markets in which we primarily participate are characterized by extensive research and development, new product introductions and product enhancements, rapid technological change and evolving industry standards. Developments by other companies of new or improved products, processes or technologies may make our products or proposed products obsolete or less competitive and may negatively impact our net sales. Accordingly, our ability to compete is in part dependent on our ability to continually offer enhanced and improved products that meet the changing requirements of our customers. As such, we are required to devote continued efforts and financial resources to develop or acquire scientifically advanced technologies and products, apply our technologies cost-effectively across product lines and markets, obtain patent and other protection for our technologies and products, obtain required regulatory and reimbursement approvals and successfully manufacture and market our products consistent with our quality standards. If we fail to develop new products or enhance existing products, it could have a material adverse effect on our business, financial condition, results of operations or cash flows.

We face continued competition in our endoscopy disposable procedure products from larger competitors. We have seen increased activity by our larger competitors to include infection prevention endoscopy disposable procedure products in their existing market share and bundling agreements. As purchasing decisions continue to be consolidated with GPOs and in a smaller number of IDNs, competitors with broader portfolios will have a competitive advantage in offering a wider range of discounts. If such approach expands, we could face declines in growth or loss of market share, as well as reduced profit margin, for our endoscopy procedural products.

We face increased competition in the water purification system market due to the alliance of kidney dialysis machine suppliers and water purification system suppliers. Outside of the United States, we believe there is a trend in formal or informal bundling partnerships and arrangements between kidney dialysis machine suppliers and companies offering medical water purification systems that compete with our systems. The ability to bundle these products offers a competitive advantage to such suppliers, which include Baxter (dialysis machine)/Gambro (water system), B. Braun (dialysis machine)/Lauer (water system), and Fresenius (dialysis machine)/Vivonic (water system). The bundling approach being used by B. Braun/Lauer, and the business combination of Fresenius and Vivonic, represent competitive threats to our dialysis water business. If such business combinations and bundling approaches expand in the United States and we do not succeed in forming an alliance with a high-quality supplier of kidney dialysis machines, we can lose our current competitive advantages and experience a material loss of net sales and a decrease in margins in our water purification system business.

The market for our dialysis reprocessing products is limited to dialysis centers that reuse dialyzers. The decrease in the reuse portion of the dialysis market in the United States accelerated significantly in recent years and such decrease is expected to continue. Our dialyzer reprocessing products are limited to use by clinics that choose to clean, sterilize and reuse dialyzers, rather than discard the dialyzers after a single-use. Today, only a small number of all dialysis procedures in the United States reuse dialyzers. The downward trend in reuse dialyzers in the United States had accelerated in recent years which resulted in the sale of no reuse dialyzers in the United States for the past several fiscal years. Further, the most significant manufacturers of reuse dialyzers have indicated that they will be ceasing their manufacture of such products. As such, clinics that currently utilize reuse dialyzers will continue to convert to single use dialyzers, which will continue the downward trend and likely eliminate our sale of dialyzer reprocessors and related single-use products in the United States at some point in the near future. The reduction of our dialysis reuse business has had an adverse effect on our Dialysis segment business, which has reduced our margins and net income in this segment.

We face significant challenges in growing our dialysate concentrate sales. The reduced sales of our dialysis reuse products were significantly mitigated by increased sales in our dialysate concentrate during the past several years, which sales are anticipated to remain at similar levels during fiscal 2020. However, no assurance can be given that we will succeed at increasing sales in the near or long term. Fresenius, the largest dialysis chain in the United States, manufactures dialysate concentrate itself and therefore provides dialysate concentrate to its own dialysis clinics. DaVita and certain international customers have also continued their reduction of dialysate concentrate purchases from us as a result of the highly competitive and price sensitive market for such product. In addition, there is increased demand in the market for powdered dialysate products principally due to the lower costs associated with shipping such products. However, we do not manufacture powdered dialysate products.

Because a significant portion of our Life Sciences and Dental segments net sales comes from a few large customers, any significant decrease in sales to these customers, due to industry consolidation or otherwise, could harm our operating results. In our Life Sciences segment, two customers collectively accounted for 40.2% of our fiscal 2019 net sales for this segment. The loss of a significant amount of business from either of these two customers would have a material adverse effect on our Life Sciences segment. The distribution network in the United States dental industry is concentrated, with relatively few distributors of consumable products accounting for a significant share of the sales volume to dentists. Accordingly, net sales and profitability of our Dental segment are highly dependent on our relationships with a limited number of large distributors. During fiscal 2019, the top three customers of our Dental segment accounted for 47.6% of its net sales. We expect similar concentration among our top customers after the anticipated completion of the Hu-Friedy transaction further described in Note 19 to our consolidated financial statements in Part II, Item 8 of this report. The loss of a significant amount of business from any of these three customers would have a material adverse effect on our Dental segment. In addition, because our Dental segment products are primarily sold through third-party distributors and not directly to end users, we cannot control the amount and timing of resources that our distributors devote to our products. There can be no assurance that there will not be a loss or reduction in business from one or more of our major customers. In addition, we cannot assure that net sales from customers that have accounted for significant net sales in the past, either individually or as a group, will reach or exceed historical levels in any future period.

Our industry is experiencing significant scrutiny and regulation by governmental authorities, which may lead to greater regulation in the future. Our medical devices and our business activities are subject to rigorous regulation, including by the FDA, EPA, Department of Justice ("DOJ"), and numerous other federal, state, and foreign governmental authorities. These authorities and members of Congress have been increasing their scrutiny of our industry. In addition, certain state governments and the federal government have enacted legislation aimed at increasing transparency of our interactions with healthcare providers. As a result, we are required by law to disclose payments and other transfers of value to healthcare providers licensed by certain states and to all U.S. physicians and U.S. teaching hospitals at the federal level. Any failure to comply with these legal and regulatory requirements could adversely impact our business. In addition, we may continue to devote substantial time and financial resources to further develop and implement policies, systems, and processes to comply with enhanced legal and regulatory requirements, such as the European Union's General Data Protection Regulation, several of which may expose us to significant penalties or fines and may also impact our business. We anticipate that governmental authorities will continue to scrutinize our industry closely, and that additional regulation may increase compliance and legal costs, exposure to litigation, and other adverse effects to our operations. Moreover, as directed by the Dodd-Frank Wall Street Reform and Consumer Protection Act (Dodd-Frank), the SEC has implemented reporting and disclosure requirements related to the use of certain minerals, known as "conflict minerals" (specifically, tantalum, tin, tungsten (or their ores), and gold) which are mined from the Democratic Republic of the Congo and adjoining countries. There are costs associated with complying with these disclosure requirements, including for diligence in regards to the sources of any conflict minerals used in our products, in addition to the cost of remediation and other changes to products, processes, or sources of supply as a consequence of such verification activities, if appropriate. Although we have not historically had any issues, that could change if such materials are found to be used in our products. As of the date of our conflict minerals report for the 2018 calendar year, although we fully complied with the regulation, we were unable to obtain the necessary information on conflict minerals from all of our suppliers and were unable to determine that all of our products are conflict free. We may continue to face difficulties in gathering this information in the future. We may face reputational challenges if we determine that certain of our products contain minerals not determined to be conflict free or if we are unable to sufficiently verify the origins for all conflict minerals used in our products through the procedures we implement.

Our implementation of an Enterprise Resource Planning ("ERP") software solution and other information technology systems could result in significant disruptions to our operations. We are engaged in a multi-year implementation of a new global ERP solution and other complementary information technology systems, with the first phase of such implementation having been completed during fiscal 2019. Implementation of these solutions and systems is highly dependent on coordination of numerous software and system providers and internal business teams. The interdependence of these solutions and systems is a significant risk to the successful completion of the initiatives and the failure of any one system could have a material adverse effect on the implementation of our overall information technology infrastructure. We may experience difficulties as we transition to these new or upgraded systems and processes, including loss or corruption of data, delayed shipments, decreases in productivity as our personnel and third party providers implement and become familiar with new systems, increased costs and lost revenues. In addition, transitioning to these new systems requires significant capital investments and personnel resources. Difficulties in implementing new or upgraded information systems or significant system failures could disrupt our operations and have a material adverse effect on our capital resources, financial condition, results of operations or cash flows.

Our businesses are heavily reliant on certain raw materials and can be adversely impacted by rising prices and potential governmental changes to import and tariff policies. We purchase raw materials, sub-assemblies, components and other supplies essential to our operations from numerous suppliers in the United States and abroad. The principal raw materials that we use to conduct operations include chemicals, paper, resin, stainless steel and plastic components. From time to time we experience price increases for raw materials, with no guarantee that such increases can be passed along to our customers. In addition, although fuel

and oil prices have been at relatively low levels, an increase in prices can also have a significant adverse impact on transportation costs related to both the purchasing and delivery of products and services. If costs materially increase in the future, we may not be able to implement price increases to our customers, which would adversely impact our gross margins. Our business is also subject to risks associated with U.S. and foreign legislation and regulations relating to imports, including quotas, duties, tariffs or taxes, and other charges or restrictions on imports, which could adversely affect our operations and our ability to import products at current or increased levels. We cannot predict whether additional U.S. and foreign customs quotas, duties (including antidumping or countervailing duties), tariffs, taxes or other charges or restrictions, requirements as to where raw materials must be purchased, additional workplace regulations or other restrictions on our imports will be imposed upon the importation of our products in the future or adversely modified, or what effect such actions would have on our costs of operations. Future quotas, duties or tariffs may have a material adverse effect on our business, financial condition, results of operations or cash flows. Future trade agreements could also provide our competitors with an advantage over us, or increase our costs, either of which could have a material adverse effect on our business, financial condition, results of operations or cash flows.

The acquisition of new businesses and product lines, which has inherent risks, is an important part of our growth strategy. We intend to grow, in part, by acquiring new products and businesses. The success of this strategy depends upon several factors, including our ability to:

- identify and acquire appropriate products and businesses, including obtaining required regulatory (such as antitrust) approvals,
- obtain financing for acquisitions on terms that are favorable or acceptable,
- integrate acquired operations, personnel, products, technologies and regulatory procedures into our organization effectively,
- retain and motivate key personnel and retain the customers and suppliers of acquired companies,
- realize expected benefits such as perceived tax benefits and synergies, and
- successfully promote and increase sales and profits of acquired product lines.

We also may not be able to sustain the rates of growth that we have experienced in the past, whether by acquiring businesses or otherwise. In addition, we often experience competition from third parties interested in the same acquisition candidate. This may result in increases in the price paid for acquisition candidates. In addition, assumptions regarding the growth of businesses we acquire may differ from actual results.

Other risks and uncertainties related to acquisitions include:

- delays in realizing the benefits of the transactions, including achievement of anticipated operating efficiencies and synergies and other transaction benefits as well as forecasted sales and earnings,
- diversion of management's time and attention,
- difficulties in implementing and maintaining uniform standards, controls, procedures and policies, and
- risks associated with the assumption of contingent or undisclosed liabilities of acquired companies.

Given the subjective nature of the assumptions used in the determination of fair value calculations, we may potentially have significant earnings volatility in our future results of operations. In addition, we have occasionally used our stock as partial consideration for acquisitions. Our common stock may not remain at a price at which it can be used as consideration for acquisitions without diluting our existing stockholders, and potential acquisition candidates may not view our stock attractively. We have a significant amount of goodwill and intangible assets on our balance sheet related to acquisitions. If future operating results of the acquired businesses are significantly less than the results anticipated at the time of the acquisitions, we may be required to incur impairment charges.

The indemnification provisions of acquisition agreements by which we have acquired companies may not fully protect us and as a result we may face unexpected liabilities. Certain of the acquisition agreements by which we have acquired companies require the former owners to indemnify us against certain liabilities related to the operation of the company before we acquired it. In most of these agreements, however, the liability of the former owners is limited and certain former owners may be unable to meet their indemnification responsibilities. We cannot assure that these indemnification provisions will protect us fully or at all, and as a result we may face unexpected liabilities that adversely affect our business, financial condition, results of operations or cash flows.

Our international business subjects us to a number of risks and our limited operating experience and market recognition in new international markets may limit our international expansion strategy and cause our international return on investments and growth to suffer. Our international business subjects us to a number of risks and complications associated with manufacturing, sales, services, and other operations outside of the United States. These include: risks associated with foreign currency exchange rate fluctuations; difficulties in enforcing agreements and collecting receivables through some foreign legal systems; enhanced credit risks in certain European countries as well as emerging market regions; foreign customers with longer payment cycles than customers in the United States; tax laws that restrict our ability to use tax credits, offset gains, or repatriate funds; tariffs and

exchange controls or other trade restrictions including transfer pricing restrictions when products produced in one country are sold to an affiliated entity in another country. Our future growth depends in part on our international expansion efforts, including efforts in emerging markets such as China. We have limited experience with regulatory environments and market practices internationally, and we may not be able to penetrate or successfully operate in locations and environments unfamiliar to us. Additionally, global operations are subject to risks and uncertainties, including political and economic instability, general economic conditions, imposition of government controls, the need to comply with a wide variety of foreign and U.S. export laws and trade restrictions. In connection with our expansion efforts we may encounter obstacles we did not face in North America, including cultural and linguistic differences, differences in regulatory environments, labor and market practices, difficulties in keeping abreast of market, business and technical developments, foreign customers' requirements and preferences, and the difficulty of administering business overseas. Further, sales practices in certain international markets may be inconsistent with our desired business practices and U.S. and other legal requirements, which may impact our ability to expand as planned. We may also encounter difficulty expanding in new international markets because of competitors already entrenched in the market, and our limited brand recognition leading to delayed acceptance of our products in these new international markets. Our failure to develop new markets or disappointing growth outside of existing markets may negatively affect our return on investments relating to our international expansion efforts. In addition, we may experience difficulties in enforcing intellectual property rights or weaker intellectual property right protections in some countries.

On June 23, 2016, the United Kingdom held a referendum in which voters approved an exit from the European Union ("E.U."), commonly referred to as "Brexit." As a result of the referendum, the British government has begun negotiating the terms of the United Kingdom's future relationship with the E.U. Although it is unknown what the final outcome of such negotiated terms will be, it is possible that there will be greater restrictions on imports and exports between the United Kingdom and E.U. countries and increased regulatory complexities. These changes may adversely affect our operations and financial results since we have a significant presence in the U.K. Further, international markets are increasingly being affected by economic pressure to contain reimbursement levels and healthcare costs, and certain international markets may also be impacted by foreign government efforts to understand healthcare practices and pricing in other countries, which could result in increased pricing transparency across geographies and pressure to harmonize reimbursement and ultimately reduce the selling prices of our products. Most international jurisdictions have regulatory approval and periodic renewal requirements for medical devices, and countries that previously did not have regulatory requirements for medical devices may adopt such requirements; we must comply with these requirements in order to market our products in these jurisdictions. In addition, the trend in countries around the world toward more stringent regulatory requirements for product clearance, changing reimbursement models, and more rigorous inspection and enforcement activities has generally caused or may cause us and other medical device manufacturers to experience more uncertainty, delay, risk and expense, including the E.U.'s enactment of the Medical Devices Regulation. We expect that the international regulatory environment will continue to evolve, which could impact our ability to obtain approvals for our products in those jurisdictions, and thereby have a material impact on our business. Further, any significant changes in the competitive, political, legal, regulatory, reimbursement or economic environment where we conduct international operations may have a material impact on our business, financial condition, results of operations or cash flows.

Health care policy changes on both the federal and state levels may have a material adverse effect on us. In response to perceived increases in health care costs in recent years, there have been and continue to be proposals by the federal government, state governments, regulators, and third-party payers to control these costs and, more generally, to reform the U.S. health care system. Certain of these proposals could limit the prices we are able to charge for our products or the amounts of reimbursement available for our products and could limit the acceptance and availability of our products. The adoption of some or all of these proposals could have a material adverse effect on our financial position, results of operations or cash flows. In addition, the U.S. Patient Protection and Affordable Care Act, as amended by the Health Care and Education Affordability Reconciliation Act, contains provisions that could have a material impact on our business. Among other provisions, this legislation imposes a 2.3% excise tax on all U.S. medical device sales. In January 2018, Congress enacted legislation that further suspended the excise tax until calendar year 2020. Furthermore, we have been required to commit significant resources to "Sunshine Act" compliance. In addition, various healthcare reform proposals have also emerged at the state level. We cannot predict with certainty what healthcare initiatives, if any, will be implemented at the state level, or what the ultimate effect of federal healthcare reform or any future legislation or regulation may have on us or on our customers' purchasing decisions regarding our products and services.

Our stock price and trading volume has been volatile from time to time and has experienced significant fluctuations over the past several months and years as a result of various market factors. We may experience continued fluctuations in price and volume in the future that could negatively impact the value of our outstanding shares. The market for our common stock has, from time to time, experienced significant price and volume fluctuations that may have been unrelated to our operating performance. In addition, the trading market for our common stock relies in part on the research and reports that industry and other financial analysts publish about us, our business and our industry. We do not control these or any other analysts, nor do we control their respective reports. Our future operating results are subject to substantial uncertainty, and our stock price could decline significantly if we fail to meet or exceed analysts' forecasts and expectations. If any of the analysts who cover us downgrade our stock, lower

their price target or issue commentary or observations about us or our stock that are perceived by the market as negative, our stock price would likely decline rapidly. In addition, there are many other large, well-established, publicly traded companies active in our industry and market, which may cause our company to garner less attention from industry analysts. If these analysts decrease coverage or otherwise cease to cover our company, we could lose visibility in the market, which in turn could cause our stock price to decline.

Competition from lower cost manufacturing facilities such as those located in China, Southeast Asia and certain locations within North America could result in a reduction in our net sales of dental products due to reduced average selling prices or our customers no longer purchasing certain products from us. Despite expensive shipping costs, quality concerns, sustainability issues and other matters, some of our competitors manufacture certain dental products in lower cost locations such as China, Southeast Asia and certain locations within North America. Although we believe the quality of our dental products, which are generally produced in the United States, are superior, our sales in the future may be adversely affected by either loss of sales or reductions in the prices of our products as a result of this lower cost competition. Price erosion resulting from lower cost competition did not have a material adverse impact on our business during fiscal 2019, but no assurance can be given that we will not face increased competition in the future.

We are subject to extensive government regulation, which may delay or prevent new product introduction and subject us to citations, fines and other regulatory actions. Our operations are subject to extensive regulation by governmental and private agencies in both the United States and in other countries where we do business. In the United States, our products and services are regulated by the FDA and other regulatory authorities. In many foreign countries, sales of our products are subject to extensive regulations that may or may not be comparable to those of the FDA. In Europe, our products are regulated primarily by country and community regulations of those countries within the European Economic Area and must conform to the requirements of those authorities. The regulatory agencies regulate the testing, manufacturing, recordkeeping, storage, packaging, labeling, marketing, distribution, marketing, reporting, safety and import and export of medical supplies and devices. Certain international regulatory bodies also impose import restrictions, tariff regulations, duties and tax requirements. In general, unless an exemption applies, a medical device or product or service must receive regulatory approval or clearance before it can be marketed or sold. Delays in agency review can significantly delay new product introduction and may result in a product becoming "dated" or losing its market opportunity before it can be introduced. In addition, the FDA and other agency clearances generally are required before we can make significant modifications to existing products or market new claims or uses for existing products. The FDA also has the authority to require a recall or modification of products in the event of a defect or other issues. The process of obtaining marketing clearances and approvals from regulatory agencies for new products (or modifications to, or additional claims or uses for, existing products) can be time consuming and expensive. There is no assurance that clearances or approvals will be granted or that agency review will not involve delays that would adversely affect our ability to commercialize our products. During the past several years, the FDA, in accordance with its standard practice, has conducted a number of inspections of our manufacturing facilities to ensure compliance with regulatory standards relating to our testing, manufacturing, storage and packaging of products. On occasion, following an inspection, the FDA has called our attention to certain "Good Manufacturing Practices" compliance deficiencies. If we fail to meet QSRs or violate applicable FDA, EPA or other laws or regulations or if any of our medical devices are found to be ineffective or pose an unreasonable health risk, or if we fail to adequately correct violations or comply with requests by regulatory agencies, we could be subject to reports or warning letters, citations and fines as well as additional regulatory action including an order to recall, replace, repair, or refund non-compliant medical devices, which may have material reputational and financial impacts. Further, regulatory agencies could detain or seize adulterated or misbranded medical devices, or ban such medical devices. The regulatory agencies may also impose operating restrictions, enjoin and/or restrain certain conduct resulting in violations of applicable law pertaining to medical devices, including a hold on approving new devices until issues are resolved to its satisfaction, and assess civil or criminal penalties against our officers, employees, or us. The regulatory agencies may also recommend prosecution to the DOJ. Federal, state and foreign regulations regarding the manufacture and sale of our products are subject to change. We cannot predict what impact, if any, such changes might have on our business. In addition, there can be no assurance that regulation of our products will not become more restrictive in the future and that any such development would not have a material adverse effect on our business, financial condition, results of operations or cash flows.

Compliance with international laws and regulations, import and export limitations, anti-corruption laws, and exchange controls may be difficult, burdensome and expensive. We are subject to compliance with various laws and regulations, including the U.S. Foreign Corrupt Practices Act, the U.K. Bribery Act, and similar anti-bribery laws, which generally prohibit companies and their intermediaries from making bribes or other improper payments to officials for the purpose of obtaining or retaining business. We are also subject to limitations on trade with persons in sanctioned countries. Our growing exposure to international markets increase the inherent risks of encountering such issues. While our employees, distributors and agents are required to comply with these laws, no assurance can be given that our training and internal policies and procedures will always protect us from violations of these laws, despite our commitment to legal compliance and corporate ethics. The failure to comply with these laws and regulations could subject us to severe fines and penalties material in scope.

Our operations, products and services expose us to the risk of environmental, health and safety liabilities, costs and violations that could adversely affect our reputation and financial results. In the ordinary course of certain of our manufacturing processes, we use various chemicals and other regulated substances. Our operations, products and services are subject to environmental laws and regulations, which impose limitations on the discharge of pollutants into the environment and establish standards for the use, generation, treatment, storage and disposal of hazardous and non-hazardous wastes. Although we are not aware of any material claims involving violation of environmental or occupational health and safety laws or regulations, there can be no assurance that such a claim may not arise in the future, which could have a material adverse effect on us. We must also comply with various health and safety regulations in the United States and abroad in connection with our operations. We can give no assurance that our environmental, health and safety compliance programs have been or will at all times be effective. Failure to comply with any of these laws and regulations could result in civil and criminal, monetary and non-monetary penalties and damage to our reputation. In addition, we cannot provide assurance that our costs of complying with current or future environmental protection and health and safety laws and regulations will not exceed our estimates or adversely affect our financial condition, results of operations or cash flows. In addition, we may incur costs related to remedial efforts or alleged environmental damage associated with past or current waste disposal practices or other hazardous materials handling practices. We are also from time to time party to personal injury or other claims brought by private parties alleging injury due to the presence of or exposure to hazardous substances. We may also become subject to additional remedial, compliance or personal injury costs due to future events such as changes in existing laws or regulations, changes in agency direction or enforcement policies, developments in remediation technologies, changes in the conduct of our operations and changes in accounting rules. We cannot assure you that any liabilities arising from past or future releases of, or exposures to, hazardous substances will not adversely affect our reputation or adversely affect our business, financial condition, results of operations or cash flows.

Healthcare cost containment pressures and legislative or administrative reforms resulting in restrictive reimbursement practices of third-party payors or preferences for alternate therapies could decrease the demand for our products, the prices which customers are willing to pay for those products and the number of procedures performed using our devices. Many of our products are purchased by hospitals, physicians and other healthcare providers that typically bill various third-party payors, including governmental programs (e.g., Medicare and Medicaid), private insurance plans and managed care programs, for the healthcare services provided to their patients. The ability of customers to obtain appropriate reimbursement for (or associated with) their products and services from private and governmental third-party payors is critical to the success of medical device companies. The availability of reimbursement affects which products customers purchase and the prices they are willing to pay. Reimbursement varies from country to country and can significantly impact the acceptance of new products and services. Even if we offer a promising new product, we may find limited demand for the product unless reimbursement approval is obtained from private and governmental third-party payors for such product (or associated with its use). Further legislative or administrative reforms to the reimbursement systems in the United States and foreign countries in a manner that significantly reduces reimbursement for procedures using our medical devices or denies coverage for those procedures, including price regulation, competitive pricing, coverage and payment policies, comparative effectiveness of therapies, technology assessments and managed-care arrangements, could have a material adverse effect on our business, financial condition, results of operations or cash flows.

Currency fluctuations and trade barriers could adversely affect our results of operations. A portion of our products in all of our business segments are exported to and imported from a variety of geographic locations, and our business could be materially and adversely affected by the imposition of trade barriers, fluctuations in the rates of exchange of various currencies, tariff increases and import and export restrictions, affecting all of such geographies including but not limited to the United States, Canada, the European Union, the United Kingdom, Australia, and Asia. Changes in the value of the Euro, British Pound, Canadian dollar, Australian dollar, Singapore dollar, Chinese Renminbi and Sri Lankan Rupee against the U.S. dollar affect our results of operations because certain cash bank accounts, accounts receivable and liabilities of Cantel and its subsidiaries are denominated and ultimately settled in U.S. dollars, Euros, British Pounds, Canadian dollars, Australian dollars, Singapore dollars, Chinese Renminbi or Sri Lanka Rupees, but must be converted into each entity's functional currency. Furthermore, the financial statements of subsidiaries in the European Union, United Kingdom, Canada, Australia, China and Sri Lanka are translated using the accounting policies described in Note 2 to our consolidated financial statements in Part II, Item 8 of this report, and therefore are impacted by changes in the Euro, British Pound, Canadian dollar, Australian dollar, Chinese Renminbi and Sri Lankan Rupee exchange rates relative to the U.S. dollar.

We may be exposed to product liability claims resulting from the use of products we sell and distribute. Our sales and distribution of products may expose us to product liability claims. We maintain product liability insurance, which we believe is adequate for our businesses. However, there can be no assurance that insurance coverage for these risks will continue to be available or, if available, that it will be sufficient to cover potential claims or that the present level of coverage will continue to be available at a reasonable cost. A partially or completely uninsured successful claim against us could have a material adverse effect on us. In addition, we may not have insurance covering claims of emotional harm or mental distress related to our products or services when not associated with physical injury. This could result in our incurring significant uninsured damages.

We rely on intellectual property and proprietary rights to maintain our competitive position. We rely on proprietary technology that we protect primarily through licensing arrangements, patents, trade secrets and proprietary know-how. There can be no assurance that any pending or future patent applications will be granted or that any current or future patents, regardless of whether we are an owner or a licensee of the patent, will not be challenged, rendered unenforceable, invalidated or circumvented or that the rights will provide a competitive advantage to us. There can also be no assurance that our trade secrets or non-disclosure agreements will provide meaningful protection of our proprietary information. There can also be no assurance that others will not independently develop similar technologies or duplicate any technology developed by us or that our technology will not infringe upon patents or other rights owned by others.

Breaches of our information technology systems could have a material adverse effect on our operations. We rely on information technology systems to process, transmit, and store electronic information in our day-to-day operations and install certain software systems on our customers' networks. Our information technology systems have been subjected to computer viruses, or other malicious codes, and cyber or phishing attacks. Although past attacks did not have a significant adverse impact on our business, these types of attacks could result in our intellectual property and other confidential information being lost or stolen, disruption of our operations, or other negative consequences, such as increased costs for security measures or remediation costs, diversion of management attention and adverse impact on our relationships with vendors and customers. Such attacks could also impact our customers' networks. Cyber attacks are becoming more sophisticated and frequent and the techniques used in such attacks change rapidly. While we have made investments seeking to address these threats, including monitoring of networks and systems, hiring of experts, employee training and security policies for employees and third-party providers, the techniques used in these attacks change frequently and may be difficult to detect for periods of time and we may face difficulties in anticipating and implementing adequate preventative measures. If our IT systems are damaged or cease to function properly, the networks or service providers we rely upon fail to function properly, or we or one of our third-party providers suffer a loss or disclosure of our business or stakeholder information due to any number of causes ranging from catastrophic events or power outages to improper data handling or security breaches and our business continuity plans do not effectively address these failures on a timely basis, we may be exposed to reputational, competitive and business harm as well as litigation and regulatory action. There can be no assurances that our protective measures will prevent future attacks that could have a significant impact on our business.

If we are unable to retain key personnel, our business could be adversely affected. Our success is dependent to a significant degree upon the efforts of key members of our management. Although none of our key executives has an employment agreement with the Company, each key executive is covered by the Company's Executive Severance and Change in Control Plan. In addition, we have short and long term incentive plans for our key executives that are designed in part to have a retentive effect on the executives. However, there can be no assurance that the terms of the severance agreements or incentive plans will have such an effect. We believe the loss or unavailability of any such individuals could have a material adverse effect on our business. In addition, our success depends in large part on our ability to attract and retain highly qualified scientific, technical, sales, marketing and other personnel. Competition for such personnel is intense and there can be no assurance that we will be able to attract and retain the personnel necessary for the development and operation of our businesses.

Some of our facilities are located near coastal zones, and the occurrence of a hurricane or other natural disasters could damage our facilities and equipment, which could harm our operations. Some of our facilities are vulnerable to damage from hurricanes and from other types of disasters, including fire, floods, power loss, communications failures, terrorism and similar events since any insurance we may maintain may not be adequate to cover our losses. If any disaster were to occur, our ability to operate our business at our facilities could be seriously, or potentially completely, impaired.

Item 1B. Unresolved Staff Comments.

None.

Item 2. Properties.

Our corporate headquarters are located at 150 Clove Road, Little Falls, NJ. Listed below are our manufacturing facilities and the principal warehouses, distribution centers, research facilities and administrative offices that we own or lease. In addition, we maintain administrative and sales offices and warehousing and distribution centers in other locations domestically and globally. We believe that our properties are suitable and adequate for the manufacture and distribution of our products.

Location	Owned/ Leased	Purpose	Square Footage	Segment
Plymouth, MN (multiple)	Owned	Administrative, sales, R&D & land	267,000	Medical, Dialysis, Life Sciences
Pomezia, Italy	Owned	Manufacturing, warehousing & administrative	156,000	Medical
Henrietta, NY	Leased	Manufacturing, warehousing & administrative	134,000	Dental
Hauppauge, NY	Owned	Administrative, sales, manufacturing & warehousing	65,000	Dental
Conroe, TX (multiple)	Owned	Administrative, sales, R&D, manufacturing, warehousing & training	72,000	Medical
Hauppauge, NY	Leased	Warehousing	52,000	Dental
Sharon, PA	Owned	Manufacturing & warehousing	50,000	Dental
Southend-on-Sea, U.K.	Owned	Manufacturing, warehousing & administrative	49,500	Medical
Plymouth, MN	Leased	Warehousing	154,000	Life Sciences
Conroe, TX (multiple)	Leased	Executive, sales, administrative, R&D & training	42,000	Medical
Lawrenceville, GA	Leased	Manufacturing & warehousing	41,000	Dental
Rush, NY	Owned	Manufacturing, warehousing, administrative & sales	38,000	Dental
Phoenix, AZ	Leased	Manufacturing, administrative & warehousing	37,000	Dental
Gersthofen, Germany	Leased	Manufacturing, administrative & warehousing	35,000	Medical
Santa Fe Springs, CA	Leased	Manufacturing & warehousing	32,000	Dental
Heerlen, the Netherlands	Leased	Sales, service, warehousing & distribution	26,000	All segments
Lowell, MA	Leased	Sales, administrative, warehousing & regeneration	26,000	Life Sciences
Skippack, PA	Leased	Sales, administrative, warehousing and regeneration	23,000	Life Sciences

Item 3. Legal Proceedings.

In the normal course of business, we are subject to pending and threatened legal actions. It is our policy to accrue for amounts related to these legal matters if it is probable that a liability has been incurred and an amount of anticipated exposure can be reasonably estimated. We do not believe that any of these pending claims or legal actions will have a material adverse effect on our business, financial condition, results of operations or cash flows.

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.

Our common stock trades on the New York Stock Exchange under the symbol “CMD.” On August 31, 2019, we had 303 record holders of common stock. A number of such holders of record are brokers and other institutions holding shares of common stock in “street name” for more than one beneficial owner.

The following table represents information with respect to purchases of common stock made by the Company during the fourth quarter of fiscal 2019:

Period	Total number of shares purchased		Average price paid per share	Total number of shares purchased as part of publicly announced plans or programs	Maximum number of shares that may yet be under the plan or programs
May 1 - May 31	22	(1)	$ 68.94	—	—
June 1 - June 30	224	(1)	$ 71.01	—	—
July 1 - July 31	1,094	(1)	$ 87.85	—	—
	1,340	(1)	$ 84.73	—	—

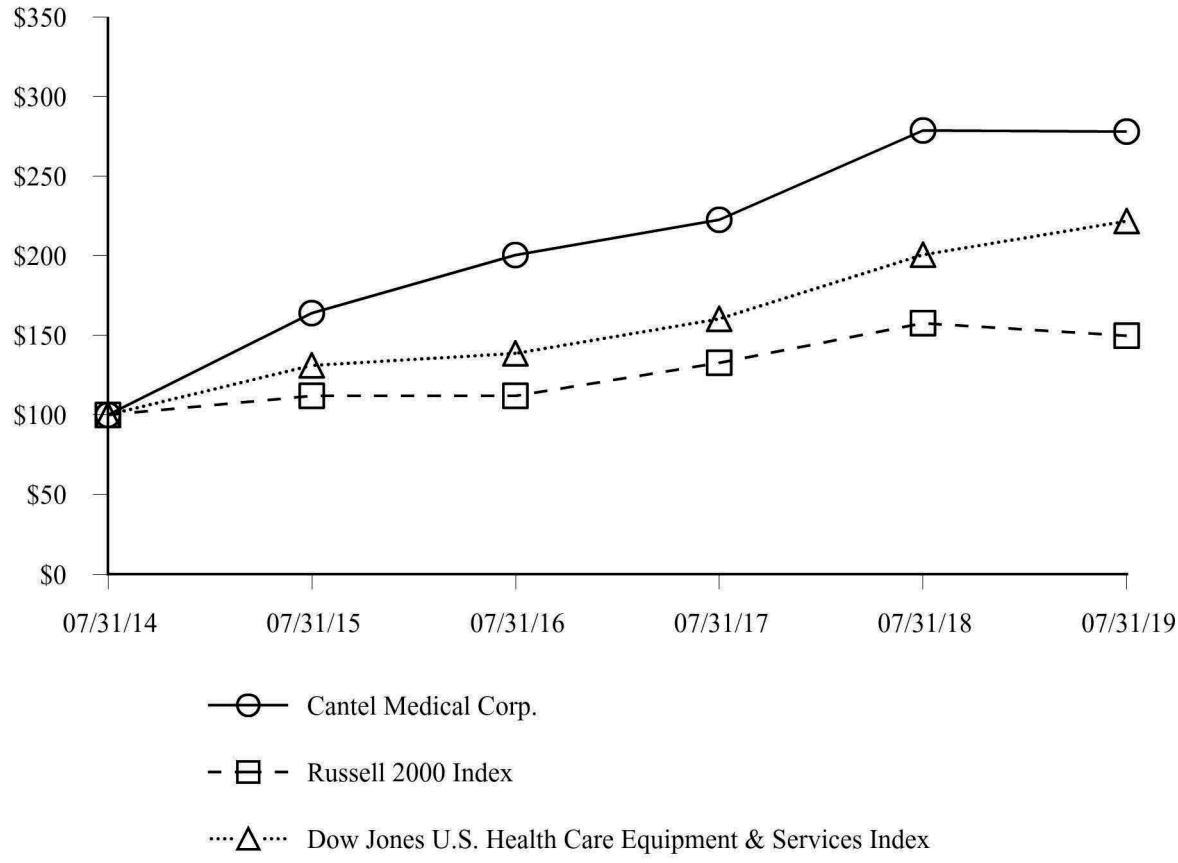
(1) The Company does not currently have a share repurchase program. All of the shares purchased during the fourth quarter of fiscal 2019 represent shares surrendered to the Company to pay employee withholding taxes due upon the vesting of restricted stock.

(dollar amounts in thousands except share and per share data or as otherwise specified) 17

Stock Performance Graph

The following graph compares the cumulative total stockholder return on our common stock for the last five fiscal years with the cumulative total returns of the Russell 2000 index and the Dow Jones U.S. Health Care Equipment & Services index over the same period (assuming an investment of $100 in our common stock and in each of the indexes on July 31, 2014, and where applicable, the reinvestment of all dividends).

Comparison of 5 Year Cumulative Total Return
Among Cantel Medical Corp. Common Stock, the Russell 2000 Index
and the Dow Jones U.S. Health Care Equipment & Services Index



	July 31,					
	2014	2015	2016	2017	2018	2019
Cantel Medical Corp.[1]	$ 100.00	$ 164.02	$ 200.47	$ 222.59	$ 278.58	$ 277.99
Russell 2000 Index	$ 100.00	$ 112.03	$ 112.03	$ 132.70	$ 157.56	$ 149.74
Dow Jones U.S. Health Care Equipment & Services Index	$ 100.00	$ 131.02	$ 138.64	$ 160.32	$ 200.55	$ 221.78

(1) $100 invested on July 31, 2014 in Cantel Medical Corp.'s common stock or index, including reinvestment of dividends. Indexes are calculated on month-end basis.

(dollar amounts in thousands except share and per share data or as otherwise specified) 18

Item 6. Selected Consolidated Financial Data.

The following selected consolidated statements of income, balance sheets and other financial data have been derived from our audited consolidated financial statements. The selected consolidated financial and operating information set forth below should be read in conjunction with "Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations" and our Consolidated Financial Statements and the Notes thereto included elsewhere in this report.

	Year Ended July 31,				
Consolidated Statements of Income Data	**2019**	**2018**	**2017**	**2016**	**2015**
Net sales	$ 918,155	$ 871,922	$ 770,157	$ 664,755	$ 565,004
Cost of Sales	490,701	457,951	402,997	355,569	311,537
Gross profit	427,454	413,971	367,160	309,186	253,467
Income from operations	83,519	121,664	110,410	97,251	80,761
Interest expense, net	9,505	5,289	4,303	3,320	2,364
Other income	(1,305)	(1,138)	(126)	—	—
Loss on sale of business	—	—	—	—	2,206
Income before income taxes	75,319	117,513	106,233	93,931	76,191
Income taxes	20,277	26,472	34,855	33,978	28,238
Net income	$ 55,042	$ 91,041	$ 71,378	$ 59,953	$ 47,953
Earnings Per Share Data					
Weighted average basic shares outstanding	41,700,926	41,567,722	41,468,487	41,344,013	41,139,467
Weighted average diluted shares outstanding	41,757,116	41,635,078	41,542,765	41,390,194	41,202,600
Basic earnings per common share	$ 1.32	$ 2.18	$ 1.71	$ 1.44	$ 1.16
Diluted earnings per common share	$ 1.32	$ 2.18	$ 1.71	$ 1.44	$ 1.15
Dividends per common share	$ 0.20	$ 0.17	$ 0.14	$ 0.12	$ 0.10
Other Financial Data					
Net cash provided by operating activities	$ 66,931	125,912	$ 108,193	$ 80,268	$ 59,070
Capital expenditures	95,438	37,698	27,065	18,889	12,760
Acquisition of businesses, net of cash acquired	40,644	87,488	70,044	94,528	43,567
Depreciation	21,510	17,473	15,045	11,989	10,692
Amortization	20,849	17,357	18,407	13,095	13,265

	July 31,				
Consolidated Balance Sheets Data	**2019**	**2018**	**2017**	**2016**	**2015**
Cash and cash equivalents	$ 44,535	$ 94,097	$ 36,584	$ 28,367	$ 31,720
Total assets	1,070,366	963,708	786,373	694,532	584,031
Working capital	200,396	203,460	150,592	126,407	117,737
Long-term debt (excluding debt issuance costs)	233,000	200,000	126,000	116,000	78,500
Stockholders' equity	661,537	608,867	523,932	454,370	406,633

Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations.

The following Management's Discussion and Analysis of Financial Condition and Results of Operations ("MD&A") is intended to help you understand Cantel and its subsidiaries. The MD&A is provided as a supplement to and should be read in conjunction with the consolidated financial statements and the accompanying notes included elsewhere in this report. Our financial statements have been prepared in accordance with generally accepted accounting principles in the United States ("GAAP").

(dollar amounts in thousands except share and per share data or as otherwise specified) 19

Overview

Cantel is a leading provider of infection prevention and control products and services in the healthcare market, specializing in the following reportable segments: Medical, Life Sciences, Dental and Dialysis. Most of our equipment, consumables and supplies are used to help prevent the occurrence or spread of infections. We operate our four segments through wholly-owned subsidiaries in the United States and internationally.

During the first quarter of fiscal 2019, we changed the names of our reportable segments to better align with our key customers and the markets we serve. As a result of this change, our industrial biological and chemical indicator business has moved from the Dental segment to the Life Sciences segment. Prior year segment disclosures have been recast to conform to the current year presentation.

Fiscal 2019 Summary

Key GAAP financial results for fiscal 2019 compared with fiscal 2018 were as follows:

- Net sales increased by 5.3% to $918,155 from $871,922, with organic sales growth of 3.9%,
- Net income decreased by 39.5% to $55,042 from $91,041, and
- Earnings per diluted share decreased by 39.6% to $1.32 from $2.18.

Key non-GAAP financial results for fiscal 2019 compared with fiscal 2018 were as follows:

- Non-GAAP net income decreased by 5.1% to $98,999 from $104,346,
- Non-GAAP earnings per diluted share decreased by 5.4% to $2.37 from $2.51, and
- Adjusted EBITDAS decreased by 1.9% to $174,848 from $178,270.

Please see a description of our *Non-GAAP Financial Measures* below.

Acquisitions

Post-Fiscal 2019

On July 30, 2019, we signed a definitive agreement to acquire Hu-Friedy, a leading global manufacturer of instruments and instrument reprocessing workflow systems serving the dental industry. The acquisition is subject to regulatory approvals and other customary closing conditions, and is expected to close during our first quarter fiscal 2020. After closing, we plan to combine Hu-Friedy with our Dental segment. Under the terms of the acquisition, Cantel will pay $725,000 upfront for Hu-Friedy, a portion of which will be paid in our stock (with the specific amount at our election) with the remainder to be paid in cash. An additional amount in potential cash and stock earnout payments may be payable to Hu-Friedy shareholders upon achievement of certain commercial milestones in the eighteen months following closing of the transaction. As a result of the transaction structure, the acquisition will generate an anticipated tax benefit, which we estimate at more than $100,000, which we expect to use to reduce cash taxes over approximately 15 years.

The cash portion of the transaction is being financed through a combination of the borrowings under our amended and restated credit facility, new term loan financing and cash on hand. We anticipate that our enhanced financial profile and scale following closing of the transaction will enable strong cash flow generation and accelerated deleveraging. See “Debt” below for further discussion of the related financing.

Fiscal 2019

On February 1, 2019, we purchased all of the issued and outstanding stock of Omnia, an Italian-based leader in dental surgical consumables solutions, for total consideration (net of cash acquired), excluding acquisition-related costs, of $19,808, consisting of $16,598 of cash and $3,210 of stock consideration, plus additional earn-outs ranging from zero to a maximum of $5,800, which is payable upon the achievement of certain performance-based financial targets. Omnia’s business consists of a wide-ranging portfolio of sutures, irrigation tubing and customized dental surgical procedure kits, with a focus on procedure room set-up and cross-contamination prevention, and is included in our Dental segment.

On August 1, 2018, we acquired certain net assets of Stericycle Inc. related to its CES Business for total cash consideration, excluding acquisition-related costs, of $17,047. The CES Business is a leading provider of testing and certification, environmental monitoring and decontamination services for clean rooms and other controlled environments to ensure safety, regulatory compliance and quality control, and is included in our Life Sciences segment.

See Note 4 to our consolidated financial statements in Part II, Item 8 of this report.

Results of Operations

The following table gives information as to the percentages of net sales represented by selected items reflected in our consolidated statements of income.

	Year Ended July 31,						Percentage Change	
Statement of income data	**2019**		**2018**		**2017**		**2019 / 2018**	**2018 / 2017**
Net sales	$ 918,155	100.0 %	$ 871,922	100.0 %	$ 770,157	100.0 %	5.3 %	13.2 %
Cost of sales	490,701	53.4 %	457,951	52.5 %	402,997	52.3 %	7.2 %	13.6 %
Gross profit	427,454	46.6 %	413,971	47.5 %	367,160	47.7 %	3.3 %	12.7 %
Selling	140,232	15.3 %	129,642	14.9 %	116,113	15.1 %	8.2 %	11.7 %
General and administrative	172,383	18.8 %	138,019	15.8 %	122,270	15.9 %	24.9 %	12.9 %
Research and development	31,320	3.4 %	24,646	2.8 %	18,367	2.4 %	27.1 %	34.2 %
Total operating expenses	343,935	37.5 %	292,307	33.5 %	256,750	33.4 %	17.7 %	13.8 %
Income from operations	83,519	9.1 %	121,664	14.0 %	110,410	14.3 %	(31.4)%	10.2 %
Interest expense, net	9,505	1.0 %	5,289	0.6 %	4,303	0.5 %	79.7 %	22.9 %
Other income	(1,305)	(0.1)%	(1,138)	(0.1)%	(126)	— %	— %	— %
Income before income taxes	75,319	8.2 %	117,513	13.5 %	106,233	13.8 %	(35.9)%	10.6 %
Income taxes	20,277	2.2 %	26,472	3.1 %	34,855	4.5 %	(23.4)%	(24.1)%
Net income	$ 55,042	6.0 %	$ 91,041	10.4 %	$ 71,378	9.3 %	(39.5)%	27.5 %

The following table gives information as to the net sales by reportable segment and geography, as well as the related percentage of such sales to the total net sales.

	Year Ended July 31,					
Net sales by segment	**2019**		**2018**		**2017**	
Medical	$ 523,669	57.0%	$ 473,937	54.4%	$ 398,773	51.8%
Life Sciences	201,022	21.9%	217,030	24.9%	196,446	25.5%
Dental	161,608	17.6%	149,360	17.1%	144,457	18.7%
Dialysis	31,856	3.5%	31,595	3.6%	30,481	4.0%
Total net sales	$ 918,155	100.0%	$ 871,922	100.0%	$ 770,157	100.0%
Net sales by geography						
United States	$ 665,661	72.5%	$ 643,744	73.9%	$ 599,657	77.9%
International	252,494	27.5%	228,178	26.1%	170,500	22.1%
Total net sales	$ 918,155	100.0%	$ 871,922	100.0%	$ 770,157	100.0%

(dollar amounts in thousands except share and per share data or as otherwise specified) 21

The following table gives information as to the amount of income from operations, as well as income from operations as a percentage of net sales, for each of our reportable segments.

	Year Ended July 31,					
Income from operations	**2019**		**2018**		**2017**	
Medical	$ 98,356	18.8%	$ 86,833	18.3%	$ 73,440	18.4%
Life Sciences	20,552	10.2%	36,803	17.0%	33,159	16.9%
Dental	22,289	13.8%	30,004	20.1%	28,000	19.4%
Dialysis	4,922	15.5%	7,380	23.4%	8,154	26.8%
Operating income by segment	146,119	15.9%	161,020	18.5%	142,753	18.5%
General corporate expenses	62,600	6.8%	39,356	4.5%	32,343	4.2%
Income from operations	$ 83,519	9.1%	$ 121,664	14.0%	$ 110,410	14.3%

Fiscal 2019 compared with Fiscal 2018

Net Sales

Total net sales increased by $46,233, or 5.3%, to $918,155 for fiscal 2019 from $871,922 for fiscal 2018. The 5.3% increase in net sales includes an increase of 3.9% in organic sales, an increase of 2.4% in net sales due to acquisitions (offset by dispositions) and a decrease of 1.0% due to foreign currency translation. International net sales increased by $24,316, or 10.7%, to $252,494 for fiscal 2019 from $228,178 for fiscal 2018. The 10.7% increase in international net sales consists of a 5.0% increase due to acquisitions (offset by dispositions), 9.4% organic sales growth and a decrease of 3.7% due to foreign currency translation, resulting from the strengthening of the U.S. dollar.

Medical. Net sales increased by $49,732, or 10.5%, for fiscal 2019 compared with fiscal 2018, which consisted of 11.5% organic sales growth, a 0.7% increase due to acquisitions and a decrease of 1.7% due to foreign currency translation. The increase in organic net sales was primarily driven by increased sales of our reprocessing products (across all product lines) and to a lesser extent, our procedure room products and consumables. The sales growth was primarily driven by our domestic business, and also supported by international sales increases, mostly from the Asia/Pacific region.

Life Sciences. Net sales decreased by $16,008, or 7.4%, for fiscal 2019 compared with fiscal 2018. The decrease was primarily due to continued softness in demand for capital equipment, primarily in the medical water business, and the divestiture of our high purity water business in Canada, partially offset by acquisition-related growth. We expect this softness in demand to continue into the next fiscal year as orders for our hemodialysis water business were down throughout this fiscal year, primarily resulting from a key customer moving toward a dual source approach and a cyclical downturn in this business. For a more detailed discussion on the competitive threat to our hemodialysis water business, see Part I, Item 1A, “Risk Factors.” Foreign currency translation decreased net sales by 0.3% for fiscal 2019.

Dental. Net sales increased by $12,248, or 8.2%, for fiscal 2019 compared with fiscal 2018. The increase was primarily driven by acquisition-related growth, partially offset by a decrease in sales to our distributor network due to inventory adjustments within our channel at the start of this fiscal year. We expect our Dental segment's net sales to increase in fiscal 2020 and beyond as a result of the previously discussed Hu-Friedy acquisition and its related operations.

Dialysis. Net sales increased by $261, or 0.8%, for fiscal 2019 compared with fiscal 2018. The increase was primarily due to the increase in sales volume for our domestic concentrate business, offset by decreases in reprocessing sales and the loss of concentrate business in certain international regions.

Gross Profit

Gross profit increased by $13,483, or 3.3%, to $427,454 for fiscal 2019 from $413,971 for fiscal 2018. Gross profit as a percentage of net sales for fiscal 2019 and 2018 was 46.6% and 47.5%, respectively. The decrease in gross profit as a percentage of net sales for fiscal 2019 was due to increased labor costs resulting from livable wage increases, and the reclassification of certain compensation and benefit-related costs that had previously been recorded in operating expenses into cost of sales. The reclassification negatively impacted gross profit as a percentage of net sales by approximately 0.4% for fiscal 2019. Excluding the impact of acquisition-related and restructuring-related items, gross profit as a percentage of net sales for fiscal 2019 and 2018 was 46.9% and 47.8%, respectively.

(dollar amounts in thousands except share and per share data or as otherwise specified) 22

Operating Expenses

Operating expenses as a percentage of net sales for fiscal 2019 and 2018 were 37.5% and 33.5%, respectively. As stated above, there was a reclassification of certain salary and benefit related costs that had previously been recorded in operating expenses into cost of sales, which positively impacted operating expenses as a percentage of net sales by approximately 0.4% for fiscal 2019.

Selling expenses increased by $10,590, or 8.2%, to $140,232 for fiscal 2019 from $129,642 for fiscal 2018. The increase was due to primarily due to selling and marketing expenses of our recent acquisitions, and to a lesser extent higher compensation-related costs. Selling expenses as a percentage of net sales were 15.3% and 14.9% for fiscal 2019 and 2018, respectively.

General and administrative expenses increased by $34,364, or 24.9%, to $172,383 for fiscal 2019 from $138,019 for fiscal 2018. The increase was primarily due to ERP implementation costs, including depreciation expense associated with the related ERP assets, higher restructuring-related costs resulting from organizational leadership changes, acquisition-related items (such as transaction and integration-related costs), depreciation expense associated with our Medical segment's new headquarters, and higher amortization expense as a result of our recent acquisitions. General and administrative expenses for fiscal 2018 were negatively impacted by the settlement of a patent infringement matter, resulting in less of an overall increase in fiscal 2019. General and administrative expenses as a percentage of net sales were 18.8% and 15.8% for fiscal 2019 and 2018, respectively.

Research and development expenses (which include continuing engineering costs) increased by $6,674, or 27.1%, to $31,320 for fiscal 2019 from $24,646 for fiscal 2018. The increase was primarily due to additional product development initiatives primarily in our Medical segment, and to a lesser extent due to increased headcount. Research and development expenses as a percentage of net sales were 3.4% and 2.8% for fiscal 2019 and 2018, respectively.

We expect our overall operating expense profile to be higher in fiscal 2020 and beyond as a result of the previously discussed acquisition of Hu-Friedy and its related operations.

Operating Income

Medical. Operating income increased by $11,523, or 13.3%, for fiscal 2019 compared with fiscal 2018. The increase was primarily due to increased sales volume in the United States and internationally, as further explained above. The increase was partially offset by elevated ERP implementation costs, including depreciation expense associated with the related ERP assets, higher restructuring-related charges and depreciation expense associated with our Medical segment's new headquarters. The settlement of a patent infringement matter negatively affected operating income as a percentage of sales by approximately 0.5% in fiscal 2018.

Life Sciences. Operating income decreased by $16,251, or 44.2%, for fiscal 2019 compared with fiscal 2018. The decrease was primarily due to lower net sales, restructuring-related costs (including the accelerated amortization of certain intangible assets) and an increase in research and development costs. We expect this continued softness in demand to continue in the upcoming fiscal year as orders for our hemodialysis water business were down in fiscal 2019, as a result of a key customer moving toward a dual source approach and a cyclical downturn in this business.

Dental. Operating income decreased by $7,715, or 25.7%, for fiscal 2019 compared with fiscal 2018. The decrease was primarily due to reduced gross profit (resulting from livable wage increases, decreased productivity and inflationary pressures) and increased selling and marketing expenses, partially offset by income from operations related to acquisitions. We expect our Dental segment's operating income to increase in fiscal 2020 and beyond as a result of the previously discussed Hu-Friedy acquisition and its related operations.

Dialysis. Operating income decreased by $2,458, or 33.3%, for fiscal 2019 compared with fiscal 2018. The decrease was primarily due to the shift to lower margin products and increased selling expenses, partially offset by higher net sales.

General Corporate Expenses

General corporate expenses relate to unallocated corporate costs primarily related to executive management personnel as well as costs associated with certain facets of our acquisition program and being a publicly traded company. Such expenses increased by $23,244, or 59.1%, for fiscal 2019 from fiscal 2018. These increases were primarily due to an increase of restructuring-related costs resulting from organizational leadership changes, acquisition-related charges and ERP implementation costs.

Interest Expense, Net

Interest expense, net increased by $4,216, or 79.7%, to $9,505 for fiscal 2019 from $5,289 for fiscal 2018. The increase resulted from an increase in the average outstanding borrowings due to both our term loan and revolver borrowings (described below) to support the funding of acquisitions, and to a lesser extent, higher variable interest rates. We expect our interest expense, net to be elevated in fiscal 2020 and beyond due to the financing of the previously discussed Hu-Friedy acquisition.

Other Income

Other income of $1,305 for fiscal 2019 represents the gain on sale of our high purity water business in Canada. Other income of $1,138 for fiscal 2018 represents the favorable resolution of the contingent liability associated with a previous acquisition.

Income Taxes

The consolidated effective tax rate increased to 26.9% for fiscal 2019 from 22.5% for fiscal 2018. The increase in our consolidated effective tax rate was primarily due to the recognition of a discrete tax benefit in fiscal 2018 as a result of the Tax Cuts and Jobs Act of 2017 ("2017 Tax Act") associated with the remeasurement of our U.S. deferred tax items which impacted the comparability to fiscal 2019. The rate impact from the discrete tax benefit was partially offset in fiscal 2018 by the recording of a $2,785 valuation allowance on deferred tax assets related to a previous acquisition.

Fiscal 2018 compared with Fiscal 2017

For a discussion of fiscal 2018 compared with fiscal 2017, see Management's Discussion and Analysis of Financial Condition and Results of Operations included in our Annual Report on Form 10-K for the fiscal year ended July 31, 2018.

Non-GAAP Financial Measures

In evaluating our operating performance, we supplement the reporting of our financial information determined under GAAP with certain non-GAAP financial measures including (i) non-GAAP net income, (ii) non-GAAP earnings per diluted share ("EPS"), (iii) earnings before interest, taxes, depreciation, amortization, loss on disposal of fixed assets, and stock-based compensation expense ("EBITDAS"), (iv) adjusted EBITDAS, (v) net debt and (vi) organic sales. These non-GAAP financial measures are indicators of our performance that are not required by, or presented in accordance with, GAAP. They are presented with the intent of providing greater transparency to financial information used by us in our financial analysis and operational decision-making. We believe that these non-GAAP measures provide meaningful information to assist investors, stockholders and other readers of our consolidated financial statements in making comparisons to our historical operating results and analyzing the underlying performance of our results of operations. These non-GAAP financial measures are not intended to be, and should not be, considered separately from, or as an alternative to, the most directly comparable GAAP financial measures.

To measure earnings performance on a consistent and comparable basis, we exclude certain items that affect comparability of operating results and the trend of earnings. These adjustments are irregular in timing, may not be indicative of our past and future performance and are therefore excluded to allow investors to better understand underlying operating trends. The following are examples of the types of adjustments that are excluded: (i) amortization of purchased intangible assets, (ii) acquisition-related items, (iii) business optimization and restructuring-related charges, (iv) certain significant and discrete tax matters and (v) other significant items management deems irregular or non-operating in nature.

Amortization expense of purchased intangible assets is a non-cash expense related to intangibles that were primarily the result of business acquisitions. Our history of acquiring businesses has resulted in significant increases in amortization of intangible assets that reduce our net income. The removal of amortization from our overall operating performance helps in assessing our cash generated from operations including our return on invested capital, which we believe is an important analysis for measuring our ability to generate cash and invest in our continued growth.

Acquisition-related items consist of (i) fair value adjustments to contingent consideration and other contingent liabilities resulting from acquisitions, (ii) due diligence, integration, legal fees and other transaction costs associated with our acquisition program and (iii) acquisition accounting charges for the amortization of the initial fair value adjustments of acquired inventory and deferred revenue. The adjustments of contingent consideration and other contingent liabilities are periodic adjustments to record such amounts at fair value at each balance sheet date. Given the subjective nature of the assumptions used in the determination of fair value calculations, fair value adjustments may potentially cause significant earnings volatility that are not representative of our operating results. Similarly, due diligence, integration, legal and other acquisition costs associated with our acquisition program, including accounting charges relating to recording acquired inventory and deferred revenue at fair market value, can be

significant and also adversely impact our effective tax rate as certain costs are often not tax-deductible. Since these acquisition-related items are irregular and often mask underlying operating performance, we exclude these amounts for purposes of calculating these non-GAAP financial measures to facilitate an evaluation of our current operating performance and a comparison to past operating performance.

Restructuring-related and business optimization items consist of severance-related costs associated with work force reductions and other restructuring-related activities. Such costs include (i) salary continuation, (ii) bonus payments, (iii) outplacement services, (iv) medical-related premium costs and (v) accelerated stock-based compensation expense.

Excess tax benefits resulting from stock compensation are recorded as an adjustment to income tax expense. The magnitude of the impact of excess tax benefits generated in the future, which may be favorable or unfavorable, are dependent upon our future grants of equity awards, our future share price on the date awards vest in relation to the fair value of awards on grant date and the exercise behavior of our stock award holders. Since these tax benefits are largely unrelated to our results and unrepresentative of our normal effective tax rate, we excluded their impact on net income and diluted EPS to arrive at our non-GAAP financial measures.

Fiscal 2019

During fiscal 2019, we recorded specific discrete tax items associated with our international operations that were unrelated to fiscal 2019. As these items were unrepresentative of our normal effective tax rate, we excluded their impact on net income and diluted EPS for fiscal 2019 to arrive at our non-GAAP financial measures.

During fiscal 2019, we completed the disposition of our high purity water business in Canada. This resulted in a pre-tax gain of $1,305 through other income. Since this gain was not representative of past or future operations, we made an adjustment to our net income and diluted EPS for fiscal 2019 to exclude this gain to arrive at our non-GAAP financial measures.

During fiscal 2019, we recorded an adjustment to a minor litigation matter in our consolidated financial statements. Since these costs are irregular and mask our underlying operating performance, we made an adjustment to our net income and diluted EPS for fiscal 2019 to exclude such costs to arrive at our non-GAAP financial measures.

Fiscal 2018

The 2017 Tax Act significantly revised U.S. tax law by, among other provisions, (a) lowering the applicable U.S. federal statutory income tax rate from 35% to 21%, (b) creating a partial territorial tax system that includes imposing a mandatory one-time transition tax on previously deferred foreign earnings, (c) creating provisions regarding the (1) Global Intangible Low Tax Income, (2) the Foreign Derived Intangible Income deduction, and (3) the Base Erosion Anti-Abuse Tax and (d) eliminating or reducing certain income tax deductions, such as interest expense, executive compensation expenses and certain employee expenses. During fiscal 2018, we recorded a one-time net benefit as a provisional estimate of the net accounting impact of the 2017 Tax Act in accordance with Staff Accounting Bulletin No. 118 (“SAB 118”). Since the net favorable tax benefit is largely unrelated to our results and unrepresentative of our normal effective tax rate, we excluded its impact on net income and diluted EPS for fiscal 2018 to arrive at our non-GAAP financial measures.

During fiscal 2018, the Israeli Government notified us that they would forgive any future amounts due under a contingent obligation payable from a previous acquisition. As a result of this formal notification, we reduced the $1,138 contingent obligation payable to $0 during fiscal 2018, resulting in a gain through other income. Since this gain was irregular, we made an adjustment to our net income and diluted EPS for fiscal 2018 to exclude this gain to arrive at our non-GAAP financial measures.

During fiscal 2018, we settled a patent infringement matter and also recorded an adjustment to another minor litigation matter in our consolidated financial statements. Since these costs are irregular and mask our underlying operating performance, we made an adjustment to our net income and diluted EPS for fiscal 2018 to exclude such costs to arrive at our non-GAAP financial measures.

During fiscal 2018, we recorded a $2,785 valuation allowance on deferred tax assets related to a prior acquisition. Since this tax adjustment is related to acquired net operating losses and is not representative of our normal effective tax rate, we excluded its impact on net income and diluted EPS for fiscal 2018 to arrive at our non-GAAP financial measures.

Fiscal 2017

During fiscal 2017, we recorded the costs associated with the retirement plans of our former Chief Executive Officer in our consolidated financial statements. Since these costs are irregular and mask our underlying operating performance, we made an adjustment to our net income and diluted EPS for fiscal 2017 to exclude such costs to arrive at our non-GAAP financial measures.

The reconciliations of net income and diluted EPS to non-GAAP net income and non-GAAP diluted EPS were calculated as follows:

	July 31,					
	2019		2018		2017	
Net income/Diluted EPS, as reported	$ 55,042	$ 1.32	$ 91,041	$ 2.18	$ 71,378	$ 1.71
Intangible amortization, net of tax[(1)]	16,021	0.38	13,267	0.32	12,800	0.30
Acquisition-related items, net of tax[(2)]	9,689	0.23	2,835	0.07	1,533	0.04
Restructuring-related charges, net of tax[(3)]	18,015	0.43	4,658	0.11	2,057	0.05
Litigation matters, net of tax[(1)]	134	—	1,637	0.04	—	—
CEO retirement costs, net of tax[(1)]	—	—	—	—	1,213	0.03
Loss on debt extinguishment, net of tax[(4)]	—	—	91	—	—	—
Gain on disposition of business, net of tax[(5)]	(943)	(0.02)	—	—	—	—
Resolution of contingent liability[(5)]	—	—	(1,138)	(0.03)	—	—
Excess tax benefits[(6)]	(584)	(0.01)	(2,173)	(0.05)	(2,241)	(0.05)
Tax matters[(6)]	1,625	0.04	(5,872)	(0.13)	—	—
Non-GAAP net income/Non-GAAP diluted EPS	$ 98,999	$ 2.37	$ 104,346	$ 2.51	$ 86,740	$ 2.08

(1) Amounts were recorded in general and administrative expenses.
(2) In fiscal 2019, pre-tax acquisition-related items of $351 were recorded in net sales, $537 were recorded in cost of sales and $12,241 were recorded in general and administrative expenses. In fiscal 2018, pre-tax acquisition-related items of $893 were recorded in cost of sales and $3,154 were recorded in general and administrative expenses. In fiscal 2017, pre-tax acquisition-related items of $353 were recorded in cost of sales and $2,094 were recorded in general and administrative expenses.
(3) In fiscal 2019, pre-tax restructuring-related items of $2,243 were recorded in cost of sales and $21,507 were recorded in general and administrative expenses. In fiscal 2018, pre-tax restructuring-related items of $1,517 were recorded in cost of sales and $3,814 were recorded in general and administrative expenses. In fiscal 2017, pre-tax restructuring-related items of $3,284 were recorded in general and administrative expenses.
(4) Amounts were recorded in interest expense, net.
(5) Amounts were recorded in other income.
(6) Amounts were recorded in income taxes.

We believe EBITDAS is an important valuation measurement for management and investors given the increasing effect that non-cash charges, such as stock-based compensation, amortization related to acquisitions and depreciation of capital equipment have on net income. In particular, acquisitions have historically resulted in significant increases in amortization of purchased intangible assets that reduce net income. Additionally, we regard EBITDAS as a useful measure of operating performance and cash flow before the effect of interest expense and is a complement to income from operations, net income and other GAAP financial performance measures.

We define adjusted EBITDAS as EBITDAS excluding the same non-GAAP adjustments to net income discussed previously in this document. We use adjusted EBITDAS when evaluating operating performance because we believe the exclusion of such adjustments, of which a significant portion are non-cash items, is necessary to provide the most accurate measure of on-going core operating results and to evaluate comparative results period over period.

(dollar amounts in thousands except share and per share data or as otherwise specified) 26

The reconciliations of net income to EBITDAS and adjusted EBITDAS were calculated as follows:

	July 31,		
	2019	2018	2017
Net income, as reported	$ 55,042	$ 91,041	$ 71,378
Interest expense, net	9,505	5,289	4,303
Income taxes	20,277	26,472	34,855
Depreciation	21,510	17,473	15,045
Amortization	20,849	17,357	18,407
Loss on disposal of fixed assets	1,592	768	966
Stock-based compensation expense	15,562	9,615	8,844
EBITDAS	144,337	168,015	153,798
Acquisition-related items	13,129	4,047	2,447
Restructuring-related charges[(1)]	18,524	5,001	2,760
Litigation matters	163	2,345	—
CEO retirement costs[(2)]	—	—	1,937
Gain on disposition of business	(1,305)	—	—
Resolution of contingent liability	—	(1,138)	—
Adjusted EBITDAS	$ 174,848	$ 178,270	$ 160,942

(1) Excludes stock-based compensation expense.

(2) For comparative purposes, we have revised the amounts associated with CEO retirement costs for the twelve months ended July 31, 2017 to exclude stock-based compensation expense which was reported in "Stock-based compensation expense" above.

We define net debt as long-term debt less cash and cash equivalents. Each of the components of net debt appears on our consolidated balance sheets. We believe that the presentation of net debt provides useful information to investors because we review net debt as part of our management of our overall liquidity, financial flexibility, capital structure and leverage.

	July 31,		
	2019	2018	2017
Long-term debt (excluding debt issuance costs)	$ 233,000	$ 200,000	$ 126,000
Less cash and cash equivalents	(44,535)	(94,097)	(36,584)
Net debt	$ 188,465	$ 105,903	$ 89,416

We define organic sales as net sales less (i) the impact of foreign currency translation, (ii) net sales related to acquired businesses during the first twelve months of ownership and (iii) divestitures during the periods being compared. We believe that reporting organic sales provides useful information to investors by helping identify underlying growth trends in our business and facilitating easier comparisons of our revenue performance with prior periods. We exclude the effect of foreign currency translation from organic sales because foreign currency translation is not under management's control, is subject to volatility and can obscure underlying business trends. We exclude the effect of acquisitions and divestitures because the nature, size, and number of acquisitions and divestitures can vary dramatically from period to period and can obscure underlying business trends and make comparisons of financial performance difficult. The reconciliation of net sales growth to organic sales growth for total net sales and net sales of our four reportable segments were calculated as follows:

	Net Sales	Medical Net Sales	Life Sciences Net Sales	Dental Net Sales	Dialysis Net Sales
Net sales growth	5.3 %	10.5 %	(7.4)%	8.2 %	0.8%
Impact due to foreign currency translation	1.0 %	1.7 %	0.3 %	— %	0.2%
Sales related to acquisitions	(2.4)%	(0.7)%	(2.2)%	(8.4)%	—%
Organic sales growth	3.9 %	11.5 %	(9.3)%	(0.2)%	1.0%

(dollar amounts in thousands except share and per share data or as otherwise specified) 27

Liquidity and Capital Resources

We assess our liquidity in terms of our ability to generate cash to fund operating, investing and financing activities. Significant factors affecting the management of liquidity are cash flows generated from operating activities, capital expenditures, acquisitions of businesses and cash dividends. Cash provided by operating activities continues to be a primary source of funds. As necessary, we supplement operating cash flow with borrowings from our revolving credit facility to fund our acquisitions and related business activities.

Cash Flows

Net Cash Provided by Operating Activities. Net cash provided by operating activities decreased to $66,931 in fiscal 2019 from $125,912 in fiscal 2018, primarily due to a decrease in net income (after adjusting for non-cash items) associated with restructuring-related initiatives and acquisition-related costs. In addition, inventory purchases were higher due to the anticipation of our ERP go-live in fiscal 2019 and to continue to support demand in our Medical segment. The timing of receipts associated with accounts receivable and the timing of payments associated with accounts payable (both net of acquisitions) also contributed to this decrease. The timing of collections associated with accounts receivable was primarily driven by the implementation of our ERP system in our Medical segment during the second half of fiscal 2019. We expect our collection efforts associated with our outstanding accounts receivable to improve during fiscal 2020. Net cash provided by operating activities increased to $125,912 in fiscal 2018 from $108,193 in fiscal 2017 primarily due to the increase in net income (after adjusting for non-cash items) and decreases in inventory levels (net of acquisitions), partially offset by decreases in accounts payable due to the timing of payments.

Net Cash Used in Investing Activities. Net cash used in investing activities increased by $7,843 to $133,029 in fiscal 2019 from $125,186 in fiscal 2018, primarily due to an increase in capital expenditures, partially offset by a decrease in cash paid for acquisitions. Net cash used in investing activities increased by $28,124 to $125,186 in fiscal 2018 from $97,062 in fiscal 2017, primarily due to an increase in cash paid for acquisitions and an increase in capital expenditures. During fiscal 2019, 2018 and 2017, net cash used in investing activities included capital expenditures of $95,438, $37,698 and $27,065, respectively, which included expenditures for ERP software, building improvements and purchases of manufacturing and computer equipment. Capital expenditures for fiscal 2019 increased significantly when to compared to fiscal 2018 as a result of the ERP system implementation and the purchase of our Medical segment's new headquarters.

Net Cash Provided by Financing Activities. Net cash provided by financing activities decreased by $42,435 to $14,702 in fiscal 2019 from $57,137 in fiscal 2018, primarily due to a net decrease in borrowings used to support acquisition-related activity, partially offset by an increase in dividend payments. Net cash used in financing activities increased by $59,888 to $57,137 of cash provided in fiscal 2018 from $2,751 of cash used in fiscal 2017. The changes in net cash provided by (used in) financing activities were primarily due to the refinancing of our credit facility, resulting in $200,000 in term loan borrowings in fiscal 2018, and the net effect of borrowings and repayments under our revolving credit facility.

Dividends

During fiscal 2019, we paid semi-annual cash dividends that totaled $0.20 per outstanding share of common stock, of which $0.10 per share was paid on each of January 31, 2019 and July 31, 2019. During fiscal 2018, we paid semi-annual cash dividends that totaled $0.17 per outstanding share of common stock, of which $0.085 per share was paid on each of January 31, 2018 and July 31, 2018. Future declaration of dividends and the establishment of future record and payment dates are subject to the final determination of our Board of Directors. However, it is our current expectation that semi-annual cash dividends of at least $0.10 per common share will continue to be paid in the foreseeable future.

Debt (Fourth Amended and Restated Credit Agreement)

On June 28, 2018, we entered into a Fourth Amended and Restated Credit Agreement (the “2018 Credit Agreement”). The Amended Credit Agreement refinanced our credit facility under the Third Amended and Restated Credit Agreement dated March 4, 2011, to include a $200,000 tranche A term loan and a $400,000 revolving credit facility. Subject to the satisfaction of certain conditions precedent, including the consent of the lenders, we may from time to time increase our borrowing capacity under the revolving credit facility or tranche A term loan by an aggregate amount not to exceed $300,000. The 2018 Credit Agreement expires on June 28, 2023. Additionally, subject to certain restrictions and conditions (i) any of our domestic or foreign subsidiaries may become borrowers and (ii) borrowings may occur in multi-currencies.

As of July 31, 2019, we had $43,000 of revolver borrowings and $190,000 of term loan A borrowings under the 2018 Credit Agreement.

Until amended as described below, borrowings under the 2018 Credit Agreement bore interest at rates ranging from 0.00% to 1.00% above prime rate for base rate borrowings, or at rates ranging from 1.00% to 2.00% above the London Interbank Offered Rate ("LIBOR"), depending upon our "Consolidated Leverage Ratio," which is defined as the consolidated ratio of total funded debt to earnings before interest, taxes, depreciation and amortization, and as further adjusted under the terms of the 2018 Credit Agreement ("Consolidated EBITDA"). The 2018 Credit Agreement also provided for fees on the unused portion of the revolving credit facility at rates ranging from 0.20% to 0.35%, depending on our Consolidated Leverage Ratio. As of July 31, 2019, the average interest rate on our outstanding borrowings was approximately 3.48%.

We are in compliance with all financial and other covenants under the 2018 Credit Agreement at July 31, 2019. For further information regarding the 2018 Credit Agreement, including a description of affirmative and negative covenants, see Note 10 to our consolidated financial statements in Part II, Item 8 of this report.

Debt (Amendment to 2018 Credit Agreement)

On September 6, 2019, we entered into a First Amendment (the "Amendment"), amending the 2018 Credit Agreement, and as amended by the Amendment, the ("Amended Credit Agreement"). The Amendment adds a $400,000 delayed draw term loan facility (the "Delayed Draw Facility"), which the we may draw subject to the satisfaction of certain limited conditions precedent, to our 2018 Credit Agreement, in addition to the existing tranche A term loan and existing revolving credit facility. Pursuant to the Amended Credit Agreement, subject to the satisfaction of certain conditions precedent, including the consent of the lenders, the Company may from time to time increase its borrowing capacity under the revolving credit facility by, or incur incremental term loans in, an aggregate amount not to exceed the sum of (i) the greater of (x) $300,000 or (y) an amount equal to two times the our consolidated EBITDA, calculated on a pro forma basis, plus (ii) the aggregate principal amount of voluntary prepayments of the revolving loans and term loans.

Borrowings under the Amended Credit Agreement bear interest at rates ranging from 0.00% to 1.25% above prime rate for base rate borrowings, or at rates ranging from 1.00% to 2.25% above LIBOR for LIBOR based borrowings, depending on our "Consolidated Leverage Ratio," which is the consolidated ratio of total funded debt (minus certain unrestricted cash) to consolidated EBITDA. The Amended Credit Agreement also provides for fees on the unused portion of the revolving credit facility at rates ranging from 0.20% to 0.40%, depending on our Consolidated Leverage Ratio. At September 25, 2019, the average interest rate on our outstanding borrowings was 3.31%.

The Amended Credit Agreement contains affirmative and negative covenants reasonably customary for similar credit facilities and is secured by (i) substantially all assets of Cantel and its U.S.-based subsidiaries, (ii) a pledge by each Loan Party of all of the outstanding shares of its U.S.-based subsidiaries and 65% of the outstanding shares of certain of Cantel's foreign-based subsidiaries and (iii) a guaranty by Cantel's domestic subsidiaries.

Financing Needs

At July 31, 2019, our total long-term debt (excluding debt issuance costs) of $233,000, net of our cash and cash equivalents of $44,535, was $188,465. Stockholders' equity as of that date was $661,537. Our reportable segments generate significant cash from operations. At July 31, 2019, we had a cash balance of $44,535, of which approximately one-half was held by foreign subsidiaries. Our foreign cash is needed by our foreign subsidiaries for working capital purposes as well as for current international growth initiatives. Accordingly, our foreign unremitted earnings are considered indefinitely reinvested and unavailable for repatriation. We believe that our current cash position, anticipated cash flows from operations and the funds available under our Amended Credit Agreement will be sufficient to satisfy our worldwide cash operating requirements for the foreseeable future based upon our existing operations, particularly given that we historically have not needed to borrow for working capital purposes. At September 25, 2019, approximately $355,000 was available under our Amended Credit Agreement.

The Delayed Draw Facility and a portion of the revolving credit facility under our Amended Credit Agreement will be used to finance all or a portion of the cash consideration for our acquisition of Hu-Friedy. The remaining proceeds of the Amended Credit Agreement will be used to refinance certain existing indebtedness of Cantel and Hu-Friedy, and to pay the fees and expenses incurred in connection therewith, as well as for working capital, capital expenditures and other lawful corporate purposes. We anticipate that our enhanced financial profile and scale following closing of the acquisition will enable strong cash flow generation and accelerated deleveraging.

Inflation

Although overall inflation did not have a significant effect on our business, an increase in commodity prices can adversely affect our gross margins. Specifically, our businesses can be adversely impacted by rising fuel and oil prices and are heavily reliant on certain raw materials, such as chemicals, paper, resin, stainless steel and plastic components. From time to time, we experience price increases for raw materials. If we are unable to implement price increases to our customers, our gross margin could be adversely affected.

Commitments and Contractual Obligations

As of July 31, 2019, aggregate annual required payments over the next five years and thereafter under our contractual obligations that have long-term components are as follows:

	Year Ended July 31,						
	2020	2021	2022	2023	2024	Thereafter	Total
Maturity of the credit facility[1]	$ 10,000	$ 10,000	$ 10,000	$ 203,000	$ —	$ —	$ 233,000
Expected interest payments under the credit facility	8,663	8,315	7,967	7,000	—	—	31,945
Minimum commitments under noncancelable operating leases	9,099	7,671	6,021	5,659	5,159	15,251	48,860
Contingent consideration	1,411	—	—	—	—	—	1,411
Other long-term obligations[2]	353	836	73	240	—	—	1,502
Total contractual obligations	$ 29,526	$ 26,822	$ 24,061	$ 215,899	$ 5,159	$ 15,251	$ 316,718

(1) Does not include anticipated required payments under the Delayed Draw Facility related to the financing of the Hu-Friedy acquisition. However, anticipated payments will be $7,125, $9,500, $9,500 and $373,875 for fiscal 2020, 2021, 2022 and 2023, respectively.

(2) Includes uncertain tax positions.

Critical Accounting Policies

Our discussion and analysis of our financial condition and results of operations are based upon our consolidated financial statements, which have been prepared in accordance with accounting principles generally accepted in the United States. The preparation of these financial statements requires us to make estimates and judgments that affect the reported amounts of assets, liabilities, revenues and expenses, and related disclosures of contingent assets and liabilities. On an ongoing basis, we continually evaluate our estimates. We base our estimates on historical experience and on various other assumptions that are believed to be reasonable under the circumstances, the results of which form the basis for making judgments about the carrying values of assets and liabilities that are not readily apparent from other sources. Actual results may differ from these estimates.

Our significant accounting policies are described more fully in Note 2 to our consolidated financial statements in Part II, Item 8 of this report. We believe the following critical accounting policies affect our more significant judgments and estimates used in the preparation of our consolidated financial statements.

Goodwill and Indefinite-lived Intangible Assets

We have recorded goodwill and trademarks and trade names, all of which have indefinite useful lives and are therefore not amortized. All of our indefinite-lived intangible assets and goodwill are reviewed for impairment whenever events or changes in circumstances indicate that the carrying amount of an asset may not be recoverable, and goodwill and intangible assets with indefinite lives are reviewed for impairment at least annually. Our management is responsible for determining if impairment exists and considers a number of factors, including third-party valuations, when making these determinations.

While the results of these annual reviews have historically not indicated impairment, impairment reviews are highly dependent on management's projections of our future operating results and cash flows (which management believes to be reasonable), discount rates based on our weighted average cost of capital and appropriate benchmark peer companies. Assumptions used in determining future operating results and cash flows include current and expected market conditions and future sales and earnings forecasts. Subsequent changes in these assumptions and estimates could result in future impairment. Although we consistently use the same methods in developing the assumptions and estimates underlying the fair value calculations, such estimates are uncertain by nature and can vary from actual results.

(dollar amounts in thousands except share and per share data or as otherwise specified) 30

Business Combinations

Acquisitions require significant estimates and judgments related to the fair value of assets acquired and liabilities assumed. We determine fair value based on the estimated price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. Such initial fair value amounts as well as other acquired assets and liabilities, including deferred tax assets and liabilities, are sometimes refined requiring subsequent adjustments.

Certain liabilities and reserves are subjective in nature. We reflect such liabilities and reserves based upon the most recent information available. In conjunction with our acquisitions, such subjective liabilities and reserves principally include contingent consideration, certain deferred income tax liabilities, income tax and sales and use tax exposures, including tax liabilities related to our foreign subsidiaries, as well as reserves for accounts receivable, inventories, warranties and contingent obligations. We account for contingent consideration relating to business combinations as a liability and an increase to goodwill at the date of the acquisition and continually re-measure the liability at each balance sheet date by recording changes in the fair value through our consolidated statements of income. We determine the fair value of contingent consideration based on future operating projections under various potential scenarios and weight the probability of these outcomes. Similarly, other acquisition related liabilities can be required to be recorded at fair value at the date of the acquisition and continually re-measured at each balance sheet date. The ultimate settlement of liabilities relating to business combinations may be for amounts which are materially different from the amounts initially recorded and may cause volatility in our results of operations.

We allocate the purchase price of an acquired company to the tangible and identifiable intangible assets and liabilities acquired, with the remaining amount being recorded as goodwill. Intangible assets primarily include customer relationships, technology, brand names and trademarks. The assignment of fair value to the identifiable intangible assets requires judgment. We apply an income-based valuation methodology in measuring the customer relationships acquired, which include certain assumptions such as forecasted future cash flows, customer attrition rates, terminal growth rates and discount rates. Intangibles assets are generally amortized on a straight-line basis, reflecting the pattern in which the economic benefits are consumed, and are amortized over their estimated useful lives.

Off-balance Sheet Arrangements

As of July 31, 2019, we did not have any off-balance sheet arrangements as defined in Item 303(a)(4)(ii) of Regulation S-K.

Recent Accounting Pronouncements

Refer to Note 2 to the consolidated financial statements in Part II, Item 8 of this report.

Cybersecurity

We have established an enterprise risk management committee to monitor and escalate enterprise level issues, including cybersecurity matters, to the appropriate management levels within our organization and to members of our Board of Directors as appropriate. Utilizing an escalation framework, our enterprise risk management committee and internal auditor are charged with reviewing cybersecurity risks and incidents for potential financial, operational, and reputational risks. Matters determined to present potential material impacts to our financial results, operations or reputation are reported by management to the chair of our Audit Committee. In addition, the enterprise risk committee is charged with ensuring that management responsible for overseeing the effectiveness of disclosure controls is informed in a timely manner of known cybersecurity risks and incidents that may materially impact our operations so that timely public disclosure can be made as appropriate.

Our directors and executive officers are subject to our Securities Trading Policy, which is designed to facilitate compliance with insider trading laws and governs transactions in our common stock and related derivative securities. Our Stock Trading Policy designates certain blackout periods, dictated by our financial quarters and the release of financial results, during which trading is restricted for individuals in information-sensitive positions, including directors and executive officers. Our Stock Trading Policy also expressly restricts trading at any time while in possession of material non-public information, and permits designated officers to impose additional blackout periods. Cybersecurity risks are one of several matters that may be deemed material information under our Stock Trading Policy, and therefore form the basis of restricting participation in the market outside of a blackout period, or for designating a blackout period.

Item 7A. Quantitative and Qualitative Disclosures About Market Risk.

We are exposed to market risks arising principally from changes in interest rates and foreign currency.

Interest Rate Market Risk

With respect to interest rate risk, since our credit facility consists of outstanding debt at prevailing market rates of interest, principally under LIBOR contracts ranging from one to twelve months, our market risk with respect to such debt is the increase in interest expense which would result from higher interest rates associated with LIBOR. Our outstanding debt of $233,000 at July 31, 2019 has expected annual interest payments of approximately $8,663 using an effective interest rate of 3.48%. Therefore, a 100 basis-point increase in average LIBOR interest rates would result in incremental interest expense of approximately $2,330. In order to hedge against the impact of fluctuations in the interest rate associated with our variable rate borrowings, on April 9, 2019, we entered into two interest rate swaps, which fixed interest rates at 2.265% on a combined notional value of $150,000. The swap contracts expire on June 28, 2023, in conjunction with the Amended Credit Agreement.

Foreign Currency Market Risk

Changes in the value of the Euro, British Pound, Singapore dollar, Canadian dollar, Australian dollar, Chinese Renminbi and the Sri Lankan Rupee against the U.S. dollar affect our results of operations because certain cash bank accounts, accounts receivable and liabilities of Cantel and its subsidiaries are denominated and ultimately settled in U.S. dollars or these foreign currencies, but must be converted into each entity's functional currency. Furthermore, the financial statements of most of our international subsidiaries are translated using the accounting policies described in Note 2 to the consolidated financial statements in Part II, Item 8 of this report, and therefore are impacted by changes in the international entities' functional currency relative to the U.S. dollar.

We use a sensitivity analysis to assess the market risk associated with our foreign currency transactions. Market risk is defined here as the potential change in fair value resulting from an adverse movement in foreign currency exchange rates. Overall for fiscal 2019 and 2018, a uniform 15% adverse movement in foreign currency rates would have resulted in realized losses (after tax) of approximately $32,500 and $4,788, respectively. Conversely, for fiscal 2019 and 2018, a uniform 15% favorable movement in foreign currency rates would have resulted in realized gains (after tax) of approximately $32,500 and $4,788, respectively.

For fiscal 2019 and 2018, the realized losses (after tax) primarily resulted from decreases in the values of the Euro, Australian dollar, Canadian dollar, and British Pound relative to the U.S. dollar due to the composition of our assets and liabilities denominated in foreign currencies and the translation of our foreign subsidiaries' financial statements. However, the use of foreign currency forward contracts partially offset such realized losses.

In order to hedge against the impact of fluctuations in the value of the Euro, British Pound, Canadian dollar, Australian dollar, Singapore dollar and Chinese Renminbi relative to the U.S. dollar on the conversion of such net assets into the functional currencies, we enter into short-term contracts to purchase Euros, British Pounds, Canadian dollars, Australian dollars, Singapore dollars and Chinese Renminbi forward, which contracts are one-month in duration. These short-term contracts are designated as fair value hedge instruments. There were seven foreign currency forward contracts with an aggregate notional value of $78,264 at July 31, 2019, and seven foreign currency forward contracts with an aggregate notional value of $30,159 at July 31, 2018, which covered certain assets and liabilities that were denominated in currencies other than each entity's functional currency. These foreign currency forward contracts are continually replaced with new one-month contracts as long as we have significant net assets that are denominated and ultimately settled in currencies other than each entity's functional currency. Gains and losses related to these hedging contracts are immediately realized within general and administrative expenses due to the short-term nature of such contracts. For the fiscal years ended July 31, 2019, 2018 and 2017, such forward contracts offset the impact on operations relating to certain assets and liabilities that were denominated in currencies other than each entity's functional currency. We do not currently hedge against the impact of fluctuations in the value of the Sri Lankan Rupee relative to the U.S. dollar because the overall foreign currency exposure relating to this currency is currently not deemed significant. Overall, fluctuations in the rates of currency exchange did not have a material impact upon our net income in fiscal 2019 compared with fiscal 2018. For purposes of translating the balance sheet at July 31, 2019 compared with July 31, 2018, the total of the foreign currency movements resulted in a foreign currency translation loss of $13,287 for fiscal 2019, primarily due to the increase in the value of the U.S. dollar relative to the Euro, Australian dollar, British Pound and Canadian dollar.

Item 8. Financial Statements and Supplementary Data.

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the stockholders and the Board of Directors of Cantel Medical Corp.

Opinion on the Financial Statements

We have audited the accompanying consolidated balance sheets of Cantel Medical Corp. and subsidiaries (the "Company") as of July 31, 2019 and 2018, the related consolidated statements of income, comprehensive income, changes in stockholders' equity, and cash flows for the years ended July 31, 2019 and 2018, and the related notes and the schedule listed in the Index at Item 15 (collectively referred to as the "financial statements"). In our opinion, the financial statements present fairly, in all material respects, the financial position of the Company as of July 31, 2019 and 2018, and the results of its operations and its cash flows for the years ended July 31, 2019 and 2018, in conformity with accounting principles generally accepted in the United States of America.

We have also 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 July 31, 2019, 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 September 25, 2019, expressed an unqualified opinion on the Company's internal control over financial reporting.

Basis for Opinion

These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on the Company's 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 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 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 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 financial statements. We believe that our audits provide a reasonable basis for our opinion.

Critical Audit Matter

The critical audit matter communicated below is a matter arising from the current-period audit of the financial statements that was communicated or required to be communicated to the audit committee and that (1) relates to accounts or disclosures that are material to the 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 financial statements, taken as a whole, and we are not, by communicating the critical audit matter below, providing a separate opinion on the critical audit matter or on the accounts or disclosures to which it relates.

Valuation of Customer Relationship Intangible Assets in the Omnia S.p.A. and CES Business Acquisitions - Refer to Notes 2 and 4 to the financial statements

Critical Audit Matter Description

During 2019 the Company completed the acquisitions of Omnia S.p.A. and certain net assets of Stericycle Inc. related to its controlled environmental solutions business (the "CES Business") for approximately $19.8 million and $17.0 million, respectively (collectively referred to as "the acquired entities"). The Company accounted for the acquisitions under the acquisition method of accounting for business combinations. Accordingly, the purchase price was allocated, on a preliminary basis, to the assets acquired and liabilities assumed based on their respective fair values, including customer relationship identified intangible assets with an aggregate fair value of approximately $18.3 million. The Company estimated the fair value of the customer relationship intangible assets using an income- based valuation methodology, which is a specific discounted cash flow method. The fair value determination of the customer relationship intangible assets required management to make significant estimates and assumptions related to forecasted future cash flows, including the selection of customer attrition rates, terminal growth rates and discount rates.

We identified the customer relationship intangible assets for the acquired entities as a critical audit matter because of the significant estimates and assumptions management made to fair value these assets. This required a high degree of auditor judgment and an increased extent of effort, including the involvement of our fair value specialists, when performing audit procedures to evaluate the reasonableness of management's forecasts of future cash flows, including the selection of customer attrition rates, terminal growth rates, and discount rates.

How the Critical Audit Matter Was Addressed in the Audit

Our audit procedures related to the forecasts of future cash flows and the selection of the customer attrition rates, terminal growth rates and discount rates for the customer relationship intangible assets for the acquired entities included the following, among others:

- We tested the effectiveness of controls over the valuation of the customer relationship intangible assets, including management's controls over forecasts of future cash flows and the selection of the customer attrition rates, terminal growth rates and discount rates.

- We assessed the reasonableness of fiscal year 2019 forecasted cash flows of revenues and operating margins by comparing them to the acquired entities actual 2019 cash flows.

- We assessed the reasonableness of the forecasted revenue growth rates and operating margins over the cash flow forecast period by comparing them to the acquired entities' actual revenue growth rates and operating margins during the most recent historical periods.

- We performed sensitivity analyses of the significant assumptions used in the valuation model to evaluate the change in fair value resulting from changes in the significant assumptions.

- With the assistance of our fair value specialists, we evaluated the reasonableness of the (1) valuation methodologies; (2) terminal growth rates by comparing them to industry growth rates and the projected nominal gross domestic product (GDP) growth rate; (3) customer attrition rates by testing the mathematical accuracy of the rates used and comparing them to historical customer data; and (4) discount rates, which included testing the source information underlying the determination of the discount rates, testing the mathematical accuracy of the calculations, and developing a range of independent estimates and comparing those to the discount rates selected by management.

/s/ DELOITTE & TOUCHE LLP

Parsippany, New Jersey
September 25, 2019

We have served as the Company's auditor since 2017.

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the stockholders and the Board of Directors of Cantel Medical Corp.

Opinion on Internal Control over Financial Reporting

We have audited the internal control over financial reporting of Cantel Medical Corp. and subsidiaries (the "Company") as of July 31, 2019, based on criteria established in *Internal Control - Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). In our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of July 31, 2019, based on criteria established in *Internal Control - Integrated Framework (2013)* issued by COSO.

We have also audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the consolidated financial statements as of and for the year ended July 31, 2019, of the Company and our report dated September 25, 2019, expressed an unqualified opinion on those financial statements.

As described in *Management's Report on Internal Control Over Financial Reporting*, management excluded from its assessment the internal control over financial reporting at Omnia S.p.A. ("Omnia"), which was acquired on February 1, 2019 and whose financial statements constitute 3.5% of total assets and 3.3% of net assets, 1.3% of net sales, and 1.1% of net income of the consolidated financial statement amounts as of and for the year ended July 31, 2019. Accordingly, our audit did not include the internal control over financial reporting at Omnia.

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*. 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 included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, testing and evaluating the design and operating effectiveness of internal control based on the assessed risk, and 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/ DELOITTE & TOUCHE LLP

Parsippany, New Jersey
September 25, 2019

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

The Board of Directors and Stockholders
Cantel Medical Corp.

We have audited the accompanying consolidated statements of income, comprehensive income, changes in stockholders' equity and cash flows of Cantel Medical Corp. for the period ended July 31, 2017. Our audit also included the financial statement schedule included in the Index at Item 15(a) for the period ended July 31, 2017. These financial statements and schedule are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements and schedule based on our audit.

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

In our opinion, the financial statements referred to above present fairly, in all material respects, the consolidated results of its operations and its cash flows for the the period ended July 31, 2017, in conformity with U.S. generally accepted accounting principles. Also, in our opinion, the related financial statement schedule, when considered in relation to the basic financial statements taken as a whole, presents fairly in all material respects the information set forth therein.

/s/ Ernst & Young LLP

New York, New York
September 28, 2017

Consolidated Balance Sheets

	July 31, 2019	July 31, 2018
Assets		
Current assets:		
Cash and cash equivalents	$ 44,535	$ 94,097
Accounts receivable, net of allowance for doubtful accounts of $2,322 and $1,149	146,910	118,642
Inventories, net	138,234	107,592
Prepaid expenses and other current assets	20,920	17,912
Income taxes receivable	1,197	—
Total current assets	351,796	338,243
Property and equipment, net	185,242	111,417
Intangible assets, net	141,513	137,361
Goodwill	378,109	368,027
Other assets	9,425	5,749
Deferred income taxes	4,281	2,911
Total assets	$ 1,070,366	$ 963,708
Liabilities and stockholders' equity		
Current liabilities:		
Accounts payable	$ 39,450	$ 34,258
Compensation payable	32,762	30,595
Accrued expenses	38,545	28,525
Deferred revenue	27,840	28,614
Current portion of long-term debt	10,000	10,000
Income taxes payable	2,803	2,791
Total current liabilities	151,400	134,783
Long-term debt	220,851	187,302
Deferred income taxes	29,278	27,624
Other long-term liabilities	7,300	5,132
Total liabilities	408,829	354,841
Commitments and Contingencies (Note 12)		
Stockholders' equity:		
Preferred Stock, par value $1.00 per share; authorized 1,000,000 shares; none issued	—	—
Common Stock, par value $.10 per share; Authorized 75,000,000 shares; issued 46,362,902 shares and outstanding 41,771,228 shares as of July 31, 2019; issued 46,243,582 shares and outstanding 41,706,084 shares as of July 31, 2018	4,636	4,624
Additional paid-in capital	204,795	184,212
Retained earnings	539,097	491,540
Accumulated other comprehensive loss	(22,197)	(11,456)
Treasury Stock, at cost; 4,591,674 shares as of July 31, 2019; 4,537,498 shares as of July 31, 2018	(64,794)	(60,053)
Total stockholders' equity	661,537	608,867
Total liabilities and stockholders' equity	$ 1,070,366	$ 963,708

See accompanying Notes to Consolidated Financial Statements.

(dollar amounts in thousands except share and per share data or as otherwise specified) 37

Consolidated Statements of Income

	Year Ended July 31,		
	2019	2018	2017
Net sales			
Product sales	$ 795,403	$ 765,158	$ 684,678
Product service	122,752	106,764	85,479
Total net sales	918,155	871,922	770,157
Cost of sales			
Product sales	406,514	385,597	343,641
Product service	84,187	72,354	59,356
Total cost of sales	490,701	457,951	402,997
Gross profit	427,454	413,971	367,160
Expenses:			
Selling	140,232	129,642	116,113
General and administrative	172,383	138,019	122,270
Research and development	31,320	24,646	18,367
Total operating expenses	343,935	292,307	256,750
Income from operations	83,519	121,664	110,410
Interest expense, net	9,505	5,289	4,303
Other income	(1,305)	(1,138)	(126)
Income before income taxes	75,319	117,513	106,233
Income taxes	20,277	26,472	34,855
Net income	$ 55,042	$ 91,041	$ 71,378
Earnings per common share:			
Basic	$ 1.32	$ 2.18	$ 1.71
Diluted	$ 1.32	$ 2.18	$ 1.71
Dividends per common share	$ 0.20	$ 0.17	$ 0.14

See accompanying Notes to Consolidated Financial Statements.

(dollar amounts in thousands except share and per share data or as otherwise specified) 38

Consolidated Statements of Comprehensive Income

	Year Ended July 31,		
	2019	2018	2017
Net income	$ 55,042	$ 91,041	$ 71,378
Other comprehensive (loss) income:			
Foreign currency translation	(13,287)	(1,556)	1,895
Interest rate swap, net of tax	2,546	—	—
Total other comprehensive (loss) income:	(10,741)	(1,556)	1,895
Comprehensive income	$ 44,301	$ 89,485	$ 73,273

See accompanying Notes to Consolidated Financial Statements.

(dollar amounts in thousands except share and per share data or as otherwise specified) 39

Consolidated Statements of Changes in Stockholders' Equity

	Common Stock		Additional Paid-in Capital	Retained Earnings	Accumulated Other Comprehensive Loss	Treasury Stock, at cost	Total Stockholders' Equity
	Shares	Amount					
Balance, August 1, 2016	41,708,214	$ 4,608	$ 165,573	$342,053	$ (11,795)	$ (46,069)	$ 454,370
Repurchases of shares	(89,607)	—	—	—	—	(6,910)	(6,910)
Stock-based compensation	—	—	8,844	—	—	—	8,844
Equity vests/option exercises	116,506	12	(12)	—	—	—	—
Cancellations of restricted stock	(6,179)	(1)	1	—	—	—	—
Excess tax benefit from exercises of stock options and vesting of restricted stock	—	—	196	—	—	—	196
Dividends on common stock	—	—	—	(5,841)	—	—	(5,841)
Net income	—	—	—	71,378	—	—	71,378
Other comprehensive income	—	—	—	—	1,895	—	1,895
Balance, July 31, 2017	41,728,934	$ 4,619	$ 174,602	$407,590	$ (9,900)	$ (52,979)	$ 523,932
Repurchases of shares	(62,559)	—	—	—	—	(7,074)	(7,074)
Stock-based compensation	—	—	9,615	—	—	—	9,615
Equity vests/option exercises	46,551	5	(5)	—	—	—	—
Cancellations of restricted stock	(6,842)	—	—	—	—	—	—
Dividends on common stock	—	—	—	(7,091)	—	—	(7,091)
Net income	—	—	—	91,041	—	—	91,041
Other comprehensive loss	—	—	—	—	(1,556)	—	(1,556)
Balance, July 31, 2018	41,706,084	$ 4,624	$ 184,212	$491,540	$ (11,456)	$ (60,053)	$ 608,867
Repurchases of shares	(43,734)	—	—	—	—	(4,741)	(4,741)
Stock-based compensation	—	—	15,562	—	—	—	15,562
Issuance of shares	42,703	4	3,206	—	—	—	3,210
Equity vests/option exercises	67,862	8	942	—	—	—	950
Cancellations of restricted stock	(1,687)	—	—	—	—	—	—
Dividends on common stock	—	—	—	(8,350)	—	—	(8,350)
Net income	—	—	—	55,042	—	—	55,042
Cumulative impact of ASC 606 adoption	—	—	—	865	—	—	865
Other comprehensive loss	—	—	—	—	(10,741)	—	(10,741)
Other	—	—	873	—	—	—	873
Balance, July 31, 2019	41,771,228	$ 4,636	$ 204,795	$539,097	$ (22,197)	$ (64,794)	$ 661,537

See accompanying Notes to Consolidated Financial Statements.

(dollar amounts in thousands except share and per share data or as otherwise specified) 40

Consolidated Statements of Cash Flows

	Year Ended July 31,		
	2019	2018	2017
Cash flows from operating activities			
Net income	$ 55,042	$ 91,041	$ 71,378
Adjustments to reconcile net income to net cash provided by operating activities:			
Depreciation	21,510	17,473	15,045
Amortization	20,849	17,357	18,407
Stock-based compensation expense	15,562	9,615	8,844
Deferred income taxes	(2,062)	(7,520)	118
Other non-cash items, net	(1,940)	1,076	1,102
Changes in assets and liabilities, net of effects of business acquisitions/ divestitures:			
Accounts receivable	(23,048)	(3,700)	(12,860)
Inventories	(28,711)	(3,785)	887
Prepaid expenses and other assets	(2,364)	(5,169)	(957)
Accounts payable and other liabilities	13,325	10,614	7,124
Income taxes	(1,232)	(1,090)	(895)
Net cash provided by operating activities	66,931	125,912	108,193
Cash flows from investing activities			
Capital expenditures	(95,438)	(37,698)	(27,065)
Proceeds from disposal of fixed assets	—	—	47
Proceeds from sale of business, net of cash retained and disposal costs	3,053	—	—
Acquisition of businesses, net of cash acquired	(40,644)	(87,488)	(70,044)
Net cash used in investing activities	(133,029)	(125,186)	(97,062)
Cash flows from financing activities			
Proceeds from issuance of long-term debt	—	200,000	—
Repayments of long-term debt	(15,207)	—	—
Borrowings under revolving credit facility	50,000	82,300	74,000
Repayments under revolving credit facility	(7,000)	(208,300)	(64,000)
Debt issuance costs	—	(2,698)	—
Dividends paid	(8,350)	(7,091)	(5,841)
Purchases of treasury stock	(4,741)	(7,074)	(6,910)
Net cash provided by (used in) financing activities	14,702	57,137	(2,751)
Effect of exchange rate changes on cash and cash equivalents	1,834	(350)	(163)
(Decrease) increase in cash and cash equivalents	(49,562)	57,513	8,217
Cash and cash equivalents at beginning of period	94,097	36,584	28,367
Cash and cash equivalents at end of period	$ 44,535	$ 94,097	$ 36,584
Supplemental disclosures of cash flow information:			
Cash interest payments	$ 9,296	$ 5,156	$ 3,455
Cash income tax payments	$ 19,024	$ 35,251	$ 35,858
Accruals related to purchases of property and equipment	$ 3,311	$ 2,281	$ 192

See accompanying Notes to Consolidated Financial Statements.

(dollar amounts in thousands except share and per share data or as otherwise specified) 41

Notes to Consolidated Financial Statements.

1. Business Description

Throughout this document, references to "Cantel," "us," "we," "our," and the "Company" are references to Cantel Medical Corp. and its subsidiaries, except where the context makes it clear the reference is to Cantel itself and not its subsidiaries. Unless otherwise indicated, references in this Form 10-K to 2019, 2018, 2017 or "fiscal" 2019, 2018, 2017 or other years refer to our fiscal year ended July 31 of that respective year, and references to 2020 or "fiscal" 2020 refer to our fiscal year ending July 31, 2020.

Cantel is a leading provider of infection prevention and control products and services in the healthcare market, specializing in the following reportable segments:

Medical: designs, develops, manufactures, sells and installs a comprehensive offering of products and services comprising a complete circle of infection prevention solutions. Our products include endoscope reprocessing and endoscopy procedure products.

Life Sciences: designs, develops, manufactures, sells and installs water purification systems for medical, pharmaceutical and other bacteria controlled applications. We also provide filtration/separation and disinfectant technologies to the medical and life science markets through a worldwide distributor network.

Dental: designs, manufactures, sells, supplies and distributes a broad selection of infection prevention healthcare products, the majority of which are single-use products used by dental practitioners.

Dialysis: designs, develops, manufactures, sells and services reprocessing systems and sterilants for dialyzers (a device serving as an artificial kidney), as well as dialysate concentrates and supplies utilized for renal dialysis.

See Note 17, "Reportable Segments."

Most of our equipment, consumables and supplies are used to help prevent the occurrence or spread of infections.

2. Summary of Significant Accounting Policies

The following is a summary of our significant accounting policies used to prepare our consolidated financial statements.

Principles of Consolidation

The consolidated financial statements include the accounts of Cantel and its wholly-owned subsidiaries. All intercompany transactions and balances have been eliminated in consolidation. Certain prior year amounts have been reclassified to conform to the current year's presentation.

Use of Estimates

The preparation of financial statements in conformity with accounting principles generally accepted in the United States requires us to make estimates and assumptions that affect the amounts reported in the financial statements and accompanying notes. Actual results could differ from those estimates. On an ongoing basis, we evaluate the adequacy of our reserves and the estimates used in calculations of reserves as well as other judgmental financial statement items, including, but not limited to: collectability of accounts receivable, volume rebates and trade-in allowances, inventory values and obsolescence reserves, warranty reserves, contingent consideration, contingent guaranteed obligations, depreciation and amortization periods, deferred income taxes, goodwill and intangible assets, impairment of long-lived assets, unrecognized tax benefits for uncertain tax positions, reserves for legal exposure, stock-based compensation and expense accruals. Such estimates and assumptions are subjective in nature. We reflect such amounts based upon the most recent information available.

Subsequent Events

We performed a review of events subsequent to July 31, 2019 through the date of issuance of the accompanying consolidated financial statements. See Note 19, "Subsequent Events."

Revenue Recognition

Sales are recognized as the performance obligations to deliver products or services are satisfied and are recorded based on the amount of consideration we expect to receive in exchange for satisfying the performance obligations. Our sales continue to be recognized primarily when we transfer control to the customer, which can be on the date of shipment or on the date of receipt by the customer. Products and services are primarily transferred to customers at a point in time, with some transfers of services taking place over time. A provision for estimated sales returns, discounts and rebates is recognized as a reduction of sales in the same period that the sales are recognized. Our estimate of the provision for sales returns has been established based on contract terms with our customers and historical business practices and current trends. Shipping and handling costs incurred after the customer has obtained control of our products are treated as a fulfillment cost rather than as an additional promised service. Additionally, in certain U.S. states, we are required to collect sales taxes from our customers, and in certain international jurisdictions, we are required to collect value added taxes. The tax collected is recorded as a liability until remitted to the taxing authority.

With respect to certain of our customers, rebates are provided. Such rebates, which consist primarily of volume rebates, are provided for as a reduction of sales at the time of revenue recognition. Such allowances are determined based on estimated projections of sales volume for the entire rebate periods. If it becomes known that sales volume to customers will deviate from original projections, the rebate provisions originally established would be adjusted accordingly. We also offer certain volume-based rebates to our distribution customers, which we record as variable consideration when calculating the transaction price. We use information available at the time and our historical experience with each customer to estimate the rebate amount by applying the expected value method. Such rebates, which consist primarily of volume rebates, are provided for as a reduction of sales at the time of revenue recognition, and amounted to $9,469, $8,401, and $6,291 in fiscal 2019, 2018, and 2017, respectively.

Translation of Foreign Currency Financial Statements

Assets and liabilities of our foreign subsidiaries are translated into U.S. dollars at year-end exchange rates; sales and expenses are translated using average exchange rates during the year. The cumulative effect of the translation of the accounts of the foreign subsidiaries is presented as a component of accumulated other comprehensive income or loss. Foreign exchange gains and losses related to the purchase of inventories denominated in foreign currencies are included in cost of sales and foreign exchange gains and losses related to the incurrence of operating costs denominated in foreign currencies and the conversion of foreign assets and liabilities into functional currencies are included in general and administrative expenses.

Cash and Cash Equivalents

We consider all highly liquid investments with maturities of three months or less when purchased to be cash equivalents.

Accounts Receivable and Allowance for Doubtful Accounts

Accounts receivable consist of amounts due to us from normal business activities. Allowances for doubtful accounts are reserves for the estimated loss from the inability of customers to make required payments. We use historical experience as well as current market information in determining the estimate. While actual losses have historically been within management's expectations and provisions established, if the financial condition of our customers were to deteriorate, resulting in an impairment of their ability to make payments, additional allowances may be required. Alternatively, if certain customers paid their delinquent receivables, reductions in allowances may be required.

Inventories

Inventories consist of raw materials, work-in-process and finished products which are sold in the ordinary course of our business and are stated at the lower of cost (first-in, first-out) or net realizable value. In assessing the value of inventories, we must make estimates and judgments regarding reserves required for product obsolescence, aging of inventories and other issues potentially affecting the saleable condition of products. In performing such evaluations, we use historical experience as well as current market information. With few exceptions, the saleable value of our inventories has historically been within management's expectation and provisions established, however, rapid changes in the market due to competition, technology and various other factors could impact the value of our inventories, resulting in the need for additional reserves.

Property and Equipment

Property and equipment are stated at cost. Additions and improvements are capitalized, while maintenance and repair costs are expensed. When assets are retired or otherwise disposed, the cost and related accumulated depreciation or amortization is removed from the respective accounts and any resulting gain or loss is included in income. Depreciation and amortization is provided on the straight-line method over the estimated useful lives of the assets which generally range from 2-15 years for furniture and equipment, 3-10 years for software, 5-40 years for buildings and improvements and the shorter of the life of the asset or the life of the lease for leasehold improvements. Depreciation expense related to property and equipment in fiscal 2019, 2018 and 2017 was $21,510, $17,473 and $15,045, respectively.

Goodwill and Intangible Assets

Certain of our identifiable intangible assets, including customer relationships, technology, brand names, non-compete agreements and patents, are amortized using the straight-line method over their estimated useful lives which range from 3 to 20 years. Additionally, we have recorded goodwill and trademarks and trade names, all of which have indefinite useful lives and are therefore not amortized. All of our intangible assets and goodwill are reviewed for impairment whenever events or changes in circumstances indicate that the carrying amount of an asset may not be recoverable, and goodwill and intangible assets with indefinite lives are reviewed for impairment at least annually. Our management is responsible for determining if impairment exists and considers a number of factors, including third-party valuations, when making these determinations.

We first assess qualitative factors to determine whether it is more likely than not that the fair value of the reporting unit is less than the carrying amount before proceeding to step one of the two-step quantitative goodwill impairment test, if necessary. Such qualitative factors that are assessed include evaluating a segment's financial performance, industry and market conditions, macroeconomic conditions and specific issues that can directly affect the segment such as changes in business strategies, competition, supplier relationships, operating costs, regulatory matters, litigation and the composition of the segment's assets due to acquisitions or other events. At May 1, 2019, because we determined through qualitative factors that the fair values of our Medical, and Dental segments were more likely than not to be greater than the carrying value, we did not proceed to step one of the two-step quantitative goodwill impairment test for those two segments. We performed step one of the two-step quantitative goodwill impairment test for Dialysis due to the continuing shift by our customers from reusable to single-use dialyzers, which is having an adverse impact on our business and is expected to continue. In addition, we also performed step one of the two-step quantitative goodwill impairment test for Life Sciences as one of the segment's key customers has been moving toward a dual source approach, in combination with a cyclical downturn in this business. In performing a detailed quantitative review for goodwill impairment, management uses a two-step process that begins with an estimation of the fair value of the related reporting units by using weighted fair value results of the discounted cash flow methodology, as well as the market multiple and comparable transaction methodologies, where applicable. The first step is a review for potential impairment, and the second step measures the amount of impairment, if any.

We perform our annual impairment review for indefinite lived intangibles by first assessing qualitative factors, such as those described above, to determine whether it is more likely than not that the fair value of such assets is less than the carrying values, and if necessary, we perform a quantitative analysis comparing the current fair value of our indefinite lived intangibles assets to their carrying values. At May 1, 2019, because we determined through qualitative factors that the fair values of all of our indefinite lived intangible assets were more likely than not to be greater than the carrying value, we did not perform a quantitative analysis for those assets. With respect to amortizable intangible assets when impairment indicators are present, management would determine whether expected future non-discounted cash flows would be sufficient to recover the carrying value of the assets; if not, the carrying value of the assets would be adjusted to their fair value.

We did not recognize any impairment charges for goodwill or indefinite lived intangibles in the years presented.

Long-Lived Assets

We evaluate the carrying value of long-lived assets including property, equipment and other assets whenever events or changes in circumstances indicate that the carrying value may not be recoverable. An assessment is made to determine if the sum of the expected future non-discounted cash flows from the use of the assets and eventual disposition is less than the carrying value. If the sum of the expected non-discounted cash flows is less than the carrying value, an impairment loss is recognized based on fair value. Our historical assessments of our long-lived assets have not differed significantly from the actual amounts realized. However, the determination of fair value requires us to make certain assumptions and estimates and is highly subjective. On July 31, 2019, management concluded that no other events or changes in circumstances have occurred that would indicate that the carrying amount of our long-lived assets may not be recoverable.

Customer Relationship Intangible Assets

Customer-relationship intangible assets are valued using an income-based valuation methodology which included certain assumptions such as forecasted cash flows, customer attrition rates, terminal growth rates and discount rates. The assumptions used in the financial forecasts are based on historical data, supplemented by current and anticipated growth rates, management plans, and market-comparable information. Fair-value determinations require considerable judgment and are sensitive to changes in underlying assumptions and factors. Preliminary assumptions may change and may result in significant changes to the final valuation.

Debt Issuance Costs

Debt issuance costs are capitalized and amortized to interest expense over the term of the related credit agreements. As of July 31, 2019 and 2018, such debt issuance costs, net of related amortization, were included as a reduction to long-term debt and amounted to $2,149 and $2,698, respectively.

Warranties

We provide for estimated costs that may be incurred to remedy deficiencies of quality or performance of our products at the time of revenue recognition. Most of our products have a one year warranty, although certain endoscopy and water purification and filtration products that require installation may carry a warranty period of up to 24 months. Additionally, many of our consumables, accessories, parts and service have a 90-day warranty. We record provisions for product warranties as a component of cost of sales based upon an estimate of the amounts necessary to settle existing and future claims on products sold. As of July 31, 2019 and 2018, our warranty reserves are included in accrued expenses in the consolidated balance sheets and amounted to $2,372 and $3,280, respectively. Our warranty provisions and settlements in fiscal 2019 and 2018 were not material and principally relate to our endoscope reprocessing and water purification products.

Stock-Based Compensation

Stock-based compensation expense is recognized for any option or stock award grant based upon the fair value of the award. Our stock options and time-based stock awards are subject to graded vesting in which portions of the award vest ratably over the vesting period. We recognize compensation expense for the awards with performance conditions using the accelerated attribution method over the requisite service period for each separately vesting portion of the award when it is probable that the performance condition will be achieved. We record expense for the awards with market conditions ratably over the vesting period regardless of whether the market condition is satisfied. We account for forfeitures as they occur, rather than estimate forfeitures over the course of the vesting period.

We determine the fair value of each time-based stock award and performance-based stock award by using the closing market price of our common stock on the last trading date immediately prior to the date of grant. We determine the fair value of each award with market conditions using a Monte Carlo simulation model on the date of grant. We estimate the fair value of each option grant on the date of grant using the Black Scholes option valuation model. The determination of fair value using valuation models is affected by our stock price as well as assumptions regarding a number of subjective variables. These variables may include, but are not limited to, the expected price volatility over the term of the award, the expected dividend yield, the expected term of the award, the probability of meeting performance objectives and the stock price of our peers in the S&P Healthcare Equipment Index.

Advertising Costs

Our policy is to expense advertising costs as they are incurred. Advertising costs charged to expense were $2,885, $4,115 and $3,694 in fiscal 2019, 2018 and 2017, respectively.

Income Taxes

Our provision for income taxes is based on our current period income, changes in deferred income tax assets and liabilities, statutory income tax rates, changes in uncertain tax benefits and the deductibility of expenses or availability of tax credits in various taxing jurisdictions. Tax laws are complex, subject to different interpretations by the taxpayer and the respective governmental taxing authorities and are subject to future modification, expiration or repeal by government legislative bodies. We use significant judgment on a quarterly basis in determining our annual effective income tax rate and evaluating our tax positions.

We regularly review our deferred tax assets for recoverability and establish a valuation allowance, if necessary, based on historical taxable income, projected future taxable income, and the expected timing of the reversals of existing temporary differences. Although realization is not assured, management believes it is more likely than not that the recorded deferred tax assets, as adjusted for valuation allowances, will be realized. Additionally, deferred tax liabilities are regularly reviewed to confirm that such amounts are appropriately stated. A review of our deferred tax items considers known future changes in various income tax rates, principally in the United States. If income tax rates were to change in the future, particularly in the United States and to a lesser extent Germany, the U.K. and Italy, our items of deferred tax could be materially affected. All of such evaluations require significant management judgments.

We record liabilities for an unrecognized tax benefit when a tax benefit for an uncertain tax position is taken or expected to be taken on a tax return, but is not recognized in our consolidated financial statements because it does not meet the more-likely-than-not recognition threshold that the uncertain tax position would be sustained upon examination by the applicable taxing authority. Any adjustments upon resolution of income tax uncertainties are recognized in our results of operations. Unrecognized tax benefits are analyzed periodically and adjustments are made as events occur to warrant adjustment to the related liability. Historically, we have not had significant unrecognized tax benefits.

Newly Adopted Accounting Standards

In August 2017, the FASB issued ASU 2017-12, *"Targeted Improvements to Accounting for Hedging Activities,"* ("ASU 2017-12") to improve the financial reporting of hedging relationships to better portray the economic results of an entity's risk management activities in its financial statements. ASU 2017-12 is effective for fiscal years beginning after December 15, 2018 (our fiscal year 2020), including interim periods within that reporting period. We early adopted ASU 2017-12 effective August 1, 2018. The adoption of ASU 2017-12 did not have a material impact on our financial position, results of operations or cash flows.

In May 2017, the FASB issued ASU 2017-09, "*(Topic 718) Scope of Modification Accounting*," ("ASU 2017-09") to provide guidance about which changes to the terms or conditions of a share-based payment award require an entity to apply modification accounting in ASC 718. ASU 2017-09 is effective for fiscal years beginning after December 15, 2017 (our fiscal year 2019), including interim periods within that reporting period. Accordingly, we adopted ASU 2017-09 on August 1, 2018. The adoption of ASU 2017-09 did not have a material impact on our financial position, results of operations or cash flows.

In August 2016, the FASB issued ASU 2016-15, *"(Topic 230) Classification of Certain Cash Receipts and Cash Payments,"* ("ASU 2016-15"). This guidance makes eight targeted changes to how cash receipts and cash payments are presented and classified in the statement of cash flows. ASU 2016-15 is effective for fiscal years beginning after December 15, 2017 (our fiscal year 2019). Accordingly, we adopted ASU 2016-15 on August 1, 2018. The adoption of ASU 2016-15 did not have a material impact on our financial position, results of operations or cash flows.

In May 2014, the FASB issued ASU 2014-09, *"Revenue from Contracts with Customers (Topic 606),"* ("ASU 2014-09"), which supersedes the revenue recognition requirements in Accounting Standards Codification 605, *"Revenue Recognition"* ("ASC 605"). ASU 2014-09 is based on the principle that revenue is recognized to depict the transfer of goods or services to customers in an amount that reflects the consideration to which the entity expects to be entitled in exchange for those goods or services. It also requires additional disclosure about the nature, amount, timing and uncertainty of revenue and cash flows arising from customer contracts, significant judgments and changes in judgments, and assets recognized from costs incurred to obtain or fulfill a contract. In August 2015, the FASB issued ASU 2015-14, *"Revenue from Contracts with Customers (Topic 606),"* ("ASU 2015-14"), which defers the effective date of ASU 2014-09 by one year to fiscal years beginning after December 15, 2017 (our fiscal year 2019), including interim periods within that reporting period. In May 2016, the FASB issued ASU 2016-12, *"Revenue from Contracts with Customers (Topic 606),"* ("ASU 2016-12"), which provided narrow scope improvements and practical expedients relating to ASU 2014-09. We adopted the collective standard ("ASC 606") on August 1, 2018. See Note 3, "Revenue Recognition" for a discussion of the impact and required disclosures.

Recently Issued Accounting Standards

In August 2018, the FASB issued ASU 2018-15, "*Customer's Accounting for Implementation Costs Incurred in a Cloud Computing Arrangement That Is a Service Contract*" ("ASU 2018-15") to help entities evaluate the accounting for fees paid by a customer in a cloud computing arrangement (hosting arrangement) by providing guidance for determining when the arrangement includes a software license. ASU 2018-15 is effective for fiscal years beginning after December 15, 2019 (our fiscal year 2021), including interim periods within that reporting period. The adoption of ASU 2018-15 is not expected to have a material impact on our financial position, results of operations or cash flows.

In August 2018, the FASB issued ASU 2018-13, "*Disclosure Framework—Changes to the Disclosure Requirements for Fair Value Measurement*" ("ASU 2018-13") to modify the disclosure requirements on fair value measurements in ASC 820, "Fair Value Measurement". ASU 2018-13 is effective for fiscal years beginning after December 15, 2019 (our fiscal year 2021), including interim periods within that reporting period. The adoption of ASU 2018-13 is not expected to have a material impact on our financial position, results of operations or cash flows.

In February 2018, the FASB issued ASU 2018-02, "*Reclassification of Certain Tax Effects from Accumulated Other Comprehensive Income*" ("ASU 2018-02") to allow for the reclassification from accumulated other comprehensive income to retained earnings of stranded tax effects resulting from the Tax Cuts and Jobs Act enacted in December 2017. ASU 2018-02 is effective for fiscal years beginning after December 15, 2018 (our fiscal year 2020), including interim periods within that reporting period. The adoption of ASU 2018-02 is not expected to have a material impact on our financial position, results of operations or cash flows.

In January 2017, the FASB issued ASU 2017-04, "*(Topic 350) Simplifying the Test for Goodwill Impairment,*" ("ASU 2017-04") to simplify the test for goodwill impairment. The revised guidance eliminates the existing Step 2 of the goodwill impairment test which required an entity to compute the implied fair value of its goodwill at the testing date in order to measure the amount of the impairment charge when the fair value of the reporting unit failed Step 1 of the goodwill impairment test. The guidance will be applied on a prospective basis on or after the effective date. ASU 2017-04 is effective for fiscal years beginning after December 31, 2019 (our fiscal year 2021) and early adoption is permitted for interim or annual goodwill impairment tests performed on testing dates after January 1, 2017. The adoption of ASU 2017-04 is not expected to have a material impact on our financial position, results of operations or cash flows.

In February 2016, the FASB issued ASU 2016-02, "*(Topic 842) Leases,*" ("ASU 2016-02") which requires lease assets and liabilities to be recorded on the balance sheet for leases with terms greater than twelve months. We will adopt this ASU and related amendments on August 1, 2019 and will elect certain practical expedients permitted under the transition guidance. Additionally, we will elect the optional transition method that allows for a cumulative-effect adjustment in the period of adoption and will not restate prior periods. We are substantially complete in assessing the transitional impact from adopting the standard; however, we are still assessing the lessor provisions under the standard but do not expect any material adjustments to the estimated right of use asset and/or lease liability. Excluding any impact associated with a recently announced acquisition, we currently estimate the impact of the adoption will result in the recognition of right of use assets and lease liabilities of approximately $30,000 to $35,000 as of August 1, 2019. The adoption of ASU 2016-02 is not expected to have a material impact on our results of operations or cash flows.

3. Revenue Recognition

Adoption of "Revenue from Contracts with Customers (ASC 606)"

We adopted ASC 606, effective August 1, 2018, using the modified retrospective method applied to those contracts which were not completed as of August 1, 2018. Results for reporting beginning after August 1, 2018 are presented under ASC 606, while prior period amounts are not adjusted and will continue to be reported in accordance with our historic accounting under ASC 605.

Due to the cumulative impact of adopting ASC 606, we recorded a net increase of $865 to opening retained earnings, net of tax, as of August 1, 2018. The impact is primarily related to the timing of revenue recognition for the shipment of products in both our Medical and Life Sciences segments where risk of loss provisions are present ("synthetic FOB destination"). The new standard does not require us to defer revenue for these products and allows us to recognize revenue at the time of shipment. The cumulative adjustment to retained earnings also includes the impact of the change in timing of revenue recognition associated with software licensing arrangements in our Medical segment. Additionally, revenue related to software renewals was historically recognized on a ratable basis over the license period. Under ASC 606, the license is considered functional intellectual property, and is considered to be transferred to the customer at a point in time, specifically, at the start of each annual renewal period. As a result, revenue related to our annual software license renewals has been accelerated. Contract liabilities primarily relate to payments received from customers in advance of performance under the contract.

As part of the cost to obtain a contract, we may pay incremental commissions to sales employees upon entering into a sales contract. Under ASC 606, we have elected to expense these costs as incurred when the period of benefit is less than one year. For certain multi-period contracts, we capitalize these amounts as contract costs, and amortize them based on the contract duration to which the assets relate, which ranges from two to five years. The amounts at July 31, 2019, were not material. For certain international contracts with distributors, we recognize a receivable at the point in time in which we have an unconditional right to payment. Most customers are required to pay a portion of the transaction price in advance and the remaining balance within 30 days of receiving the related products. Accordingly, we have elected to use the practical expedient which allows us to ignore the possible existence of a significant financing component within these contracts.

The following table gives information as to the net sales disaggregated by geography and product line:

	Year Ended July 31,	
Net sales by geography	**2019**	**2018[1]**
United States	$ 665,661	$ 643,744
Europe/Africa/Middle East	148,334	131,130
Asia/Pacific	66,228	57,108
Canada	32,152	33,524
Latin America/South America	5,780	6,416
Total	$ 918,155	$ 871,922
Net sales by product line		
Capital equipment	$ 221,668	$ 240,153
Consumables	569,412	523,073
Product service	122,752	106,764
All other[2]	4,323	1,932
Total	$ 918,155	$ 871,922

(1) As noted above, prior year amounts have not been adjusted under the modified retrospective method.
(2) Primarily includes software licensing revenues.

Remaining Performance Obligations

As of July 31, 2019, the estimated revenue expected to be recognized in the future related to performance obligations that are unsatisfied (or partially unsatisfied) was approximately $73,735, primarily within the Medical segment. We expect to recognize revenue on approximately 50% of these remaining performance obligations in fiscal 2020. These performance obligations primarily reflect the future product service revenues for multi-period service arrangements.

Contract Liabilities

A summary of contract liabilities activity for the year ended July 31, 2019 follows:

	Contract Liabilities
Balance, August 1, 2018	$ 29,015
Revenue deferred in current year	61,996
Deferred revenue recognized	(61,913)
Foreign currency translation	(863)
Balance, July 31, 2019	$ 28,235
Contract liabilities included in Other long-term liabilities	(395)
Deferred revenue	$ 27,840

Our contract liabilities arise primarily in the Medical and Life Sciences segments when payment is received upfront for various multi-period extended service arrangements. We expect to recognize substantially all of this revenue over the next twelve months.

4. Acquisitions

Fiscal 2019

Omnia: On February 1, 2019, we purchased all of the issued and outstanding stock of Omnia S.p.A. (“Omnia”), an Italian-based market leader in dental surgical consumables solutions, for total consideration (net of cash acquired), excluding acquisition-related costs, of $19,808, consisting of $16,598 of cash and $3,210 of stock consideration, plus additional earn-outs ranging from zero to a maximum of $5,800, which is payable upon the achievement of certain performance-based financial targets. Omnia’s business consists of a wide-ranging portfolio of sutures, irrigation tubing and customized dental surgical procedure kits, with a focus on procedure room set-up and cross-contamination prevention, and is included in our Dental segment.

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CES business: On August 1, 2018, we acquired certain net assets of Stericycle Inc. related to its controlled environmental solutions business ("CES business") for total cash consideration, excluding acquisition-related costs, of $17,047. The CES business is a leading provider of testing and certification, environmental monitoring and decontamination services for clean rooms and other controlled environments to ensure safety, regulatory compliance and quality control, and is included in our Life Sciences segment.

Fiscal 2018

Aexis: On March 21, 2018, we purchased all of the issued and outstanding stock of Aexis Medical BVBA ("Aexis"), which is based in Belgium, for total consideration, excluding acquisition-related costs, of $21,600, consisting of $20,308 of cash consideration (net of cash acquired), plus contingent consideration ranging from zero to a maximum of $1,850, which is payable upon the achievement of certain purchase order targets through March 21, 2020. Aexis specializes in advanced software solutions focused on the tracking and monitoring of instrument reprocessing for hospitals and healthcare professionals, and is included in our Medical segment.

BHT Group: On August 23, 2017, we purchased all of the issued and outstanding stock of BHT Hygienetechnik Holding GmbH ("BHT Group"), a leader in the German market in automated endoscope reprocessing and related equipment and services for total consideration (net of cash acquired), excluding acquisition related costs, of $60,216. BHT Group consists of a portfolio of high-quality automatic endoscope reprocessors, advanced endoscope storage and drying cabinets (products globally distributed by our Company prior to the acquisition under an agreement with BHT Group), washer-disinfectors for central sterile applications, associated technical service and parts as well as flexible endoscope repair services. BHT Group is included in our Medical segment.

The following table presents our purchase price allocation of our material acquisitions (each of which was accounted for as a business combination in accordance with ASC Topic 805, "*Business Combinations"*):

	2019		2018	
Purchase Price Allocation	**Omnia**	**CES Business[(1)]**	**Aexis**	**BHT Group**
	(Preliminary)	(Preliminary)	(Final)	(Final)
Purchase Price:				
Cash paid	$ 16,598	$ 17,047	$ 20,308	$ 60,216
Fair value of contingent consideration	—	—	1,292	—
Common stock issued	3,210	—	—	—
Total	$ 19,808	$ 17,047	$ 21,600	$ 60,216
Allocation:				
Property and equipment	1,285	539	130	835
Amortizable intangible assets:				
Customer relationships	10,206	8,100	1,800	12,500
Technology	1,257	—	4,600	6,200
Brand names	1,600	—	—	—
Goodwill	11,340	6,137	17,092	40,934
Deferred income taxes	(2,346)	—	(1,639)	(5,881)
Other working capital	1,673	2,271	909	5,628
Contingent consideration	—	—	(1,292)	—
Long-term debt	(5,207)	—	—	—
Total	$ 19,808	$ 17,047	$ 21,600	$ 60,216

(1) The excess purchase price over net assets acquired was assigned to goodwill, all of which is deductible for income tax purposes.

Unaudited Pro Forma Summary of Operations

The acquisitions above, both individually and in the aggregate, were not material to our consolidated results of operations or financial position and, therefore, pro forma financial information is not presented.

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5. Inventories, Net

A summary of inventories, net, is as follows:

	July 31, 2019	July 31, 2018
Raw materials and parts	$ 69,498	$ 49,054
Work-in-process	5,801	13,189
Finished goods	73,050	53,948
Less: reserve for excess and obsolete inventory	(10,115)	(8,599)
Total inventories, net	$ 138,234	$ 107,592

6. Property and Equipment, Net

A summary of property and equipment, net, is as follows:

	July 31, 2019	July 31, 2018
Land, buildings and improvements	$ 81,556	$ 50,162
Furniture and equipment	130,852	112,661
Leasehold improvements	14,428	9,544
Software	33,869	8,587
Construction in process	38,728	26,003
Less: accumulated depreciation	(114,191)	(95,540)
Total property and equipment, net	$ 185,242	$ 111,417

7. Derivatives

Foreign Currency

We recognize all derivatives on the balance sheet at fair value. Derivatives that are not designated as hedges must be adjusted to fair value through earnings. If the derivative is designated as a hedge, depending on the nature of the hedge, changes in the fair value of the derivative will either be offset against the change in the fair value of the hedged assets, liabilities or firm commitments through earnings or recognized in other comprehensive income until the hedged item is recognized in earnings. The ineffective portion of the change in fair value of a derivative that is designated as a hedge will be recognized immediately in earnings. As of July 31, 2019 and 2018, all of our derivatives were designated as hedges. We do not hold any derivative financial instruments for speculative or trading purposes.

Changes in the value of the Euro, British Pound, Singapore dollar, Canadian dollar, Australian dollar, Chinese Renminbi and Sri Lankan Rupee against the U.S. dollar affect our results of operations because certain cash bank accounts, accounts receivable, and liabilities of Cantel and its subsidiaries are denominated and ultimately settled in U.S. dollars or these foreign currencies, but must be converted into each entity's functional currency.

In order to hedge against the impact of fluctuations in the value of the Euro, British Pound, Canadian dollar, Australian dollar, Singapore dollar and Chinese Renminbi relative to the U.S. dollar on the conversion of such net assets into the functional currencies, we enter into short-term forward contracts to purchase Euros, British Pounds, Canadian dollars, Australian dollars, Singapore dollars and Chinese Renminbi, which contracts are one-month in duration. These short-term contracts are designated as fair value hedge instruments. There were seven foreign currency forward contracts with an aggregate notional value of $78,264 at July 31, 2019, and seven foreign currency forward contracts with an aggregate notional value of $30,159 at July 31, 2018, which covered certain assets and liabilities that were denominated in currencies other than each entity's functional currency. These foreign currency forward contracts are continually replaced with new one-month contracts as long as we have significant net assets that are denominated and ultimately settled in currencies other than each entity's functional currency. For the fiscal years ended July 31, 2019, 2018 and 2017, such forward contracts offset the impact on operations relating to certain assets and liabilities that were denominated in currencies other than each entity's functional currency. This resulted in an immaterial amounts of net currency conversion gains, net of tax, on the hedged items for each of those fiscal years. Gains and losses related to hedging contracts to

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buy Euros, British Pounds, Canadian dollars, Australian dollars, Singapore dollars and Chinese Renminbi forward are immediately realized within general and administrative expenses due to the short-term nature of such contracts. We do not currently hedge against the impact of fluctuations in the value of the Sri Lankan Rupee relative to the U.S. dollar because the overall foreign currency exposures relating to this currency is currently not deemed significant.

Variable Rate Borrowings

In order to hedge against the impact of fluctuations in the interest rate associated with our variable rate borrowings, on April 9, 2019, we entered into two interest rate swaps with a combined notional value of $150,000, expiring on June 28, 2023. The swaps fixed interest rates at 2.265%. As of July 31, 2019, we had a short term asset of $486 recorded in prepaid expenses and other current assets, and a long term asset of $2,826 recorded in other assets, which represent the fair value of the interest rate swaps. The fair value of these interest rate swaps is subject to movements in LIBOR and will fluctuate in future periods.

8. Fair Value Measurements

Fair Value Hierarchy

We apply the provisions of ASC 820, *"Fair Value Measurements and Disclosures,"* ("ASC 820"), for our financial assets and liabilities that are re-measured and reported at fair value each reporting period and our nonfinancial assets and liabilities that are re-measured and reported at fair value on a non-recurring basis. We define fair value as the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. ASC 820 establishes a three level fair value hierarchy to prioritize the inputs used in valuations, as defined below:

Level 1: Observable inputs that reflect unadjusted quoted prices for identical assets or liabilities in active markets.

Level 2: Inputs other than quoted prices included within Level 1 that are observable for the asset or liability, either directly or indirectly.

Level 3: Unobservable inputs for the asset or liability.

Assets and Liabilities Measured and Recorded at Fair Value on a Recurring Basis

Our financial assets that are re-measured at fair value on a recurring basis include money market funds that are classified as cash and cash equivalents in the consolidated balance sheets. These money market funds are classified within Level 1 of the fair value hierarchy and are valued using quoted market prices for identical assets.

For the Aexis acquisition, additional purchase price payments ranging from $0 to $1,850 are contingent upon the achievement of certain purchase order targets through March 21, 2020. We estimated the original fair value of the contingent consideration using the weighted probabilities of the possible contingent payments. At the date of acquisition, we estimated the original fair value of the contingent consideration to be $1,292. We are required to reassess the fair value of contingent payments on a periodic basis. The significant inputs used in these estimates include numerous possible scenarios for the payments based on the contractual terms of the contingent consideration, for which probabilities are assigned to each scenario. Given the short term nature of the financial instrument, the contingent consideration will not be discounted to present value. Although we believe our assumptions are reasonable, different assumptions or changes in the future may result in different estimated amounts.

In connection with the Jet Prep Ltd. ("Jet Prep") acquisition in fiscal 2014, we assumed a contingent obligation payable to the Israeli Government based on future sales. This fair value measurement was based on significant inputs not observed in the market and thus represent Level 3 measurements. In November 2017, the Israeli Government formally notified us that they would forgive any future amounts payable due to our decision to exit the Jet Prep business. During the first quarter of fiscal 2018, we reduced the fair value of this obligation to $0. See Note 12, "Commitments and Contingencies."

The fair values of our financial instruments measured on a recurring basis were categorized as follows:

	July 31, 2019			
	Level 1	Level 2	Level 3	Total
Assets:				
Cash and cash equivalents:				
Money markets	$ 104	$ —	$ —	$ 104
Prepaid expenses and other current assets:				
Interest rate swap	—	486	—	486
Other Assets:				
Interest rate swap	—	2,826	—	2,826
Total assets	$ 104	$ 3,312	$ —	$ 3,416
Liabilities:				
Other long-term liabilities:				
Contingent consideration	—	—	1,411	1,411
Total liabilities	$ —	$ —	$ 1,411	$ 1,411

	July 31, 2018			
	Level 1	Level 2	Level 3	Total
Assets:				
Cash and cash equivalents:				
Money markets	$ 104	$ —	$ —	$ 104
Total assets	$ 104	$ —	$ —	$ 104
Liabilities:				
Other long-term liabilities:				
Contingent consideration	—	—	1,298	1,298
Total liabilities	$ —	$ —	$ 1,298	$ 1,298

A reconciliation of our liabilities that are measured and recorded at fair value on a recurring basis using significant unobservable inputs (Level 3) for fiscal 2019, 2018 and 2017 is as follows:

	Aexis Medical Contingent Consideration	Jet Prep Assumed Contingent Obligation	Cantel Medical (U.K.) Contingent Guaranteed Obligation	Total
Balance, August 1, 2016	$ —	$ 1,138	$ 441	$ 1,579
Income included in general and administrative expenses	—	—	(265)	(265)
Net purchases, issuances, sales and settlements	—	—	(176)	(176)
Balance, July 31, 2017	—	1,138	—	1,138
Original fair value of contingent consideration	1,292	—	—	1,292
Loss included in general and administrative expenses	6	—	—	6
Net purchases, issuances, sales and settlements	—	(1,138)	—	(1,138)
Balance, July 31, 2018	1,298	—	—	1,298
Loss included in general and administrative expense	113	—	—	113
Balance, July 31, 2019	$ 1,411	$ —	$ —	$ 1,411

Disclosure of Fair Value of Financial Instruments

As of July 31, 2019 and 2018, the carrying amounts for cash and cash equivalents (excluding money markets), accounts receivable and accounts payable approximated fair value due to the short maturity of these instruments. As of July 31, 2019 and

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2018, the carrying value of our outstanding borrowings under our credit facility approximated the fair value of these obligations as the borrowing rates reflect prevailing market interest rates.

9. Intangibles and Goodwill

Our intangible assets with definite lives consist primarily of customer relationships, technology, brand names, non-compete agreements and patents. These intangible assets are being amortized on the straight-line method over the estimated useful lives of the assets ranging from 3-20 years and have a weighted average amortization period of 12 years. Amortization expense related to intangible assets was $20,849, $17,357 and $18,407 for fiscal 2019, 2018 and 2017, respectively. Our intangible assets that have indefinite useful lives, and therefore are not amortized, consist of trademarks and trade names.

Our intangible assets consist of the following:

	July 31, 2019			July 31, 2018		
	Gross	Accumulated Amortization	Net	Gross	Accumulated Amortization	Net
Intangible assets with finite lives[1]:						
Customer relationships[2]	$ 146,204	$ (54,866)	$ 91,338	$ 133,347	$ (45,618)	$ 87,729
Technology[3]	60,032	(24,081)	35,951	54,585	(19,836)	34,749
Brand names[2]	8,361	(3,256)	5,105	8,141	(3,857)	4,284
Non-compete agreements[4]	2,880	(1,653)	1,227	3,060	(1,628)	1,432
Patents and other registrations[5]	2,866	(1,252)	1,614	2,826	(1,179)	1,647
	220,343	(85,108)	135,235	201,959	(72,118)	129,841
Trademarks and tradenames	6,278	—	6,278	7,520	—	7,520
Total intangible assets	$ 226,621	$ (85,108)	$ 141,513	$ 209,479	$ (72,118)	$ 137,361

(1) During fiscal 2019, we wrote off $6,087 of fully amortized intangible assets.
(2) Weighted average amortization period remaining of 13 years.
(3) Weighted average amortization period remaining of 10 years.
(4) Weighted average amortization period remaining of 15 years.
(5) Weighted average amortization period remaining of 18 years.

During fiscal 2017, we decided to exit the Jet Prep business that was acquired in fiscal 2014. The Jet Prep acquisition was a fully integrated business within our Medical segment. The useful life of the technology related intangible asset was revised to its respective cease use date, which resulted in accelerated amortization of approximately $2,401 that was recorded in the consolidated statement of income.

We expect to recognize $18,025, $17,706, $17,324, $16,294 and $15,427 of amortization expense related to intangible assets in fiscal 2020, 2021, 2022, 2023 and 2024, respectively. The expected amortization expense reflects those purchased intangible assets on our consolidated balance sheet as of July 31, 2019.

Goodwill changed during fiscal 2019 and 2018 as follows:

	Medical	Life Sciences	Dental	Dialysis	Total Goodwill
Balance, August 1, 2017	$ 129,945	$ 59,088	$ 114,279	$ 8,133	$ 311,445
Acquisitions	58,026	—	—	—	58,026
Foreign currency translation	(1,281)	(163)	—	—	(1,444)
Balance, July 31, 2018	186,690	58,925	114,279	8,133	368,027
Acquisitions	—	6,137	11,340	—	17,477
Divestitures	—	(491)	—	—	(491)
Foreign currency translation	(6,493)	(90)	(321)	—	(6,904)
Balance, July 31, 2019	$ 180,197	$ 64,481	$ 125,298	$ 8,133	$ 378,109

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10. Financing Arrangements

Our long-term debt consists of the following:

	July 31, 2019	July 31, 2018
Revolving credit loans outstanding	$ 43,000	$ —
Tranche A term loan outstanding	190,000	200,000
Unamortized debt issuance costs	(2,149)	(2,698)
Total long-term debt, net of unamortized debt issuance costs	230,851	197,302
Current portion of long-term debt	(10,000)	(10,000)
Long-term debt, net of unamortized debt issuance costs and excluding current portion	$ 220,851	$ 187,302

On June 28, 2018, we entered into a Fourth Amended and Restated Credit Agreement (the "2018 Credit Agreement"). The Amended Credit Agreement refinances our credit facility under the Third Amended and Restated Credit Agreement (the "Existing Credit Agreement") dated March 4, 2011, to include a $200,000 tranche A term loan and a $400,000 revolving credit facility. Subject to the satisfaction of certain conditions precedent, including the consent of the lenders, we may from time to time increase its borrowing capacity under the revolving credit facility or tranche A term loan by an aggregate amount not to exceed $300,000. The 2018 Credit Agreement expires on June 28, 2023. Additionally, subject to certain restrictions and conditions (i) any of our domestic or foreign subsidiaries may become borrowers and (ii) borrowings may occur in multi-currencies.

As of July 31, 2019, we had $190,000 of term loan A borrowings outstanding and $43,000 revolver borrowings under the 2018 Credit Agreement. The tranche A term loan is subject to principal amortization, with $10,000 due and payable in each of fiscal 2019, 2020, 2021 and 2022, with the remaining $160,000 due and payable at maturity on June 28, 2023. During fiscal 2019, we made principal payments of $10,000. We also settled $5,207 of debt which was assumed as part of the Omnia acquisition.

Borrowings under the 2018 Credit Agreement bear interest at rates ranging from 0.00% to 1.00% above prime rate for base rate borrowings, or at rates ranging from 1.00% to 2.00% above the London Interbank Offered Rate ("LIBOR"), depending upon our "Consolidated Leverage Ratio," which is defined as the consolidated ratio of total funded debt to earnings before interest, taxes, depreciation and amortization, and as further adjusted under the terms of the 2018 Credit Agreement ("Consolidated EBITDA"). The Amended Credit Agreement also provides for fees on the unused portion of the revolving credit facility at rates ranging from 0.20% to 0.35%, depending on our Consolidated Leverage Ratio. At July 31, 2019, the lender's base rate was 5.50% and the LIBOR rate was 2.23%. The margins applicable to our outstanding borrowings were 0.25% above the lender's base rate or 1.25% above LIBOR. All of our outstanding borrowings were under LIBOR contracts at July 31, 2019. The 2018 Credit Agreement also provides for fees on the unused portion of our facility at rates ranging from 0.20% to 0.35%, depending upon our Consolidated Leverage Ratio, which was 1.26x at July 31, 2019. At July 31, 2019, the interest rate on our outstanding borrowings was approximately 3.48%.

The 2018 Credit Agreement contains affirmative and negative covenants reasonably customary for similar credit facilities and is secured by (i) substantially all assets of Cantel and its U.S.-based subsidiaries, (ii) a pledge by Cantel of all of the outstanding shares of its U.S.-based subsidiaries and 65% of the outstanding shares of certain of Cantel's foreign-based subsidiaries and (iii) a guaranty by Cantel's domestic subsidiaries. We are in compliance with all financial covenants under the 2018 Credit Agreement.

11. Income Taxes

On December 22, 2017, the U.S. government enacted wide-ranging tax legislation, the Tax Cuts and Jobs Act (the "2017 Tax Act"). The 2017 Tax Act significantly revised U.S. tax law by, among other provisions, (a) lowering the applicable U.S. federal statutory income tax rate from 35% to 21%, (b) creating a partial territorial tax system that includes imposing a mandatory one-time transition tax on previously deferred foreign earnings, (c) creating provisions regarding the (1) Global Intangible Low Tax Income ("GILTI"), (2) the Foreign Derived Intangible Income ("FDII") deduction, and (3) the Base Erosion Anti-Abuse Tax ("BEAT"), and (d) eliminating or reducing certain income tax deductions, such as interest expense, executive compensation expenses and certain employee expenses.

ASC 740, "*Income Taxes,*" requires the effects of changes in tax laws to be recognized in the period in which the legislation is enacted. However, due to the complexity and significance of the 2017 Tax Act's provisions, the SEC staff issued Staff Accounting Bulletin No. 118 ("SAB 118"), which allows companies to record the tax effects of the 2017 Tax Act on a provisional basis and then, if necessary, subsequently adjust such amounts during a limited measurement period as more information becomes available. The measurement period ends when a company has obtained, prepared, and analyzed the information necessary to finalize its

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accounting, but cannot extend beyond one year from enactment. As a result, we provided a provisional estimate of the effect of the 2017 Tax Act for the fiscal year ended July 31, 2018, and recorded a net benefit of $8,657 due to the impact on our deferred taxes on the basis of the actual fiscal 2018 results of operations. The measurement period provided by SAB 118 concluded during the second quarter of fiscal 2019, and no material adjustments were made to the provisional estimates recorded.

As part of U.S. tax reform, the 2017 Tax Act imposed a one-time transition tax on certain accumulated positive foreign earnings (net of foreign deficits) across all non-U.S. subsidiaries, as computed under U.S. tax principles. As of December 31, 2017, our non-U.S. subsidiaries were in a net foreign deficit position in the aggregate, and therefore no accrual for the transition tax was made.

Section 15 of the Internal Revenue Code (the "Code") governs rate changes and was not amended by the 2017 Tax Act. Section 15 requires a blended tax rate for fiscal-year taxpayers for their fiscal year that includes the effective date of the rate change, which was January 1, 2018. As a result of the 2017 Tax Act, we revised our estimated annual effective rate to reflect the change in the U.S. federal statutory rate by computing a tentative tax under both rates, and then prorating the tentative tax based on the number of days with and without the rate change to arrive at a blended tax rate of 26.9%, as required by the Code. This blended rate was applied for fiscal 2018 (beginning with the second quarter) and the new U.S. federal statutory rate of 21% applies to fiscal 2019 and beyond.

As noted above, the 2017 Tax Act also establishes new tax laws that will affect the fiscal year ending July 31, 2019, which include the GILTI provision, the FDII deduction, a new minimum tax related to payments to foreign subsidiaries and affiliates known as BEAT and certain employee expense deductions. The provisional estimates were based on our understanding of the 2017 Tax Act and other information available at the time of the estimates, including assumptions and expectations about future events, such as projected financial performance, and are subject to further refinement as additional information becomes available, including potential new or interpretative guidance issued by the SEC, the FASB, or Internal Revenue Service ("IRS").

The consolidated effective tax rate was 26.9%, 22.5% and 32.8% for fiscal 2019, 2018 and 2017, respectively, and reflects income tax expense for our U.S. and international operations at their respective statutory rates.

The provision for income taxes consists of the following:

	Year Ended July 31,					
	2019		2018		2017	
	Current	Deferred	Current	Deferred	Current	Deferred
United States:						
Federal	$ 13,494	$ 683	$ 24,288	$ (7,308)	$ 28,900	$ 2,020
State	3,976	(15)	5,078	491	4,352	261
International	4,869	(2,730)	4,626	(703)	1,545	(2,223)
Total	$ 22,339	$ (2,062)	$ 33,992	$ (7,520)	$ 34,797	$ 58

The geographic components of income (loss) before income taxes are as follows:

	Year Ended July 31,		
	2019	2018	2017
United States	$ 68,342	$ 115,697	$ 108,329
International	6,977	1,816	(2,096)
Total	$ 75,319	$ 117,513	$ 106,233

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The consolidated effective income tax rate differed from the U.S. statutory tax rate of 21.0% in fiscal 2019, 26.9% in fiscal 2018 and 35.0% in 2017 due to the following:

	Year Ended July 31,		
	2019	2018	2017
Expected statutory tax[(1)]	21.0 %	26.9 %	35.0 %
Differential attributable to:			
Foreign operations	0.8 %	0.6 %	— %
State and local taxes	4.8 %	3.7 %	3.9 %
Domestic production deduction	— %	(1.8)%	(2.7)%
Acquisition-related items, net	0.1 %	— %	0.1 %
Impact of tax legislation on deferred taxes	(0.1)%	(7.4)%	— %
R&E tax credit	(1.0)%	(0.7)%	(1.4)%
Executive compensation	1.4 %	0.2 %	0.3 %
Excess tax benefits	(0.7)%	(1.7)%	(2.2)%
Valuation allowance	0.1 %	2.4 %	— %
Other	0.5 %	0.3 %	(0.2)%
Consolidated effective income tax rate	26.9 %	22.5 %	32.8 %

(1) During fiscal 2018, we revised our estimated annual rate to reflect a blended U.S. federal statutory rate of 26.9% as compared to 35.0%.

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Tax assets and liabilities, shown before and after jurisdictional netting of deferred tax assets (liabilities), are comprised of the following:

	July 31,	
	2019	2018
Deferred tax assets:		
Accrued expenses	$ 4,175	$ 5,354
Inventories	5,408	3,165
Accounts receivable	593	306
Other long-term liabilities	211	103
Stock-based compensation	3,586	2,700
Capital investment	426	426
Domestic NOLs	137	—
Foreign NOLs	10,284	8,605
Subtotal	24,820	20,659
Valuation allowance	(5,701)	(6,358)
	19,119	14,301
Deferred tax liabilities:		
Property and equipment	(11,342)	(7,352)
Intangible assets	(21,156)	(21,300)
Goodwill	(11,618)	(10,362)
	(44,116)	(39,014)
Net deferred income taxes	$ (24,997)	$ (24,713)
Reported in Consolidated Balance Sheets as:		
Deferred income taxes (assets)	$ 4,281	$ 2,911
Deferred income taxes (liabilities)	(29,278)	(27,624)
	$ (24,997)	$ (24,713)

For foreign tax reporting purposes, our Net Operating Losses ("NOLs") are $10,421 and $8,605 as of July 31, 2019 and 2018, respectively, which originated primarily from our foreign acquisitions and operations. Most of these NOLs do not expire and are fully available for utilization against future profits in certain non-U.S. tax jurisdictions. However, we have recorded a valuation allowance of $5,701 for these foreign NOLs, which are primarily associated with certain early-stage foreign operations, as well as $2,785 recorded in fiscal 2018 relating to pre-acquisition losses attributed to our U.K. operations. Furthermore, the accumulated loss is also related to the exit of the Jet Prep business which is more fully described in Note 9, "Intangibles and Goodwill." We believe it is more likely than not that we will be unable to utilize these NOLs.

During fiscal 2019 and 2018, no dividends were repatriated from our foreign subsidiaries. As a result of the mandatory one-time transition tax required under the 2017 Tax Act, all of the undistributed earnings of our foreign subsidiaries are deemed repatriated and considered previously taxed income ("PTI"). Additionally, we continue to be indefinitely reinvested and continue to evaluate our assertion for certain legal entities. Accordingly, deferred taxes are not provided on undistributed earnings of foreign subsidiaries that are indefinitely reinvested. Determining the tax liability that would arise if these earnings were remitted is not practicable. As of July 31, 2019, the cumulative amount of such undistributed earnings, inclusive of PTI, indefinitely reinvested outside the U.S. was approximately $45,566.

We record liabilities for an unrecognized tax benefit when a tax benefit for an uncertain tax position is taken or expected to be taken on a tax return, but is not recognized in our consolidated financial statements because it does not meet the more-likely-than-not recognition threshold that the uncertain tax position would be sustained upon examination by the applicable taxing authority. The tax benefits recognized in the financial statements from such a position are measured based on the largest benefit that has a greater than fifty percent likelihood of being realized upon settlement with the tax authorities. Any adjustments upon resolution of income tax uncertainties are recognized in our results of operations. Our policy is to record potential interest and penalties related to income tax positions in income tax expense in our consolidated financial statements. However, such amounts have been

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relatively insignificant due to the nominal amount of our unrecognized tax benefits relating to uncertain tax positions. We have uncertain tax positions of $432, primarily related to acquisitions, as of July 31, 2019 and $0 as of July 31, 2018.

Although we remain subject to audit by the IRS for fiscal years ended July 31, 2016 and forward, we are currently under IRS audit only for fiscal year 2017. With respect to state or foreign income tax examinations, we are generally no longer subject to examinations for fiscal years ended prior to July 31, 2013.

12. Commitments and Contingencies

Operating Leases

We have several non-cancelable operating leases, primarily for our corporate headquarters, certain of our leased manufacturing facilities, warehouses, office space and equipment. Total rental expense related to our operating leases was $9,601, $8,801 and $7,715 for fiscal 2019, 2018 and 2017, respectively.

As of July 31, 2019, future minimum lease payments under non-cancelable operating leases (with initial or remaining lease terms in excess of one year) for the periods set forth below were as follows:

Fiscal year ending:	Total
2020	$ 9,099
2021	7,671
2022	6,021
2023	5,659
2024	5,159
Thereafter	15,251
Total	$ 48,860

Contingent Consideration

As of July 31, 2019, we had $1,411 recorded related to the Aexis acquisition, which is for the estimated fair value of contingent consideration payable upon the achievement of certain purchase order targets through March 21, 2020. During fiscal 2017, we decided to exit the Jet Prep business that was acquired in fiscal 2014. At the time of the acquisition, we assumed a contingent obligation payable to the Israeli Government based on future sales. In November 2017, the Israeli Government formally notified us that they would forgive any future amounts payable due to our decision to exit the Jet Prep business. As a result of this formal notification, we reduced the $1,138 contingent obligation to $0 during the first quarter of fiscal 2018, resulting in a benefit through other income for the fiscal year ended July 31, 2018.

Legal Proceedings

In May 2017, Cantel Medical (UK) Limited and Cantel (UK) Limited filed a lawsuit in the U.K. High Court of Justice against ARC Medical Design Limited ("ARC") seeking a judgment of invalidity on two of ARC's patents and additionally/alternatively a declaration of non-infringement of our AmplifEYE™ Endoscopic device. ARC filed counterclaims alleging that the AmplifEYE™ device infringed the two patents as well as registered community design marks and unregistered design rights that ARC had in its Endocuff™ and Endocuff Vision™ devices. In February 2018, the trial judge entered a judgment in favor of ARC, and we decided not to appeal the decision. We entered into a settlement agreement with ARC in March 2018 under which we agreed not to make, use, sell or offer to sell the AmplifEYE™ device in the European Union until ARC's rights expire, and reimbursed ARC for a portion of their legal costs. During fiscal 2018, we recorded $2,608 of litigation costs within selling, general and administrative expenses associated with this matter.

In the normal course of business, we are subject to pending and threatened legal actions. It is our policy to accrue for amounts related to these legal matters if it is probable that a liability has been incurred and an amount of anticipated exposure can be reasonably estimated. We do not believe that any of these pending claims or legal actions will have a material effect on our business, financial condition, results of operations or cash flows.

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13. Accumulated Other Comprehensive Loss

The components and changes in accumulated other comprehensive loss for fiscal 2019, 2018 and 2017 were as follows:

	Foreign Currency Translation Adjustments	Changes in Fair Value of Interest Rate Swaps	Tax effects	Total
Balance, August 1, 2016	$ (11,795)	$ —	$ —	$ (11,795)
Other comprehensive income	1,895	—	—	1,895
Balance, July 31, 2017	(9,900)	—	—	(9,900)
Other comprehensive loss	(1,556)	—	—	(1,556)
Balance, July 31, 2018	(11,456)	—	—	(11,456)
Other comprehensive (loss) income	(13,287)	3,312	(766)	(10,741)
Balance, July 31, 2019	$ (24,743)	$ 3,312	$ (766)	$ (22,197)

14. Earnings Per Common Share

Basic Earnings Per Common Share ("EPS") is computed based upon the weighted average number of common shares outstanding for the year. Diluted EPS is computed based upon the weighted average number of common shares outstanding for the year plus the dilutive effect of common stock equivalents using the treasury stock method and the average market price of our common stock for the year. We include participating securities (nonvested share-based payment awards that contain non-forfeitable rights to dividends or dividend equivalents) in the computation of EPS pursuant to the two-class method. Our participating securities consist solely of nonvested restricted stock awards, which have contractual participation rights equivalent to those of stockholders of unrestricted common stock. The two-class method of computing earnings per share is an allocation method that calculates earnings per share for common stock and participating securities.

The following table sets forth the computation of basic and diluted EPS available to stockholders of common stock (excluding participating securities):

	Year Ended July 31,		
	2019	2018	2017
Numerator for basic and diluted earnings per share:			
Net income	$ 55,042	$ 91,041	$ 71,378
Less income allocated to participating securities	(51)	(320)	(431)
Net income available to common shareholders	$ 54,991	$ 90,721	$ 70,947
Denominator for basic and diluted earnings per share, as adjusted for participating securities:			
Denominator for basic earnings per share - weighted average number of shares outstanding attributable to common stock	41,700,926	41,567,722	41,468,487
Dilutive effect of stock options using the treasury stock method and the average market price for the year	56,190	67,356	74,278
Denominator for diluted earnings per share - weighted average number of shares and common stock equivalents attributable to common stock	41,757,116	41,635,078	41,542,765
Earnings per share attributable to common stock:			
Basic earnings per share	$ 1.32	$ 2.18	$ 1.71
Diluted earnings per share	$ 1.32	$ 2.18	$ 1.71
Stock options excluded from weighted average dilutive common shares outstanding because their inclusion would have been antidilutive	—	—	—

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A reconciliation of weighted average number of shares and common stock equivalents attributable to common stock, as determined above, to our total weighted average number of shares and common stock equivalents, including participating securities, is set forth in the following table:

	Year Ended July 31,		
	2019	2018	2017
Denominator for diluted earnings per share - weighted average number of shares and common stock equivalents attributable to common stock	41,757,116	41,635,078	41,542,765
Participating securities	38,905	148,700	254,727
Total weighted average number of shares and common stock equivalents attributable to both common stock and participating securities	41,796,021	41,783,778	41,797,492

15. Stock-Based Compensation

2016 Equity Incentive Plan

On January 7, 2016, we terminated the Cantel Medical Corp. 2006 Equity Incentive Plan (the "2006 Plan") and adopted the Cantel Medical Corp. 2016 Equity Incentive Plan (the "2016 Plan"). As a result, no further options or awards will be granted under the 2006 Plan. The 2016 Plan provides for the granting of stock options, stock appreciation rights ("SARs"), restricted stock awards, restricted stock units ("RSUs") and performance-based awards to our employees, independent contractors and consultants. It also provides the flexibility to grant equity-based awards to our non-employee directors. The 2016 Plan does not permit the granting of discounted options or discounted stock appreciation rights.

The maximum number of shares as to which equity awards may be granted under the 2016 Plan is 1,200,000 shares. The 2016 Plan will terminate on the date of our annual meeting of stockholders following the close of our fiscal year ending in 2025, unless terminated earlier by the Board of Directors. Stock awards under this plan:

- will be granted at the closing market price at the time of the grant,
- will include terms which may not exceed ten years, subject to certain exceptions, and
- may be granted in the form of restricted stock and RSUs, performance awards, or dividends.

Stock awards outstanding under the 2016 Plan are subject to risk of forfeiture solely due to an employment length-of-service restriction, with such restriction lapsing as to one-third of the shares of each of the first three anniversaries of the grant date subject to being employed through such vesting date. At July 31, 2019, 307,153 unvested restricted stock shares were outstanding under the 2016 Plan. No options were outstanding under the 2016 Plan. At July 31, 2019, 755,429 shares are collectively available pursuant to restricted stock and other stock awards, stock options and SARs.

2006 Equity Incentive Plan

A total of 5,591,000 shares of common stock were granted under the 2006 Plan, of which 2,700,000 shares were authorized for issuance pursuant to stock options and stock appreciation rights and 2,891,000 shares were authorized for issuance pursuant to restricted stock and other stock awards. Restricted stock shares outstanding under this plan are subject to risk of forfeiture solely due to an employment length-of-service restriction, with such restriction lapsing as to one-third of the shares on each of the first three anniversaries of the grant date subject to being employed through such vesting date. At July 31, 2019, options to purchase 40,000 shares of common stock were outstanding, and no unvested restricted stock shares were outstanding under the 2006 Plan.

The following table shows the components of stock-based compensation expense recognized in the consolidated statements of income:

	Year Ended July 31,		
	2019	2018	2017
Cost of sales	$ 1,010	$ 663	$ 371
Operating expenses:			
Selling	2,428	1,458	1,582
General and administrative	11,828	7,292	6,774
Research and development	296	202	117
Total operating expenses	14,552	8,952	8,473
Stock-based compensation before income taxes	$ 15,562	$ 9,615	$ 8,844

(dollar amounts in thousands except share and per share data or as otherwise specified) 60

Our stock options and time-based stock awards are subject to graded vesting in which portions of the awards vest at different times during the vesting period. We recognize compensation expense for awards subject to graded vesting using the straight-line basis over the vesting period.

In October 2016, we granted for the first time to certain employees both equity awards with performance conditions and equity awards with market conditions. The actual number of equity awards earned and eligible to vest will be determined based on the level of achievement against budgeted revenue and a defined gross profit percentage or based on the level of achievement against budgeted earnings per share, with respect to the awards with performance conditions, and our 3-year relative total stockholder return performance as measured against the S&P Healthcare Equipment Index, with respect to the awards with market conditions. The maximum share attainment of these awards are 200% of the initial granted shares. We recognize compensation expense for the awards with performance conditions using the accelerated attribution method over the requisite service period for each separately vesting portion of the award when it is probable that the performance condition will be achieved. We record expense for the awards that are subject to market conditions ratably over the vesting period regardless of whether the market condition is satisfied.

As of July 31, 2019, total unrecognized stock-based compensation expense, before income taxes, related to total nonvested stock options and restricted stock awards was $13,874 with a remaining weighted average period of 12 months over which such expense is expected to be recognized. The majority of our nonvested awards relate to restricted stock awards. We account for forfeitures as they occur, rather than estimate expected forfeitures over the vesting period.

We determine the fair value of each time-based stock award and performance-based stock award by using the closing market price of our common stock on the date of grant. We determine the fair value of each stock award with market conditions using a Monte Carlo simulation on the date of grant using the following assumptions:

	2019	2018
Volatility of common stock	27.54%	26.60%
Average volatility of peer companies	36.55%	33.72%
Average correlation coefficient of peer companies	27.18%	32.26%
Risk-free interest rate	2.93%	1.62%

A summary of nonvested stock award activity for fiscal 2019, 2018 and 2017 follows:

	Number of Time-based Shares	Number of Performance-based Shares	Number of Market-based Shares	Number of Total Shares	Weighted Average Fair Value
August 1, 2016	331,367	—	—	331,367	$ 46.09
Granted	86,305	16,960	9,800	113,065	$ 81.77
Vested[(1)]	(214,932)	(725)	(555)	(216,212)	$ 43.62
Forfeited	(5,922)	—	—	(5,922)	$ 59.40
July 31, 2017	196,818	16,235	9,245	222,298	$ 66.28
Granted	94,309	17,486	10,465	122,260	$ 101.74
Vested[(1)]	(115,943)	(5,845)	—	(121,788)	$ 60.25
Forfeited	(6,864)	(1,800)	(2,000)	(10,664)	$ 95.09
July 31, 2018	168,320	26,076	17,710	212,106	$ 88.87
Granted	188,431	35,981	25,320	249,732	$ 85.16
Vested[(1)]	(105,516)	(13,327)	(5,265)	(124,108)	$ 80.44
Forfeited	(16,371)	(8,520)	(5,686)	(30,577)	$ 96.54
July 31, 2019	234,864	40,210	32,079	307,153	$ 88.99

(1) The aggregate fair value of all nonvested stock awards which vested was approximately $9,985, $7,338 and $9,431 in fiscal 2019, 2018 and 2017, respectively.

(dollar amounts in thousands except share and per share data or as otherwise specified) 61

A summary of stock option activity for fiscal 2019, 2018 and 2017 follows:

	Number of shares	Weighted Average Exercise Price	Weighted Average Contractual Life Remaining	Aggregate Intrinsic Value
Outstanding at August 1, 2016	122,500	$ 29.36		
Exercised	—	$ —		
Outstanding at July 31, 2017	122,500	$ 29.36		
Exercised	(52,500)	$ 17.04		
Outstanding at July 31, 2018	70,000	$ 38.60		
Exercised	(30,000)	$ 31.81		
Outstanding at July 31, 2019	40,000	$ 43.70	0.57 years	$ 1,943
Exercisable at July 31, 2019	40,000	$ 43.70	0.57 years	$ 1,943

In fiscal 2019, 2018 and 2017, 5,000, 13,333 and 23,333, respectively, options vested, with an aggregate fair value of approximately $277, $226 and $349, respectively. At July 31, 2019, 2018 and 2017, there were 40,000, 70,000 and 122,500, respectively, outstanding options with an aggregate fair value of $1,943, $3,788 and $5,493, respectively. At July 31, 2019 and 2018, all of the outstanding options had vested or were expected to vest in future periods.

We do not currently have a publicly announced stock repurchase program. All of the shares purchased during fiscal 2019, 2018 and 2017 represent shares surrendered relating to cashless exercises of stock options and to pay employee withholding taxes due upon the vesting of restricted stock or the exercise of stock options. In fiscal 2019, 2018 and 2017, such purchases amounted to 54,176, 72,058 and 89,607 shares at a total average price per share of $87.51, $98.16 and $77.12, respectively.

Upon exercise of stock options or grant of stock awards, we typically issue new shares of our common stock as opposed to using treasury shares. Additionally, all options were considered to be deductible for tax purposes in the valuation model. Such non-qualified options were tax-effected using our estimated U.S. effective tax rate at the time of grant. All of our stock options and restricted stock awards are expected to be deductible for tax purposes, except for certain stock awards granted to employees residing outside of the United States, and were tax-effected using our estimated U.S. effective tax rate at the time of grant.

Excess tax benefits arise when the ultimate tax effect of the deduction for tax purposes is greater than the income tax benefit on stock-based compensation described above. For fiscal 2019, income tax deductions of $2,592 were generated, of which $2,008 were recorded as a reduction in income tax expense over the equity awards' vesting period and the remaining excess tax benefit of $584 was recorded as a reduction in income tax expense. For fiscal 2018, income tax deductions of $4,161 were generated, of which $1,988 were recorded as a reduction in income tax expense over the equity awards' vesting period and the remaining excess tax benefits of $2,173 were recorded as a reduction in income tax expense. For fiscal 2017, income tax deductions of $5,292 were generated, of which $3,351 were recorded as a reduction in income tax expense over the equity awards' vesting period and the remaining excess tax benefits of $2,241 were recorded as a reduction in income tax expense.

16. Retirement Plans

We have 401(k) Savings and Retirement Plans for the benefit of eligible U.S. employees. Additionally, our Canadian and certain European subsidiaries maintain profit sharing plans for the benefit of eligible employees. Employer contributions are both discretionary and non-discretionary and are limited in any year to the amount allowable by government tax authorities.

Aggregate employer contributions recognized under these plans were $4,999, $4,676 and $3,863 for fiscal 2019, 2018 and 2017, respectively.

17. Reportable Segments

In accordance with ASC Topic 280, "*Segment Reporting,"* ("ASC 280"), we have determined our reportable business segments based upon an assessment of product types, organizational structure, customers and internally prepared financial statements. The primary factors used by us in analyzing segment performance are net sales and income from operations. During the first quarter of fiscal 2019, we changed the names of our reportable segments to better align with our key customers and the markets we serve. As a result of this change, our industrial biological and chemical indicator business has moved from the Dental segment to the Life Sciences segment. Prior year segment disclosures have been recast to conform to the current year presentation.

(dollar amounts in thousands except share and per share data or as otherwise specified) 62

None of our customers accounted for 10% or more of our consolidated net sales during fiscal 2019, 2018 and 2017.

Our reportable segments are as follows:

Medical: designs, develops, manufactures, sells and installs a comprehensive offering of products and services comprising a complete circle of infection prevention solutions. Our products include endoscope reprocessing and endoscopy procedure products.

Life Sciences: designs, develops, manufactures, sells, and installs water purification systems for medical, pharmaceutical and other bacteria controlled applications. We also provide filtration/separation and disinfectant technologies to the medical and life science markets through a worldwide distributor network. Two customers collectively accounted for approximately 40.2%, 48.0% and 50.2% of our Life Sciences segment net sales in fiscal 2019, 2018 and 2017, respectively.

Dental: designs, manufactures, sells, supplies and distributes a broad selection of infection prevention healthcare products, the majority of which are single-use products used by dental practitioners. Three customers collectively accounted for approximately 47.6%, 45.1% and 43.4% of our Dental segment net sales in fiscal 2019, 2018 and 2017, respectively.

Dialysis: designs, develops, manufactures, sells and services reprocessing systems and sterilants for dialyzers (a device serving as an artificial kidney), as well as dialysate concentrates and supplies utilized for renal dialysis. Two customers collectively accounted for approximately 41.0%, 40.6% and 44.2% of our Dialysis segment net sales in fiscal 2019, 2018 and 2017, respectively. These customers are the same two customers noted above under our Life Sciences segment.

Information as to reportable segments is summarized below:

	Year Ended July 31,		
	2019	2018	2017
Net sales:			
Medical	$ 523,669	$ 473,937	$ 398,773
Life Sciences [1]	201,022	217,030	196,446
Dental [1]	161,608	149,360	144,457
Dialysis	31,856	31,595	30,481
Total	$ 918,155	$ 871,922	$ 770,157

(1) In fiscal 2018, approximately $5,820 of net sales were reclassified out of our Dental segment and into our Life Sciences segment associated with the changes in our segments noted above. Fiscal 2017 amounts were not material and were not adjusted.

	Year Ended July 31,		
	2019	2018	2017
Income from operations:			
Medical	$ 98,356	$ 86,833	$ 73,440
Life Sciences [1]	20,552	36,803	33,159
Dental [1]	22,289	30,004	28,000
Dialysis	4,922	7,380	8,154
	146,119	161,020	142,753
General corporate expenses	62,600	39,356	32,343
Income from operations	83,519	121,664	110,410
Interest expense, net	9,505	5,289	4,303
Other income	(1,305)	(1,138)	(126)
Income before income taxes	$ 75,319	$ 117,513	$ 106,233

(1) In fiscal 2018, approximately $1,704 of income from operations were reclassified out of our Dental segment and into our Life Sciences segment associated with the changes in our segments noted above. Fiscal 2017 amounts were not material and were not adjusted.

(dollar amounts in thousands except share and per share data or as otherwise specified) 63

	July 31,	
	2019	2018
Identifiable assets:		
Medical	$ 532,250	$ 490,702
Life Sciences	184,737	151,460
Dental	272,309	210,831
Dialysis	19,016	22,614
General corporate, including cash and cash equivalents	62,054	88,101
Total	$ 1,070,366	$ 963,708

	Year Ended July 31,		
	2019	2018	2017
Capital expenditures:			
Medical	$ 52,907	$ 18,996	$ 13,816
Life Sciences	16,408	4,409	3,689
Dental	16,243	2,441	2,492
Dialysis	3,203	644	1,296
General corporate	6,677	11,208	5,772
Total	$ 95,438	37,698	27,065

	Year Ended July 31,		
	2019	2018	2017
Depreciation and amortization:			
Medical	$ 23,033	$ 19,002	$ 18,245
Life Sciences	7,482	5,628	5,706
Dental	9,844	8,756	8,556
Dialysis	39	711	427
General corporate	1,961	733	518
Total	$ 42,359	$ 34,830	$ 33,452

Information as to geographic areas (including net sales which represent the geographic area from which we derive its net sales from external customers) is summarized below:

	Year Ended July 31,		
	2019	2018	2017
Net sales:			
United States	$ 665,661	$ 643,744	$ 599,657
Europe/Africa/Middle East	148,334	131,130	95,753
Asia/Pacific	66,228	57,108	40,964
Canada	32,152	33,524	26,648
Latin America/South America	5,780	6,416	7,135
Total	$ 918,155	$ 871,922	$ 770,157

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	July 31, 2019	July 31, 2018
Total long-lived assets:		
United States	$ 128,010	$ 80,918
Europe/Africa/Middle East	64,742	35,824
Asia/Pacific	4,201	2,531
Canada	1,995	804
Total	198,948	120,077
Goodwill and intangible assets, net	519,622	505,388
Total	$ 718,570	$ 625,465

18. Quarterly Results of Operations (unaudited)

The following is a summary of the quarterly results of operations for fiscal 2019 and 2018:

Fiscal 2019	First Quarter	Second Quarter	Third Quarter	Fourth Quarter
Net sales	$ 225,589	$ 224,538	$ 228,552	$ 239,476
Cost of sales	120,340	119,863	121,675	128,823
Gross profit	105,249	104,675	106,877	110,653
Gross profit percentage	*46.7%*	*46.6%*	*46.8%*	*46.2%*
Net income	$ 19,242	$ 18,800	$ 8,175	$ 8,825
Earnings per common share:				
Basic	$ 0.46	$ 0.45	$ 0.20	$ 0.21
Diluted	$ 0.46	$ 0.45	$ 0.20	$ 0.21

Fiscal 2018	First Quarter	Second Quarter	Third Quarter	Fourth Quarter
Net sales	$ 212,766	$ 213,034	$ 217,268	$ 228,854
Cost of sales	112,107	111,799	112,594	121,451
Gross profit	100,659	101,235	104,674	107,403
Gross profit percentage	*47.3%*	*47.5%*	*48.2%*	*46.9%*
Net income	$ 22,929	$ 32,488	$ 18,736	$ 16,888
Earnings per common share:				
Basic	$ 0.55	$ 0.78	$ 0.45	$ 0.41
Diluted	$ 0.55	$ 0.78	$ 0.45	$ 0.41

19. Subsequent Events

Hu-Friedy Acquisition

On July 30, 2019, we signed a definitive agreement to acquire Hu-Friedy, a leading global manufacturer of instruments and instrument reprocessing workflow systems serving the dental industry. The acquisition is subject to regulatory approvals and other customary closing conditions, and is expected to close during our first quarter fiscal 2020. After closing, we plan to combine Hu-Friedy with our Dental segment. Under the terms of the acquisition, Cantel will pay $725,000 upfront for Hu-Friedy, a portion of which will be paid in our stock (with the specific amount at our election) with the remainder to be paid in cash. An additional amount in potential cash and stock earnout payments may be payable to Hu-Friedy shareholders upon achievement of certain commercial milestones in the eighteen months following closing of the transaction. As a result of the transaction structure, the acquisition will generate an anticipated tax benefit, which we estimate at more than $100,000, which we expect to reduce our cash taxes over approximately 15 years.

Amendment to 2018 Credit Agreement

On September 6, 2019, we entered into a First Amendment (the "Amendment"), amending the 2018 Credit Agreement, and as amended by the Amendment, the ("Amended Credit Agreement") dated as of June 28, 2018. The Amendment adds a

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$400,000 delayed draw term loan facility (the "Delayed Draw Facility"), which we may draw subject to the satisfaction of certain limited conditions precedent, to our 2018 Credit Agreement, in addition to the existing tranche A term loan and existing revolving credit facility. Pursuant to the Amended Credit Agreement, subject to the satisfaction of certain conditions precedent, including the consent of the lenders, the Company may from time to time increase its borrowing capacity under the revolving credit facility by, or incur incremental term loans in, an aggregate amount not to exceed the sum of (i) the greater of (x) $300,000 or (y) an amount equal to two times the our consolidated EBITDA, calculated on a pro forma basis, plus (ii) the aggregate principal amount of voluntary prepayments of the revolving loans and term loans.

The Delayed Draw Facility and a portion of the revolving credit facility will be used to finance all or a portion of the cash consideration for our acquisition of Hu-Friedy. The remaining proceeds of the Amended Credit Agreement will be used to refinance certain existing indebtedness of Cantel and Hu-Friedy, and to pay the fees and expenses incurred in connection therewith, as well as for working capital, capital expenditures and other lawful corporate purposes.

Borrowings under the Amended Credit Agreement bear interest at rates ranging from 0.00% to 1.25% above prime rate for base rate borrowings, or at rates ranging from 1.00% to 2.25% above LIBOR for LIBOR based borrowings, depending on our "Consolidated Leverage Ratio," which is the consolidated ratio of total funded debt (minus certain unrestricted cash) to consolidated EBITDA. The Amended Credit Agreement also provides for fees on the unused portion of the revolving credit facility at rates ranging from 0.20% to 0.40%, depending on our Consolidated Leverage Ratio. The Amended Credit Agreement contains affirmative and negative covenants reasonably customary for similar credit facilities and is secured by (i) substantially all assets of Cantel and its U.S.-based subsidiaries, (ii) a pledge by each Loan Party of all of the outstanding shares of its U.S.-based subsidiaries and 65% of the outstanding shares of certain of Cantel's foreign-based subsidiaries and (iii) a guaranty by Cantel's domestic subsidiaries.

Schedule II - Valuation and Qualifying Accounts

	Balance at Beginning of Period	Additions	Deductions	Translation Adjustments	Balance at End of Period
Allowance for doubtful accounts					
Year ended July 31, 2019	$ 1,149	$ 1,541	$ (336)	$ (32)	$ 2,322
Year ended July 31, 2018	$ 1,808	$ 326	$ (977)	$ (8)	$ 1,149
Year ended July 31, 2017	$ 1,850	$ 998	$ (1,056)	$ 16	$ 1,808
Reserve for excess and obsolete inventory					
Year ended July 31, 2019	$ 8,599	$ 2,937	$ (1,218)	$ (203)	$ 10,115
Year ended July 31, 2018	$ 8,853	$ 1,719	$ (1,862)	$ (111)	$ 8,599
Year ended July 31, 2017	$ 5,390	$ 5,016	$ (1,580)	$ 27	$ 8,853
Deferred tax asset valuation allowance					
Year ended July 31, 2019	$ 6,358	$ 1,086	$ (1,891)	$ 148	$ 5,701
Year ended July 31, 2018	$ 2,984	$ 3,538	$ (119)	$ (45)	$ 6,358
Year ended July 31, 2017	$ 2,334	$ 615	$ —	$ 35	$ 2,984

Item 9. Changes in and Disagreements with Accountants on Accounting and Financial Disclosure.

Not applicable.

Item 9A. Controls and Procedures.

Under the supervision and with the participation of our Chief Executive Officer and our Chief Financial Officer, we conducted an evaluation of the effectiveness of the design and operation of our disclosure controls and procedures (as defined in Rules 13a-15(e) and 15d-15(e) under the Exchange Act) as of July 31, 2019. Based on this evaluation, our Chief Executive Officer and Chief Financial Officer each concluded that the design and operation of these disclosure controls and procedures were, as of the end of the period covered by this report, effective and designed to ensure that material information relating to the Company, including our consolidated subsidiaries, required to be disclosed in our SEC reports is (i) recorded, processed, summarized and

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reported within the time periods specified by the SEC and (ii) accumulated and communicated to the Company's management, including the Chief Executive Officer and the Chief Financial Officer, as appropriate to allow timely decisions regarding disclosure.

Management's Report on Internal Control over Financial Reporting

The management of Cantel Medical Corp. is responsible for establishing and maintaining adequate internal control over financial reporting for the Company. The Company's internal control over financial reporting is designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with U.S. generally accepted accounting principles. The Company's internal control over financial reporting includes those policies and procedures that:

(i) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the Company,
(ii) 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
(iii) 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 the effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in condition, or that the degree of compliance with the policies and procedures included in such controls may deteriorate.

We, under the supervision and with the participation of our Chief Executive Officer and our Chief Financial Officer, carried out an evaluation of the effectiveness of our internal controls over financial reporting based on the framework and criteria established in "Internal Control — Integrated Framework (2013 framework)," issued by the Committee of Sponsoring Organizations of the Treadway Commission ("COSO"). Based on that evaluation, the Chief Executive Officer and the Chief Financial Officer each concluded that our internal control over financial reporting was effective as of July 31, 2019.

Our independent auditors, Deloitte & Touche LLP, have issued a report on our internal control over financial reporting, which is included in Part II, Item 8 of this report.

Changes in Internal Control

We have evaluated our internal control over financial reporting and determined that no changes occurred during the period covered by this report that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting, except as described below.

On February 1, 2019, we acquired Omnia, as more fully described in Note 4 to the consolidated financial statements. This business is included in our 2019 consolidated financial statements and constituted 3.5% and 3.3% of total assets and net assets, respectively, as of July 31, 2019, and 1.3% and 1.1% of net sales and net income, respectively, for the year then ended. During the initial transition period following the acquisition, we enhanced our internal control process to ensure that all financial information related to this acquisition was properly reflected in our consolidated financial statements. However, since Omnia was acquired on February 1, 2019, a complete integration of the internal controls relating to the acquired businesses was not practical for purposes of inclusion in our evaluation of the effectiveness of our internal control over financial reporting. We expect that all aspects of Omnia will be fully integrated into our existing internal control structure in fiscal 2020.

In 2017, we began the process of implementing a global operating and financial reporting information technology system, SAP S4 Hana ("SAP"), as part of a multi-year plan to integrate and upgrade our systems and processes. The first phase of this implementation became operational in February 2019, at our Medical segment's United States operations, our Medivators B.V. operations and at our corporate headquarters. As the phased implementation of SAP continues, we are experiencing certain changes to our processes and procedures which, in turn, result in changes to our internal control over financial reporting. We believe the necessary steps have been taken to monitor and maintain appropriate internal control over financial reporting during this period of change and we will continue to evaluate the operating effectiveness of related key controls during subsequent periods. While we expect SAP to strengthen our internal financial controls by automating certain manual processes and standardizing business processes and reporting across our organization, management will continue to evaluate and monitor our internal controls as each of the affected areas evolves.

Item 9B. Other Information.

None.

PART III

Item 10. Directors, Executive Officers and Corporate Governance.

We have adopted a Code of Ethics for the Chief Executive Officer, the Chief Financial Officer, Chief Accounting Officer, and other officers and management personnel that is posted on our website, www.cantelmedical.com. We intend to satisfy the disclosure requirement regarding any amendment to, or a waiver of, a provision of the Code of Ethics for the Chief Executive Officer, Chief Operating Officer, Chief Financial Officer and other officers and management personnel by posting such information on our website.

The remainder of the information required by Item 10 is incorporated by reference to our definitive proxy statement for our 2019 annual meeting of stockholders, which we intend to file within 120 days of the end of our fiscal year.

Item 11. Executive Compensation.

Information required to be disclosed by this Item is incorporated by reference from our definitive proxy statement for our 2019 annual meeting of stockholders, which we intend to file within 120 days of the end of our fiscal year.

Item 12. Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters.

The following sets forth certain information as of July 31, 2019 with respect to our equity compensation plans under which our securities may be issued:

Plan Category	Number of securities to be issued upon exercise of outstanding options (a)	Weighted-average exercise price of outstanding options (b)	Number of securities remaining available for future issuance under compensation plans (excluding securities reflected in (a)) (c)	
Equity compensation plans approved by security holders	40,000	$ 43.70	755,429	(1)
Equity compensation plans not approved by security holders	—	—	—	
Total	40,000	$ 43.70	755,429	(1)

(1) Collectively consists of stock option and SARs awards and restricted stock and performance awards available for grant under the plans.

The remainder of the information required by Item 12 is incorporated by reference from our definitive proxy statement for our 2019 annual meeting of stockholders, which we intend to file within 120 days of the end of our fiscal year.

Item 13. Certain Relationships and Related Transactions and Director Independence.

The information required to be disclosed by this Item is incorporated by reference from our definitive proxy statement for our 2019 annual meeting of stockholders, which we intend to file within 120 days of the end of our fiscal year.

Item 14. Principal Accounting Fees and Services.

The information required to be disclosed by this Item is incorporated by reference from our definitive proxy statement for our 2019 annual meeting of stockholders, which we intend to file within 120 days of the end of our fiscal year.

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PART IV

Item 15. Exhibits, Financial Statement Schedules.

(a) The following documents are filed as part of this Annual Report on Form 10-K for the fiscal year ended July 31, 2019.

1. Consolidated Financial Statements:

   (i) Report of Independent Registered Public Accounting Firm.

   (ii) Consolidated Balance Sheets as of July 31, 2019 and 2018.

   (iii) Consolidated Statements of Income for the years ended July 31, 2019, 2018 and 2017.

   (iv) Consolidated Statements of Comprehensive Income for the years ended July 31, 2019, 2018 and 2017.

   (v) Consolidated Statements of Changes in Stockholders' Equity for the years ended July 31, 2019, 2018 and 2017.

   (vi) Consolidated Statements of Cash Flows for the years ended July 31, 2019, 2018 and 2017.

   (vii) Notes to Consolidated Financial Statements.

2. Consolidated Financial Statement Schedules:

   (i) Schedule II - Valuation and Qualifying Accounts for the years ended July 31, 2019, 2018 and 2017.

   All other financial statement schedules are omitted since they are not required, not applicable, or the information has been included in the Consolidated Financial Statements or Notes thereto.

3. Exhibits:

2(a) - Purchase and Sale Agreement, dated as of July 29, 2019, by and among Cantel Medical Corp., Hu-Friedy Mfg. Co., LLC, Dental Holding, LLC, and, for limited purposes set forth therein, Ken Serota and Ron Saslow. (Incorporated herein by reference to Exhibit 2.1 to Registrant's Current Report on Form 8-K filed on July 30, 2019, File No. 001-31337.)

3(a) - Registrant's Restated Certificate of Incorporation, dated July 20, 1978. (Incorporated herein by reference to Exhibit 3(a) to Registrant's 1981 Annual Report on Form 10-K.)

3(b) - Certificate of Amendment of Certificate of Incorporation of Registrant, filed on February 16, 1982. (Incorporated herein by reference to Exhibit 3(b) to Registrant's 1982 Annual Report on Form 10-K.)

3(c) - Certificate of Amendment of Certificate of Incorporation of Registrant, filed on May 4, 1984. (Incorporated herein by reference to Exhibit 3(c) to Registrant's Quarterly Report on Form 10-Q for the quarter ended April 30, 1984.)

3(d) - Certificate of Amendment of Certificate of Incorporation of Registrant, filed on August 19, 1986. (Incorporated herein by reference to Exhibit 3(d) to Registrant's 1986 Annual Report on Form 10-K.)

3(e) - Certificate of Amendment of Certificate of Incorporation of Registrant, filed on December 12, 1986. (Incorporated herein by reference to Exhibit 3(e) to Registrant's 1987 Annual Report on Form 10-K [the "1987 10-K"].)

3(f) - Certificate of Amendment of Certificate of Incorporation of Registrant, filed on April 3, 1987. (Incorporated herein by reference to Exhibit 3(f) to Registrant's 1987 10-K.)

3(g) - Certificate of Change of Registrant, filed on July 12, 1988. (Incorporated herein by reference to Exhibit 3(g) to Registrant's 1988 Annual Report on Form 10-K, File No. 001-31337.)

3(h) - Certificate of Amendment of Certificate of Incorporation of Registrant, filed on April 17, 1989. (Incorporated herein by reference to Exhibit 3(h) to Registrant's 1989 Annual Report on Form 10-K, File No. 001-31337.)

3(i) - Certificate of Amendment of Certificate of Incorporation of Registrant, filed on May 10, 1999. (Incorporated herein by reference to Exhibit 3(i) to Registrant's 2000 Annual Report on Form 10-K, File No. 001-31337 [the "2000 10-K"].)

3(j) - Certificate of Amendment of Certificate of Incorporation of Registrant, filed on April 5, 2000. (Incorporated herein by reference to Exhibit 3(j) to Registrant's 2000 10-K.)

3(k) - Certificate of Amendment of Certificate of Incorporation of Registrant, filed on September 6, 2001. (Incorporated herein by reference to Exhibit 3(k) to Registrant's 2001 Annual Report on Form 10-K, File No. 001-31337.)

3(l) - Certificate of Amendment of Certificate of Incorporation of Registrant, filed on June 7, 2002. (Incorporated herein by reference to Exhibit 3(l) to Registrant's 2002 Annual Report on Form 10-K, File No. 001-31337.)

3(m) - Certificate of Amendment of Certificate of Incorporation of Registrant, filed on December 22, 2005. (Incorporated herein by reference to Exhibit 3(m) to Registrant's 2006 Annual Report on Form 10-K, File No. 001-31337.)

3(n) - Certificate of Amendment of Certificate of Incorporation of Registrant filed on January 14, 2013. (Incorporated herein by reference to Exhibit 3(n) to Registrant's 2013 Annual Report on Form 10-K, File No. 001-31337.)

3(o) - Registrant's By-Laws, as amended through November 1, 2013. (Incorporated herein by reference to Exhibit 3.1 to Registrant's Current Report on Form 8-K filed on November 7, 2013, File No. 001-31337.)

3(p) - Registrant's By-Laws as amended through January 3, 2018. (Incorporated herein by reference to Exhibit 3.1 to Registrant's Current Report on Form 8-K filed on January 9, 2018, File No. 001-31337.)

Exhibit 4 - Description of Securities.

10(a) - 2006 Equity Incentive Plan, as amended. (Incorporated herein by reference to Exhibit 10(a) to Registrant's Quarterly Report on Form 10-Q for the quarter ended October 31, 2013, File No. 001-31337.)*

10(b) - Form of Stock Option Agreement for option grants to directors and executive officers under Registrant's 2006 Equity Incentive Plan. (Incorporated herein by reference to Exhibit 10.4 to Registrant's Current Report on Form 8-K filed on October 27, 2011, File No. 001-31337 [the "October 2011 8-K"].)*

10(c) - Form of Restricted Stock Agreement under Registrant's 2006 Equity Incentive Plan for grants to executive officers. (Incorporated herein by reference to Exhibit 10.5 to Registrant's October 2011 8-K.)*

10(d) - Form of Restricted Stock Agreement under Registrant's 2006 Equity Incentive Plan for grants to directors. (Incorporated herein by reference to Exhibit 10.6 to Registrant's October 2011 8-K.)*

10(e) - Separation Agreement and General Release dated as of March 8, 2019 between the Company and Jorgen B. Hansen. (Incorporated herein by reference to Exhibit 10.2 to Registrant's Current Report on Form 8-K filed on March 8, 2019, File No. 001-31337.)*

10(f) - Retirement Agreement and General Release dated as of March 29, 2019 between the Company and Eric W. Nodiff. (Incorporated herein by reference to Exhibit 10.1 to Registrant's Quarterly Report on Form 10-Q filed on June 6, 2019, File No. 001-31337.)*

10(g) - Confidentiality and Non-Competition Agreement dated as of November 15, 2012 between Registrant and Jorgen B. Hansen (Incorporated herein by reference to Exhibit 10.2 to Registrant's Annual Report on Form 10-K for the fiscal year ended July 31, 2012, File No. 001-31337.)*

10(h) - Confidentiality and Non-Competition Agreement dated as of January 1, 2010 between Registrant and Eric W. Nodiff (Incorporated herein by reference to Exhibit 10.9 to Registrant's February 2010 8-K.)*

10(i) - Confidentiality and Non-Competition Agreement dated as of March 23, 2015 between Registrant and Peter Clifford (Incorporated herein by reference to Exhibit 10.2 to Registrant's March 2015 8-K.)*

10(j) - Cantel Medical Corp. 2016 Equity Incentive Plan (Incorporated herein by reference to Exhibit 10.1 to Registrant's Quarterly Report on Form 10-Q filed on November 30, 2018, File No. 001-31337.)*

10(k) - Form of Restricted Stock Agreement (Time-Based Grants) under Cantel Medical Corp. 2016 Equity Incentive Plan for grants to executive officers (Incorporated herein by reference to Exhibit 10(r) to Registrant's Annual Report on From 10-K for the fiscal year ended July 31, 2016, File No. 001-31337 [the "2016 10-K"].) *

10(l) - Form of Restricted Stock Agreement (Time-Based Grants) under Cantel Medical Corp. 2016 Equity Incentive Plan for grants to directors (Incorporated herein by reference to Exhibit 10(s) to Registrant's 2016 10-K.)*

10(m) - Form of Restricted Stock Agreement (Performance-Based Grants – Revenue Based) under Cantel Medical Corp. 2016 Equity Incentive Plan for grants to executive officers (Incorporated herein by reference to Exhibit 10(t) to Registrant's 2016 10-K.) *

10(n) - Form of Restricted Stock Agreement (Performance-Based Grants – TSR Based) under Cantel Medical Corp. 2016 Equity Incentive Plan for grants to executive officers (Incorporated herein by reference to Exhibit 10(u) to Registrant's 2016 10-K.)*

10(o) - Form of Restricted Stock Agreement (Time-Based) under Cantel Medical Corp. 2016 Equity Incentive Plan for annual grants to directors (Incorporated herein by reference to Exhibit 10(v) to Registrant's 2016 10-K.)*

10(p) - Fourth Amended and Restated Credit Agreement dated as of June 28, 2018 among Cantel Medical Corp., Bank of America, N.A., Wells Fargo Bank, National Association, JPMorgan Chase Bank, N.A., and the other lenders party hereto. (Incorporated herein by reference to Exhibit 10.1 to Registrant's Current Report on Form 8-K filed on July 2, 2018, File No. 001-31337.)

10(q) - Earnout Agreement, dated as of July 29, 2019, by and between Dental Holding, LLC and Cantel Medical Corp. (Incorporated herein by reference to Exhibit 10.1 to Registrant's Current Report on Form 8-K filed on July 30, 2019, File No. 001-31337.)

10(r) - First Amendment, dated as of September 6, 2019, among Cantel Medical Corp., the subsidiary obligors party thereto, the lenders party thereto, and Bank of America, N.A. (Incorporated herein by reference to Exhibit 10.1 to Registrant's Current Report on Form 8-K filed on September 9, 2019, File No. 001-31337.)

Exhibit 10.1 - Cantel Medical Corp. Executive Severance and Change in Control Plan.

Exhibit 21 - Subsidiaries of Registrant.

Exhibit 23.1 - Consent of Deloitte & Touche LLP.

Exhibit 23.2 - Consent of Ernst & Young LLP.

Exhibit 31.1 - Certification of Principal Executive Officer.

Exhibit 31.2 - Certification of Principal Financial Officer.

Exhibit 32 - Certification of Chief Executive Officer and Chief Financial Officer pursuant to 18 U.S.C. Section 1350.

101 The following materials from Cantel Medical Corp.'s Form 10-K for the fiscal year ended July 31, 2019, formatted in Extensible Business Reporting Language (XBRL): (i) Consolidated Balance Sheets at July 31, 2019 and 2018, (ii) Consolidated Statements of Income for each of the three years in the period ended July 31, 2019, (iii) Consolidated Statements of Comprehensive Income for each of the three years in the period ended July 31, 2019, (iv) Consolidated Statements of Changes in Stockholders' Equity for each of the three years in the period ended July 31, 2019, (v) Consolidated Statements of Cash Flows for each of the three years in the period ended July 31, 2019 and (vi) Notes to Consolidated Financial Statements.

*Management contract or compensatory plan or arrangement of the Company required to be filed as an exhibit.

Item 16. Form 10-K Summary

None.

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.

CANTEL MEDICAL CORP.

Date: September 25, 2019

By: /s/ George L. Fotiades
George L. Fotiades, President,
Chief Executive Officer
(Principal Executive Officer)

By: /s/ Shaun M. Blakeman
Shaun M. Blakeman, Senior Vice President,
Chief Financial Officer
(Principal Financial Officer)

By: /s/ Brian R. Capone
Brian R. Capone, Senior Vice President,
Chief Accounting Officer
(Principal Accounting Officer)

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 and on the dates indicated:

/s/ Charles M. Diker	Date:	September 25, 2019
Charles M. Diker, Director and Chairman of the Board		
/s/ Alan. R. Batkin	Date:	September 25, 2019
Alan R. Batkin, Lead Independent Director		
/s/ Ann E. Berman	Date:	September 25, 2019
Ann E. Berman, Director		
/s/ Mark N. Diker	Date:	September 25, 2019
Mark N. Diker, Director		
/s/ Anthony B. Evnin	Date:	September 25, 2019
Anthony B. Evnin, Director		
/s/ Laura L. Forese	Date:	September 25, 2019
Laura L. Forese, Director		
/s/ George L. Fotiades	Date:	September 25, 2019
George L. Fotiades, Director, President and CEO		
/s/ Ronnie Myers	Date	September 25, 2019
Ronnie Myers, Director		
/s/ Peter J. Pronovost, M.D., Ph.D.	Date:	September 25, 2019
Peter J. Pronovost, M.D., Ph.D., Director		

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Corporate Information

Directors

Charles M. Diker
Chairman of the Board
Chairman, Diker Management LLC

Alan R. Batkin[1,3,4]
Former Vice Chairman of Eton Park Capital Management, L.P. and Kissinger Associates, Inc.

Ann E. Berman[1,3]
Former Chief Financial Officer, Harvard University

Mark N. Diker
CEO, Diker Management LLC

Anthony B. Evnin[2]
Partner, VR Management, LLC

Laura L. Forese, MD[2,3]
Executive Vice President and Chief Operating Officer, New York-Presbyterian

George L. Fotiades
President and Chief Executive Officer

Ronnie Myers, DDS[1,3]
Dean, Touro College of Dental Medicine at New York Medical College

Karen N. Prange
Former Executive Vice President and Chief Executive Officer of the Global Animal Health, Medical and Dental Surgical Group at Henry Schein, Inc.

Peter J. Pronovost, MD, Ph.D.[2]
Chief Clinical Transformation Officer, University Hospitals

Corporate Officers

Charles M. Diker
Chairman of the Board

George L. Fotiades
President and Chief Executive Officer

Shaun M. Blakeman
Senior Vice President and Chief Financial Officer

Brian R. Capone
Senior Vice President, Corporate Controller and Chief Accounting Officer

Jean M. Casner
Senior Vice President and Chief Human Resources Officer

Peter G. Clifford
Executive Vice President and Chief Operating Officer

Lawrence Conway
Senior Vice President, Business Systems and Integration

Jeff Z. Mann
Senior Vice President, General Counsel and Secretary

Seth M. Yellin
Executive Vice President, Strategy and Corporate Development

Executive Leadership Team

Neil Blewitt
President, Europe

Michael McGrath
President, Canada and Asia Pacific

Eric Moore
Senior Vice President, Regulatory and Quality Assurance

Ken Serota
President, Dental

Michael Spicer
President, Medical

Scott Thome
Senior Vice President, Operations

Corporate Communications & Investor Relations

Matthew Micowski
Vice President, Investor Relations and Financial Planning and Analysis

Auditors

Deloitte & Touche LLP
100 Kimball Drive
Parsippany, New Jersey 07054

Transfer Agent

American Stock Transfer & Trust Company
6201 15th Avenue
Brooklyn, New York 11219

Form 10-K Report

Stockholders may obtain without charge a copy of Cantel Medical Corp.'s 2019 Annual Report on Form 10-K filed with the Securities and Exchange Commission by visiting our website at www.cantelmedical.com or writing to Ms. Ann Marie Gitin, Executive Assistant, Cantel Medical Corp.

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[1] Audit Committee
[2] Nominating & Governance Committee
[3] Compensation Committee
[4] Lead Independent Director

150 Clove Road, 9th Floor
Little Falls, New Jersey 07424

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